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

DATA PACKAGE

GC SEMI-VOLATILES

PROJECT NAME : NJ SOIL PT

ALLIANCE TECHNICAL GROUP, LLC - NEWARK

284 Sheffiled Stree

Suite 1

Mountainside, NJ - 07092

Phone No: 908-789-8900

ORDER ID : Q1872

ATTENTION : Mohammad Ahmed

Laboratory Certification ID # 20012

Table Of Contents for Q1872

1) EPH Data 2
2) Signature Page 4
3) Case Narrative 5
4) Qualifier Page 7
5) Conformance/Non Conformance 8
6) QA Checklist 11
7) Chronicle 12
8) QC Data Summary For EPH 13
8.1) Deuterated Monitoring Compound Summary 14
8.2) MS/MSD Summary 16
8.3) LCS/LCSD Summary 20
8.4) Method Blank Summary 24
9) Sample Data 25
9.1) HW0425-PT-NJEPH-SOIL 26
9.2) HW0425-PT-NJEPH-SOIL 40
9.3) HW0425-PT-NJEPH-SOILDL 52
9.4) HW0425-PT-NJEPH-SOILDL2 64
10) Calibration Data Summary 76
10.1) Initial Calibration Data 77
10.1.1) FC050625AL 77
10.1.2) FD050125AR 139
10.2) Continued Calibration Data 200
10.2.1) FC068791.D 200
10.2.2) FC068799.D 212
10.2.3) FC068808.D 224
10.2.4) FD049318.D 236
10.2.5) FD049325.D 248
10.2.6) FD049334.D 260
11) QC Sample Data 272
11.1) Method Blank Data 273
11.2) PIBLK Data 286
11.3) LCS Data 326
11.4) LCSD Data 348
11.5) MS Data 370
11.6) MSD Data 399

12) Manual Integration 427
13) Analytical Runlogs 431
14) Percent Solid 441
15) Extraction Logs 451
15.1) PB167903.pdf 451
15.2) PB167903IC.pdf 453
16) Standard Prep Logs 454
17) Shipping Document 610
17.1) Chain Of Custody 611
17.2) Lab Certificate 613

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

Cover Page

Order ID : Q1872

Project ID : NJ Soil PT

Client : Alliance Technical Group, LLC - Newark

Lab Sample Number	Client Sample Number
Q1872-01	HW0425-PT-AN-SOIL
Q1872-02	HW0425-PT-CORR-SOIL
Q1872-03	HW0425-PT-CN-SOIL
Q1872-04	HW0425-PT-CN-SOIL
Q1872-05	HW0425-PT-FP-SOIL
Q1872-06	HW0425-PT-CR6-SOIL
Q1872-07	HW0425-PT-NUT-SOIL
Q1872-08	HW0425-PT-NUT-SOIL
Q1872-09	HW0425-PT-OGR-SOIL
Q1872-10	HW0425-PT-MET-SOIL
Q1872-11	HW0425-PT-BNA-SOIL
Q1872-12	HW0425-PT-TRIAZINE-SOIL
Q1872-13	HW0425-PT-PAH-SOIL
Q1872-14	HW0425-PT-DIES-SOIL
Q1872-15	HW0425-PT-GAS-SOIL
Q1872-16	HW0425-PT-NJEPH-SOIL
Q1872-17	HW0425-PT-HERB-SOIL
Q1872-18	HW0425-PT-PCB-SOIL
Q1872-19	HW0425-PT-PCBO-SOIL
Q1872-20	HW0425-PT-PEST-SOIL
Q1872-21	HW0425-PT-CHLR-SOIL
Q1872-22	HW0425-PT-TXP-SOIL
Q1872-23	HW0425-PT-VOA-SOIL
Q1872-24	HW0425-PT-SOL-SOIL
Q1872-25	HW0425-PT-NO2-SOIL

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: 7/7/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

Alliance Technical Group, LLC - Newark
Project Name: NJ Soil PT
Project # N/A
Order ID # Q1872
Test Name: EPH

A. Number of Samples and Date of Receipt:
24 Solid samples were received on 04/24/2025.
1 Solid sample was received on 04/28/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Ammonia, Anions Group1, Anions Group2, Corrosivity, Cyanide, Diesel Range Organics, EPH, Flash Point, Gasoline Range Organics, Herbicide Group1, Hexavalent Chromium, Mercury, Metals Group3, Metals ICP-Group1, Oil and Grease, PCB, PESTICIDE Group1, PESTICIDE Group2, PESTICIDE Group3, Phosphorus, Total, SVOCMS Group1, SVOCMS Group2, SVOCMS Group3, SVOCMS Group4, SVOCMS Group5, TKN, TOC, TS and VOCMS Group1. This data package contains results for EPH.

C. Analytical Techniques:
The analysis were performed on instrument FID_C. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224.The analyses were performed on instrument FID_D. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224.The analysis of EPHs was based on method NJEPH and extraction was done based on method 3541.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Retention Times were acceptable for all samples.

The MS {Q1901-04MS} with File ID: FC068804.D recoveries met the requirements for all compounds except for [n-Tetracosane (C24)- 39%] due to matrix interference and [Naphthalene (C11.7)- 1%, 2-methylnaphthalene (C12.89)- 0%] these analyzes compounds are only being monitoring in aliphatic fraction.

The MSD {Q1901-04MSD} with File ID: FC068805.D recoveries met the requirements for all compounds except for [n-Tetracosane (C24)- 39%] due to matrix interference and [Naphthalene (C11.7)- 1%, 2-methylnaphthalene (C12.89)- 0%] these analyzes compounds are only being monitoring in aliphatic fraction.

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

The MS {Q1901-04MS} with File ID: FD049330.D recoveries met the requirements for all compounds except for [Chrysene (C27.41)-196%, Bnezo[k]fluoranthene (C30.14)-183%, Dibenz[a,h]anthracene (C30.36)-200%, benzo[b]fluoranthene (C30.41)-180%, Indeno[1,2,3-cd]pyrene (C35.01)-187%] due to matrix interference.
The MSD {Q1901-04MSD} with File ID: FD049331.D recoveries met the requirements for all compounds except for [Benzo[a]anthracene (C26.37)-199%, Chrysene (C27.41)-195%, Bnezo[k]fluoranthene (C30.14)-183%, Dibenz[a,h]anthracene (C30.36)-200%, benzo[b]fluoranthene (C30.41)-180%, Indeno[1,2,3-cd]pyrene (C35.01)-188%] due to matrix interference.

The RPD for {Q1901-04MSD} with File ID: FD049331.D met criteria except for Benzo[a]anthracene (C26.37)- 68.92% due to difference in results of MS and MSD.

The Blank Spike {PB167903BS} with File ID: FC068793.D met requirements for all samples except for [Naphthalene (C11.7)-0%, 2-methylnaphthalene (C12.89)-0%] these analyzes compounds are only being monitoring in aliphatic friction.

The Blank Spike Duplicate{PB167903BSD} with File ID: FC068794.D met requirements for all samples except for [Naphthalene (C11.7)-0%, 2-methylnaphthalene (C12.89)-0%]these analyzes compounds are only being monitoring in aliphatic friction.

The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

Samples HW0425-PT-NJEPH-SOIL and HW0425-PT-NJEPH-SOILDL were diluted due to high concentrations for aliphatic compounds.

E. Additional Comments:
The soil samples results are based on a dry weight basis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

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. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q1872 MATRIX: Solid

METHOD: NJEPH/3541

		NA	NO	YES
1.	Chromatograms Labeled/Compounds Identified.			✓
2.	Standard Summary Submitted.			✓
3.	Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD. The Initial Calibration met the requirements . The Continuous Calibration met the requirements .			✓
4.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
5.	Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓

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

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

		NA	NO	YES
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria			✓

If not met, list those compounds and their recoveries which fall outside the acceptable range.

The MS {Q1901-04MS} with File ID: FC068804.D recoveries met the requirements for all compounds except for [n-Tetracosane (C24)- 39%] due to matrix interference and [Naphthalene (C11.7)- 1%, 2-methylnaphthalene (C12.89)- 0%] these analyzes compounds are only being monitoring in aliphatic fraction.

The MSD {Q1901-04MSD} with File ID: FC068805.D recoveries met the requirements for all compounds except for [n-Tetracosane (C24)- 39%] due to matrix interference and [Naphthalene (C11.7)- 1%, 2-methylnaphthalene (C12.89)- 0%] these analyzes compounds are only being monitoring in aliphatic fraction.

The MS {Q1901-04MS} with File ID: FD049330.D recoveries met the requirements for all compounds except for [Chrysene (C27.41)-196%, Bnezo[k]fluoranthene (C30.14)-183%, Dibenz[a,h]anthracene (C30.36)-200%, benzo[b]fluoranthene (C30.41)-180%, Indeno[1,2,3-cd]pyrene (C35.01)-187%] due to matrix interference.

The MSD {Q1901-04MSD} with File ID: FD049331.D recoveries met the requirements for all compounds except for [Benzo[a]anthracene (C26.37)-199%, Chrysene (C27.41)-195%, Bnezo[k]fluoranthene (C30.14)-183%, Dibenz[a,h]anthracene (C30.36)-200%, benzo[b]fluoranthene (C30.41)-180%, Indeno[1,2,3-cd]pyrene (C35.01)-188%] due to matrix interference.

The RPD for {Q1901-04MSD} with File ID: FD049331.D met criteria except for Benzo[a]anthracene (C26.37)- 68.92% due to difference in results of MS and MSD.

The Blank Spike {PB167903BS} with File ID: FC068793.D met requirements for all samples except for [Naphthalene (C11.7)-0%, 2-methylnaphthalene (C12.89)-0%] these analyzes compounds are only being monitoring in aliphatic friction.

The Blank Spike Duplicate{PB167903BSD} with File ID: FC068794.D met requirements for all samples except for [Naphthalene (C11.7)-0%, 2-methylnaphthalene (C12.89)-0%] these analyzes compounds are only being monitoring in aliphatic friction.

7.	Retention Time Shift Meet Criteria (if applicable)			✓

Comments:

8.	Extraction Holding Time Met			✓

If not met, list number of days exceeded for each sample:

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

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

		NA	NO	YES
9.	Analysis Holding Time Met			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			

ADDITIONAL COMMENTS:

Samples HW0425-PT-NJEPH-SOIL and HW0425-PT-NJEPH-SOILDL were diluted due to high concentrations for Aliphatic compounds.

The soil samples results are based on a dry weight basis.

_____ _____

QA REVIEW Date

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1872

	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: MOHAMMAD AHMED **Date:** 07/07/2025

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

LAB CHRONICLE

OrderID:	Q1872	**OrderDate:**	4/24/2025 1:26:50 PM
Client:	Alliance Technical Group, LLC - Newark	**Project:**	NJ Soil PT
Contact:	Mohammad Ahmed	**Location:**	QA Office,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1872-14	**HW0425-PT-DIES-SOIL**	**SOIL**			**04/25/25**			**04/28/25**
			Diesel Range Organics	8015D		05/13/25	05/13/25	
Q1872-15	**HW0425-PT-GAS-SOIL**	**SOIL**			**04/21/25**			**04/24/25**
			Gasoline Range Organics	8015D			04/29/25	
Q1872-16	**HW0425-PT-NJEPH-SOIL**	**Solid**			**04/21/25**			**04/24/25**
			EPH	NJEPH		05/07/25	05/08/25	
Q1872-18	**HW0425-PT-PCB-SOIL**	**SOIL**			**04/21/25**			**04/24/25**
			PCB	8082A		05/23/25	05/24/25	
Q1872-18DL	**HW0425-PT-PCB-SOILDL**	**SOIL**			**04/21/25**			**04/24/25**
			PCB	8082A		05/23/25	05/24/25	

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: ALLI03

Lab Code: CHEM CASE No.: Q1872 SAS No.: Q1872 SDG No.: Q1872

Run Number: FC050825AL

Client SAMPLE NO.	1-chlorooctadecane (SURR)			TOT OUT
PB167903BL	90			0
PB167903BS	87			0
PB167903BSD	90			0
HW0425-PT-NJEPH-SOIL	113			0
HW0425-PT-NJEPH-SOILDL	105			0
HW0425-PT-NJEPH-SOILDL2	114			0
B-167-SB02MS	69			0
B-167-SB02MSD	74			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: ALLI03

Lab Code: CHEM CASE No.: Q1872 SAS No.: Q1872 SDG No.: Q1872

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
HW0425-PT-NJEPH-SOIL	122	94	106	0
B-167-SB02MS	120	115	77	0
B-167-SB02MSD	120	115	77	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

SOLID EPH MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1872 **SAS No :** Q1872 **SDG No:** Q1872

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)

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
n-Nonane (C9)	6.2	0.0000	2.4842	40		(40-140)
n-Decane (C10)	6.2	0.0000	3.2601	53		(40-140)
Naphthalene (C11.7)	6.2	0.0000	0.0604	1	*	(40-140)
n-Dodecane (C12)	6.2	0.0535	3.7377	59		(40-140)
2-methylnaphthalene (C12.89)	6.2	0.0000	0.0000	0	*	(40-140)
n-Tetradecane (C14)	6.2	0.0760	4.3283	69		(40-140)
n-Hexadecane (C16)	6.2	0.0000	4.6624	75		(40-140)
n-Octadecane (C18)	6.2	0.0000	4.8237	78		(40-140)
n-Eicosane (C20)	6.2	0.0000	5.0700	82		(40-140)
n-Heneicosane (C21)	6.2	0.0000	4.8893	79		(40-140)
n-Docosane (C22)	6.2	0.0000	4.9091	79		(40-140)
n-Tetracosane (C24)	12.5	0.0000	4.8621	39	*	(40-140)
n-Hexacosane (C26)	6.2	0.0000	4.7970	77		(40-140)
n-Octacosane (C28)	6.2	0.0000	4.7452	77		(40-140)
n-Tricontane (C30)	6.2	0.0000	4.6830	76		(40-140)
n-Dotriacontane (C32)	6.2	0.0000	4.5455	73		(40-140)
n-Tetratriacontane (C34)	6.2	0.0000	4.5026	73		(40-140)
n-Hexatriacontane (C36)	6.2	0.0000	4.2303	68		(40-140)
n-Octatriacontane (C38)	6.2	0.0000	4.1626	67		(40-140)
n-Tetracontane (C40)	6.2	0.0000	4.0594	65		(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:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1872 **SAS No :** Q1872 **SDG No:** Q1872

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)	50
Aliphatic C12-C16	12.5	2.11	9.36	58		0.34 |	(40-140)	50
Aliphatic C16-C21	18.8	0	14.6	78		1.4 |	(40-140)	50
Aliphatic C21-C28	25.0	0	19.2	77		0.52 |	(40-140)	50
Aliphatic C28-C40	37.5	0	26.4	70		0.28 |	(40-140)	50

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	RPD |	QC LIMITS	QC Limit Of RPD
n-Nonane (C9)	6.3	0.0000	2.5000	40		0 |	(40-140)	50
n-Decane (C10)	6.3	0.0000	3.2810	52		1.9 |	(40-140)	50
Naphthalene (C11.7)	6.3	0.0000	0.0585	1	*	0 |	(40-140)	50
n-Dodecane (C12)	6.3	0.0535	3.7448	59		0 |	(40-140)	50
2-methylnaphthalene (C12.89)	6.3	0.0000	0.0000	0	*	0 |	(40-140)	50
n-Tetradecane (C14)	6.3	0.0760	4.3348	68		1.46 |	(40-140)	50
n-Hexadecane (C16)	6.3	0.0000	4.6446	74		1.34 |	(40-140)	50
n-Octadecane (C18)	6.3	0.0000	4.7788	76		2.6 |	(40-140)	50
n-Eicosane (C20)	6.3	0.0000	5.0192	80		2.47 |	(40-140)	50
n-Heneicosane (C21)	6.3	0.0000	4.8416	77		2.56 |	(40-140)	50
n-Docosane (C22)	6.3	0.0000	4.8667	77		2.56 |	(40-140)	50
n-Tetracosane (C24)	12.5	0.0000	4.8347	39	*	0 |	(40-140)	50
n-Hexacosane (C26)	6.3	0.0000	4.7837	76		1.31 |	(40-140)	50
n-Octacosane (C28)	6.3	0.0000	4.7363	75		2.63 |	(40-140)	50
n-Tricontane (C30)	6.3	0.0000	4.6897	74		2.67 |	(40-140)	50
n-Dotriacontane (C32)	6.3	0.0000	4.5511	72		1.38 |	(40-140)	50
n-Tetratriacontane (C34)	6.3	0.0000	4.5169	72		1.38 |	(40-140)	50
n-Hexatriacontane (C36)	6.3	0.0000	4.2427	67		1.48 |	(40-140)	50
n-Octatriacontane (C38)	6.3	0.0000	4.1925	67		0 |	(40-140)	50
n-Tetracontane (C40)	6.3	0.0000	4.1117	65		0 |	(40-140)	50

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:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1872 **SAS No :** Q1872 **SDG No:** Q1872

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)

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
1,2,3-Trimethylbenzene (C10.1)	6.2	0.0291	4.3430	70		(40-140)
Naphthalene (C11.7)	6.2	0.0358	4.5598	73		(40-140)
2-Methylnaphthalene (C12.89)	6.2	0.0303	4.6416	74		(40-140)
Acenaphthylene (C15.06)	6.2	0.0242	5.1468	83		(40-140)
Acenaphthene (C15.5)	6.2	0.0468	5.4117	87		(40-140)
Flouorene (C16.55)	6.2	0.0244	5.7071	92		(40-140)
Phenanthrene (C19.36)	6.2	0.0240	5.8070	93		(40-140)
Anthracene (C19.43)	6.2	0.0216	6.4115	103		(40-140)
Pyrene (C20.8)	6.2	0.0348	5.6351	90		(40-140)
Fluoranthene (C21.85)	6.2	0.0645	5.8128	93		(40-140)
Benzo[a]anthracene (C26.37)	6.2	0.0607	6.0675	97		(40-140)
Chrysene (C27.41)	6.2	0.0722	12.2211	196	*	(40-140)
Bnezo[k]fluoranthene (C30.14)	6.2	0.0513	11.3805	183	*	(40-140)
Dibenz[a,h]anthracene (C30.36)	6.2	0.1480	12.5455	200	*	(40-140)
benzo[b]fluoranthene (C30.41)	6.2	0.0504	11.1849	180	*	(40-140)
Benzo[a]pyrene (C31.34)	6.2	0.0408	5.6442	90		(40-140)
Benzo[g,h,i]perylene (C34.01)	6.2	0.0554	5.4739	87		(40-140)
Indeno[1,2,3-cd]pyrene (C35.01)	6.2	0.4633	12.0735	187	*	(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:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1872 **SAS No :** Q1872 **SDG No:** Q1872

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)	50
Aromatic C12-C16	18.8	0.65	16.9	87		0.46 |	(40-140)	50
Aromatic C16-C21	31.3	3.65	35.0	100		0 |	(40-140)	50
Aromatic C21-C36	50.0	3.46	53.4	100		4.29 |	(40-140)	50

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	RPD |	QC LIMITS	QC Limit Of RPD
1,2,3-Trimethylbenzene (C10.1)	6.3	0.0291	4.3758	69		1.44 |	(40-140)	50
Naphthalene (C11.7)	6.3	0.0358	4.5859	72		1.38 |	(40-140)	50
2-Methylnaphthalene (C12.89)	6.3	0.0303	4.6674	74		0 |	(40-140)	50
Acenaphthylene (C15.06)	6.3	0.0242	5.1461	81		2.44 |	(40-140)	50
Acenaphthene (C15.5)	6.3	0.0468	5.4062	85		2.33 |	(40-140)	50
Flouorene (C16.55)	6.3	0.0244	5.6961	90		2.2 |	(40-140)	50
Phenanthrene (C19.36)	6.3	0.0240	5.7825	91		2.17 |	(40-140)	50
Anthracene (C19.43)	6.3	0.0216	6.4000	101		1.96 |	(40-140)	50
Pyrene (C20.8)	6.3	0.0348	5.6175	89		1.12 |	(40-140)	50
Fluoranthene (C21.85)	6.3	0.0645	5.8103	91		2.17 |	(40-140)	50
Benzo[a]anthracene (C26.37)	6.3	0.0607	12.5946	199	*	68.92 * |	(40-140)	50
Chrysene (C27.41)	6.3	0.0722	12.3606	195	*	0.51 |	(40-140)	50
Bnezo[k]fluoranthene (C30.14)	6.3	0.0513	11.5707	183	*	0 |	(40-140)	50
Dibenz[a,h]anthracene (C30.36)	6.3	0.1480	12.7753	200	*	0 |	(40-140)	50
benzo[b]fluoranthene (C30.41)	6.3	0.0504	11.3684	180	*	0 |	(40-140)	50
Benzo[a]pyrene (C31.34)	6.3	0.0408	5.7695	91		1.1 |	(40-140)	50
Benzo[g,h,i]perylene (C34.01)	6.3	0.0554	5.5617	87		0 |	(40-140)	50
Indeno[1,2,3-cd]pyrene (C35.01)	6.3	0.4633	12.2947	188	*	0.53 |	(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:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1872 **SAS No :** Q1872 **SDG No:** Q1872

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)

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
n-Nonane (C9)	3.3	1.68805	51		(40-140)
n-Decane (C10)	3.3	2.07570	63		(40-140)
Naphthalene (C11.7)	3.3	0.00000	0	*	(40-140)
n-Dodecane (C12)	3.3	2.42371	73		(40-140)
2-methylnaphthalene (C12.89)	3.3	0.00000	0	*	(40-140)
n-Tetradecane (C14)	3.3	2.90054	88		(40-140)
n-Hexadecane (C16)	3.3	3.34027	101		(40-140)
n-Octadecane (C18)	3.3	3.65059	111		(40-140)
n-Eicosane (C20)	3.3	3.94985	120		(40-140)
n-Heneicosane (C21)	3.3	3.84973	117		(40-140)
n-Docosane (C22)	3.3	3.89370	118		(40-140)
n-Tetracosane (C24)	6.7	3.88642	58		(40-140)
n-Hexacosane (C26)	3.3	3.85563	117		(40-140)
n-Octacosane (C28)	3.3	3.85130	117		(40-140)
n-Tricontane (C30)	3.3	3.82643	116		(40-140)
n-Dotriacontane (C32)	3.3	3.74488	113		(40-140)
n-Tetratriacontane (C34)	3.3	3.72588	113		(40-140)
n-Hexatriacontane (C36)	3.3	3.51701	107		(40-140)
n-Octatriacontane (C38)	3.3	3.48784	106		(40-140)
n-Tetracontane (C40)	3.3	3.40680	103		(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:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1872 **SAS No :** Q1872 **SDG No:** Q1872

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)	25
Aliphatic C12-C16	6.7	6.51	98		4.4|	(40-140)	25
Aliphatic C16-C21	10	11.9	119		4.4|	(40-140)	25
Aliphatic C21-C28	13.3	15.9	119		2.8|	(40-140)	25
Aliphatic C28-C40	20.0	22.3	111		3.3|	(40-140)	25

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	RPD |	QC LIMITS	QC Limit Of RPD
n-Nonane (C9)	3.3	1.75378	53		3.85|	(40-140)	25
n-Decane (C10)	3.3	2.16445	66		4.65|	(40-140)	25
Naphthalene (C11.7)	3.3	0.00000	0	*	0|	(40-140)	25
n-Dodecane (C12)	3.3	2.53090	77		5.33|	(40-140)	25
2-methylnaphthalene (C12.89)	3.3	0.00000	0	*	0|	(40-140)	25
n-Tetradecane (C14)	3.3	3.02386	92		4.44|	(40-140)	25
n-Hexadecane (C16)	3.3	3.49156	106		4.83|	(40-140)	25
n-Octadecane (C18)	3.3	3.81053	115		3.54|	(40-140)	25
n-Eicosane (C20)	3.3	4.11155	125		4.08|	(40-140)	25
n-Heneicosane (C21)	3.3	3.99489	121		3.36|	(40-140)	25
n-Docosane (C22)	3.3	4.03113	122		3.33|	(40-140)	25
n-Tetracosane (C24)	6.7	4.00027	60		3.39|	(40-140)	25
n-Hexacosane (C26)	3.3	3.95554	120		2.53|	(40-140)	25
n-Octacosane (C28)	3.3	3.93290	119		1.69|	(40-140)	25
n-Tricontane (C30)	3.3	3.90627	118		1.71|	(40-140)	25
n-Dotriacontane (C32)	3.3	3.82085	116		2.62|	(40-140)	25
n-Tetratriacontane (C34)	3.3	3.80374	115		1.75|	(40-140)	25
n-Hexatriacontane (C36)	3.3	3.60636	109		1.85|	(40-140)	25
n-Octatriacontane (C38)	3.3	3.59812	109		2.79|	(40-140)	25
n-Tetracontane (C40)	3.3	3.56708	108		4.74|	(40-140)	25

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:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1872 **SAS No :** Q1872 **SDG No:** Q1872

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)

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
1,2,3-Trimethylbenzene (C10.1)	3.3	2.48206	75		(40-140)
Naphthalene (C11.7)	3.3	2.73891	83		(40-140)
2-Methylnaphthalene (C12.89)	3.3	2.72137	82		(40-140)
Acenaphthylene (C15.06)	3.3	3.03497	92		(40-140)
Acenaphthene (C15.5)	3.3	3.31178	100		(40-140)
Flouorene (C16.55)	3.3	3.43957	104		(40-140)
Phenanthrene (C19.36)	3.3	3.67165	111		(40-140)
Anthracene (C19.43)	3.3	3.98081	121		(40-140)
Fluoranthene (C21.85)	3.3	3.83565	116		(40-140)
Pyrene (C20.8)	3.3	3.85550	117		(40-140)
Benzo[a]anthracene (C26.37)	3.3	4.07543	123		(40-140)
Chrysene (C27.41)	3.3	4.31299	131		(40-140)
benzo[b]fluoranthene (C30.41)	3.3	3.88648	118		(40-140)
Bnezo[k]fluoranthene (C30.14)	3.3	3.87462	117		(40-140)
Benzo[a]pyrene (C31.34)	3.3	3.90275	118		(40-140)
Indeno[1,2,3-cd]pyrene (C35.01)	3.3	4.25235	129		(40-140)
Dibenz[a,h]anthracene (C30.36)	3.3	3.97436	120		(40-140)
Benzo[g,h,i]perylene (C34.01)	3.3	3.73971	113		(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:** Alliance Technical Group, LLC - Newark

Lab Code: CHEM **Cas No:** Q1872 **SAS No :** Q1872 **SDG No:** Q1872

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)	25
Aromatic C12-C16	10	9.48	95		4.2|	(40-140)	25
Aromatic C16-C21	16.7	19.6	117		4.1|	(40-140)	25
Aromatic C21-C36	26.6	32.8	123		5.1|	(40-140)	25

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	RPD |	QC LIMITS	QC Limit Of RPD
1,2,3-Trimethylbenzene (C10.1)	3.3	2.59781	79		5.19|	(40-140)	25
Naphthalene (C11.7)	3.3	2.86448	87		4.71|	(40-140)	25
2-Methylnaphthalene (C12.89)	3.3	2.84661	86		4.76|	(40-140)	25
Acenaphthylene (C15.06)	3.3	3.16607	96		4.26|	(40-140)	25
Acenaphthene (C15.5)	3.3	3.44999	105		4.88|	(40-140)	25
Flouorene (C16.55)	3.3	3.59762	109		4.69|	(40-140)	25
Phenanthrene (C19.36)	3.3	3.82656	116		4.41|	(40-140)	25
Anthracene (C19.43)	3.3	4.19544	127		4.84|	(40-140)	25
Fluoranthene (C21.85)	3.3	3.95477	120		3.39|	(40-140)	25
Pyrene (C20.8)	3.3	3.96797	120		2.53|	(40-140)	25
Benzo[a]anthracene (C26.37)	3.3	4.24090	129		4.76|	(40-140)	25
Chrysene (C27.41)	3.3	4.47246	136		3.75|	(40-140)	25
benzo[b]fluoranthene (C30.41)	3.3	4.03496	122		3.33|	(40-140)	25
Bnezo[k]fluoranthene (C30.14)	3.3	4.05927	123		5|	(40-140)	25
Benzo[a]pyrene (C31.34)	3.3	4.05959	123		4.15|	(40-140)	25
Indeno[1,2,3-cd]pyrene (C35.01)	3.3	4.48819	136		5.28|	(40-140)	25
Dibenz[a,h]anthracene (C30.36)	3.3	4.24332	129		7.23|	(40-140)	25
Benzo[g,h,i]perylene (C34.01)	3.3	3.91022	118		4.33|	(40-140)	25

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: ALLI03

Lab Code: CHEM Case No.: Q1872 SAS No.: Q1872 SDG NO.: Q1872

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
HW0425-PT-NJEPH-SOIL	Q1872-16
B-167-SB02MS	Q1901-04MS
B-167-SB02MSD	Q1901-04MSD

COMMENTS:

Form IV

SAMPLE DATA

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	04/21/25
Project:	NJ Soil PT	Date Received:	04/24/25
Client Sample ID:	HW0425-PT-NJEPH-SOIL	SDG No.:	Q1872
Lab Sample ID:	Q1872-16	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	20.02 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 15:19	PB167903

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	Datafile
TARGETS								
Aliphatic C9-C12	Aliphatic C9-C12	40.2		5	1.05	7.49	mg/kg	FC068796.D
Aliphatic C12-C16	Aliphatic C12-C16	110		10	1.65	9.99	mg/kg	FC068797.D
Aliphatic C16-C21	Aliphatic C16-C21	105		5	0.97	7.49	mg/kg	FC068796.D
Aliphatic C21-C28	Aliphatic C21-C28	16.6		1	0.79	2.00	mg/kg	FC068795.D
Aliphatic C28-C40	Aliphatic C28-C40	4.47		1	1.77	3.00	mg/kg	FC068795.D
Aromatic C10-C12	Aromatic C10-C12	6.23		1	0.18	1.00	mg/kg	FD049322.D
Aromatic C12-C16	Aromatic C12-C16	20.0		1	0.35	1.50	mg/kg	FD049322.D
Aromatic C16-C21	Aromatic C16-C21	46.1		1	0.60	2.50	mg/kg	FD049322.D
Aromatic C21-C36	Aromatic C21-C36	13.3		1	1.78	4.00	mg/kg	FD049322.D
Total AliphaticEPH	Total AliphaticEPH	276			6.24	30.0	mg/kg	
Total AromaticEPH	Total AromaticEPH	85.6			2.90	9.00	mg/kg	
Total EPH	Total EPH	362			9.14	39.0	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:	Alliance Technical Group, LLC - Newark	Date Collected:	04/21/25
Project:	NJ Soil PT	Date Received:	04/24/25
Client Sample ID:	HW0425-PT-NJEPH-SOIL	SDG No.:	Q1872
Lab Sample ID:	Q1872-16	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	20.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068795.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		42.6	E	0.21	1.50	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16		111	E	0.17	1.00	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21		113	E	0.20	1.50	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28		16.6		0.79	2.00	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40		4.47		1.77	3.00	mg/kg
SURROGATES							
3383-33-2	1-chlorooctadecane (SURR)		56.3		40 - 140	113%	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:	Q1872-16	Acq On:	08 May 2025 14:20
Client Sample ID:	HW0425-PT-NJEPH-SOIL	Operator:	YP/AJ
Data file:	FC068795.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	3.342	6.642	42294730	426.646	300	ug/ml
Aliphatic C12-C16	6.643	10.042	101696121	1120	200	ug/ml
Aliphatic C16-C21	10.043	13.408	97492213	1140	300	ug/ml
Aliphatic C21-C28	13.409	17.072	13782514	165.872	400	ug/ml
Aliphatic C28-C40	17.073	22.071	3783932	44.715	600	ug/ml
Aliphatic EPH	3.342	22.071	259049510	2890		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.147	13.147	4514086	56.27		ug/ml
Aliphatic C9-C28	3.342	17.072	255265578	2850	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068795.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 14:20
Operator : YP/AJ
Sample : Q1872-16
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
HW0425-PT-NJEPH-SOIL

Integration File: autoint1.e
Quant Time: May 09 09:07:56 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...	13.147	4514086	56.267 ug/ml
Spiked Amount 50.000		Recovery = 112.53%	
Target Compounds			

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

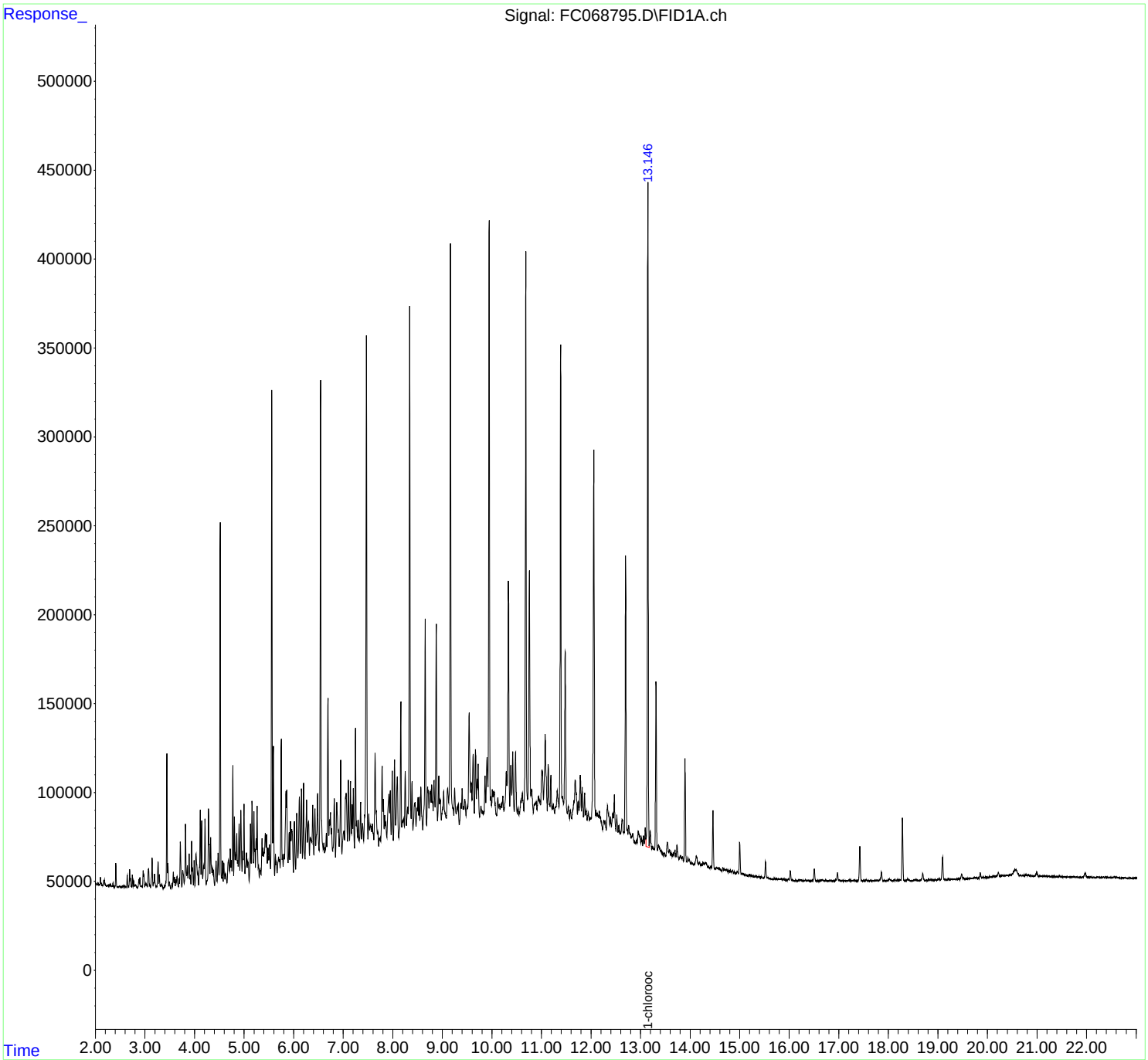
Quantitation Report (QT Reviewed)

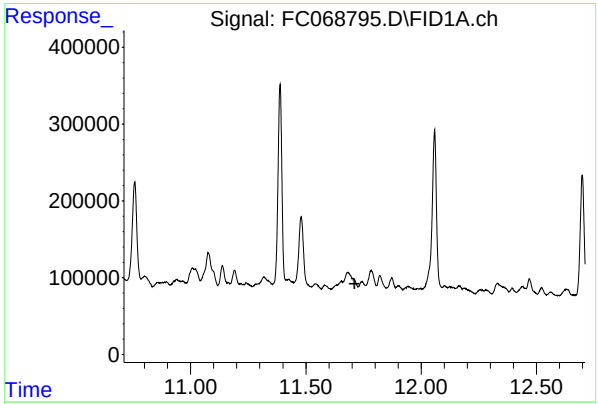
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068795.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 14:20
Operator : YP/AJ
Sample : Q1872-16
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
HW0425-PT-NJEPH-SOIL

Integration File: autoint1.e
Quant Time: May 09 09:07:56 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

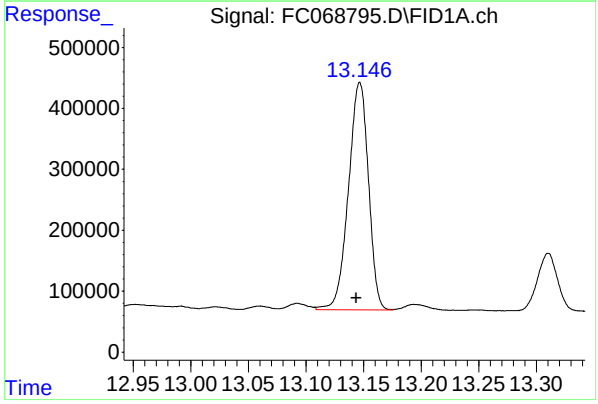




#9 ortho-Terphenyl (SURR)

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

Instrument :
FID_C
ClientSampleId :
HW0425-PT-NJEPH-SOIL



#12 1-chlorooctadecane (SURR)

R.T.: 13.147 min
Delta R.T.: 0.003 min
Response: 4514086
Conc: 56.27 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068795.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 14:20
Sample : Q1872-16
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: sample.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	3.229	3.204	3.241	BV	-104	-12562	-0.20%	-0.005%
2	3.264	3.241	3.279	PV	14304	168987	2.75%	0.064%
3	3.290	3.279	3.309	VV	7191	65831	1.07%	0.025%
4	3.319	3.309	3.324	VV	1194	8564	0.14%	0.003%
5	3.337	3.324	3.374	VV	2197	25796	0.42%	0.010%
6	3.394	3.374	3.403	PV	1189	11159	0.18%	0.004%
7	3.441	3.403	3.481	VV	75424	784678	12.79%	0.297%
8	3.493	3.481	3.524	VV	3548	38936	0.63%	0.015%
9	3.545	3.524	3.555	PV	2552	22451	0.37%	0.008%
10	3.572	3.555	3.586	VV	9003	91897	1.50%	0.035%
11	3.596	3.586	3.611	VV	6199	59285	0.97%	0.022%
12	3.646	3.611	3.674	VV	6592	134792	2.20%	0.051%
13	3.688	3.674	3.696	VV	5266	42882	0.70%	0.016%
14	3.714	3.696	3.743	VV	25749	317749	5.18%	0.120%
15	3.763	3.743	3.791	VV	9763	165254	2.69%	0.062%
16	3.818	3.791	3.841	VV	35855	416323	6.78%	0.157%
17	3.855	3.841	3.867	VV	12557	140678	2.29%	0.053%
18	3.892	3.867	3.926	VV	19146	321492	5.24%	0.121%
19	3.942	3.926	3.976	VV	26199	336101	5.48%	0.127%
20	3.992	3.976	4.008	VV	15240	137406	2.24%	0.052%
21	4.029	4.008	4.082	VV	19100	445885	7.27%	0.168%
22	4.115	4.082	4.131	VV	43770	530353	8.64%	0.200%
23	4.144	4.131	4.164	VV	37453	381376	6.21%	0.144%
24	4.182	4.164	4.190	VV	12346	149501	2.44%	0.056%
25	4.212	4.190	4.236	VV	38525	467705	7.62%	0.177%
26	4.283	4.236	4.310	VV	43406	683978	11.15%	0.258%
27	4.325	4.310	4.351	VV	28016	390451	6.36%	0.148%
28	4.361	4.351	4.373	VV	11243	122071	1.99%	0.046%
29	4.381	4.373	4.405	VV	10078	113700	1.85%	0.043%
30	4.435	4.405	4.454	VV	14793	232630	3.79%	0.088%
31	4.475	4.454	4.494	VV	19521	271362	4.42%	0.103%
32	4.517	4.494	4.544	VV	206198	1978711	32.25%	0.748%
33	4.563	4.544	4.577	VV	15132	172583	2.81%	0.065%
34	4.592	4.577	4.613	VV	13873	179441	2.92%	0.068%
35	4.626	4.613	4.654	VV	7925	142740	2.33%	0.054%
36	4.684	4.654	4.706	VV	15657	339448	5.53%	0.128%

rteres

37	4.721	4.706	4.735	VV	21831	259439	4.23%	0.098%
38	4.744	4.735	4.755	VV	15188	161662	2.63%	0.061%
39	4.773	4.755	4.790	VV	68370	686085	11.18%	0.259%
40	4.805	4.790	4.837	VV	39879	602292	9.82%	0.228%
41	4.852	4.837	4.880	VV	30351	490472	7.99%	0.185%
42	4.898	4.880	4.914	VV	35503	442505	7.21%	0.167%
43	4.935	4.914	4.959	VV	43391	655618	10.68%	0.248%
44	4.998	4.959	5.018	VV	46749	780998	12.73%	0.295%
45	5.048	5.018	5.062	VV	19425	367255	5.98%	0.139%
46	5.073	5.062	5.102	VV	14862	274469	4.47%	0.104%
47	5.129	5.102	5.142	VV	35513	428730	6.99%	0.162%
48	5.161	5.142	5.184	VV	48478	716965	11.68%	0.271%
49	5.199	5.184	5.229	VV	42480	641679	10.46%	0.242%
50	5.242	5.229	5.249	VV	27316	260655	4.25%	0.098%
51	5.263	5.249	5.306	VV	45619	709632	11.56%	0.268%
52	5.321	5.306	5.340	VV	10295	175351	2.86%	0.066%
53	5.362	5.340	5.374	VV	27511	363121	5.92%	0.137%
54	5.383	5.374	5.394	VV	21999	231840	3.78%	0.088%
55	5.429	5.394	5.442	VV	30231	680277	11.09%	0.257%
56	5.453	5.442	5.469	VV	29554	361220	5.89%	0.136%
57	5.484	5.469	5.499	VV	22103	335313	5.46%	0.127%
58	5.512	5.499	5.533	VV	23815	358121	5.84%	0.135%
59	5.559	5.533	5.577	VV	277485	2874331	46.84%	1.086%
60	5.591	5.577	5.616	VV	79378	925972	15.09%	0.350%
61	5.633	5.616	5.645	VV	18363	235446	3.84%	0.089%
62	5.651	5.645	5.667	VV	13887	151457	2.47%	0.057%
63	5.696	5.667	5.708	VV	16741	335592	5.47%	0.127%
64	5.715	5.708	5.727	VV	15407	157612	2.57%	0.060%
65	5.750	5.727	5.788	VV	82955	1194241	19.46%	0.451%
66	5.845	5.788	5.854	VV	53733	1097896	17.89%	0.415%
67	5.861	5.854	5.887	VV	54702	667937	10.88%	0.252%
68	5.909	5.887	5.921	VV	30403	433313	7.06%	0.164%
69	5.937	5.921	5.949	VV	36674	474951	7.74%	0.179%
70	5.962	5.949	5.996	VV	32292	699214	11.39%	0.264%
71	6.015	5.996	6.041	VV	36778	569267	9.28%	0.215%
72	6.063	6.041	6.087	VV	41205	698942	11.39%	0.264%
73	6.116	6.087	6.137	VV	50364	958007	15.61%	0.362%
74	6.159	6.137	6.179	VV	55282	859455	14.01%	0.325%
75	6.201	6.179	6.229	VV	58218	897959	14.63%	0.339%
76	6.261	6.229	6.278	VV	48951	961435	15.67%	0.363%
77	6.299	6.278	6.320	VV	36679	751080	12.24%	0.284%
78	6.336	6.320	6.368	VV	27648	724521	11.81%	0.274%
79	6.385	6.368	6.408	VV	45901	761722	12.41%	0.288%
80	6.429	6.408	6.447	VV	43899	732585	11.94%	0.277%
81	6.484	6.447	6.512	VV	52629	1272980	20.74%	0.481%
82	6.544	6.512	6.597	VV	284995	3882156	63.26%	1.467%
83	6.610	6.597	6.625	VV	24662	369942	6.03%	0.140%
84	6.660	6.625	6.671	VV	30001	657856	10.72%	0.249%
85	6.692	6.671	6.712	VV	105493	1401329	22.84%	0.530%
86	6.743	6.712	6.786	VV	41537	1423839	23.20%	0.538%
87	6.821	6.786	6.845	VV	49148	1087303	17.72%	0.411%
88	6.871	6.845	6.919	VV	47132	1458624	23.77%	0.551%
89	6.950	6.919	6.975	VV	71009	1281712	20.89%	0.484%

90	7.015	6.975	7.028	VV	31057	872089	14.21%	0.330%
91	7.059	7.028	7.087	VV	52552	1456542	23.74%	0.550%
92	7.104	7.087	7.129	VV	59709	1012924	16.51%	0.383%
93	7.147	7.129	7.166	VV	58777	930957	15.17%	0.352%
94	7.180	7.166	7.192	VV	45690	575269	9.37%	0.217%
95	7.205	7.192	7.227	VV	54716	818643	13.34%	0.309%
96	7.248	7.227	7.291	VV	88776	1690122	27.54%	0.639%
97	7.305	7.291	7.323	VV	37178	605535	9.87%	0.229%
98	7.351	7.323	7.370	VV	47268	946132	15.42%	0.358%
99	7.391	7.370	7.413	VV	35156	795807	12.97%	0.301%
100	7.469	7.413	7.500	VV	308241	4906808	79.96%	1.854%
101	7.517	7.500	7.535	VV	40577	710198	11.57%	0.268%
102	7.549	7.535	7.576	VV	34119	796370	12.98%	0.301%
103	7.588	7.576	7.618	VV	34979	788923	12.86%	0.298%
104	7.645	7.618	7.717	VV	74706	2362595	38.50%	0.893%
105	7.744	7.717	7.756	VV	27031	601731	9.81%	0.227%
106	7.786	7.756	7.802	VV	67560	1230625	20.05%	0.465%
107	7.811	7.802	7.827	VV	48872	630065	10.27%	0.238%
108	7.838	7.827	7.851	VV	39906	533892	8.70%	0.202%
109	7.860	7.851	7.880	VV	36124	555638	9.05%	0.210%
110	7.922	7.880	7.936	VV	51529	1427483	23.26%	0.539%
111	7.949	7.936	7.968	VV	53391	815732	13.29%	0.308%
112	7.990	7.968	8.012	VV	64504	1087569	17.72%	0.411%
113	8.037	8.012	8.059	VV	70728	1305826	21.28%	0.493%
114	8.091	8.059	8.120	VV	61339	1622860	26.45%	0.613%
115	8.163	8.120	8.202	VV	103791	2309375	37.63%	0.873%
116	8.219	8.202	8.234	VV	37619	692944	11.29%	0.262%
117	8.252	8.234	8.275	VV	64199	1166010	19.00%	0.441%
118	8.300	8.275	8.311	VV	44309	867315	14.13%	0.328%
119	8.342	8.311	8.371	VV	324931	4481083	73.02%	1.693%
120	8.389	8.371	8.409	VV	58413	1017584	16.58%	0.385%
121	8.451	8.409	8.471	VV	46879	1506585	24.55%	0.569%
122	8.511	8.471	8.522	VV	49774	1310517	21.36%	0.495%
123	8.533	8.522	8.549	VV	50016	690096	11.25%	0.261%
124	8.568	8.549	8.606	VV	55472	1459967	23.79%	0.552%
125	8.655	8.606	8.683	VV	148842	2862831	46.65%	1.082%
126	8.705	8.683	8.732	VV	55333	1398665	22.79%	0.529%
127	8.761	8.732	8.774	VV	53112	1286529	20.97%	0.486%
128	8.787	8.774	8.816	VV	56696	1238192	20.18%	0.468%
129	8.833	8.816	8.855	VV	59101	1164130	18.97%	0.440%
130	8.879	8.855	8.904	VV	146722	2392952	39.00%	0.904%
131	8.930	8.904	8.945	VV	61484	1194778	19.47%	0.451%
132	8.955	8.945	8.981	VV	48287	955563	15.57%	0.361%
133	9.028	8.981	9.077	VV	52978	2475803	40.35%	0.936%
134	9.107	9.077	9.128	VV	54590	1466634	23.90%	0.554%
135	9.165	9.128	9.232	VV	358127	6136418	100.00%	2.319%
136	9.250	9.232	9.284	VV	54701	1443348	23.52%	0.545%
137	9.300	9.284	9.310	VV	44124	671439	10.94%	0.254%
138	9.321	9.310	9.344	VV	45702	814886	13.28%	0.308%
139	9.374	9.344	9.385	VV	46326	1002048	16.33%	0.379%
140	9.401	9.385	9.418	VV	54133	975328	15.89%	0.369%
141	9.455	9.418	9.479	VV	48264	1607822	26.20%	0.608%

rteres

142	9.542	9.479	9.573	VV	96775	3267999	53.26%	1.235%
143	9.583	9.573	9.599	VV	57506	844923	13.77%	0.319%
144	9.623	9.599	9.646	VV	73851	1643803	26.79%	0.621%
145	9.671	9.646	9.690	VV	76321	1519393	24.76%	0.574%
146	9.723	9.690	9.752	VV	67562	2009912	32.75%	0.759%
147	9.781	9.752	9.801	VV	44226	1220509	19.89%	0.461%
148	9.810	9.801	9.840	VV	41812	950917	15.50%	0.359%
149	9.863	9.840	9.879	VV	61511	1193767	19.45%	0.451%
150	9.902	9.879	9.920	VV	71388	1506914	24.56%	0.569%
151	9.946	9.920	9.993	VV	375883	5713241	93.10%	2.159%
152	10.010	9.993	10.021	VV	53061	844903	13.77%	0.319%
153	10.045	10.021	10.098	VV	52072	2125116	34.63%	0.803%
154	10.121	10.098	10.138	VV	48960	1076550	17.54%	0.407%
155	10.151	10.138	10.167	VV	45398	774055	12.61%	0.292%
156	10.194	10.167	10.204	VV	45779	1002993	16.34%	0.379%
157	10.222	10.204	10.244	VV	50045	1073350	17.49%	0.406%
158	10.291	10.244	10.305	VV	63527	1873850	30.54%	0.708%
159	10.334	10.305	10.363	VV	171245	3366057	54.85%	1.272%
160	10.383	10.363	10.403	VV	67067	1346897	21.95%	0.509%
161	10.422	10.403	10.451	VV	74598	1643649	26.79%	0.621%
162	10.478	10.451	10.512	VV	74362	1925056	31.37%	0.727%
163	10.527	10.512	10.561	VV	42604	1214445	19.79%	0.459%
164	10.585	10.561	10.593	VV	47268	850800	13.86%	0.321%
165	10.614	10.593	10.645	VV	51527	1486380	24.22%	0.562%
166	10.685	10.645	10.722	VV	355492	5758043	93.83%	2.176%
167	10.757	10.722	10.786	VV	176723	3592393	58.54%	1.357%
168	10.801	10.786	10.836	VV	53598	1456484	23.74%	0.550%
169	10.894	10.836	10.914	VV	46557	2080504	33.90%	0.786%
170	10.940	10.914	10.980	VV	49327	1851533	30.17%	0.700%
171	11.009	10.980	11.043	VV	64209	2126504	34.65%	0.804%
172	11.077	11.043	11.118	VV	83775	2774133	45.21%	1.048%
173	11.138	11.118	11.171	VV	67500	1628419	26.54%	0.615%
174	11.191	11.171	11.230	VV	61474	1722406	28.07%	0.651%
175	11.242	11.230	11.267	VV	45073	966436	15.75%	0.365%
176	11.318	11.267	11.356	VV	52756	2433430	39.66%	0.920%
177	11.388	11.356	11.447	VV	303406	5457304	88.93%	2.062%
178	11.480	11.447	11.521	VV	131152	3103156	50.57%	1.173%
179	11.542	11.521	11.567	VV	43576	1124403	18.32%	0.425%
180	11.583	11.567	11.609	VV	41679	997802	16.26%	0.377%
181	11.682	11.609	11.727	VV	58559	3308024	53.91%	1.250%
182	11.743	11.727	11.759	VV	46349	829998	13.53%	0.314%
183	11.784	11.759	11.806	VV	61141	1440336	23.47%	0.544%
184	11.821	11.806	11.849	VV	54494	1170722	19.08%	0.442%
185	11.872	11.849	11.891	VV	51100	1098928	17.91%	0.415%
186	11.901	11.891	11.922	VV	41254	725573	11.82%	0.274%
187	11.944	11.922	11.973	VV	40462	1170889	19.08%	0.442%
188	12.058	11.973	12.091	VV	243052	5355585	87.28%	2.024%
189	12.101	12.091	12.115	VV	41282	567018	9.24%	0.214%
190	12.124	12.115	12.149	VV	39727	793060	12.92%	0.300%
191	12.165	12.149	12.234	VV	40810	1849480	30.14%	0.699%
192	12.257	12.234	12.271	VV	35751	749707	12.22%	0.283%
193	12.281	12.271	12.306	VV	35231	703124	11.46%	0.266%
194	12.331	12.306	12.381	VV	44150	1721840	28.06%	0.651%

195	12.395	12.381	12.413	VV	37598	663009	10.80%	0.251%
196	12.439	12.413	12.452	VV	39700	858632	13.99%	0.324%
197	12.469	12.452	12.503	VV	49800	1192290	19.43%	0.451%
198	12.523	12.503	12.545	VV	38609	821644	13.39%	0.310%
199	12.562	12.545	12.598	VV	32485	959411	15.63%	0.363%
200	12.630	12.598	12.671	VV	36027	1377641	22.45%	0.521%
201	12.698	12.671	12.744	VV	185652	3094537	50.43%	1.169%
202	12.760	12.744	12.804	VV	32713	1051936	17.14%	0.397%
203	12.844	12.804	12.900	VV	28290	1456974	23.74%	0.551%
204	12.919	12.900	12.930	VV	24175	427816	6.97%	0.162%
205	12.952	12.930	13.007	VV	29501	1216378	19.82%	0.460%
206	13.022	13.007	13.042	VV	25530	496193	8.09%	0.187%
207	13.060	13.042	13.076	VV	26837	490268	7.99%	0.185%
208	13.093	13.076	13.109	VV	31097	539245	8.79%	0.204%
209	13.147	13.109	13.176	VV	395226	5335371	86.95%	2.016%
210	13.195	13.176	13.238	VV	29464	876904	14.29%	0.331%
211	13.246	13.238	13.271	VV	20330	394834	6.43%	0.149%
212	13.310	13.271	13.341	VV	113983	1928099	31.42%	0.729%
213	13.362	13.341	13.460	VV	21282	1329970	21.67%	0.503%
214	13.480	13.460	13.504	VV	17123	426504	6.95%	0.161%
215	13.540	13.504	13.568	VV	22926	725524	11.82%	0.274%
216	13.586	13.568	13.605	VV	18778	395219	6.44%	0.149%
217	13.618	13.605	13.637	VV	16741	312207	5.09%	0.118%
218	13.657	13.637	13.672	VV	17315	338269	5.51%	0.128%
219	13.692	13.672	13.715	VV	18385	433291	7.06%	0.164%
220	13.734	13.715	13.772	VV	21360	576800	9.40%	0.218%
221	13.809	13.772	13.828	VV	15451	482470	7.86%	0.182%
222	13.844	13.828	13.867	VV	14897	328730	5.36%	0.124%
223	13.896	13.867	13.932	VV	69797	1207063	19.67%	0.456%
224	13.954	13.932	13.970	VV	14204	297680	4.85%	0.112%
225	13.984	13.970	14.005	VV	13351	258920	4.22%	0.098%
226	14.020	14.005	14.037	VV	11660	212153	3.46%	0.080%
227	14.048	14.037	14.066	VV	11191	186145	3.03%	0.070%
228	14.125	14.066	14.179	VV	14989	818599	13.34%	0.309%
229	14.193	14.179	14.213	VV	11412	213856	3.49%	0.081%
230	14.230	14.213	14.244	VV	10792	192958	3.14%	0.073%
231	14.261	14.244	14.274	VV	11512	200515	3.27%	0.076%
232	14.311	14.274	14.357	VV	11588	518790	8.45%	0.196%
233	14.372	14.357	14.395	VV	9160	202794	3.30%	0.077%
234	14.418	14.395	14.431	VV	9383	189577	3.09%	0.072%
235	14.459	14.431	14.499	VV	40320	706082	11.51%	0.267%
236	14.531	14.499	14.551	VV	8898	257668	4.20%	0.097%
237	14.561	14.551	14.572	VV	8177	100408	1.64%	0.038%
238	14.584	14.572	14.640	VV	8274	305328	4.98%	0.115%
239	14.662	14.640	14.702	VV	8344	280135	4.57%	0.106%
240	14.714	14.702	14.763	VV	7430	256931	4.19%	0.097%
241	14.780	14.763	14.796	VV	6828	124877	2.04%	0.047%
242	14.810	14.796	14.833	VV	6837	140421	2.29%	0.053%
243	14.855	14.833	14.876	VV	6927	162184	2.64%	0.061%
244	14.891	14.876	14.926	VV	6129	166250	2.71%	0.063%
245	14.953	14.926	14.973	VV	6340	156176	2.55%	0.059%
246	14.999	14.973	15.031	VV	22513	389694	6.35%	0.147%

rteres

247	15.056	15.031	15.101	VV	4988	197193	3.21%	0.075%
248	15.138	15.125	15.169	VV	4271	103086	1.68%	0.039%
249	15.195	15.169	15.236	VV	4577	160506	2.62%	0.061%
250	15.248	15.236	15.294	VV	3862	122511	2.00%	0.046%
251	15.307	15.294	15.324	VV	3519	59255	0.97%	0.022%
252	15.336	15.324	15.358	VV	3767	66979	1.09%	0.025%
253	15.384	15.358	15.416	VV	3360	106782	1.74%	0.040%
254	15.431	15.416	15.476	VV	3050	95372	1.55%	0.036%
255	15.520	15.476	15.602	VV	11696	291014	4.74%	0.110%
256	15.621	15.602	15.684	VV	2127	90526	1.48%	0.034%
257	15.704	15.684	15.738	VV	2016	58652	0.96%	0.022%
258	15.745	15.738	15.781	VV	1733	42628	0.69%	0.016%
259	15.790	15.781	15.801	VV	1625	18724	0.31%	0.007%
260	15.841	15.801	15.868	VV	1959	65561	1.07%	0.025%
261	15.885	15.868	15.958	VV	1562	70233	1.14%	0.027%
262	15.982	15.958	15.997	VV	1882	34364	0.56%	0.013%
263	16.021	15.997	16.048	VV	6261	98158	1.60%	0.037%
264	16.057	16.048	16.105	VV	1155	32900	0.54%	0.012%
265	16.121	16.105	16.172	VV	851	27968	0.46%	0.011%
266	16.224	16.172	16.281	VV	1113	54219	0.88%	0.020%
267	16.322	16.281	16.376	VV	988	41573	0.68%	0.016%
268	16.390	16.376	16.444	VV	860	24646	0.40%	0.009%
269	16.504	16.444	16.565	VV	7314	129200	2.11%	0.049%
270	16.610	16.565	16.624	VV	618	18027	0.29%	0.007%
271	16.641	16.624	16.650	VV	743	10214	0.17%	0.004%
272	16.668	16.650	16.707	VV	993	24830	0.40%	0.009%
273	16.724	16.707	16.742	VV	802	13697	0.22%	0.005%
274	16.755	16.742	16.794	VV	652	16086	0.26%	0.006%
275	16.804	16.794	16.820	VV	622	7975	0.13%	0.003%
276	16.842	16.820	16.887	VV	761	21540	0.35%	0.008%
277	16.938	16.887	16.947	VV	1071	18742	0.31%	0.007%
278	16.972	16.947	16.997	VV	5001	75769	1.23%	0.029%
279	17.007	16.997	17.063	VV	866	19366	0.32%	0.007%
280	17.112	17.063	17.133	VV	489	15181	0.25%	0.006%
281	17.152	17.133	17.167	VV	414	7061	0.12%	0.003%
282	17.179	17.167	17.188	VV	463	5262	0.09%	0.002%
283	17.210	17.188	17.248	VV	629	18362	0.30%	0.007%
284	17.263	17.248	17.283	VV	475	8919	0.15%	0.003%
285	17.316	17.283	17.338	VV	608	14184	0.23%	0.005%
286	17.424	17.338	17.492	VV	19731	286907	4.68%	0.108%
287	17.515	17.492	17.530	VV	429	7228	0.12%	0.003%
288	17.555	17.530	17.588	VV	730	16015	0.26%	0.006%
289	17.603	17.588	17.617	VV	369	4636	0.08%	0.002%
290	17.637	17.617	17.674	VV	346	8135	0.13%	0.003%
291	17.714	17.674	17.744	VV	299	10025	0.16%	0.004%
292	17.768	17.744	17.799	VV	561	12650	0.21%	0.005%
293	17.860	17.799	17.897	VV	5095	93533	1.52%	0.035%
294	17.920	17.897	17.956	VV	460	8572	0.14%	0.003%
295	18.022	17.956	18.101	VV	1176	39273	0.64%	0.015%
296	18.134	18.101	18.159	VV	738	13500	0.22%	0.005%
297	18.185	18.159	18.205	VV	548	10985	0.18%	0.004%
298	18.220	18.205	18.229	VV	502	5252	0.09%	0.002%
299	18.283	18.229	18.324	VV	35108	473916	7.72%	0.179%

rteres

300	18.389	18.324	18.418	VV	1141	22949	0.37%	0.009%
301	18.424	18.418	18.444	VV	333	3981	0.06%	0.002%
302	18.458	18.444	18.481	VV	149	3045	0.05%	0.001%
303	18.550	18.481	18.574	VV	563	15239	0.25%	0.006%
304	18.585	18.574	18.627	VV	461	7470	0.12%	0.003%
305	18.693	18.627	18.751	VV	4137	81431	1.33%	0.031%
306	18.770	18.751	18.784	PV	208	2784	0.05%	0.001%
307	18.814	18.784	18.841	VV	792	13699	0.22%	0.005%
308	18.858	18.841	18.922	VV	682	17008	0.28%	0.006%
309	18.954	18.922	18.972	VV	532	10137	0.17%	0.004%
310	19.026	18.972	19.048	VV	934	22526	0.37%	0.009%
311	19.093	19.048	19.124	VV	13304	205177	3.34%	0.078%
312	19.140	19.124	19.181	VV	690	16032	0.26%	0.006%
313	19.209	19.181	19.238	VV	661	15542	0.25%	0.006%
314	19.275	19.238	19.307	VV	652	21508	0.35%	0.008%
315	19.322	19.307	19.341	VV	559	10633	0.17%	0.004%
316	19.346	19.341	19.363	VV	571	6705	0.11%	0.003%
317	19.416	19.363	19.439	VV	654	24820	0.40%	0.009%
318	19.480	19.439	19.508	VV	3414	69319	1.13%	0.026%
319	19.522	19.508	19.552	VV	1003	21116	0.34%	0.008%
320	19.615	19.552	19.650	VV	788	37356	0.61%	0.014%
321	19.731	19.650	19.748	VV	1202	51321	0.84%	0.019%
322	19.765	19.748	19.778	VV	1116	18194	0.30%	0.007%
323	19.785	19.778	19.808	VV	1120	17245	0.28%	0.007%
324	19.854	19.808	19.884	VV	3908	82782	1.35%	0.031%
325	19.920	19.884	19.943	VV	1288	42000	0.68%	0.016%
326	19.956	19.943	19.974	VV	1249	21149	0.34%	0.008%
327	19.988	19.974	19.998	VV	1179	16295	0.27%	0.006%
328	20.045	19.998	20.066	VV	1488	53946	0.88%	0.020%
329	20.089	20.066	20.097	VV	1541	27071	0.44%	0.010%
330	20.132	20.097	20.154	VV	1787	54241	0.88%	0.020%
331	20.220	20.154	20.254	VV	3956	136454	2.22%	0.052%
332	20.300	20.254	20.328	VV	2091	86582	1.41%	0.033%
333	20.342	20.328	20.360	VV	2033	37716	0.61%	0.014%
334	20.407	20.360	20.418	VV	2141	71425	1.16%	0.027%
335	20.440	20.418	20.451	VV	2240	42700	0.70%	0.016%
336	20.554	20.451	20.575	VV	5516	266242	4.34%	0.101%
337	20.580	20.575	20.654	VV	5210	148748	2.42%	0.056%
338	20.674	20.654	20.694	VV	1931	44389	0.72%	0.017%
339	20.718	20.694	20.754	VV	2022	69669	1.14%	0.026%
340	20.779	20.754	20.806	VV	2137	61180	1.00%	0.023%
341	20.828	20.806	20.884	VV	1930	86141	1.40%	0.033%
342	20.896	20.884	20.915	VV	1620	28582	0.47%	0.011%
343	20.995	20.915	21.039	VV	3510	146169	2.38%	0.055%
344	21.053	21.039	21.084	VV	1493	37209	0.61%	0.014%
345	21.095	21.084	21.128	VV	1417	34532	0.56%	0.013%
346	21.154	21.128	21.171	VV	1323	32449	0.53%	0.012%
347	21.173	21.171	21.181	VV	1238	6860	0.11%	0.003%
348	21.193	21.181	21.238	VV	1278	39256	0.64%	0.015%
349	21.247	21.238	21.276	VV	1117	23992	0.39%	0.009%
350	21.291	21.276	21.364	VV	1099	50120	0.82%	0.019%
351	21.371	21.364	21.398	VV	936	17339	0.28%	0.007%

rteres

352	21.450	21.398	21.522	VV	1323	64528	1.05%	0.024%
353	21.534	21.522	21.544	VV	708	8464	0.14%	0.003%
354	21.552	21.544	21.567	VV	698	8681	0.14%	0.003%
355	21.587	21.567	21.724	VV	665	49473	0.81%	0.019%
356	21.735	21.724	21.781	VV	485	14544	0.24%	0.005%
357	21.791	21.781	21.828	VV	406	9494	0.15%	0.004%
358	21.839	21.828	21.868	VV	330	7574	0.12%	0.003%
359	21.874	21.868	21.907	VV	324	6282	0.10%	0.002%
360	21.970	21.907	22.038	VV	2283	70291	1.15%	0.027%
361	22.062	22.038	22.092	VV	210	4530	0.07%	0.002%

Sum of corrected areas: 264641505

Aliphatic EPH 050625.M Fri May 09 09:47:02 2025

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	04/21/25
Project:	NJ Soil PT	Date Received:	04/24/25
Client Sample ID:	HW0425-PT-NJEPH-SOIL	SDG No.:	Q1872
Lab Sample ID:	Q1872-16	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	20.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FD049322.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	6.23		0.18	1.00	mg/kg
Aromatic C12-C16	Aromatic C12-C16	20.0		0.35	1.50	mg/kg
Aromatic C16-C21	Aromatic C16-C21	46.1		0.60	2.50	mg/kg
Aromatic C21-C36	Aromatic C21-C36	13.3		1.78	4.00	mg/kg
SURROGATES						
580-13-2	2-Bromonaphthalene (SURR)	61.0		40 - 140	122%	SPK: 50
321-60-8	2-Flurobiphenyl (SURR)	46.8		40 - 140	94%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	52.9		40 - 140	106%	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:	Q1872-16	Acq On:	08 May 2025 14:20
Client Sample ID:	HW0425-PT-NJEPH-SOIL	Operator:	YP/AJ
Data file:	FD049322.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	8016149	62.367	200	ug/ml
Aromatic C12-C16	6.177	8.805	27207640	200.458	300	ug/ml
Aromatic C16-C21	8.806	13.095	60449704	461.025	500	ug/ml
Aromatic C21-C36	13.0956	18.515	15673065	133.554	800	ug/ml
Aromatic EPH	4.431	18.515	111346558	857.404		ug/ml
ortho-Terphenyl (SURR)	11.652	11.652	7303683	52.92		ug/ml
2-Bromonaphthalene (SURR)	7.741	7.741	7238638	61.05		ug/ml
2-Flurobiphenyl (SURR)	8.607	8.607	3697872	46.82		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049322.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 14:20
Operator : YP/AJ
Sample : Q1872-16
Misc :
ALS Vial : 64 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
HW0425-PT-NJEPH-SOIL

Integration File: autoint1.e
Quant Time: May 09 09:18:27 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	7238638	61.049 ug/ml
Spiked Amount 50.000		Recovery = 122.10%	
6) S 2-Flurobiphenyl (SURR)	8.607	3697872	46.825 ug/ml
Spiked Amount 50.000 Range 0 - 131		Recovery = 93.65%	
11) S ortho-Terphenyl (SURR)	11.652	7303683	52.917 ug/ml
Spiked Amount 50.000		Recovery = 105.83%	
Target Compounds			

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

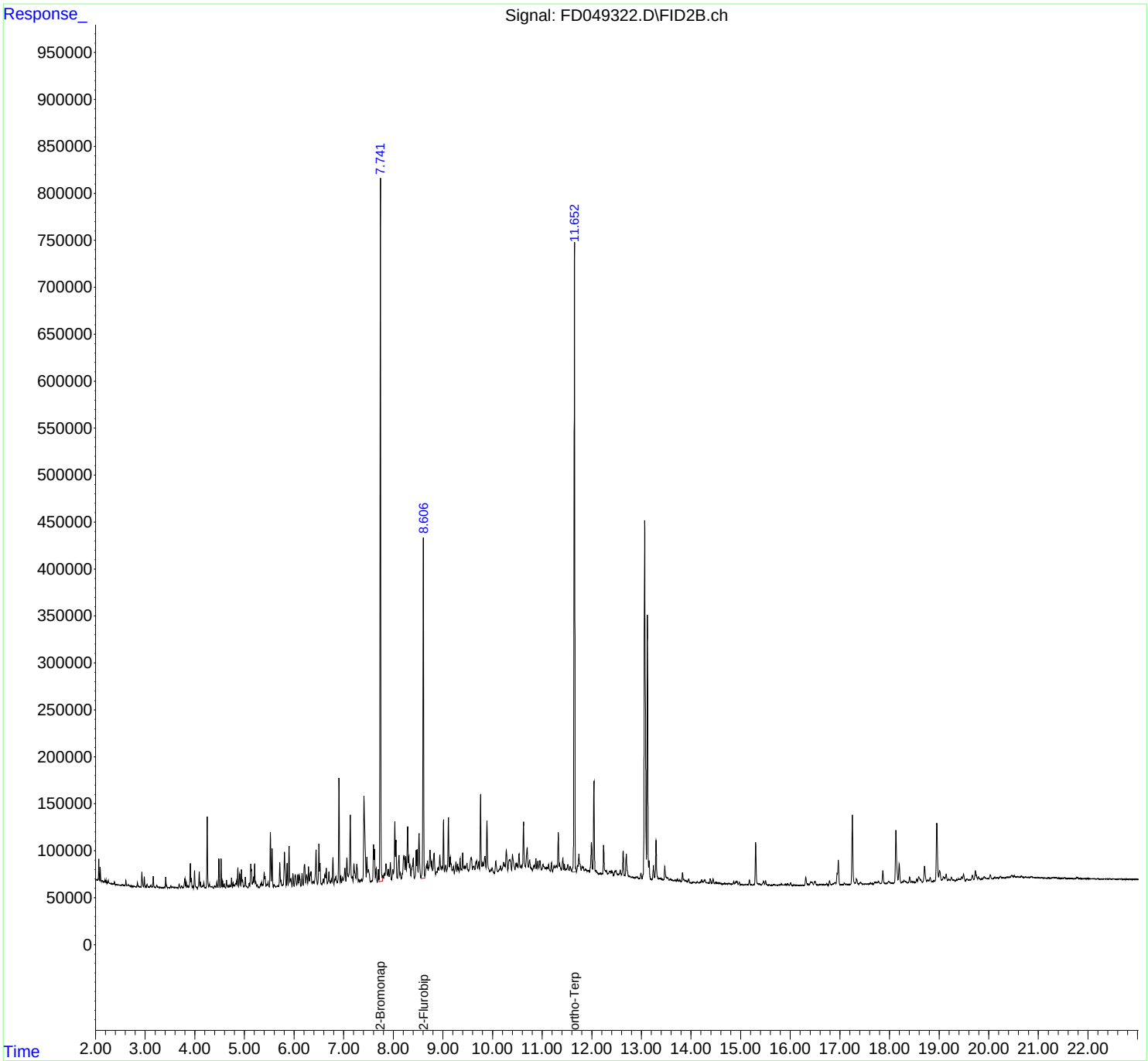
Quantitation Report (QT Reviewed)

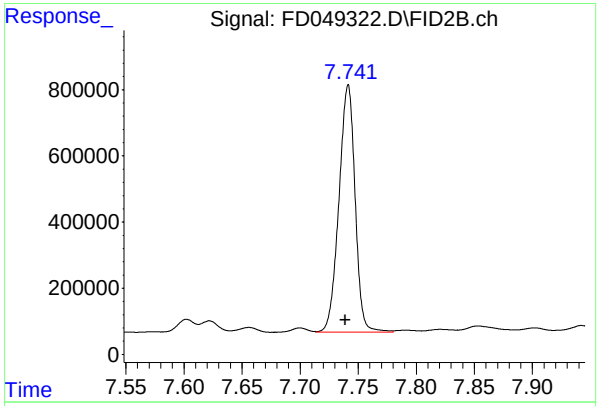
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049322.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 14:20
Operator : YP/AJ
Sample : Q1872-16
Misc :
ALS Vial : 64 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
HW0425-PT-NJEPH-SOIL

Integration File: autoint1.e
Quant Time: May 09 09:18:27 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

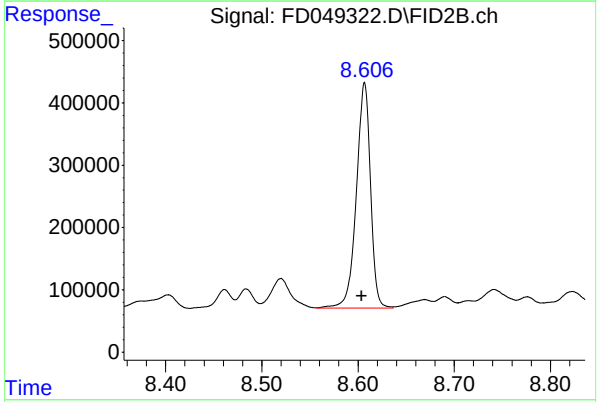




#4 2-Bromonaphthalene (SURR)

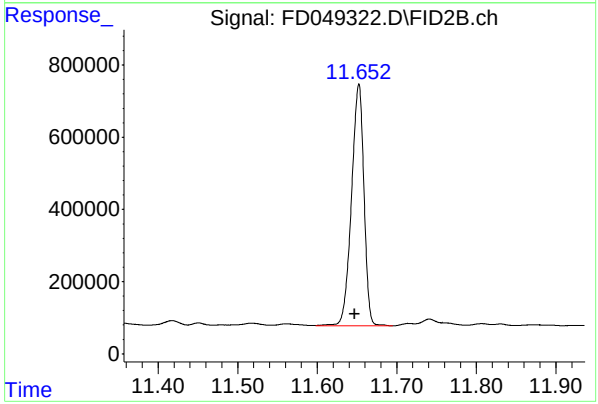
R.T.: 7.741 min
Delta R.T.: 0.002 min
Response: 7238638
Conc: 61.05 ug/ml

Instrument :
FID_D
ClientSampleId :
HW0425-PT-NJEPH-SOIL



#6 2-Flurobiphenyl (SURR)

R.T.: 8.607 min
Delta R.T.: 0.003 min
Response: 3697872
Conc: 46.82 ug/ml



#11 ortho-Terphenyl (SURR)

R.T.: 11.652 min
Delta R.T.: 0.005 min
Response: 7303683
Conc: 52.92 ug/ml

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049322.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 14:20
Sample : Q1872-16
Misc :
ALS Vial : 64 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	4.331	4.320	4.339	PV	742	4955	0.06%	0.004%
2	4.349	4.339	4.377	VV	1355	12635	0.15%	0.010%
3	4.406	4.377	4.426	PV	2486	42031	0.51%	0.032%
4	4.444	4.426	4.465	VV	6768	74794	0.91%	0.057%
5	4.486	4.465	4.509	VV	31561	297160	3.62%	0.225%
6	4.530	4.509	4.548	VV	31529	278098	3.39%	0.211%
7	4.561	4.548	4.579	VV	8063	77741	0.95%	0.059%
8	4.593	4.579	4.619	VV	4732	51553	0.63%	0.039%
9	4.639	4.619	4.675	VV	8650	113987	1.39%	0.086%
10	4.688	4.675	4.701	VV	3140	32396	0.39%	0.025%
11	4.714	4.701	4.723	VV	2676	27310	0.33%	0.021%
12	4.741	4.723	4.757	VV	11215	106846	1.30%	0.081%
13	4.772	4.757	4.785	VV	6251	58975	0.72%	0.045%
14	4.795	4.785	4.806	VV	3550	36737	0.45%	0.028%
15	4.822	4.806	4.829	VV	4969	52988	0.65%	0.040%
16	4.841	4.829	4.852	VV	7699	75051	0.91%	0.057%
17	4.867	4.852	4.884	VV	21903	209116	2.55%	0.159%
18	4.906	4.884	4.926	VV	15475	206713	2.52%	0.157%
19	4.941	4.926	4.954	VV	19885	195359	2.38%	0.148%
20	4.963	4.954	4.982	VV	8695	94801	1.15%	0.072%
21	4.994	4.982	5.000	VV	2498	22963	0.28%	0.017%
22	5.019	5.000	5.067	VV	11791	150691	1.84%	0.114%
23	5.096	5.067	5.107	VV	5214	55393	0.67%	0.042%
24	5.129	5.107	5.158	VV	25800	429348	5.23%	0.326%
25	5.166	5.158	5.171	VV	5978	42740	0.52%	0.032%
26	5.183	5.171	5.193	VV	12045	113894	1.39%	0.086%
27	5.206	5.193	5.221	VV	26150	247539	3.01%	0.188%
28	5.229	5.221	5.250	VV	6930	79425	0.97%	0.060%
29	5.260	5.250	5.275	VV	3732	35996	0.44%	0.027%
30	5.287	5.275	5.306	VV	1195	16082	0.20%	0.012%
31	5.327	5.306	5.336	VV	4461	48771	0.59%	0.037%
32	5.347	5.336	5.373	VV	6195	86006	1.05%	0.065%
33	5.399	5.373	5.410	VV	17049	206294	2.51%	0.157%
34	5.417	5.410	5.435	VV	12434	118934	1.45%	0.090%
35	5.454	5.435	5.463	VV	3559	50792	0.62%	0.039%
36	5.477	5.463	5.500	VV	6391	80017	0.97%	0.061%

rteres

37	5.524	5.500	5.542	VV	59160	623657	7.60%	0.473%
38	5.558	5.542	5.580	VV	41996	438431	5.34%	0.333%
39	5.596	5.580	5.608	VV	3966	43858	0.53%	0.033%
40	5.616	5.608	5.632	VV	2580	26419	0.32%	0.020%
41	5.660	5.632	5.671	VV	2251	39023	0.48%	0.030%
42	5.682	5.671	5.692	VV	2254	24591	0.30%	0.019%
43	5.713	5.692	5.732	VV	27051	303788	3.70%	0.230%
44	5.739	5.732	5.756	VV	8185	79900	0.97%	0.061%
45	5.775	5.756	5.780	VV	3469	41646	0.51%	0.032%
46	5.808	5.780	5.843	VV	38220	631298	7.69%	0.479%
47	5.861	5.843	5.880	VV	26383	273308	3.33%	0.207%
48	5.900	5.880	5.918	VV	44362	474127	5.77%	0.360%
49	5.934	5.918	5.960	VV	10105	175544	2.14%	0.133%
50	5.978	5.960	6.002	VV	15267	194675	2.37%	0.148%
51	6.024	6.002	6.054	VV	14008	265048	3.23%	0.201%
52	6.075	6.054	6.091	VV	13767	180948	2.20%	0.137%
53	6.105	6.091	6.139	VV	13675	237684	2.89%	0.180%
54	6.162	6.139	6.185	VV	15633	187694	2.29%	0.142%
55	6.213	6.185	6.237	VV	24505	456349	5.56%	0.346%
56	6.253	6.237	6.277	VV	13736	237739	2.90%	0.180%
57	6.292	6.277	6.311	VV	22485	266681	3.25%	0.202%
58	6.329	6.311	6.336	VV	15970	181708	2.21%	0.138%
59	6.343	6.336	6.363	VV	17104	187868	2.29%	0.143%
60	6.389	6.363	6.404	VV	6921	138514	1.69%	0.105%
61	6.444	6.404	6.473	VV	40597	633517	7.72%	0.481%
62	6.502	6.473	6.515	VV	46922	535409	6.52%	0.406%
63	6.524	6.515	6.555	VV	26218	290705	3.54%	0.221%
64	6.592	6.555	6.605	VV	9322	182263	2.22%	0.138%
65	6.620	6.605	6.638	VV	14010	224749	2.74%	0.171%
66	6.651	6.638	6.671	VV	20963	256321	3.12%	0.194%
67	6.704	6.671	6.720	VV	17218	277362	3.38%	0.210%
68	6.726	6.720	6.739	VV	7540	74320	0.91%	0.056%
69	6.754	6.739	6.765	VV	8951	114465	1.39%	0.087%
70	6.785	6.765	6.804	VV	32403	388997	4.74%	0.295%
71	6.824	6.804	6.831	VV	9355	122162	1.49%	0.093%
72	6.843	6.831	6.871	VV	12298	205809	2.51%	0.156%
73	6.907	6.871	6.929	VV	116388	1277695	15.56%	0.969%
74	6.942	6.929	6.957	VV	12481	149746	1.82%	0.114%
75	6.975	6.957	6.993	VV	10891	181242	2.21%	0.138%
76	7.026	6.993	7.045	VV	20837	403860	4.92%	0.306%
77	7.066	7.045	7.095	VV	31833	521586	6.35%	0.396%
78	7.134	7.095	7.167	VV	77252	1241419	15.12%	0.942%
79	7.177	7.167	7.189	VV	11619	129356	1.58%	0.098%
80	7.208	7.189	7.249	VV	25638	554267	6.75%	0.421%
81	7.266	7.249	7.295	VV	24780	451784	5.50%	0.343%
82	7.307	7.295	7.323	VV	8690	123329	1.50%	0.094%
83	7.337	7.323	7.350	VV	8203	113740	1.39%	0.086%
84	7.363	7.350	7.376	VV	9237	123561	1.50%	0.094%
85	7.411	7.376	7.455	VV	97277	1969319	23.99%	1.494%
86	7.469	7.455	7.486	VV	32539	412062	5.02%	0.313%
87	7.500	7.486	7.539	VV	19239	451200	5.50%	0.342%
88	7.548	7.539	7.560	VV	6820	78788	0.96%	0.060%
89	7.574	7.560	7.582	VV	7499	93116	1.13%	0.071%

90	7.602	7.582	7.613	VV	45524	513143	6.25%	0.389%
91	7.622	7.613	7.640	VV	40989	454920	5.54%	0.345%
92	7.656	7.640	7.676	VV	20842	289300	3.52%	0.220%
93	7.700	7.676	7.714	VV	19391	262277	3.19%	0.199%
94	7.741	7.714	7.780	VV	755924	7496272	91.30%	5.688%
95	7.791	7.780	7.805	VV	12434	167616	2.04%	0.127%
96	7.821	7.805	7.835	VV	14943	235433	2.87%	0.179%
97	7.853	7.835	7.885	VV	25283	555873	6.77%	0.422%
98	7.902	7.885	7.919	VV	19484	311039	3.79%	0.236%
99	7.942	7.919	7.967	VV	26475	465509	5.67%	0.353%
100	7.990	7.967	8.002	VV	19206	301181	3.67%	0.229%
101	8.032	8.002	8.045	VV	70052	923413	11.25%	0.701%
102	8.055	8.045	8.085	VV	50440	646781	7.88%	0.491%
103	8.116	8.085	8.133	VV	34223	640527	7.80%	0.486%
104	8.142	8.133	8.160	VV	15882	206206	2.51%	0.156%
105	8.208	8.160	8.215	VV	32406	610723	7.44%	0.463%
106	8.223	8.215	8.238	VV	33700	391720	4.77%	0.297%
107	8.251	8.238	8.265	VV	33278	416621	5.07%	0.316%
108	8.291	8.265	8.306	VV	64718	1000089	12.18%	0.759%
109	8.314	8.306	8.327	VV	32815	337039	4.11%	0.256%
110	8.336	8.327	8.355	VV	24211	336689	4.10%	0.255%
111	8.403	8.355	8.425	VV	31050	853049	10.39%	0.647%
112	8.461	8.425	8.472	VV	39436	581916	7.09%	0.442%
113	8.484	8.472	8.499	VV	40554	466839	5.69%	0.354%
114	8.520	8.499	8.556	VV	57147	1007294	12.27%	0.764%
115	8.607	8.556	8.636	VV	371914	4160195	50.67%	3.157%
116	8.669	8.636	8.678	VV	23307	455660	5.55%	0.346%
117	8.690	8.678	8.704	VV	28226	360494	4.39%	0.274%
118	8.715	8.704	8.720	VV	21493	198481	2.42%	0.151%
119	8.742	8.720	8.765	VV	39553	792804	9.66%	0.602%
120	8.776	8.765	8.791	VV	27834	373996	4.56%	0.284%
121	8.823	8.791	8.857	VV	36349	913180	11.12%	0.693%
122	8.875	8.857	8.884	VV	16812	256871	3.13%	0.195%
123	8.899	8.884	8.909	VV	20554	274948	3.35%	0.209%
124	8.913	8.909	8.921	VV	18842	140958	1.72%	0.107%
125	8.939	8.921	8.966	VV	34338	666778	8.12%	0.506%
126	8.982	8.966	8.995	VV	22607	361137	4.40%	0.274%
127	9.013	8.995	9.033	VV	71892	894059	10.89%	0.678%
128	9.059	9.033	9.077	VV	23488	531671	6.48%	0.403%
129	9.112	9.077	9.133	VV	73937	1195825	14.56%	0.907%
130	9.149	9.133	9.183	VV	32226	752810	9.17%	0.571%
131	9.190	9.183	9.196	VV	18333	139946	1.70%	0.106%
132	9.214	9.196	9.231	VV	21960	392227	4.78%	0.298%
133	9.264	9.231	9.281	VV	27087	619661	7.55%	0.470%
134	9.297	9.281	9.308	VV	24621	339437	4.13%	0.258%
135	9.317	9.308	9.330	VV	20709	250926	3.06%	0.190%
136	9.348	9.330	9.382	VV	30450	684562	8.34%	0.519%
137	9.400	9.382	9.418	VV	36628	575656	7.01%	0.437%
138	9.428	9.418	9.437	VV	22125	239825	2.92%	0.182%
139	9.447	9.437	9.459	VV	22352	283209	3.45%	0.215%
140	9.486	9.459	9.521	VV	25552	776987	9.46%	0.590%
141	9.567	9.521	9.597	VV	31279	1113778	13.57%	0.845%

rteres

142	9.615	9.597	9.620	VV	22059	297696	3.63%	0.226%
143	9.628	9.620	9.644	VV	22441	297589	3.62%	0.226%
144	9.669	9.644	9.675	VV	26895	430941	5.25%	0.327%
145	9.683	9.675	9.699	VV	27967	366036	4.46%	0.278%
146	9.723	9.699	9.738	VV	26767	535663	6.52%	0.406%
147	9.760	9.738	9.788	VV	98594	1390052	16.93%	1.055%
148	9.805	9.788	9.820	VV	26597	463201	5.64%	0.351%
149	9.847	9.820	9.869	VV	32750	801862	9.77%	0.608%
150	9.889	9.869	9.948	VV	70630	1459462	17.78%	1.107%
151	9.992	9.948	10.017	VV	20215	751843	9.16%	0.570%
152	10.023	10.017	10.039	VV	15647	199139	2.43%	0.151%
153	10.067	10.039	10.113	VV	27389	885392	10.78%	0.672%
154	10.161	10.113	10.183	VV	22477	794493	9.68%	0.603%
155	10.222	10.183	10.241	VV	26073	750438	9.14%	0.569%
156	10.249	10.241	10.258	VV	22800	232210	2.83%	0.176%
157	10.279	10.258	10.308	VV	38954	857265	10.44%	0.650%
158	10.337	10.308	10.350	VV	28756	631691	7.69%	0.479%
159	10.357	10.350	10.386	VV	28591	528332	6.43%	0.401%
160	10.404	10.386	10.455	VV	34836	1040605	12.67%	0.790%
161	10.473	10.455	10.486	VV	25181	421487	5.13%	0.320%
162	10.498	10.486	10.513	VV	24543	367075	4.47%	0.279%
163	10.535	10.513	10.565	VV	35116	813599	9.91%	0.617%
164	10.579	10.565	10.593	VV	23136	364459	4.44%	0.277%
165	10.626	10.593	10.665	VV	69085	1473956	17.95%	1.118%
166	10.698	10.665	10.726	VV	41465	1083724	13.20%	0.822%
167	10.748	10.726	10.805	VV	28656	1044213	12.72%	0.792%
168	10.841	10.805	10.857	VV	23279	636756	7.76%	0.483%
169	10.876	10.857	10.895	VV	30071	558623	6.80%	0.424%
170	10.916	10.895	10.932	VV	27081	504638	6.15%	0.383%
171	10.956	10.932	10.987	VV	28015	744669	9.07%	0.565%
172	11.019	10.987	11.060	VV	23848	913283	11.12%	0.693%
173	11.079	11.060	11.091	VV	20908	373480	4.55%	0.283%
174	11.103	11.091	11.115	VV	20483	286163	3.49%	0.217%
175	11.131	11.115	11.166	VV	23602	605767	7.38%	0.460%
176	11.190	11.166	11.213	VV	25473	566056	6.89%	0.429%
177	11.241	11.213	11.255	VV	22636	500235	6.09%	0.380%
178	11.275	11.255	11.282	VV	21957	336786	4.10%	0.256%
179	11.290	11.282	11.304	VV	22033	287984	3.51%	0.219%
180	11.327	11.304	11.345	VV	57776	898072	10.94%	0.681%
181	11.355	11.345	11.387	VV	24527	525824	6.40%	0.399%
182	11.418	11.387	11.437	VV	30370	690511	8.41%	0.524%
183	11.451	11.437	11.469	VV	24265	389352	4.74%	0.295%
184	11.479	11.469	11.490	VV	18311	232762	2.83%	0.177%
185	11.518	11.490	11.543	VV	23289	637467	7.76%	0.484%
186	11.561	11.543	11.598	VV	21708	627694	7.65%	0.476%
187	11.652	11.598	11.695	VV	685079	8210400	100.00%	6.230%
188	11.715	11.695	11.723	VV	22371	334944	4.08%	0.254%
189	11.741	11.723	11.789	VV	34498	971945	11.84%	0.737%
190	11.807	11.789	11.820	VV	21877	370673	4.51%	0.281%
191	11.830	11.820	11.850	VV	20922	344784	4.20%	0.262%
192	11.874	11.850	11.890	VV	18719	432631	5.27%	0.328%
193	11.896	11.890	11.909	VV	17637	188402	2.29%	0.143%
194	11.922	11.909	11.953	VV	17047	438156	5.34%	0.332%

195	11.994	11.953	12.020	VV	46998	1057253	12.88%	0.802%
196	12.045	12.020	12.073	VV	111577	1584365	19.30%	1.202%
197	12.084	12.073	12.138	VV	17234	580669	7.07%	0.441%
198	12.153	12.138	12.156	VV	13677	149722	1.82%	0.114%
199	12.172	12.156	12.192	VV	13979	290141	3.53%	0.220%
200	12.207	12.192	12.220	VV	13702	226519	2.76%	0.172%
201	12.238	12.220	12.284	VV	43721	907372	11.05%	0.688%
202	12.295	12.284	12.317	VV	16538	299706	3.65%	0.227%
203	12.327	12.317	12.333	VV	14018	136383	1.66%	0.103%
204	12.335	12.333	12.340	VV	13838	52201	0.64%	0.040%
205	12.363	12.340	12.388	VV	16353	444608	5.42%	0.337%
206	12.403	12.388	12.443	VV	16683	478203	5.82%	0.363%
207	12.472	12.443	12.476	VV	16013	281947	3.43%	0.214%
208	12.487	12.476	12.528	VV	16798	440439	5.36%	0.334%
209	12.575	12.528	12.600	VV	17305	603901	7.36%	0.458%
210	12.633	12.600	12.660	VV	37263	733672	8.94%	0.557%
211	12.664	12.660	12.671	VV	11765	73889	0.90%	0.056%
212	12.695	12.671	12.740	VV	34744	795317	9.69%	0.603%
213	12.750	12.740	12.766	VV	10770	162139	1.97%	0.123%
214	12.773	12.766	12.796	VV	10602	182945	2.23%	0.139%
215	12.810	12.796	12.820	VV	9924	136428	1.66%	0.104%
216	12.829	12.820	12.843	VV	9719	129339	1.58%	0.098%
217	12.848	12.843	12.868	VV	9568	141542	1.72%	0.107%
218	12.885	12.868	12.902	VV	9784	185835	2.26%	0.141%
219	12.919	12.902	12.944	VV	9989	230372	2.81%	0.175%
220	12.954	12.944	12.970	VV	8634	129426	1.58%	0.098%
221	12.991	12.970	13.015	VV	13850	283333	3.45%	0.215%
222	13.066	13.015	13.100	VV	388705	6647507	80.96%	5.044%
223	13.122	13.100	13.143	VV	288214	3483089	42.42%	2.643%
224	13.153	13.143	13.207	VV	26853	509159	6.20%	0.386%
225	13.243	13.207	13.263	VV	21902	420276	5.12%	0.319%
226	13.296	13.263	13.343	VV	48928	885113	10.78%	0.672%
227	13.360	13.343	13.370	VV	8560	130582	1.59%	0.099%
228	13.386	13.370	13.403	VV	8632	156975	1.91%	0.119%
229	13.416	13.403	13.438	VV	7920	152755	1.86%	0.116%
230	13.470	13.438	13.513	VV	20963	509040	6.20%	0.386%
231	13.526	13.513	13.561	VV	8775	228106	2.78%	0.173%
232	13.586	13.561	13.605	VV	7773	185840	2.26%	0.141%
233	13.619	13.605	13.649	VV	6713	165002	2.01%	0.125%
234	13.668	13.649	13.708	VV	6268	207694	2.53%	0.158%
235	13.727	13.708	13.757	VV	7687	183689	2.24%	0.139%
236	13.773	13.757	13.798	VV	6306	136419	1.66%	0.104%
237	13.827	13.798	13.846	VV	14290	249612	3.04%	0.189%
238	13.855	13.846	13.877	VV	7374	120490	1.47%	0.091%
239	13.895	13.877	13.920	VV	6148	138670	1.69%	0.105%
240	13.953	13.920	14.013	VV	7696	259446	3.16%	0.197%
241	14.058	14.013	14.090	VV	4293	176791	2.15%	0.134%
242	14.126	14.090	14.149	VV	4355	131716	1.60%	0.100%
243	14.159	14.149	14.174	VV	3454	52490	0.64%	0.040%
244	14.215	14.174	14.242	VV	6471	189006	2.30%	0.143%
245	14.280	14.242	14.308	VV	6518	196441	2.39%	0.149%
246	14.319	14.308	14.337	VV	3539	57864	0.70%	0.044%

247	14.346	14.337	14.365	VV	3401	49416	0.60%	0.037%
248	14.388	14.365	14.421	VV	7632	152925	1.86%	0.116%
249	14.443	14.421	14.467	VV	7650	136312	1.66%	0.103%
250	14.488	14.467	14.505	VV	3614	70659	0.86%	0.054%
251	14.517	14.505	14.535	VV	3610	57145	0.70%	0.043%
252	14.554	14.535	14.572	VV	3799	67703	0.82%	0.051%
253	14.586	14.572	14.628	VV	3030	81691	0.99%	0.062%
254	14.631	14.628	14.643	VV	2041	17761	0.22%	0.013%
255	14.648	14.643	14.656	VV	2099	15585	0.19%	0.012%
256	14.675	14.656	14.700	VV	2784	59414	0.72%	0.045%
257	14.715	14.700	14.753	VV	2381	68767	0.84%	0.052%
258	14.772	14.753	14.808	VV	2674	70536	0.86%	0.054%
259	14.814	14.808	14.836	VV	1797	27564	0.34%	0.021%
260	14.860	14.836	14.882	VV	4475	79823	0.97%	0.061%
261	14.902	14.882	14.914	VV	4754	71938	0.88%	0.055%
262	14.927	14.914	14.950	VV	4664	70411	0.86%	0.053%
263	14.972	14.950	15.002	VV	4090	74145	0.90%	0.056%
264	15.025	15.002	15.053	VV	1630	38926	0.47%	0.030%
265	15.060	15.053	15.074	VV	1037	11278	0.14%	0.009%
266	15.085	15.074	15.090	VV	1039	9617	0.12%	0.007%
267	15.099	15.090	15.103	VV	1280	9160	0.11%	0.007%
268	15.111	15.103	15.135	VV	1264	22175	0.27%	0.017%
269	15.175	15.135	15.212	VV	6237	107773	1.31%	0.082%
270	15.217	15.212	15.252	VV	1044	20014	0.24%	0.015%
271	15.259	15.252	15.268	VV	900	8415	0.10%	0.006%
272	15.301	15.268	15.343	VV	46100	594453	7.24%	0.451%
273	15.351	15.343	15.372	VV	2080	30182	0.37%	0.023%
274	15.375	15.372	15.419	VV	1624	37063	0.45%	0.028%
275	15.463	15.419	15.483	VV	4803	100335	1.22%	0.076%
276	15.503	15.483	15.561	VV	5278	89623	1.09%	0.068%
277	15.577	15.561	15.607	VV	779	14332	0.17%	0.011%
278	15.624	15.607	15.633	VV	485	6043	0.07%	0.005%
279	15.680	15.633	15.717	VV	987	34592	0.42%	0.026%
280	15.721	15.717	15.743	VV	527	6126	0.07%	0.005%
281	15.764	15.743	15.785	VV	769	14077	0.17%	0.011%
282	15.820	15.785	15.850	VV	1724	38716	0.47%	0.029%
283	15.860	15.850	15.877	VV	617	8152	0.10%	0.006%
284	15.905	15.877	15.927	VV	1728	29742	0.36%	0.023%
285	15.945	15.927	15.983	VV	1796	31889	0.39%	0.024%
286	16.005	15.983	16.033	VV	2841	41275	0.50%	0.031%
287	16.037	16.033	16.069	VV	441	6116	0.07%	0.005%
288	16.076	16.069	16.083	VV	301	1579	0.02%	0.001%
289	16.094	16.083	16.099	VV	292	1999	0.02%	0.002%
290	16.114	16.099	16.125	VV	262	3173	0.04%	0.002%
291	16.148	16.125	16.185	VV	494	9890	0.12%	0.008%
292	16.197	16.194	16.212	VV	174	1184	0.01%	0.001%
293	16.264	16.212	16.283	PV	367	8923	0.11%	0.007%
294	16.311	16.283	16.380	VV	8500	154871	1.89%	0.118%
295	16.411	16.380	16.427	VV	3989	70519	0.86%	0.054%
296	16.437	16.427	16.467	VV	3722	55630	0.68%	0.042%
297	16.490	16.467	16.530	VV	3780	90789	1.11%	0.069%
298	16.535	16.530	16.539	VV	414	1545	0.02%	0.001%
299	16.549	16.539	16.557	VV	391	3511	0.04%	0.003%

rteres

300	16.570	16.557	16.583	VV	542	6353	0.08%	0.005%
301	16.592	16.583	16.600	VV	534	3727	0.05%	0.003%
302	16.626	16.600	16.645	VV	1016	16355	0.20%	0.012%
303	16.656	16.645	16.700	VV	606	11621	0.14%	0.009%
304	16.735	16.700	16.759	VV	1229	20599	0.25%	0.016%
305	16.789	16.759	16.831	PV	4788	71270	0.87%	0.054%
306	16.859	16.831	16.869	VV	1298	19289	0.23%	0.015%
307	16.892	16.869	16.920	VV	2540	59012	0.72%	0.045%
308	16.944	16.920	16.950	VV	12497	135949	1.66%	0.103%
309	16.967	16.950	17.005	VV	26723	363385	4.43%	0.276%
310	17.030	17.005	17.063	VV	440	6898	0.08%	0.005%
311	17.089	17.063	17.117	VV	1898	26849	0.33%	0.020%
312	17.132	17.117	17.150	VV	667	9174	0.11%	0.007%
313	17.158	17.150	17.168	VV	378	2696	0.03%	0.002%
314	17.175	17.168	17.197	VV	293	3079	0.04%	0.002%
315	17.250	17.197	17.308	PV	74159	1047031	12.75%	0.794%
316	17.338	17.308	17.379	VV	5488	106395	1.30%	0.081%
317	17.406	17.379	17.411	VV	1808	22171	0.27%	0.017%
318	17.422	17.411	17.461	VV	1830	29002	0.35%	0.022%
319	17.472	17.461	17.491	VV	402	4449	0.05%	0.003%
320	17.520	17.491	17.533	VV	537	8269	0.10%	0.006%
321	17.536	17.533	17.546	VV	266	1206	0.01%	0.001%
322	17.567	17.546	17.582	VV	574	5192	0.06%	0.004%
323	17.616	17.582	17.638	PV	1315	20019	0.24%	0.015%
324	17.646	17.638	17.668	VV	715	6674	0.08%	0.005%
325	17.702	17.668	17.721	VV	1928	32295	0.39%	0.025%
326	17.747	17.721	17.757	VV	1694	31234	0.38%	0.024%
327	17.776	17.757	17.815	VV	2999	52898	0.64%	0.040%
328	17.865	17.815	17.930	VV	13905	202873	2.47%	0.154%
329	17.984	17.942	18.042	VV	2543	58000	0.71%	0.044%
330	18.060	18.042	18.083	PV	427	5616	0.07%	0.004%
331	18.128	18.083	18.171	VV	56560	947501	11.54%	0.719%
332	18.194	18.171	18.243	VV	20674	320314	3.90%	0.243%
333	18.262	18.243	18.273	VV	1349	17587	0.21%	0.013%
334	18.292	18.273	18.317	VV	2826	50111	0.61%	0.038%
335	18.327	18.317	18.367	VV	1500	23323	0.28%	0.018%
336	18.405	18.367	18.429	PV	6292	80322	0.98%	0.061%
337	18.449	18.429	18.467	VV	1130	18951	0.23%	0.014%
338	18.473	18.467	18.484	VV	793	6577	0.08%	0.005%
339	18.488	18.484	18.519	VV	662	7052	0.09%	0.005%
340	18.548	18.519	18.564	PV	3131	45799	0.56%	0.035%
341	18.589	18.564	18.618	VV	5935	132673	1.62%	0.101%
342	18.623	18.618	18.657	VV	2917	40859	0.50%	0.031%
343	18.705	18.657	18.751	PV	16432	286438	3.49%	0.217%
344	18.772	18.751	18.795	PV	1315	16806	0.20%	0.013%

Sum of corrected areas: 131795626

Aromatic EPH 050125.M Fri May 09 09:47:45 2025

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	04/21/25
Project:	NJ Soil PT	Date Received:	04/24/25
Client Sample ID:	HW0425-PT-NJEPH-SOILDL	SDG No.:	Q1872
Lab Sample ID:	Q1872-16DL	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	20.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068796.D	5	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	40.2		1.05	7.49	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	105	E	0.82	5.00	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	105		0.97	7.49	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	14.4		3.97	9.99	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	8.84	U	8.84	15.0	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	10.5		40 - 140	105%	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:	Q1872-16DL	Acq On:	08 May 2025 15:19
Client Sample ID:	HW0425-PT-NJEPH-SOILDL	Operator:	YP/AJ
Data file:	FC068796.D	Misc:	
Instrument:	FID_C	ALS Vial:	15
Dilution Factor:	5	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	7980865	80.507	300	ug/ml
Aliphatic C12-C16	6.643	10.042	19184681	210.857	200	ug/ml
Aliphatic C16-C21	10.043	13.408	18083674	210.863	300	ug/ml
Aliphatic C21-C28	13.409	17.072	2399049	28.873	400	ug/ml
Aliphatic C28-C40	17.073	22.071	828534	9.791	600	ug/ml
Aliphatic EPH	3.342	22.071	48476803	540.889		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.143	13.143	844602	10.53		ug/ml
Aliphatic C9-C28	3.342	17.072	47648269	531.1	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068796.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 15:19
Operator : YP/AJ
Sample : Q1872-16DL 5X
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
HW0425-PT-NJEPH-SOILDL

Integration File: autoint1.e
Quant Time: May 09 09:08:08 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	844602	10.528 ug/ml
Spiked Amount 50.000		Recovery = 21.06%	
Target Compounds			

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

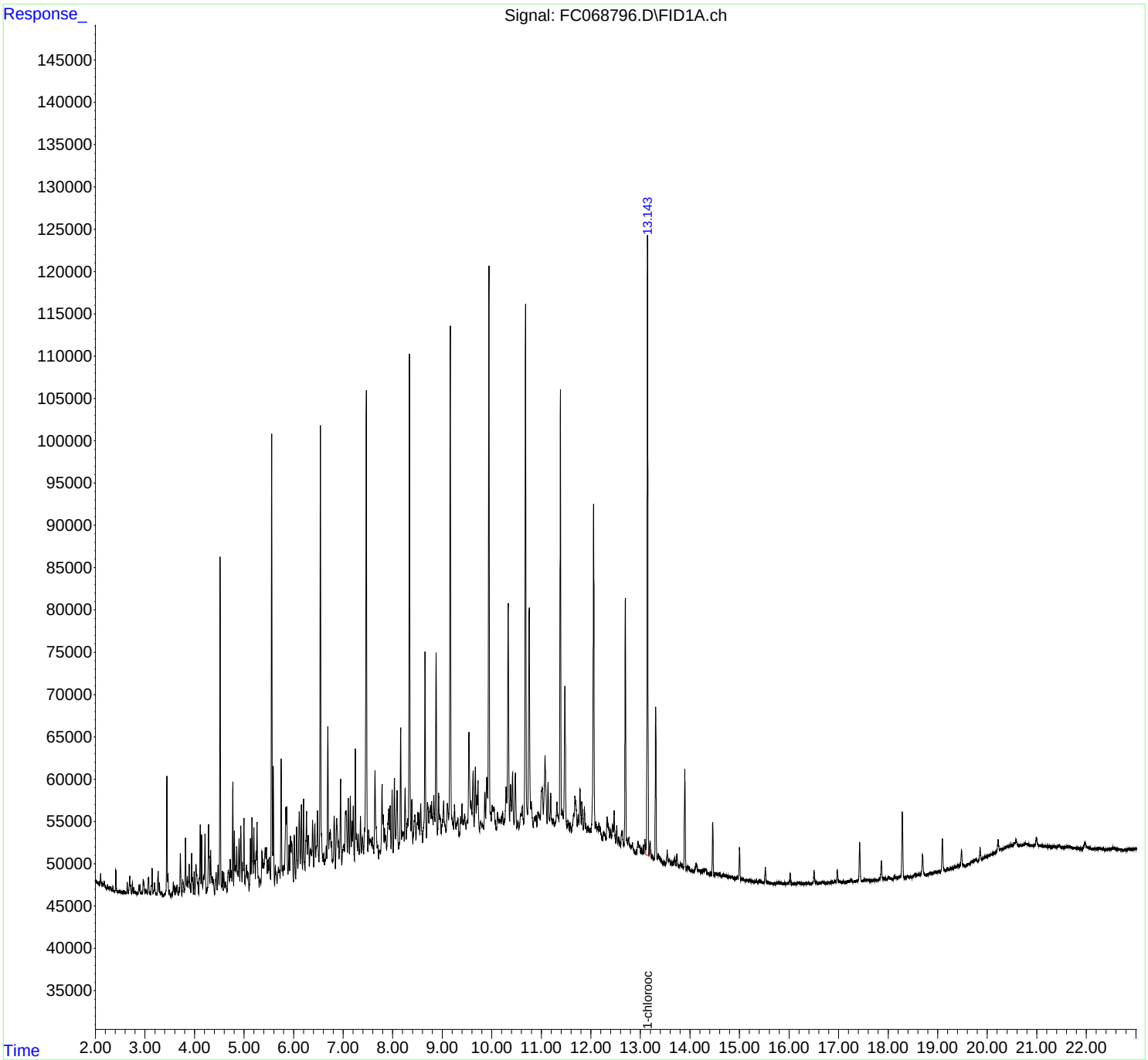
Quantitation Report (QT Reviewed)

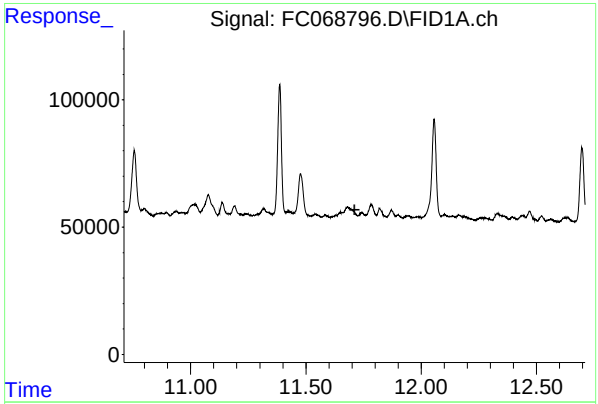
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068796.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 15:19
Operator : YP/AJ
Sample : Q1872-16DL 5X
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
HW0425-PT-NJEPH-SOILDL

Integration File: autoint1.e
Quant Time: May 09 09:08:08 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

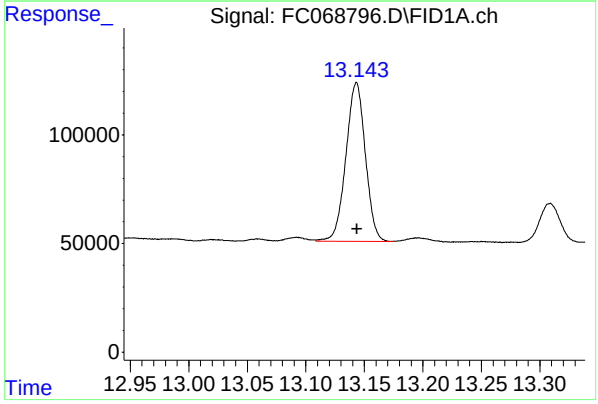




#9 ortho-Terphenyl (SURR)

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

Instrument :
FID_C
ClientSampleId :
HW0425-PT-NJEPH-SOILDL



#12 1-chlorooctadecane (SURR)

R.T.: 13.143 min
Delta R.T.: 0.000 min
Response: 844602
Conc: 10.53 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068796.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 15:19
Sample : Q1872-16DL 5X
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: sample.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	3.266	3.205	3.281	BV	2456	18731	1.63%	0.038%
2	3.291	3.281	3.311	VV	1232	9884	0.86%	0.020%
3	3.338	3.311	3.378	PV	341	4258	0.37%	0.009%
4	3.442	3.378	3.482	PV	14160	154601	13.42%	0.312%
5	3.493	3.482	3.528	VV	704	7976	0.69%	0.016%
6	3.546	3.528	3.556	PV	533	4798	0.42%	0.010%
7	3.573	3.556	3.587	VV	1724	17823	1.55%	0.036%
8	3.597	3.587	3.612	VV	1186	11482	1.00%	0.023%
9	3.625	3.612	3.633	VV	933	8322	0.72%	0.017%
10	3.647	3.633	3.674	VV	1309	17459	1.52%	0.035%
11	3.689	3.674	3.697	VV	1000	7936	0.69%	0.016%
12	3.715	3.697	3.743	VV	4980	60471	5.25%	0.122%
13	3.764	3.743	3.791	VV	1830	31537	2.74%	0.064%
14	3.818	3.791	3.841	VV	6843	78884	6.85%	0.159%
15	3.855	3.841	3.868	VV	2357	26514	2.30%	0.054%
16	3.893	3.868	3.927	VV	3626	61107	5.30%	0.123%
17	3.943	3.927	3.977	VV	4965	64037	5.56%	0.129%
18	3.993	3.977	4.009	VV	2853	26144	2.27%	0.053%
19	4.030	4.009	4.085	VV	3650	85074	7.38%	0.172%
20	4.116	4.085	4.131	VV	8310	100449	8.72%	0.203%
21	4.144	4.131	4.165	VV	7099	72508	6.29%	0.146%
22	4.182	4.165	4.191	VV	2291	28314	2.46%	0.057%
23	4.212	4.191	4.236	VV	7330	88933	7.72%	0.180%
24	4.283	4.236	4.311	VV	8270	129716	11.26%	0.262%
25	4.326	4.311	4.351	VV	5313	73684	6.40%	0.149%
26	4.362	4.351	4.405	VV	2106	44737	3.88%	0.090%
27	4.436	4.405	4.454	VV	2694	43584	3.78%	0.088%
28	4.476	4.454	4.494	VV	3644	51533	4.47%	0.104%
29	4.517	4.494	4.545	VV	39855	379343	32.93%	0.766%
30	4.564	4.545	4.578	VV	2829	32726	2.84%	0.066%
31	4.592	4.578	4.613	VV	2626	34663	3.01%	0.070%
32	4.626	4.613	4.654	VV	1472	26489	2.30%	0.054%
33	4.684	4.654	4.707	VV	2924	64492	5.60%	0.130%
34	4.722	4.707	4.735	VV	4248	49184	4.27%	0.099%
35	4.744	4.735	4.755	VV	2853	29663	2.57%	0.060%
36	4.773	4.755	4.790	VV	13124	129704	11.26%	0.262%

37	4.805	4.790	4.819	VV	7579	79252	6.88%	0.160%
38	4.827	4.819	4.837	VV	3520	34744	3.02%	0.070%
39	4.852	4.837	4.880	VV	5703	91276	7.92%	0.184%
40	4.898	4.880	4.914	VV	6640	82912	7.20%	0.167%
41	4.935	4.914	4.959	VV	8140	122905	10.67%	0.248%
42	4.998	4.959	5.017	VV	9009	145008	12.59%	0.293%
43	5.049	5.017	5.062	VV	3527	67731	5.88%	0.137%
44	5.072	5.062	5.102	VV	2756	49178	4.27%	0.099%
45	5.129	5.102	5.142	VV	6577	78707	6.83%	0.159%
46	5.161	5.142	5.184	VV	9091	133560	11.59%	0.270%
47	5.199	5.184	5.229	VV	7870	120717	10.48%	0.244%
48	5.262	5.229	5.306	VV	8532	180245	15.65%	0.364%
49	5.322	5.306	5.340	VV	1842	30906	2.68%	0.062%
50	5.362	5.340	5.393	VV	5113	110713	9.61%	0.224%
51	5.428	5.393	5.442	VV	5480	127223	11.04%	0.257%
52	5.452	5.442	5.468	VV	5521	67971	5.90%	0.137%
53	5.484	5.468	5.498	VV	4072	62018	5.38%	0.125%
54	5.512	5.498	5.533	VV	4370	66384	5.76%	0.134%
55	5.558	5.533	5.577	VV	54364	548213	47.59%	1.107%
56	5.590	5.577	5.616	VV	14929	176460	15.32%	0.356%
57	5.632	5.616	5.667	VV	3416	70838	6.15%	0.143%
58	5.695	5.667	5.727	VV	3105	90933	7.89%	0.184%
59	5.749	5.727	5.788	VV	15890	226222	19.64%	0.457%
60	5.805	5.788	5.815	VV	3404	48469	4.21%	0.098%
61	5.845	5.815	5.887	VV	10241	283988	24.65%	0.574%
62	5.908	5.887	5.921	VV	5832	81357	7.06%	0.164%
63	5.937	5.921	5.949	VV	6791	89118	7.74%	0.180%
64	5.961	5.949	5.996	VV	6196	131267	11.39%	0.265%
65	6.015	5.996	6.040	VV	6902	106785	9.27%	0.216%
66	6.062	6.040	6.086	VV	7877	132434	11.50%	0.267%
67	6.115	6.086	6.136	VV	9657	181486	15.75%	0.367%
68	6.158	6.136	6.179	VV	10519	163063	14.15%	0.329%
69	6.201	6.179	6.228	VV	11110	168967	14.67%	0.341%
70	6.261	6.228	6.278	VV	9727	183537	15.93%	0.371%
71	6.300	6.278	6.320	VV	6932	141923	12.32%	0.287%
72	6.336	6.320	6.368	VV	5249	136219	11.82%	0.275%
73	6.384	6.368	6.407	VV	8702	140828	12.22%	0.284%
74	6.429	6.407	6.447	VV	8211	137412	11.93%	0.278%
75	6.483	6.447	6.515	VV	9766	245004	21.27%	0.495%
76	6.542	6.515	6.597	VV	55151	733124	63.64%	1.481%
77	6.609	6.597	6.625	VV	4601	67881	5.89%	0.137%
78	6.659	6.625	6.670	VV	5590	119496	10.37%	0.241%
79	6.692	6.670	6.712	VV	19706	265556	23.05%	0.536%
80	6.741	6.712	6.785	VV	7540	264245	22.94%	0.534%
81	6.820	6.785	6.844	VV	8997	201460	17.49%	0.407%
82	6.871	6.844	6.918	VV	8761	271220	23.54%	0.548%
83	6.949	6.918	6.974	VV	13404	239915	20.83%	0.485%
84	7.017	6.974	7.028	VV	5807	162667	14.12%	0.329%
85	7.060	7.028	7.086	VV	9714	274111	23.79%	0.554%
86	7.104	7.086	7.128	VV	11123	190002	16.49%	0.384%
87	7.146	7.128	7.166	VV	11270	174060	15.11%	0.352%
88	7.180	7.166	7.191	VV	8436	107074	9.29%	0.216%
89	7.204	7.191	7.227	VV	10299	152844	13.27%	0.309%

90	7.247	7.227	7.290	VV	16938	318443	27.64%	0.643%
91	7.305	7.290	7.322	VV	6892	110490	9.59%	0.223%
92	7.351	7.322	7.369	VV	9004	176087	15.29%	0.356%
93	7.391	7.369	7.412	VV	6565	147853	12.83%	0.299%
94	7.468	7.412	7.499	VV	59366	927470	80.51%	1.873%
95	7.516	7.499	7.535	VV	7415	133349	11.58%	0.269%
96	7.552	7.535	7.578	VV	6279	156428	13.58%	0.316%
97	7.588	7.578	7.618	VV	6509	136227	11.83%	0.275%
98	7.644	7.618	7.691	VV	14341	359976	31.25%	0.727%
99	7.698	7.691	7.716	VV	5569	75618	6.56%	0.153%
100	7.738	7.716	7.754	VV	4918	108635	9.43%	0.219%
101	7.786	7.754	7.801	VV	12542	233772	20.29%	0.472%
102	7.810	7.801	7.826	VV	9153	116976	10.15%	0.236%
103	7.838	7.826	7.879	VV	7547	202489	17.58%	0.409%
104	7.921	7.879	7.935	VV	9803	266281	23.11%	0.538%
105	7.948	7.935	7.968	VV	10234	153930	13.36%	0.311%
106	7.989	7.968	8.011	VV	12039	202074	17.54%	0.408%
107	8.036	8.011	8.058	VV	13386	245129	21.28%	0.495%
108	8.090	8.058	8.119	VV	11805	302867	26.29%	0.612%
109	8.162	8.119	8.181	VV	19387	355308	30.84%	0.718%
110	8.217	8.181	8.231	VV	7077	205711	17.86%	0.416%
111	8.251	8.231	8.275	VV	12248	227384	19.74%	0.459%
112	8.301	8.275	8.311	VV	8609	167874	14.57%	0.339%
113	8.339	8.311	8.370	VV	63559	848341	73.64%	1.714%
114	8.388	8.370	8.408	VV	10946	190414	16.53%	0.385%
115	8.451	8.408	8.471	VV	9049	287362	24.94%	0.580%
116	8.509	8.471	8.521	VV	9356	240525	20.88%	0.486%
117	8.532	8.521	8.548	VV	9263	128053	11.12%	0.259%
118	8.567	8.548	8.605	VV	10330	271605	23.58%	0.549%
119	8.654	8.605	8.683	VV	28154	541476	47.00%	1.094%
120	8.704	8.683	8.731	VV	10285	256694	22.28%	0.518%
121	8.762	8.731	8.774	VV	10095	241924	21.00%	0.489%
122	8.786	8.774	8.816	VV	10598	230109	19.97%	0.465%
123	8.832	8.816	8.854	VV	11262	217342	18.87%	0.439%
124	8.877	8.854	8.903	VV	28071	449292	39.00%	0.908%
125	8.930	8.903	8.980	VV	11492	402540	34.94%	0.813%
126	9.028	8.980	9.077	VV	10624	481861	41.83%	0.973%
127	9.107	9.077	9.128	VV	10329	273179	23.71%	0.552%
128	9.163	9.128	9.230	VV	66116	1152000	100.00%	2.327%
129	9.248	9.230	9.278	VV	10130	247108	21.45%	0.499%
130	9.318	9.278	9.342	VV	8659	298745	25.93%	0.603%
131	9.373	9.342	9.383	VV	8764	186725	16.21%	0.377%
132	9.399	9.383	9.416	VV	10262	179759	15.60%	0.363%
133	9.424	9.416	9.434	VV	8240	89156	7.74%	0.180%
134	9.452	9.434	9.481	VV	9099	230029	19.97%	0.465%
135	9.541	9.481	9.598	VV	18636	757539	65.76%	1.530%
136	9.623	9.598	9.645	VV	14083	305714	26.54%	0.618%
137	9.669	9.645	9.688	VV	14600	286228	24.85%	0.578%
138	9.702	9.688	9.710	VV	11243	134972	11.72%	0.273%
139	9.722	9.710	9.751	VV	12896	245772	21.33%	0.496%
140	9.778	9.751	9.798	VV	8107	219311	19.04%	0.443%
141	9.809	9.798	9.835	VV	7848	166114	14.42%	0.336%

142	9.861	9.835	9.877	VV	11515	238665	20.72%	0.482%
143	9.901	9.877	9.917	VV	13313	278533	24.18%	0.563%
144	9.943	9.917	9.991	VV	74081	1090293	94.64%	2.202%
145	10.009	9.991	10.019	VV	9978	157437	13.67%	0.318%
146	10.028	10.019	10.038	VV	9683	106843	9.27%	0.216%
147	10.047	10.038	10.094	VV	9765	281825	24.46%	0.569%
148	10.119	10.094	10.170	VV	9114	375608	32.60%	0.759%
149	10.192	10.170	10.204	VV	8584	171936	14.92%	0.347%
150	10.221	10.204	10.241	VV	9298	189329	16.43%	0.382%
151	10.290	10.241	10.304	VV	12071	359041	31.17%	0.725%
152	10.332	10.304	10.361	VV	33791	627375	54.46%	1.267%
153	10.381	10.361	10.402	VV	12327	254236	22.07%	0.514%
154	10.421	10.402	10.450	VV	13860	307618	26.70%	0.621%
155	10.477	10.450	10.510	VV	13893	357743	31.05%	0.723%
156	10.527	10.510	10.546	VV	8070	168505	14.63%	0.340%
157	10.615	10.546	10.644	VV	9738	498775	43.30%	1.007%
158	10.682	10.644	10.725	VV	68258	1112007	96.53%	2.246%
159	10.756	10.725	10.788	VV	33252	680833	59.10%	1.375%
160	10.800	10.788	10.837	VV	10339	266403	23.13%	0.538%
161	10.872	10.837	10.884	VV	8497	229255	19.90%	0.463%
162	10.895	10.884	10.912	VV	8806	140607	12.21%	0.284%
163	10.937	10.912	10.954	VV	9187	217219	18.86%	0.439%
164	10.966	10.954	10.979	VV	8819	129895	11.28%	0.262%
165	11.016	10.979	11.042	VV	11960	399939	34.72%	0.808%
166	11.077	11.042	11.117	VV	15776	519845	45.13%	1.050%
167	11.138	11.117	11.170	VV	12637	305347	26.51%	0.617%
168	11.190	11.170	11.227	VV	11373	309474	26.86%	0.625%
169	11.240	11.227	11.268	VV	8296	195344	16.96%	0.395%
170	11.317	11.268	11.355	VV	10238	450429	39.10%	0.910%
171	11.386	11.355	11.415	VV	59539	863540	74.96%	1.744%
172	11.424	11.415	11.445	VV	9110	162101	14.07%	0.327%
173	11.477	11.445	11.521	VV	23805	587992	51.04%	1.188%
174	11.541	11.521	11.567	VV	8040	211286	18.34%	0.427%
175	11.584	11.567	11.604	VV	7596	161657	14.03%	0.327%
176	11.680	11.604	11.725	VV	10918	628522	54.56%	1.270%
177	11.743	11.725	11.759	VV	8684	167693	14.56%	0.339%
178	11.783	11.759	11.805	VV	11605	262745	22.81%	0.531%
179	11.820	11.805	11.850	VV	10237	227405	19.74%	0.459%
180	11.871	11.850	11.889	VV	9672	191920	16.66%	0.388%
181	11.898	11.889	11.919	VV	7690	131339	11.40%	0.265%
182	11.943	11.919	11.969	VV	7419	206744	17.95%	0.418%
183	11.987	11.969	12.001	VV	6912	133335	11.57%	0.269%
184	12.056	12.001	12.088	VV	45479	879612	76.36%	1.777%
185	12.101	12.088	12.119	VV	7836	138534	12.03%	0.280%
186	12.136	12.119	12.148	VV	7275	122051	10.59%	0.247%
187	12.163	12.148	12.179	VV	7640	138635	12.03%	0.280%
188	12.187	12.179	12.238	VV	7161	222392	19.30%	0.449%
189	12.260	12.238	12.308	VV	6555	261937	22.74%	0.529%
190	12.331	12.308	12.381	VV	8392	312499	27.13%	0.631%
191	12.396	12.381	12.414	VV	6869	127014	11.03%	0.257%
192	12.438	12.414	12.453	VV	7392	161494	14.02%	0.326%
193	12.470	12.453	12.503	VV	9151	213630	18.54%	0.432%
194	12.522	12.503	12.542	VV	7327	144590	12.55%	0.292%

rteres

195	12.562	12.542	12.598	VV	5984	181540	15.76%	0.367%
196	12.626	12.598	12.661	VV	6641	224013	19.45%	0.452%
197	12.697	12.661	12.744	VV	34015	613415	53.25%	1.239%
198	12.762	12.744	12.808	VV	5853	202687	17.59%	0.409%
199	12.840	12.808	12.908	VV	5283	272777	23.68%	0.551%
200	12.919	12.908	12.930	VV	4429	57689	5.01%	0.117%
201	12.950	12.930	12.974	VV	5427	131382	11.40%	0.265%
202	12.986	12.974	13.006	VV	4946	89764	7.79%	0.181%
203	13.021	13.006	13.041	VV	4607	90478	7.85%	0.183%
204	13.059	13.041	13.073	VV	4937	85711	7.44%	0.173%
205	13.092	13.073	13.108	VV	5646	101296	8.79%	0.205%
206	13.143	13.108	13.175	VV	76924	998602	86.68%	2.017%
207	13.196	13.175	13.225	VV	5379	132933	11.54%	0.269%
208	13.250	13.225	13.268	VV	3761	92703	8.05%	0.187%
209	13.309	13.268	13.340	VV	21287	361256	31.36%	0.730%
210	13.360	13.340	13.375	VV	3891	74756	6.49%	0.151%
211	13.388	13.375	13.460	VV	3652	164019	14.24%	0.331%
212	13.481	13.460	13.508	VV	3059	81227	7.05%	0.164%
213	13.541	13.508	13.571	VV	4260	129477	11.24%	0.262%
214	13.581	13.571	13.604	VV	3287	61492	5.34%	0.124%
215	13.617	13.604	13.640	VV	3029	60655	5.27%	0.123%
216	13.660	13.640	13.672	VV	3023	54056	4.69%	0.109%
217	13.691	13.672	13.715	VV	3432	77797	6.75%	0.157%
218	13.735	13.715	13.788	VV	3913	125875	10.93%	0.254%
219	13.808	13.788	13.830	VV	2720	64509	5.60%	0.130%
220	13.842	13.830	13.864	VV	2730	51173	4.44%	0.103%
221	13.895	13.864	13.937	VV	13747	231742	20.12%	0.468%
222	13.956	13.937	13.975	VV	2399	50799	4.41%	0.103%
223	13.981	13.975	14.030	VV	2351	67457	5.86%	0.136%
224	14.051	14.030	14.068	VV	1954	42362	3.68%	0.086%
225	14.127	14.068	14.181	VV	2689	143420	12.45%	0.290%
226	14.190	14.181	14.212	VV	1948	34466	2.99%	0.070%
227	14.229	14.212	14.244	VV	1883	34160	2.97%	0.069%
228	14.262	14.244	14.281	VV	1949	40835	3.54%	0.082%
229	14.321	14.281	14.355	VV	2051	80772	7.01%	0.163%
230	14.363	14.355	14.398	VV	1561	38405	3.33%	0.078%
231	14.418	14.398	14.432	VV	1658	30645	2.66%	0.062%
232	14.459	14.432	14.504	VV	7444	130899	11.36%	0.264%
233	14.527	14.504	14.548	VV	1519	37438	3.25%	0.076%
234	14.562	14.548	14.570	VV	1458	18227	1.58%	0.037%
235	14.592	14.570	14.636	VV	1549	53122	4.61%	0.107%
236	14.668	14.636	14.704	VV	1393	50253	4.36%	0.102%
237	14.723	14.704	14.765	VV	1283	42921	3.73%	0.087%
238	14.781	14.765	14.793	VV	1128	18598	1.61%	0.038%
239	14.808	14.793	14.825	VV	1140	20787	1.80%	0.042%
240	14.855	14.825	14.875	VV	1161	31395	2.73%	0.063%
241	14.889	14.875	14.921	VV	1032	25001	2.17%	0.050%
242	14.956	14.921	14.972	VV	1118	28665	2.49%	0.058%
243	14.999	14.972	15.028	VV	4434	71537	6.21%	0.144%
244	15.042	15.028	15.125	VV	813	42264	3.67%	0.085%
245	15.152	15.125	15.178	VV	720	20052	1.74%	0.041%
246	15.194	15.178	15.221	VV	699	16307	1.42%	0.033%

247	15.230	15.221	15.278	VV	562	18583	1.61%	0.038%
248	15.305	15.294	15.327	VV	477	8976	0.78%	0.018%
249	15.338	15.327	15.367	VV	494	10883	0.94%	0.022%
250	15.384	15.367	15.398	VV	560	8373	0.73%	0.017%
251	15.423	15.398	15.490	VV	579	23059	2.00%	0.047%
252	15.521	15.490	15.568	VV	2116	37258	3.23%	0.075%
253	15.577	15.568	15.619	VV	378	9046	0.79%	0.018%
254	15.625	15.619	15.657	VV	274	5348	0.46%	0.011%
255	15.668	15.657	15.682	VV	248	2972	0.26%	0.006%
256	15.710	15.682	15.765	VV	285	10743	0.93%	0.022%
257	15.791	15.765	15.828	VV	330	9435	0.82%	0.019%
258	15.838	15.828	15.871	VV	208	4690	0.41%	0.009%
259	15.883	15.871	15.888	VV	197	1912	0.17%	0.004%
260	15.894	15.888	15.936	VV	233	4713	0.41%	0.010%
261	15.951	15.936	15.971	VV	248	3682	0.32%	0.007%
262	15.982	15.971	15.997	VV	331	3708	0.32%	0.007%
263	16.022	15.997	16.061	VV	1290	19611	1.70%	0.040%
264	16.127	16.104	16.145	VV	159	2527	0.22%	0.005%
265	16.200	16.145	16.288	VV	284	11745	1.02%	0.024%
266	16.328	16.288	16.361	PV	215	5213	0.45%	0.011%
267	16.379	16.361	16.387	VV	168	1851	0.16%	0.004%
268	16.397	16.387	16.418	VV	138	1705	0.15%	0.003%
269	16.425	16.418	16.441	VV	120	897	0.08%	0.002%
270	16.505	16.441	16.568	PV	1573	29079	2.52%	0.059%
271	16.575	16.568	16.585	VV	43	480	0.04%	0.001%
272	16.670	16.585	16.698	VV	266	9360	0.81%	0.019%
273	16.716	16.698	16.768	VV	152	3725	0.32%	0.008%
274	16.819	16.768	16.831	PV	132	3374	0.29%	0.007%
275	16.865	16.831	16.897	VV	236	5116	0.44%	0.010%
276	16.973	16.897	17.015	VV	1570	28721	2.49%	0.058%
277	17.024	17.015	17.047	VV	162	1754	0.15%	0.004%
278	17.059	17.047	17.090	VV	87	1720	0.15%	0.003%
279	17.100	17.090	17.138	VV	152	1555	0.14%	0.003%
280	17.151	17.138	17.168	VV	85	958	0.08%	0.002%
281	17.248	17.168	17.288	VV	211	7850	0.68%	0.016%
282	17.312	17.288	17.341	VV	127	2008	0.17%	0.004%
283	17.424	17.341	17.478	VV	4633	66969	5.81%	0.135%
284	17.524	17.478	17.538	VV	188	3168	0.28%	0.006%
285	17.556	17.538	17.567	VV	217	2465	0.21%	0.005%
286	17.596	17.567	17.627	VV	181	3888	0.34%	0.008%
287	17.638	17.627	17.665	VV	112	879	0.08%	0.002%
288	17.717	17.665	17.745	PV	159	3351	0.29%	0.007%
289	17.748	17.745	17.759	VV	100	392	0.03%	0.001%
290	17.779	17.759	17.789	PV	65	864	0.07%	0.002%
291	17.862	17.789	17.891	VV	2266	36734	3.19%	0.074%
292	17.909	17.891	17.958	VV	196	4616	0.40%	0.009%
293	17.969	17.958	17.975	VV	60	580	0.05%	0.001%
294	18.023	17.975	18.076	VV	362	9324	0.81%	0.019%
295	18.135	18.076	18.172	PV	298	6375	0.55%	0.013%
296	18.190	18.172	18.204	VV	192	2610	0.23%	0.005%
297	18.237	18.204	18.251	VV	327	6161	0.53%	0.012%
298	18.285	18.251	18.340	VV	7844	112228	9.74%	0.227%
299	18.389	18.340	18.408	VV	240	4735	0.41%	0.010%

					rteres			
300	18.420	18.408	18.481	VV	117	2585	0.22%	0.005%
301	18.552	18.481	18.578	PV	324	9819	0.85%	0.020%
302	18.585	18.578	18.594	VV	199	1601	0.14%	0.003%
303	18.602	18.594	18.615	VV	177	1782	0.15%	0.004%
304	18.694	18.615	18.798	VV	2435	45293	3.93%	0.091%
305	18.864	18.798	18.878	VV	194	5931	0.51%	0.012%
306	18.950	18.878	18.977	VV	276	6534	0.57%	0.013%
307	18.989	18.977	19.001	VV	190	1798	0.16%	0.004%
308	19.024	19.001	19.051	VV	228	3884	0.34%	0.008%
309	19.094	19.051	19.128	VV	3976	61453	5.33%	0.124%
310	19.137	19.128	19.175	VV	263	5884	0.51%	0.012%
311	19.203	19.175	19.231	VV	376	8489	0.74%	0.017%
312	19.271	19.231	19.305	VV	359	11125	0.97%	0.022%
313	19.340	19.305	19.351	VV	424	8885	0.77%	0.018%
314	19.415	19.351	19.441	VV	494	21321	1.85%	0.043%
315	19.480	19.441	19.521	VV	2250	44392	3.85%	0.090%
316	19.530	19.521	19.557	VV	417	7131	0.62%	0.014%
317	19.724	19.557	19.738	VV	788	55511	4.82%	0.112%
318	19.765	19.738	19.814	VV	895	33061	2.87%	0.067%
319	19.856	19.814	19.887	VV	2162	49278	4.28%	0.100%
320	19.957	19.887	19.968	VV	1048	42611	3.70%	0.086%
321	19.981	19.968	19.995	VV	991	15241	1.32%	0.031%
322	20.029	19.995	20.049	VV	1121	33979	2.95%	0.069%
323	20.105	20.049	20.113	VV	1173	42581	3.70%	0.086%
324	20.134	20.113	20.155	VV	1299	30655	2.66%	0.062%
			Sum of corrected areas:			49508283		

Aliphatic EPH 050625.M Fri May 09 10:24:07 2025

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	04/21/25
Project:	NJ Soil PT	Date Received:	04/24/25
Client Sample ID:	HW0425-PT-NJEPH-SOILDL2	SDG No.:	Q1872
Lab Sample ID:	Q1872-16DL2	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	20.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FC068797.D	10	05/07/25	05/08/25	PB167903

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C12	Aliphatic C9-C12	41.2		2.10	15.0	mg/kg
Aliphatic C12-C16	Aliphatic C12-C16	110		1.65	9.99	mg/kg
Aliphatic C16-C21	Aliphatic C16-C21	113		1.95	15.0	mg/kg
Aliphatic C21-C28	Aliphatic C21-C28	15.7	J	7.94	20.0	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	17.7	U	17.7	30.0	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	5.69		40 - 140	114%	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:	Q1872-16DL2	Acq On:	08 May 2025 15:57
Client Sample ID:	HW0425-PT-NJEPH-SOILDL2	Operator:	YP/AJ
Data file:	FC068797.D	Misc:	
Instrument:	FID_C	ALS Vial:	16
Dilution Factor:	10	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.342	6.642	4092275	41.281	300	ug/ml
Aliphatic C12-C16	6.643	10.042	10088546	110.882	200	ug/ml
Aliphatic C16-C21	10.043	13.408	9713408	113.262	300	ug/ml
Aliphatic C21-C28	13.409	17.072	1306023	15.718	400	ug/ml
Aliphatic C28-C40	17.073	22.071	506760	5.988	600	ug/ml
Aliphatic EPH	3.342	22.071	25707012	287.131		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	13.141	13.141	456659	5.69		ug/ml
Aliphatic C9-C28	3.342	17.072	25200252	281.143	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068797.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 15:57
Operator : YP/AJ
Sample : Q1872-16DL2 10X
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
HW0425-PT-NJEPH-SOILDL2

Integration File: autoint1.e
Quant Time: May 09 09:08:19 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...	13.141	456659	5.692 ug/ml
Spiked Amount 50.000		Recovery = 11.38%	
Target Compounds			

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

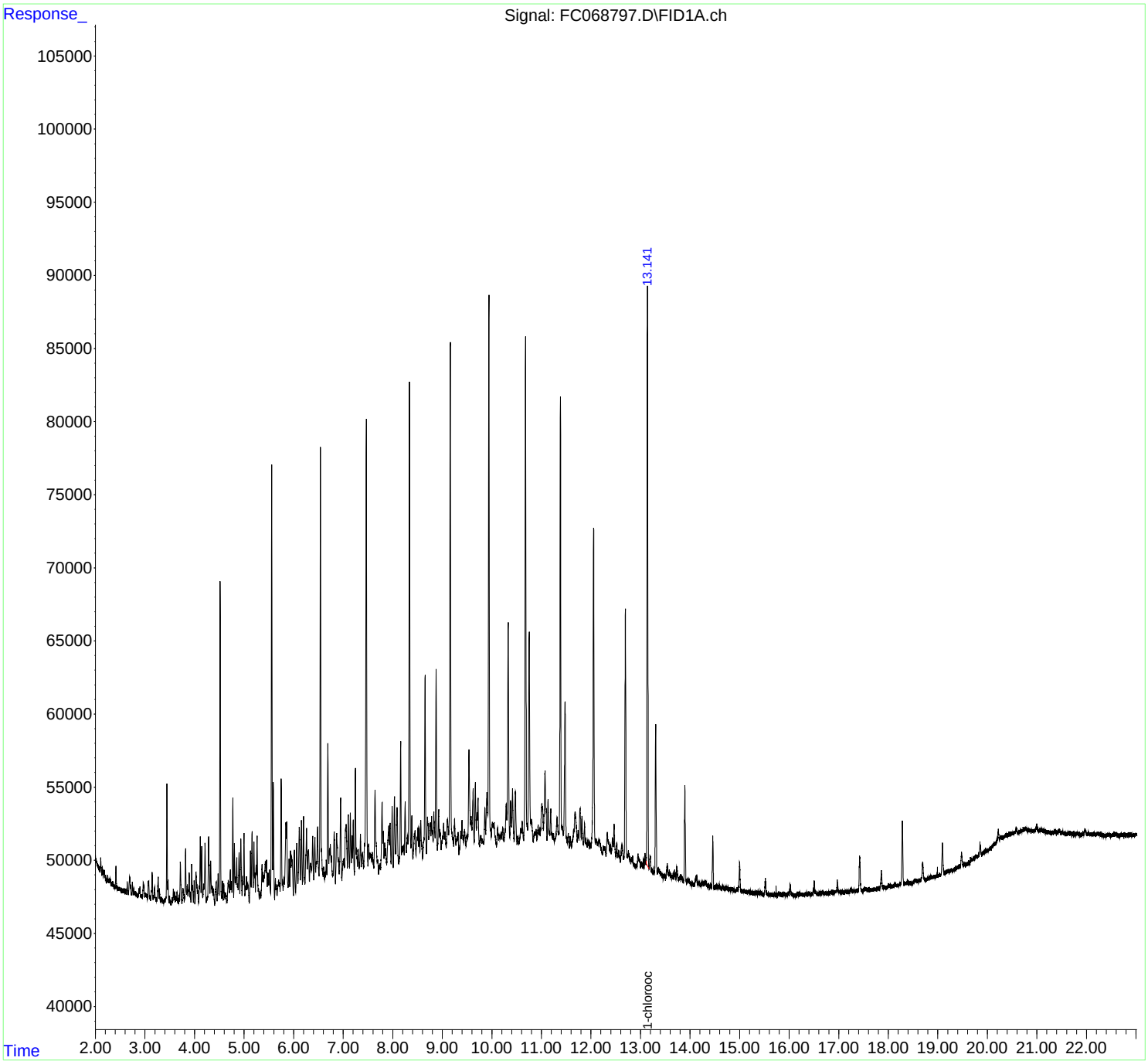
Quantitation Report (QT Reviewed)

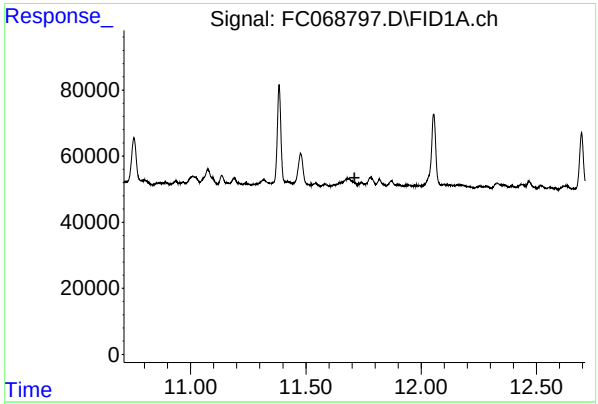
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068797.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 15:57
Operator : YP/AJ
Sample : Q1872-16DL2 10X
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
HW0425-PT-NJEPH-SOILDL2

Integration File: autoint1.e
Quant Time: May 09 09:08:19 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

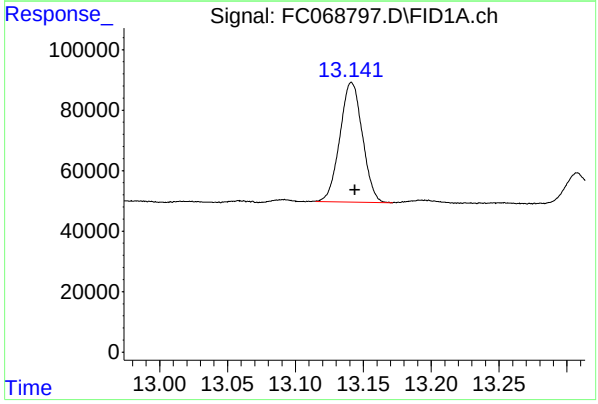




#9 ortho-Terphenyl (SURR)

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

Instrument :
FID_C
ClientSampleId :
HW0425-PT-NJEPH-SOILDL2



#12 1-chlorooctadecane (SURR)

R.T.: 13.141 min
Delta R.T.: -0.003 min
Response: 456659
Conc: 5.69 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068797.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 15:57
Sample : Q1872-16DL2 10X
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: sample.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	3.266	3.204	3.281	BV	1387	10914	1.71%	0.042%
2	3.291	3.281	3.326	VV	650	4580	0.72%	0.017%
3	3.338	3.326	3.381	VV	180	1572	0.25%	0.006%
4	3.398	3.381	3.407	PV	195	1837	0.29%	0.007%
5	3.443	3.407	3.482	VV	7908	85273	13.36%	0.325%
6	3.494	3.482	3.531	VV	458	5334	0.84%	0.020%
7	3.547	3.531	3.557	PV	317	3095	0.48%	0.012%
8	3.573	3.557	3.587	VV	990	10499	1.64%	0.040%
9	3.598	3.587	3.611	VV	718	6264	0.98%	0.024%
10	3.624	3.611	3.633	VV	487	4582	0.72%	0.017%
11	3.647	3.633	3.674	VV	734	9688	1.52%	0.037%
12	3.715	3.674	3.745	VV	2848	38647	6.05%	0.147%
13	3.764	3.745	3.791	VV	983	16884	2.64%	0.064%
14	3.819	3.791	3.842	VV	3710	43877	6.87%	0.167%
15	3.855	3.842	3.868	VV	1285	14243	2.23%	0.054%
16	3.893	3.868	3.927	VV	2002	33199	5.20%	0.126%
17	3.943	3.927	3.977	VV	2611	34070	5.34%	0.130%
18	3.993	3.977	4.009	VV	1545	13759	2.15%	0.052%
19	4.030	4.009	4.083	VV	2050	44924	7.04%	0.171%
20	4.116	4.083	4.131	VV	4560	54175	8.48%	0.206%
21	4.145	4.131	4.165	VV	3915	39621	6.21%	0.151%
22	4.212	4.165	4.237	VV	4020	62923	9.86%	0.240%
23	4.284	4.237	4.311	VV	4524	70114	10.98%	0.267%
24	4.326	4.311	4.352	VV	2866	39183	6.14%	0.149%
25	4.362	4.352	4.406	VV	1106	21714	3.40%	0.083%
26	4.436	4.406	4.455	PV	1475	21685	3.40%	0.083%
27	4.476	4.455	4.493	VV	1982	25329	3.97%	0.096%
28	4.517	4.493	4.546	VV	21974	209321	32.78%	0.797%
29	4.564	4.546	4.578	VV	1539	15388	2.41%	0.059%
30	4.592	4.578	4.614	VV	1336	16311	2.55%	0.062%
31	4.626	4.614	4.658	VV	709	11853	1.86%	0.045%
32	4.683	4.658	4.707	VV	1499	31379	4.91%	0.119%
33	4.722	4.707	4.735	VV	2246	24847	3.89%	0.095%
34	4.744	4.735	4.755	VV	1399	14356	2.25%	0.055%
35	4.773	4.755	4.790	VV	7194	69001	10.81%	0.263%
36	4.805	4.790	4.837	VV	4014	57877	9.06%	0.220%

37	4.852	4.837	4.880	VV	2973	45305	7.10%	0.172%
38	4.899	4.880	4.914	VV	3353	41194	6.45%	0.157%
39	4.935	4.914	4.959	VV	4375	62460	9.78%	0.238%
40	4.999	4.959	5.018	VV	4798	72337	11.33%	0.275%
41	5.048	5.018	5.061	VV	1774	31198	4.89%	0.119%
42	5.071	5.061	5.102	VV	1329	22384	3.51%	0.085%
43	5.129	5.102	5.143	VV	3485	38757	6.07%	0.148%
44	5.161	5.143	5.184	VV	4881	68218	10.68%	0.260%
45	5.199	5.184	5.229	VV	4182	60520	9.48%	0.230%
46	5.262	5.229	5.306	VV	4467	87816	13.75%	0.334%
47	5.321	5.306	5.340	VV	765	12009	1.88%	0.046%
48	5.362	5.340	5.394	VV	2589	52735	8.26%	0.201%
49	5.429	5.394	5.442	VV	2813	63473	9.94%	0.242%
50	5.453	5.442	5.469	VV	2923	33462	5.24%	0.127%
51	5.484	5.469	5.499	VV	1958	29511	4.62%	0.112%
52	5.512	5.499	5.533	VV	2165	30423	4.76%	0.116%
53	5.558	5.533	5.577	VV	29791	298780	46.79%	1.138%
54	5.591	5.577	5.615	VV	8140	91767	14.37%	0.349%
55	5.633	5.615	5.644	VV	1661	19030	2.98%	0.072%
56	5.651	5.644	5.667	VV	1157	12246	1.92%	0.047%
57	5.696	5.667	5.726	VV	1490	40112	6.28%	0.153%
58	5.749	5.726	5.788	VV	8377	114657	17.96%	0.437%
59	5.806	5.788	5.815	VV	1658	22339	3.50%	0.085%
60	5.844	5.815	5.888	VV	5375	145546	22.80%	0.554%
61	5.908	5.888	5.921	VV	2965	38295	6.00%	0.146%
62	5.937	5.921	5.950	VV	3490	45317	7.10%	0.173%
63	5.961	5.950	5.996	VV	3121	62880	9.85%	0.239%
64	6.014	5.996	6.040	VV	3539	50152	7.85%	0.191%
65	6.062	6.040	6.086	VV	3983	64795	10.15%	0.247%
66	6.115	6.086	6.136	VV	5068	91685	14.36%	0.349%
67	6.158	6.136	6.179	VV	5574	82625	12.94%	0.315%
68	6.201	6.179	6.228	VV	5805	84599	13.25%	0.322%
69	6.261	6.228	6.277	VV	5034	91877	14.39%	0.350%
70	6.299	6.277	6.319	VV	3609	71024	11.12%	0.270%
71	6.337	6.319	6.364	VV	2558	62798	9.84%	0.239%
72	6.385	6.364	6.407	VV	4507	76278	11.95%	0.290%
73	6.428	6.407	6.446	VV	4303	69072	10.82%	0.263%
74	6.483	6.446	6.511	VV	5156	122298	19.15%	0.466%
75	6.542	6.511	6.596	VV	30991	397796	62.30%	1.514%
76	6.609	6.596	6.624	VV	2320	33253	5.21%	0.127%
77	6.659	6.624	6.670	VV	2812	59181	9.27%	0.225%
78	6.692	6.670	6.711	VV	10812	138855	21.75%	0.529%
79	6.741	6.711	6.785	VV	3966	134823	21.12%	0.513%
80	6.819	6.785	6.844	VV	4778	101291	15.86%	0.386%
81	6.869	6.844	6.917	VV	4654	137614	21.55%	0.524%
82	6.949	6.917	6.974	VV	7097	124240	19.46%	0.473%
83	7.015	6.974	7.027	VV	2923	80045	12.54%	0.305%
84	7.058	7.027	7.086	VV	5171	142803	22.37%	0.544%
85	7.104	7.086	7.127	VV	5843	98258	15.39%	0.374%
86	7.145	7.127	7.165	VV	6036	90389	14.16%	0.344%
87	7.179	7.165	7.190	VV	4486	55614	8.71%	0.212%
88	7.203	7.190	7.226	VV	5583	79610	12.47%	0.303%
89	7.246	7.226	7.289	VV	8951	166352	26.05%	0.633%

rteres

90	7.304	7.289	7.322	VV	3534	57379	8.99%	0.218%
91	7.350	7.322	7.368	VV	4586	88896	13.92%	0.338%
92	7.392	7.368	7.412	VV	3332	75926	11.89%	0.289%
93	7.467	7.412	7.499	VV	32593	503961	78.93%	1.919%
94	7.516	7.499	7.538	VV	3875	74159	11.61%	0.282%
95	7.549	7.538	7.574	VV	3248	67252	10.53%	0.256%
96	7.588	7.574	7.616	VV	3323	73066	11.44%	0.278%
97	7.643	7.616	7.689	VV	7577	187525	29.37%	0.714%
98	7.696	7.689	7.715	VV	2805	39080	6.12%	0.149%
99	7.744	7.715	7.754	VV	2520	54665	8.56%	0.208%
100	7.785	7.754	7.801	VV	6719	122075	19.12%	0.465%
101	7.809	7.801	7.825	VV	4823	59934	9.39%	0.228%
102	7.837	7.825	7.878	VV	3902	105079	16.46%	0.400%
103	7.920	7.878	7.934	VV	5105	136576	21.39%	0.520%
104	7.947	7.934	7.967	VV	5314	80386	12.59%	0.306%
105	7.989	7.967	8.010	VV	6464	105521	16.53%	0.402%
106	8.035	8.010	8.058	VV	7097	128379	20.11%	0.489%
107	8.089	8.058	8.119	VV	6331	159638	25.00%	0.608%
108	8.161	8.119	8.181	VV	10872	187579	29.38%	0.714%
109	8.191	8.181	8.200	VV	3682	41081	6.43%	0.156%
110	8.218	8.200	8.231	VV	3750	65403	10.24%	0.249%
111	8.251	8.231	8.278	VV	6709	129608	20.30%	0.493%
112	8.299	8.278	8.310	VV	4440	79671	12.48%	0.303%
113	8.338	8.310	8.368	VV	35503	462979	72.51%	1.763%
114	8.386	8.368	8.406	VV	5781	100498	15.74%	0.383%
115	8.449	8.406	8.469	VV	4660	149744	23.45%	0.570%
116	8.508	8.469	8.520	VV	4953	126665	19.84%	0.482%
117	8.532	8.520	8.547	VV	4906	66785	10.46%	0.254%
118	8.566	8.547	8.604	VV	5508	142451	22.31%	0.542%
119	8.653	8.604	8.681	VV	15377	286058	44.80%	1.089%
120	8.702	8.681	8.730	VV	5708	138898	21.75%	0.529%
121	8.759	8.730	8.773	VV	5289	127129	19.91%	0.484%
122	8.785	8.773	8.814	VV	5706	121037	18.96%	0.461%
123	8.831	8.814	8.853	VV	5985	118087	18.49%	0.450%
124	8.876	8.853	8.902	VV	15742	242884	38.04%	0.925%
125	8.928	8.902	8.942	VV	6180	115385	18.07%	0.439%
126	8.950	8.942	8.981	VV	4812	99607	15.60%	0.379%
127	9.027	8.981	9.042	VV	5286	161075	25.23%	0.613%
128	9.054	9.042	9.079	VV	4652	95671	14.98%	0.364%
129	9.104	9.079	9.124	VV	5522	129981	20.36%	0.495%
130	9.162	9.124	9.230	VV	37969	638490	100.00%	2.431%
131	9.248	9.230	9.275	VV	5518	123238	19.30%	0.469%
132	9.296	9.275	9.303	VV	4324	70399	11.03%	0.268%
133	9.318	9.303	9.338	VV	4599	84375	13.21%	0.321%
134	9.371	9.338	9.382	VV	4651	106085	16.61%	0.404%
135	9.399	9.382	9.432	VV	5437	136660	21.40%	0.520%
136	9.451	9.432	9.478	VV	4794	120399	18.86%	0.458%
137	9.498	9.478	9.514	VV	4463	92012	14.41%	0.350%
138	9.540	9.514	9.572	VV	10203	237923	37.26%	0.906%
139	9.582	9.572	9.601	VV	5683	91924	14.40%	0.350%
140	9.621	9.601	9.644	VV	7505	152611	23.90%	0.581%
141	9.668	9.644	9.687	VV	8007	154244	24.16%	0.587%

142	9.721	9.687	9.751	VV	6931	204946	32.10%	0.780%
143	9.778	9.751	9.798	VV	4312	114326	17.91%	0.435%
144	9.811	9.798	9.838	VV	4099	95925	15.02%	0.365%
145	9.860	9.838	9.876	VV	6256	118270	18.52%	0.450%
146	9.900	9.876	9.917	VV	7331	151787	23.77%	0.578%
147	9.941	9.917	9.988	VV	41396	590306	92.45%	2.247%
148	10.009	9.988	10.018	VV	5267	87778	13.75%	0.334%
149	10.045	10.018	10.093	VV	5201	207930	32.57%	0.792%
150	10.117	10.093	10.140	VV	4865	124134	19.44%	0.473%
151	10.154	10.140	10.174	VV	4390	86198	13.50%	0.328%
152	10.189	10.174	10.203	VV	4550	77429	12.13%	0.295%
153	10.221	10.203	10.246	VV	4906	115284	18.06%	0.439%
154	10.290	10.246	10.304	VV	6520	178705	27.99%	0.680%
155	10.331	10.304	10.360	VV	18920	341750	53.52%	1.301%
156	10.380	10.360	10.400	VV	6779	133325	20.88%	0.508%
157	10.419	10.400	10.449	VV	7538	167069	26.17%	0.636%
158	10.476	10.449	10.509	VV	7381	192717	30.18%	0.734%
159	10.527	10.509	10.548	VV	4296	92688	14.52%	0.353%
160	10.614	10.548	10.641	VV	5277	254579	39.87%	0.969%
161	10.681	10.641	10.721	VV	38451	607780	95.19%	2.314%
162	10.754	10.721	10.787	VV	18152	379043	59.37%	1.443%
163	10.796	10.787	10.835	VV	5357	138874	21.75%	0.529%
164	10.866	10.835	10.875	VV	4535	102693	16.08%	0.391%
165	10.891	10.875	10.910	VV	4702	94597	14.82%	0.360%
166	10.936	10.910	10.951	VV	5003	114002	17.85%	0.434%
167	10.968	10.951	10.979	VV	4809	76905	12.04%	0.293%
168	11.010	10.979	11.040	VV	6523	209282	32.78%	0.797%
169	11.075	11.040	11.116	VV	8706	283600	44.42%	1.080%
170	11.135	11.116	11.171	VV	6829	169092	26.48%	0.644%
171	11.190	11.171	11.226	VV	6125	161318	25.27%	0.614%
172	11.241	11.226	11.260	VV	4389	87540	13.71%	0.333%
173	11.316	11.260	11.348	VV	5571	240250	37.63%	0.915%
174	11.384	11.348	11.442	VV	34146	574194	89.93%	2.186%
175	11.478	11.442	11.521	VV	13409	327803	51.34%	1.248%
176	11.542	11.521	11.563	VV	4391	102501	16.05%	0.390%
177	11.582	11.563	11.604	VV	4150	95100	14.89%	0.362%
178	11.682	11.604	11.724	VV	5830	334137	52.33%	1.272%
179	11.741	11.724	11.761	VV	4567	94976	14.88%	0.362%
180	11.781	11.761	11.804	VV	6134	133509	20.91%	0.508%
181	11.819	11.804	11.849	VV	5565	122610	19.20%	0.467%
182	11.870	11.849	11.889	VV	5139	105730	16.56%	0.403%
183	11.898	11.889	11.924	VV	4013	81356	12.74%	0.310%
184	11.941	11.924	12.001	VV	3929	171688	26.89%	0.654%
185	12.054	12.001	12.088	VV	25390	481647	75.44%	1.834%
186	12.098	12.088	12.143	VV	4099	127891	20.03%	0.487%
187	12.163	12.143	12.233	VV	4027	192355	30.13%	0.732%
188	12.253	12.233	12.271	VV	3464	76485	11.98%	0.291%
189	12.279	12.271	12.303	VV	3457	63864	10.00%	0.243%
190	12.329	12.303	12.379	VV	4508	172474	27.01%	0.657%
191	12.393	12.379	12.411	VV	3582	65076	10.19%	0.248%
192	12.436	12.411	12.454	VV	4099	95075	14.89%	0.362%
193	12.468	12.454	12.503	VV	4970	110887	17.37%	0.422%
194	12.521	12.503	12.544	VV	3706	80182	12.56%	0.305%

195	12.558	12.544	12.595	VV	3222	87825	13.76%	0.334%
196	12.629	12.595	12.665	VV	3531	131490	20.59%	0.501%
197	12.695	12.665	12.740	VV	19709	318998	49.96%	1.214%
198	12.758	12.740	12.804	VV	3184	108225	16.95%	0.412%
199	12.841	12.804	12.901	VV	2783	141542	22.17%	0.539%
200	12.915	12.901	12.929	VV	2251	37213	5.83%	0.142%
201	12.950	12.929	13.004	VV	2983	113660	17.80%	0.433%
202	13.018	13.004	13.041	VV	2414	51029	7.99%	0.194%
203	13.059	13.041	13.074	VV	2616	45976	7.20%	0.175%
204	13.091	13.074	13.108	VV	3006	52415	8.21%	0.200%
205	13.141	13.108	13.172	VV	41817	542178	84.92%	2.064%
206	13.194	13.172	13.234	VV	2800	83412	13.06%	0.318%
207	13.251	13.234	13.272	VV	1923	41297	6.47%	0.157%
208	13.308	13.272	13.339	VV	11862	189179	29.63%	0.720%
209	13.358	13.339	13.398	VV	2032	64823	10.15%	0.247%
210	13.409	13.398	13.458	VV	1790	57209	8.96%	0.218%
211	13.480	13.458	13.504	VV	1543	40131	6.29%	0.153%
212	13.539	13.504	13.571	VV	2291	70197	10.99%	0.267%
213	13.581	13.571	13.601	VV	1727	29346	4.60%	0.112%
214	13.616	13.601	13.632	VV	1568	27752	4.35%	0.106%
215	13.657	13.632	13.671	VV	1561	33903	5.31%	0.129%
216	13.689	13.671	13.713	VV	1700	39462	6.18%	0.150%
217	13.734	13.713	13.780	VV	1971	61309	9.60%	0.233%
218	13.807	13.780	13.824	VV	1384	35124	5.50%	0.134%
219	13.839	13.824	13.866	VV	1401	31416	4.92%	0.120%
220	13.894	13.866	13.930	VV	7548	118052	18.49%	0.449%
221	13.955	13.930	13.978	VV	1258	32072	5.02%	0.122%
222	13.984	13.978	14.029	VV	1176	31197	4.89%	0.119%
223	14.043	14.029	14.061	VV	981	18010	2.82%	0.069%
224	14.075	14.061	14.094	VV	923	17536	2.75%	0.067%
225	14.129	14.094	14.161	VV	1382	46744	7.32%	0.178%
226	14.168	14.161	14.217	VV	985	31180	4.88%	0.119%
227	14.229	14.217	14.242	VV	989	13559	2.12%	0.052%
228	14.260	14.242	14.277	VV	1070	19746	3.09%	0.075%
229	14.288	14.277	14.301	VV	994	13833	2.17%	0.053%
230	14.310	14.301	14.322	VV	1018	13029	2.04%	0.050%
231	14.327	14.322	14.361	VV	1007	19350	3.03%	0.074%
232	14.372	14.361	14.391	VV	834	13412	2.10%	0.051%
233	14.413	14.391	14.428	VV	857	16710	2.62%	0.064%
234	14.458	14.428	14.498	VV	4063	68465	10.72%	0.261%
235	14.525	14.498	14.555	VV	794	24441	3.83%	0.093%
236	14.586	14.555	14.638	VV	831	32701	5.12%	0.124%
237	14.666	14.638	14.682	VV	701	16549	2.59%	0.063%
238	14.692	14.682	14.699	VV	594	6152	0.96%	0.023%
239	14.716	14.699	14.788	VV	668	30660	4.80%	0.117%
240	14.806	14.788	14.824	VV	596	11316	1.77%	0.043%
241	14.843	14.824	14.889	VV	559	19434	3.04%	0.074%
242	14.894	14.889	14.921	VV	455	8128	1.27%	0.031%
243	14.947	14.921	14.969	VV	590	13693	2.14%	0.052%
244	14.999	14.969	15.034	VV	2309	40233	6.30%	0.153%
245	15.042	15.034	15.121	VV	419	19473	3.05%	0.074%
246	15.128	15.121	15.151	VV	351	5923	0.93%	0.023%

rteres

247	15.158	15.151	15.164	VV	326	2307	0.36%	0.009%
248	15.189	15.164	15.296	VV	384	22098	3.46%	0.084%
249	15.312	15.296	15.324	VV	259	3760	0.59%	0.014%
250	15.338	15.324	15.359	VV	308	5015	0.79%	0.019%
251	15.383	15.359	15.394	VV	242	4492	0.70%	0.017%
252	15.418	15.394	15.488	VV	326	10696	1.68%	0.041%
253	15.518	15.488	15.569	VV	1174	19512	3.06%	0.074%
254	15.577	15.569	15.611	VV	171	3389	0.53%	0.013%
255	15.615	15.611	15.681	VV	211	4225	0.66%	0.016%
256	15.703	15.681	15.725	VV	128	2634	0.41%	0.010%
257	15.737	15.725	15.751	VV	280	1909	0.30%	0.007%
258	15.788	15.751	15.818	PV	176	4918	0.77%	0.019%
259	15.832	15.818	15.841	VV	178	1568	0.25%	0.006%
260	15.855	15.841	15.877	VV	134	2204	0.35%	0.008%
261	15.901	15.877	15.921	VV	169	2869	0.45%	0.011%
262	15.949	15.921	15.964	VV	164	2341	0.37%	0.009%
263	15.978	15.964	16.001	VV	220	3009	0.47%	0.011%
264	16.021	16.001	16.045	VV	707	10139	1.59%	0.039%
265	16.076	16.045	16.096	VV	134	2519	0.39%	0.010%
266	16.115	16.096	16.165	PV	91	1390	0.22%	0.005%
267	16.195	16.165	16.204	VV	195	2428	0.38%	0.009%
268	16.213	16.204	16.294	VB	107	2367	0.37%	0.009%
269	16.348	16.294	16.358	BV	144	2522	0.40%	0.010%
270	16.504	16.358	16.529	PV	887	18835	2.95%	0.072%
271	16.541	16.529	16.578	VV	172	2612	0.41%	0.010%
272	16.611	16.578	16.653	VV	91	2951	0.46%	0.011%
273	16.676	16.653	16.728	PV	190	4645	0.73%	0.018%
274	16.741	16.728	16.774	VV	168	2306	0.36%	0.009%
275	16.871	16.774	16.894	VV	134	6654	1.04%	0.025%
276	16.928	16.894	16.941	VV	151	3396	0.53%	0.013%
277	16.971	16.941	17.038	VV	841	15552	2.44%	0.059%
278	17.052	17.038	17.120	VV	113	3314	0.52%	0.013%
279	17.142	17.120	17.162	PV	101	1821	0.29%	0.007%
280	17.170	17.162	17.190	VV	129	1105	0.17%	0.004%
281	17.215	17.190	17.223	VV	155	1646	0.26%	0.006%
282	17.245	17.223	17.294	VV	215	5547	0.87%	0.021%
283	17.306	17.294	17.341	VV	151	2407	0.38%	0.009%
284	17.355	17.341	17.398	PV	129	3448	0.54%	0.013%
285	17.423	17.398	17.464	VV	2391	35623	5.58%	0.136%
286	17.477	17.464	17.488	VV	68	498	0.08%	0.002%
287	17.524	17.488	17.574	PV	220	5691	0.89%	0.022%
288	17.594	17.574	17.671	VV	153	4054	0.63%	0.015%
289	17.685	17.671	17.754	PV	67	1932	0.30%	0.007%
290	17.786	17.754	17.824	VV	109	2468	0.39%	0.009%
291	17.860	17.824	17.894	VV	1149	17430	2.73%	0.066%
292	17.911	17.894	17.948	VV	144	2634	0.41%	0.010%
293	18.021	17.948	18.032	VV	172	3527	0.55%	0.013%
294	18.058	18.032	18.099	VV	105	2086	0.33%	0.008%
295	18.133	18.099	18.172	VV	187	4121	0.65%	0.016%
296	18.181	18.172	18.187	VV	68	498	0.08%	0.002%
297	18.284	18.187	18.314	VV	4325	63073	9.88%	0.240%
298	18.324	18.314	18.364	VV	154	2849	0.45%	0.011%
299	18.391	18.364	18.431	VV	197	4232	0.66%	0.016%

rteres

300	18.434	18.431	18.444	VV	100	479	0.07%	0.002%
301	18.450	18.444	18.479	PV	86	909	0.14%	0.003%
302	18.544	18.479	18.564	VV	172	5546	0.87%	0.021%
303	18.581	18.564	18.591	VV	139	1875	0.29%	0.007%
304	18.695	18.591	18.746	VV	1246	28747	4.50%	0.109%
305	18.822	18.746	18.858	PV	206	7544	1.18%	0.029%
306	18.873	18.858	18.890	VV	146	2437	0.38%	0.009%
307	18.947	18.890	18.967	VV	168	4443	0.70%	0.017%
308	18.991	18.967	19.003	VV	351	2368	0.37%	0.009%
309	19.038	19.003	19.057	VV	185	3862	0.60%	0.015%
310	19.093	19.057	19.133	VV	2185	34397	5.39%	0.131%
311	19.208	19.133	19.231	VV	309	11036	1.73%	0.042%
312	19.255	19.231	19.294	VV	244	7555	1.18%	0.029%
313	19.349	19.294	19.364	VV	291	7947	1.24%	0.030%
314	19.420	19.364	19.441	VV	326	12383	1.94%	0.047%
315	19.478	19.441	19.507	VV	1194	24786	3.88%	0.094%
316	19.523	19.507	19.538	VV	362	6359	1.00%	0.024%
317	19.609	19.538	19.640	VV	394	21141	3.31%	0.080%
318	19.771	19.640	19.804	VV	727	55312	8.66%	0.211%
319	19.852	19.804	19.884	VV	1449	42787	6.70%	0.163%
320	19.962	19.884	20.004	VV	904	58157	9.11%	0.221%

Sum of corrected areas: 26266253

Aliphatic EPH 050625.M Fri May 09 10:17:15 2025

CALIBRATION SUMMARY

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	

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

Lab Sample ID:	100 PPM ALIPHATIC HC	Acq On:	06 May 2025 15:33
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068781.D	Misc:	
Instrument:	FID_C	ALS Vial:	11
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.343	6.643	27880831.000	300.000	ug/ml
Aliphatic C12-C16	6.644	10.043	16912815.000	200.000	ug/ml
Aliphatic C16-C21	10.044	13.410	23844810.000	300.000	ug/ml
Aliphatic C21-C28	13.411	17.072	31086803.000	400.000	ug/ml
Aliphatic C28-C40	17.073	22.074	47720501.000	600.000	ug/ml
Aliphatic EPH	3.343		147445760.000	1800.000	ug/ml

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.

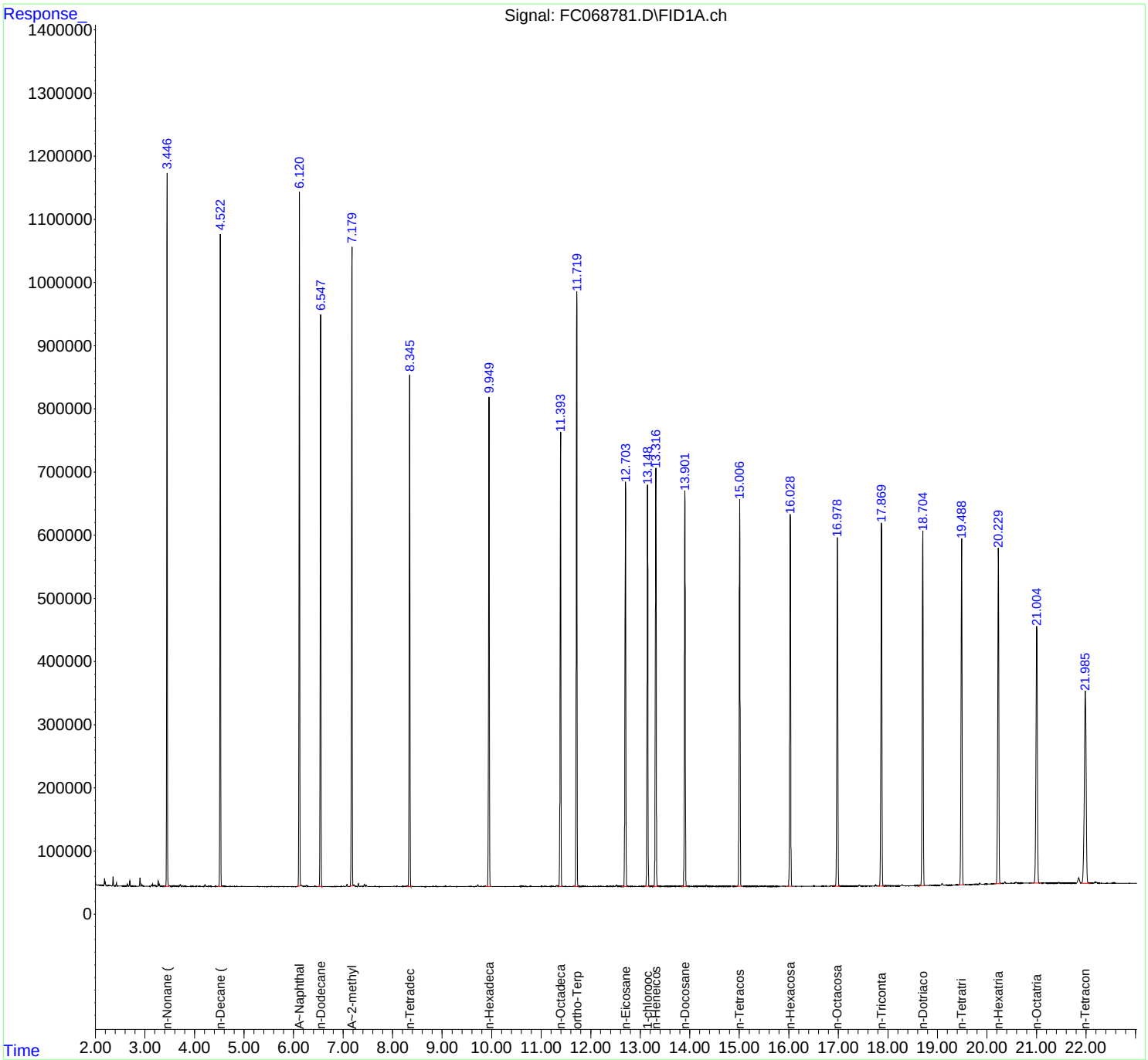
Quantitation Report (QT Reviewed)

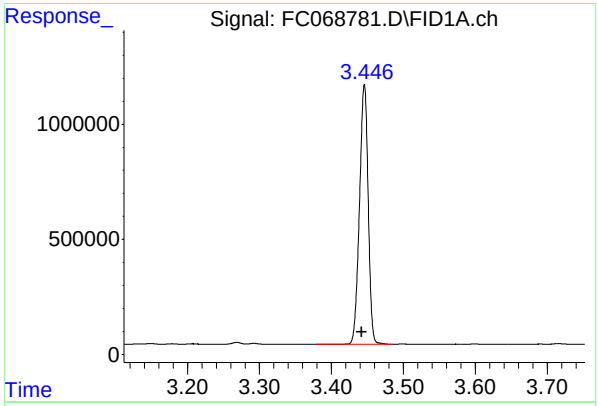
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068781.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 15:33
Operator : YP/AJ
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

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

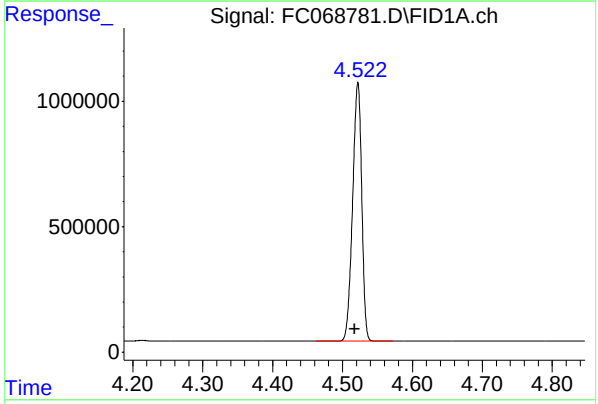




#1 n-Nonane (C9)

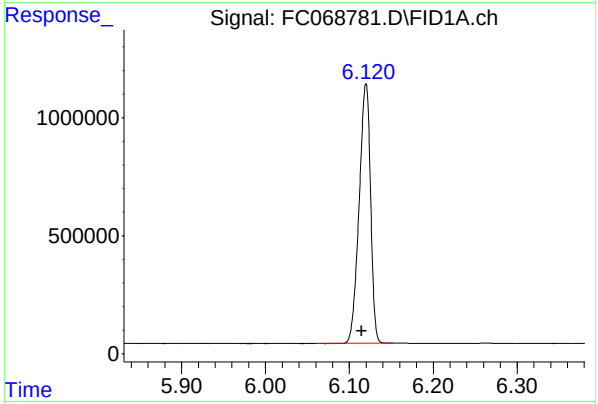
R.T.: 3.446 min
Delta R.T.: 0.004 min
Response: 9452990
Conc: 91.10 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



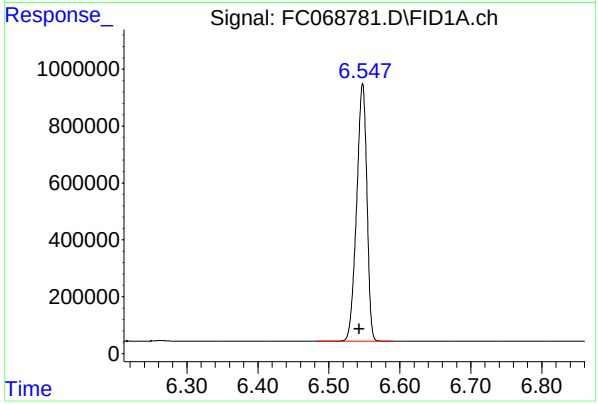
#2 n-Decane (C10)

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



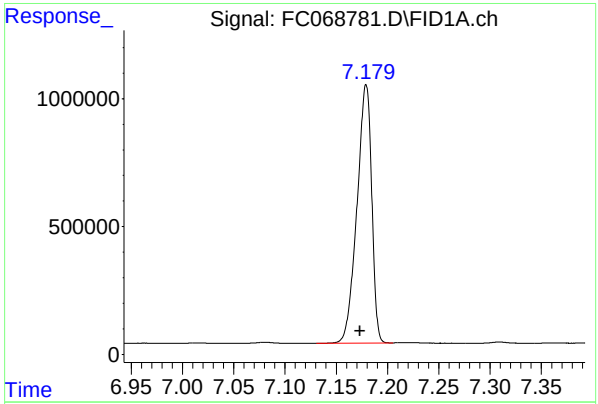
#3 A~Naphthalene (C11.7)

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



#4 n-Dodecane (C12)

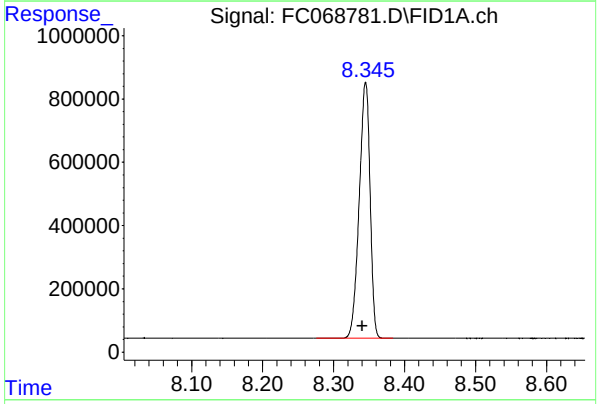
R.T.: 6.547 min
Delta R.T.: 0.004 min
Response: 9077767
Conc: 90.56 ug/ml



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

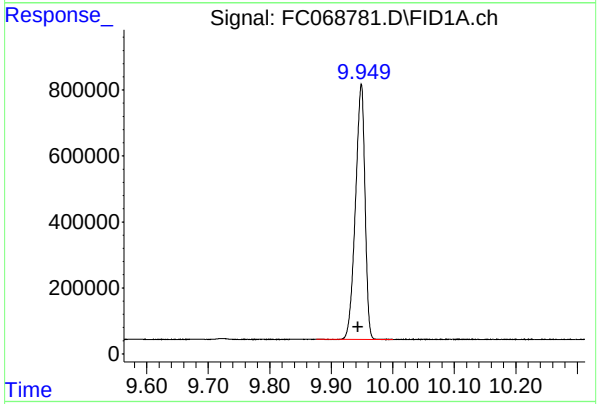
R.T.: 7.179 min
Delta R.T.: 0.006 min
Response: 10106516
Conc: 90.82 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



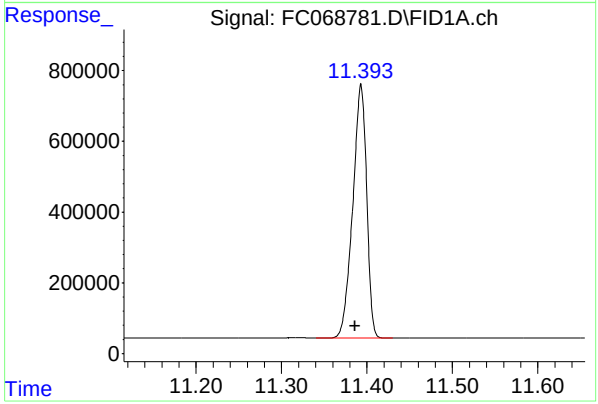
#6 n-Tetradecane (C14)

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



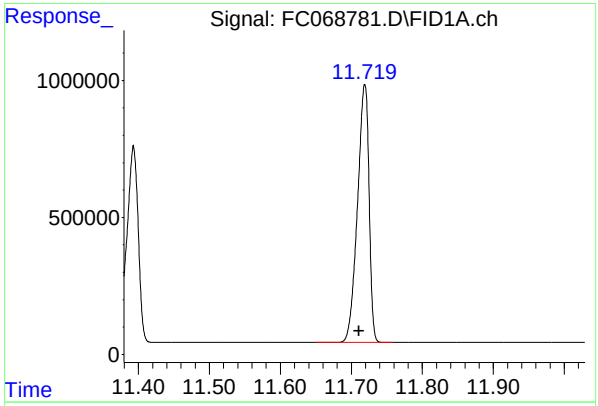
#7 n-Hexadecane (C16)

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



#8 n-Octadecane (C18)

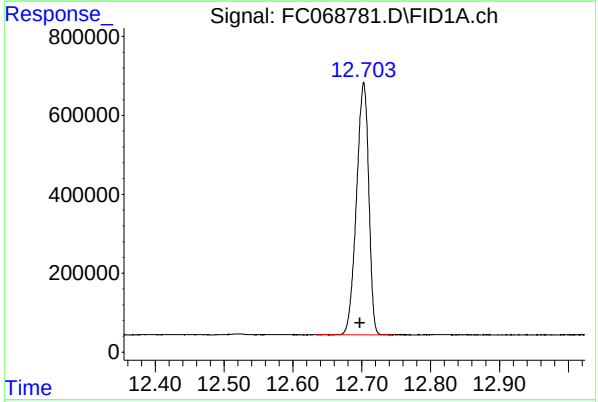
R.T.: 11.393 min
Delta R.T.: 0.007 min
Response: 8110111
Conc: 89.37 ug/ml



#9 ortho-Terphenyl (SURR)

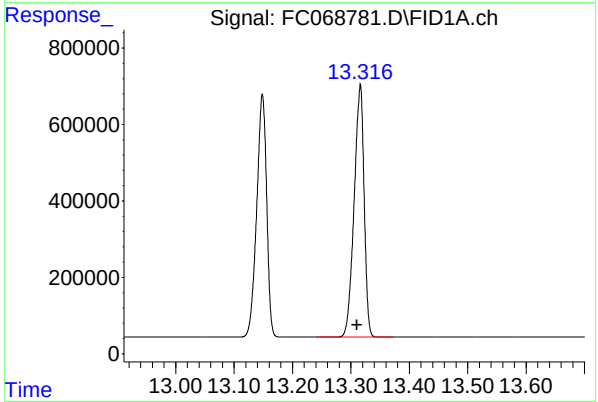
R.T.: 11.719 min
Delta R.T.: 0.008 min
Response: 10663591
Conc: 90.36 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



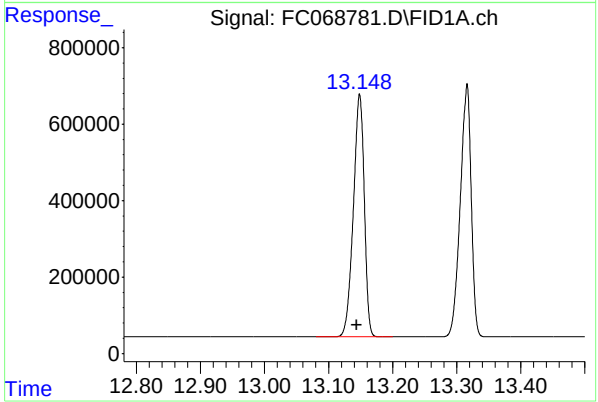
#10 n-Eicosane (C20)

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



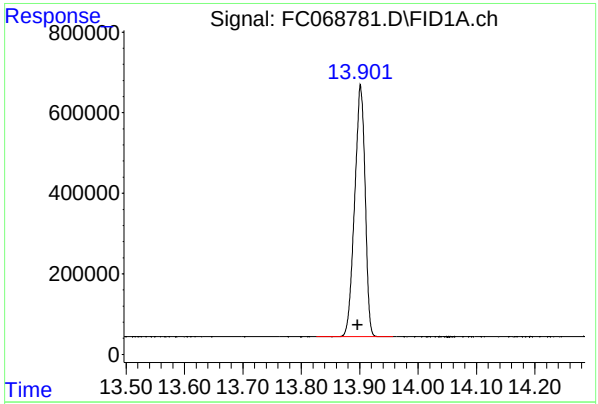
#11 n-Heneicosane (C21)

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



#12 1-chlorooctadecane (SURR)

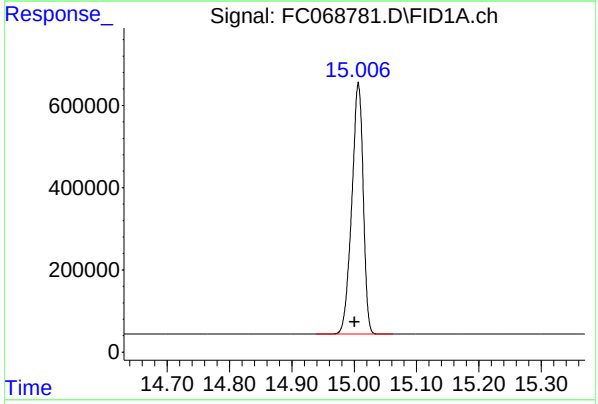
R.T.: 13.148 min
Delta R.T.: 0.004 min
Response: 7506812
Conc: 90.44 ug/ml



#13 n-Docosane (C22)

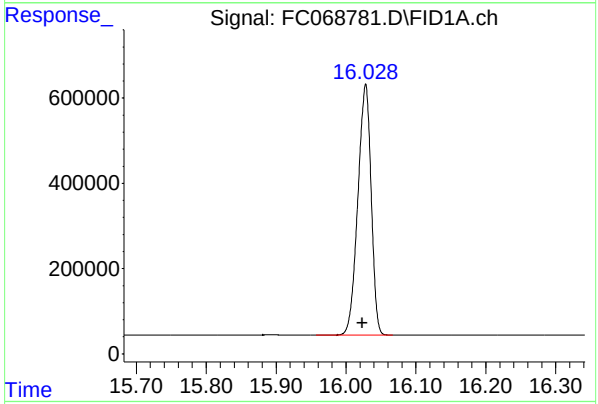
R.T.: 13.902 min
Delta R.T.: 0.005 min
Response: 7786407
Conc: 90.16 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



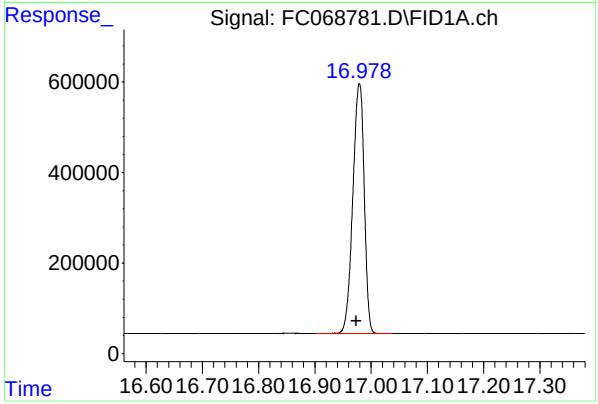
#14 n-Tetracosane (C24)

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



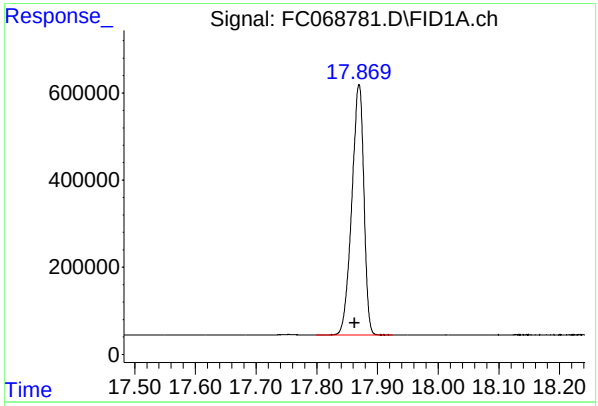
#15 n-Hexacosane (C26)

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



#16 n-Octacosane (C28)

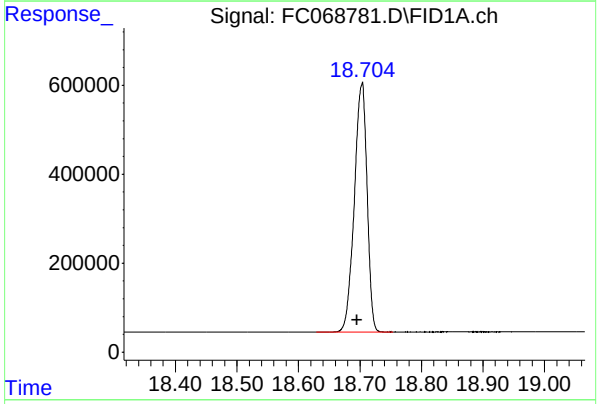
R.T.: 16.979 min
Delta R.T.: 0.005 min
Response: 7770168
Conc: 92.25 ug/ml



#17 n-Tricontane (C30)

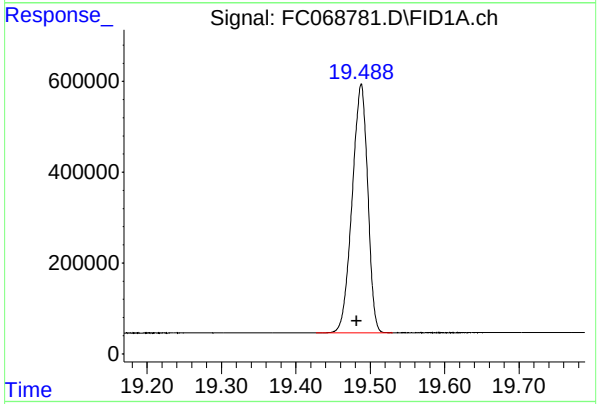
R.T.: 17.869 min
Delta R.T.: 0.007 min
Response: 7942026
Conc: 92.15 ug/ml

Instrument :
FID_C
ClientSampleId :
100 PPM ALIPHATIC HC STD1



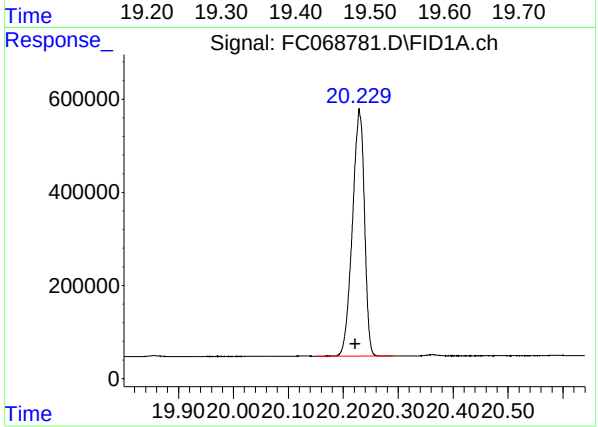
#18 n-Dotriacontane (C32)

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



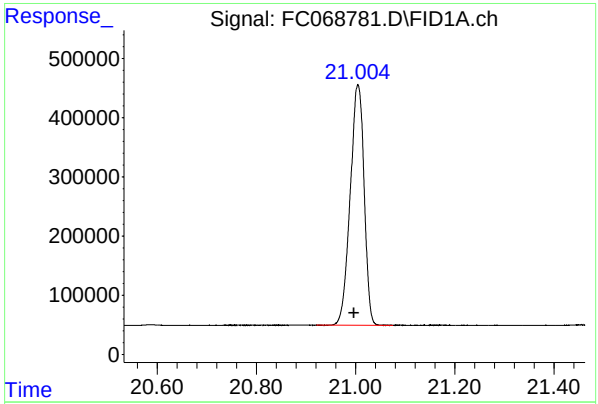
#19 n-Tetratriacontane (C34)

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



#20 n-Hexatriacontane (C36)

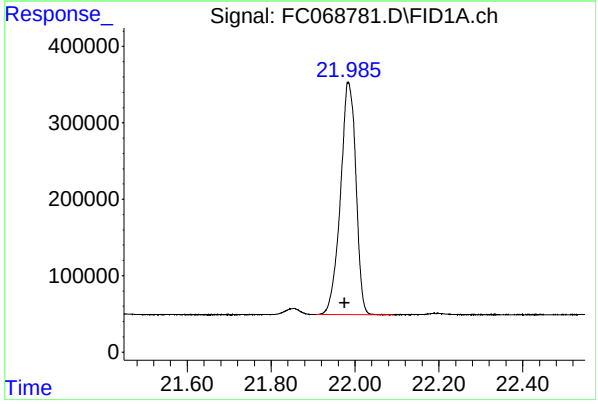
R.T.: 20.229 min
Delta R.T.: 0.007 min
Response: 8070568
Conc: 92.07 ug/ml



#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

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

Lab Sample ID:	50 PPM ALIPHATIC HC S	Acq On:	06 May 2025 16:11
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068782.D	Misc:	
Instrument:	FID_C	ALS Vial:	12
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.343	6.643	14168342.000	150.000	ug/ml
Aliphatic C12-C16	6.644	10.043	8652812.000	100.000	ug/ml
Aliphatic C16-C21	10.044	13.410	12210662.000	150.000	ug/ml
Aliphatic C21-C28	13.411	17.072	15724596.000	200.000	ug/ml
Aliphatic C28-C40	17.073	22.074	24011560.000	300.000	ug/ml
Aliphatic EPH	3.343		74767972.000	900.000	ug/ml

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.

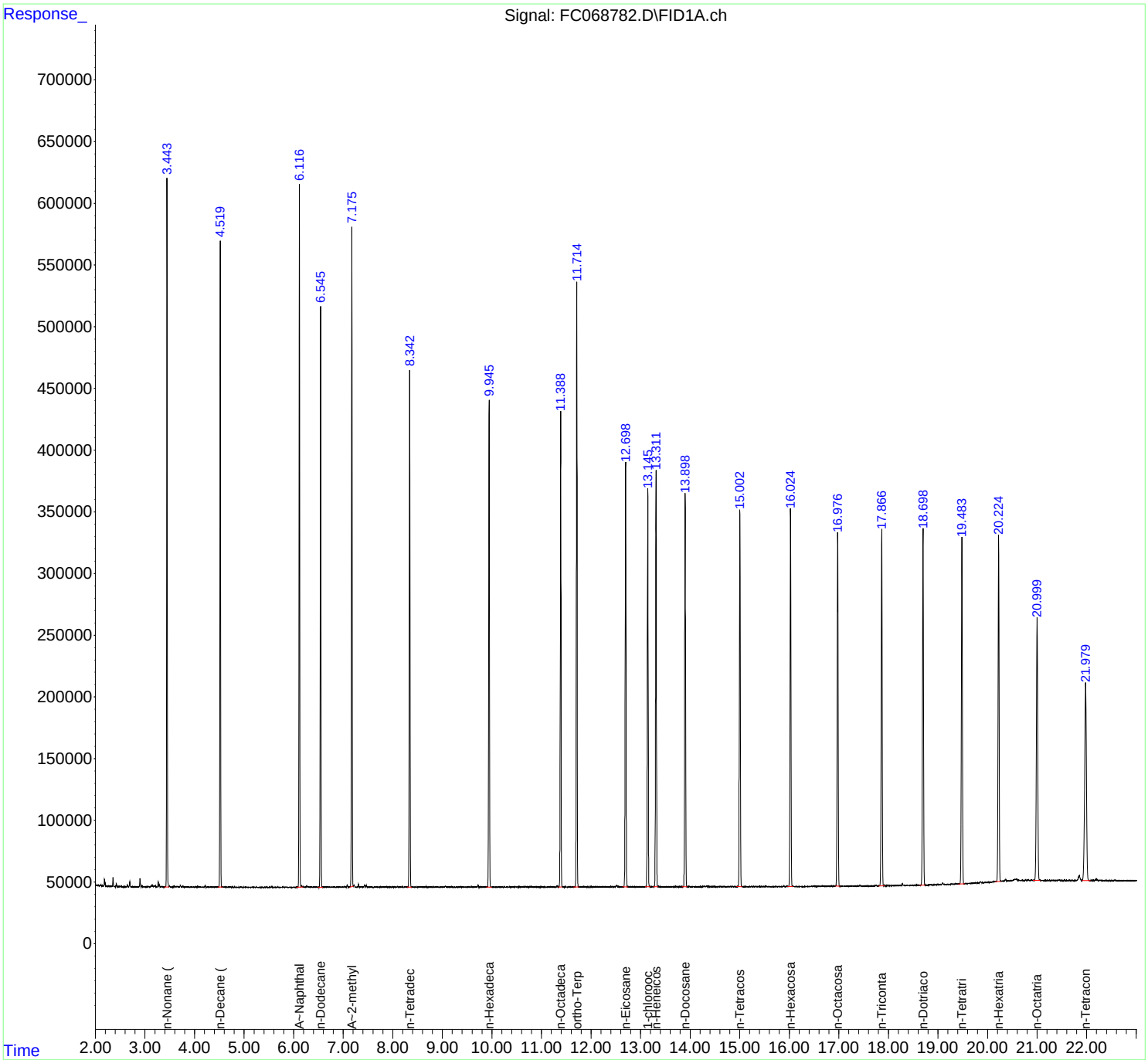
Quantitation Report (QT Reviewed)

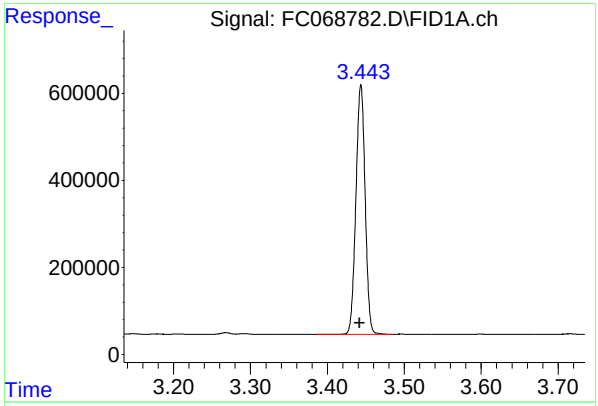
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068782.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 16:11
Operator : YP/AJ
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

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

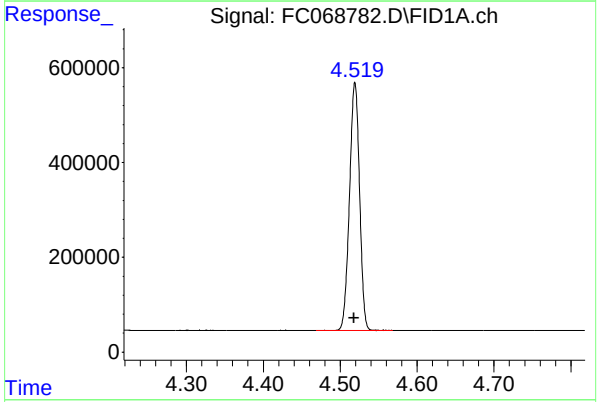




#1 n-Nonane (C9)

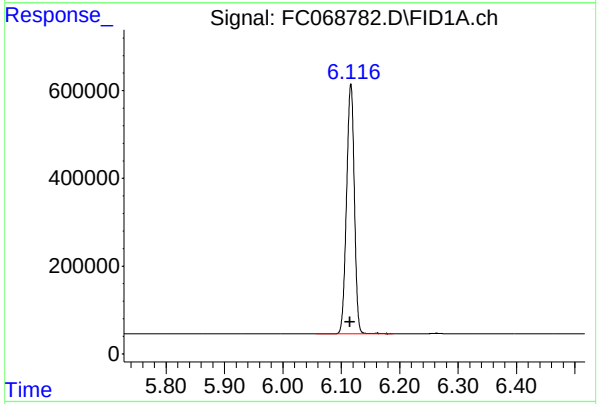
R.T.: 3.444 min
Delta R.T.: 0.002 min
Response: 4793918
Conc: 46.20 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



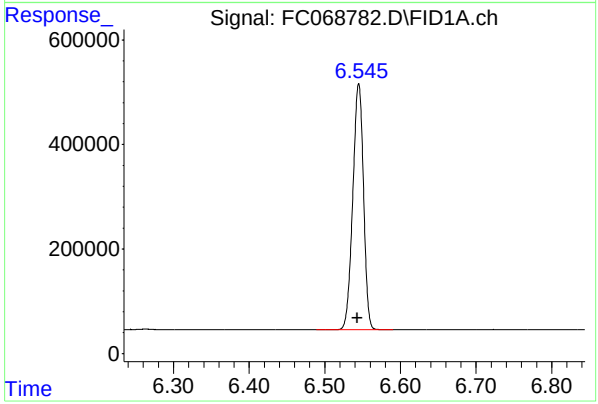
#2 n-Decane (C10)

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



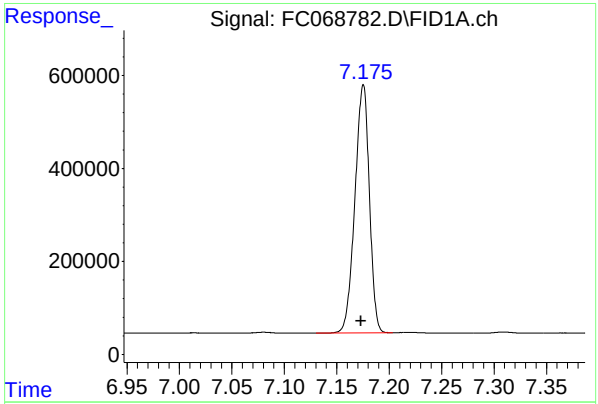
#3 A~Naphthalene (C11.7)

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



#4 n-Dodecane (C12)

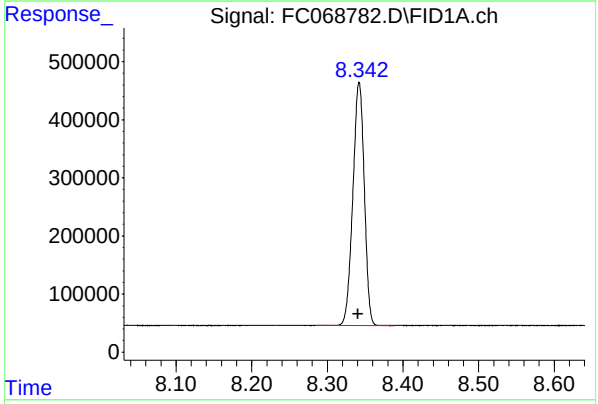
R.T.: 6.545 min
Delta R.T.: 0.002 min
Response: 4624567
Conc: 46.13 ug/ml



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

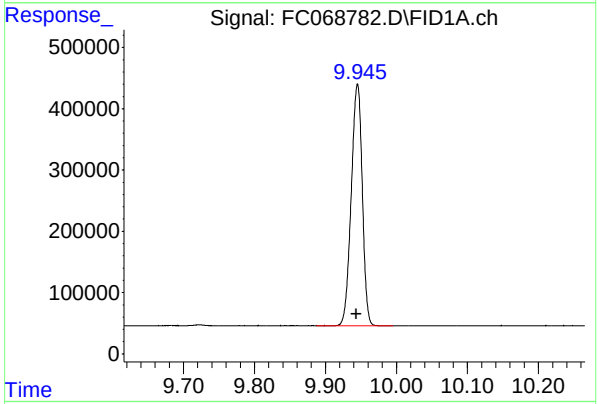
R.T.: 7.175 min
Delta R.T.: 0.002 min
Response: 5122386
Conc: 46.03 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



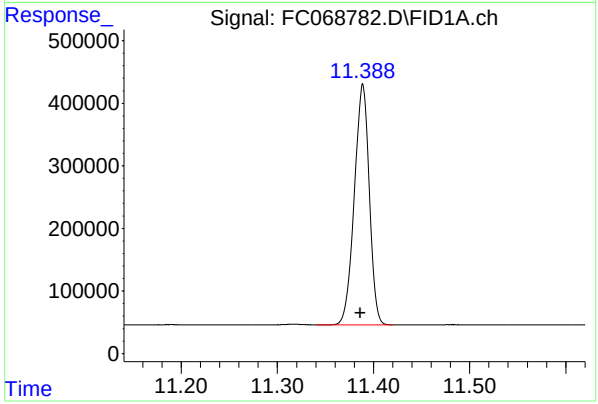
#6 n-Tetradecane (C14)

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



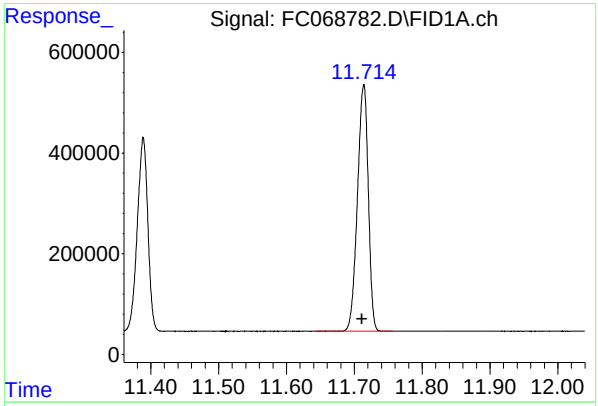
#7 n-Hexadecane (C16)

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



#8 n-Octadecane (C18)

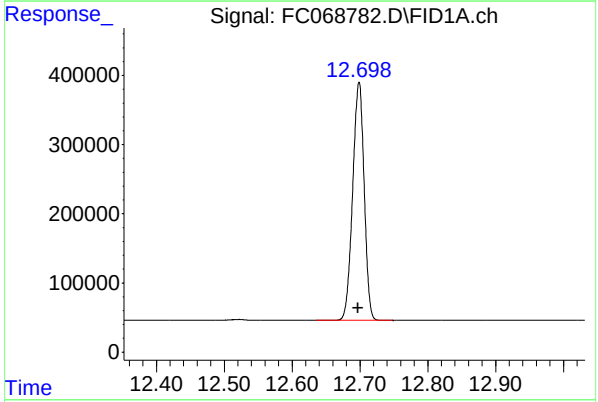
R.T.: 11.389 min
Delta R.T.: 0.003 min
Response: 4159655
Conc: 45.84 ug/ml



#9 ortho-Terphenyl (SURR)

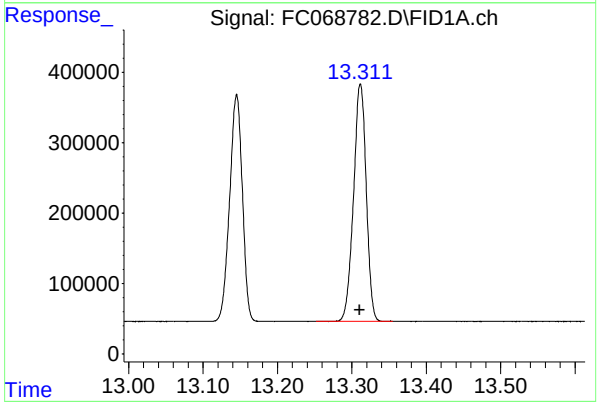
R.T.: 11.714 min
Delta R.T.: 0.003 min
Response: 5441207
Conc: 46.11 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



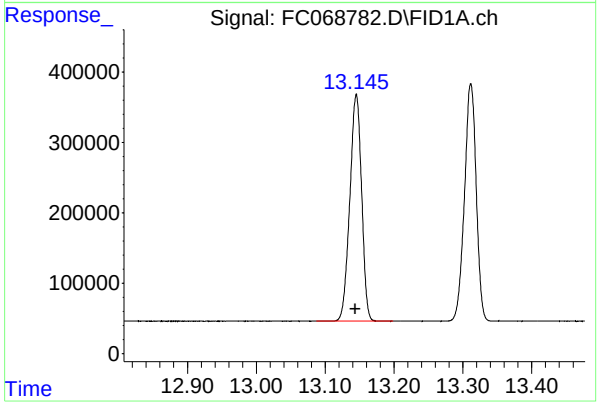
#10 n-Eicosane (C20)

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



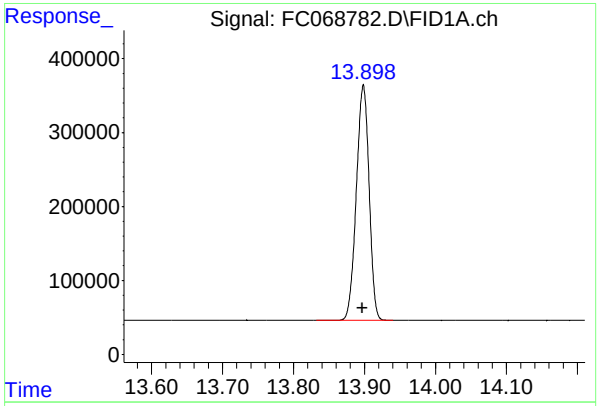
#11 n-Heneicosane (C21)

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



#12 1-chlorooctadecane (SURR)

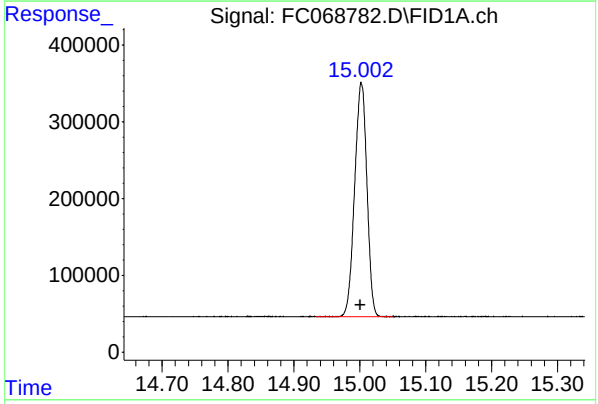
R.T.: 13.145 min
Delta R.T.: 0.001 min
Response: 3828109
Conc: 46.12 ug/ml



#13 n-Docosane (C22)

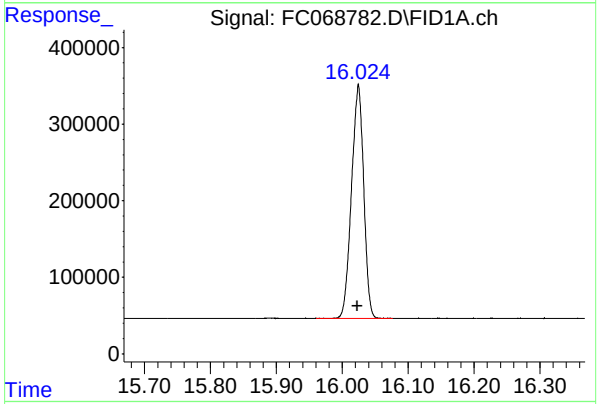
R.T.: 13.898 min
Delta R.T.: 0.002 min
Response: 3969368
Conc: 45.96 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



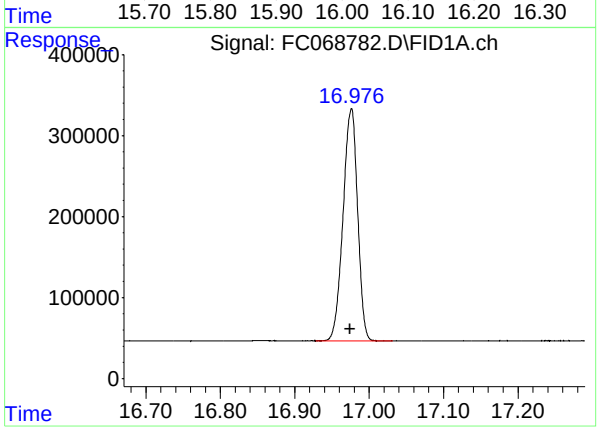
#14 n-Tetracosane (C24)

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



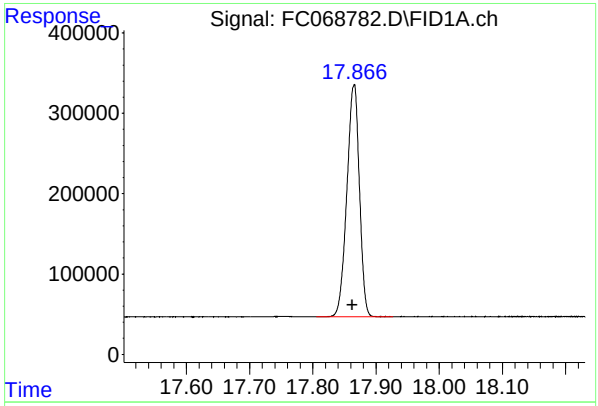
#15 n-Hexacosane (C26)

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



#16 n-Octacosane (C28)

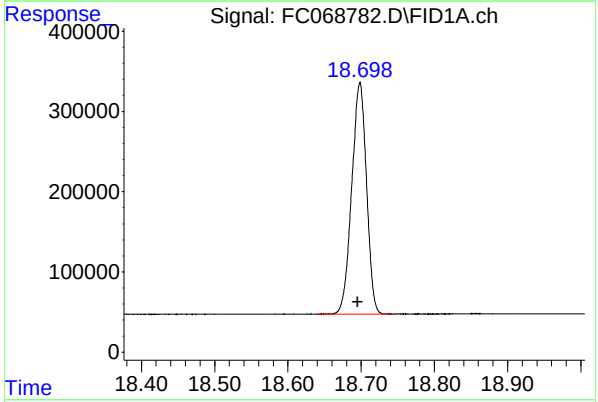
R.T.: 16.976 min
Delta R.T.: 0.002 min
Response: 3897133
Conc: 46.27 ug/ml



#17 n-Tricontane (C30)

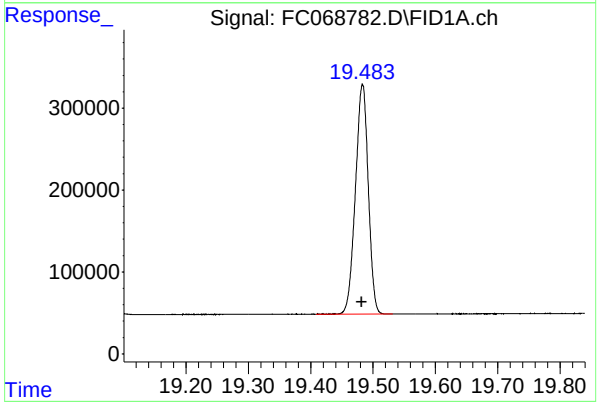
R.T.: 17.865 min
Delta R.T.: 0.003 min
Response: 3988283
Conc: 46.27 ug/ml

Instrument :
FID_C
ClientSampleId :
50 PPM ALIPHATIC HC STD2



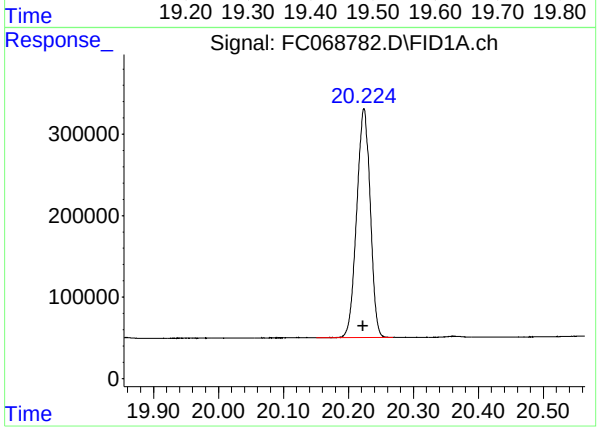
#18 n-Dotriacontane (C32)

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



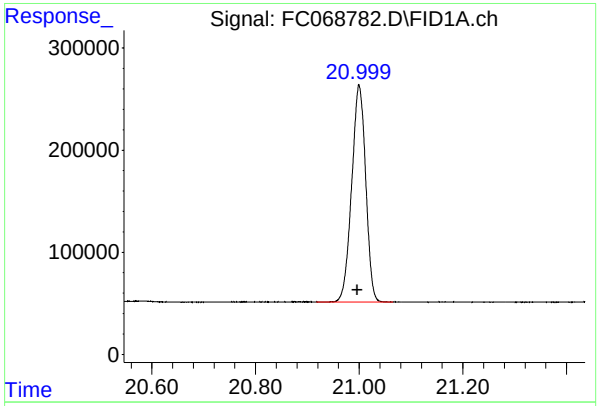
#19 n-Tetratriacontane (C34)

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



#20 n-Hexatriacontane (C36)

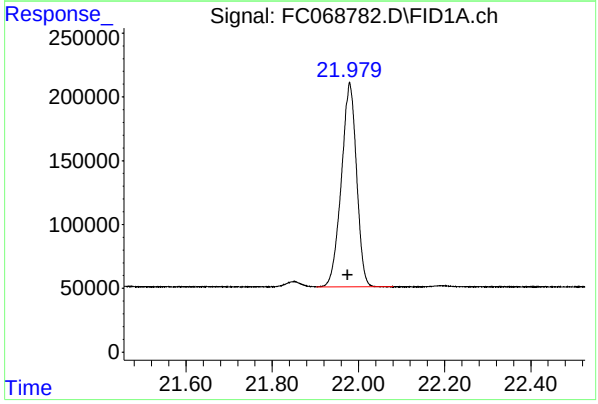
R.T.: 20.224 min
Delta R.T.: 0.001 min
Response: 4065667
Conc: 46.38 ug/ml



#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

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:	06 May 2025 16:48
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068783.D	Misc:	
Instrument:	FID_C	ALS Vial:	13
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.343	6.643	6134963.000	60.000	ug/ml
Aliphatic C12-C16	6.644	10.043	3764747.000	40.000	ug/ml
Aliphatic C16-C21	10.044	13.410	5322269.000	60.000	ug/ml
Aliphatic C21-C28	13.411	17.072	6816713.000	80.000	ug/ml
Aliphatic C28-C40	17.073	22.074	10345705.000	120.000	ug/ml
Aliphatic EPH	3.343		32384397.000	360.000	ug/ml

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.

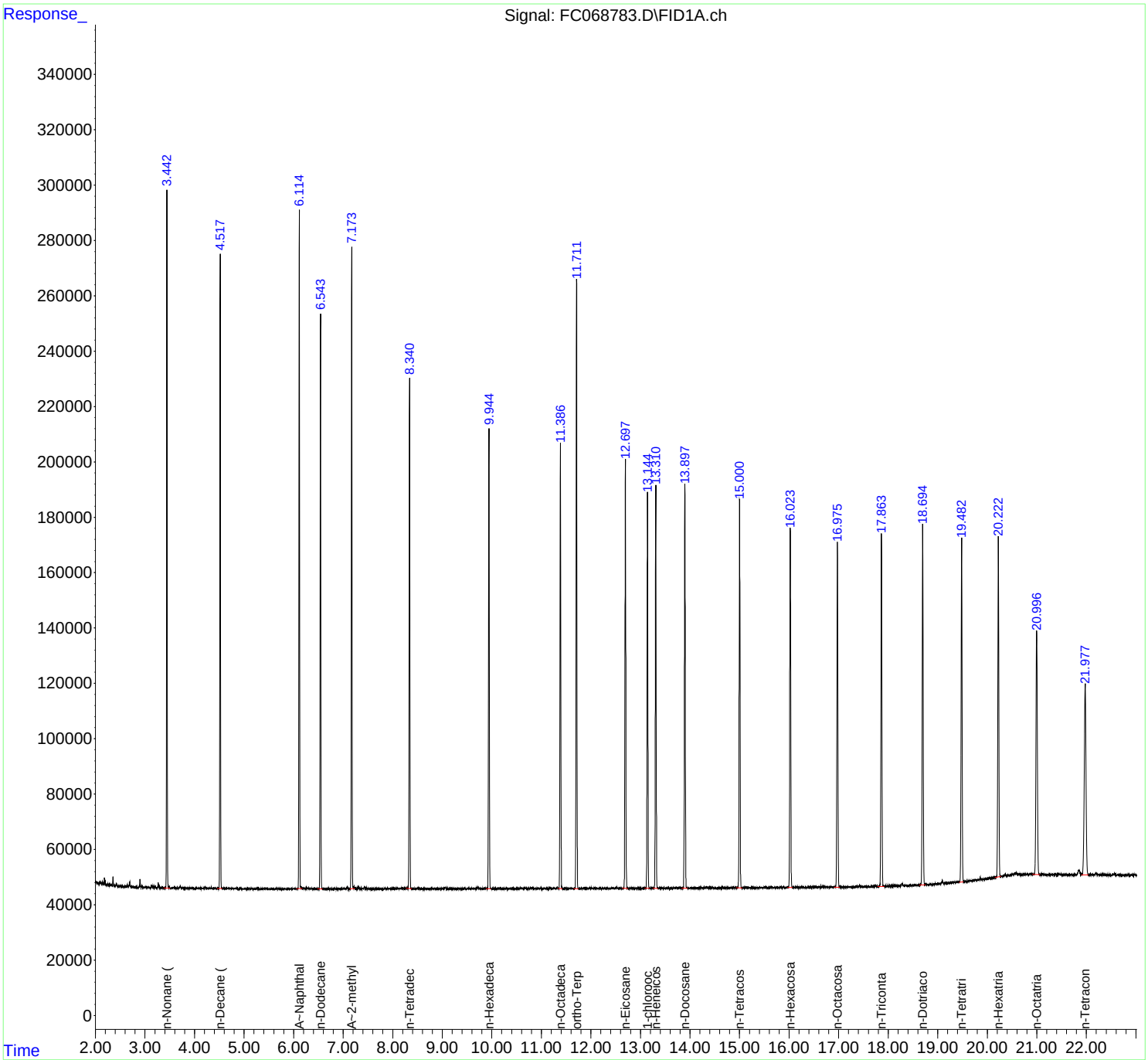
Quantitation Report (QT Reviewed)

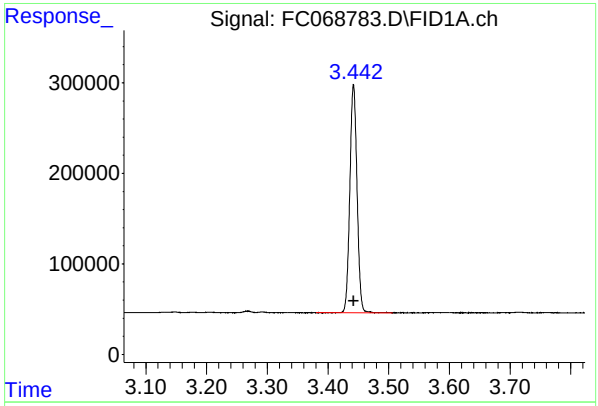
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068783.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 16:48
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

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

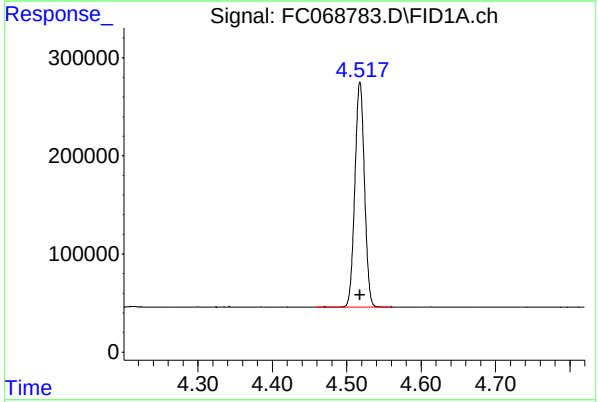




#1 n-Nonane (C9)

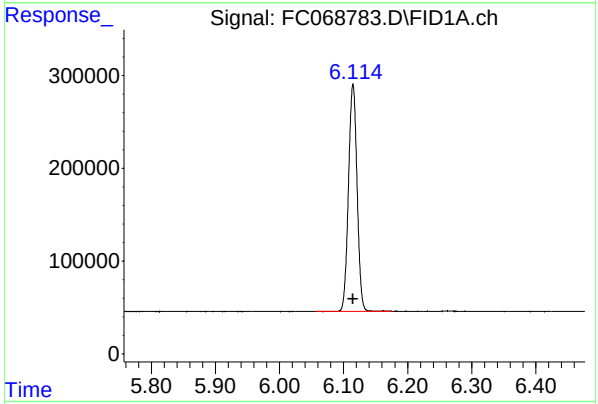
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 2075388
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



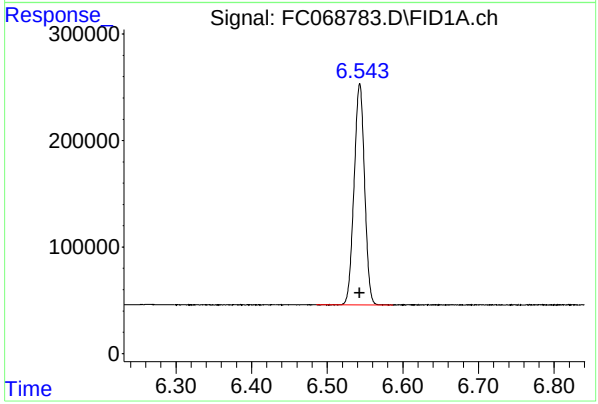
#2 n-Decane (C10)

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



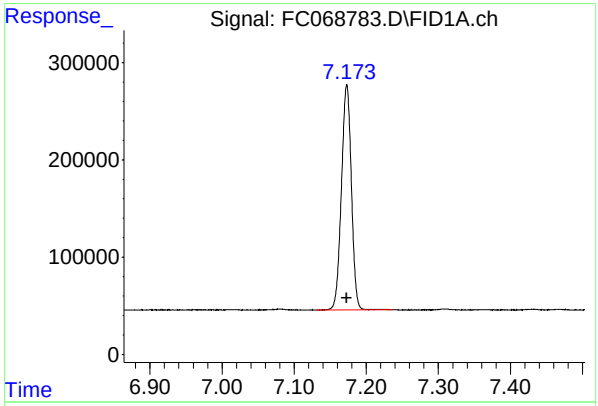
#3 A~Naphthalene (C11.7)

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



#4 n-Dodecane (C12)

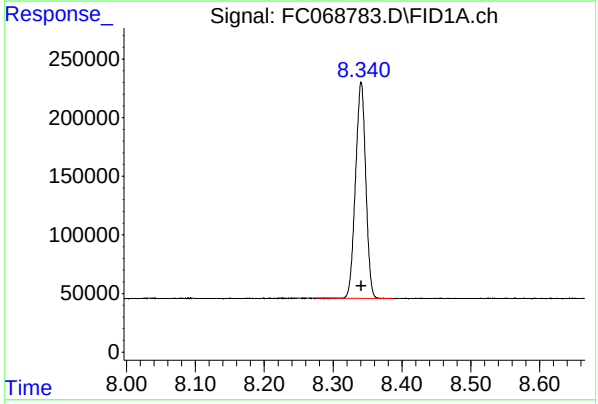
R.T.: 6.543 min
Delta R.T.: 0.000 min
Response: 2004807
Conc: 20.00 ug/ml



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

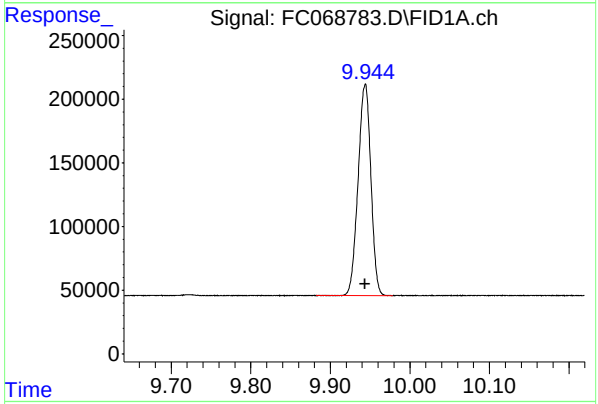
R.T.: 7.173 min
Delta R.T.: 0.000 min
Response: 2225640
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



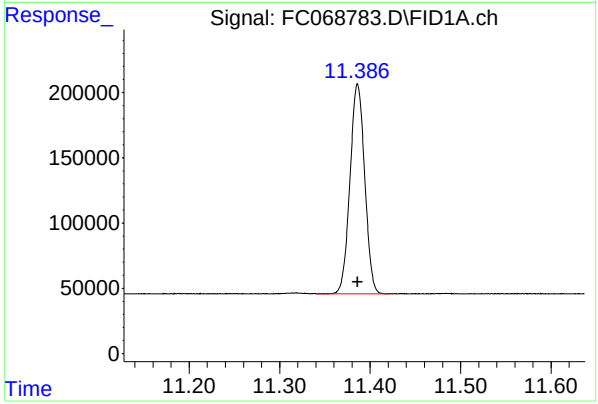
#6 n-Tetradecane (C14)

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



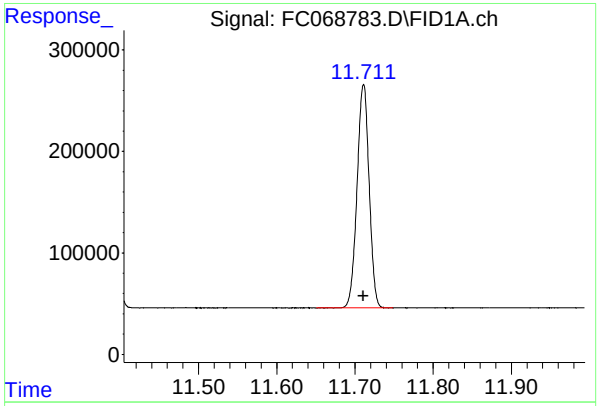
#7 n-Hexadecane (C16)

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



#8 n-Octadecane (C18)

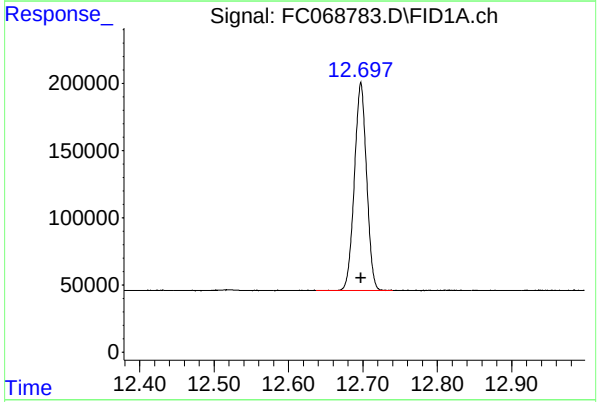
R.T.: 11.386 min
Delta R.T.: 0.000 min
Response: 1814880
Conc: 20.00 ug/ml



#9 ortho-Terphenyl (SURR)

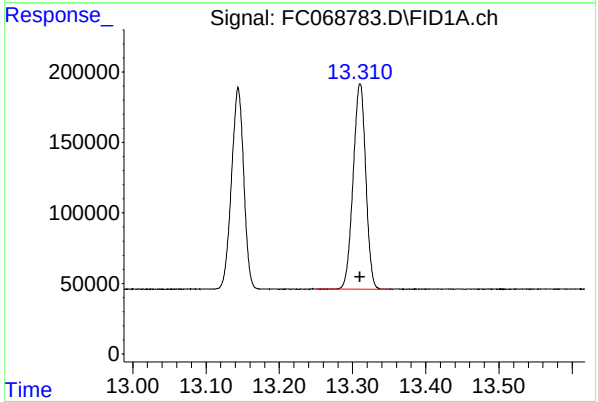
R.T.: 11.711 min
Delta R.T.: 0.000 min
Response: 2360314
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



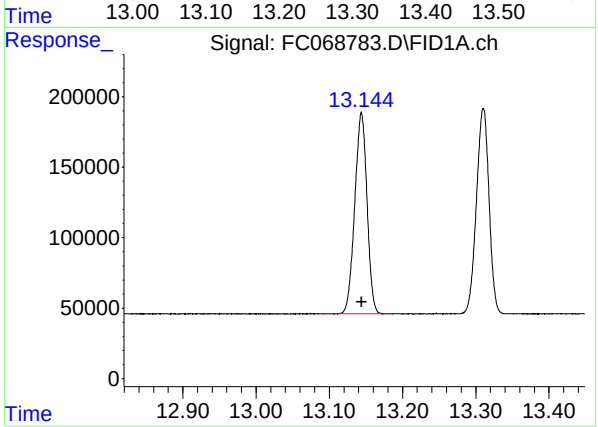
#10 n-Eicosane (C20)

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



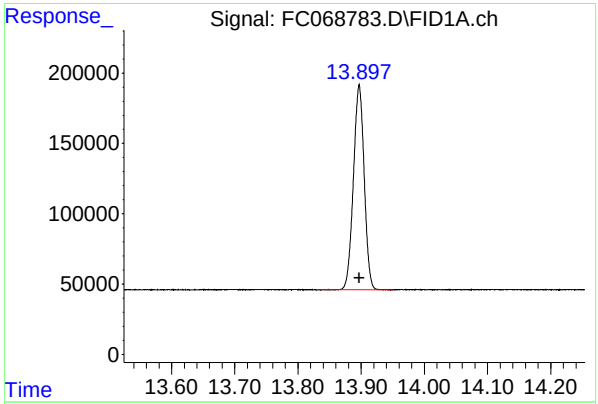
#11 n-Heneicosane (C21)

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



#12 1-chlorooctadecane (SURR)

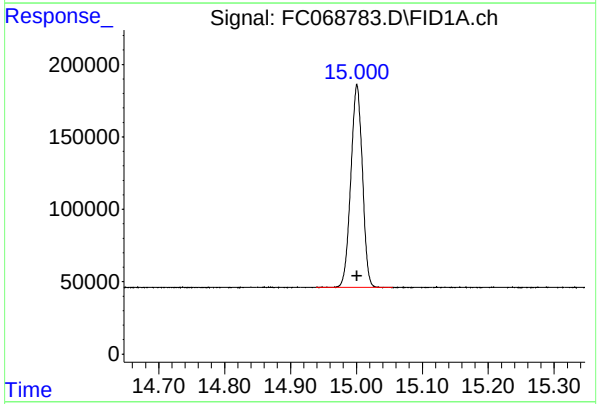
R.T.: 13.144 min
Delta R.T.: 0.000 min
Response: 1660070
Conc: 20.00 ug/ml



#13 n-Docosane (C22)

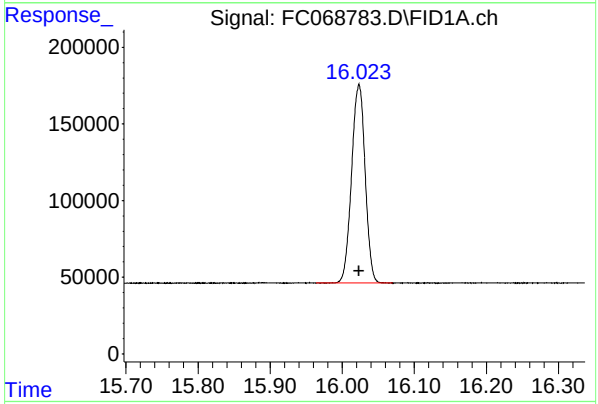
R.T.: 13.897 min
Delta R.T.: 0.000 min
Response: 1727226
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



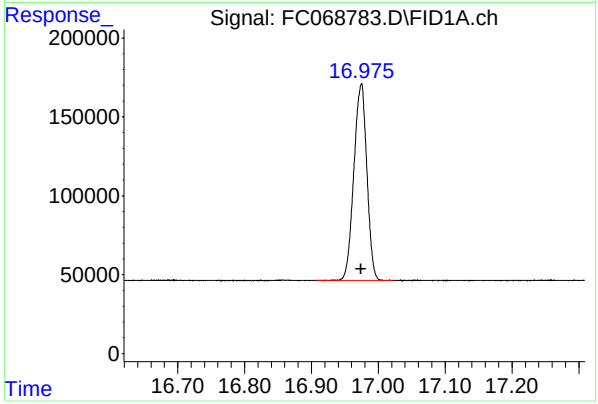
#14 n-Tetracosane (C24)

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



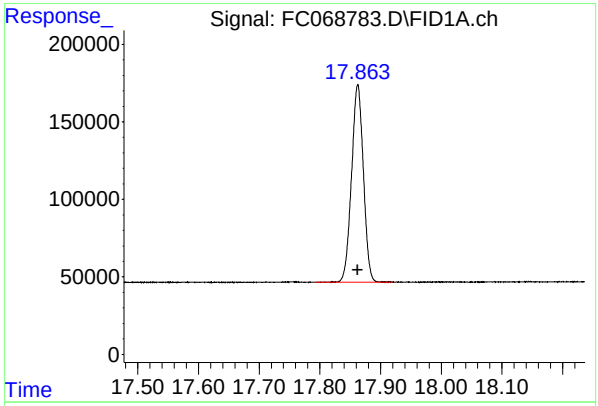
#15 n-Hexacosane (C26)

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



#16 n-Octacosane (C28)

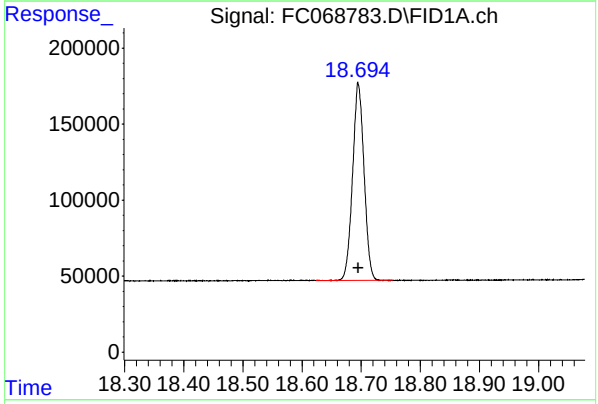
R.T.: 16.974 min
Delta R.T.: 0.000 min
Response: 1684639
Conc: 20.00 ug/ml



#17 n-Tricontane (C30)

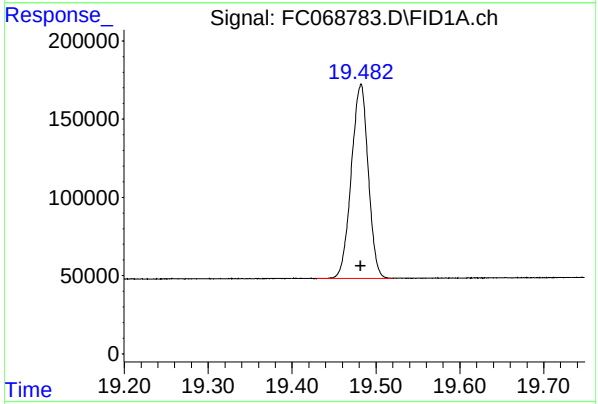
R.T.: 17.862 min
Delta R.T.: 0.000 min
Response: 1723787
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD3



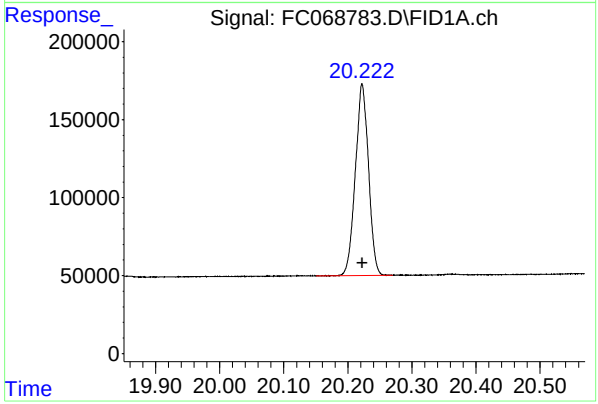
#18 n-Dotriacontane (C32)

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



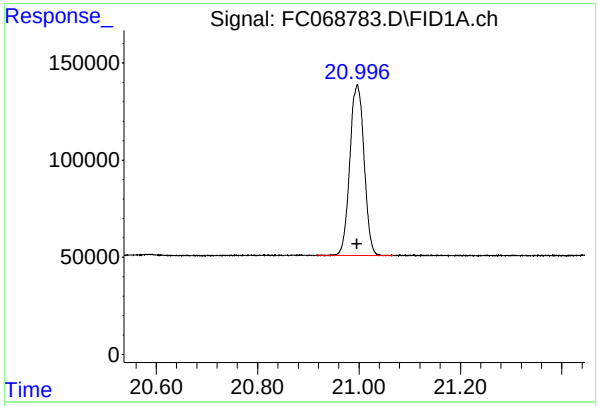
#19 n-Tetratriacontane (C34)

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



#20 n-Hexatriacontane (C36)

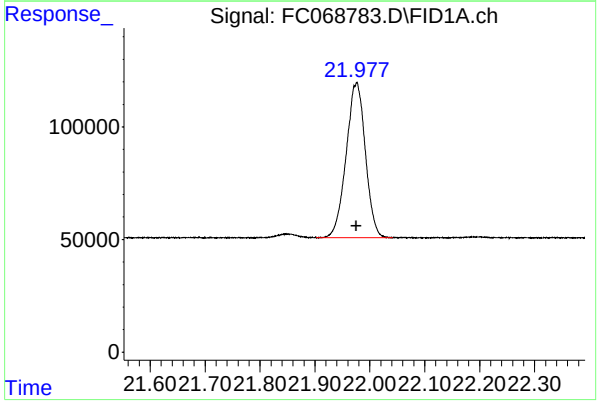
R.T.: 20.222 min
Delta R.T.: 0.000 min
Response: 1753150
Conc: 20.00 ug/ml



#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

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

Lab Sample ID:	10 PPM ALIPHATIC HC S	Acq On:	06 May 2025 17:26
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068784.D	Misc:	
Instrument:	FID_C	ALS Vial:	14
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.343	6.643	3195282.000	30.000	ug/ml
Aliphatic C12-C16	6.644	10.043	1956091.000	20.000	ug/ml
Aliphatic C16-C21	10.044	13.410	2761699.000	30.000	ug/ml
Aliphatic C21-C28	13.411	17.072	3578057.000	40.000	ug/ml
Aliphatic C28-C40	17.073	22.074	5495913.000	60.000	ug/ml
Aliphatic EPH	3.343		16987042.000	180.000	ug/ml

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.

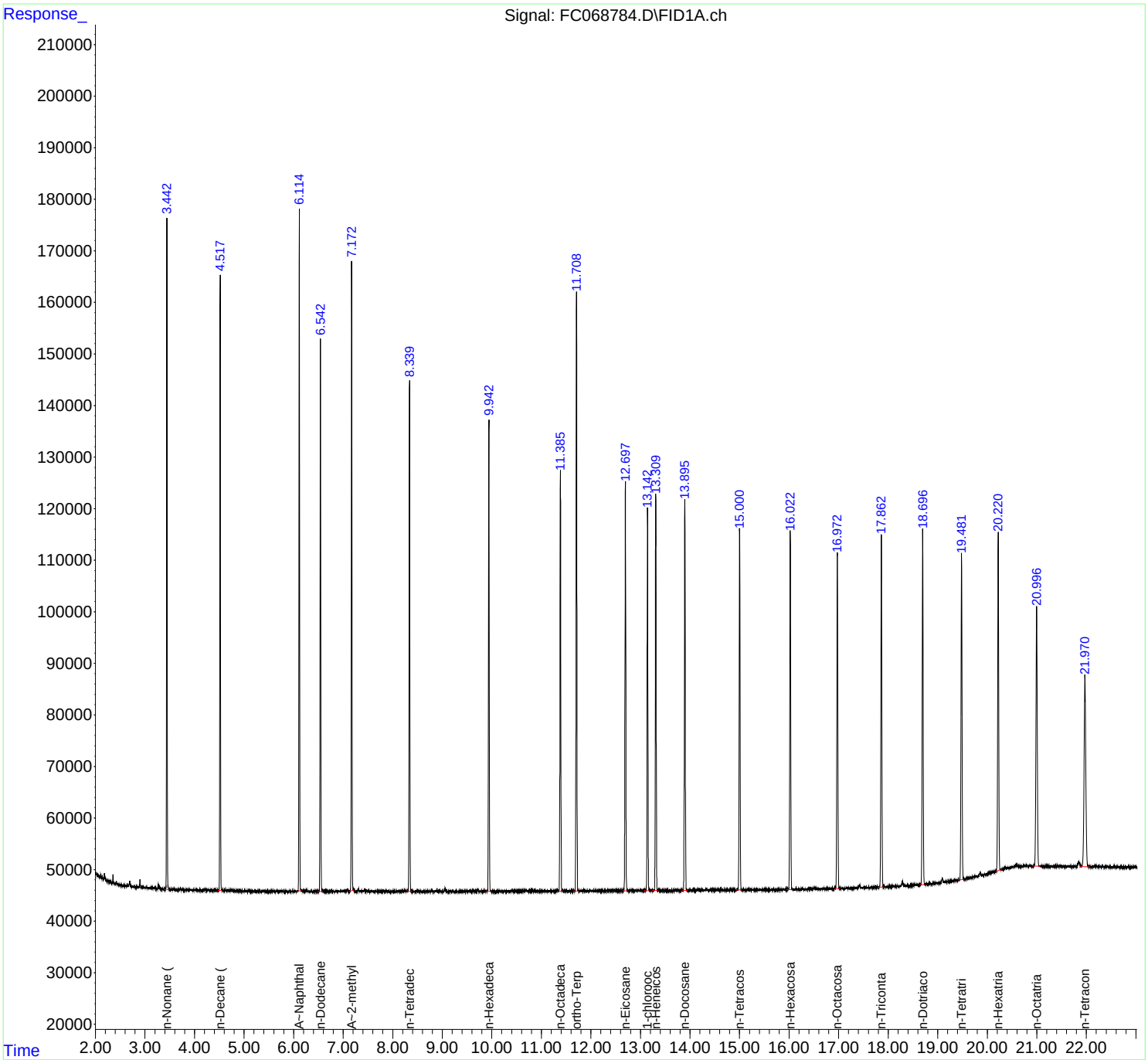
Quantitation Report (QT Reviewed)

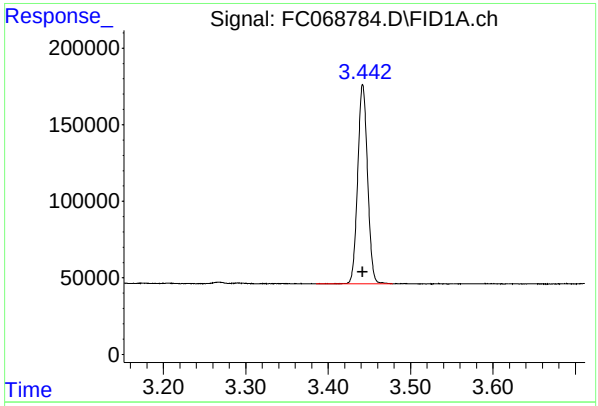
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068784.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 17:26
Operator : YP/AJ
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

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

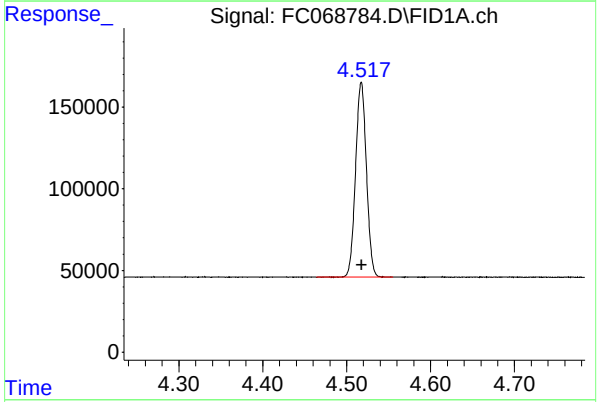




#1 n-Nonane (C9)

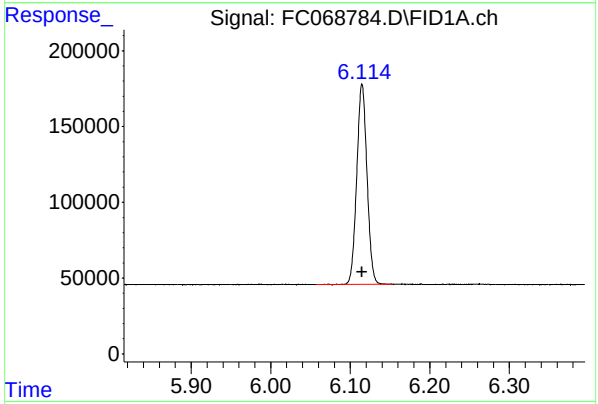
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 1080668
Conc: 10.41 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



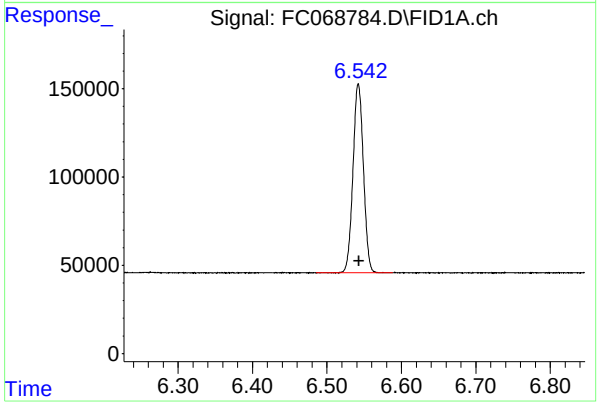
#2 n-Decane (C10)

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



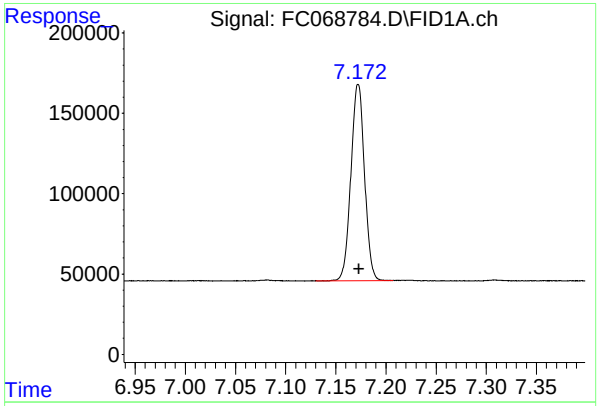
#3 A~Naphthalene (C11.7)

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



#4 n-Dodecane (C12)

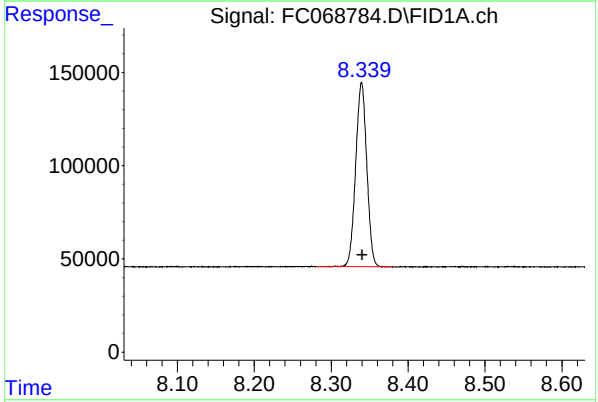
R.T.: 6.542 min
Delta R.T.: 0.000 min
Response: 1043863
Conc: 10.41 ug/ml



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

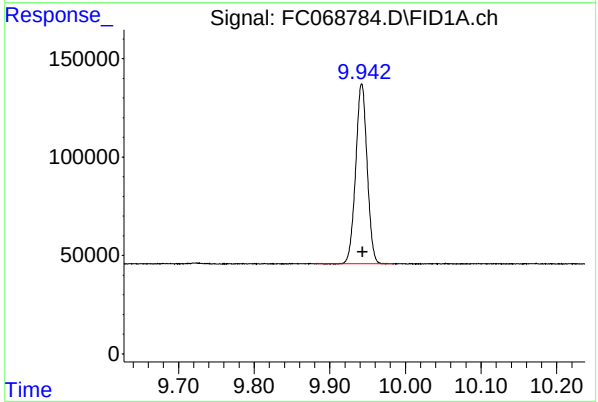
R.T.: 7.172 min
Delta R.T.: 0.000 min
Response: 1152025
Conc: 10.35 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



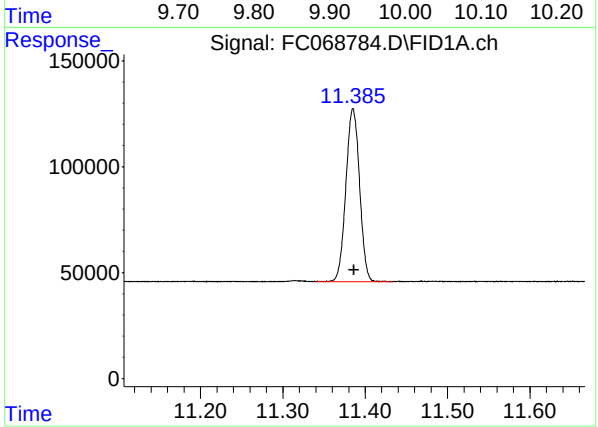
#6 n-Tetradecane (C14)

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



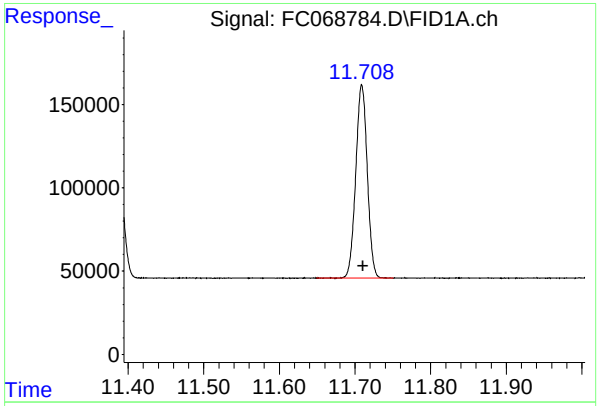
#7 n-Hexadecane (C16)

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



#8 n-Octadecane (C18)

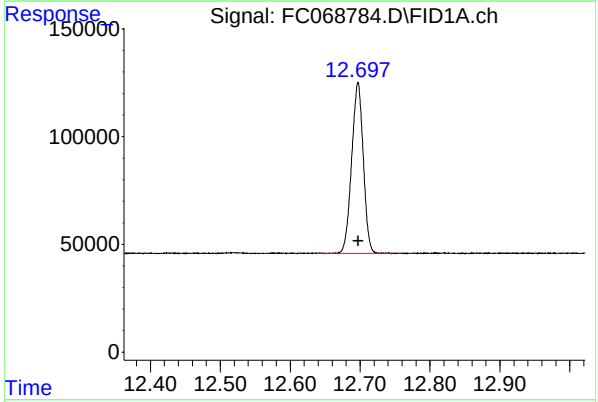
R.T.: 11.385 min
Delta R.T.: 0.000 min
Response: 941672
Conc: 10.38 ug/ml



#9 ortho-Terphenyl (SURR)

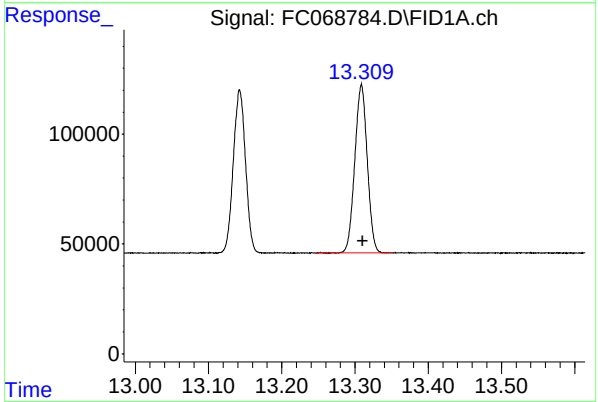
R.T.: 11.709 min
Delta R.T.: -0.002 min
Response: 1229812
Conc: 10.42 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



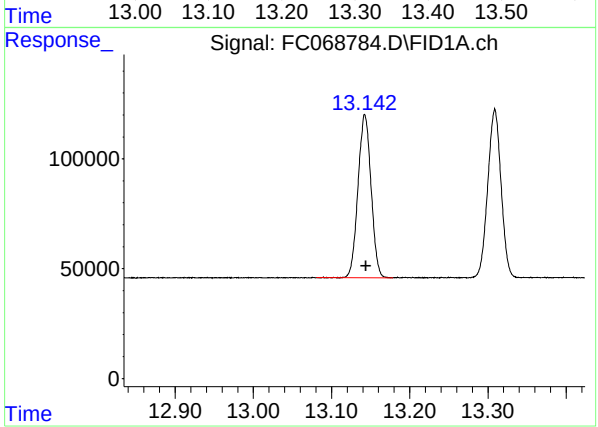
#10 n-Eicosane (C20)

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



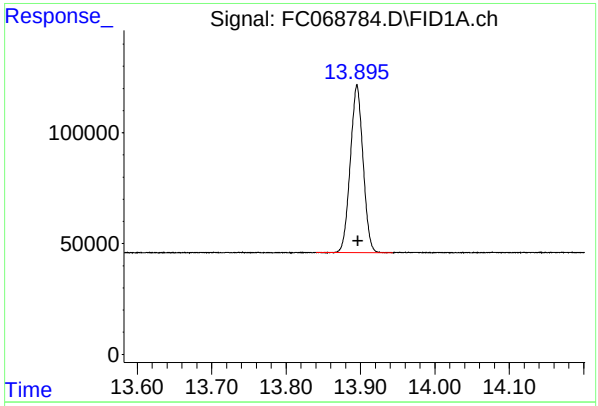
#11 n-Heneicosane (C21)

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



#12 1-chlorooctadecane (SURR)

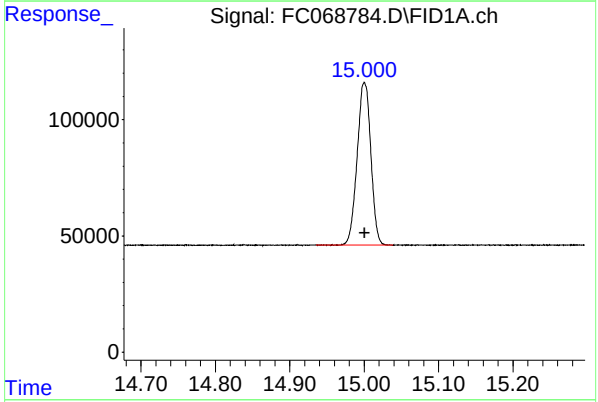
R.T.: 13.143 min
Delta R.T.: -0.001 min
Response: 860839
Conc: 10.37 ug/ml



#13 n-Docosane (C22)

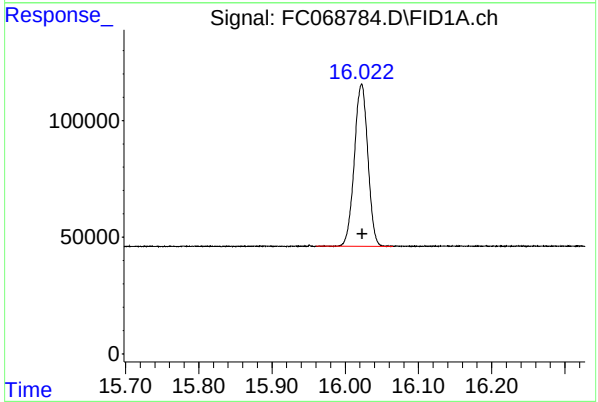
R.T.: 13.895 min
Delta R.T.: -0.001 min
Response: 899148
Conc: 10.41 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



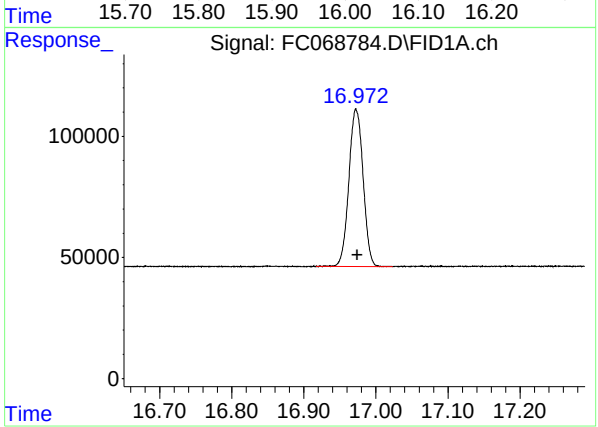
#14 n-Tetracosane (C24)

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



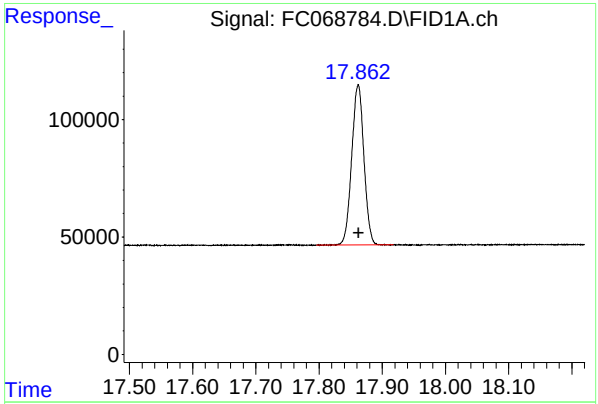
#15 n-Hexacosane (C26)

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



#16 n-Octacosane (C28)

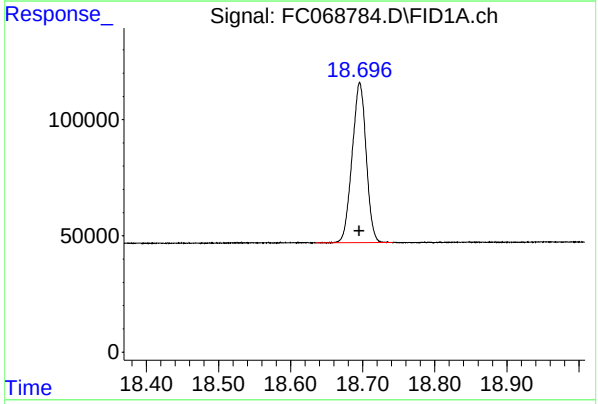
R.T.: 16.973 min
Delta R.T.: -0.001 min
Response: 891896
Conc: 10.59 ug/ml



#17 n-Tricontane (C30)

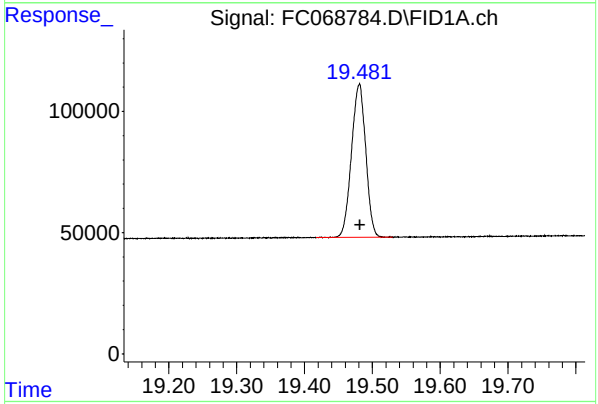
R.T.: 17.862 min
Delta R.T.: 0.000 min
Response: 915267
Conc: 10.62 ug/ml

Instrument :
FID_C
ClientSampleId :
10 PPM ALIPHATIC HC STD4



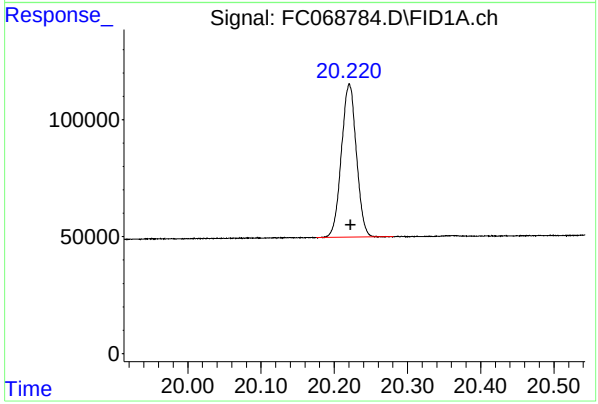
#18 n-Dotriacontane (C32)

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



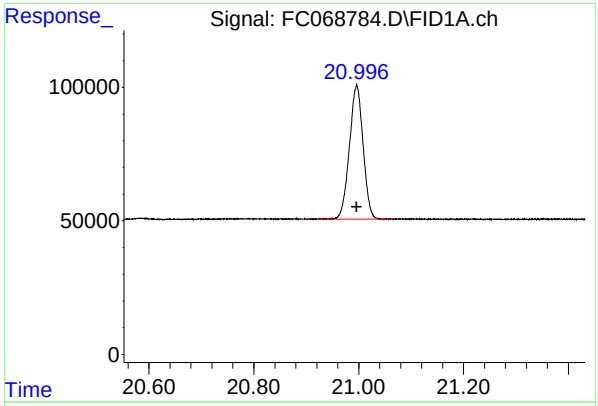
#19 n-Tetratriacontane (C34)

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



#20 n-Hexatriacontane (C36)

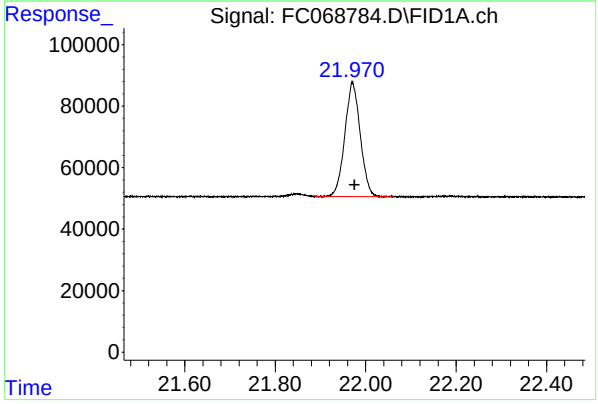
R.T.: 20.221 min
Delta R.T.: -0.002 min
Response: 931989
Conc: 10.63 ug/ml



#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

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

Lab Sample ID:	5 PPM ALIPHATIC HC S	Acq On:	06 May 2025 18:03
Client Sample ID:		Operator:	YP/AJ
Data file:	FC068785.D	Misc:	
Instrument:	FID_C	ALS Vial:	15
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.343	6.643	1492730.000	15.000	ug/ml
Aliphatic C12-C16	6.644	10.043	919066.000	10.000	ug/ml
Aliphatic C16-C21	10.044	13.410	1307311.000	15.000	ug/ml
Aliphatic C21-C28	13.411	17.072	1689101.000	20.000	ug/ml
Aliphatic C28-C40	17.073	22.074	2571840.000	30.000	ug/ml
Aliphatic EPH	3.343		7980048.000	90.000	ug/ml

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.

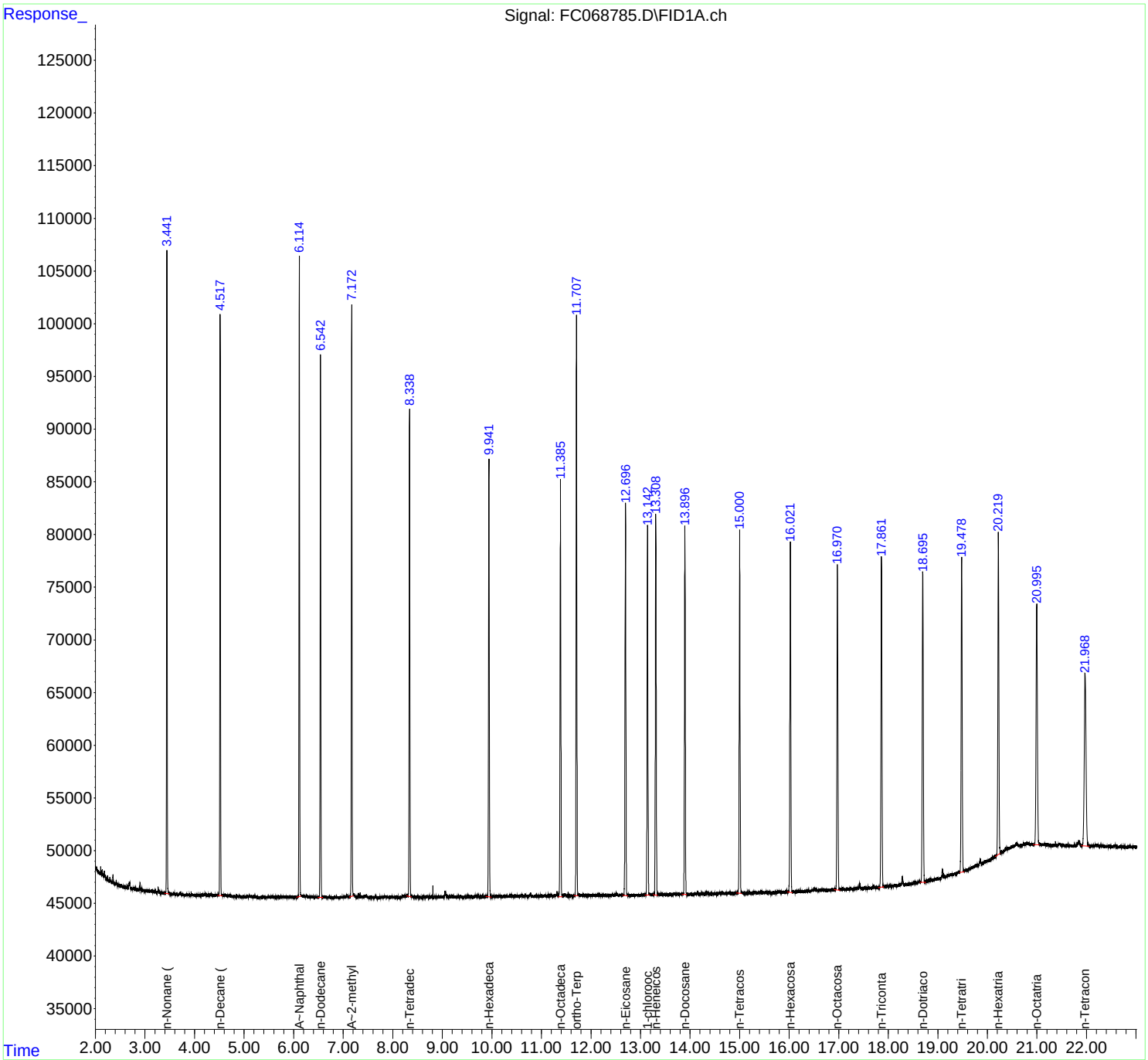
Quantitation Report (QT Reviewed)

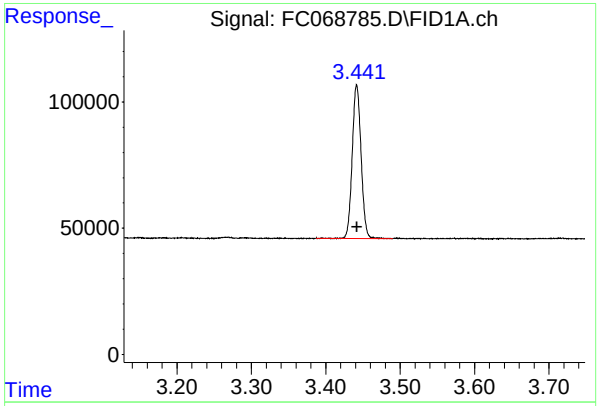
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068785.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 18:03
Operator : YP/AJ
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

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

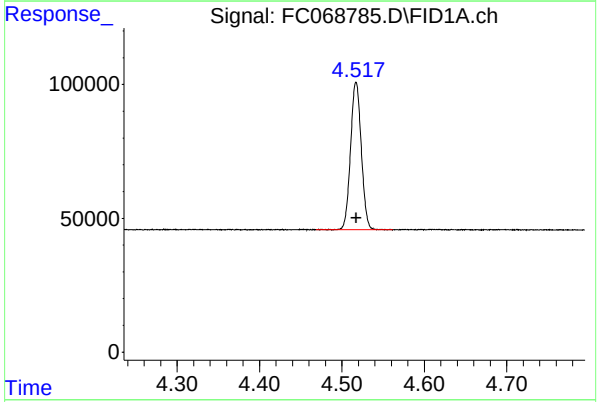




#1 n-Nonane (C9)

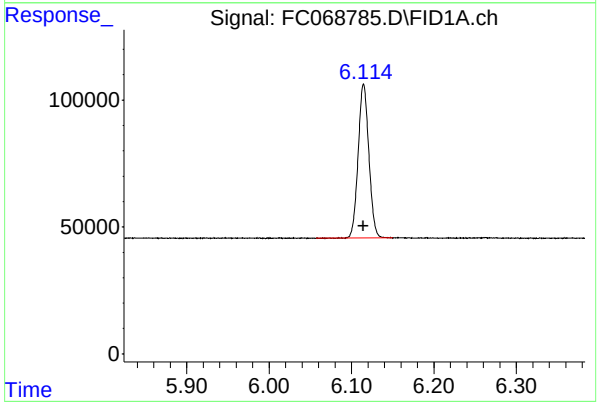
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 503286
Conc: 4.85 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



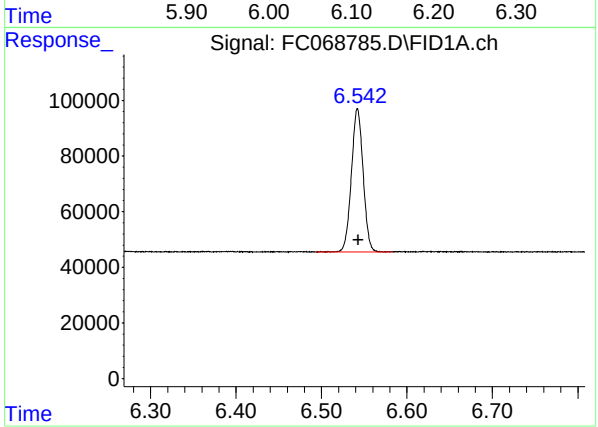
#2 n-Decane (C10)

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



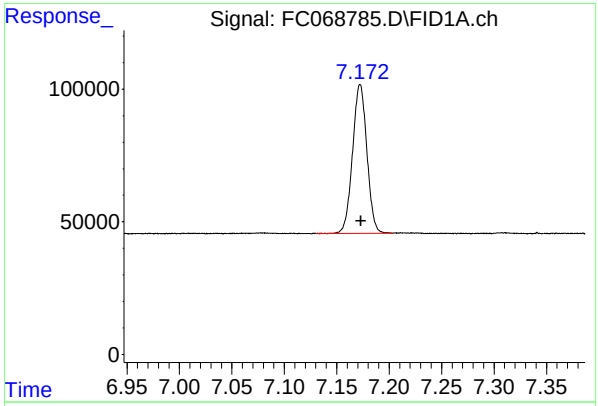
#3 A~Naphthalene (C11.7)

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



#4 n-Dodecane (C12)

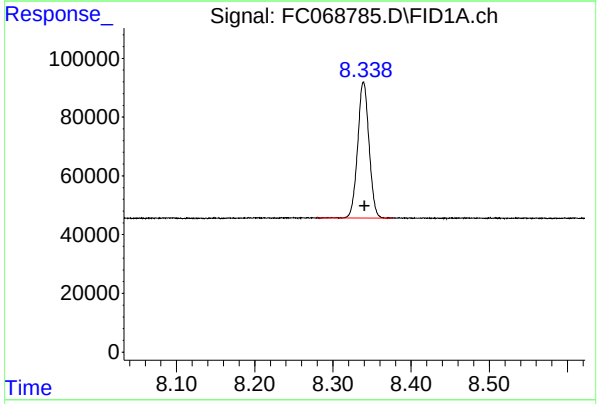
R.T.: 6.542 min
Delta R.T.: 0.000 min
Response: 489960
Conc: 4.89 ug/ml



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

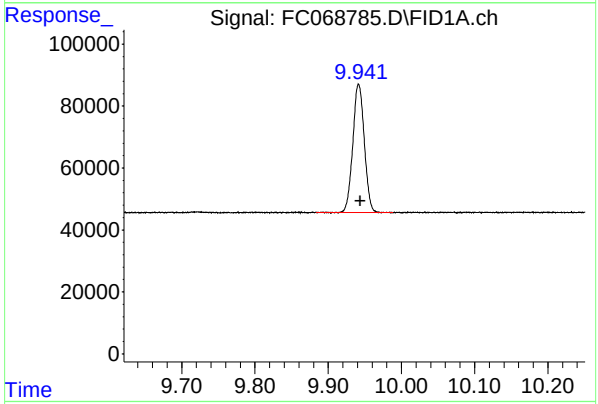
R.T.: 7.172 min
Delta R.T.: 0.000 min
Response: 533329
Conc: 4.79 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



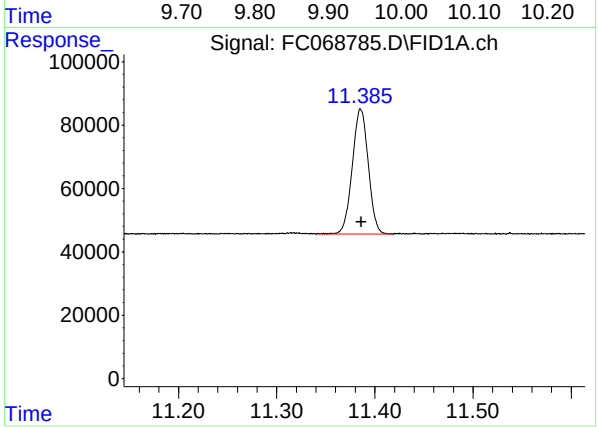
#6 n-Tetradecane (C14)

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



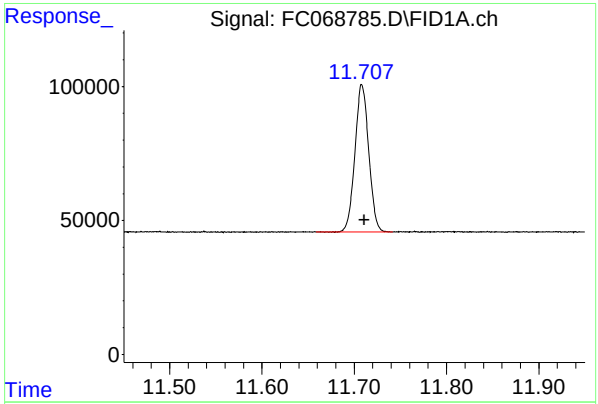
#7 n-Hexadecane (C16)

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



#8 n-Octadecane (C18)

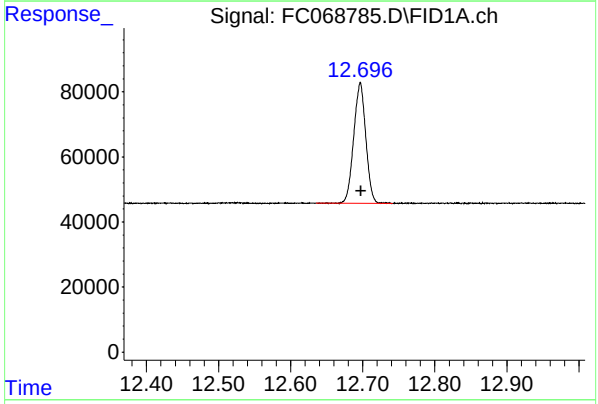
R.T.: 11.386 min
Delta R.T.: 0.000 min
Response: 446925
Conc: 4.93 ug/ml



#9 ortho-Terphenyl (SURR)

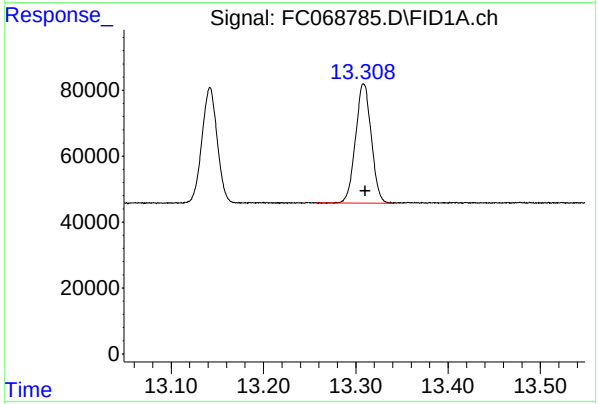
R.T.: 11.709 min
Delta R.T.: -0.002 min
Response: 571192
Conc: 4.84 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



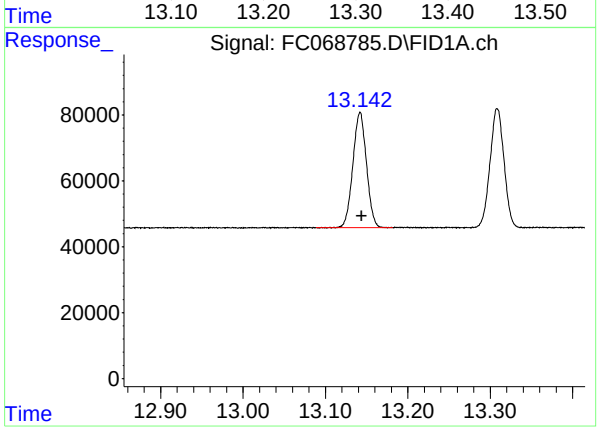
#10 n-Eicosane (C20)

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



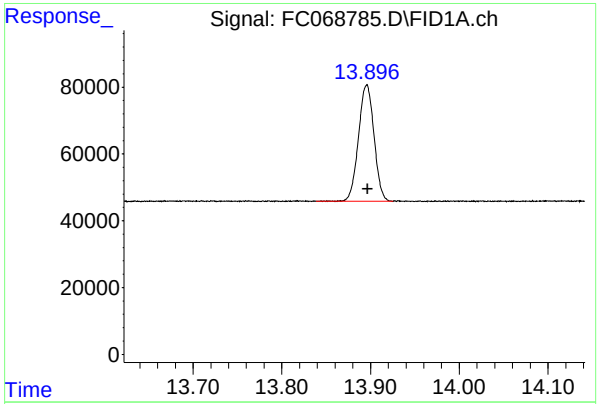
#11 n-Heneicosane (C21)

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



#12 1-chlorooctadecane (SURR)

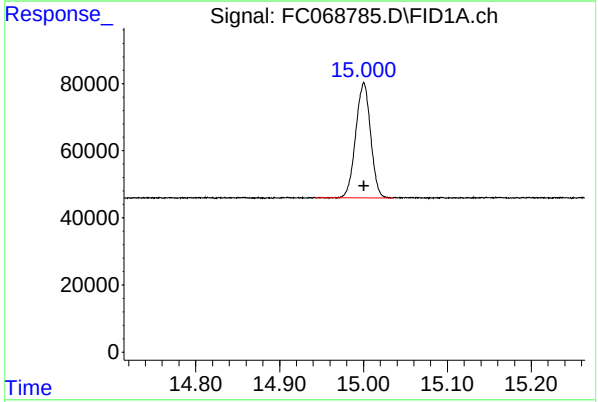
R.T.: 13.142 min
Delta R.T.: -0.002 min
Response: 402064
Conc: 4.84 ug/ml



#13 n-Docosane (C22)

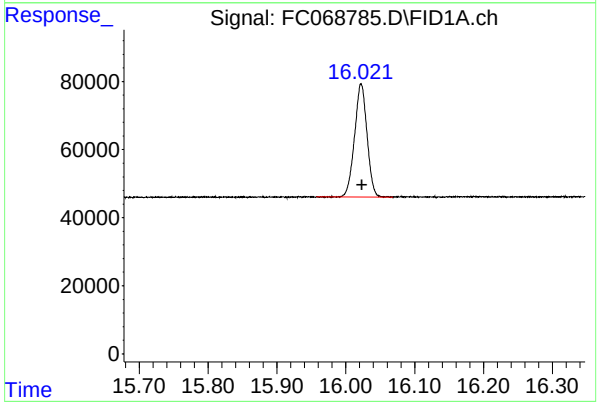
R.T.: 13.896 min
Delta R.T.: -0.001 min
Response: 423815
Conc: 4.91 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



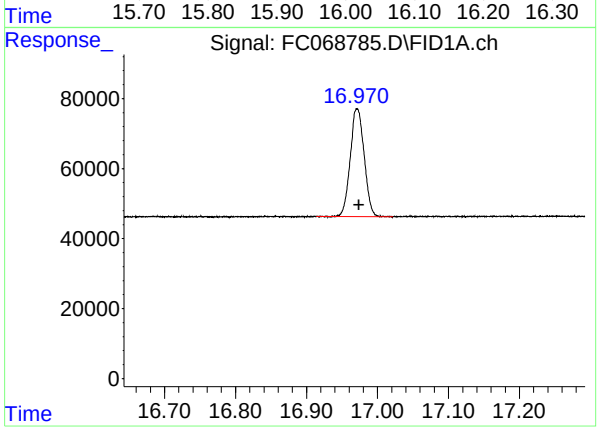
#14 n-Tetracosane (C24)

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



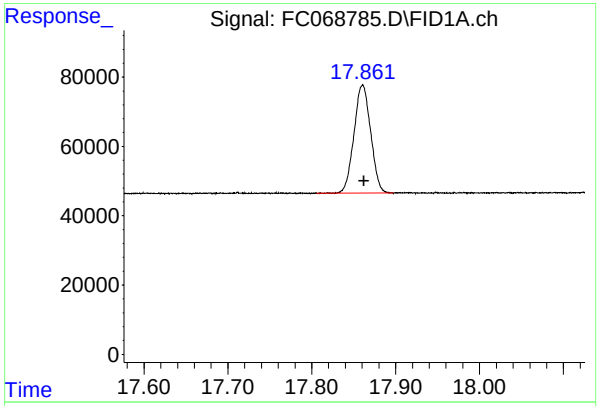
#15 n-Hexacosane (C26)

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



#16 n-Octacosane (C28)

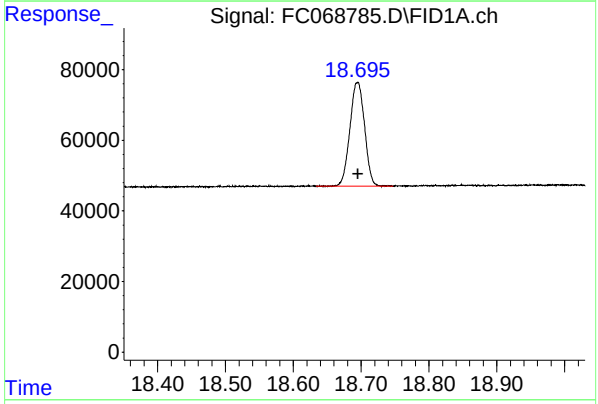
R.T.: 16.971 min
Delta R.T.: -0.003 min
Response: 420815
Conc: 5.00 ug/ml



#17 n-Tricontane (C30)

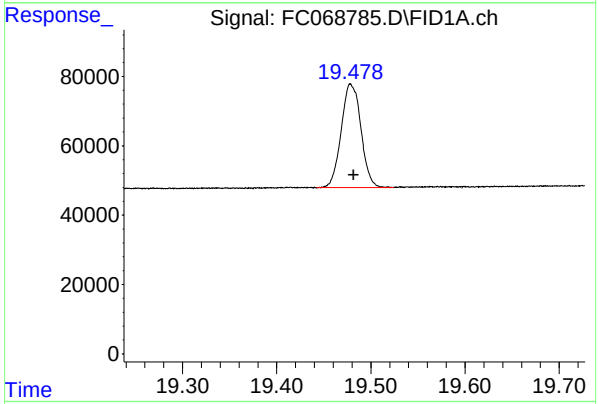
R.T.: 17.861 min
Delta R.T.: -0.002 min
Response: 430802
Conc: 5.00 ug/ml

Instrument :
FID_C
ClientSampleId :
5 PPM ALIPHATIC HC STD5



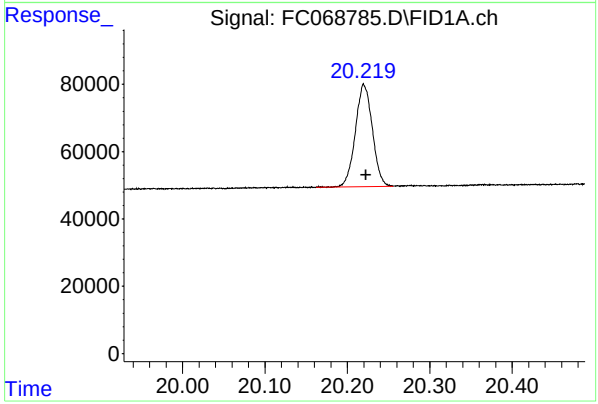
#18 n-Dotriacontane (C32)

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



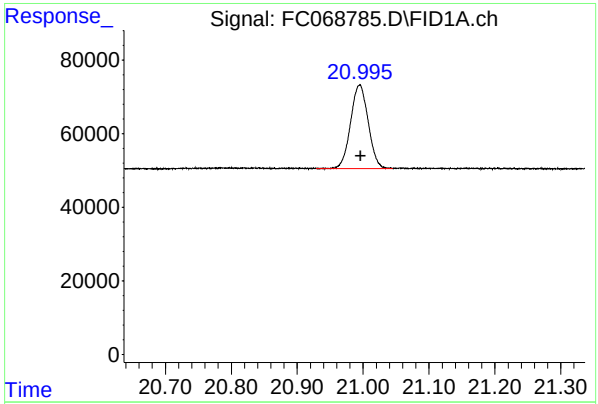
#19 n-Tetratriacontane (C34)

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



#20 n-Hexatriacontane (C36)

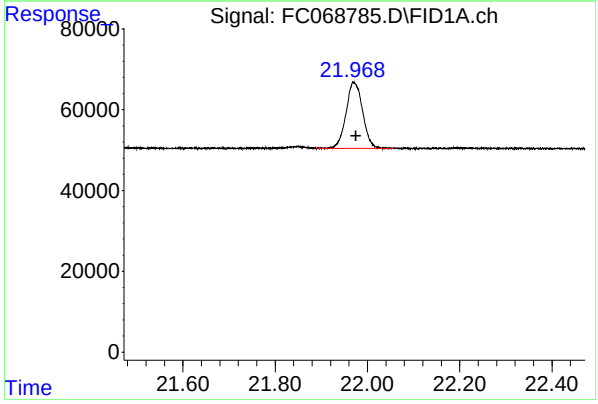
R.T.: 20.220 min
Delta R.T.: -0.002 min
Response: 434336
Conc: 4.95 ug/ml



#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

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	20 PPM ALIPHATIC HC S'	Acq On:	06 May 2025 18:40
Client Sample ID:	20 PPM ALIPHATIC HC S'	Operator:	YP/AJ
Data file:	FC068786.D	Misc:	
Instrument:	FID_C	ALS Vial:	16
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.343	6.643	8422735	84.964	300	ug/ml
Aliphatic C12-C16	6.644	10.043	5956987	65.473	200	ug/ml
Aliphatic C16-C21	10.044	13.410	5282925	61.601	300	ug/ml
Aliphatic C21-C28	13.411	17.072	6810898	81.969	400	ug/ml
Aliphatic C28-C40	17.073	22.074	10361486	122.443	600	ug/ml
Aliphatic EPH	3.343	22.074	36835031	416.45		ug/ml
ortho-Terphenyl (SURR)	11.711	11.711	2355158	20.63		ug/ml
1-chlorooctadecane (SURR)	13.143	13.143	1650109	20.57		ug/ml
Aliphatic C9-C28	3.343	17.072	26473545	294.007	1200	ug/ml

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.

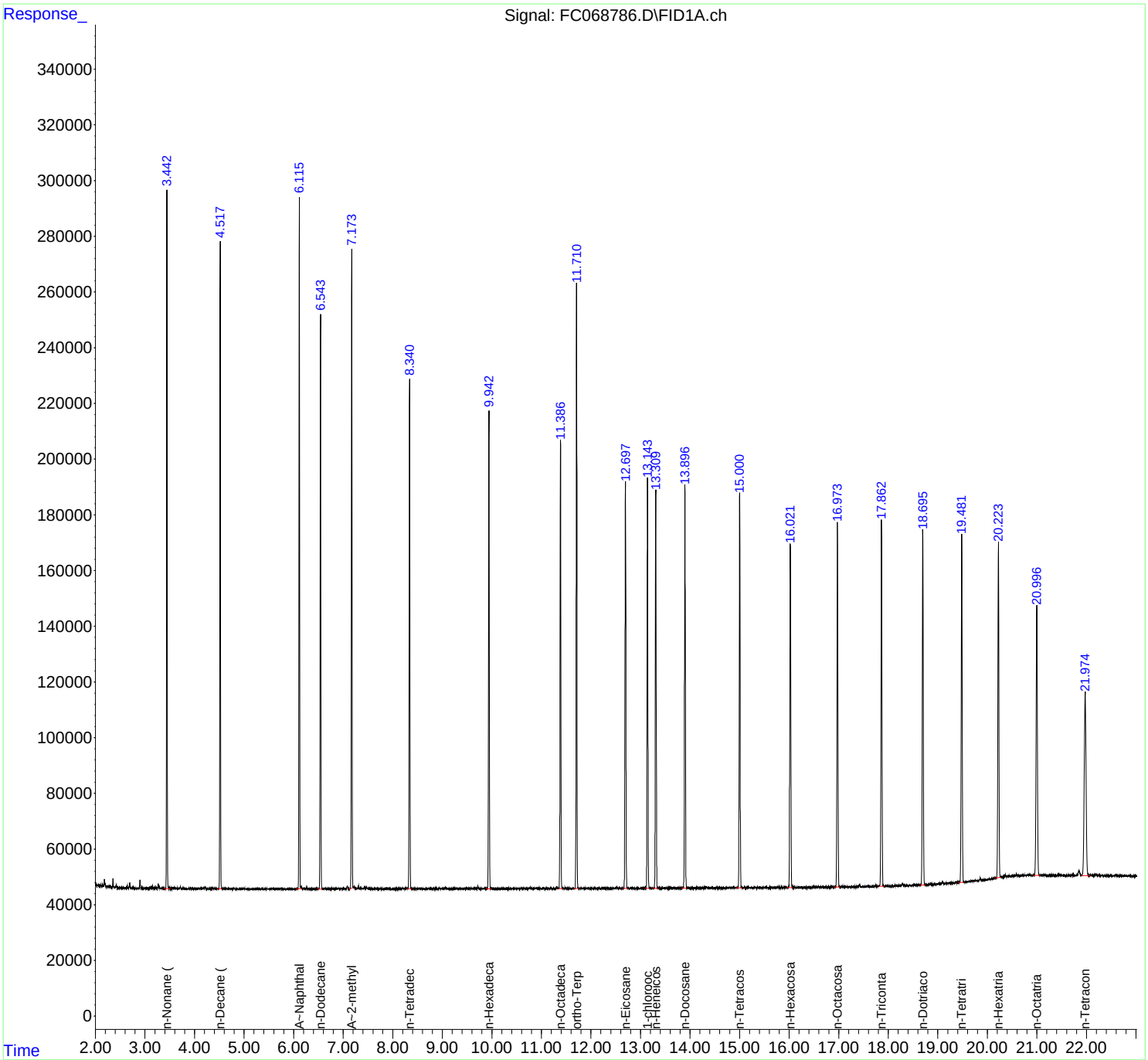
Quantitation Report (QT Reviewed)

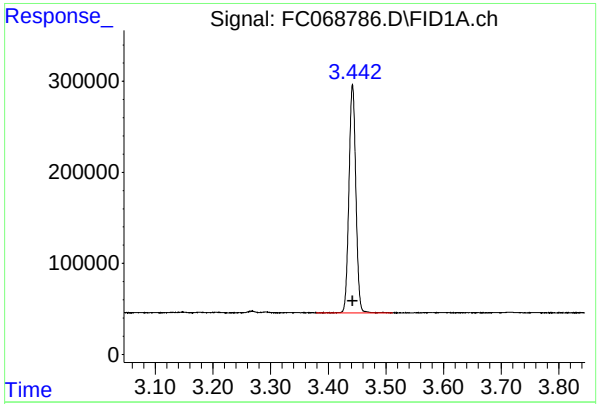
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068786.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 18:40
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

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

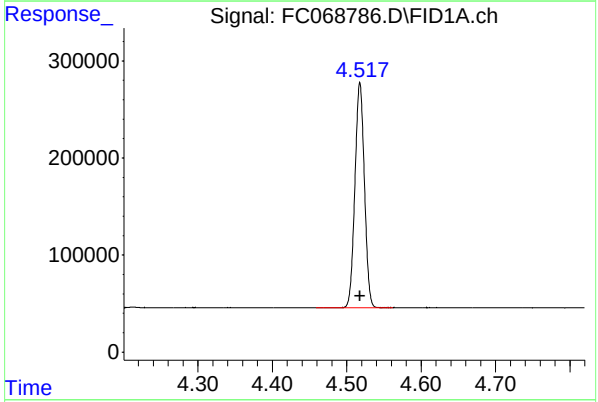




#1 n-Nonane (C9)

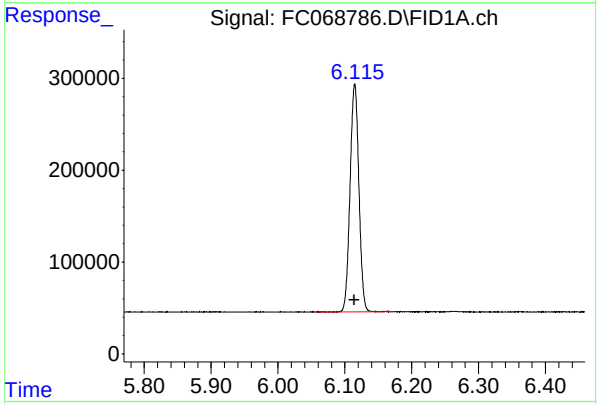
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 2081542
Conc: 20.70 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



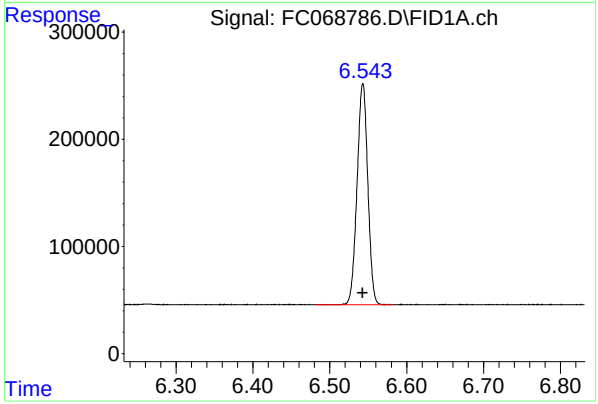
#2 n-Decane (C10)

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



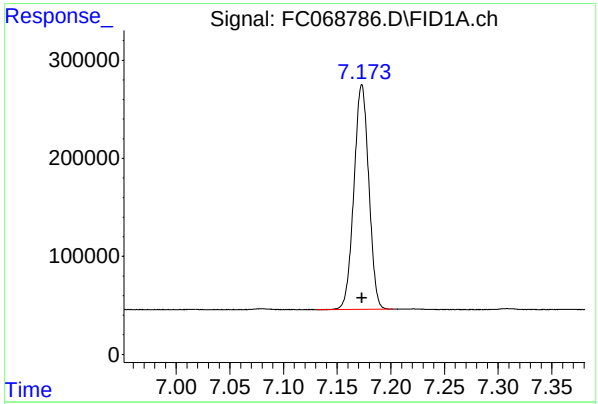
#3 A~Naphthalene (C11.7)

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



#4 n-Dodecane (C12)

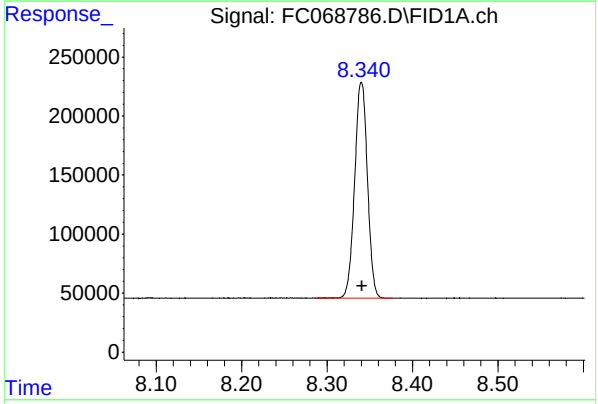
R.T.: 6.543 min
Delta R.T.: 0.000 min
Response: 2004473
Conc: 20.63 ug/ml



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

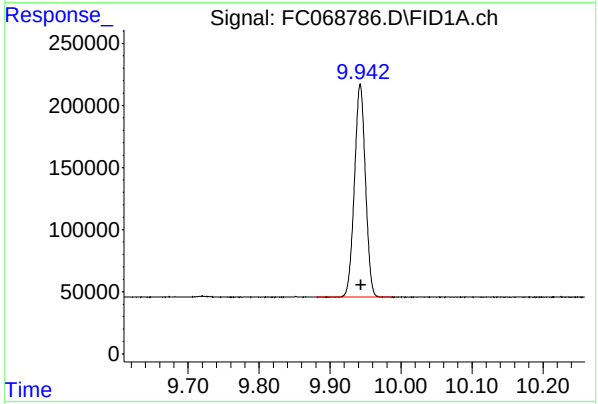
R.T.: 7.173 min
Delta R.T.: 0.000 min
Response: 2210420
Conc: 20.59 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



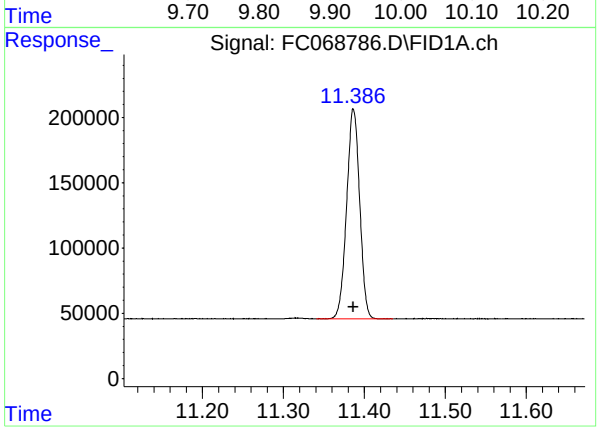
#6 n-Tetradecane (C14)

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



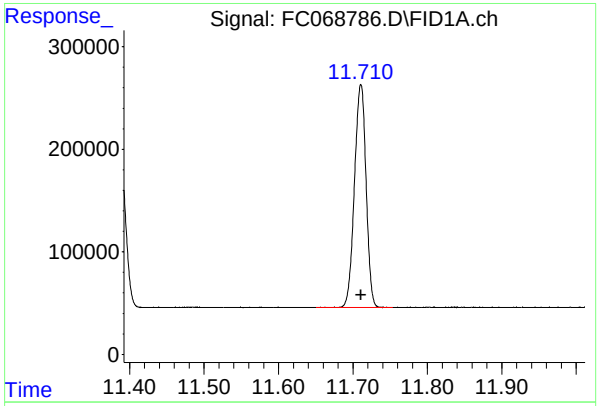
#7 n-Hexadecane (C16)

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



#8 n-Octadecane (C18)

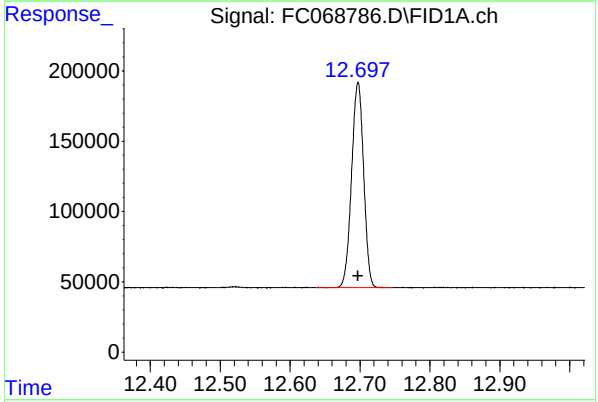
R.T.: 11.387 min
Delta R.T.: 0.000 min
Response: 1800440
Conc: 20.53 ug/ml



#9 ortho-Terphenyl (SURR)

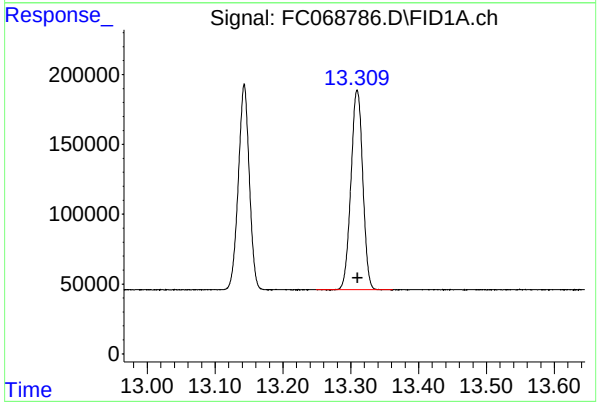
R.T.: 11.711 min
Delta R.T.: 0.000 min
Response: 2355158
Conc: 20.63 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



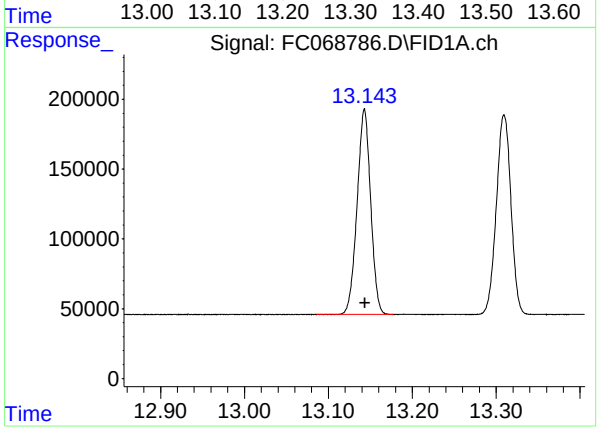
#10 n-Eicosane (C20)

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



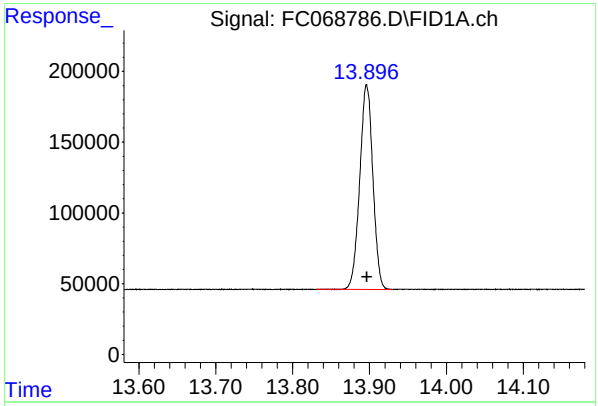
#11 n-Heneicosane (C21)

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



#12 1-chlorooctadecane (SURR)

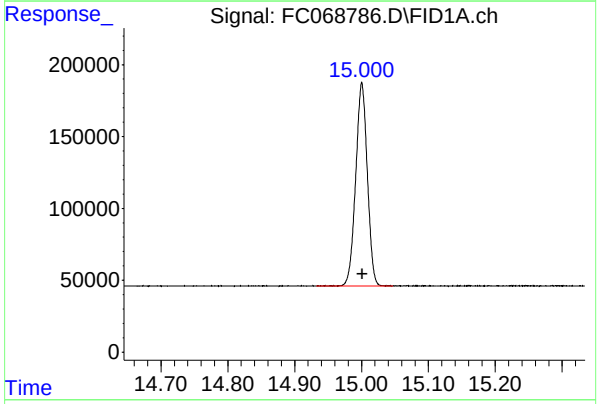
R.T.: 13.143 min
Delta R.T.: 0.000 min
Response: 1650109
Conc: 20.57 ug/ml



#13 n-Docosane (C22)

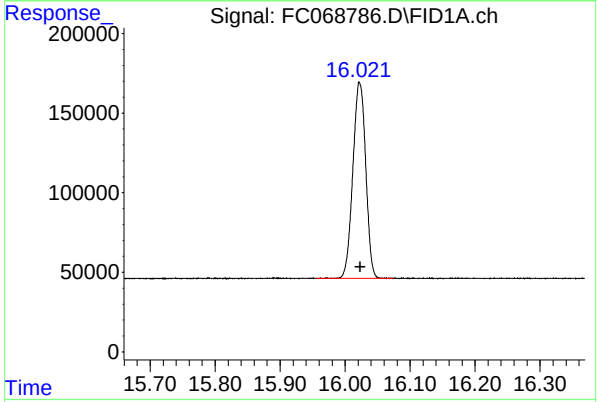
R.T.: 13.896 min
Delta R.T.: 0.000 min
Response: 1718343
Conc: 20.54 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



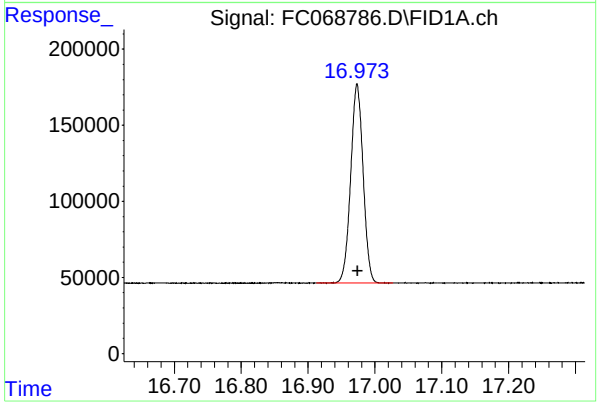
#14 n-Tetracosane (C24)

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



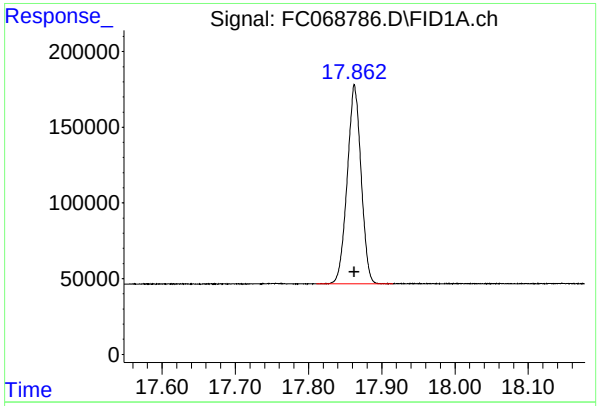
#15 n-Hexacosane (C26)

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



#16 n-Octacosane (C28)

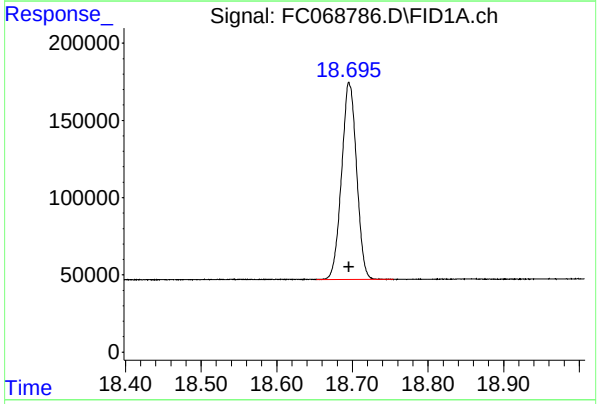
R.T.: 16.973 min
Delta R.T.: 0.000 min
Response: 1687805
Conc: 20.42 ug/ml



#17 n-Tricontane (C30)

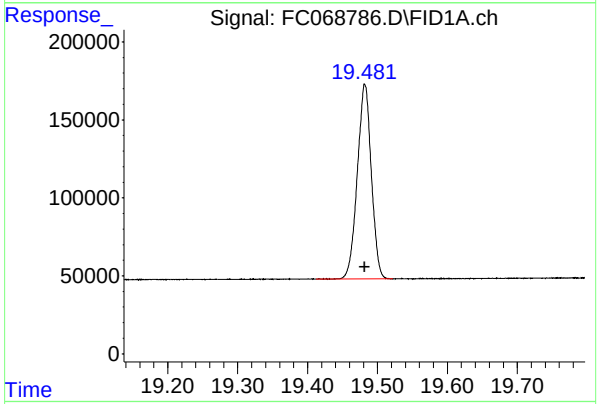
R.T.: 17.863 min
Delta R.T.: 0.000 min
Response: 1728320
Conc: 20.43 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV



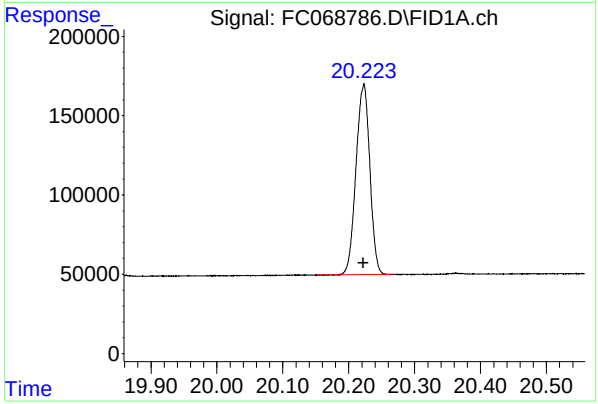
#18 n-Dotriacontane (C32)

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



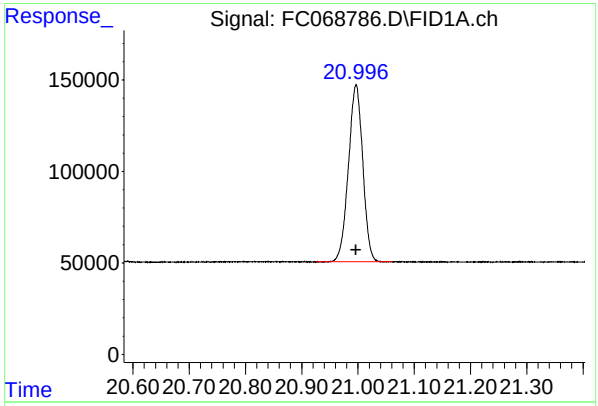
#19 n-Tetratriacontane (C34)

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



#20 n-Hexatriacontane (C36)

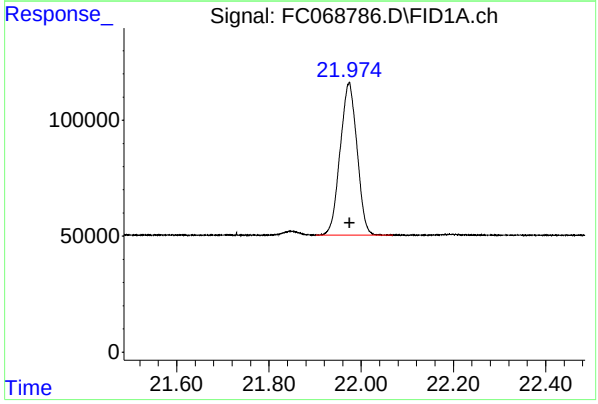
R.T.: 20.223 min
Delta R.T.: 0.000 min
Response: 1753728
Conc: 20.40 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.997 min
Delta R.T.: 0.000 min
Response: 1714449
Conc: 20.44 ug/ml

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	

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

Lab Sample ID:	100 PPM AROMATIC HC	Acq On:	01 May 2025 10:30
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049298.D	Misc:	
Instrument:	FID_D	ALS Vial:	61
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.175	24947085.000	200.000	ug/ml
Aromatic C12-C16	6.176	8.804	39319151.000	300.000	ug/ml
Aromatic C16-C21	8.805	13.095	51864159.000	400.000	ug/ml
Aromatic C21-C36	13.096	18.515	105771332.000	900.000	ug/ml
Aromatic EPH	4.431	18.515	221901727.000	1800.000	ug/ml

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.

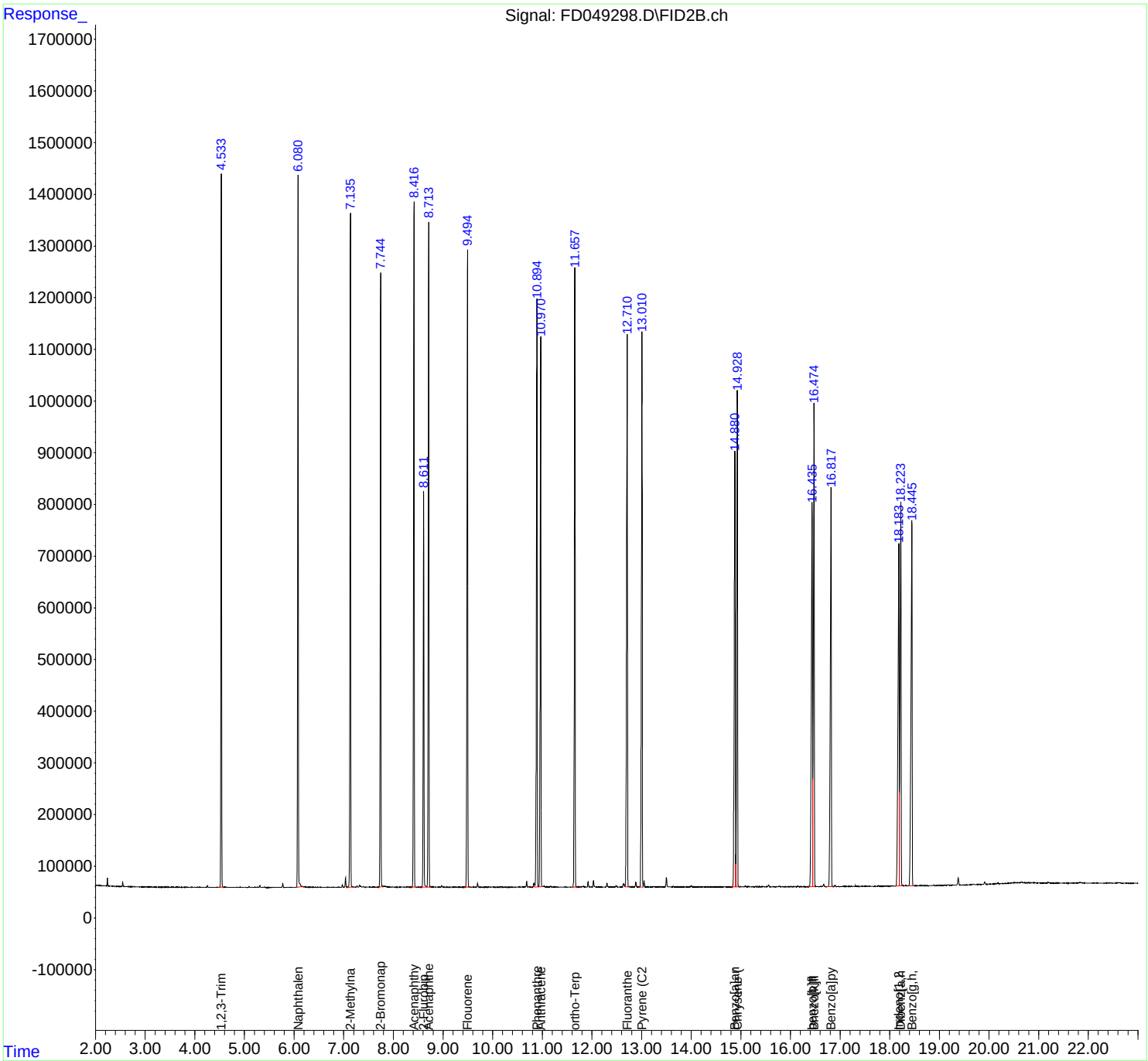
Quantitation Report (QT Reviewed)

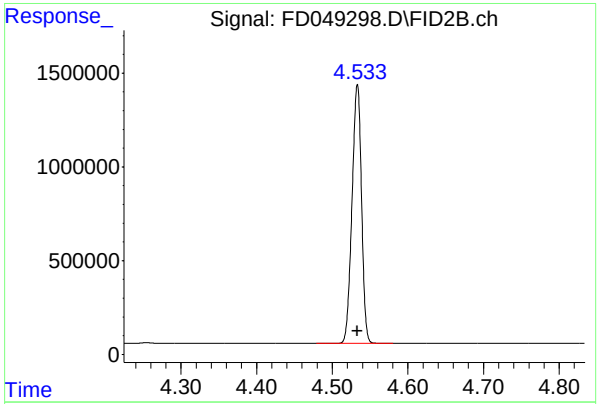
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049298.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 10:30
Operator : YP/AJ
Sample : 100 PPM AROMATIC HC STD1
Misc :
ALS Vial : 61 Sample Multiplier: 1

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

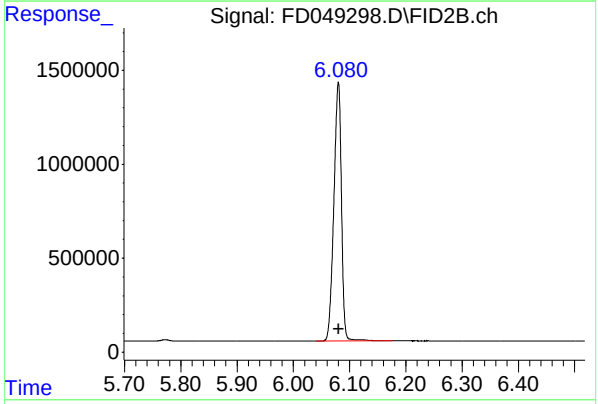




#1 1,2,3-Trimethylbenzene (C10.1)

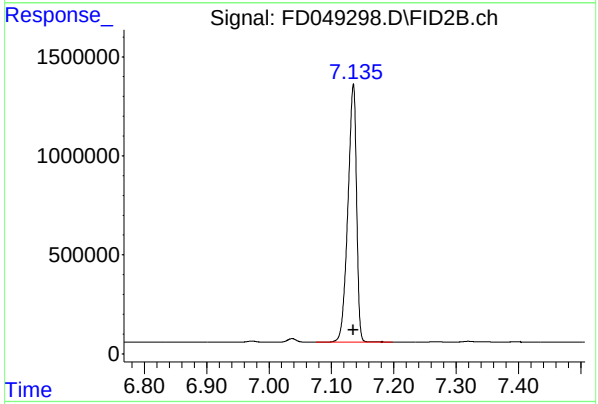
R.T.: 4.533 min
Delta R.T.: 0.000 min
Response: 12023424
Conc: 96.26 ug/ml

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



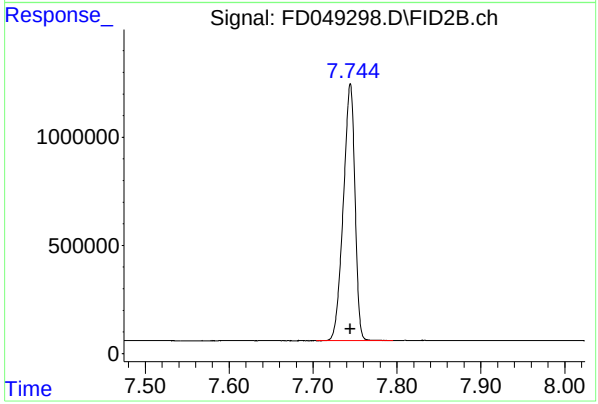
#2 Naphthalene (C11.7)

R.T.: 6.080 min
Delta R.T.: 0.000 min
Response: 12923661
Conc: 96.70 ug/ml



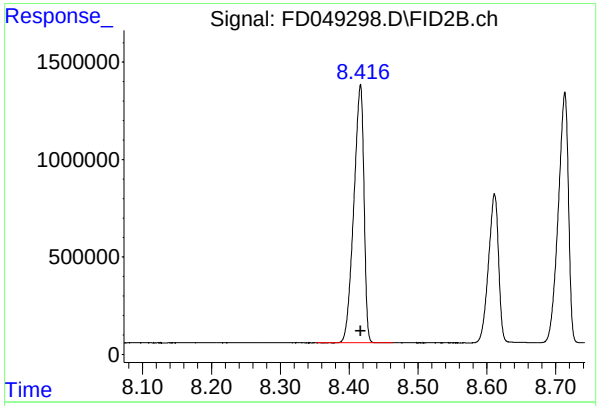
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.135 min
Delta R.T.: 0.000 min
Response: 12548644
Conc: 96.36 ug/ml



#4 2-Bromonaphthalene (SURR)

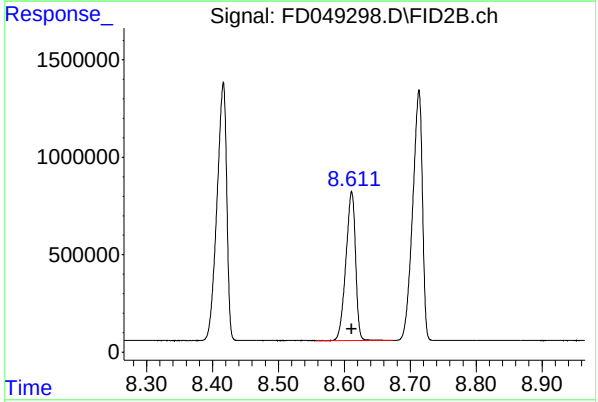
R.T.: 7.745 min
Delta R.T.: 0.000 min
Response: 11463954
Conc: 96.11 ug/ml



#5 Acenaphthylene (C15.06)

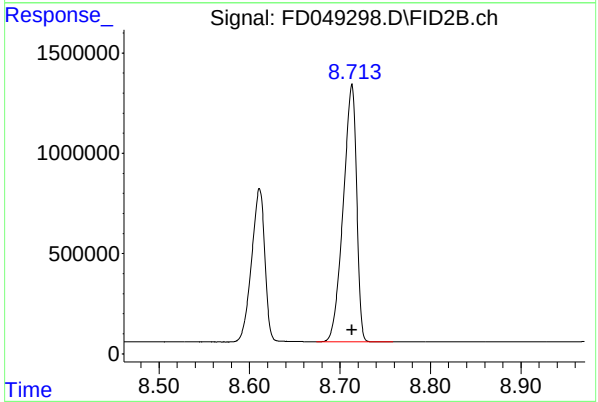
R.T.: 8.416 min
Delta R.T.: 0.000 min
Response: 13558134
Conc: 95.74 ug/ml

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



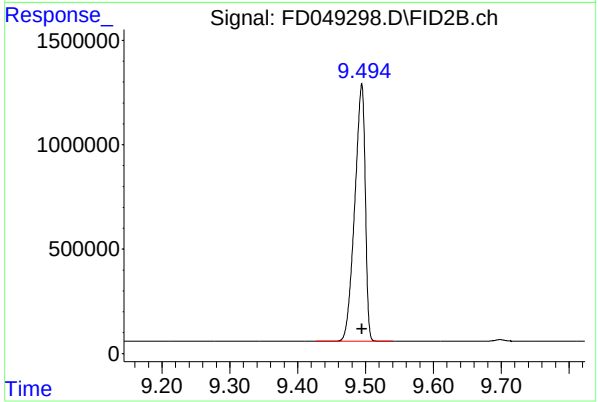
#6 2-Flurobiphenyl (SURR)

R.T.: 8.611 min
Delta R.T.: 0.000 min
Response: 7800759
Conc: 96.83 ug/ml



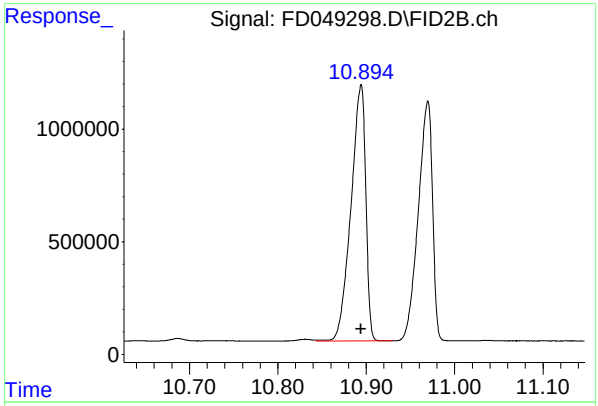
#7 Acenaphthene (C15.5)

R.T.: 8.713 min
Delta R.T.: 0.000 min
Response: 13212373
Conc: 95.93 ug/ml



#8 Flouorene (C16.55)

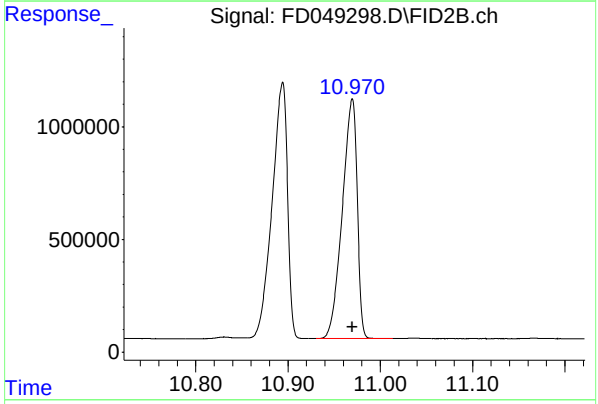
R.T.: 9.494 min
Delta R.T.: 0.000 min
Response: 13224001
Conc: 96.00 ug/ml



#9 Phenanthrene (C19.36)

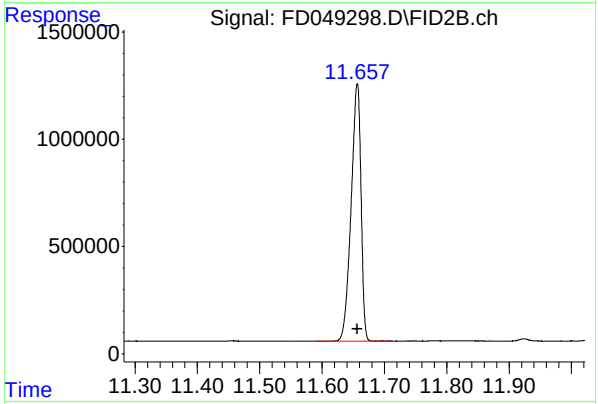
R.T.: 10.894 min
Delta R.T.: 0.000 min
Response: 13198540
Conc: 96.33 ug/ml

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



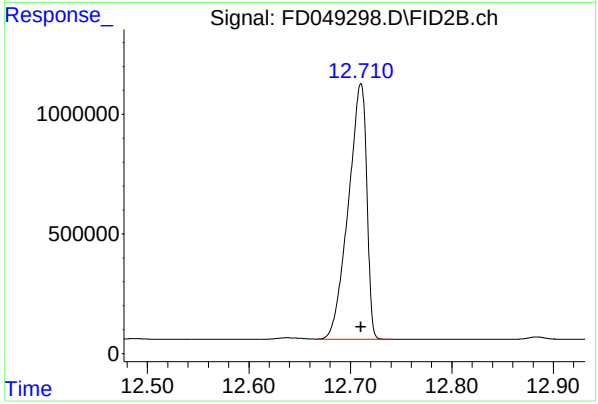
#10 Anthracene (C19.43)

R.T.: 10.970 min
Delta R.T.: 0.000 min
Response: 11932871
Conc: 97.42 ug/ml



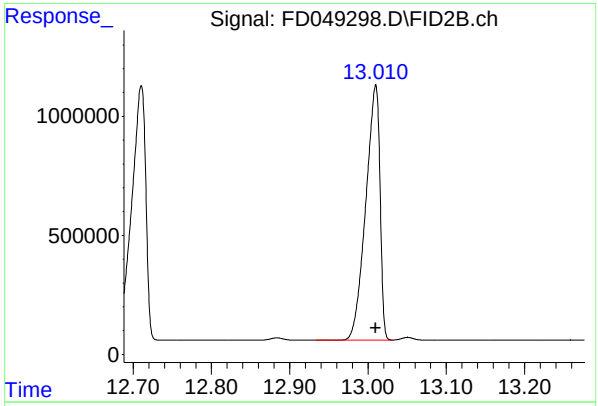
#11 ortho-Terphenyl (SURR)

R.T.: 11.657 min
Delta R.T.: 0.000 min
Response: 13203715
Conc: 95.22 ug/ml



#12 Fluoranthene (C21.85)

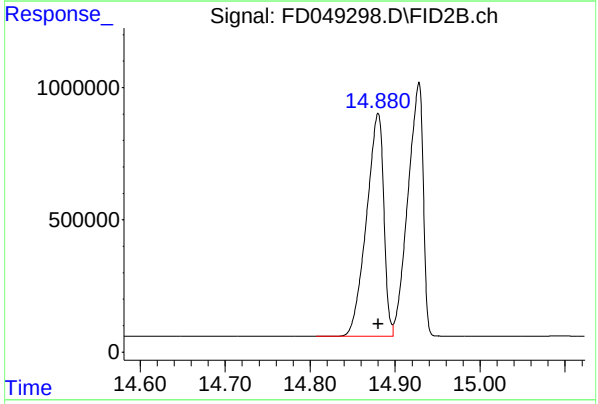
R.T.: 12.710 min
Delta R.T.: 0.000 min
Response: 13459488
Conc: 97.03 ug/ml



#13 Pyrene (C20.8)

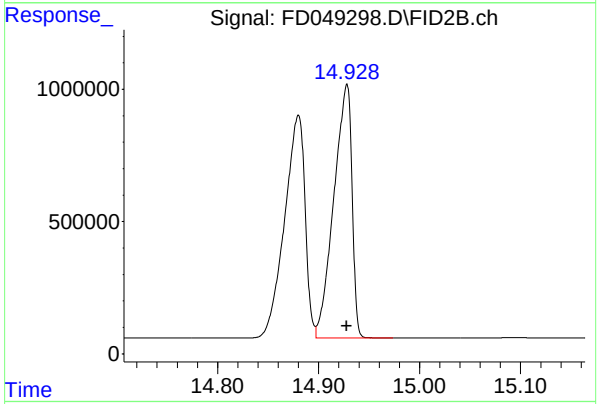
R.T.: 13.010 min
Delta R.T.: 0.000 min
Response: 13508747
Conc: 97.17 ug/ml

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



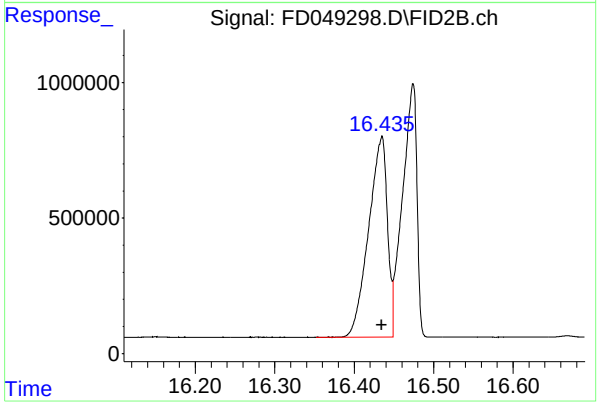
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.880 min
Delta R.T.: 0.000 min
Response: 11905065
Conc: 99.76 ug/ml



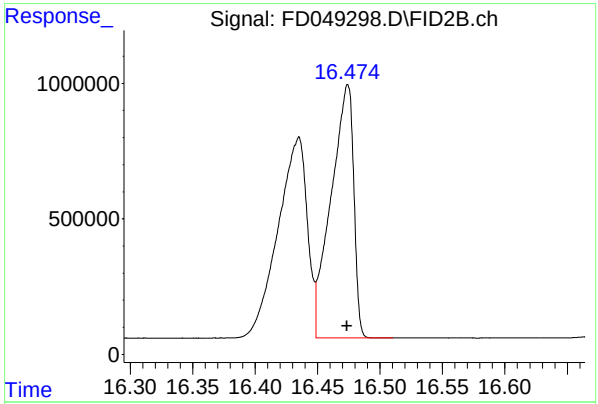
#15 Chrysene (C27.41)

R.T.: 14.928 min
Delta R.T.: 0.000 min
Response: 11971428
Conc: 99.23 ug/ml



#16 benzo[b]fluoranthene (C30.41)

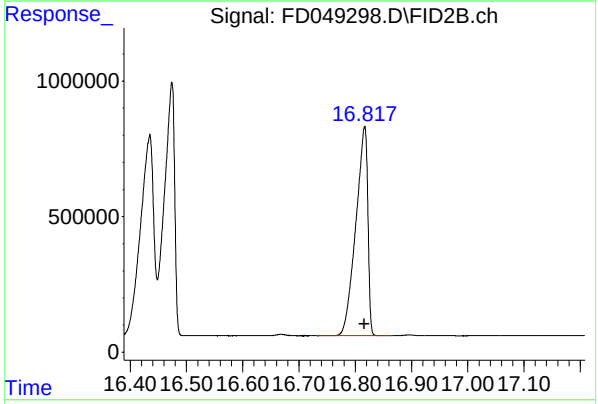
R.T.: 16.435 min
Delta R.T.: 0.000 min
Response: 12128915
Conc: 98.22 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

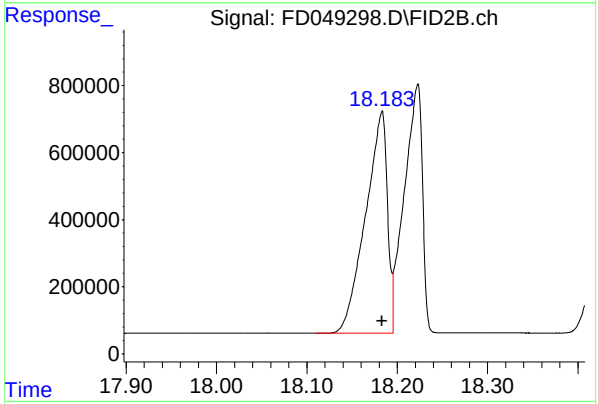
R.T.: 16.474 min
Delta R.T.: 0.000 min
Response: 11789554
Conc: 97.80 ug/ml

Instrument :
FID_D
ClientSampleId :
100 PPM AROMATIC HC STD1



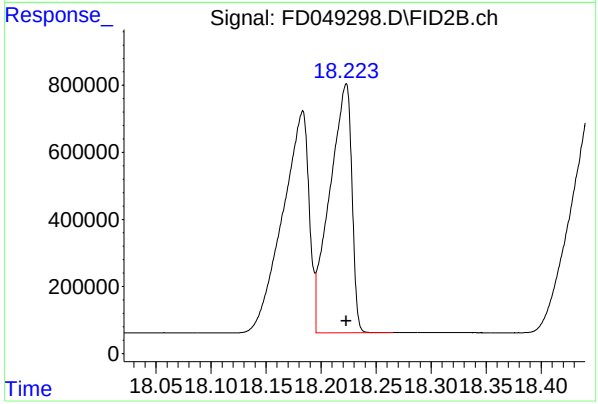
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.817 min
Delta R.T.: 0.000 min
Response: 11413341
Conc: 97.78 ug/ml



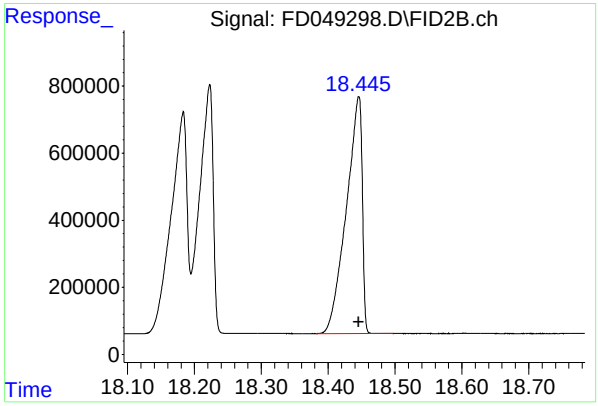
#19 Indeno[1,2,3-cd]pyrene (C35.01)

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

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

Lab Sample ID:	50 PPM AROMATIC HC S	Acq On:	01 May 2025 11:07
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049299.D	Misc:	
Instrument:	FID_D	ALS Vial:	62
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.175	13432598.000	100.000	ug/ml
Aromatic C12-C16	6.176	8.804	21327001.000	150.000	ug/ml
Aromatic C16-C21	8.805	13.095	28036330.000	200.000	ug/ml
Aromatic C21-C36	13.096	18.515	55185778.000	450.000	ug/ml
Aromatic EPH	4.431	18.515	117981707.000	900.000	ug/ml

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.

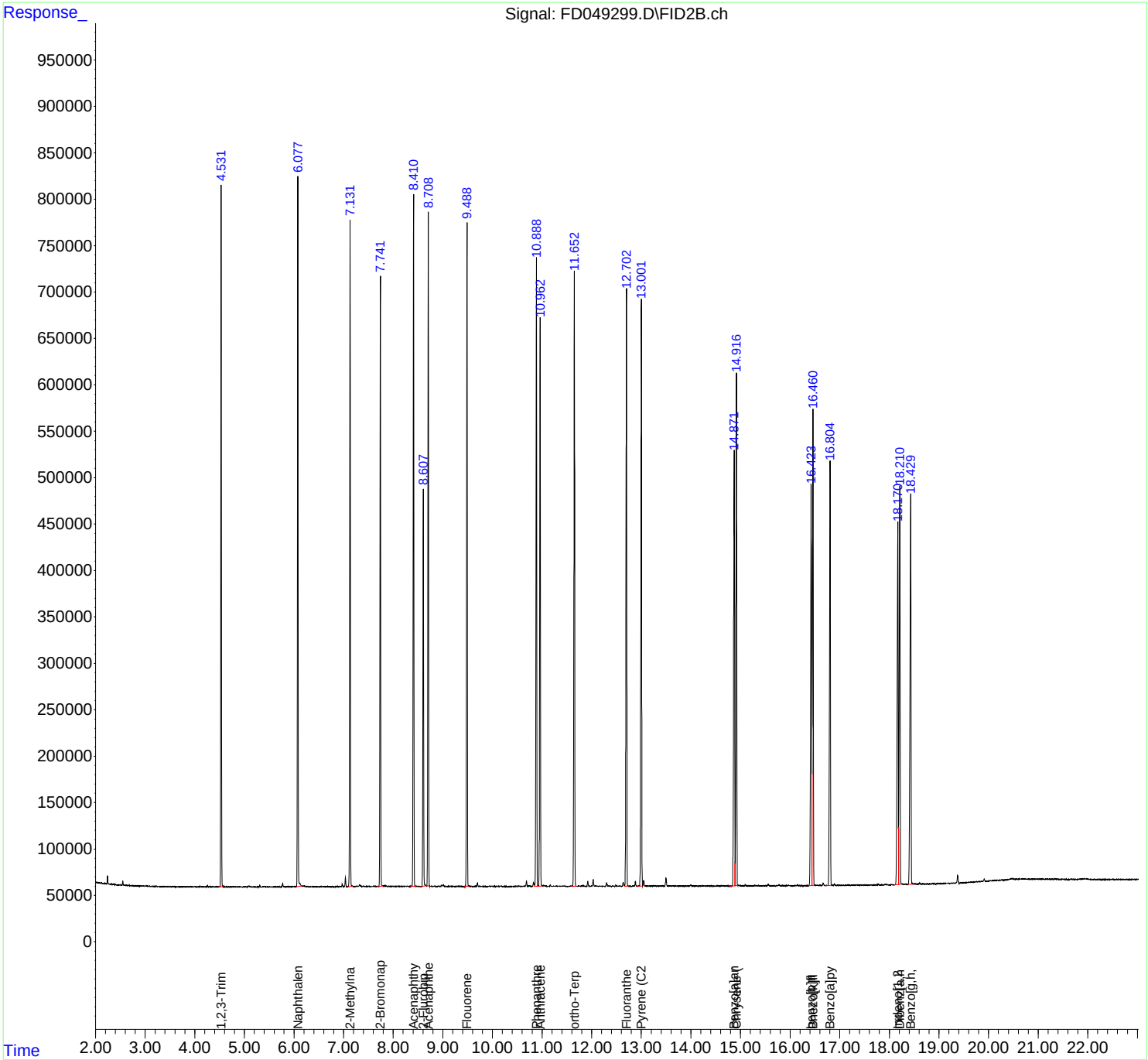
Quantitation Report (QT Reviewed)

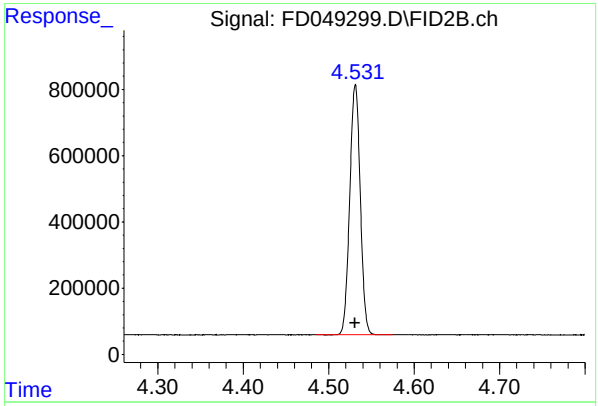
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049299.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 11:07
Operator : YP/AJ
Sample : 50 PPM AROMATIC HC STD2
Misc :
ALS Vial : 62 Sample Multiplier: 1

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

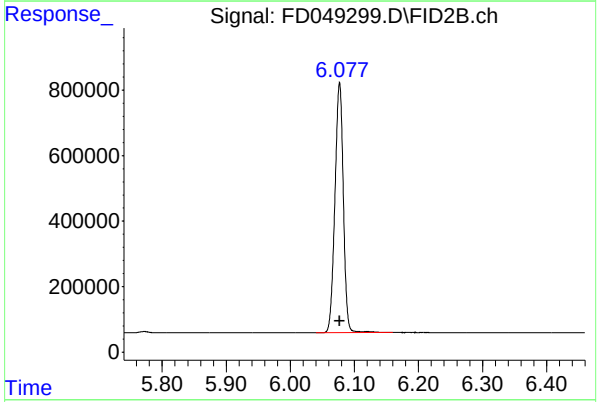




#1 1,2,3-Trimethylbenzene (C10.1)

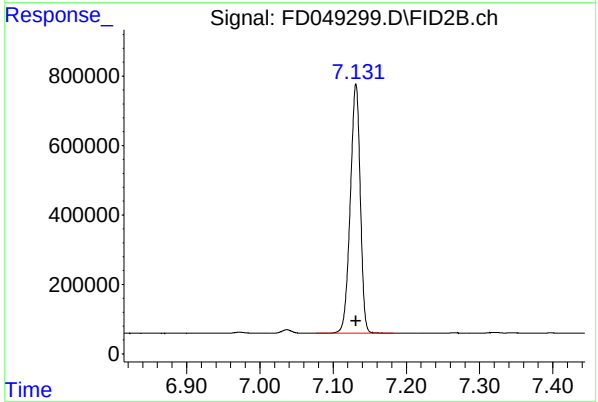
R.T.: 4.531 min
Delta R.T.: 0.000 min
Response: 6477721
Conc: 51.23 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



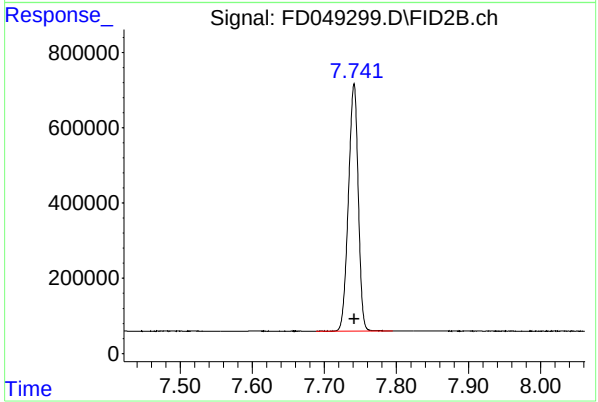
#2 Naphthalene (C11.7)

R.T.: 6.077 min
Delta R.T.: 0.000 min
Response: 6954877
Conc: 51.34 ug/ml



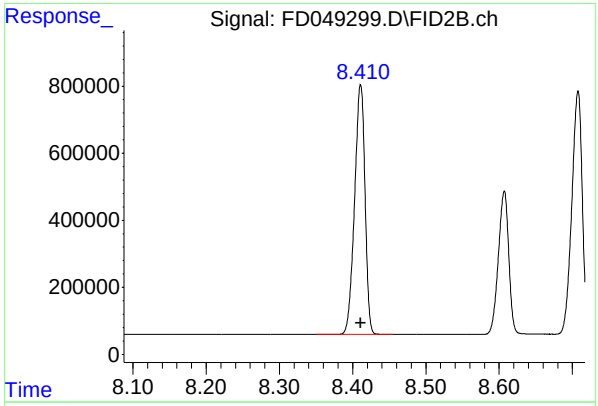
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.131 min
Delta R.T.: 0.000 min
Response: 6791095
Conc: 51.41 ug/ml



#4 2-Bromonaphthalene (SURR)

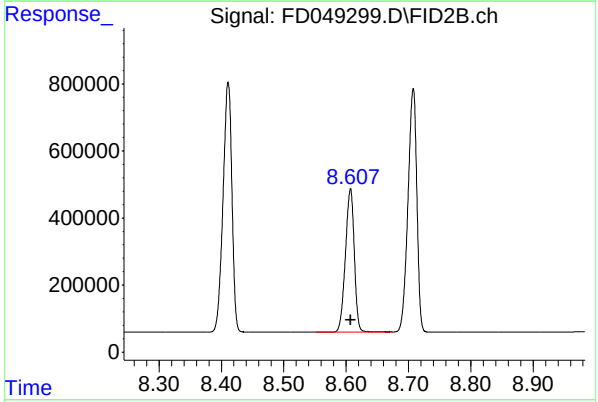
R.T.: 7.741 min
Delta R.T.: 0.000 min
Response: 6217746
Conc: 51.40 ug/ml



#5 Acenaphthylene (C15.06)

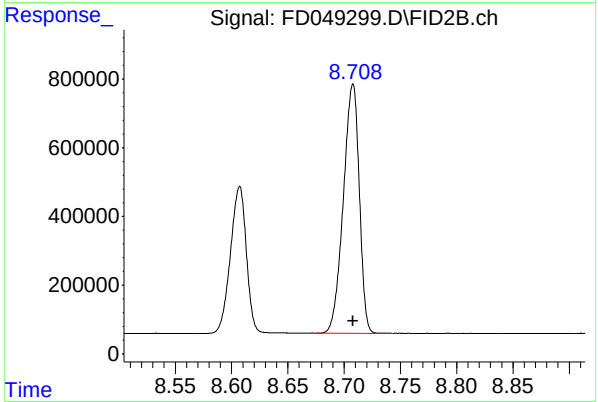
R.T.: 8.411 min
Delta R.T.: 0.000 min
Response: 7372643
Conc: 51.36 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



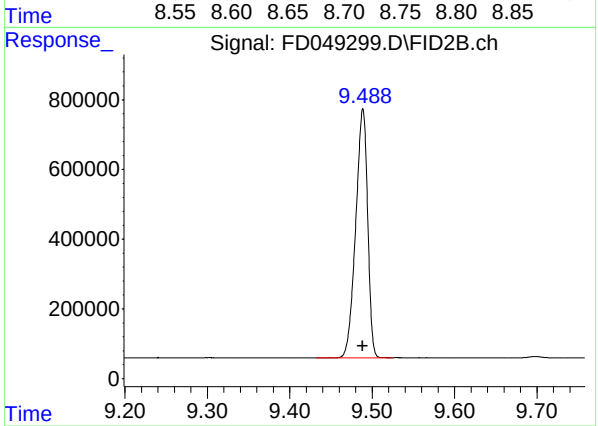
#6 2-Flurobiphenyl (SURR)

R.T.: 8.607 min
Delta R.T.: 0.000 min
Response: 4216284
Conc: 51.53 ug/ml



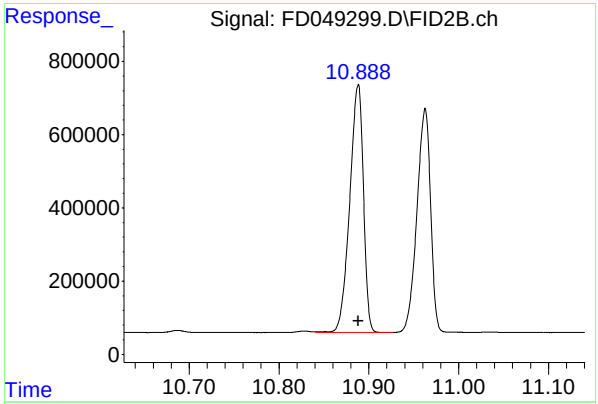
#7 Acenaphthene (C15.5)

R.T.: 8.708 min
Delta R.T.: 0.000 min
Response: 7163263
Conc: 51.32 ug/ml



#8 Flouorene (C16.55)

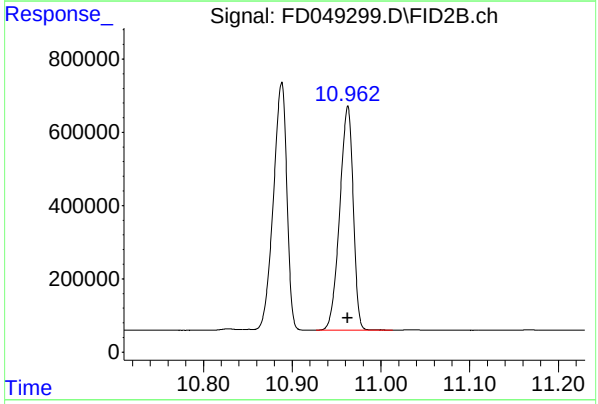
R.T.: 9.489 min
Delta R.T.: 0.000 min
Response: 7197835
Conc: 51.48 ug/ml



#9 Phenanthrene (C19.36)

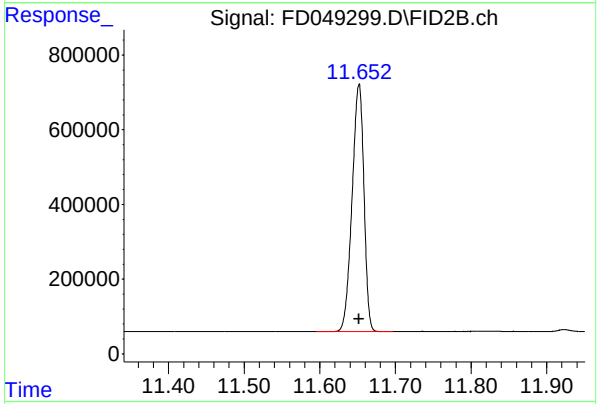
R.T.: 10.888 min
Delta R.T.: 0.000 min
Response: 7171493
Conc: 51.54 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



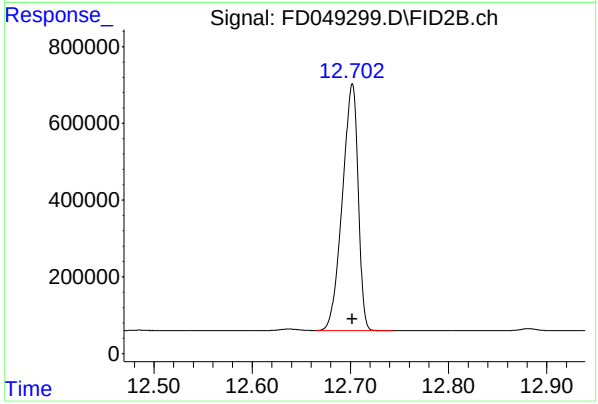
#10 Anthracene (C19.43)

R.T.: 10.963 min
Delta R.T.: 0.000 min
Response: 6465378
Conc: 51.82 ug/ml



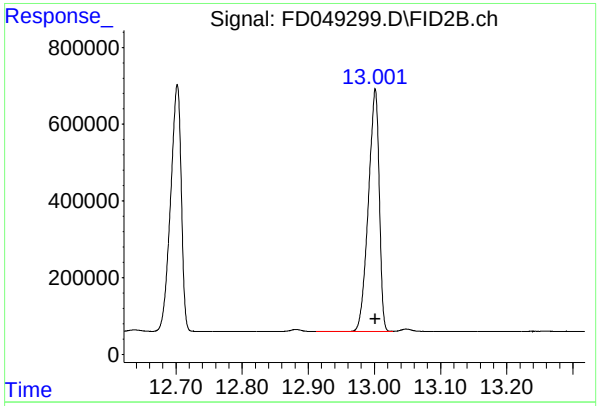
#11 ortho-Terphenyl (SURR)

R.T.: 11.652 min
Delta R.T.: 0.000 min
Response: 7202828
Conc: 51.28 ug/ml



#12 Fluoranthene (C21.85)

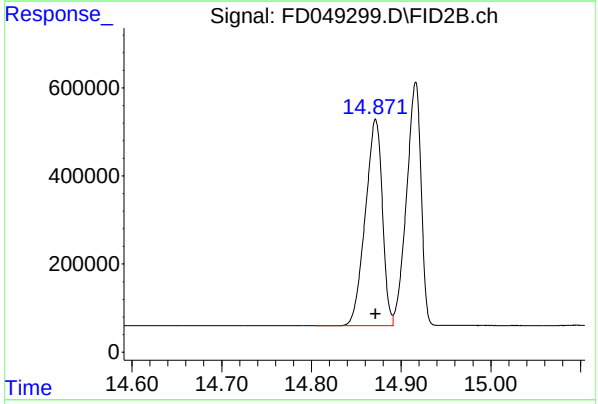
R.T.: 12.702 min
Delta R.T.: 0.000 min
Response: 7217122
Conc: 51.33 ug/ml



#13 Pyrene (C20.8)

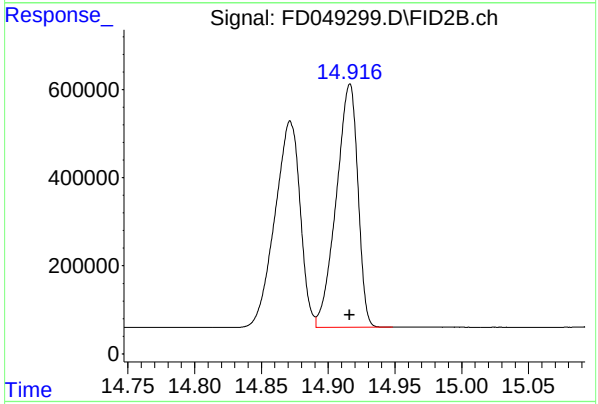
R.T.: 13.001 min
Delta R.T.: 0.000 min
Response: 7201624
Conc: 51.19 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



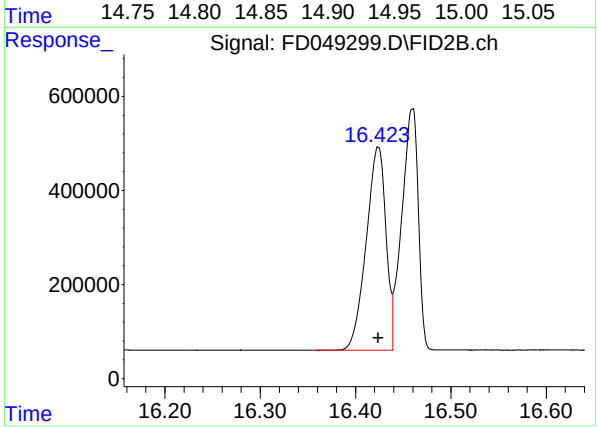
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.872 min
Delta R.T.: 0.000 min
Response: 6177201
Conc: 51.16 ug/ml



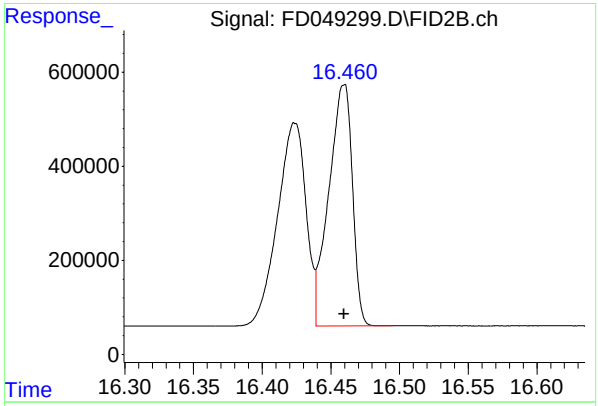
#15 Chrysene (C27.41)

R.T.: 14.916 min
Delta R.T.: 0.000 min
Response: 6224941
Conc: 51.06 ug/ml



#16 benzo[b]fluoranthene (C30.41)

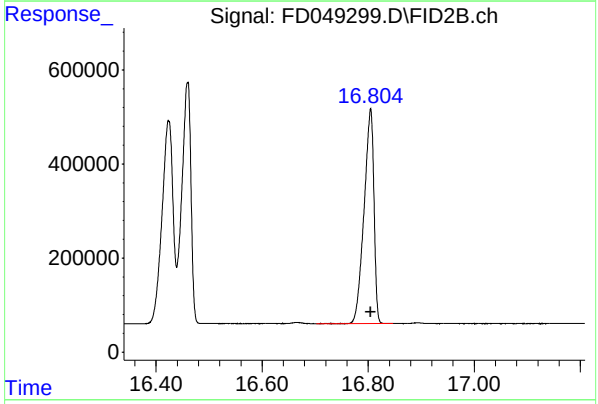
R.T.: 16.424 min
Delta R.T.: 0.000 min
Response: 6243646
Conc: 50.37 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

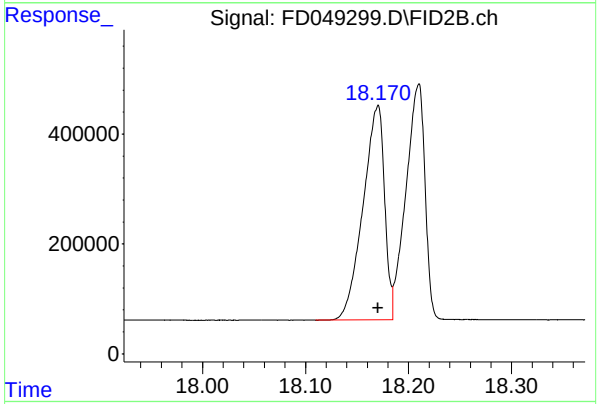
R.T.: 16.459 min
Delta R.T.: 0.000 min
Response: 6132161
Conc: 50.46 ug/ml

Instrument :
FID_D
ClientSampleId :
50 PPM AROMATIC HC STD2



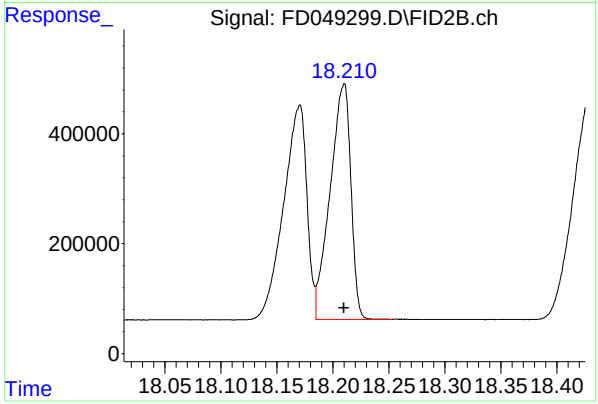
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.805 min
Delta R.T.: 0.000 min
Response: 5903388
Conc: 50.38 ug/ml



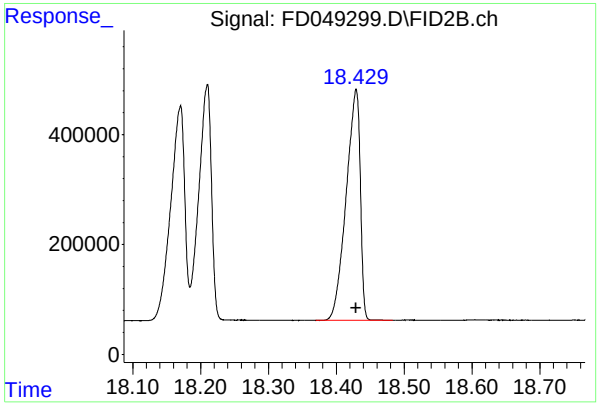
#19 Indeno[1,2,3-cd]pyrene (C35.01)

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

rteres

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

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:	01 May 2025 11:42
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049300.D	Misc:	
Instrument:	FID_D	ALS Vial:	63
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.175	5352823.000	40.000	ug/ml
Aromatic C12-C16	6.176	8.804	8518789.000	60.000	ug/ml
Aromatic C16-C21	8.805	13.095	11078299.000	80.000	ug/ml
Aromatic C21-C36	13.096	18.515	22063557.000	180.000	ug/ml
Aromatic EPH	4.431	18.515	47013468.000	360.000	ug/ml

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.

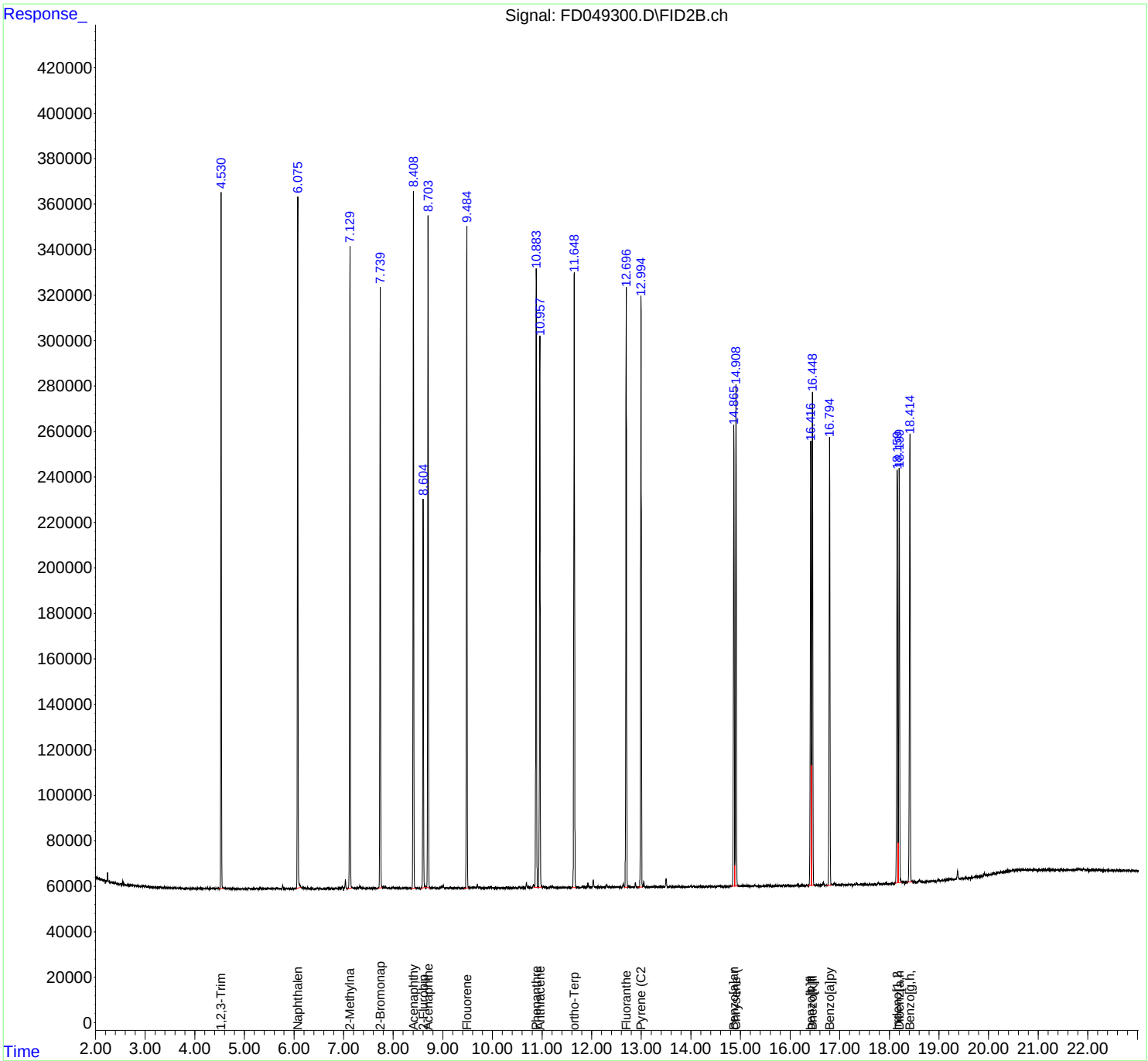
Quantitation Report (QT Reviewed)

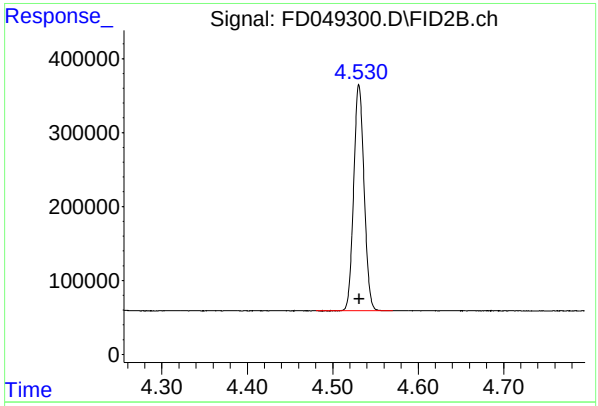
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049300.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 11:42
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD3
Misc :
ALS Vial : 63 Sample Multiplier: 1

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

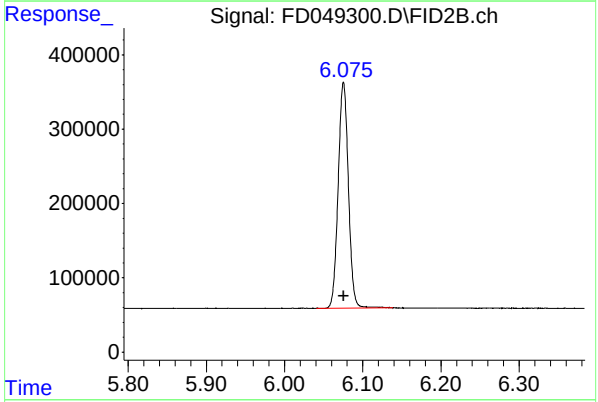




#1 1,2,3-Trimethylbenzene (C10.1)

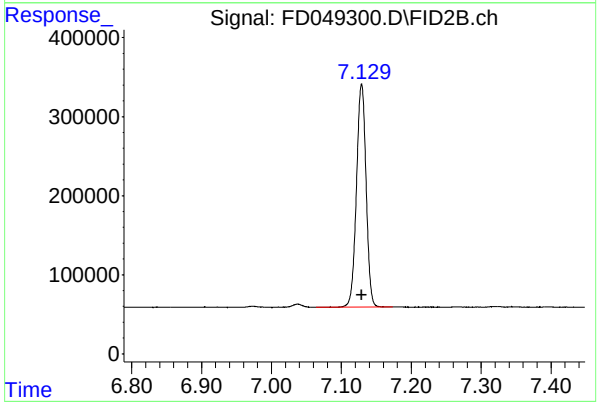
R.T.: 4.531 min
Delta R.T.: 0.000 min
Response: 2591453
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



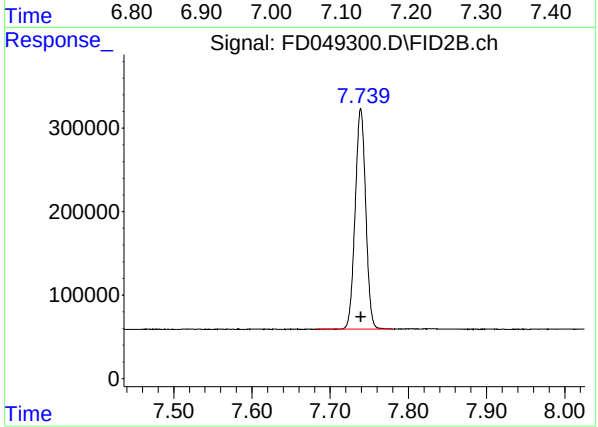
#2 Naphthalene (C11.7)

R.T.: 6.075 min
Delta R.T.: 0.000 min
Response: 2761370
Conc: 20.00 ug/ml



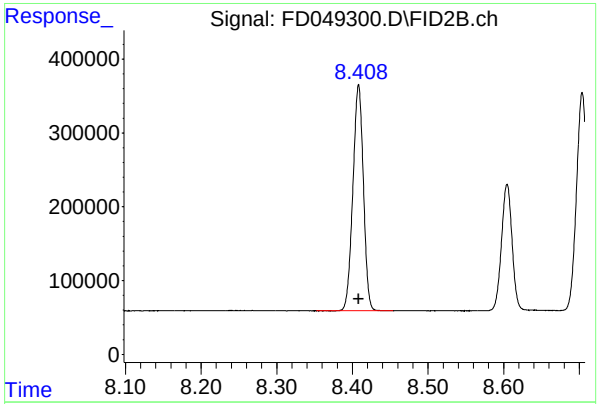
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.129 min
Delta R.T.: 0.000 min
Response: 2699417
Conc: 20.00 ug/ml



#4 2-Bromonaphthalene (SURR)

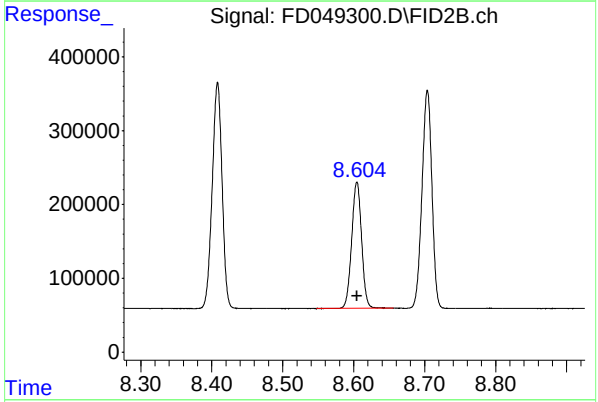
R.T.: 7.739 min
Delta R.T.: 0.000 min
Response: 2478491
Conc: 20.00 ug/ml



#5 Acenaphthylene (C15.06)

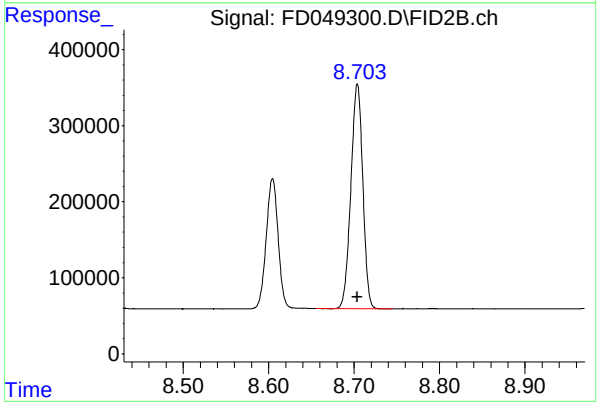
R.T.: 8.408 min
Delta R.T.: 0.000 min
Response: 2952731
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



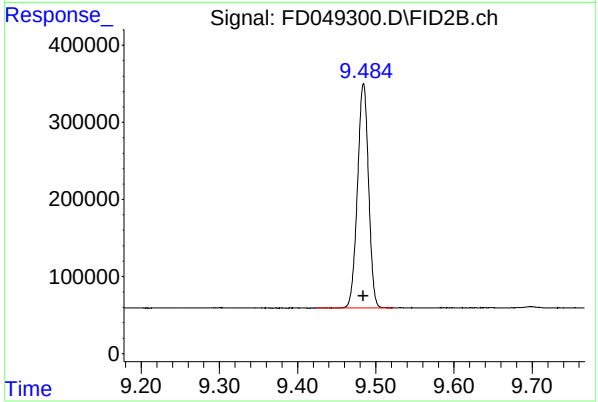
#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.000 min
Response: 1662253
Conc: 20.00 ug/ml



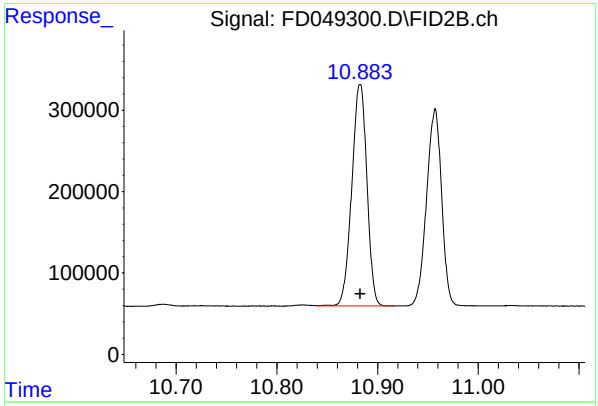
#7 Acenaphthene (C15.5)

R.T.: 8.704 min
Delta R.T.: 0.000 min
Response: 2866641
Conc: 20.00 ug/ml



#8 Flouorene (C16.55)

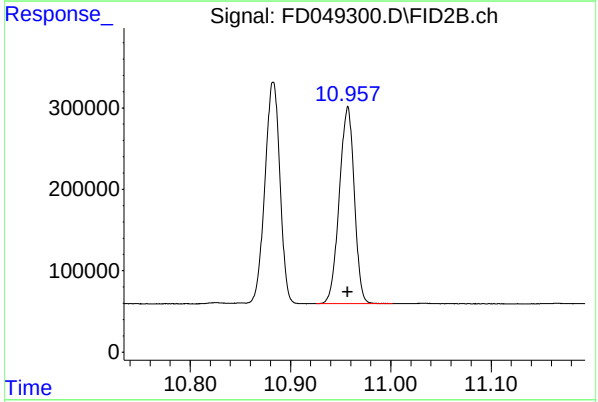
R.T.: 9.484 min
Delta R.T.: 0.000 min
Response: 2865462
Conc: 20.00 ug/ml



#9 Phenanthrene (C19.36)

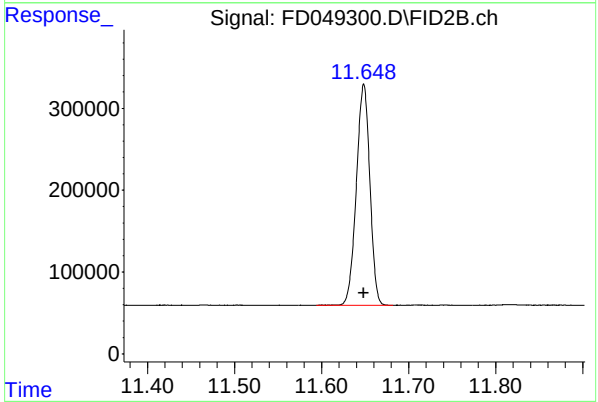
R.T.: 10.883 min
Delta R.T.: 0.000 min
Response: 2841016
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



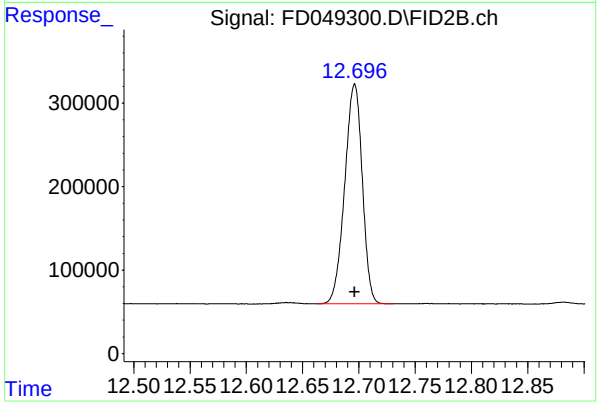
#10 Anthracene (C19.43)

R.T.: 10.957 min
Delta R.T.: 0.000 min
Response: 2512883
Conc: 20.00 ug/ml



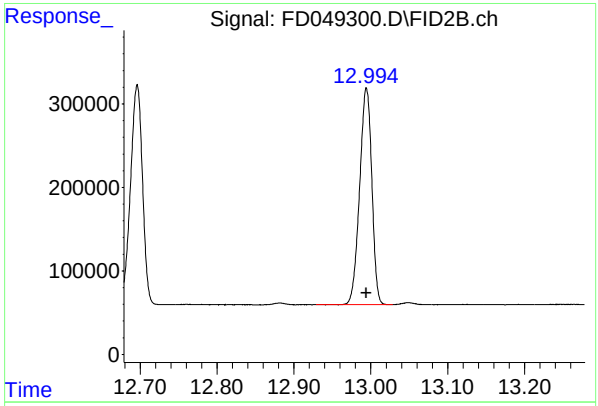
#11 ortho-Terphenyl (SURR)

R.T.: 11.649 min
Delta R.T.: 0.000 min
Response: 2905771
Conc: 20.00 ug/ml



#12 Fluoranthene (C21.85)

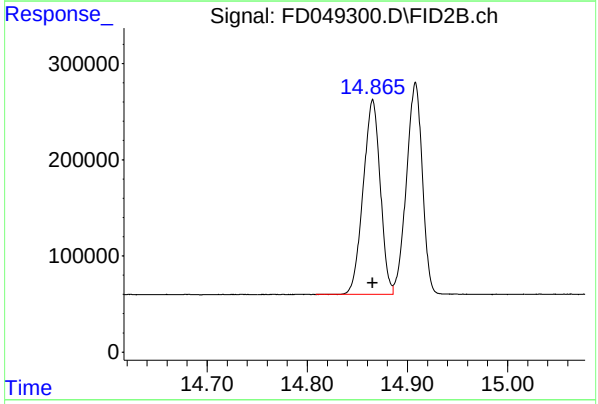
R.T.: 12.696 min
Delta R.T.: 0.000 min
Response: 2856915
Conc: 20.00 ug/ml



#13 Pyrene (C20.8)

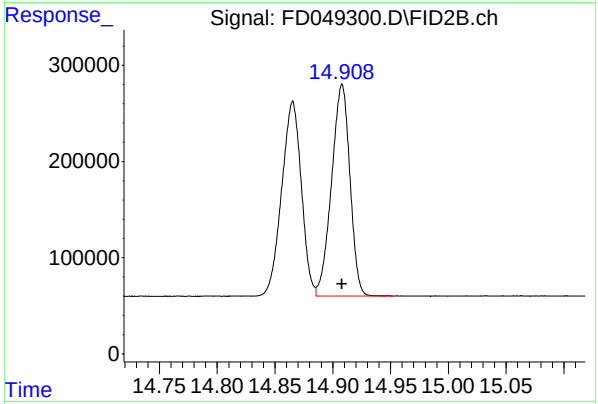
R.T.: 12.994 min
Delta R.T.: 0.000 min
Response: 2858938
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



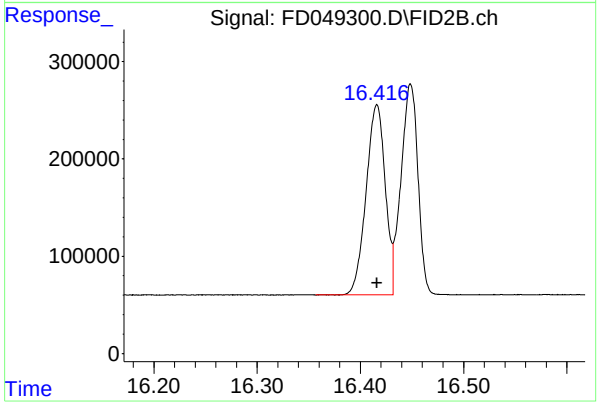
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.865 min
Delta R.T.: 0.000 min
Response: 2392302
Conc: 20.00 ug/ml



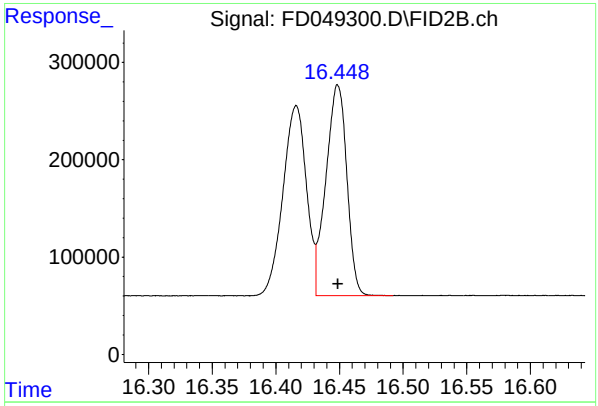
#15 Chrysene (C27.41)

R.T.: 14.908 min
Delta R.T.: 0.000 min
Response: 2431306
Conc: 20.00 ug/ml



#16 benzo[b]fluoranthene (C30.41)

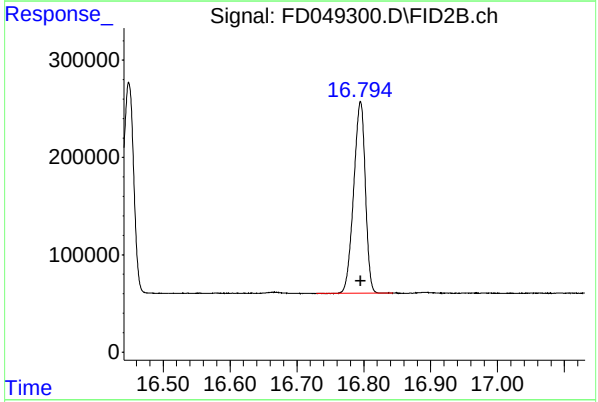
R.T.: 16.416 min
Delta R.T.: 0.000 min
Response: 2513672
Conc: 20.00 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

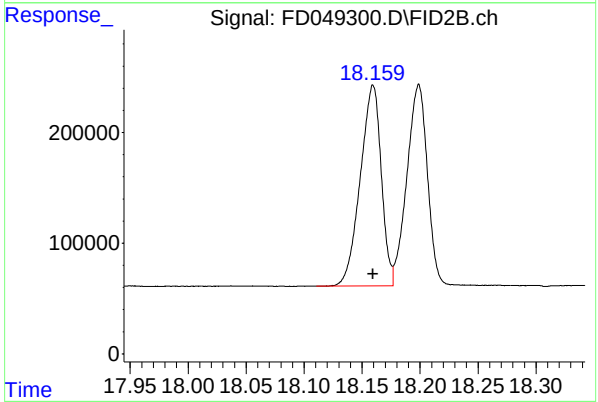
R.T.: 16.449 min
Delta R.T.: 0.000 min
Response: 2480406
Conc: 20.00 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD3



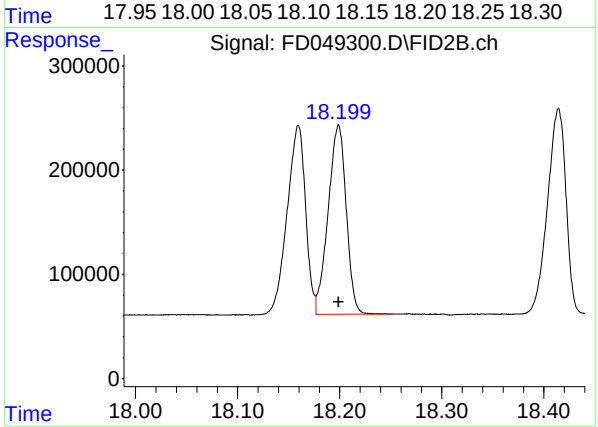
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.795 min
Delta R.T.: 0.000 min
Response: 2386233
Conc: 20.00 ug/ml



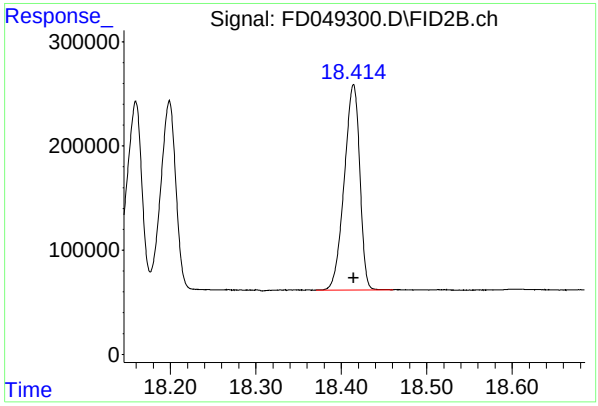
#19 Indeno[1,2,3-cd]pyrene (C35.01)

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

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

Lab Sample ID:	10 PPM AROMATIC HC S	Acq On:	01 May 2025 12:18
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049301.D	Misc:	
Instrument:	FID_D	ALS Vial:	64
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.175	2577094.000	20.000	ug/ml
Aromatic C12-C16	6.176	8.804	4088995.000	30.000	ug/ml
Aromatic C16-C21	8.805	13.095	5170923.000	40.000	ug/ml
Aromatic C21-C36	13.096	18.515	10548658.000	90.000	ug/ml
Aromatic EPH	4.431	18.515	22385670.000	180.000	ug/ml

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.

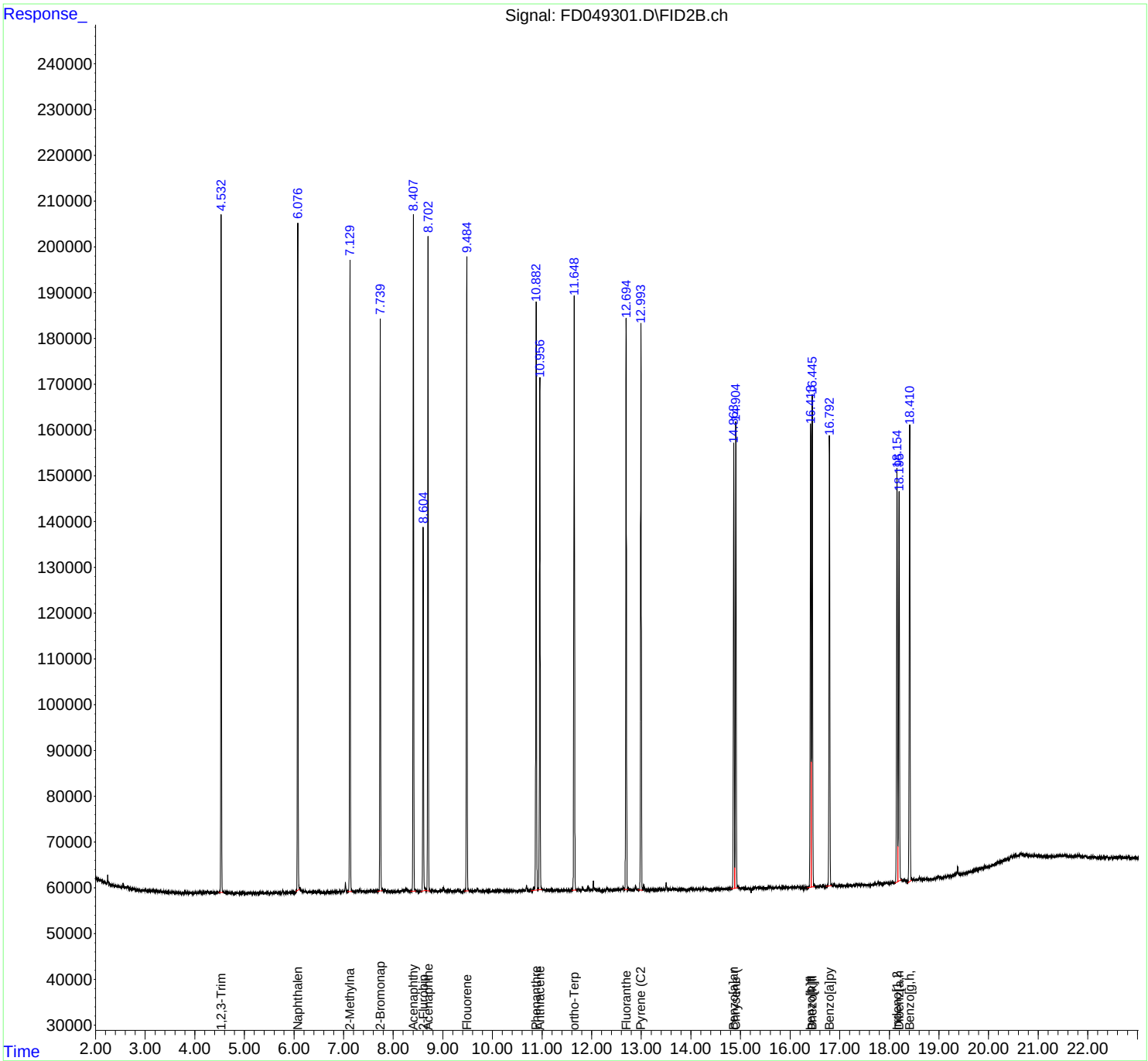
Quantitation Report (QT Reviewed)

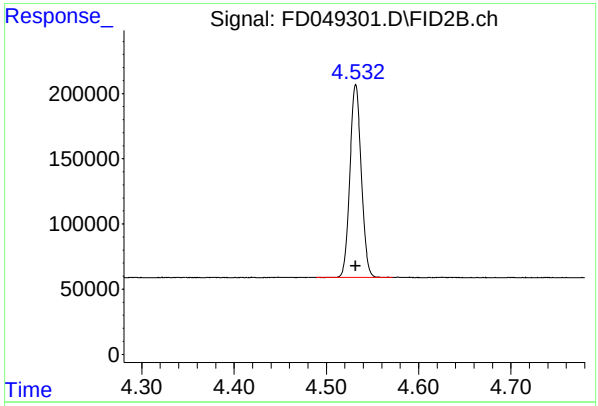
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049301.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 12:18
Operator : YP/AJ
Sample : 10 PPM AROMATIC HC STD4
Misc :
ALS Vial : 64 Sample Multiplier: 1

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

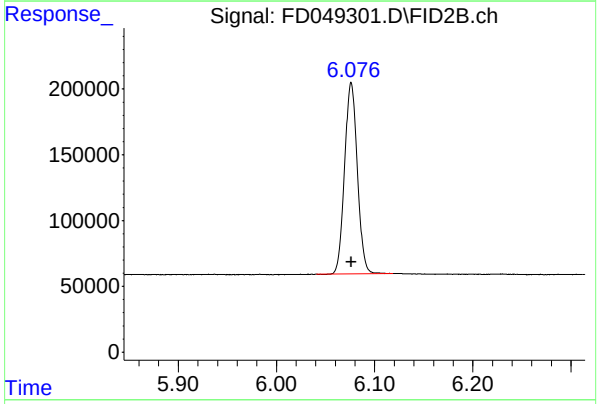




#1 1,2,3-Trimethylbenzene (C10.1)

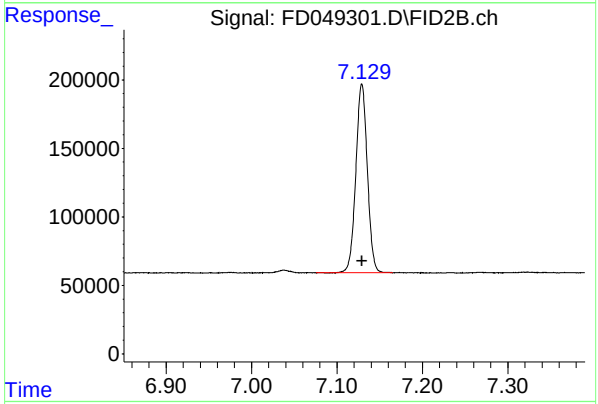
R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 1264609
Conc: 10.00 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



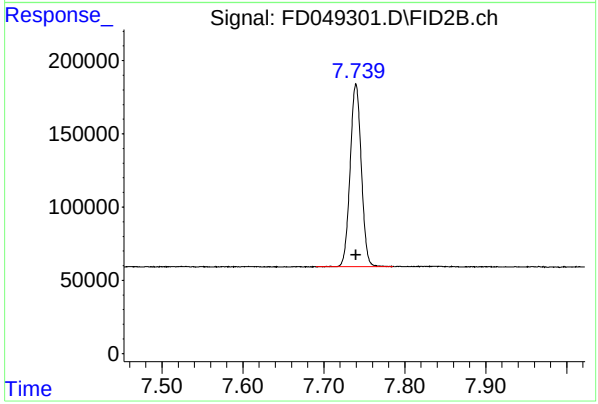
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 1312485
Conc: 9.76 ug/ml



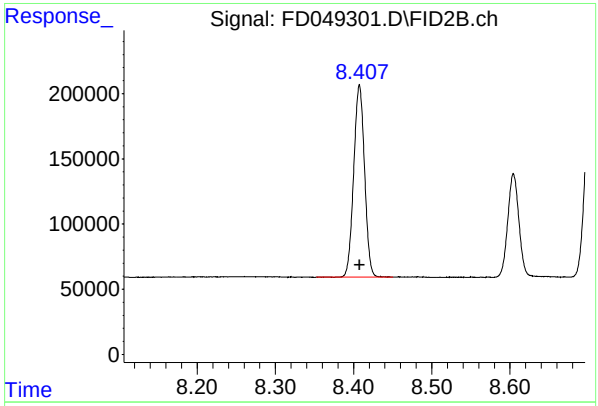
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.129 min
Delta R.T.: 0.000 min
Response: 1291726
Conc: 9.83 ug/ml



#4 2-Bromonaphthalene (SURR)

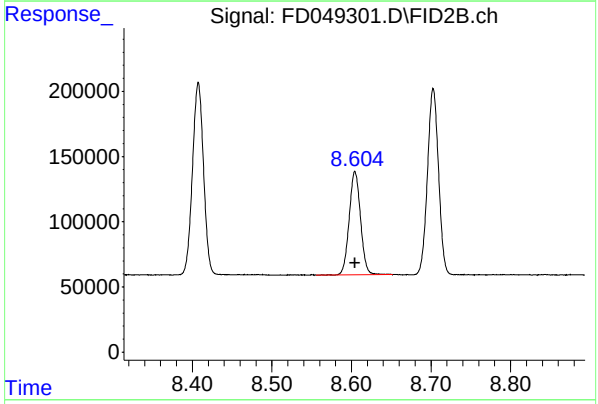
R.T.: 7.740 min
Delta R.T.: 0.000 min
Response: 1190668
Conc: 9.88 ug/ml



#5 Acenaphthylene (C15.06)

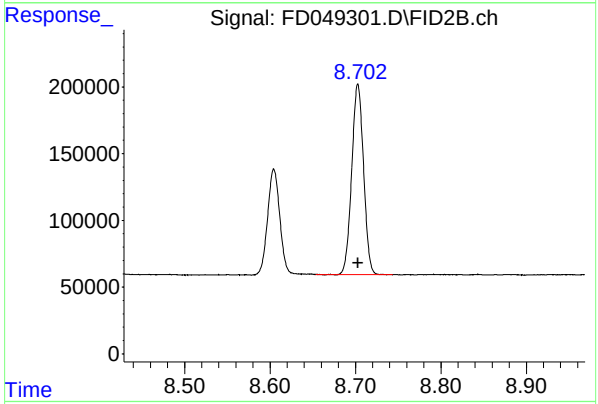
R.T.: 8.408 min
Delta R.T.: 0.000 min
Response: 1420542
Conc: 9.92 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



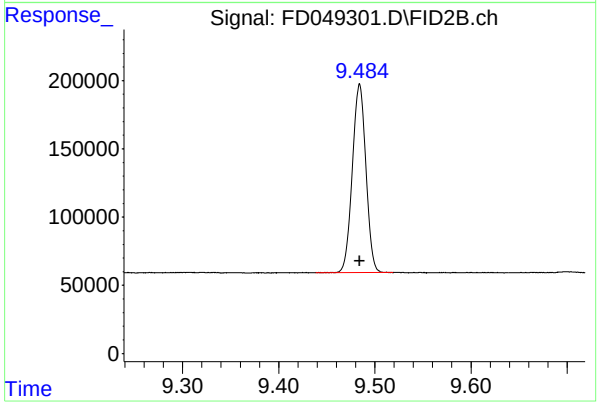
#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.000 min
Response: 783470
Conc: 9.68 ug/ml



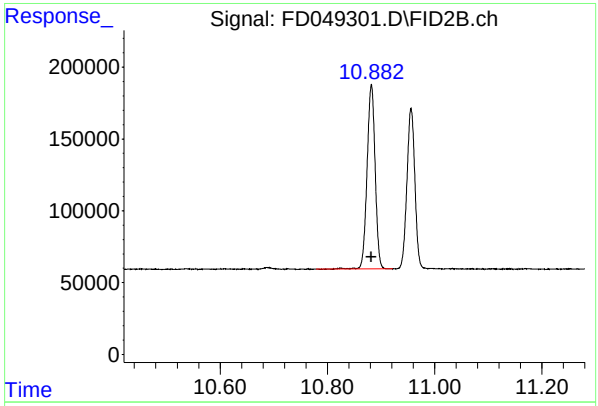
#7 Acenaphthene (C15.5)

R.T.: 8.703 min
Delta R.T.: 0.000 min
Response: 1376727
Conc: 9.90 ug/ml



#8 Flouorene (C16.55)

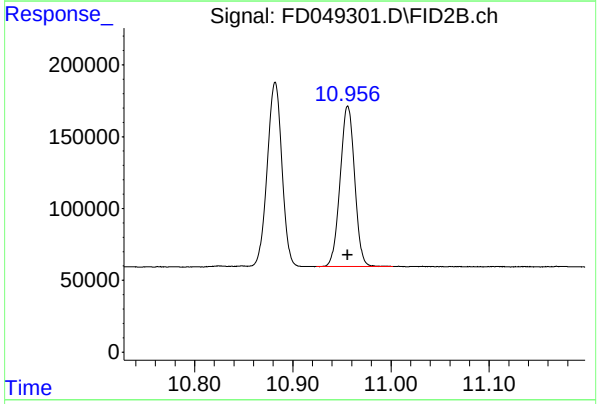
R.T.: 9.484 min
Delta R.T.: 0.000 min
Response: 1356227
Conc: 9.77 ug/ml



#9 Phenanthrene (C19.36)

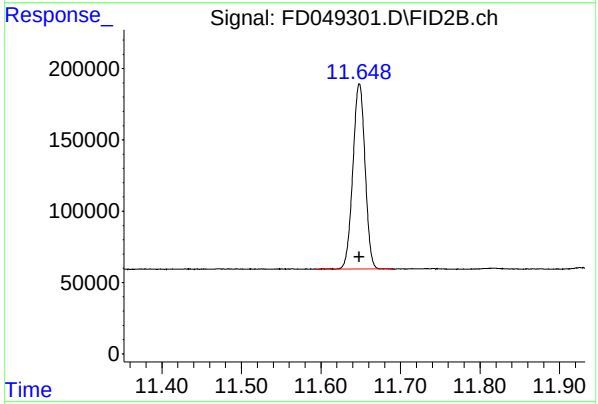
R.T.: 10.882 min
Delta R.T.: 0.000 min
Response: 1340476
Conc: 9.72 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



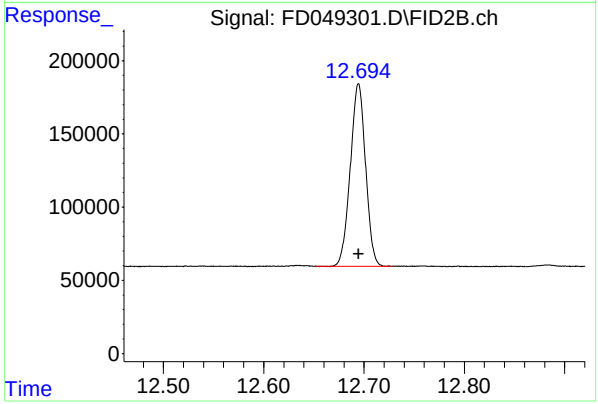
#10 Anthracene (C19.43)

R.T.: 10.956 min
Delta R.T.: 0.000 min
Response: 1146629
Conc: 9.38 ug/ml



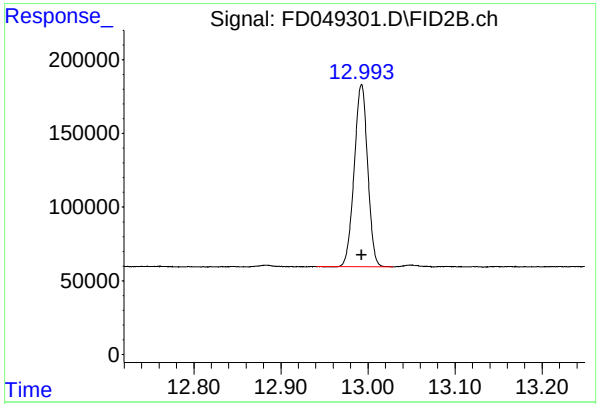
#11 ortho-Terphenyl (SURR)

R.T.: 11.648 min
Delta R.T.: 0.000 min
Response: 1382865
Conc: 9.88 ug/ml



#12 Fluoranthene (C21.85)

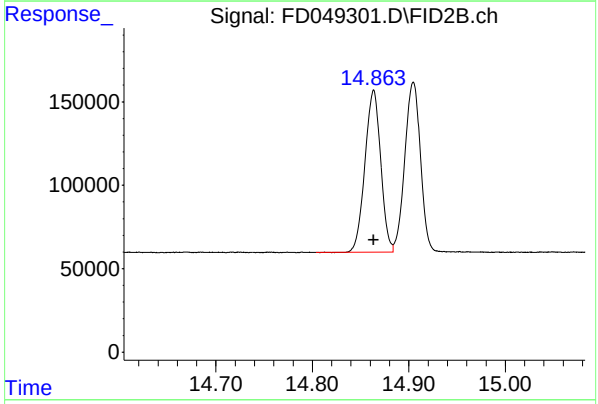
R.T.: 12.695 min
Delta R.T.: 0.000 min
Response: 1317635
Conc: 9.52 ug/ml



#13 Pyrene (C20.8)

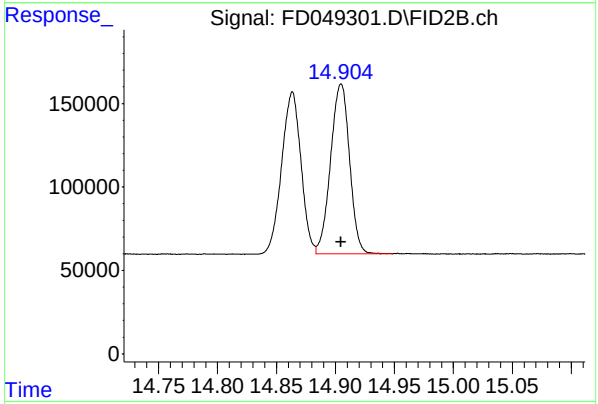
R.T.: 12.993 min
Delta R.T.: 0.000 min
Response: 1327591
Conc: 9.57 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



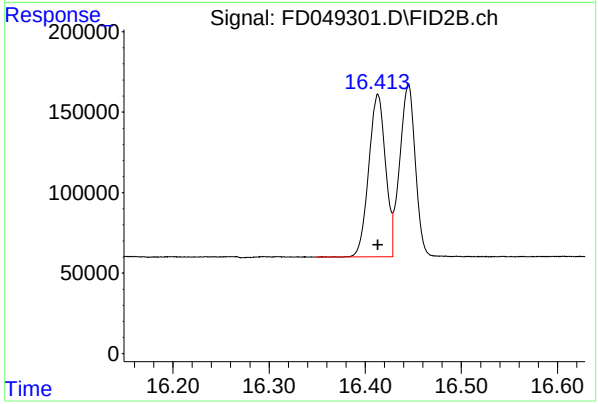
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.864 min
Delta R.T.: 0.000 min
Response: 1107794
Conc: 9.37 ug/ml



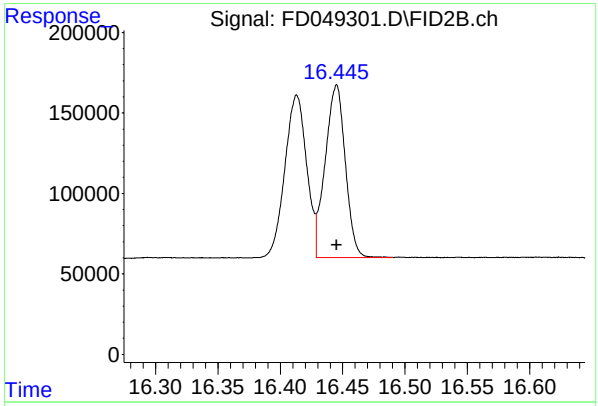
#15 Chrysene (C27.41)

R.T.: 14.905 min
Delta R.T.: 0.000 min
Response: 1139733
Conc: 9.50 ug/ml



#16 benzo[b]fluoranthene (C30.41)

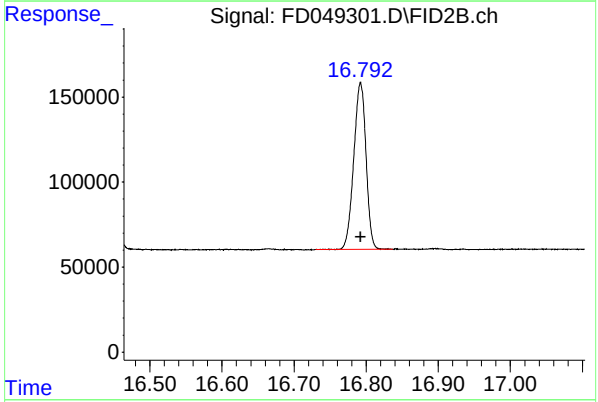
R.T.: 16.413 min
Delta R.T.: 0.000 min
Response: 1225399
Conc: 9.91 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

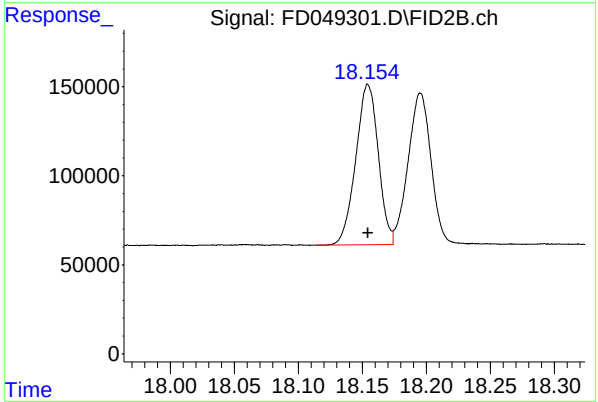
R.T.: 16.445 min
Delta R.T.: 0.000 min
Response: 1207329
Conc: 9.95 ug/ml

Instrument :
FID_D
ClientSampleId :
10 PPM AROMATIC HC STD4



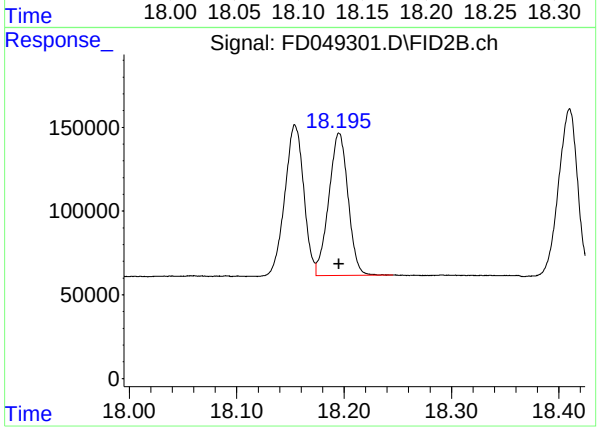
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.792 min
Delta R.T.: 0.000 min
Response: 1162010
Conc: 9.94 ug/ml



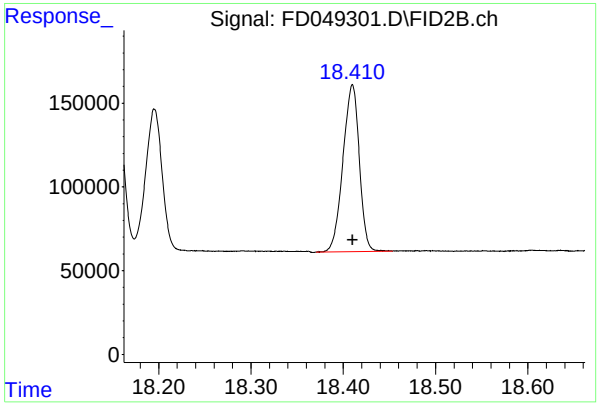
#19 Indeno[1,2,3-cd]pyrene (C35.01)

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

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

Lab Sample ID:	5 PPM AROMATIC HC S	Acq On:	01 May 2025 12:55
Client Sample ID:		Operator:	YP/AJ
Data file:	FD049302.D	Misc:	
Instrument:	FID_D	ALS Vial:	65
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aromatic C10-C12	4.431	6.175	1209211.000	10.000	ug/ml
Aromatic C12-C16	6.176	8.804	1906691.000	15.000	ug/ml
Aromatic C16-C21	8.805	13.095	2360160.000	20.000	ug/ml
Aromatic C21-C36	13.096	18.515	4807254.000	45.000	ug/ml
Aromatic EPH	4.431	18.515	10283316.000	90.000	ug/ml

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.

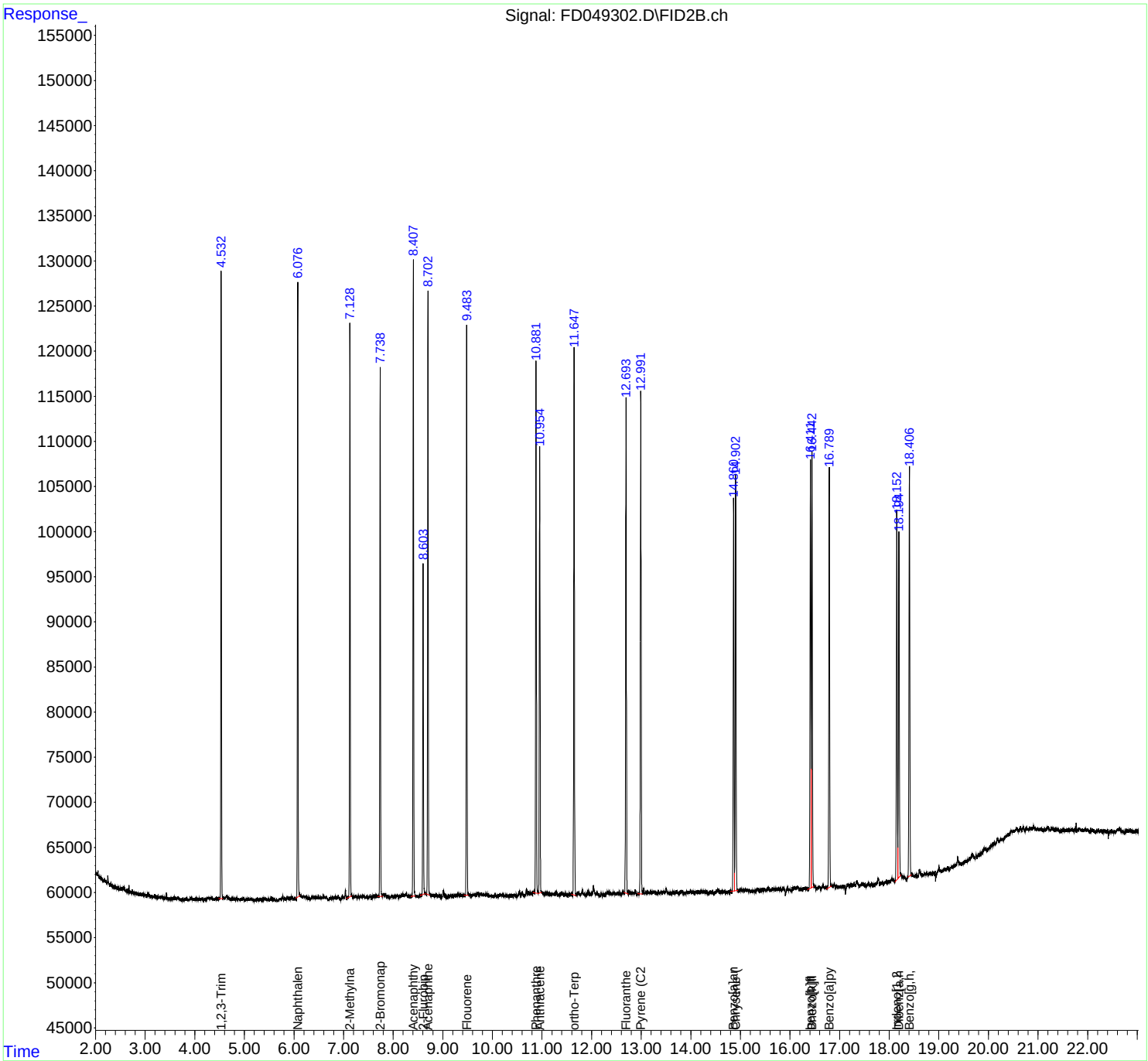
Quantitation Report (QT Reviewed)

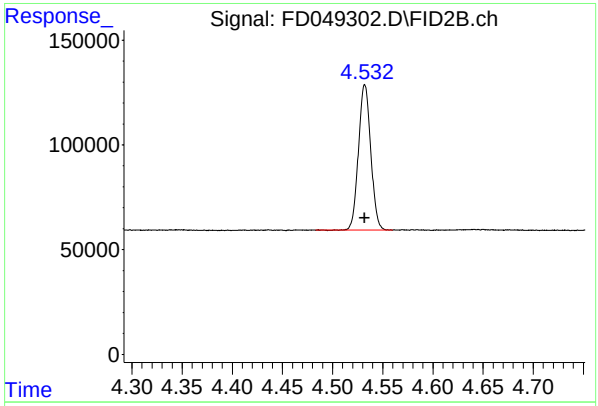
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049302.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 12:55
Operator : YP/AJ
Sample : 5 PPM AROMATIC HC STD5
Misc :
ALS Vial : 65 Sample Multiplier: 1

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

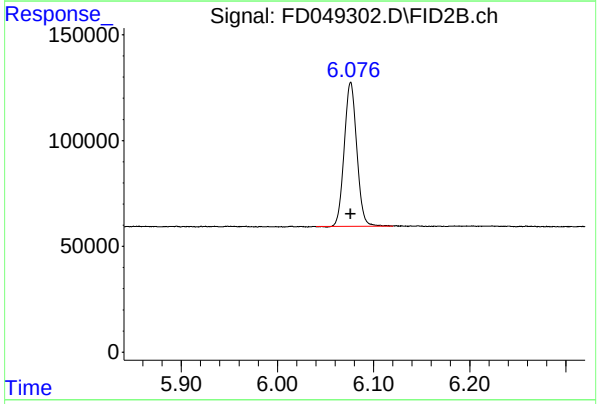




#1 1,2,3-Trimethylbenzene (C10.1)

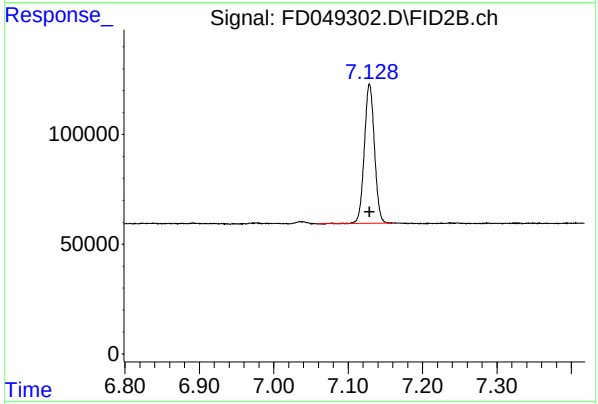
R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 592326
Conc: 4.74 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



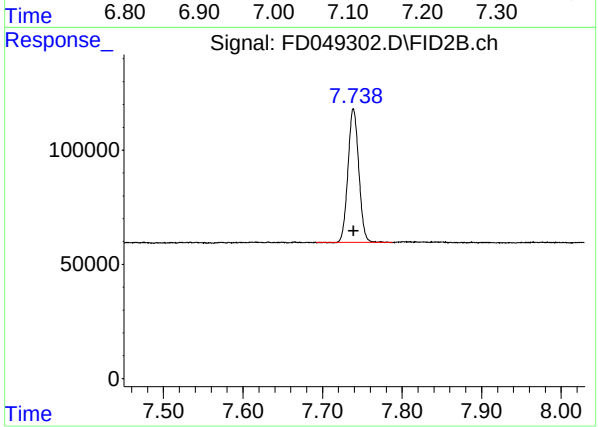
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 616885
Conc: 4.67 ug/ml



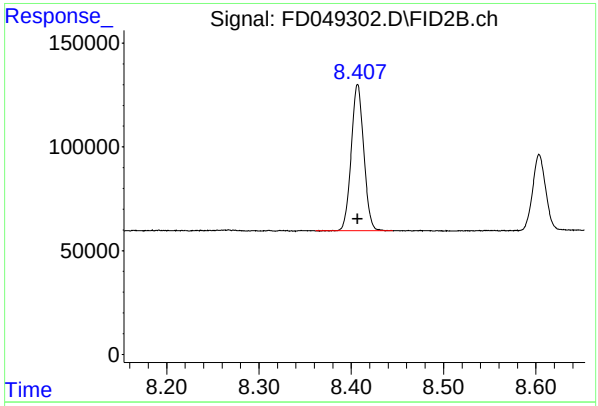
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.129 min
Delta R.T.: 0.000 min
Response: 597813
Conc: 4.63 ug/ml



#4 2-Bromonaphthalene (SURR)

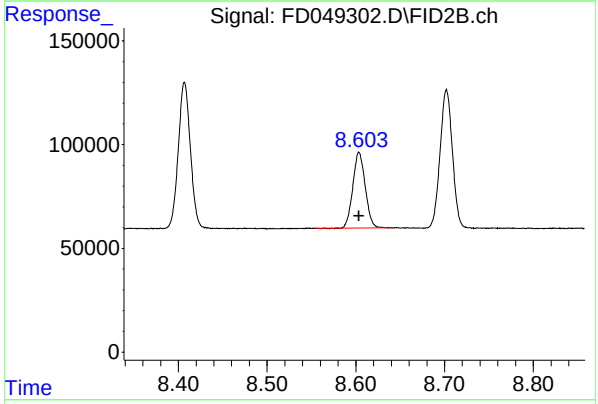
R.T.: 7.739 min
Delta R.T.: 0.000 min
Response: 554322
Conc: 4.68 ug/ml



#5 Acenaphthylene (C15.06)

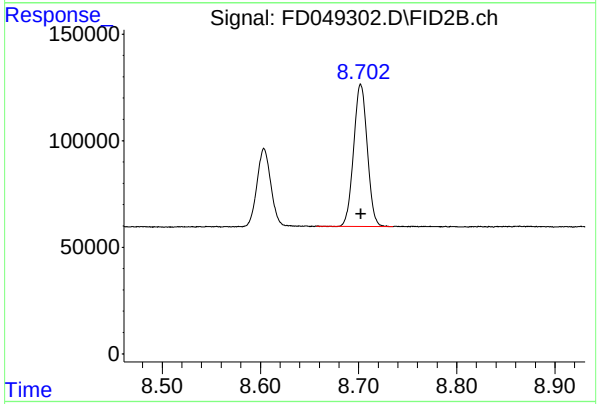
R.T.: 8.407 min
Delta R.T.: 0.000 min
Response: 665513
Conc: 4.71 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



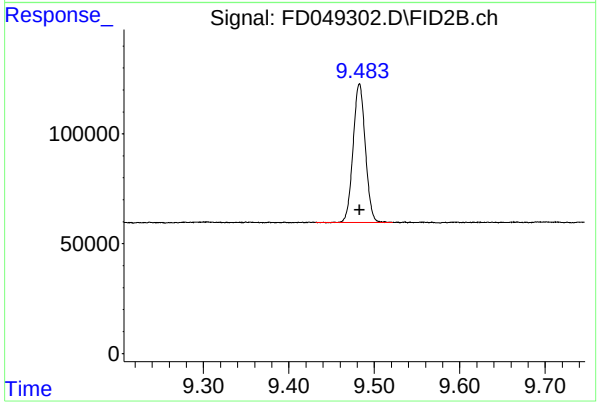
#6 2-Flurobiphenyl (SURR)

R.T.: 8.604 min
Delta R.T.: 0.000 min
Response: 355341
Conc: 4.50 ug/ml



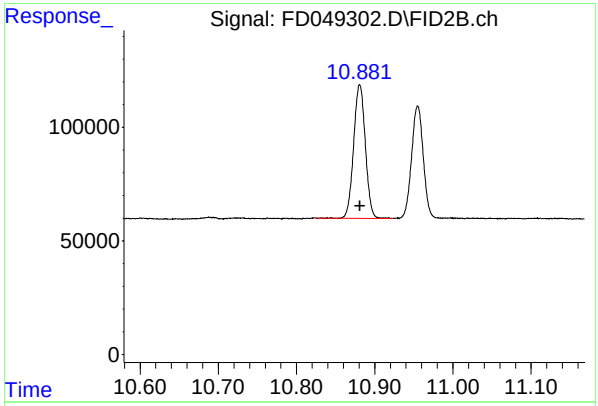
#7 Acenaphthene (C15.5)

R.T.: 8.702 min
Delta R.T.: 0.000 min
Response: 643365
Conc: 4.70 ug/ml



#8 Flouorene (C16.55)

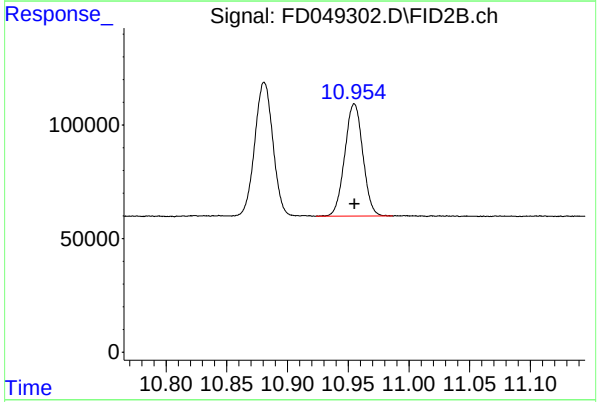
R.T.: 9.483 min
Delta R.T.: 0.000 min
Response: 627418
Conc: 4.61 ug/ml



#9 Phenanthrene (C19.36)

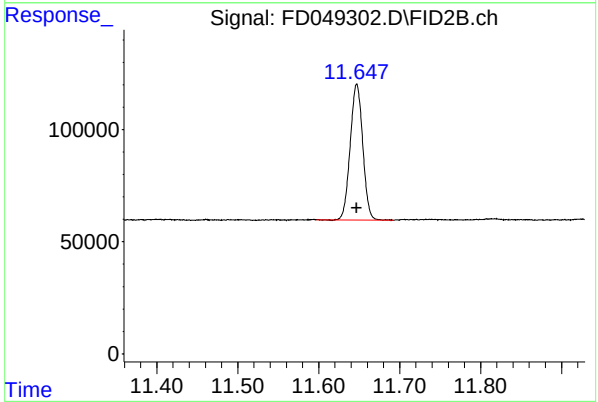
R.T.: 10.881 min
Delta R.T.: 0.000 min
Response: 612980
Conc: 4.55 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



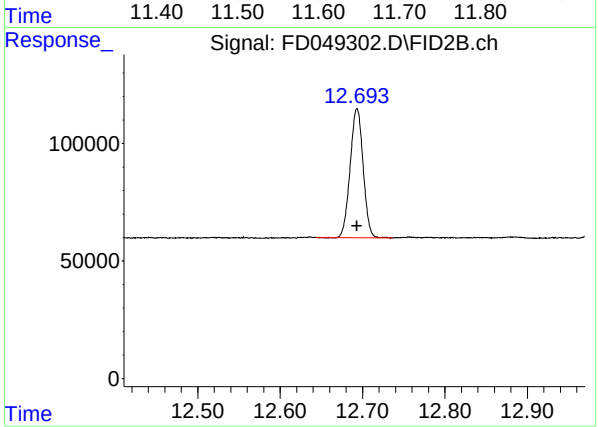
#10 Anthracene (C19.43)

R.T.: 10.955 min
Delta R.T.: 0.000 min
Response: 512014
Conc: 4.33 ug/ml



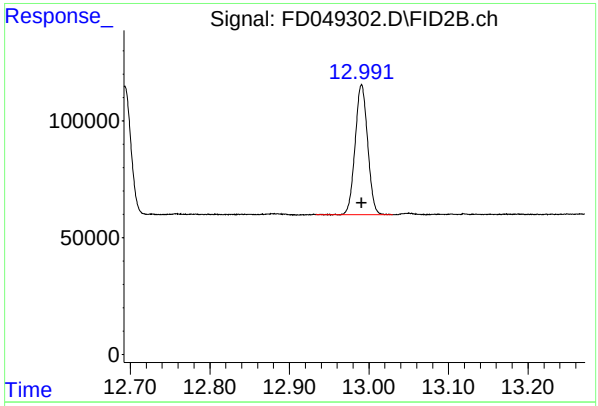
#11 ortho-Terphenyl (SURR)

R.T.: 11.647 min
Delta R.T.: 0.000 min
Response: 652174
Conc: 4.73 ug/ml



#12 Fluoranthene (C21.85)

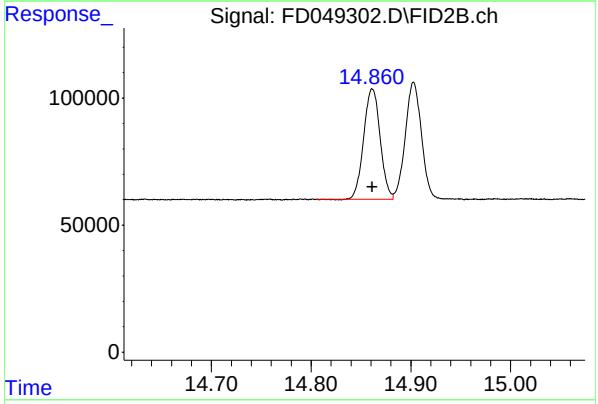
R.T.: 12.693 min
Delta R.T.: 0.000 min
Response: 601392
Conc: 4.46 ug/ml



#13 Pyrene (C20.8)

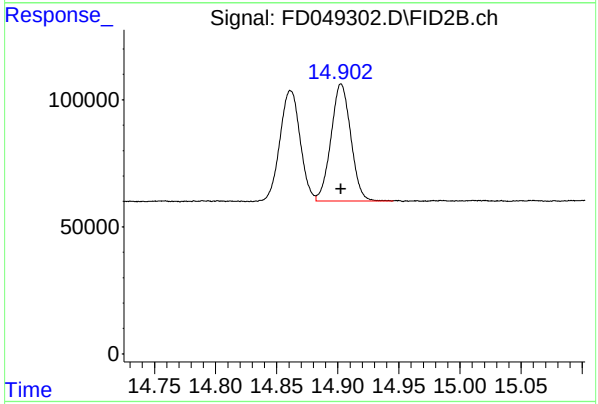
R.T.: 12.991 min
Delta R.T.: 0.000 mi
Response: 607748
Conc: 4.49 ug/m

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



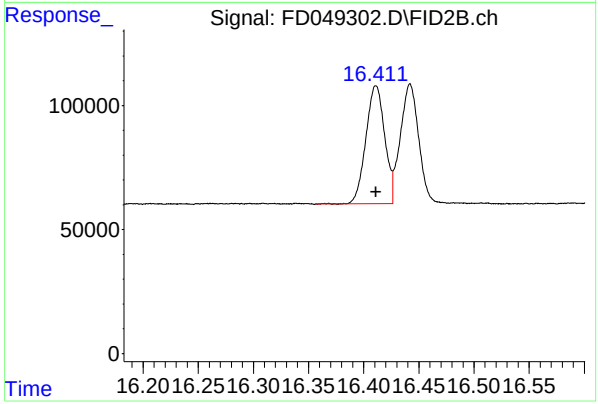
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.861 min
Delta R.T.: 0.000 min
Response: 498676
Conc: 4.35 ug/ml



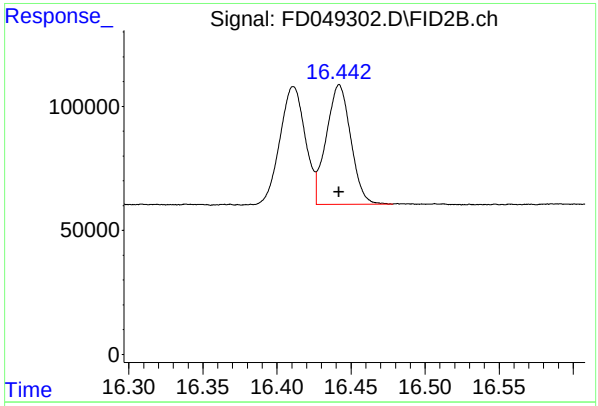
#15 Chrysene (C27.41)

R.T.: 14.903 min
Delta R.T.: 0.000 min
Response: 519076
Conc: 4.45 ug/ml



#16 benzo[b]fluoranthene (C30.41)

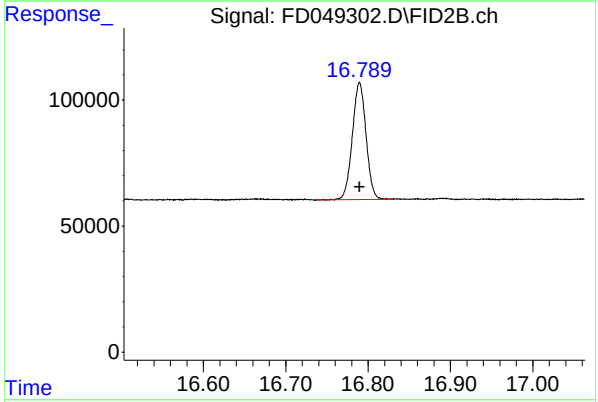
R.T.: 16.411 min
Delta R.T.: 0.000 min
Response: 562724
Conc: 4.64 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

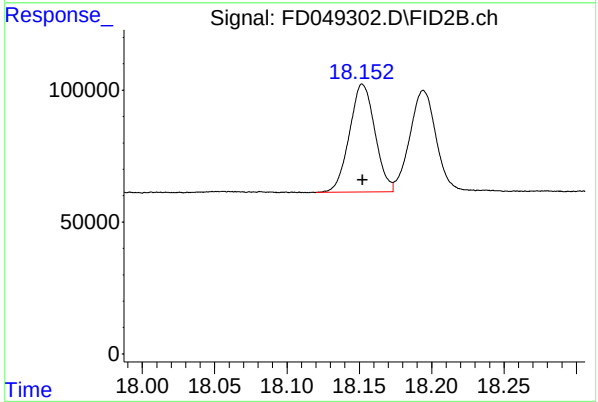
R.T.: 16.442 min
Delta R.T.: 0.000 min
Response: 555129
Conc: 4.65 ug/ml

Instrument :
FID_D
ClientSampleId :
5 PPM AROMATIC HC STD5



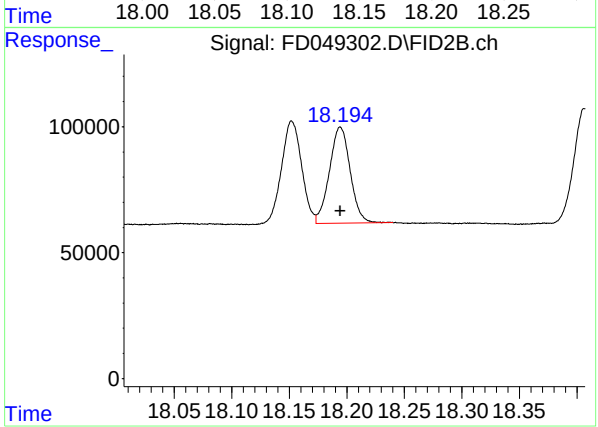
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.790 min
Delta R.T.: 0.000 min
Response: 536028
Conc: 4.66 ug/ml



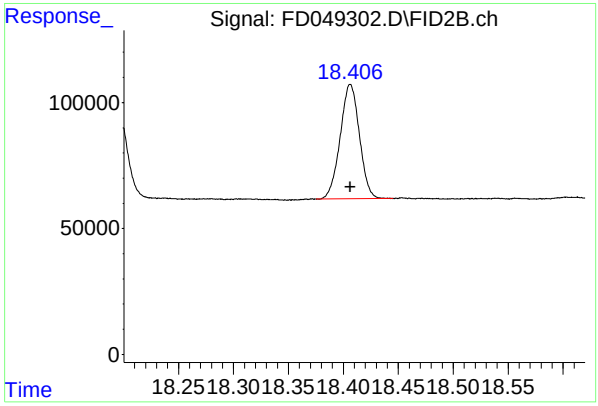
#19 Indeno[1,2,3-cd]pyrene (C35.01)

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

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	20 PPM AROMATIC HC S	Acq On:	01 May 2025 13:31
Client Sample ID:	20 PPM AROMATIC HC S	Operator:	YP/AJ
Data file:	FD049303.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	6.175	5304670	41.271	200	ug/ml
Aromatic C12-C16	6.176	8.804	8443023	62.206	300	ug/ml
Aromatic C16-C21	8.805	13.095	13531615	103.2	500	ug/ml
Aromatic C21-C36	13.096	18.515	18761313	159.87	800	ug/ml
Aromatic EPH	4.431	18.515	46040621	366.547		ug/ml
ortho-Terphenyl (SURR)	11.649	11.649	2843246	20.6		ug/ml
2-Bromonaphthalene (SURR)	7.739	7.739	2463844	20.78		ug/ml
2-Flurobiphenyl (SURR)	8.605	8.605	1634987	20.7		ug/ml

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.

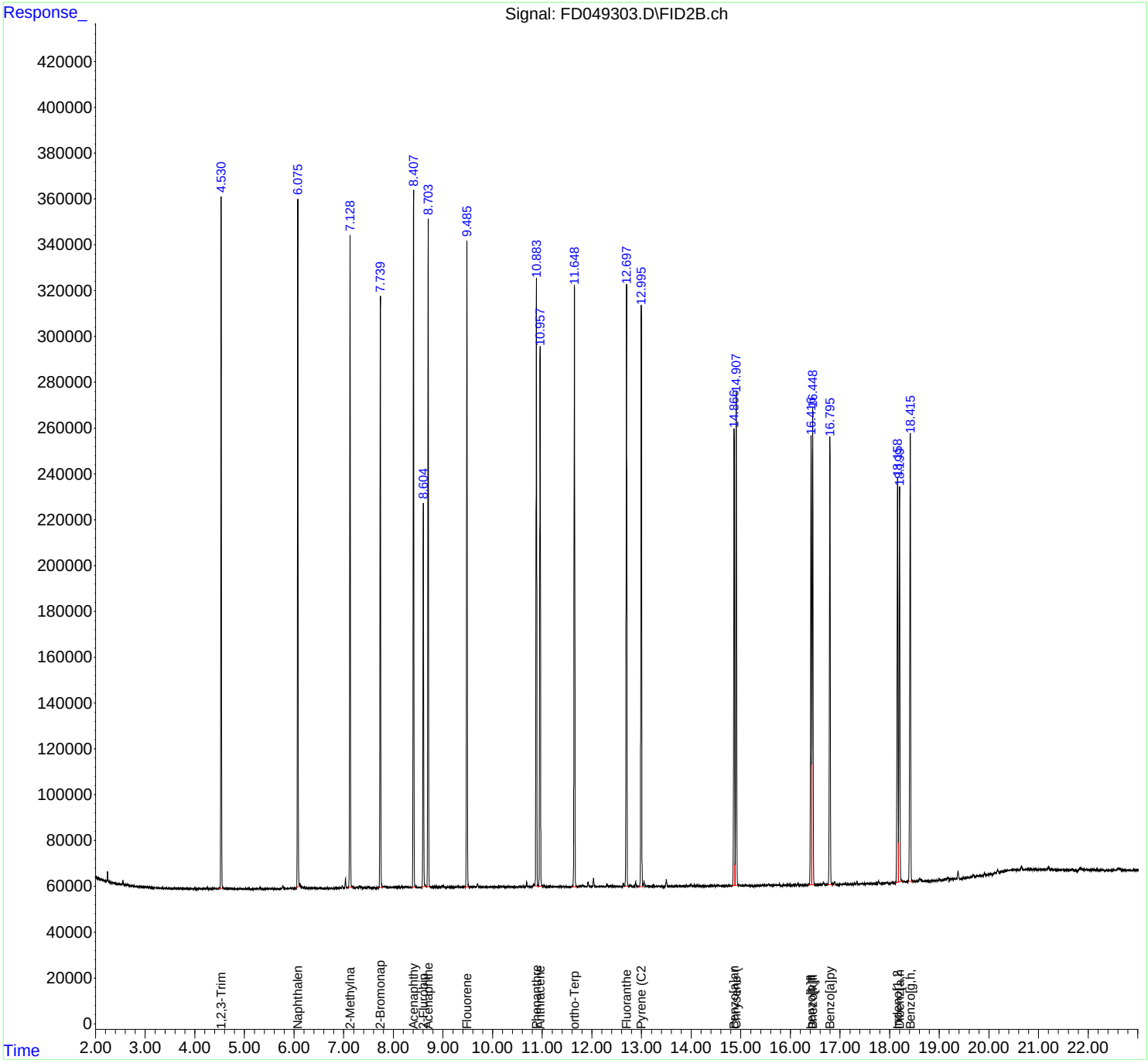
Quantitation Report (QT Reviewed)

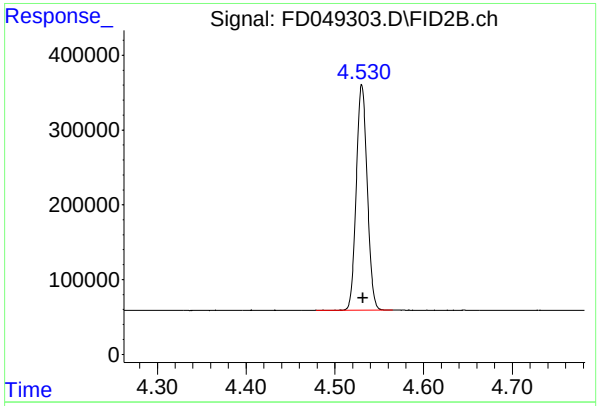
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049303.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 13:31
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD ICV
Misc :
ALS Vial : 66 Sample Multiplier: 1

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

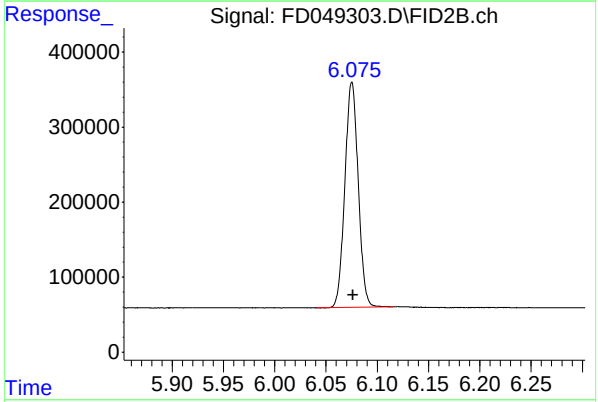




#1 1,2,3-Trimethylbenzene (C10.1)

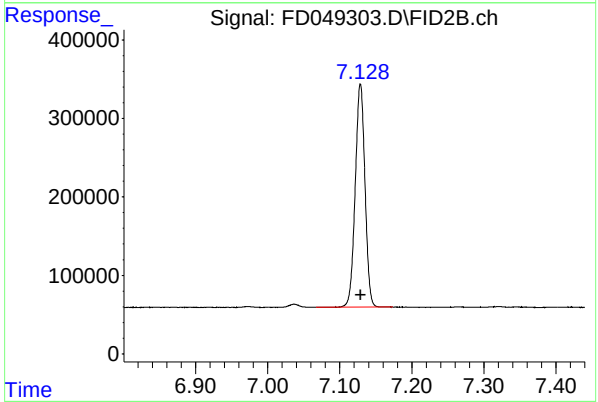
R.T.: 4.531 min
Delta R.T.: -0.002 min
Response: 2586379
Conc: 20.71 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



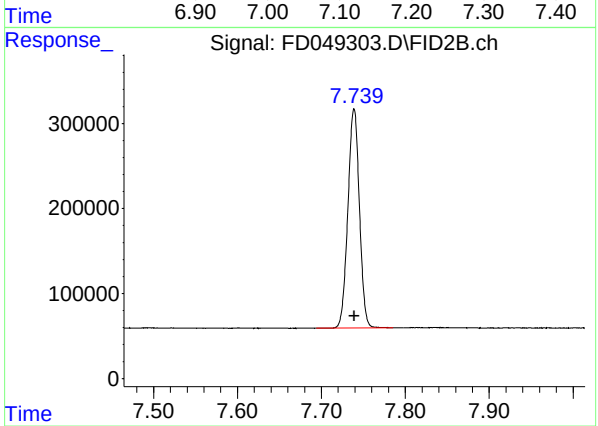
#2 Naphthalene (C11.7)

R.T.: 6.075 min
Delta R.T.: -0.001 min
Response: 2718291
Conc: 20.56 ug/ml



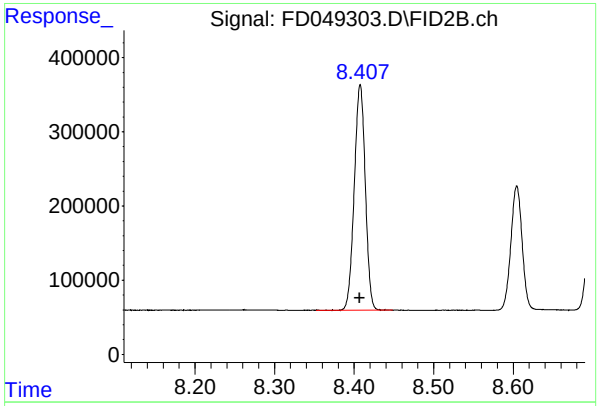
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.129 min
Delta R.T.: 0.000 min
Response: 2677906
Conc: 20.76 ug/ml



#4 2-Bromonaphthalene (SURR)

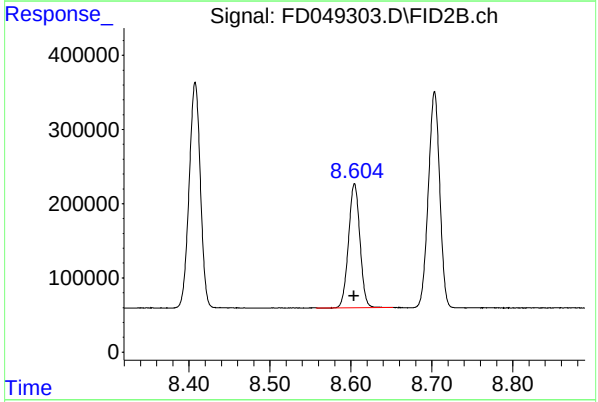
R.T.: 7.739 min
Delta R.T.: 0.000 min
Response: 2463844
Conc: 20.78 ug/ml



#5 Acenaphthylene (C15.06)

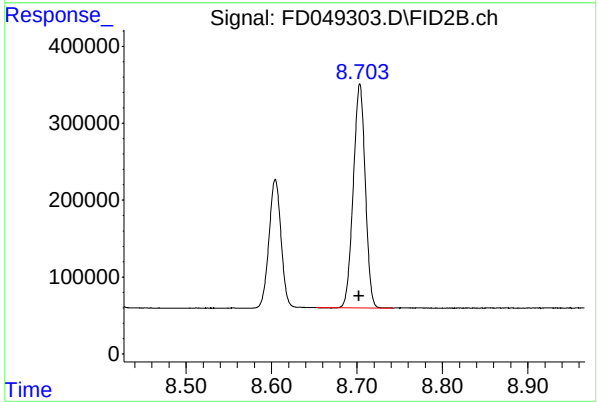
R.T.: 8.408 min
Delta R.T.: 0.000 min
Response: 2925539
Conc: 20.72 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



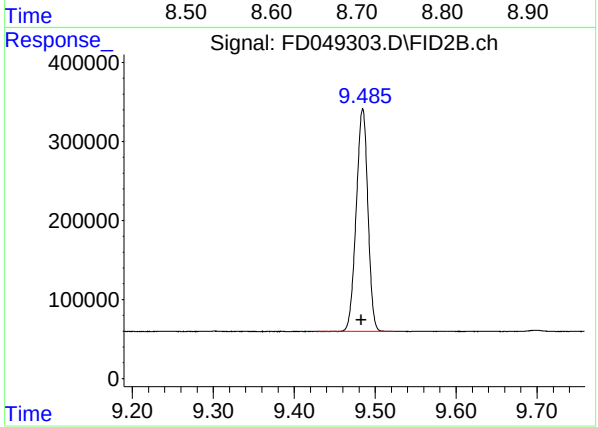
#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.000 min
Response: 1634987
Conc: 20.70 ug/ml



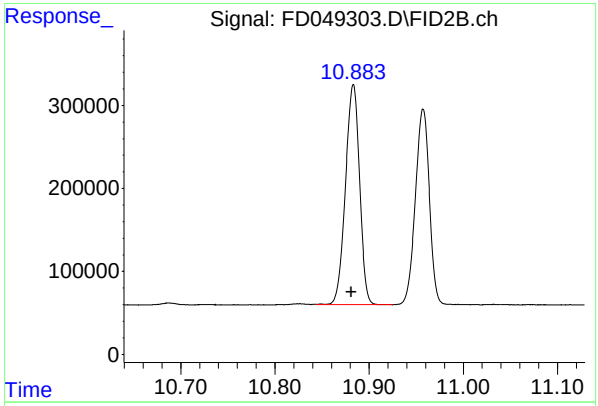
#7 Acenaphthene (C15.5)

R.T.: 8.703 min
Delta R.T.: 0.001 min
Response: 2839578
Conc: 20.72 ug/ml



#8 Flouorene (C16.55)

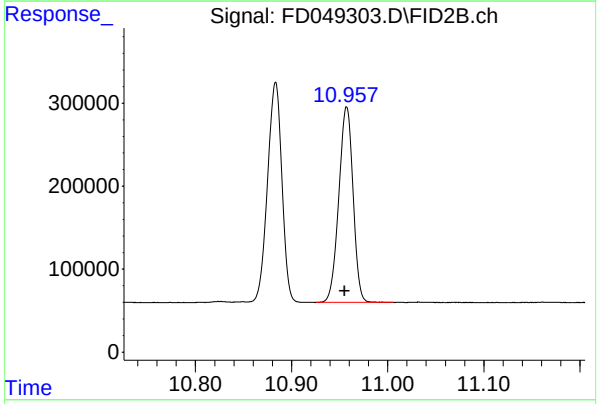
R.T.: 9.485 min
Delta R.T.: 0.002 min
Response: 2821446
Conc: 20.73 ug/ml



#9 Phenanthrene (C19.36)

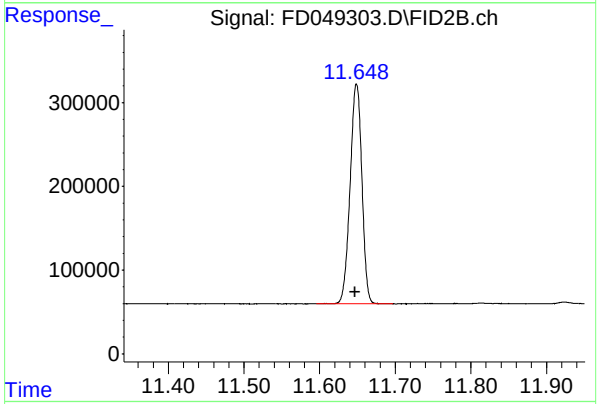
R.T.: 10.883 min
Delta R.T.: 0.002 min
Response: 2757134
Conc: 20.45 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



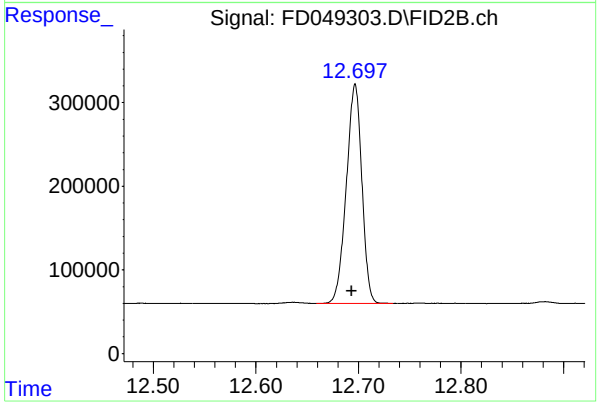
#10 Anthracene (C19.43)

R.T.: 10.957 min
Delta R.T.: 0.002 min
Response: 2430615
Conc: 20.55 ug/ml



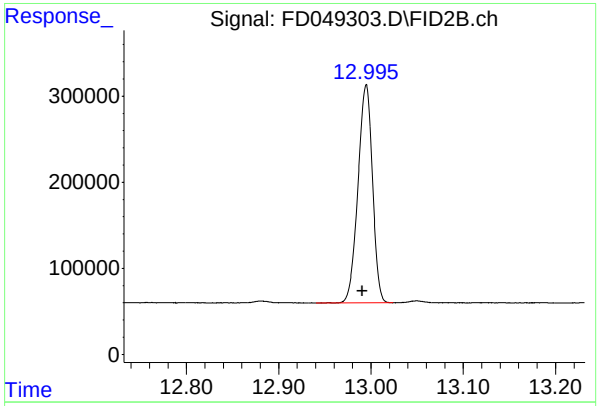
#11 ortho-Terphenyl (SURR)

R.T.: 11.649 min
Delta R.T.: 0.002 min
Response: 2843246
Conc: 20.60 ug/ml



#12 Fluoranthene (C21.85)

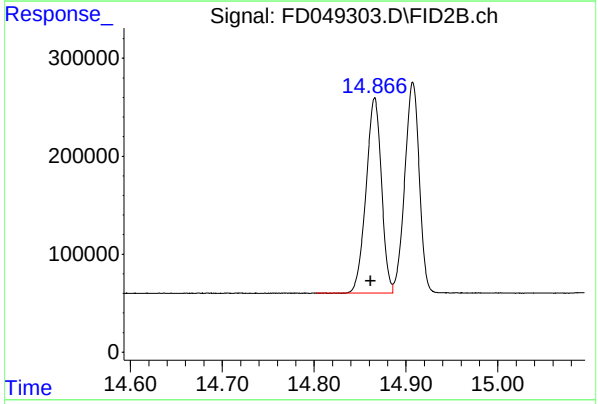
R.T.: 12.697 min
Delta R.T.: 0.004 min
Response: 2761084
Conc: 20.49 ug/ml



#13 Pyrene (C20.8)

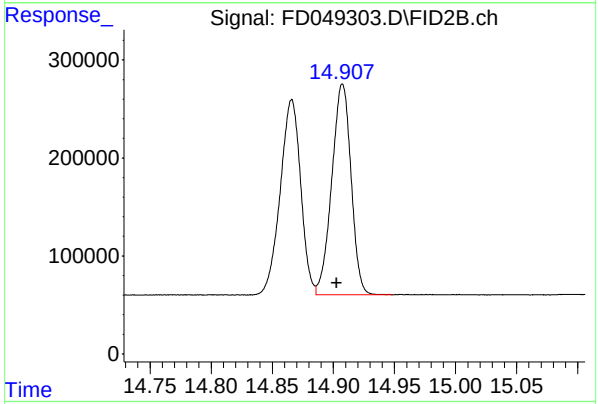
R.T.: 12.995 min
Delta R.T.: 0.004 min
Response: 2761336
Conc: 20.41 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



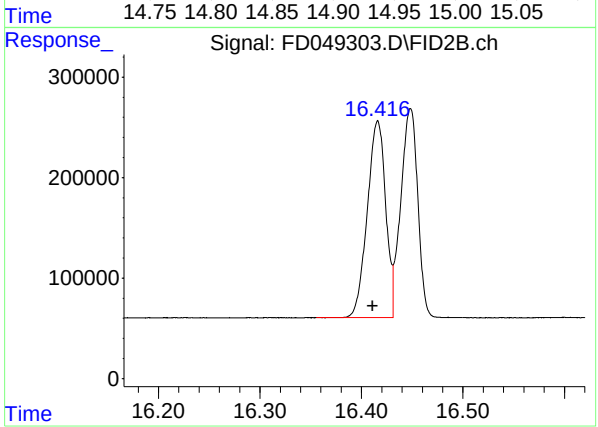
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.866 min
Delta R.T.: 0.005 min
Response: 2319946
Conc: 20.25 ug/ml



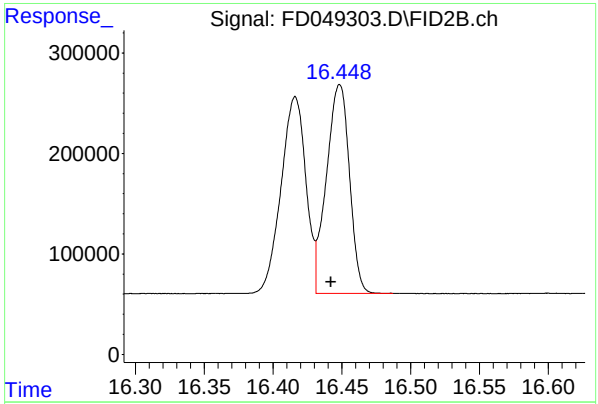
#15 Chrysene (C27.41)

R.T.: 14.908 min
Delta R.T.: 0.005 min
Response: 2361362
Conc: 20.23 ug/ml



#16 benzo[b]fluoranthene (C30.41)

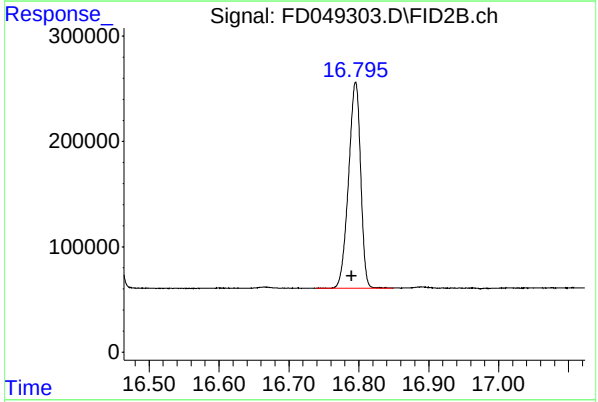
R.T.: 16.416 min
Delta R.T.: 0.005 min
Response: 2465786
Conc: 20.31 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

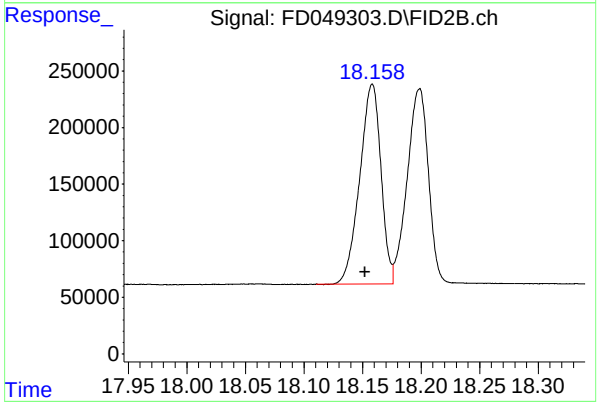
R.T.: 16.448 min
Delta R.T.: 0.006 min
Response: 2425894
Conc: 20.34 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD ICV



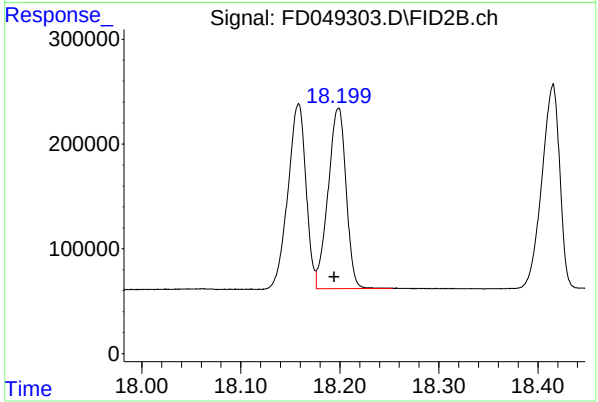
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.795 min
Delta R.T.: 0.006 min
Response: 2350703
Conc: 20.44 ug/ml



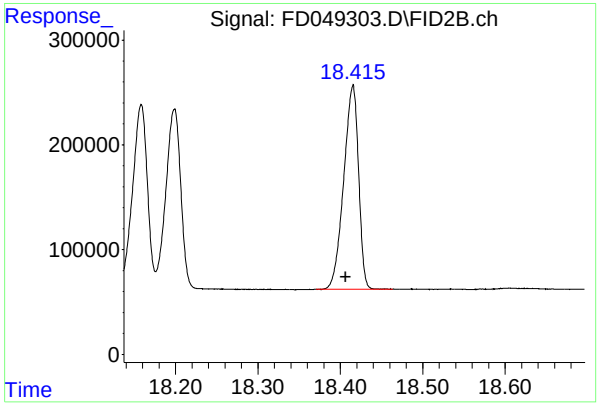
#19 Indeno[1,2,3-cd]pyrene (C35.01)

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 : 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.

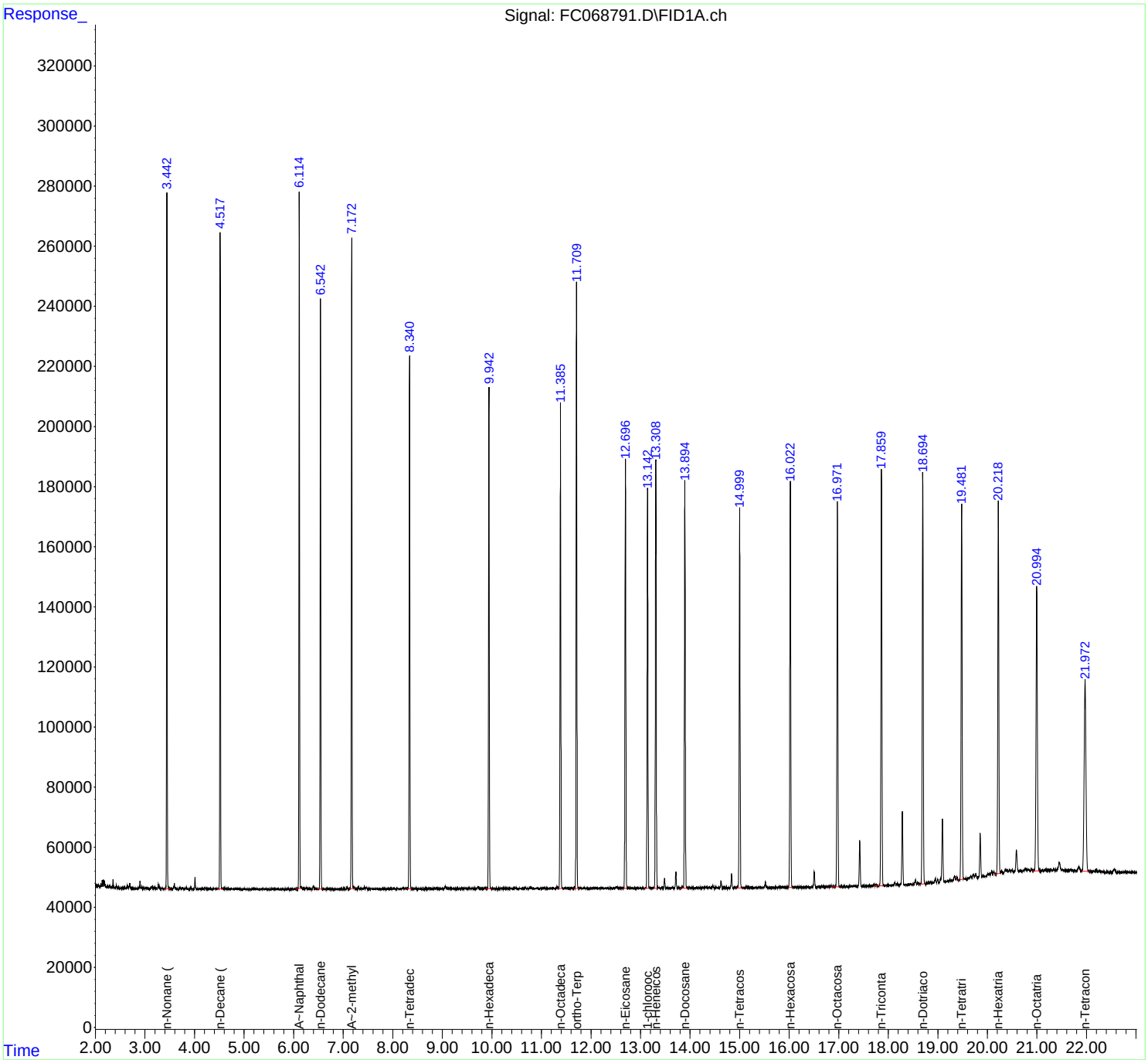
Quantitation Report (QT Reviewed)

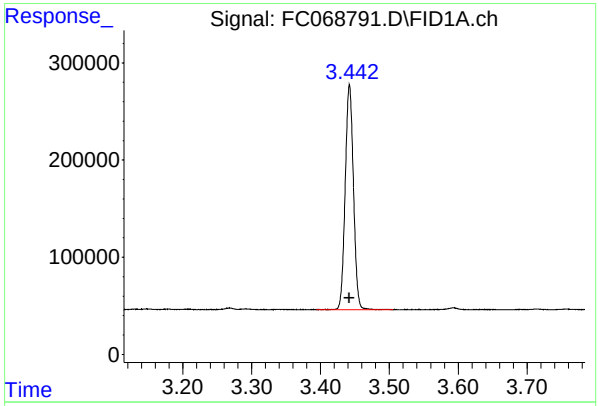
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068791.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 10:08
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

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

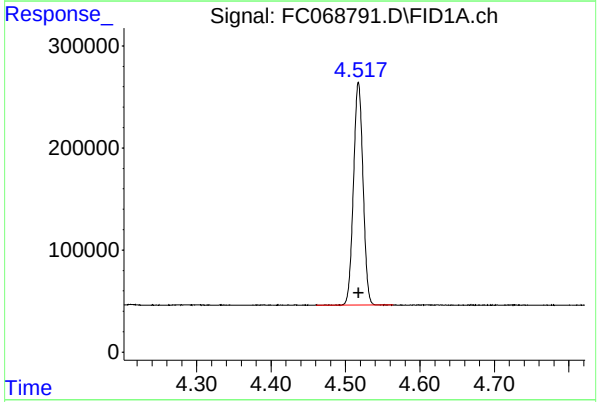




#1 n-Nonane (C9)

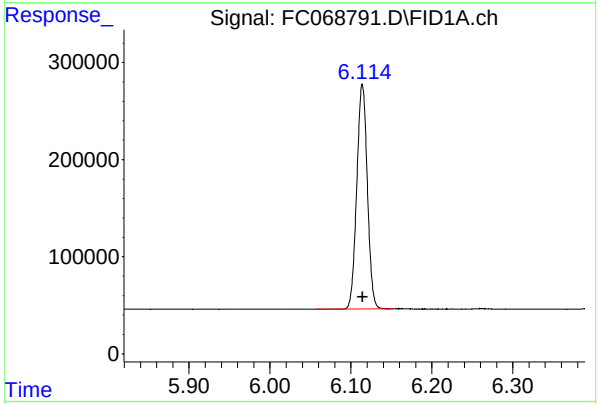
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 1922576
Conc: 19.11 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



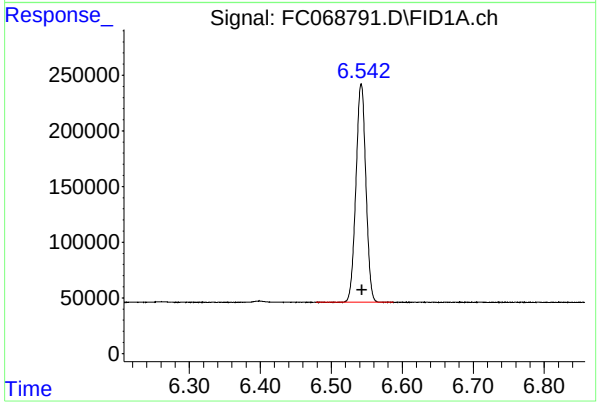
#2 n-Decane (C10)

R.T.: 4.517 min
Delta R.T.: 0.000 min
Response: 1942678
Conc: 19.50 ug/ml



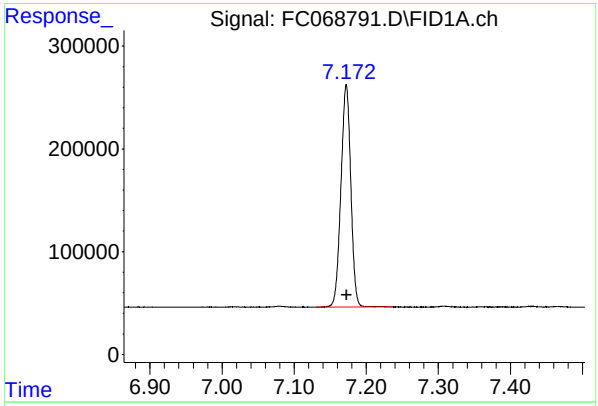
#3 A~Naphthalene (C11.7)

R.T.: 6.114 min
Delta R.T.: 0.000 min
Response: 2098038
Conc: 19.03 ug/ml



#4 n-Dodecane (C12)

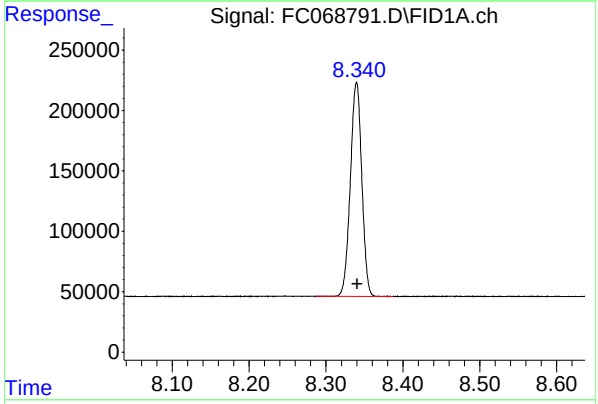
R.T.: 6.542 min
Delta R.T.: 0.000 min
Response: 1909261
Conc: 19.65 ug/ml



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

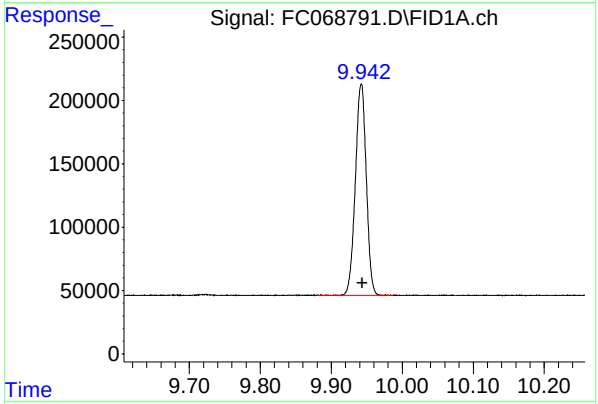
R.T.: 7.172 min
Delta R.T.: 0.000 min
Response: 2062288
Conc: 19.21 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



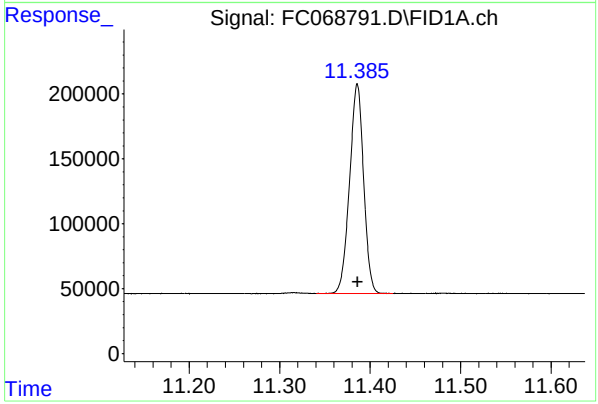
#6 n-Tetradecane (C14)

R.T.: 8.340 min
Delta R.T.: -0.001 min
Response: 1832286
Conc: 19.82 ug/ml



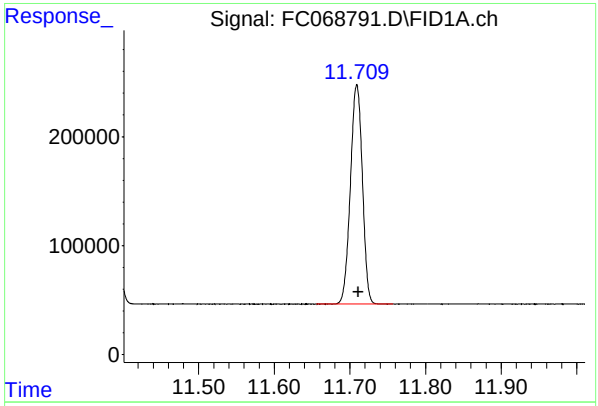
#7 n-Hexadecane (C16)

R.T.: 9.942 min
Delta R.T.: -0.002 min
Response: 1785048
Conc: 19.93 ug/ml



#8 n-Octadecane (C18)

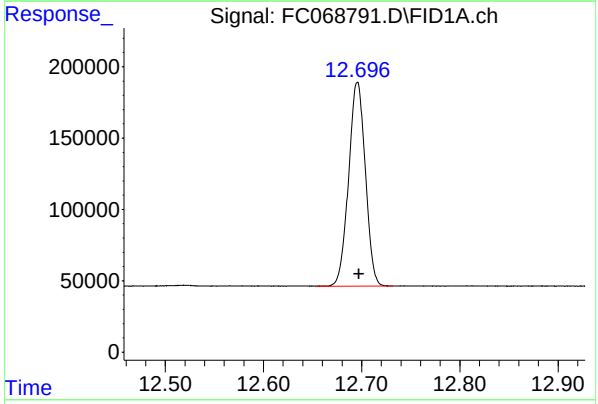
R.T.: 11.386 min
Delta R.T.: 0.000 min
Response: 1742525
Conc: 19.87 ug/ml



#9 ortho-Terphenyl (SURR)

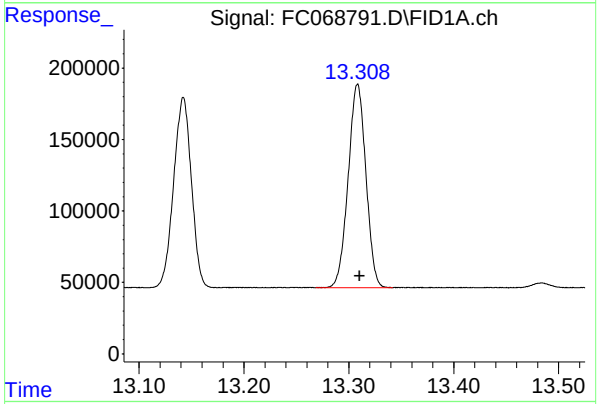
R.T.: 11.709 min
Delta R.T.: -0.002 min
Response: 2219595
Conc: 19.45 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



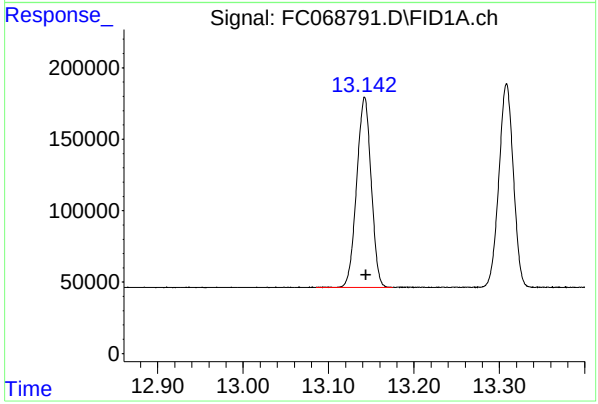
#10 n-Eicosane (C20)

R.T.: 12.696 min
Delta R.T.: -0.002 min
Response: 1691786
Conc: 19.85 ug/ml



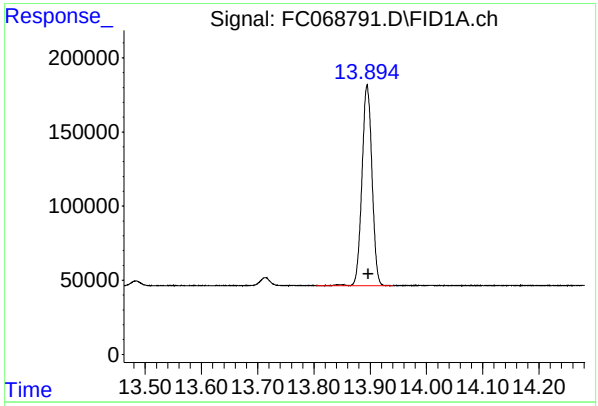
#11 n-Heneicosane (C21)

R.T.: 13.308 min
Delta R.T.: -0.002 min
Response: 1672548
Conc: 19.83 ug/ml



#12 1-chlorooctadecane (SURR)

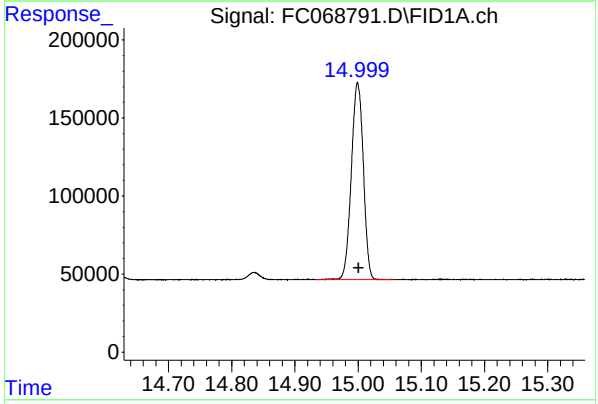
R.T.: 13.142 min
Delta R.T.: -0.002 min
Response: 1565834
Conc: 19.52 ug/ml



#13 n-Docosane (C22)

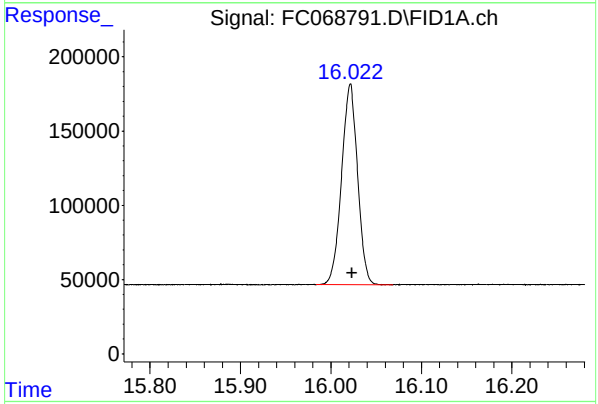
R.T.: 13.895 min
Delta R.T.: -0.002 min
Response: 1674343
Conc: 20.01 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



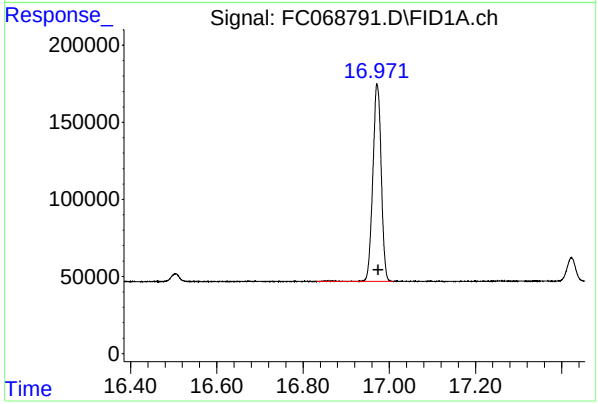
#14 n-Tetracosane (C24)

R.T.: 14.999 min
Delta R.T.: -0.001 min
Response: 1666372
Conc: 20.03 ug/ml



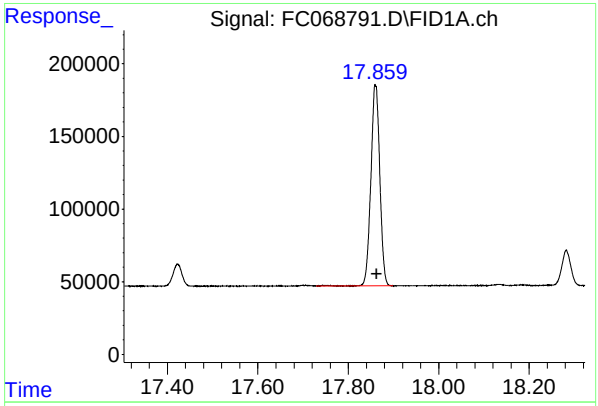
#15 n-Hexacosane (C26)

R.T.: 16.021 min
Delta R.T.: -0.002 min
Response: 1659557
Conc: 20.03 ug/ml



#16 n-Octacosane (C28)

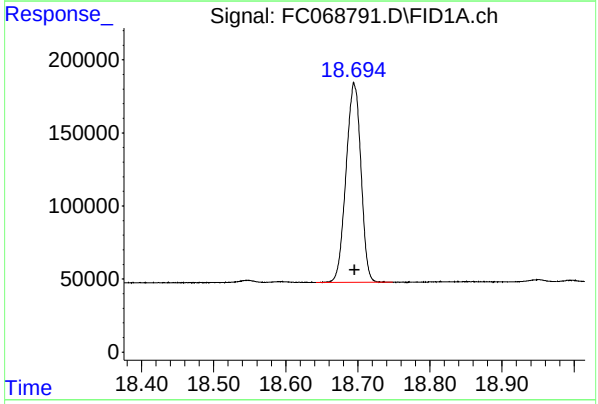
R.T.: 16.972 min
Delta R.T.: -0.002 min
Response: 1726788
Conc: 20.89 ug/ml



#17 n-Tricontane (C30)

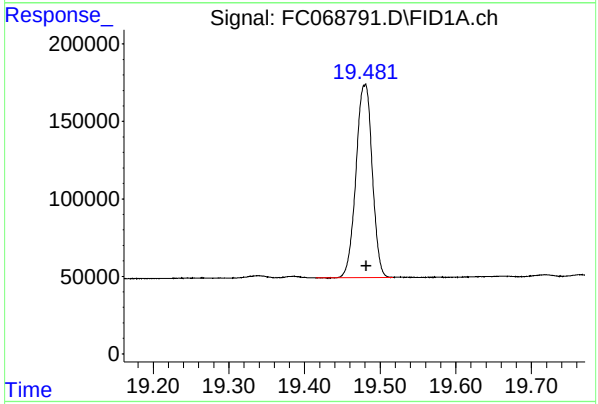
R.T.: 17.860 min
Delta R.T.: -0.002 min
Response: 1894773
Conc: 22.39 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



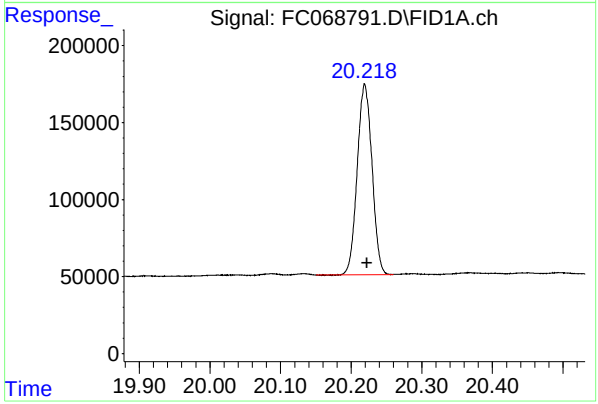
#18 n-Dotriacontane (C32)

R.T.: 18.695 min
Delta R.T.: 0.000 min
Response: 1964672
Conc: 22.81 ug/ml



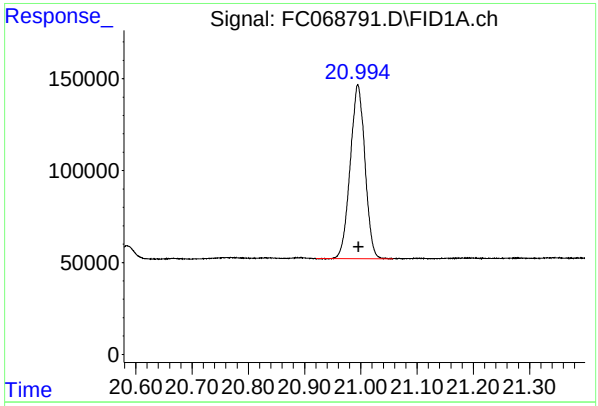
#19 n-Tetratriacontane (C34)

R.T.: 19.480 min
Delta R.T.: -0.002 min
Response: 1855099
Conc: 21.77 ug/ml



#20 n-Hexatriacontane (C36)

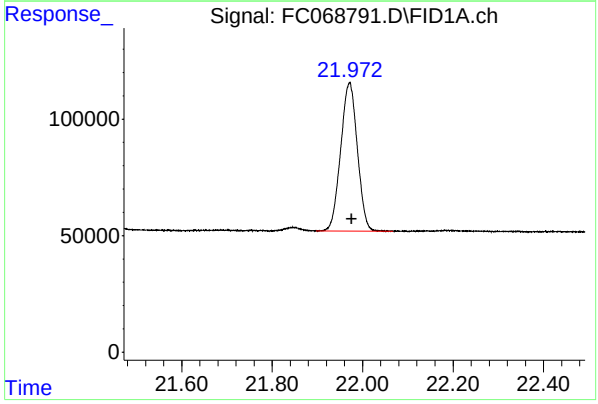
R.T.: 20.219 min
Delta R.T.: -0.003 min
Response: 1801911
Conc: 20.97 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.995 min
Delta R.T.: -0.002 min
Response: 1724546
Conc: 20.56 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



#22 n-Tetracontane (C40)

R.T.: 21.971 min
Delta R.T.: -0.004 min
Response: 1631760
Conc: 19.91 ug/ml

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

Evaluate Continuing Calibration 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
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
LabSampleId :
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

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
1	T	n-Nonane (C9)	100.580	96.129	E3	4.4	93	0.00
2	T	n-Decane (C10)	99.642	97.134	E3	2.5	95	0.00
3	T	A~Naphthalene (C11.7)	110.262	104.902	E3	4.9	92	0.00
4	T	n-Dodecane (C12)	97.178	95.463	E3	1.8	95	0.00
5	T	A~2-methylnaphthalene (C12.	107.333	103.114	E3	3.9	93	0.00
6	T	n-Tetradecane (C14)	92.425	91.614	E3	0.9	96	0.00
7	T	n-Hexadecane (C16)	89.544	89.252	E3	0.3	96	0.00
8	T	n-Octadecane (C18)	87.718	87.126	E3	0.7	96	0.00
9	S	ortho-Terphenyl (SURR)	114.139	110.980	E3	2.8	94	0.00
10	T	n-Eicosane (C20)	85.218	84.589	E3	0.7	96	0.00
11	T	n-Heneicosane (C21)	84.345	83.627	E3	0.9	96	0.00
12	S	1-chlorooctadecane (SURR)	80.226	78.292	E3	2.4	94	0.00
13	T	n-Docosane (C22)	83.658	83.717	E3	-0.1	97	0.00
14	T	n-Tetracosane (C24)	83.207	83.319	E3	-0.1	97	0.00
15	T	n-Hexacosane (C26)	82.853	82.978	E3	-0.2	98	0.00
16	T	n-Octacosane (C28)	82.646	86.339	E3	-4.5	103	0.00
17	T	n-Tricontane (C30)	84.612	94.739	E3	-12.0	110	0.00
18	T	n-Dotriacontane (C32)	86.136	98.234	E3	-14.0	112	0.00
19	T	n-Tetratriacontane (C34)	85.200	92.755	E3	-8.9	107	0.00
20	T	n-Hexatriacontane (C36)	85.949	90.096	E3	-4.8	103	0.00
21	T	n-Octatriacontane (C38)	83.884	86.227	E3	-2.8	101	0.00
22	T	n-Tetracontane (C40)	81.956	81.588	E3	0.4	97	0.00

Evaluate Continuing Calibration Report - Not Founds

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

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

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.

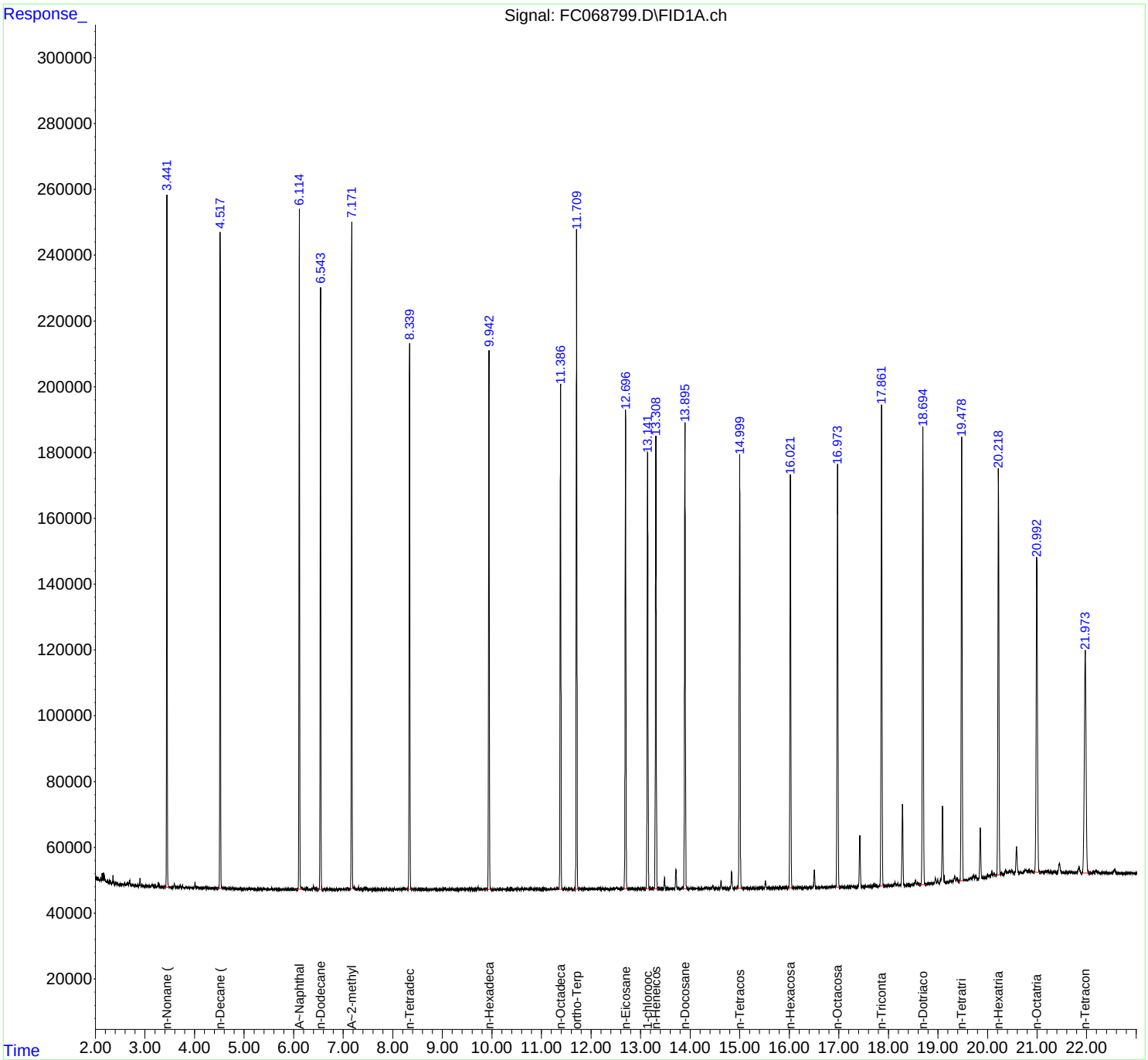
Quantitation Report (QT Reviewed)

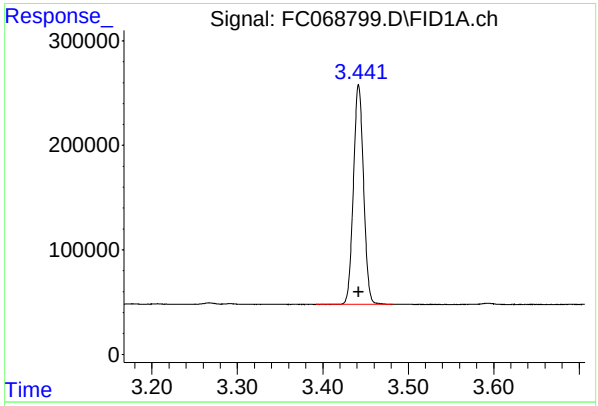
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068799.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 17:14
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

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

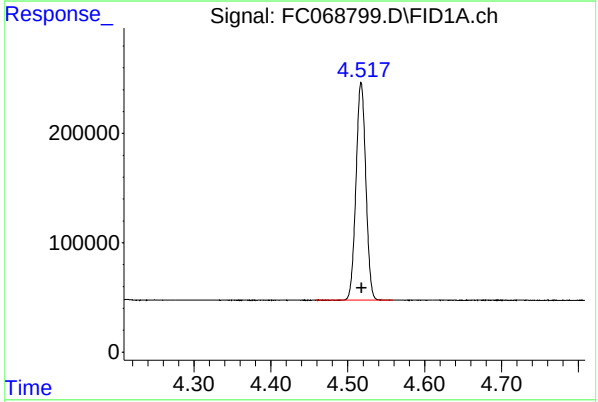




#1 n-Nonane (C9)

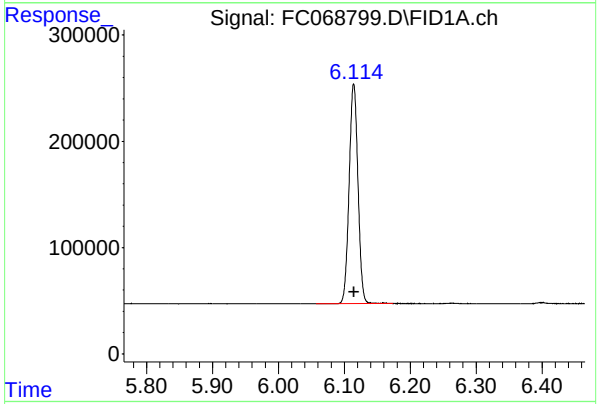
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 1737195
Conc: 17.27 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



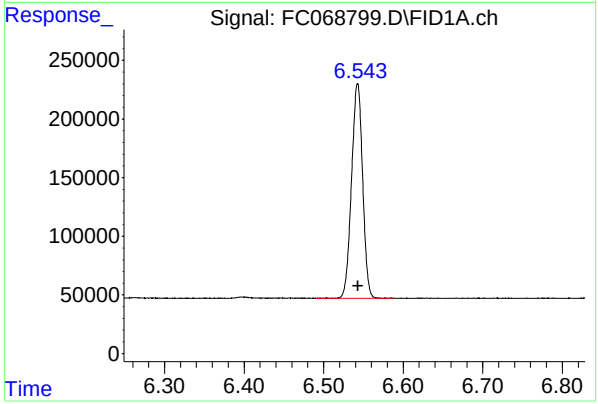
#2 n-Decane (C10)

R.T.: 4.517 min
Delta R.T.: 0.000 min
Response: 1768912
Conc: 17.75 ug/ml



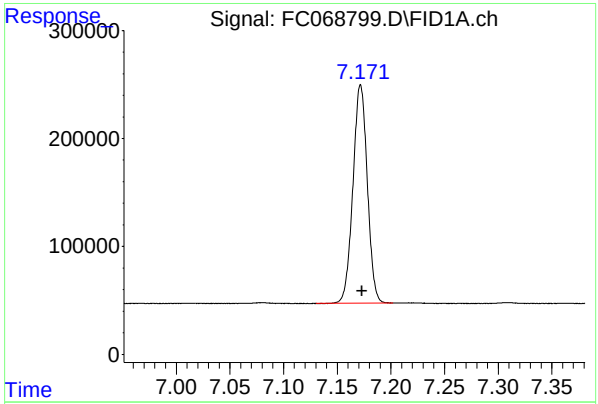
#3 A~Naphthalene (C11.7)

R.T.: 6.114 min
Delta R.T.: 0.000 min
Response: 1924285
Conc: 17.45 ug/ml



#4 n-Dodecane (C12)

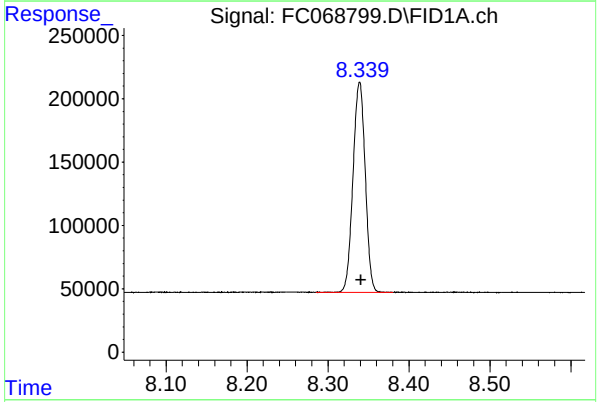
R.T.: 6.543 min
Delta R.T.: 0.000 min
Response: 1772018
Conc: 18.23 ug/ml



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

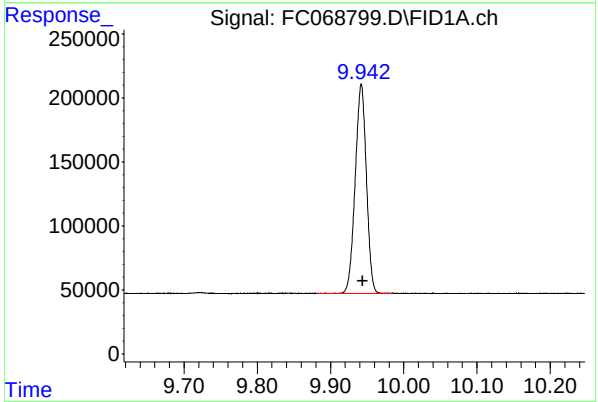
R.T.: 7.172 min
Delta R.T.: -0.001 min
Response: 1886216
Conc: 17.57 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



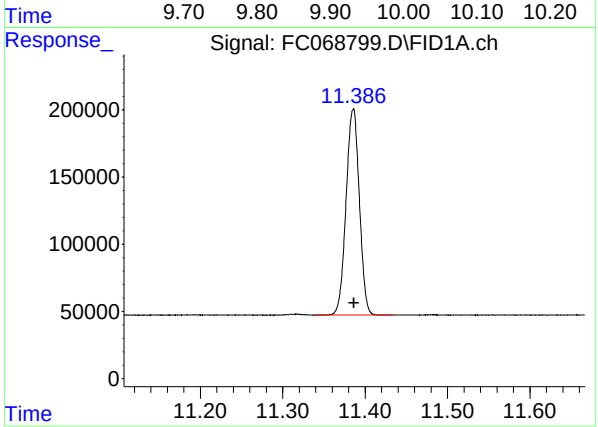
#6 n-Tetradecane (C14)

R.T.: 8.339 min
Delta R.T.: -0.002 min
Response: 1740497
Conc: 18.83 ug/ml



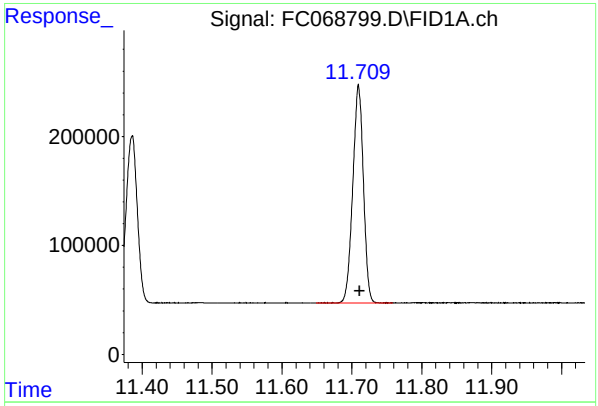
#7 n-Hexadecane (C16)

R.T.: 9.942 min
Delta R.T.: -0.002 min
Response: 1736811
Conc: 19.40 ug/ml



#8 n-Octadecane (C18)

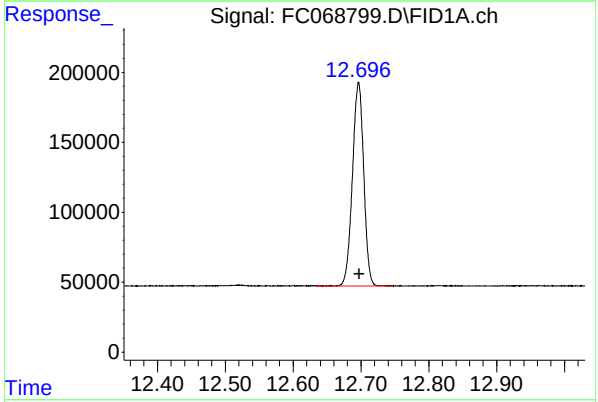
R.T.: 11.385 min
Delta R.T.: 0.000 min
Response: 1719553
Conc: 19.60 ug/ml



#9 ortho-Terphenyl (SURR)

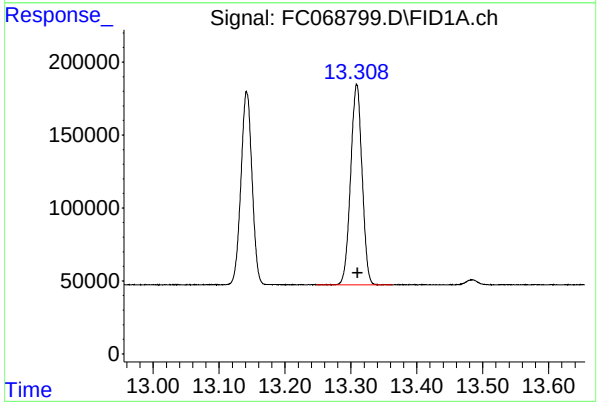
R.T.: 11.710 min
Delta R.T.: -0.001 min
Response: 2110292
Conc: 18.49 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



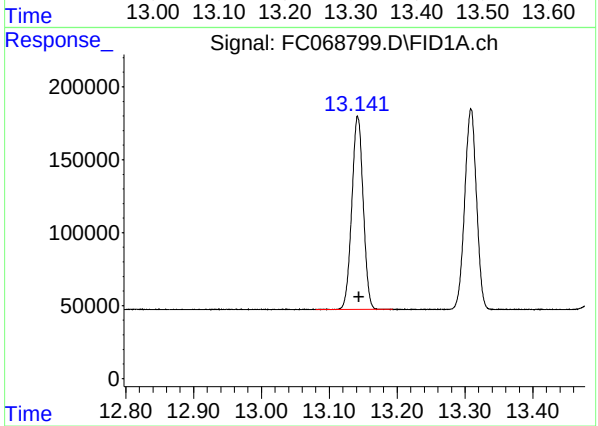
#10 n-Eicosane (C20)

R.T.: 12.696 min
Delta R.T.: 0.000 min
Response: 1678654
Conc: 19.70 ug/ml



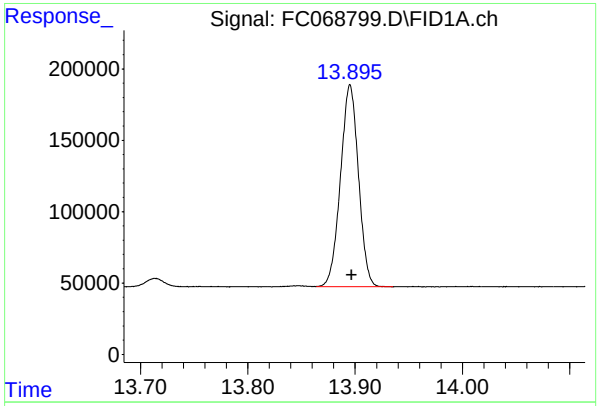
#11 n-Heneicosane (C21)

R.T.: 13.309 min
Delta R.T.: -0.002 min
Response: 1658648
Conc: 19.67 ug/ml



#12 1-chlorooctadecane (SURR)

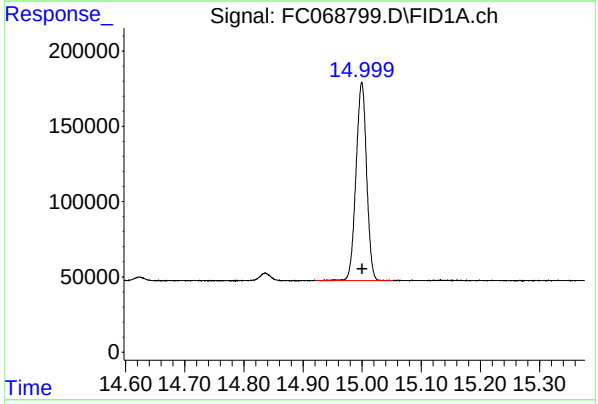
R.T.: 13.142 min
Delta R.T.: -0.002 min
Response: 1542692
Conc: 19.23 ug/ml



#13 n-Docosane (C22)

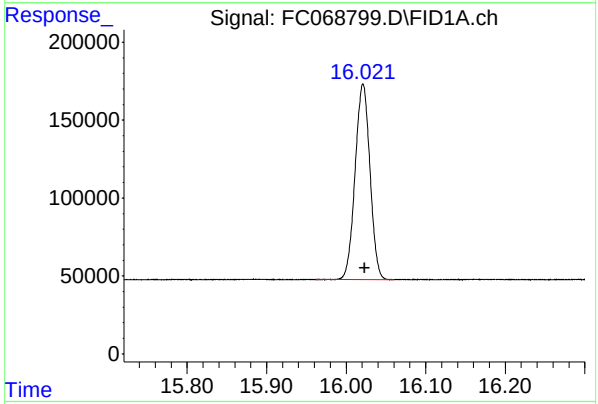
R.T.: 13.895 min
Delta R.T.: -0.001 min
Response: 1647975
Conc: 19.70 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



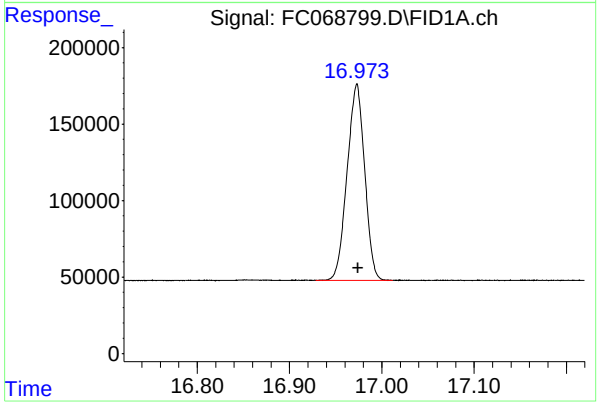
#14 n-Tetracosane (C24)

R.T.: 14.999 min
Delta R.T.: -0.001 min
Response: 1641703
Conc: 19.73 ug/ml



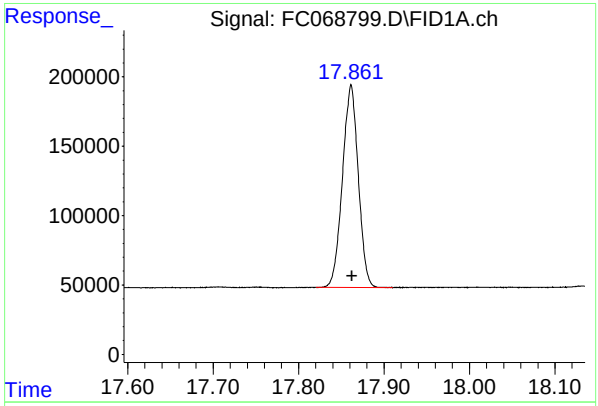
#15 n-Hexacosane (C26)

R.T.: 16.021 min
Delta R.T.: -0.002 min
Response: 1629568
Conc: 19.67 ug/ml



#16 n-Octacosane (C28)

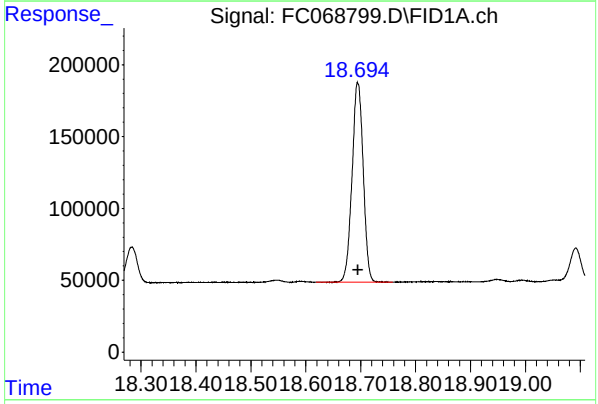
R.T.: 16.973 min
Delta R.T.: -0.001 min
Response: 1694993
Conc: 20.51 ug/ml



#17 n-Tricontane (C30)

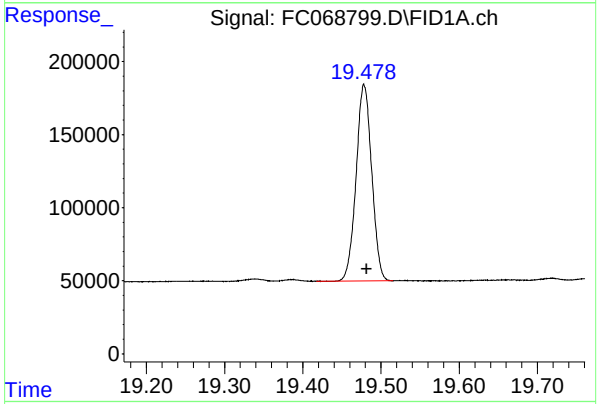
R.T.: 17.861 min
Delta R.T.: -0.001 min
Response: 1876545
Conc: 22.18 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



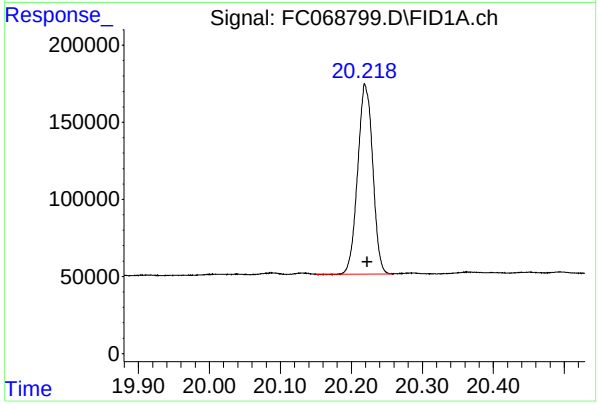
#18 n-Dotriacontane (C32)

R.T.: 18.695 min
Delta R.T.: 0.000 min
Response: 1965282
Conc: 22.82 ug/ml



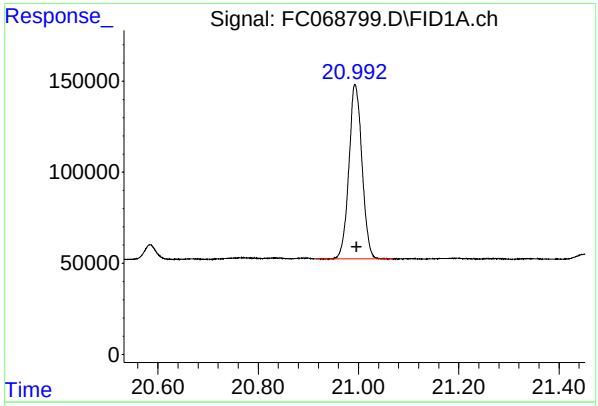
#19 n-Tetratriacontane (C34)

R.T.: 19.478 min
Delta R.T.: -0.003 min
Response: 1865114
Conc: 21.89 ug/ml



#20 n-Hexatriacontane (C36)

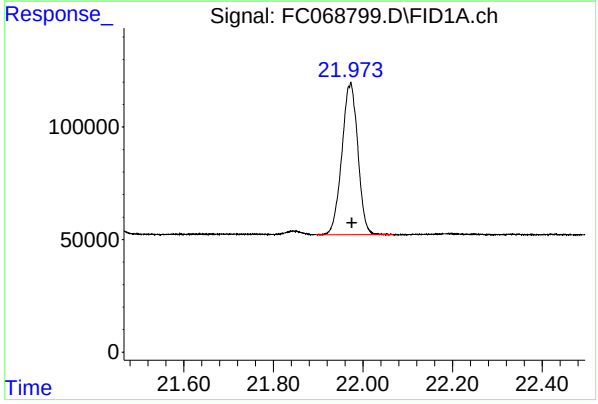
R.T.: 20.220 min
Delta R.T.: -0.003 min
Response: 1813286
Conc: 21.10 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.994 min
Delta R.T.: -0.003 min
Response: 1733890
Conc: 20.67 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD



#22 n-Tetracontane (C40)

R.T.: 21.972 min
Delta R.T.: -0.004 min
Response: 1667020
Conc: 20.34 ug/ml

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

Evaluate Continuing Calibration 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
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_C
LabSampleId :
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

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	T	n-Nonane (C9)	100.580	86.860 E3	13.6	84	0.00
2	T	n-Decane (C10)	99.642	88.446 E3	11.2	86	0.00
3	T	A~Naphthalene (C11.7)	110.262	96.214 E3	12.7	84	0.00
4	T	n-Dodecane (C12)	97.178	88.601 E3	8.8	88	0.00
5	T	A~2-methylnaphthalene (C12.	107.333	94.311 E3	12.1	85	0.00
6	T	n-Tetradecane (C14)	92.425	87.025 E3	5.8	91	0.00
7	T	n-Hexadecane (C16)	89.544	86.841 E3	3.0	94	0.00
8	T	n-Octadecane (C18)	87.718	85.978 E3	2.0	95	0.00
9	S	ortho-Terphenyl (SURR)	114.139	105.515 E3	7.6	89	0.00
10	T	n-Eicosane (C20)	85.218	83.933 E3	1.5	95	0.00
11	T	n-Heneicosane (C21)	84.345	82.932 E3	1.7	95	0.00
12	S	1-chlorooctadecane (SURR)	80.226	77.135 E3	3.9	93	0.00
13	T	n-Docosane (C22)	83.658	82.399 E3	1.5	95	0.00
14	T	n-Tetracosane (C24)	83.207	82.085 E3	1.3	96	0.00
15	T	n-Hexacosane (C26)	82.853	81.478 E3	1.7	96	0.00
16	T	n-Octacosane (C28)	82.646	84.750 E3	-2.5	101	0.00
17	T	n-Tricontane (C30)	84.612	93.827 E3	-10.9	109	0.00
18	T	n-Dotriacontane (C32)	86.136	98.264 E3	-14.1	112	0.00
19	T	n-Tetratriacontane (C34)	85.200	93.256 E3	-9.5	108	0.00
20	T	n-Hexatriacontane (C36)	85.949	90.664 E3	-5.5	103	0.00
21	T	n-Octatriacontane (C38)	83.884	86.695 E3	-3.4	101	0.00
22	T	n-Tetracontane (C40)	81.956	83.351 E3	-1.7	100	0.00

Evaluate Continuing Calibration Report - Not Founds

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

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

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.

Quantitation Report (QT Reviewed)

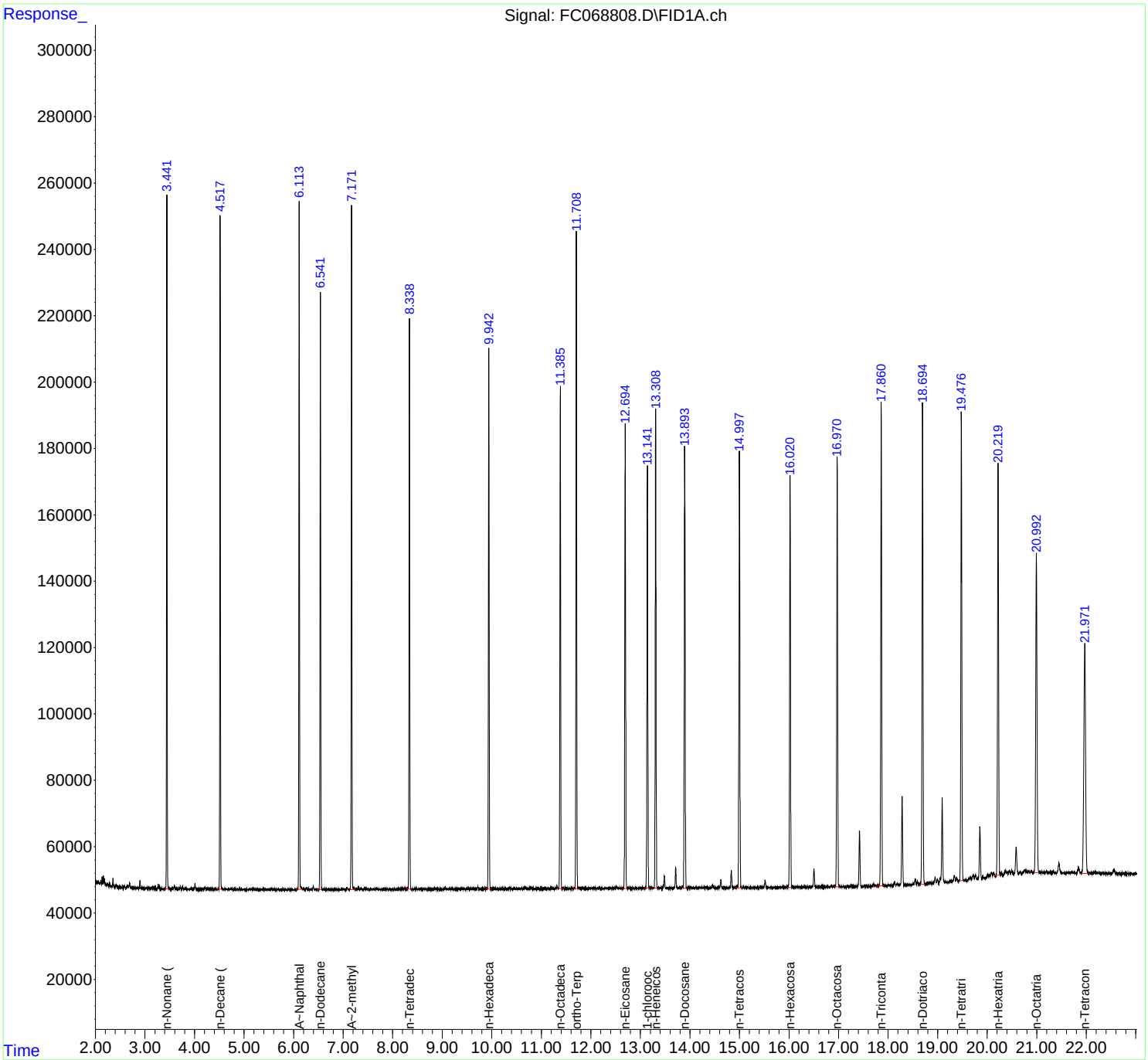
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068808.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 23:34
Operator : YP/AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

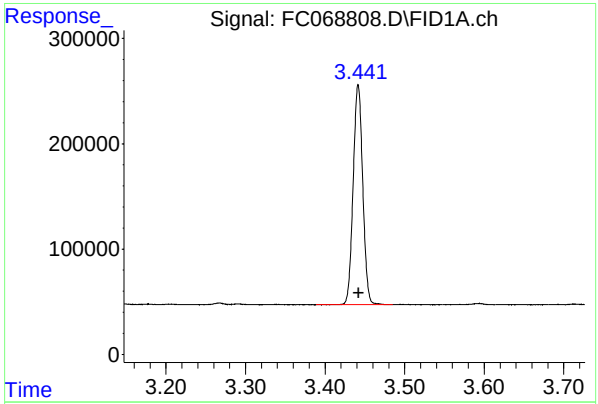
Integration File: autoint1.e
Quant Time: May 09 09:10:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_C\Method\Aliphatic EPH 050625.M
Quant Title : GC Extractables
QLast Update : Wed May 07 08:52:03 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025





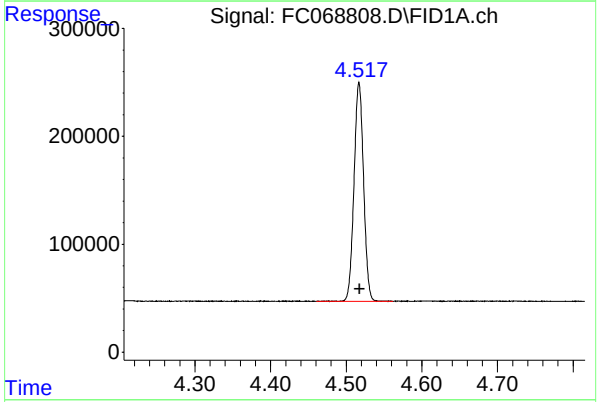
#1 n-Nonane (C9)

R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 1749315
Conc: 17.39 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

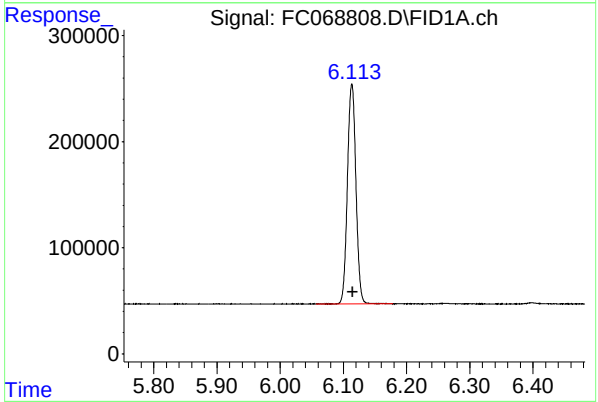
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



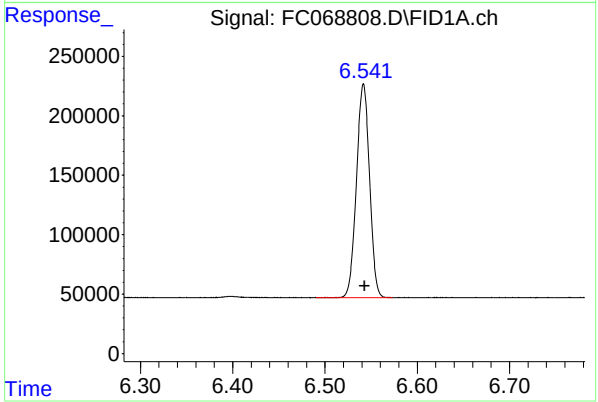
#2 n-Decane (C10)

R.T.: 4.517 min
Delta R.T.: 0.000 min
Response: 1778847
Conc: 17.85 ug/ml



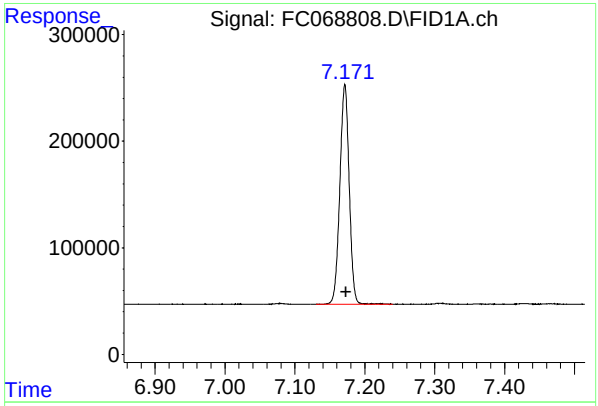
#3 A~Naphthalene (C11.7)

R.T.: 6.113 min
Delta R.T.: -0.001 min
Response: 1939444
Conc: 17.59 ug/ml



#4 n-Dodecane (C12)

R.T.: 6.542 min
Delta R.T.: -0.001 min
Response: 1770752
Conc: 18.22 ug/ml



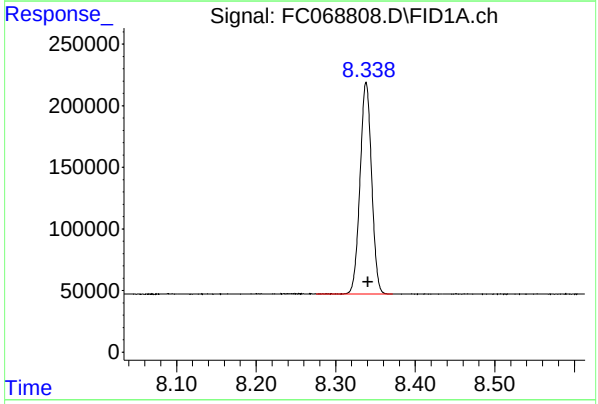
#5 A~2-methylnaphthalene (C12.89)

R.T.: 7.172 min
Delta R.T.: -0.002 min
Response: 1915478
Conc: 17.85 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

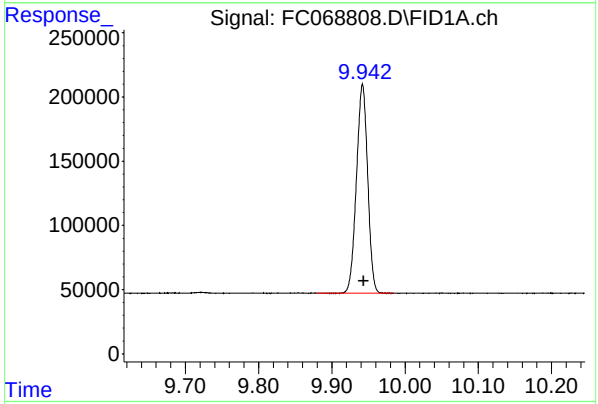
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



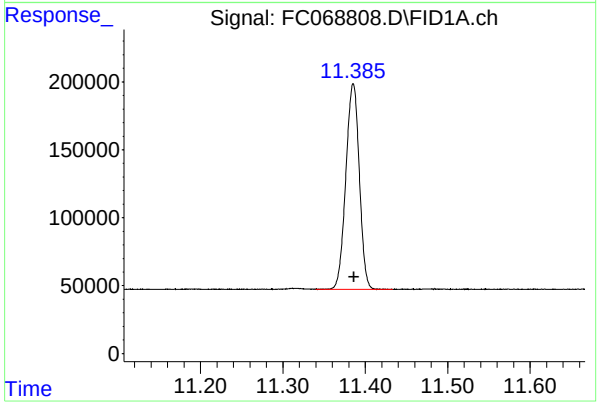
#6 n-Tetradecane (C14)

R.T.: 8.338 min
Delta R.T.: -0.002 min
Response: 1737987
Conc: 18.80 ug/ml



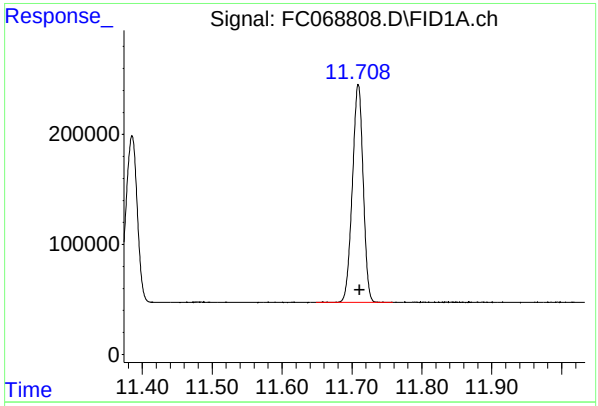
#7 n-Hexadecane (C16)

R.T.: 9.942 min
Delta R.T.: -0.002 min
Response: 1733723
Conc: 19.36 ug/ml



#8 n-Octadecane (C18)

R.T.: 11.385 min
Delta R.T.: 0.000 min
Response: 1717922
Conc: 19.58 ug/ml



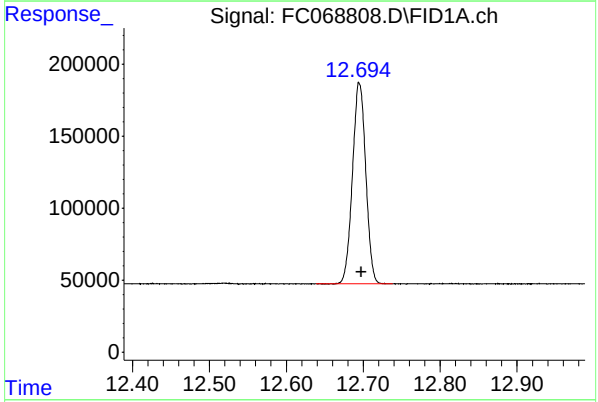
#9 ortho-Terphenyl (SURR)

R.T.: 11.709 min
Delta R.T.: -0.002 min
Response: 2124752
Conc: 18.62 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

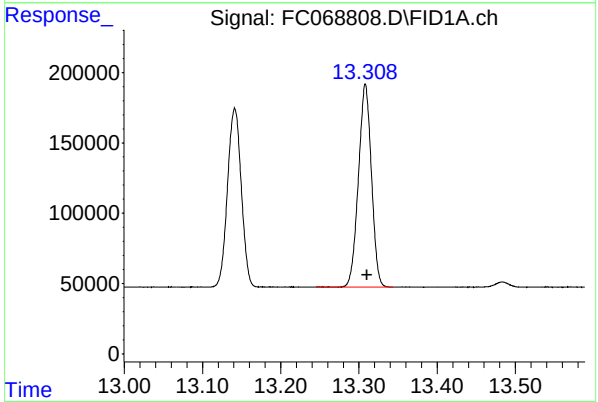
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



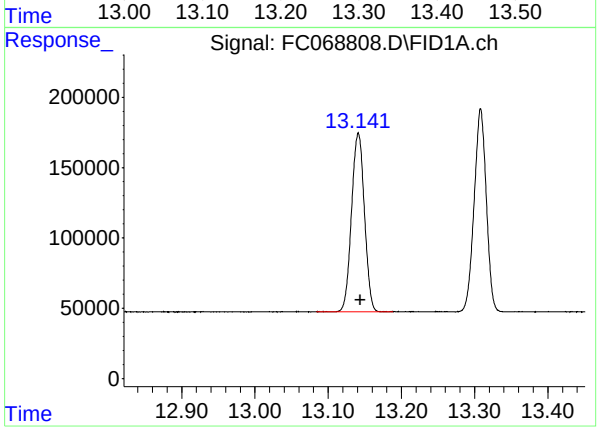
#10 n-Eicosane (C20)

R.T.: 12.695 min
Delta R.T.: -0.002 min
Response: 1680489
Conc: 19.72 ug/ml



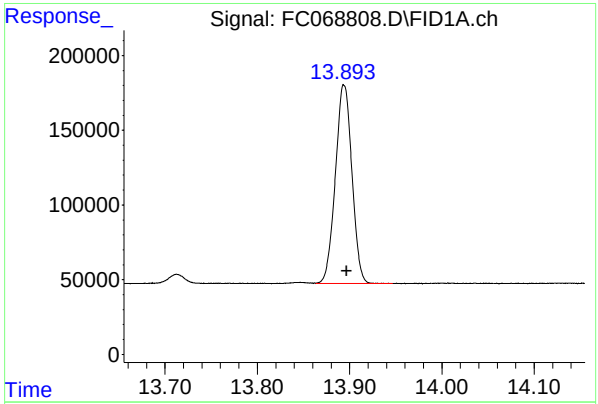
#11 n-Heneicosane (C21)

R.T.: 13.308 min
Delta R.T.: -0.002 min
Response: 1663208
Conc: 19.72 ug/ml



#12 1-chlorooctadecane (SURR)

R.T.: 13.141 min
Delta R.T.: -0.003 min
Response: 1552221
Conc: 19.35 ug/ml



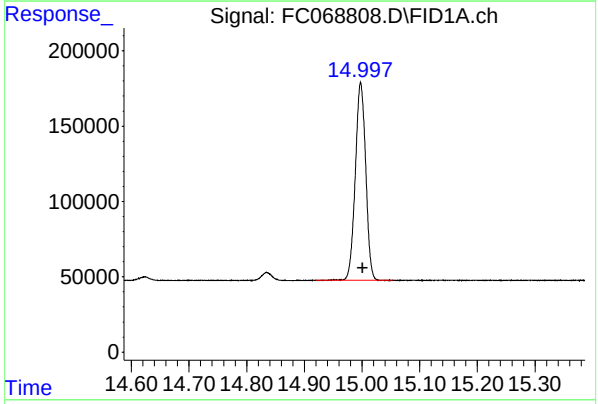
#13 n-Docosane (C22)

R.T.: 13.894 min
Delta R.T.: -0.003 min
Response: 1657060
Conc: 19.81 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

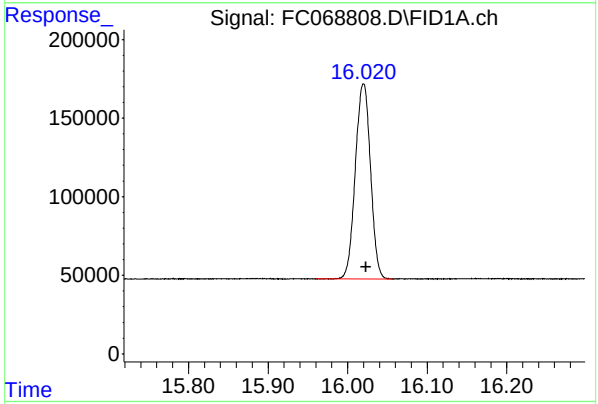
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



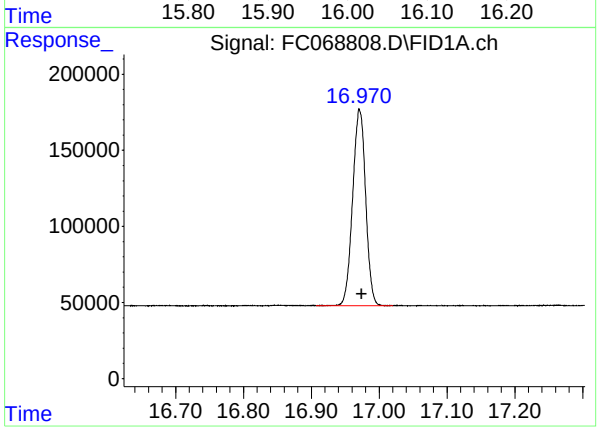
#14 n-Tetracosane (C24)

R.T.: 14.998 min
Delta R.T.: -0.003 min
Response: 1653318
Conc: 19.87 ug/ml



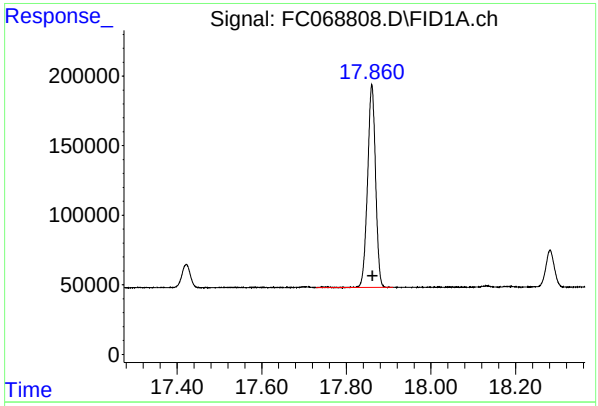
#15 n-Hexacosane (C26)

R.T.: 16.020 min
Delta R.T.: -0.003 min
Response: 1646159
Conc: 19.87 ug/ml



#16 n-Octacosane (C28)

R.T.: 16.971 min
Delta R.T.: -0.003 min
Response: 1718109
Conc: 20.79 ug/ml



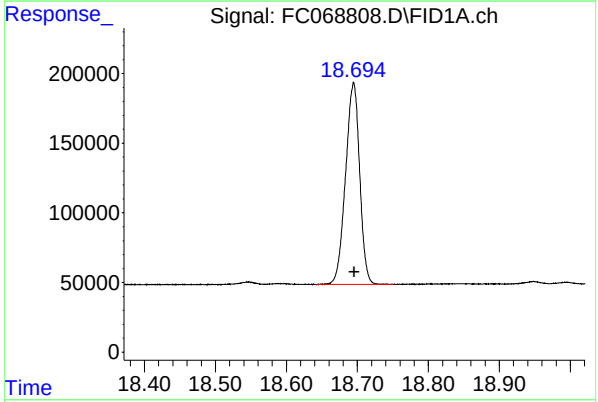
#17 n-Tricontane (C30)

R.T.: 17.860 min
Delta R.T.: -0.002 min
Response: 1913841
Conc: 22.62 ug/ml

Instrument :
FID_C
ClientSampleId :
20 PPM ALIPHATIC HC STD

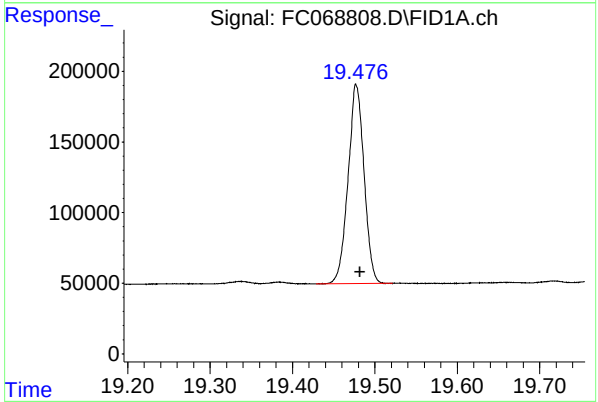
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



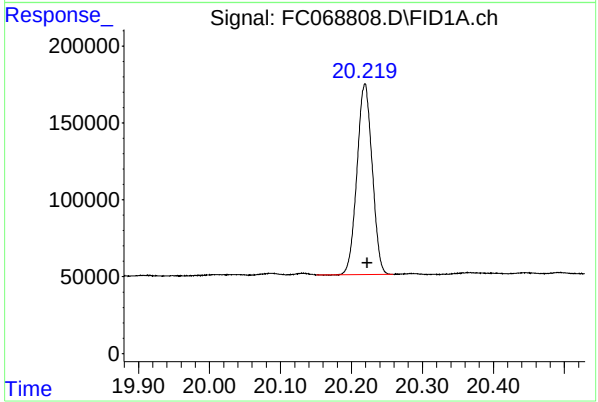
#18 n-Dotriacontane (C32)

R.T.: 18.695 min
Delta R.T.: 0.000 min
Response: 2001506
Conc: 23.24 ug/ml



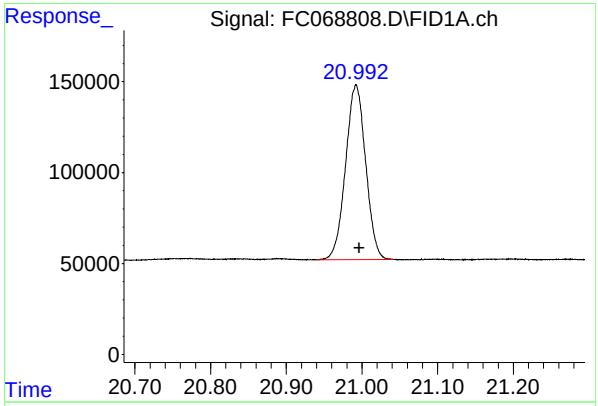
#19 n-Tetratriacontane (C34)

R.T.: 19.478 min
Delta R.T.: -0.004 min
Response: 1900896
Conc: 22.31 ug/ml



#20 n-Hexatriacontane (C36)

R.T.: 20.219 min
Delta R.T.: -0.004 min
Response: 1848438
Conc: 21.51 ug/ml



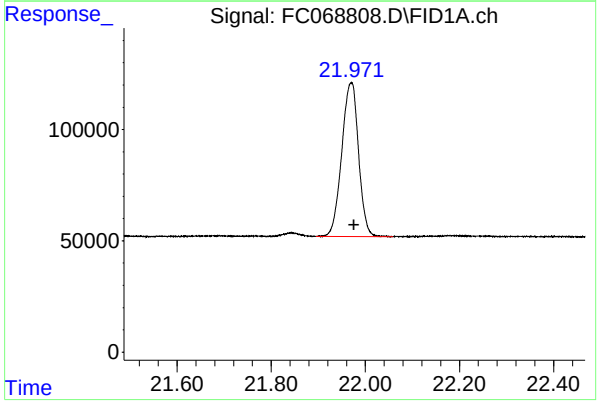
#21 n-Octatriacontane (C38)

R.T.: 20.992 min
Delta R.T.: -0.004 min
Response: 1770740
Conc: 21.11 ug/ml

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



#22 n-Tetracontane (C40)

R.T.: 21.970 min
Delta R.T.: -0.005 min
Response: 1714821
Conc: 20.92 ug/ml

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

Evaluate Continuing Calibration Report

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
LabSampleId :
20 PPM ALIPHATIC HC STD

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

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
1	T	n-Nonane (C9)	100.580	87.466	E3	13.0	84	0.00
2	T	n-Decane (C10)	99.642	88.942	E3	10.7	87	0.00
3	T	A~Naphthalene (C11.7)	110.262	96.972	E3	12.1	85	0.00
4	T	n-Dodecane (C12)	97.178	88.538	E3	8.9	88	0.00
5	T	A~2-methylnaphthalene (C12.	107.333	95.774	E3	10.8	86	0.00
6	T	n-Tetradecane (C14)	92.425	86.899	E3	6.0	91	0.00
7	T	n-Hexadecane (C16)	89.544	86.686	E3	3.2	93	0.00
8	T	n-Octadecane (C18)	87.718	85.896	E3	2.1	95	0.00
9	S	ortho-Terphenyl (SURR)	114.139	106.238	E3	6.9	90	0.00
10	T	n-Eicosane (C20)	85.218	84.024	E3	1.4	95	0.00
11	T	n-Heneicosane (C21)	84.345	83.160	E3	1.4	95	0.00
12	S	1-chlorooctadecane (SURR)	80.226	77.611	E3	3.3	94	0.00
13	T	n-Docosane (C22)	83.658	82.853	E3	1.0	96	0.00
14	T	n-Tetracosane (C24)	83.207	82.666	E3	0.7	97	0.00
15	T	n-Hexacosane (C26)	82.853	82.308	E3	0.7	97	0.00
16	T	n-Octacosane (C28)	82.646	85.905	E3	-3.9	102	0.00
17	T	n-Tricontane (C30)	84.612	95.692	E3	-13.1	111	0.00
18	T	n-Dotriacontane (C32)	86.136	100.075	E3	-16.2	114	0.00
19	T	n-Tetratriacontane (C34)	85.200	95.045	E3	-11.6	110	0.00
20	T	n-Hexatriacontane (C36)	85.949	92.422	E3	-7.5	105	0.00
21	T	n-Octatriacontane (C38)	83.884	88.537	E3	-5.5	103	0.00
22	T	n-Tetracontane (C40)	81.956	85.741	E3	-4.6	102	0.00

Evaluate Continuing Calibration Report - Not Founds

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

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

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.

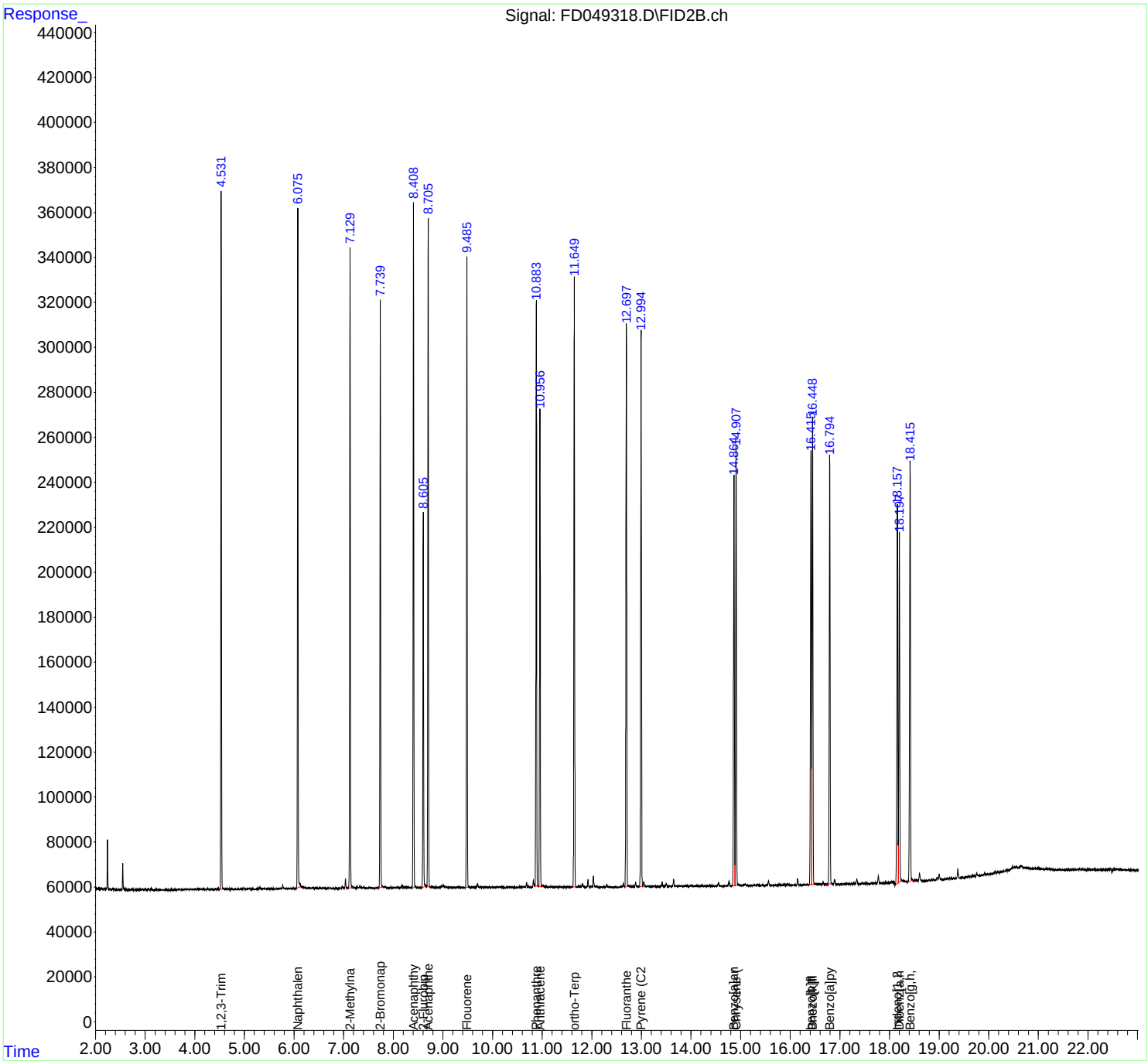
Quantitation Report (QT Reviewed)

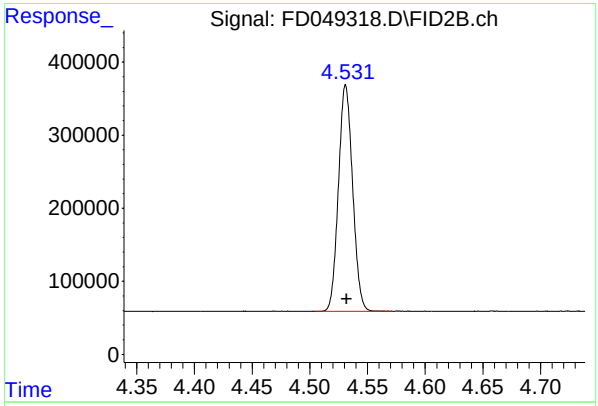
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049318.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 10:08
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

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

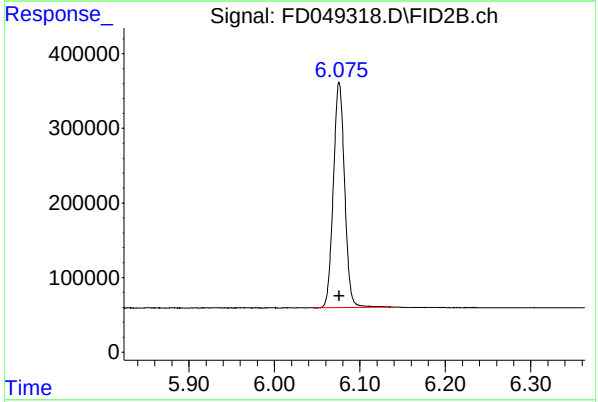




#1 1,2,3-Trimethylbenzene (C10.1)

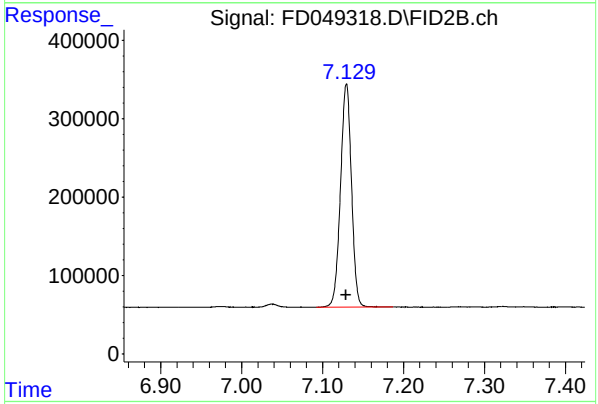
R.T.: 4.531 min
Delta R.T.: 0.000 min
Response: 2643716
Conc: 21.17 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



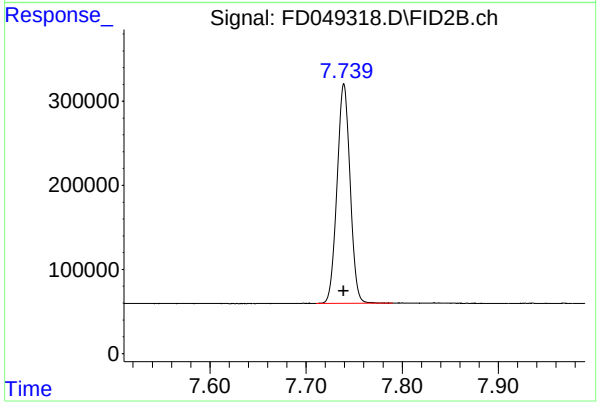
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 2776737
Conc: 21.00 ug/ml



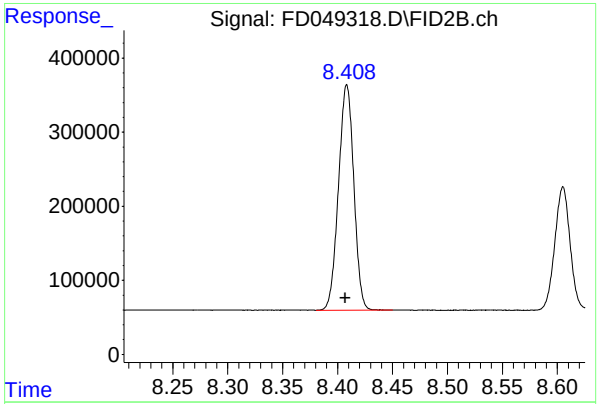
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.130 min
Delta R.T.: 0.000 min
Response: 2682807
Conc: 20.80 ug/ml



#4 2-Bromonaphthalene (SURR)

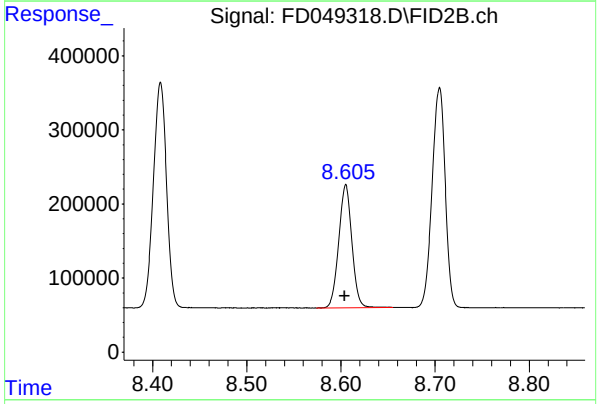
R.T.: 7.739 min
Delta R.T.: 0.000 min
Response: 2464192
Conc: 20.78 ug/ml



#5 Acenaphthylene (C15.06)

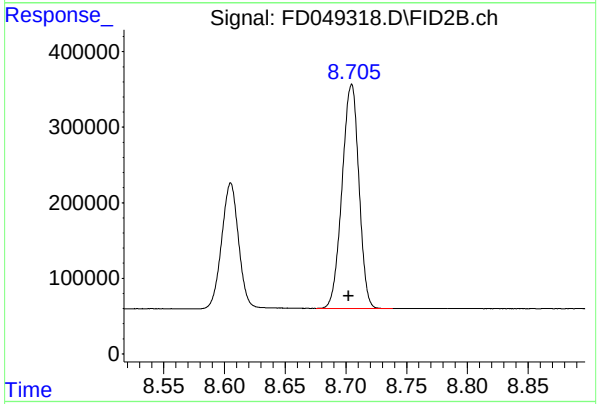
R.T.: 8.408 min
Delta R.T.: 0.001 min
Response: 2951174
Conc: 20.91 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



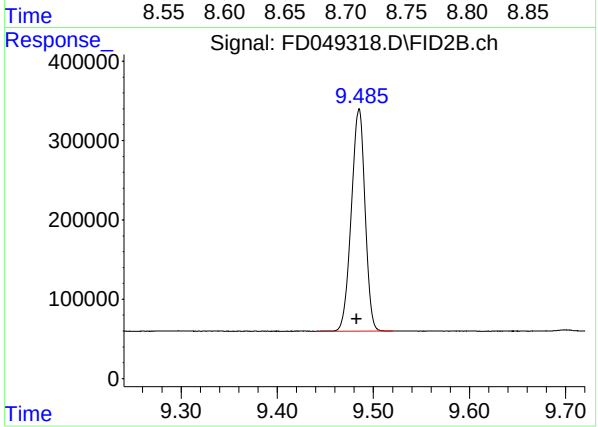
#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.001 min
Response: 1609848
Conc: 20.38 ug/ml



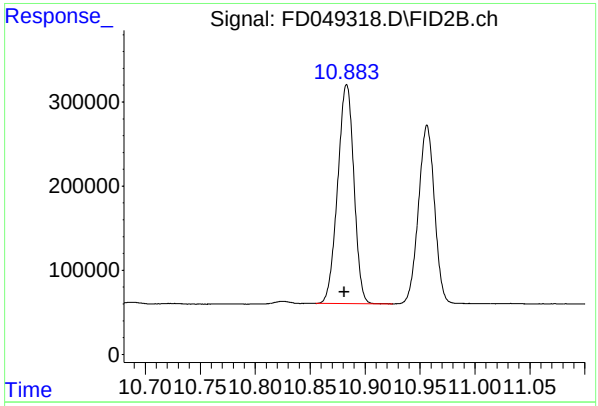
#7 Acenaphthene (C15.5)

R.T.: 8.705 min
Delta R.T.: 0.002 min
Response: 2868889
Conc: 20.94 ug/ml



#8 Flouorene (C16.55)

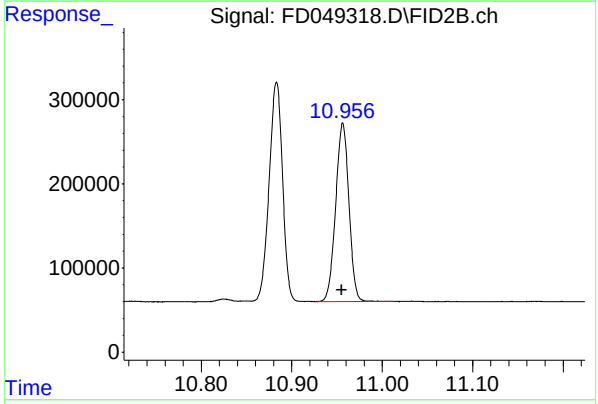
R.T.: 9.485 min
Delta R.T.: 0.003 min
Response: 2784802
Conc: 20.46 ug/ml



#9 Phenanthrene (C19.36)

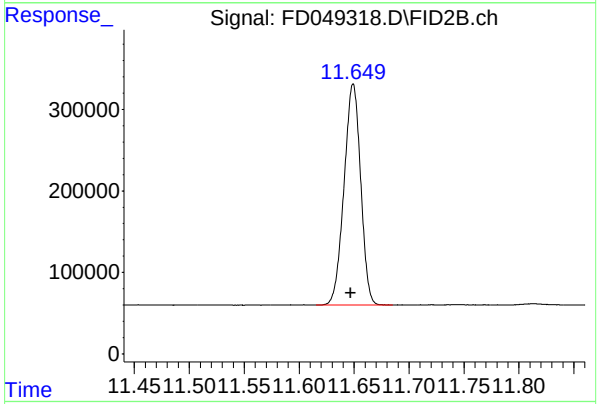
R.T.: 10.883 min
Delta R.T.: 0.002 min
Response: 2676530
Conc: 19.85 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



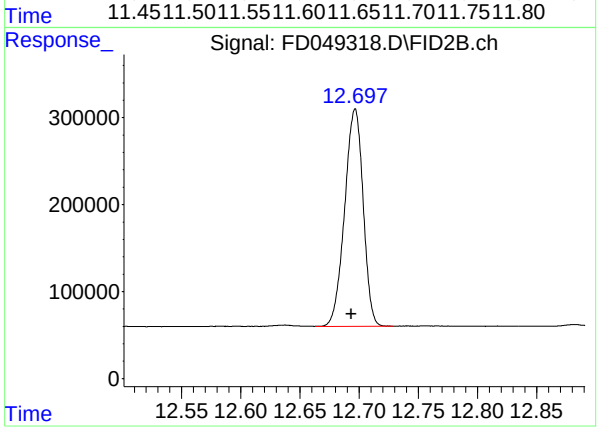
#10 Anthracene (C19.43)

R.T.: 10.957 min
Delta R.T.: 0.001 min
Response: 2159310
Conc: 18.26 ug/ml



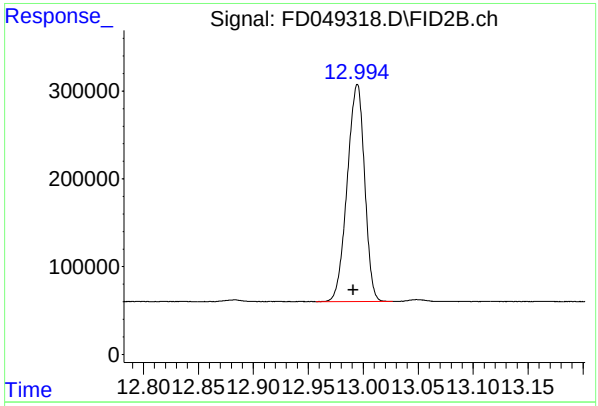
#11 ortho-Terphenyl (SURR)

R.T.: 11.649 min
Delta R.T.: 0.002 min
Response: 2854662
Conc: 20.68 ug/ml



#12 Fluoranthene (C21.85)

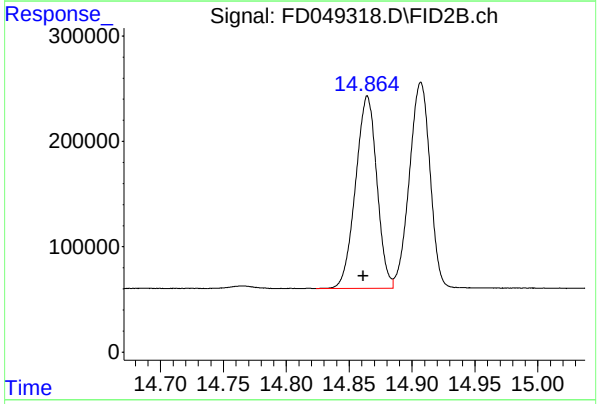
R.T.: 12.697 min
Delta R.T.: 0.003 min
Response: 2720148
Conc: 20.18 ug/ml



#13 Pyrene (C20.8)

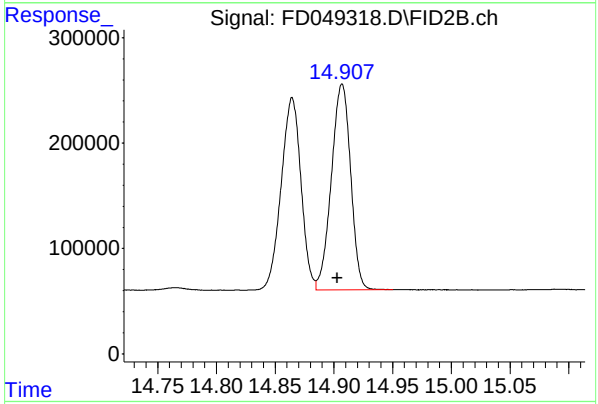
R.T.: 12.995 min
Delta R.T.: 0.004 min
Response: 2728545
Conc: 20.17 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



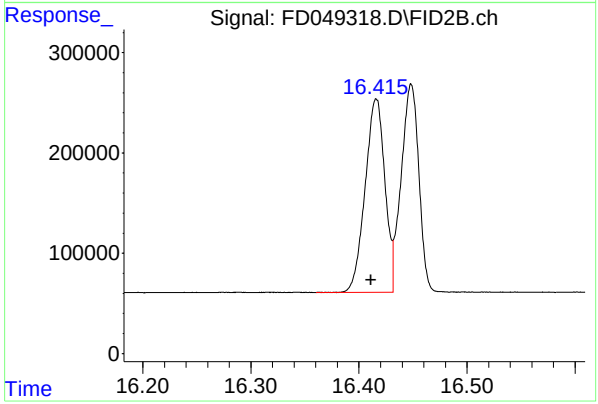
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.865 min
Delta R.T.: 0.003 min
Response: 2147253
Conc: 18.75 ug/ml



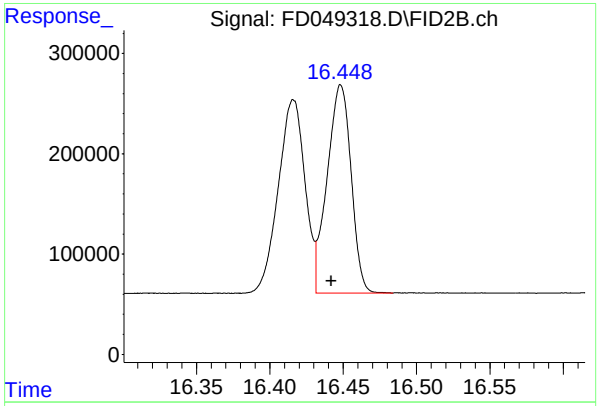
#15 Chrysene (C27.41)

R.T.: 14.907 min
Delta R.T.: 0.004 min
Response: 2232929
Conc: 19.13 ug/ml



#16 benzo[b]fluoranthene (C30.41)

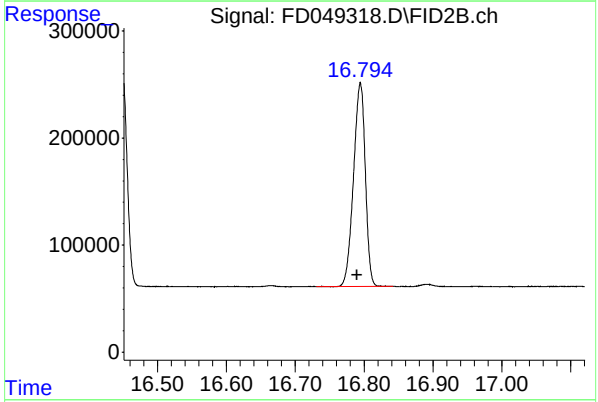
R.T.: 16.416 min
Delta R.T.: 0.005 min
Response: 2446582
Conc: 20.16 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

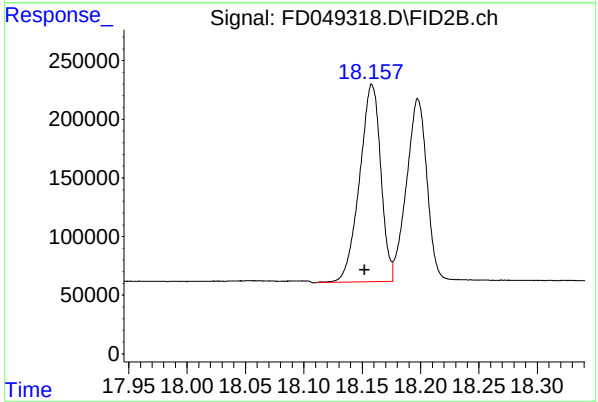
R.T.: 16.448 min
Delta R.T.: 0.006 min
Response: 2361467
Conc: 19.80 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



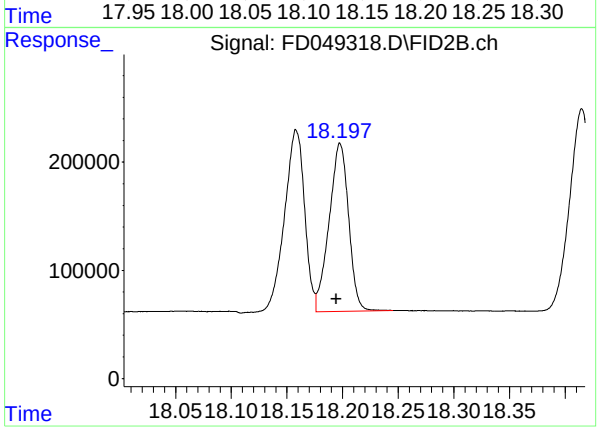
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.795 min
Delta R.T.: 0.005 min
Response: 2264243
Conc: 19.69 ug/ml



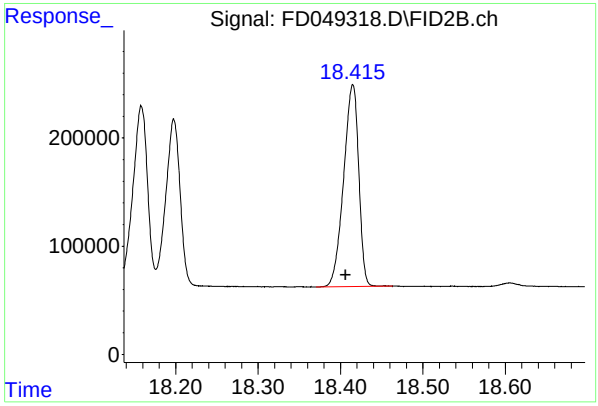
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.158 min
Delta R.T.: 0.006 min
Response: 2121956
Conc: 19.34 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.198 min
Delta R.T.: 0.003 min
Response: 1892215
Conc: 17.92 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.415 min
Delta R.T.: 0.009 mi
Response: 2375106
Conc: 19.93 ug/m

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

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

Evaluate Continuing Calibration 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
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
LabSampleId :
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

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
1	T	1,2,3-Trimethylbenzene (C10	124.857	132.186	E3	-5.9	102	0.00
2	T	Naphthalene (C11.7)	132.206	138.837	E3	-5.0	101	0.00
3	T	2-Methylnaphthalene (C12.89	129.003	134.140	E3	-4.0	99	0.00
4	S	2-Bromonaphthalene (SURR)	118.570	123.210	E3	-3.9	99	0.00
5	T	Acenaphthylene (C15.06)	141.166	147.559	E3	-4.5	100	0.00
6	S	2-Flurobiphenyl (SURR)	78.972	80.492	E3	-1.9	97	0.00
7	T	Acenaphthene (C15.5)	137.013	143.444	E3	-4.7	100	0.00
8	T	Flouorene (C16.55)	136.115	139.240	E3	-2.3	97	0.00
9	T	Phenanthrene (C19.36)	134.822	133.826	E3	0.7	94	0.00
10	T	Anthracene (C19.43)	118.269	107.965	E3	8.7	86	0.00
11	S	ortho-Terphenyl (SURR)	138.021	142.733	E3	-3.4	98	0.00
12	T	Fluoranthene (C21.85)	134.765	136.007	E3	-0.9	95	0.00
13	T	Pyrene (C20.8)	135.275	136.427	E3	-0.9	95	0.00
14	T	Benzo[a]anthracene (C26.37)	114.545	107.363	E3	6.3	90	0.00
15	T	Chrysene (C27.41)	116.713	111.646	E3	4.3	92	0.00
16	T	benzo[b]fluoranthene (C30.4	121.386	122.329	E3	-0.8	97	0.00
17	T	Bnezo[k]fluoranthene (C30.1	119.264	118.073	E3	1.0	95	0.00
18	T	Benzo[a]pyrene (C31.34)	114.984	113.212	E3	1.5	95	0.00
19	T	Indeno[1,2,3-cd]pyrene (C35	109.743	106.098	E3	3.3	93	0.00
20	T	Dibenz[a,h]anthracene (C30.	105.615	94.611	E3	10.4	84	0.00
21	T	Benzo[g,h,i]perylene (C34.0	119.170	118.755	E3	0.3	96	0.00

Evaluate Continuing Calibration Report - Not Founds

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

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

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.

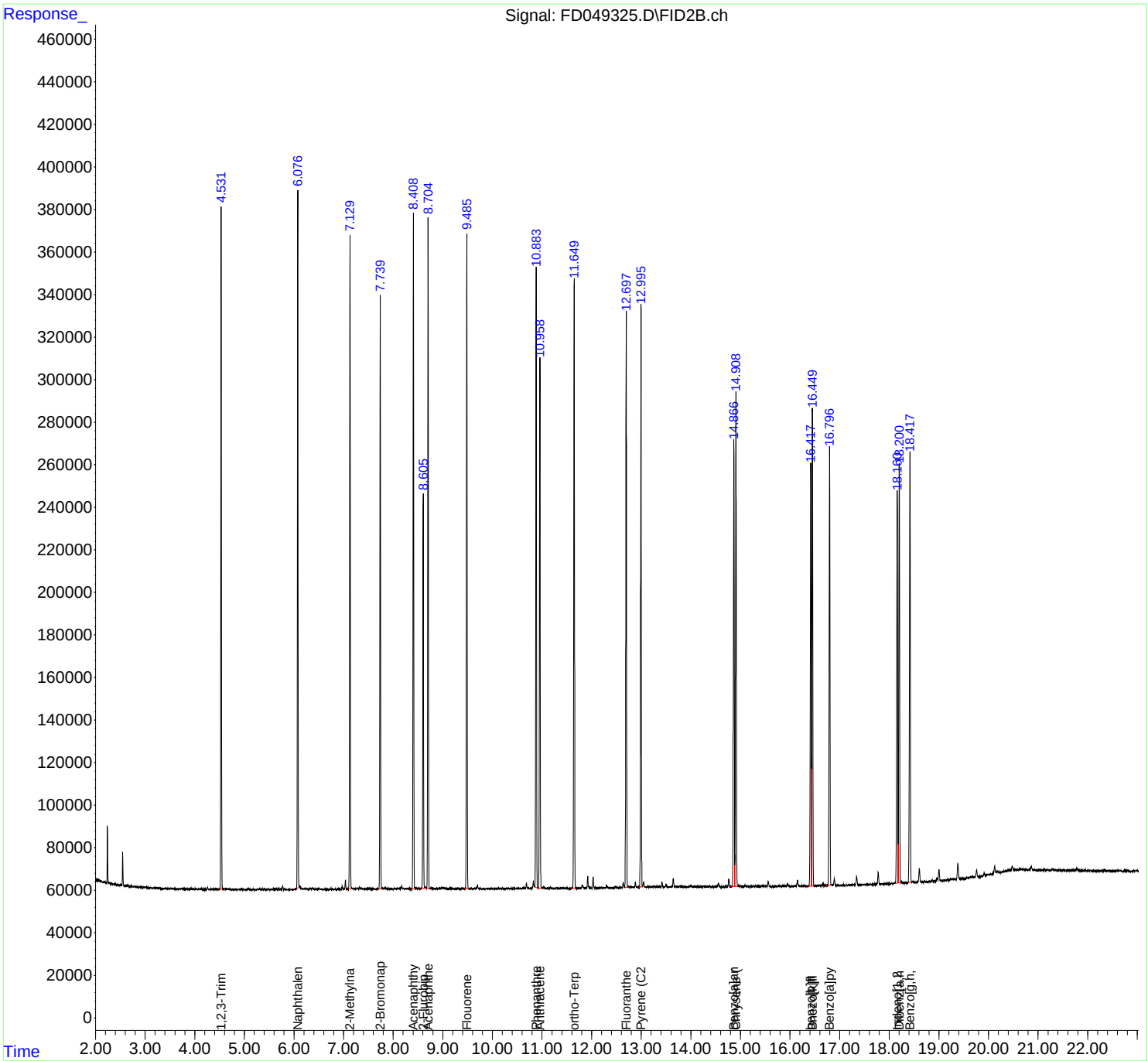
Quantitation Report (QT Reviewed)

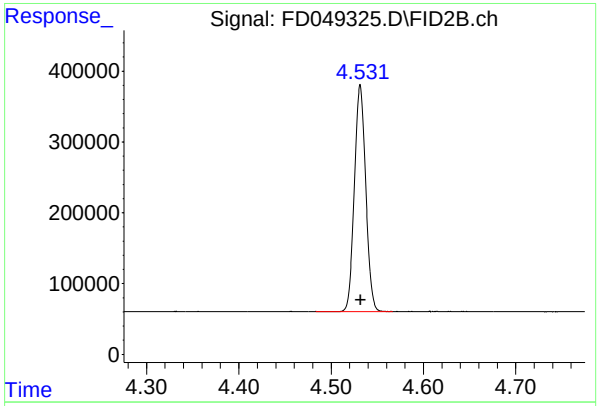
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049325.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 16:36
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

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

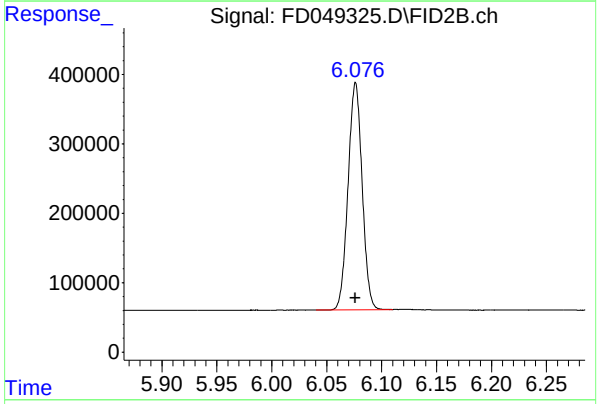




#1 1,2,3-Trimethylbenzene (C10.1)

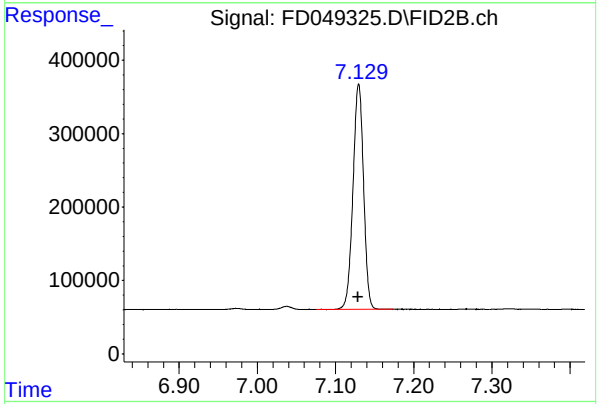
R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 2736622
Conc: 21.92 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



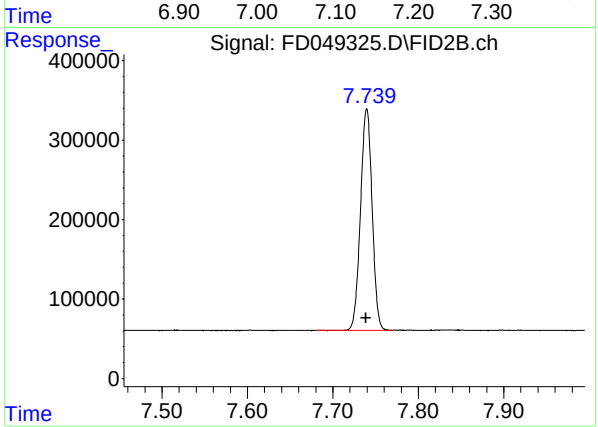
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 2915900
Conc: 22.06 ug/ml



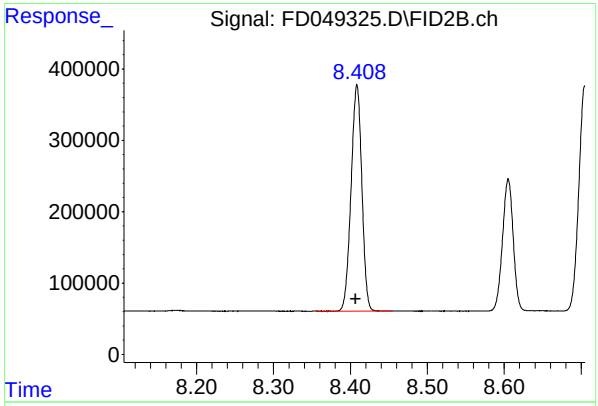
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.130 min
Delta R.T.: 0.001 min
Response: 2886249
Conc: 22.37 ug/ml



#4 2-Bromonaphthalene (SURR)

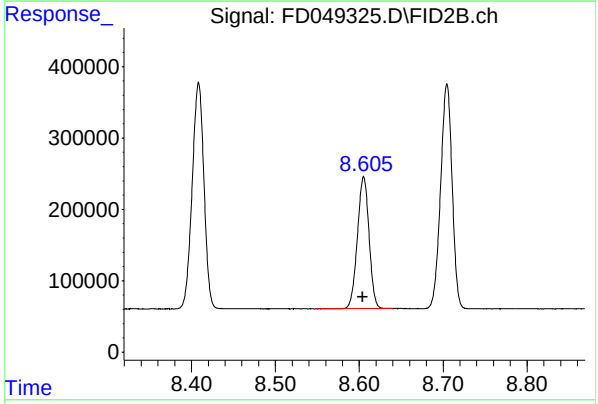
R.T.: 7.740 min
Delta R.T.: 0.000 min
Response: 2631858
Conc: 22.20 ug/ml



#5 Acenaphthylene (C15.06)

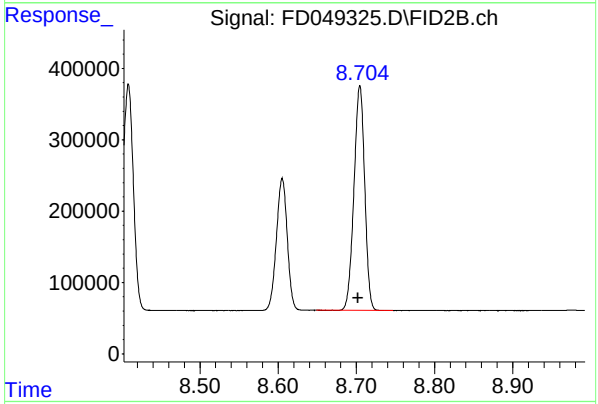
R.T.: 8.409 min
Delta R.T.: 0.002 min
Response: 3089330
Conc: 21.88 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



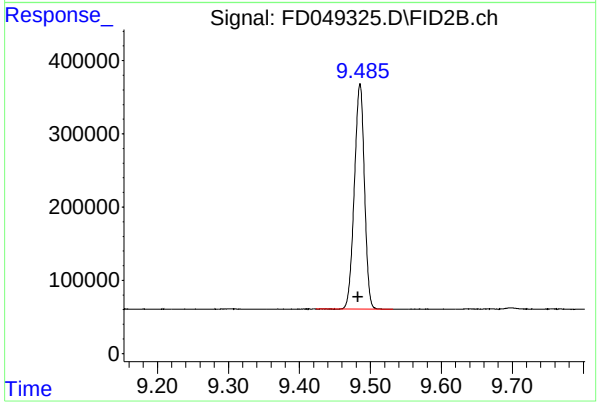
#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.002 min
Response: 1781796
Conc: 22.56 ug/ml



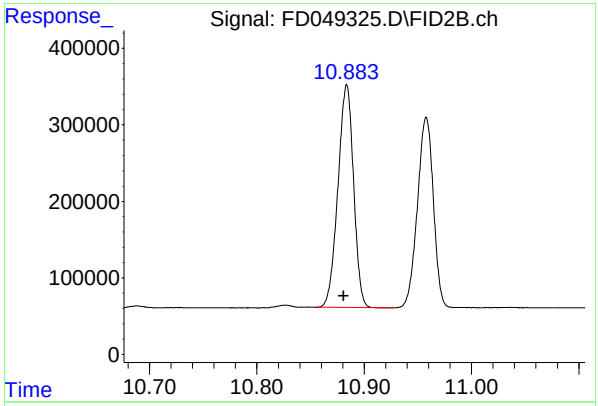
#7 Acenaphthene (C15.5)

R.T.: 8.705 min
Delta R.T.: 0.002 min
Response: 3004396
Conc: 21.93 ug/ml



#8 Flouorene (C16.55)

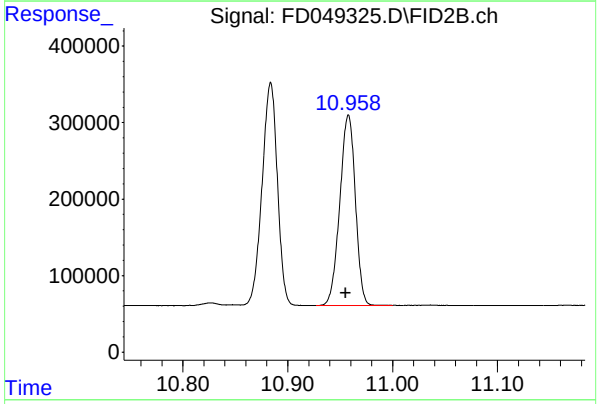
R.T.: 9.485 min
Delta R.T.: 0.003 min
Response: 3040118
Conc: 22.33 ug/ml



#9 Phenanthrene (C19.36)

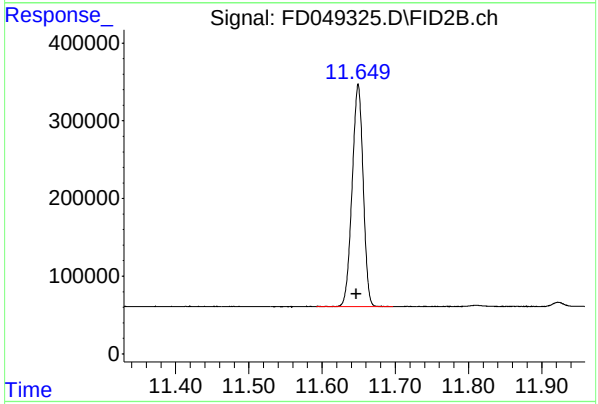
R.T.: 10.884 min
Delta R.T.: 0.003 min
Response: 2946241
Conc: 21.85 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



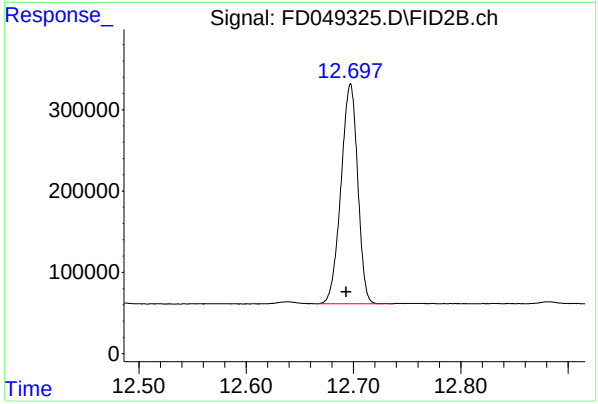
#10 Anthracene (C19.43)

R.T.: 10.958 min
Delta R.T.: 0.003 min
Response: 2568745
Conc: 21.72 ug/ml



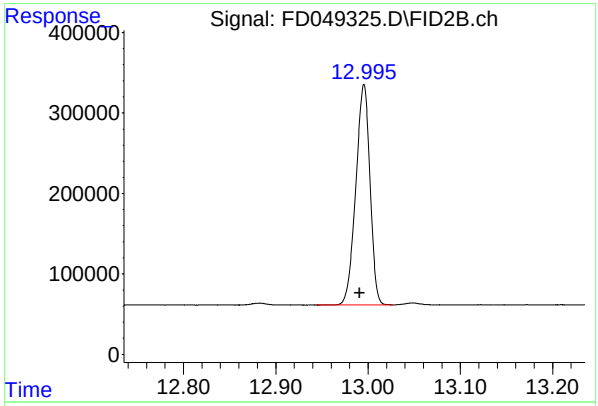
#11 ortho-Terphenyl (SURR)

R.T.: 11.649 min
Delta R.T.: 0.002 min
Response: 2991190
Conc: 21.67 ug/ml



#12 Fluoranthene (C21.85)

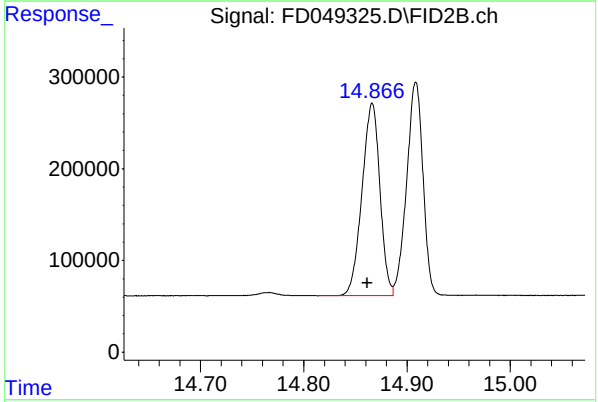
R.T.: 12.697 min
Delta R.T.: 0.004 min
Response: 2927413
Conc: 21.72 ug/ml



#13 Pyrene (C20.8)

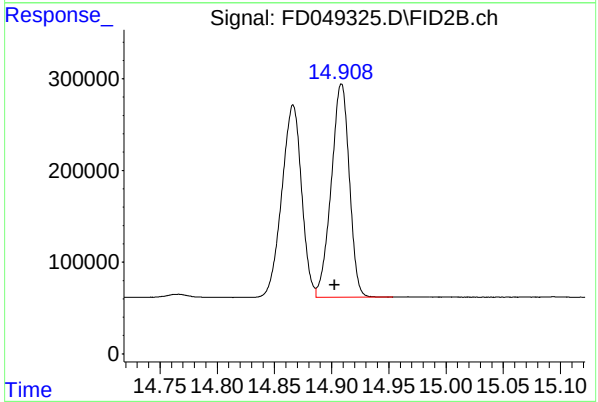
R.T.: 12.996 min
Delta R.T.: 0.005 min
Response: 2922060
Conc: 21.60 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



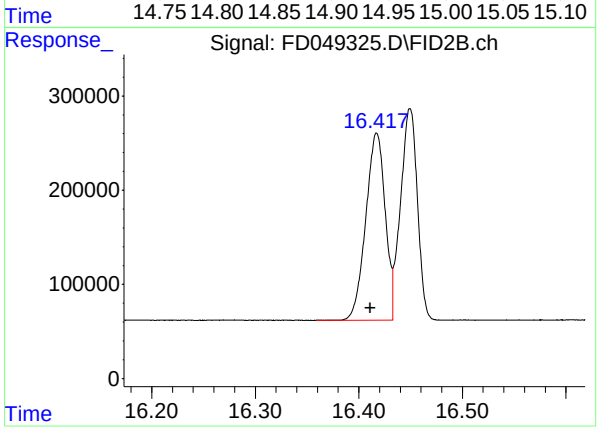
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.866 min
Delta R.T.: 0.005 min
Response: 2524839
Conc: 22.04 ug/ml



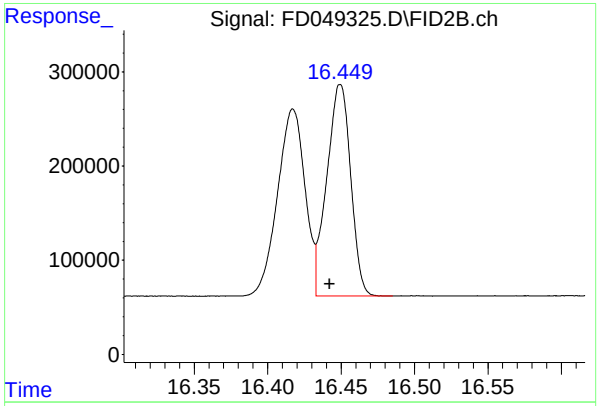
#15 Chrysene (C27.41)

R.T.: 14.909 min
Delta R.T.: 0.006 min
Response: 2561785
Conc: 21.95 ug/ml



#16 benzo[b]fluoranthene (C30.41)

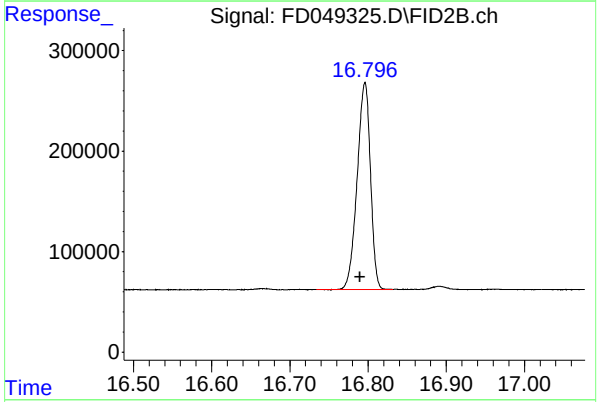
R.T.: 16.417 min
Delta R.T.: 0.006 min
Response: 2591722
Conc: 21.35 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

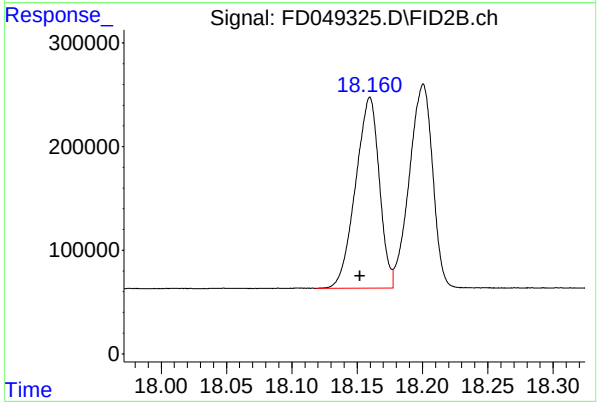
R.T.: 16.450 min
Delta R.T.: 0.007 min
Response: 2547870
Conc: 21.36 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



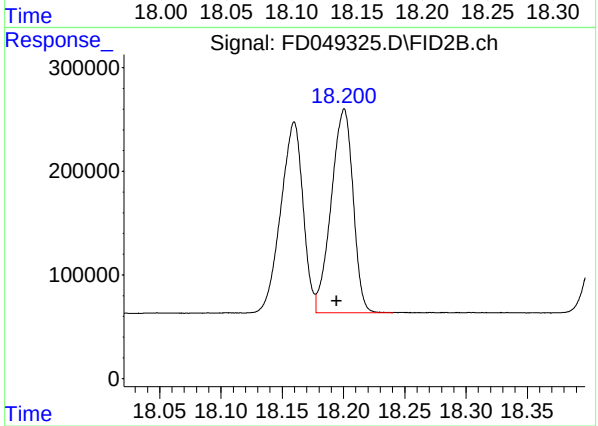
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.796 min
Delta R.T.: 0.006 min
Response: 2433659
Conc: 21.17 ug/ml



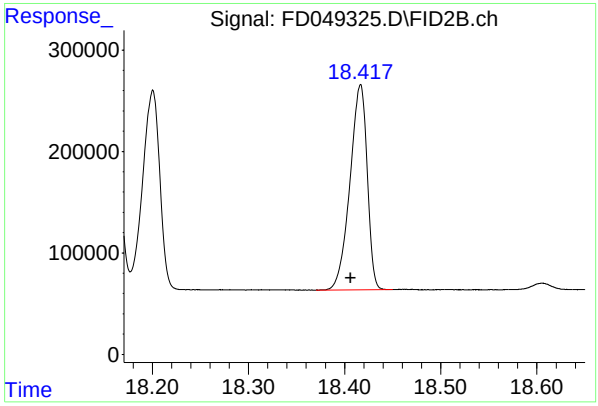
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.160 min
Delta R.T.: 0.008 min
Response: 2330374
Conc: 21.23 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.201 min
Delta R.T.: 0.006 min
Response: 2446121
Conc: 23.16 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.417 min
Delta R.T.: 0.010 mi
Response: 2521236
Conc: 21.16 ug/m

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

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

Evaluate Continuing Calibration 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
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
LabSampleId :
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

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
1	T	1,2,3-Trimethylbenzene (C10	124.857	136.831	E3	-9.6	106	0.00
2	T	Naphthalene (C11.7)	132.206	145.795	E3	-10.3	106	0.00
3	T	2-Methylnaphthalene (C12.89	129.003	144.312	E3	-11.9	107	0.00
4	S	2-Bromonaphthalene (SURR)	118.570	131.593	E3	-11.0	106	0.00
5	T	Acenaphthylene (C15.06)	141.166	154.467	E3	-9.4	105	0.00
6	S	2-Flurobiphenyl (SURR)	78.972	89.090	E3	-12.8	107	0.00
7	T	Acenaphthene (C15.5)	137.013	150.220	E3	-9.6	105	0.00
8	T	Flouorene (C16.55)	136.115	152.006	E3	-11.7	106	0.00
9	T	Phenanthrene (C19.36)	134.822	147.312	E3	-9.3	104	0.00
10	T	Anthracene (C19.43)	118.269	128.437	E3	-8.6	102	0.00
11	S	ortho-Terphenyl (SURR)	138.021	149.559	E3	-8.4	103	0.00
12	T	Fluoranthene (C21.85)	134.765	146.371	E3	-8.6	102	0.00
13	T	Pyrene (C20.8)	135.275	146.103	E3	-8.0	102	0.00
14	T	Benzo[a]anthracene (C26.37)	114.545	126.242	E3	-10.2	106	0.00
15	T	Chrysene (C27.41)	116.713	128.089	E3	-9.7	105	0.00
16	T	benzo[b]fluoranthene (C30.4	121.386	129.586	E3	-6.8	103	0.00
17	T	Bnezo[k]fluoranthene (C30.1	119.264	127.394	E3	-6.8	103	0.00
18	T	Benzo[a]pyrene (C31.34)	114.984	121.683	E3	-5.8	102	0.00
19	T	Indeno[1,2,3-cd]pyrene (C35	109.743	116.519	E3	-6.2	102	0.00
20	T	Dibenz[a,h]anthracene (C30.	105.615	122.306	E3	-15.8	109	0.00
21	T	Benzo[g,h,i]perylene (C34.0	119.170	126.062	E3	-5.8	101	0.01

Evaluate Continuing Calibration Report - Not Founds

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

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

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.

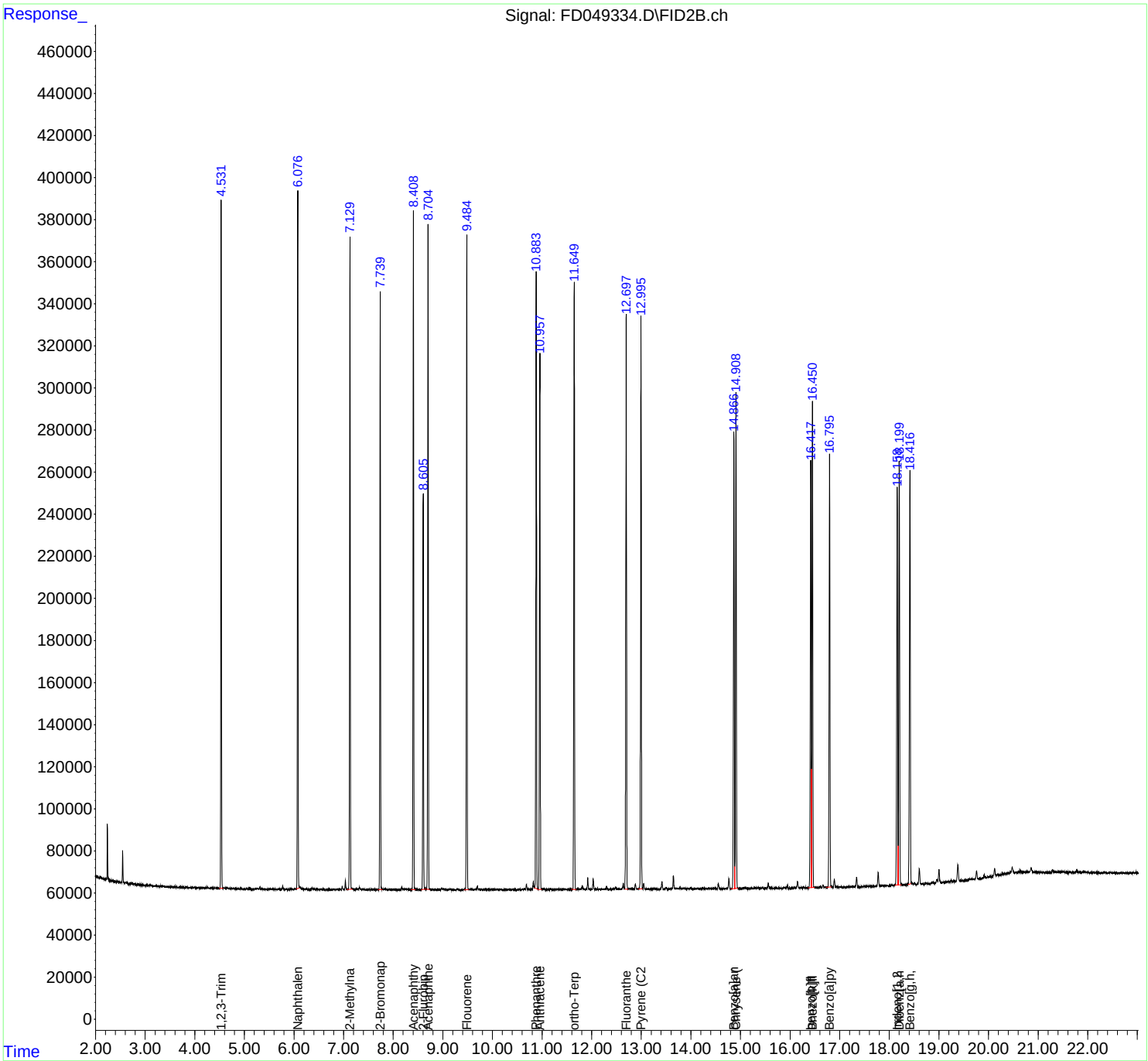
Quantitation Report (QT Reviewed)

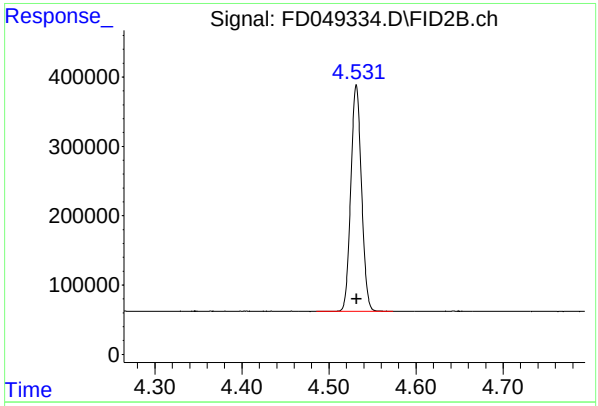
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049334.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 23:34
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

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

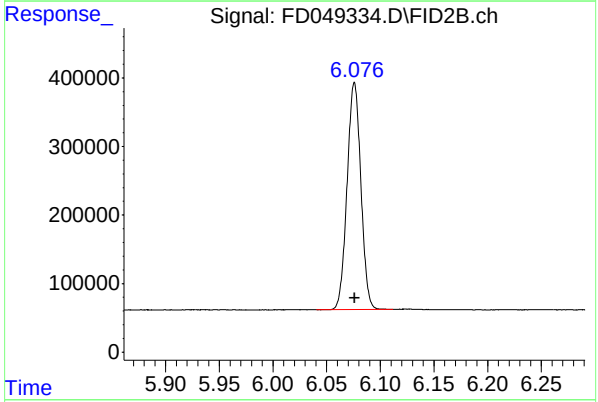




#1 1,2,3-Trimethylbenzene (C10.1)

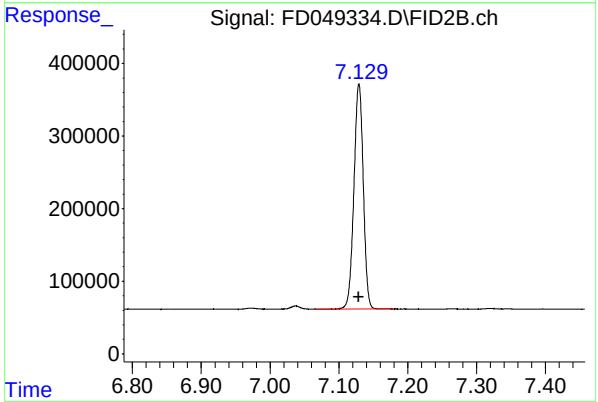
R.T.: 4.531 min
Delta R.T.: 0.000 min
Response: 2776200
Conc: 22.23 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



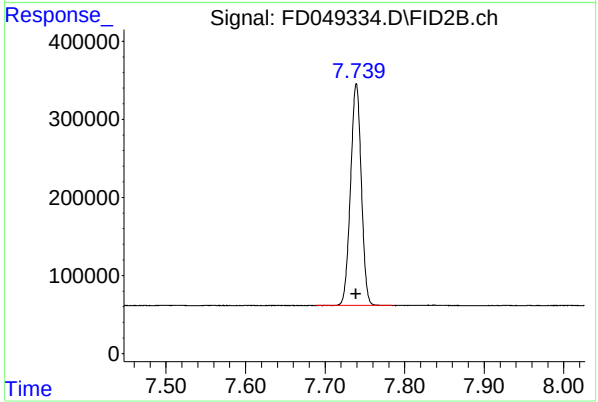
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 2958062
Conc: 22.37 ug/ml



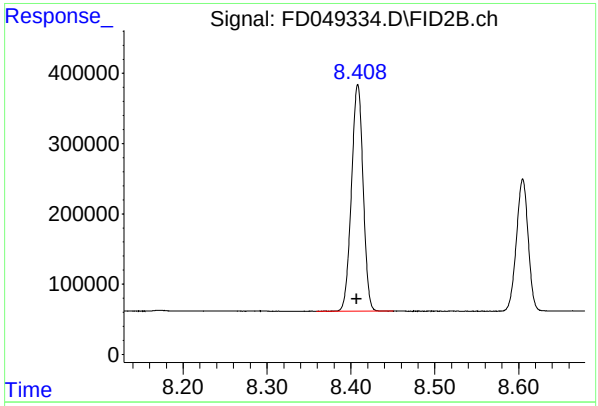
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.129 min
Delta R.T.: 0.000 min
Response: 2932279
Conc: 22.73 ug/ml



#4 2-Bromonaphthalene (SURR)

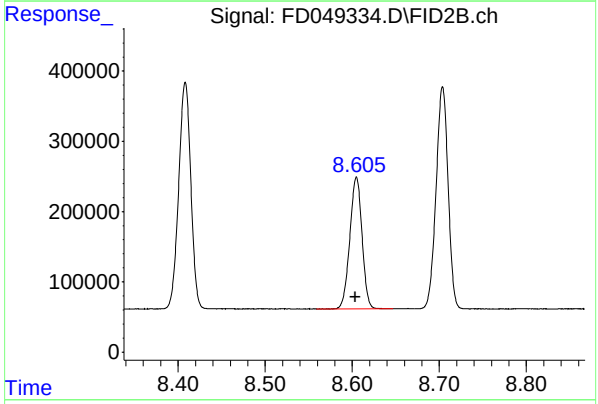
R.T.: 7.739 min
Delta R.T.: 0.000 min
Response: 2673302
Conc: 22.55 ug/ml



#5 Acenaphthylene (C15.06)

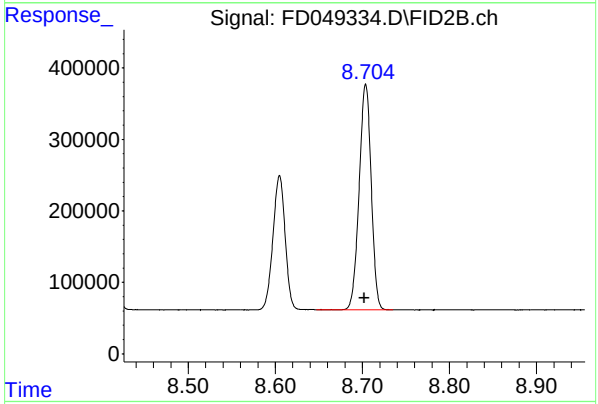
R.T.: 8.408 min
Delta R.T.: 0.001 min
Response: 3113784
Conc: 22.06 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



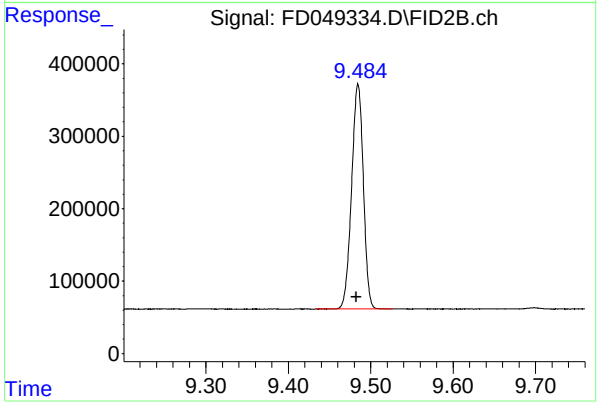
#6 2-Flurobiphenyl (SURR)

R.T.: 8.605 min
Delta R.T.: 0.001 min
Response: 1823565
Conc: 23.09 ug/ml



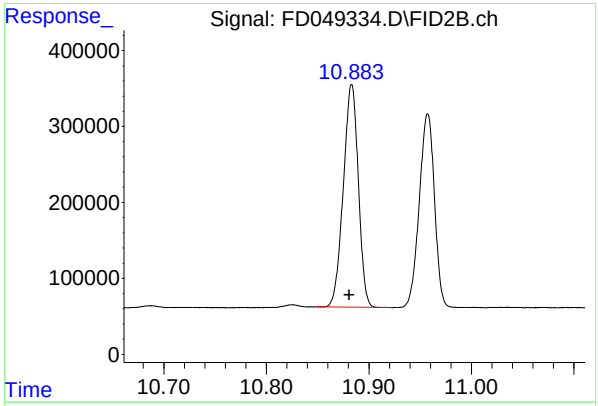
#7 Acenaphthene (C15.5)

R.T.: 8.704 min
Delta R.T.: 0.002 min
Response: 3035424
Conc: 22.15 ug/ml



#8 Flouorene (C16.55)

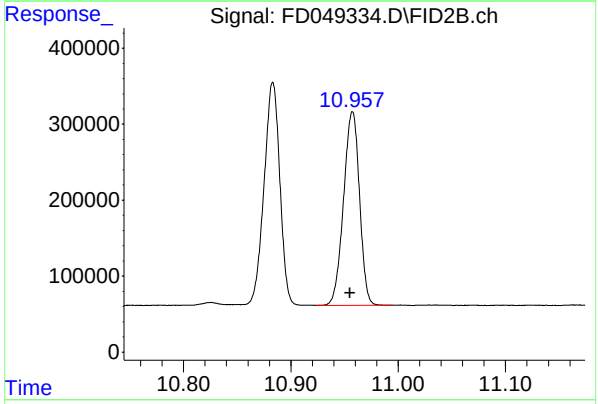
R.T.: 9.485 min
Delta R.T.: 0.002 min
Response: 3077228
Conc: 22.61 ug/ml



#9 Phenanthrene (C19.36)

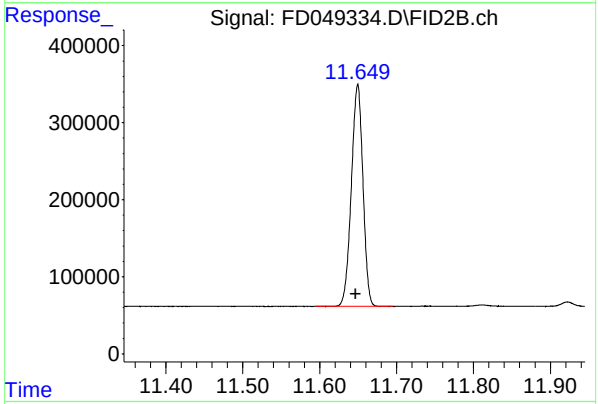
R.T.: 10.883 min
Delta R.T.: 0.002 min
Response: 2986762
Conc: 22.15 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



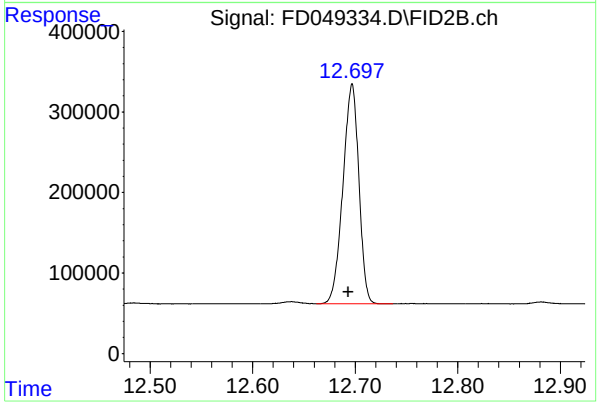
#10 Anthracene (C19.43)

R.T.: 10.958 min
Delta R.T.: 0.002 min
Response: 2631094
Conc: 22.25 ug/ml



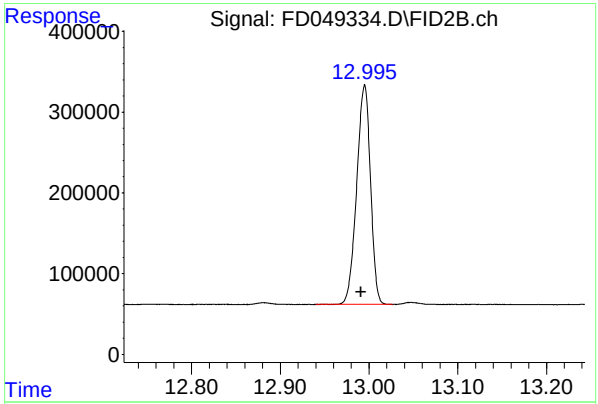
#11 ortho-Terphenyl (SURR)

R.T.: 11.650 min
Delta R.T.: 0.003 min
Response: 3015562
Conc: 21.85 ug/ml



#12 Fluoranthene (C21.85)

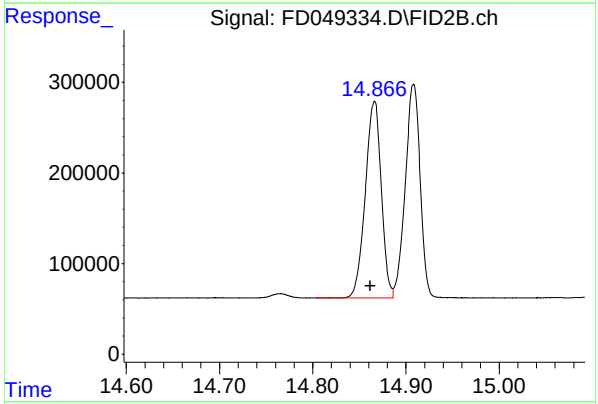
R.T.: 12.697 min
Delta R.T.: 0.004 min
Response: 2950830
Conc: 21.90 ug/ml



#13 Pyrene (C20.8)

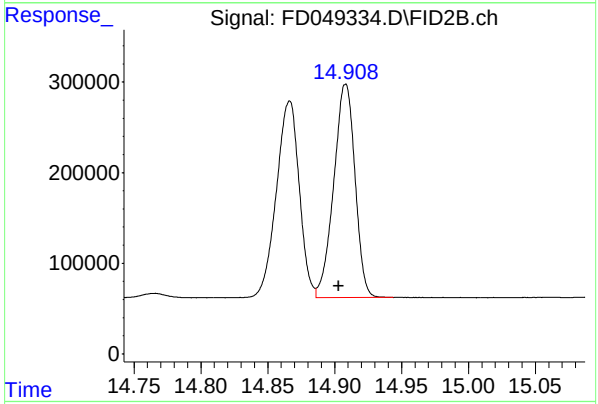
R.T.: 12.995 min
Delta R.T.: 0.004 min
Response: 2935619
Conc: 21.70 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



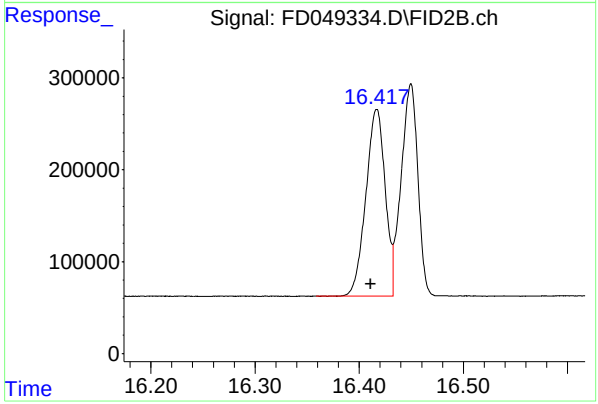
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.866 min
Delta R.T.: 0.005 min
Response: 2583491
Conc: 22.55 ug/ml



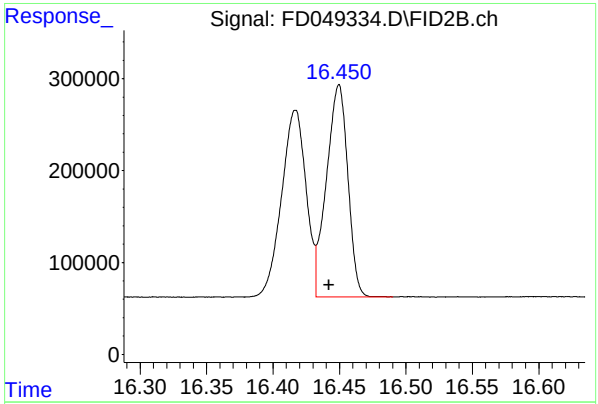
#15 Chrysene (C27.41)

R.T.: 14.908 min
Delta R.T.: 0.005 min
Response: 2608839
Conc: 22.35 ug/ml



#16 benzo[b]fluoranthene (C30.41)

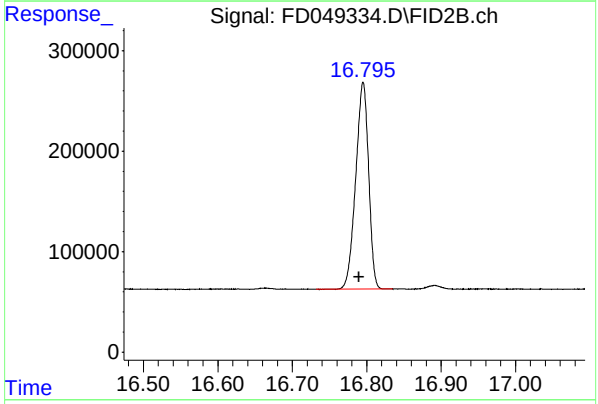
R.T.: 16.417 min
Delta R.T.: 0.006 min
Response: 2618964
Conc: 21.58 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

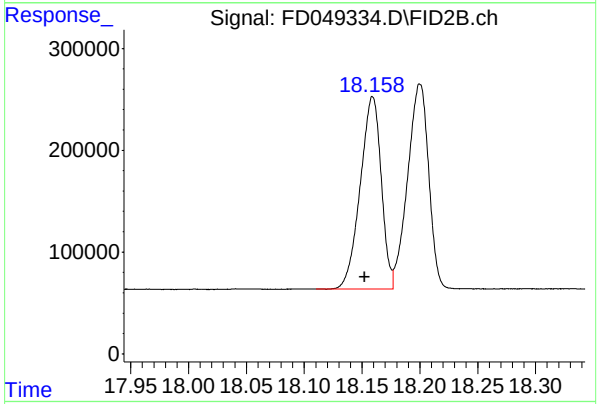
R.T.: 16.450 min
Delta R.T.: 0.008 min
Response: 2586305
Conc: 21.69 ug/ml

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD



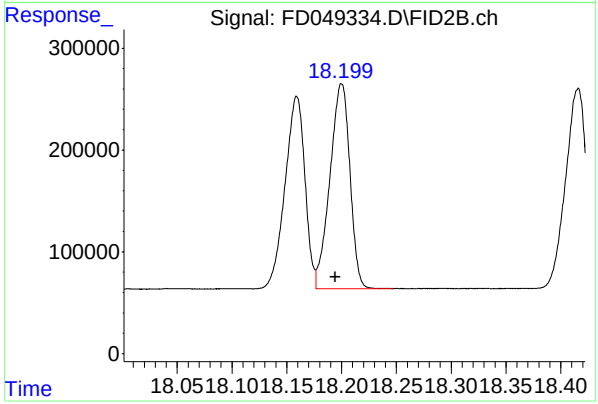
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.795 min
Delta R.T.: 0.006 min
Response: 2476322
Conc: 21.54 ug/ml



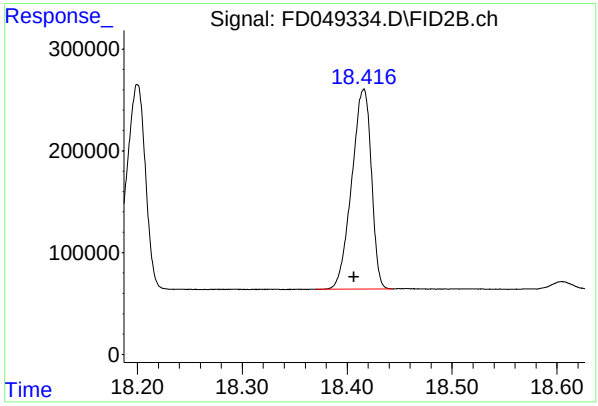
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.159 min
Delta R.T.: 0.007 min
Response: 2384838
Conc: 21.73 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.200 min
Delta R.T.: 0.006 min
Response: 2554962
Conc: 24.19 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.416 min
Delta R.T.: 0.009 mi
Response: 2551734
Conc: 21.41 ug/m

Instrument :
FID_D
ClientSampleId :
20 PPM AROMATIC HC STD

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

Evaluate Continuing Calibration 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
Operator : YP/AJ
Sample : 20 PPM AROMATIC HC STD
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_D
LabSampleId :
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

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

		Compound	AvgRF	CCRF		%Dev	Area%	Dev(Min)
1	T	1,2,3-Trimethylbenzene (C10	124.857	138.810	E3	-11.2	107	0.00
2	T	Naphthalene (C11.7)	132.206	147.903	E3	-11.9	107	0.00
3	T	2-Methylnaphthalene (C12.89	129.003	146.614	E3	-13.7	109	0.00
4	S	2-Bromonaphthalene (SURR)	118.570	133.665	E3	-12.7	108	0.00
5	T	Acenaphthylene (C15.06)	141.166	155.689	E3	-10.3	105	0.00
6	S	2-Flurobiphenyl (SURR)	78.972	91.178	E3	-15.5	110	0.00
7	T	Acenaphthene (C15.5)	137.013	151.771	E3	-10.8	106	0.00
8	T	Flouorene (C16.55)	136.115	153.861	E3	-13.0	107	0.00
9	T	Phenanthrene (C19.36)	134.822	149.338	E3	-10.8	105	0.00
10	T	Anthracene (C19.43)	118.269	131.555	E3	-11.2	105	0.00
11	S	ortho-Terphenyl (SURR)	138.021	150.778	E3	-9.2	104	0.00
12	T	Fluoranthene (C21.85)	134.765	147.541	E3	-9.5	103	0.00
13	T	Pyrene (C20.8)	135.275	146.781	E3	-8.5	103	0.00
14	T	Benzo[a]anthracene (C26.37)	114.545	129.175	E3	-12.8	108	0.00
15	T	Chrysene (C27.41)	116.713	130.442	E3	-11.8	107	0.00
16	T	benzo[b]fluoranthene (C30.4	121.386	130.948	E3	-7.9	104	0.00
17	T	Bnezo[k]fluoranthene (C30.1	119.264	129.315	E3	-8.4	104	0.00
18	T	Benzo[a]pyrene (C31.34)	114.984	123.816	E3	-7.7	104	0.00
19	T	Indeno[1,2,3-cd]pyrene (C35	109.743	119.242	E3	-8.7	105	0.00
20	T	Dibenz[a,h]anthracene (C30.	105.615	127.748	E3	-21.0	114	0.00
21	T	Benzo[g,h,i]perylene (C34.0	119.170	127.587	E3	-7.1	103	0.00

Evaluate Continuing Calibration Report - Not Founds

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

QC SAMPLE DATA

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	PB167903BL	SDG No.:	Q1872
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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	PB167903BL	SDG No.:	Q1872
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 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-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 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.

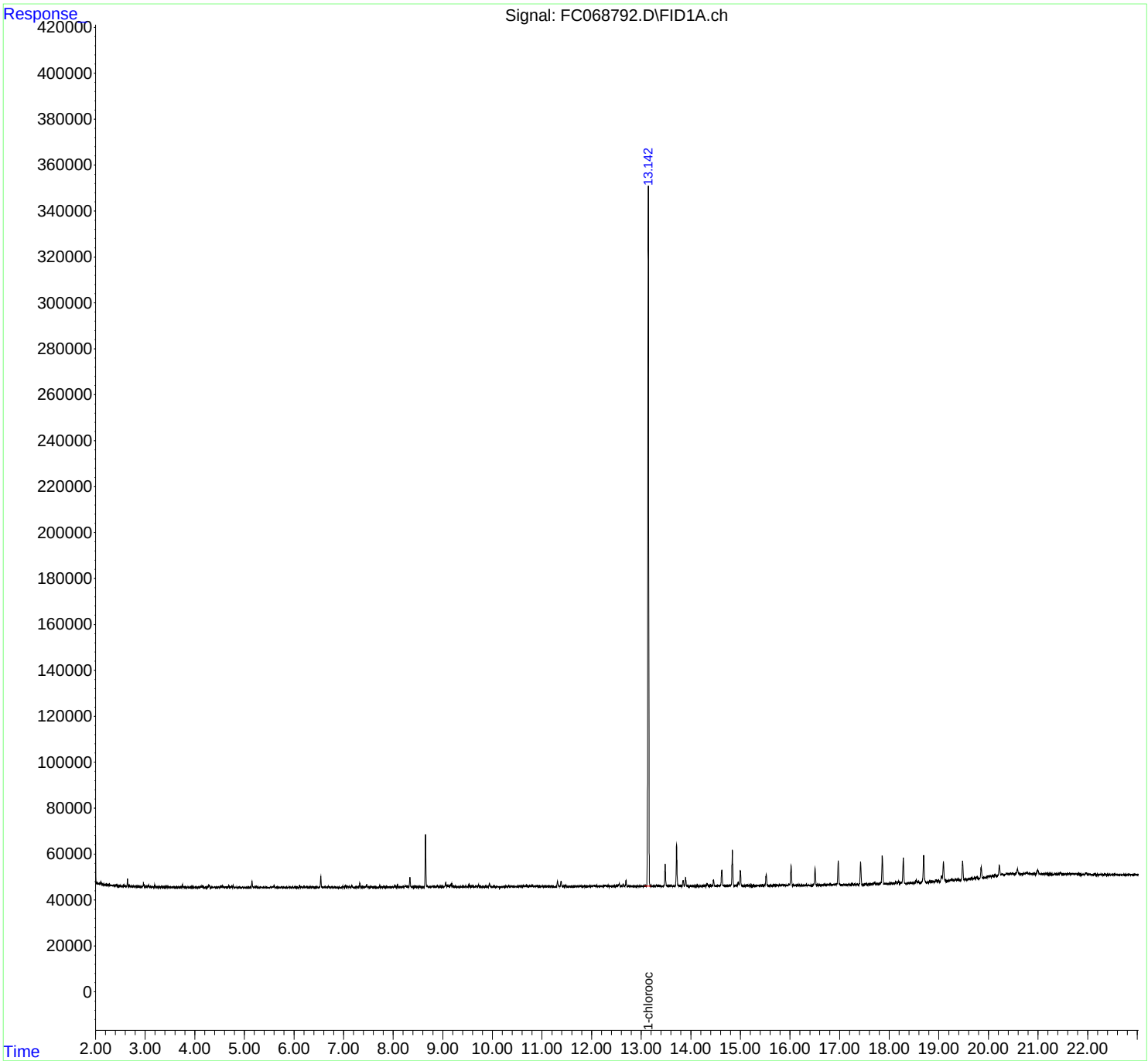
Quantitation Report (QT Reviewed)

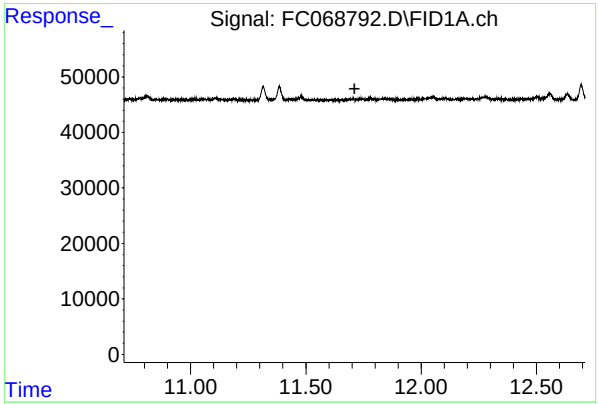
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068792.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 12:24
Operator : YP/AJ
Sample : PB167903BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

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

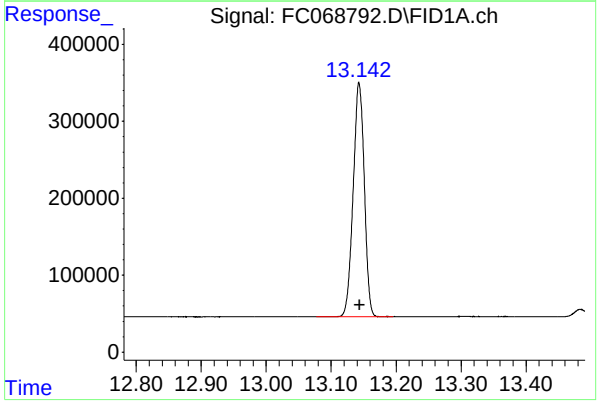




#9 ortho-Terphenyl (SURR)

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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	PB167903BL	SDG No.:	Q1872
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	13.096	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.

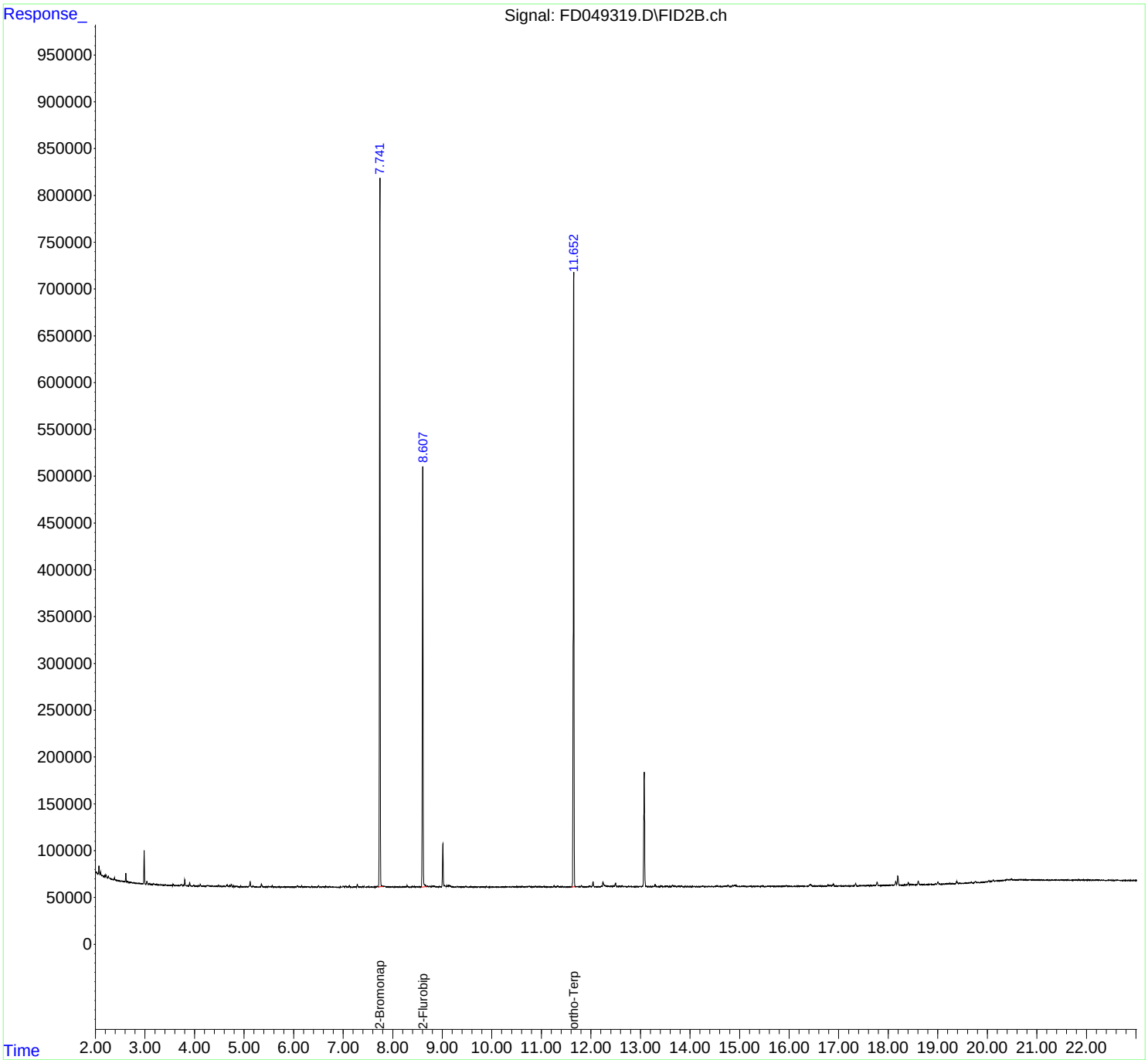
Quantitation Report (QT Reviewed)

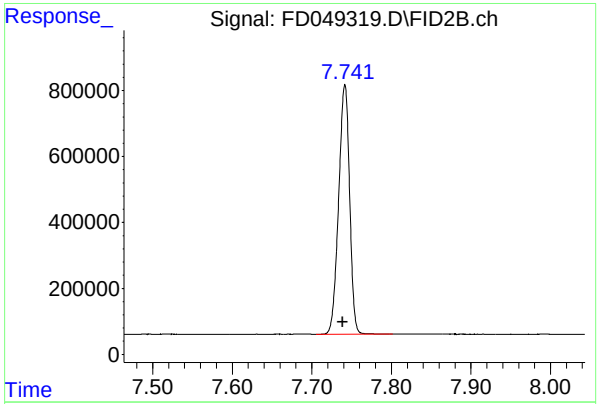
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049319.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 12:24
Operator : YP/AJ
Sample : PB167903BL
Misc :
ALS Vial : 61 Sample Multiplier: 1

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

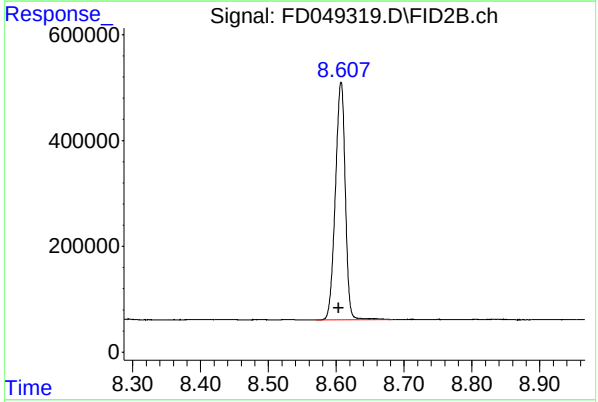




#4 2-Bromonaphthalene (SURR)

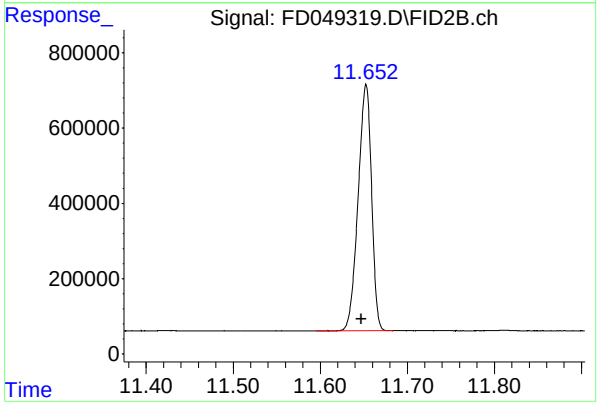
R.T.: 7.742 min
Delta R.T.: 0.003 min
Response: 7241114
Conc: 61.07 ug/ml

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	I.BLK	Acq On:	06 May 2025 14:55
Client Sample ID:	I.BLK	Operator:	YP/AJ
Data file:	FC068780.D	Misc:	
Instrument:	FID_C	ALS Vial:	1
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.343	6.643	0	0	300	ug/ml
Aliphatic C12-C16	6.644	10.043	0	0	200	ug/ml
Aliphatic C16-C21	10.044	13.410	0	0	300	ug/ml
Aliphatic C21-C28	13.411	17.072	0	0	400	ug/ml
Aliphatic C28-C40	17.073	22.074	0	0	600	ug/ml
Aliphatic EPH	3.343	22.074	0	0		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
1-chlorooctadecane (SURR)	0.000	0.000	0	0		ug/ml
Aliphatic C9-C28	3.343	17.072	0	0	1200	ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068780.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 14:55
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 07 08:53:41 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

Target Compounds

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

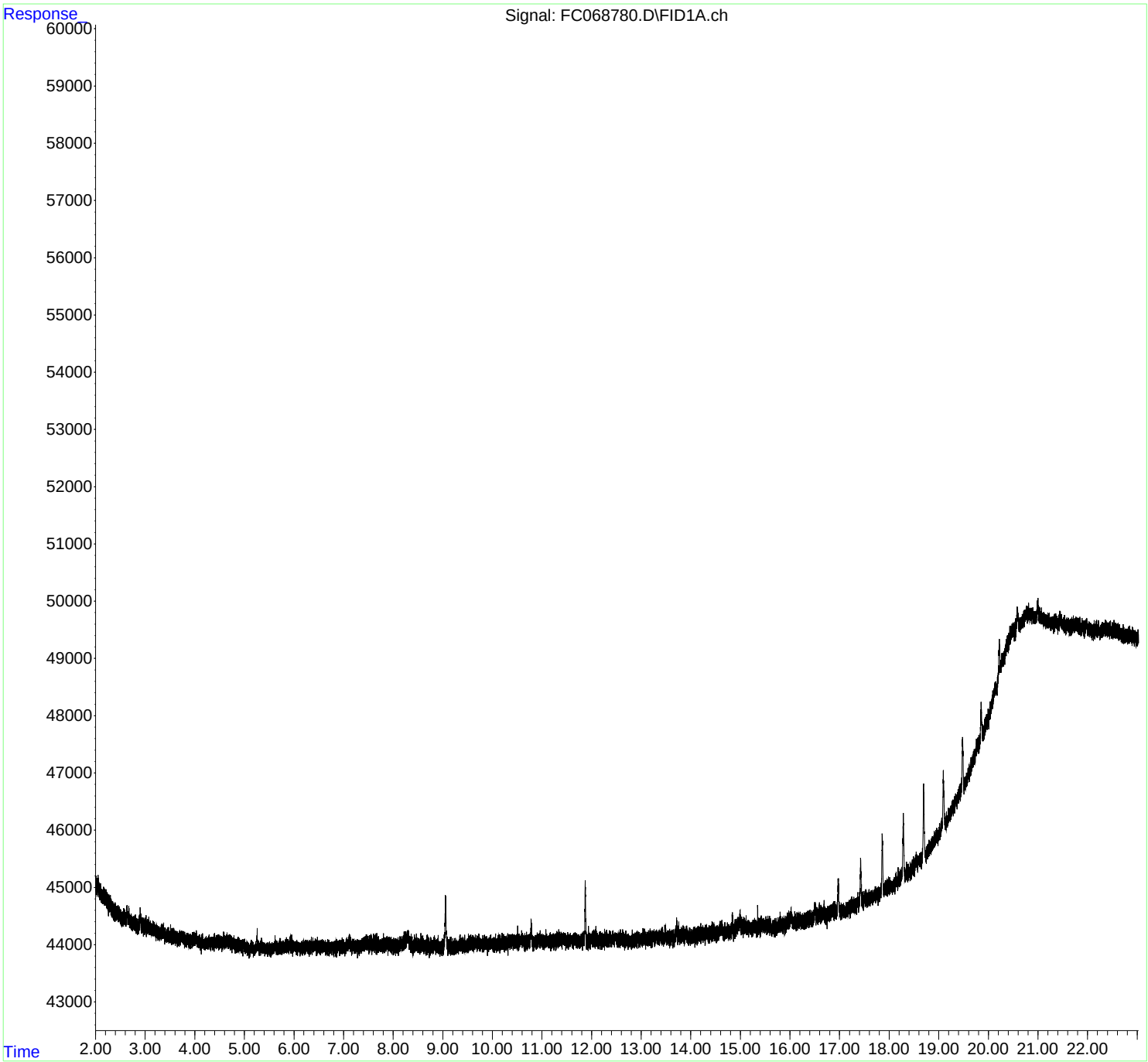
Quantitation Report (QT Reviewed)

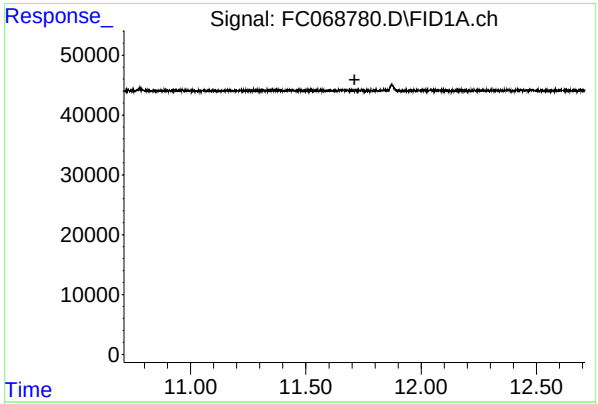
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068780.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 14:55
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 07 08:53:41 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

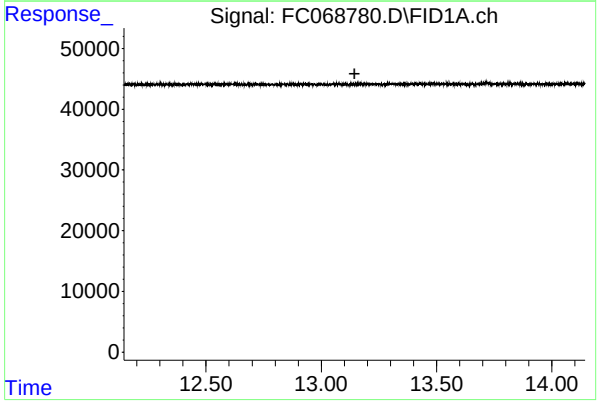




#9 ortho-Terphenyl (SURR)

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

Instrument :
FID_C
ClientSampleId :
I.BLK



#12 1-chlorooctadecane (SURR)

R.T.: 0.000 min
Exp R.T. : 13.144 min
Response: 0
Conc: N.D.

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050625AL\
Data File : FC068780.D
Signal(s) : FID1A.ch
Acq On : 06 May 2025 14:55
Sample : I.BLK
Misc :
ALS Vial : 1 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

No peaks were detected!

Aliphatic EPH 050625.M Wed May 07 09:04:22 2025

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	I.BLK	Acq On:	08 May 2025 09:30
Client Sample ID:	I.BLK	Operator:	YP/AJ
Data file:	FC068790.D	Misc:	
Instrument:	FID_C	ALS Vial:	1
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)	0.000	0.000	0	0		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 : FC068790.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 09:30
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:07:34 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

Target Compounds

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

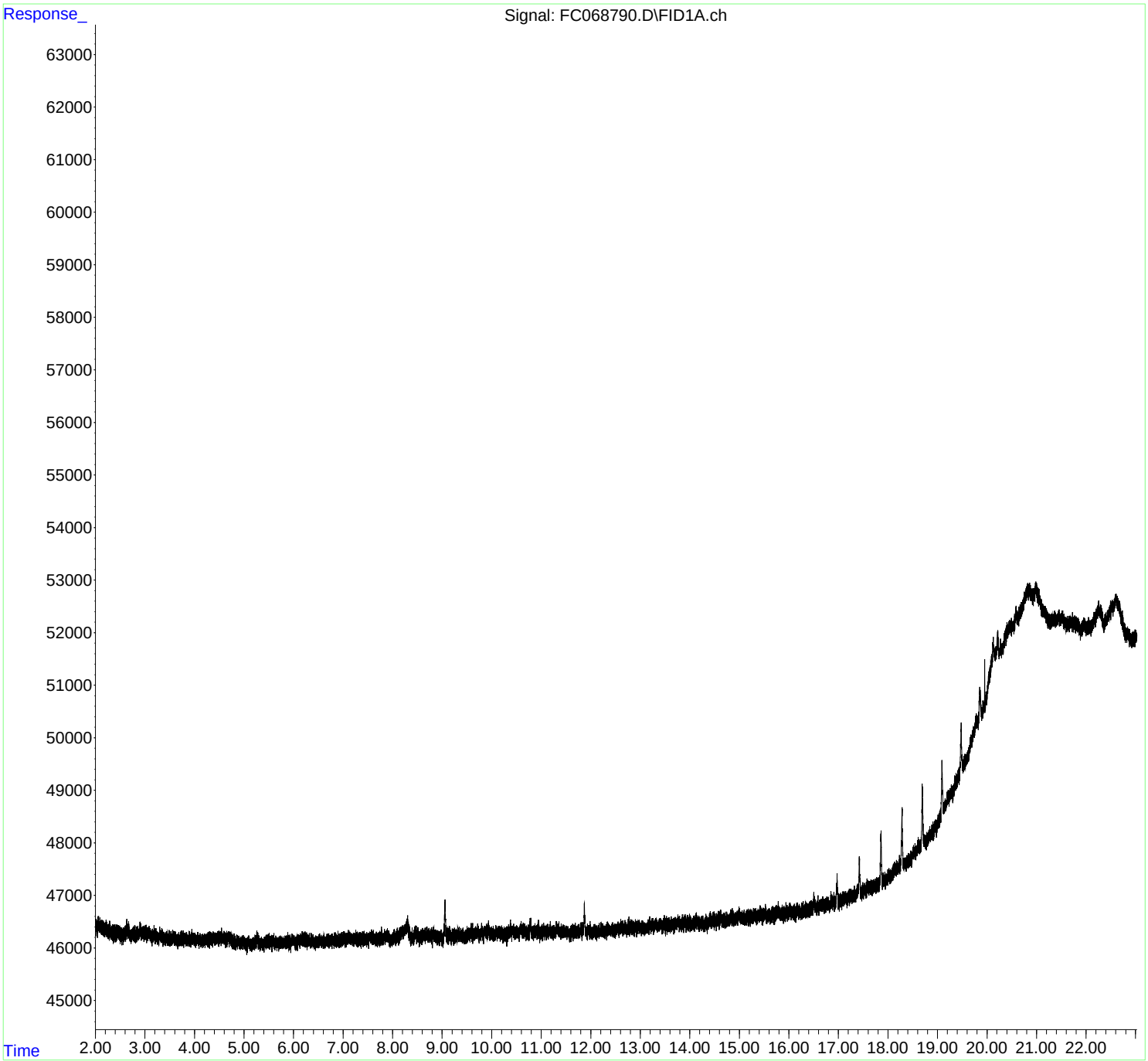
Quantitation Report (QT Reviewed)

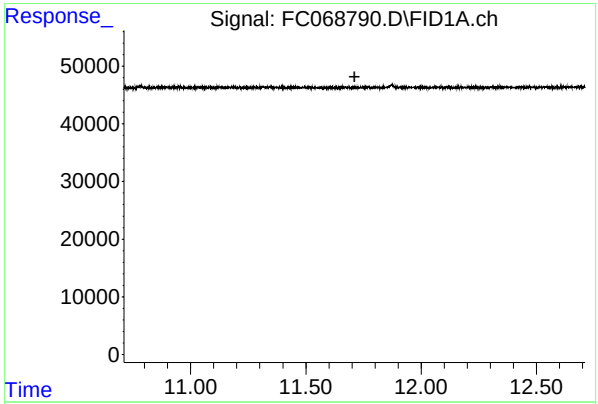
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068790.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 09:30
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:07:34 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

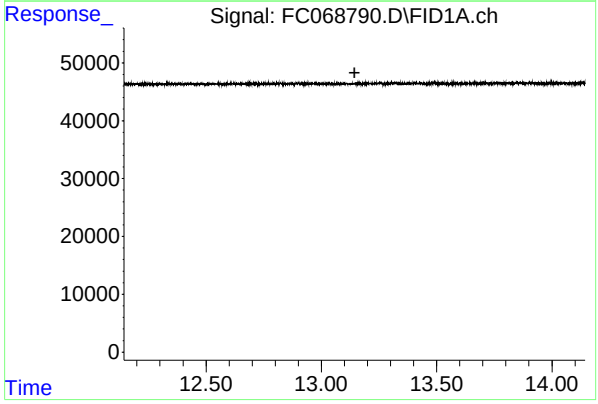




#9 ortho-Terphenyl (SURR)

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

Instrument :
FID_C
ClientSampleId :
I.BLK



#12 1-chlorooctadecane (SURR)

R.T.: 0.000 min
Exp R.T. : 13.144 min
Response: 0
Conc: N.D.

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068790.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 09:30
Sample : I.BLK
Misc :
ALS Vial : 1 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

No peaks were detected!

Aliphatic EPH 050625.M Fri May 09 09:30:29 2025

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	I.BLK	Acq On:	08 May 2025 16:36
Client Sample ID:	I.BLK	Operator:	YP/AJ
Data file:	FC068798.D	Misc:	
Instrument:	FID_C	ALS Vial:	1
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)	0.000	0.000	0	0		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 : FC068798.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 16:36
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:08:30 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

Target Compounds

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

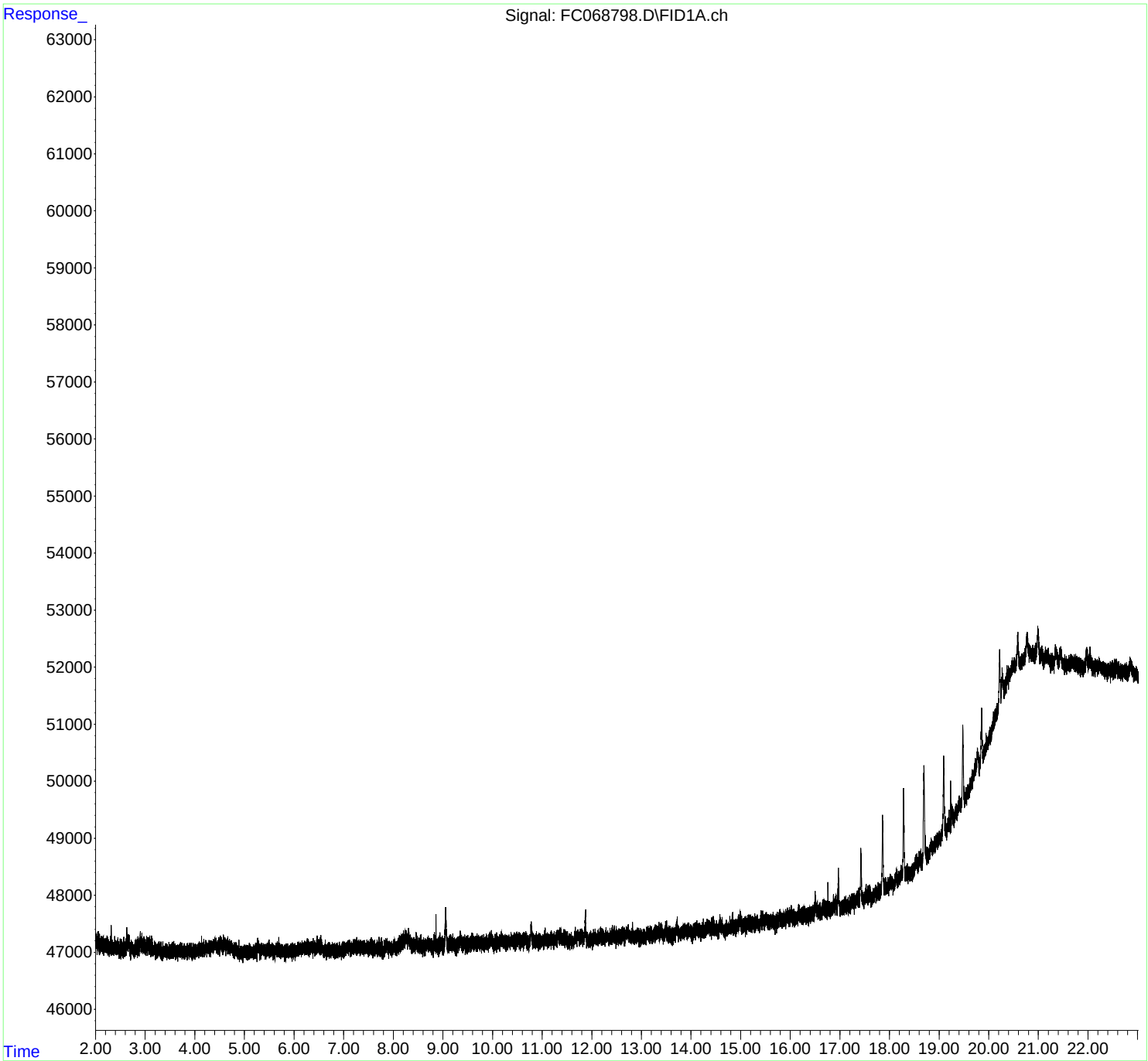
Quantitation Report (QT Reviewed)

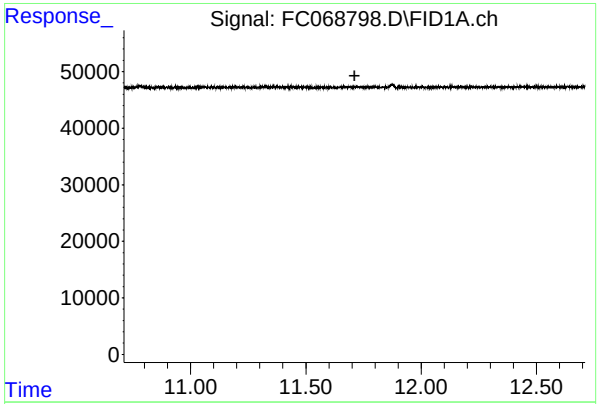
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068798.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 16:36
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:08:30 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

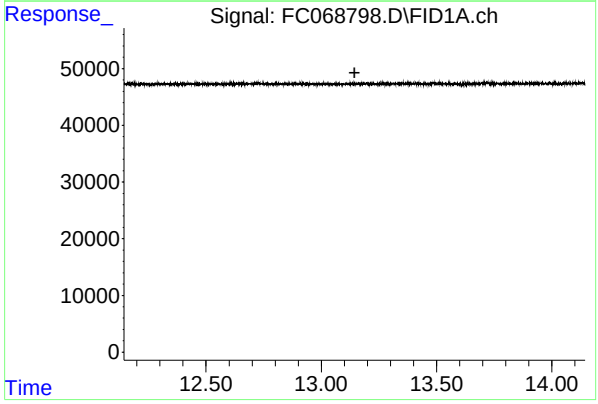




#9 ortho-Terphenyl (SURR)

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

Instrument :
FID_C
ClientSampleId :
I.BLK



#12 1-chlorooctadecane (SURR)

R.T.: 0.000 min
Exp R.T. : 13.144 min
Response: 0
Conc: N.D.

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068798.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 16:36
Sample : I.BLK
Misc :
ALS Vial : 1 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

No peaks were detected!

Aliphatic EPH 050625.M Fri May 09 09:31:51 2025

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

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	I.BLK	Acq On:	08 May 2025 22:56
Client Sample ID:	I.BLK	Operator:	YP/AJ
Data file:	FC068807.D	Misc:	
Instrument:	FID_C	ALS Vial:	1
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)	0.000	0.000	0	0		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 : FC068807.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 22:56
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:10:08 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

Target Compounds

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

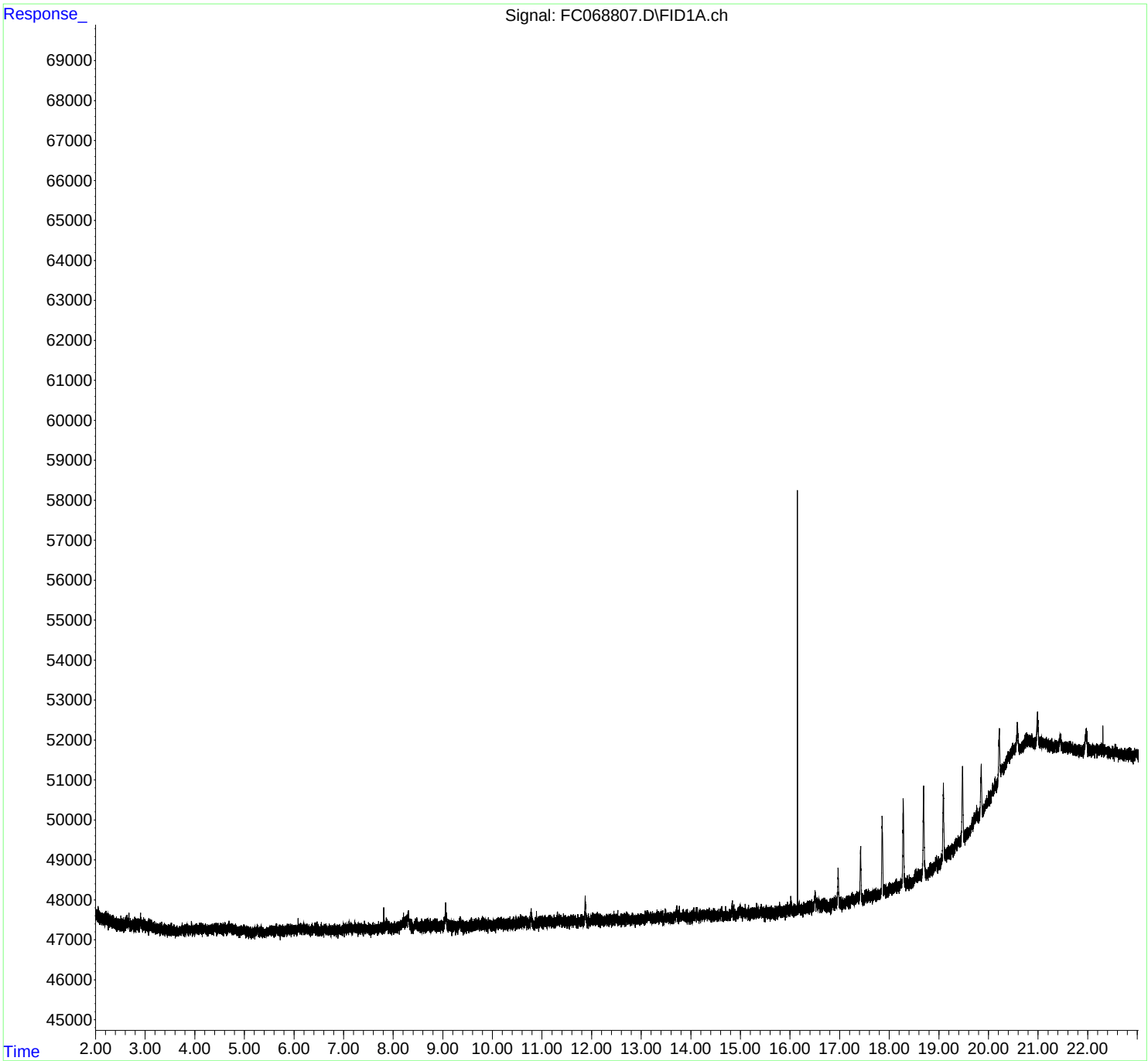
Quantitation Report (QT Reviewed)

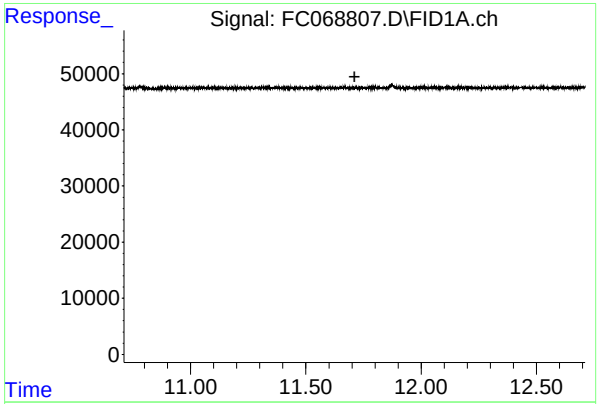
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068807.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 22:56
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 1 Sample Multiplier: 1

Instrument :
FID_C
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:10:08 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

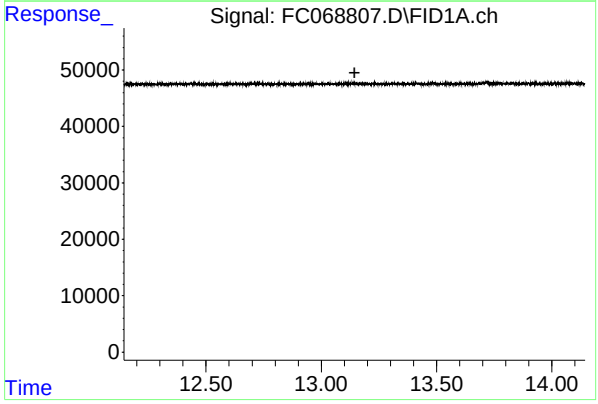




#9 ortho-Terphenyl (SURR)

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

Instrument :
FID_C
ClientSampleId :
I.BLK



#12 1-chlorooctadecane (SURR)

R.T.: 0.000 min
Exp R.T. : 13.144 min
Response: 0
Conc: N.D.

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068807.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 22:56
Sample : I.BLK
Misc :
ALS Vial : 1 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

No peaks were detected!

Aliphatic EPH 050625.M Fri May 09 09:42:28 2025

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	I.BLK	Acq On:	01 May 2025 09:54
Client Sample ID:	I.BLK	Operator:	YP/AJ
Data file:	FD049297.D	Misc:	
Instrument:	FID_D	ALS Vial:	51
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aromatic C10-C12	4.431	6.175	0	0	200	ug/ml
Aromatic C12-C16	6.176	8.804	0	0	300	ug/ml
Aromatic C16-C21	8.805	13.095	0	0	500	ug/ml
Aromatic C21-C36	13.096	18.515	0	0	800	ug/ml
Aromatic EPH	4.431	18.515	0	0		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
2-Bromonaphthalene (SURR)	0.000	0.000	0	0		ug/ml
2-Flurobiphenyl (SURR)	0.000	0.000	0	0		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049297.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 09:54
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 51 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 01 13:30:13 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

Target Compounds

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

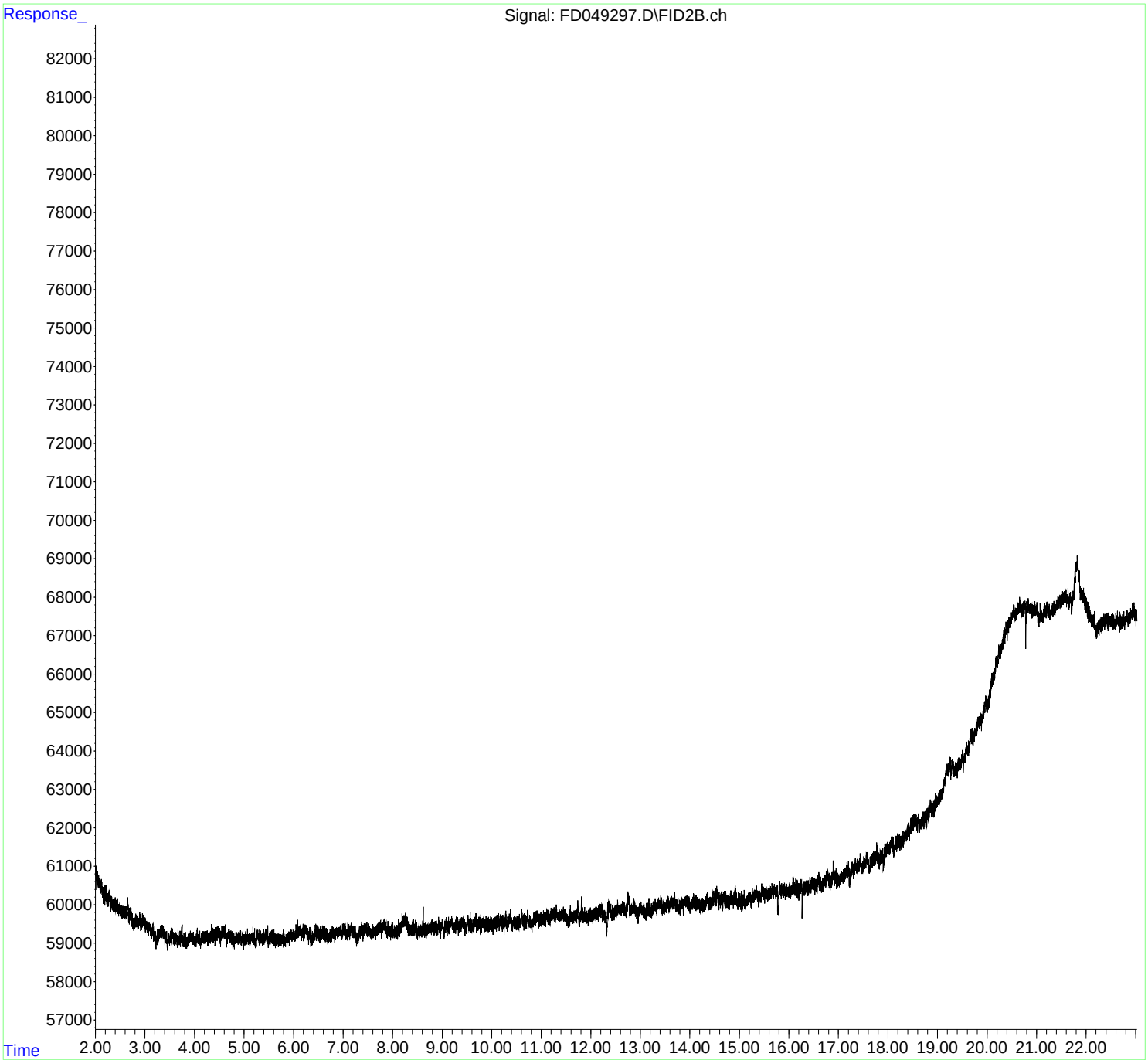
Quantitation Report (QT Reviewed)

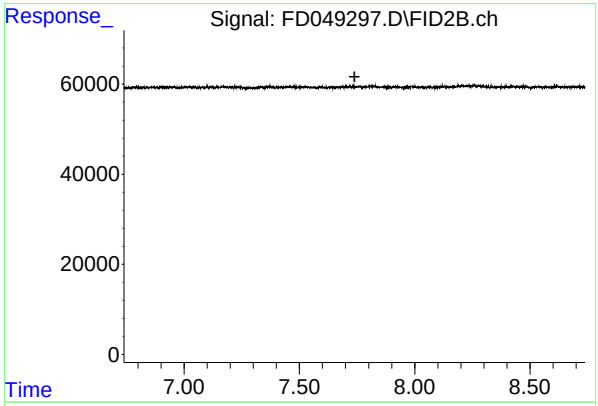
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049297.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 09:54
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 51 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 01 13:30:13 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

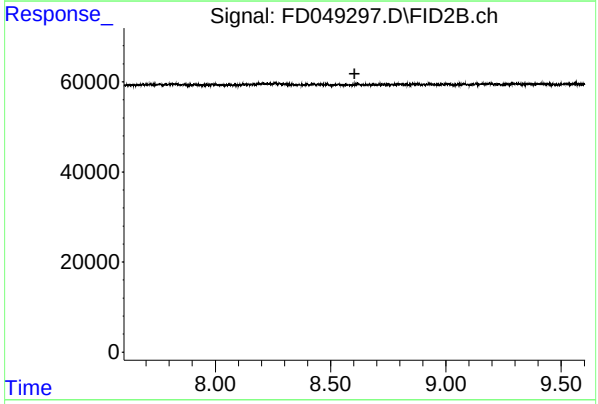




#4 2-Bromonaphthalene (SURR)

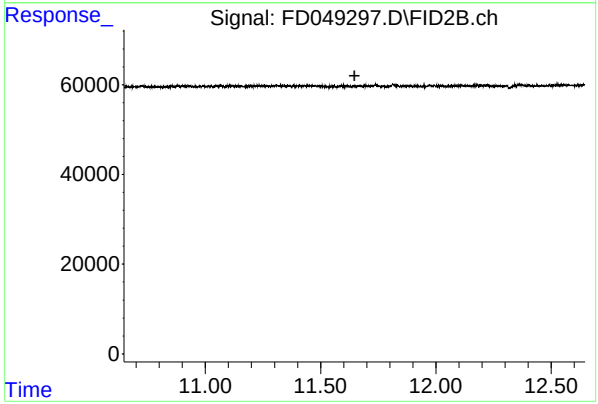
R.T.: 0.000 min
Exp R.T. : 7.739 min
Response: 0
Conc: N.D.

Instrument :
FID_D
ClientSampleId :
I.BLK



#6 2-Flurobiphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 8.604 min
Response: 0
Conc: N.D.



#11 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.647 min
Response: 0
Conc: N.D.

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050125AR\
Data File : FD049297.D
Signal(s) : FID2B.ch
Acq On : 01 May 2025 09:54
Sample : I.BLK
Misc :
ALS Vial : 51 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

No peaks were detected!

Aromatic EPH 050125.M Fri May 02 05:05:01 2025

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	I.BLK	Acq On:	08 May 2025 09:30
Client Sample ID:	I.BLK	Operator:	YP/AJ
Data file:	FD049317.D	Misc:	
Instrument:	FID_D	ALS Vial:	51
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)	0.000	0.000	0	0		ug/ml
2-Flurobiphenyl (SURR)	0.000	0.000	0	0		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049317.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 09:30
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 51 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:17:45 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				
Target Compounds				

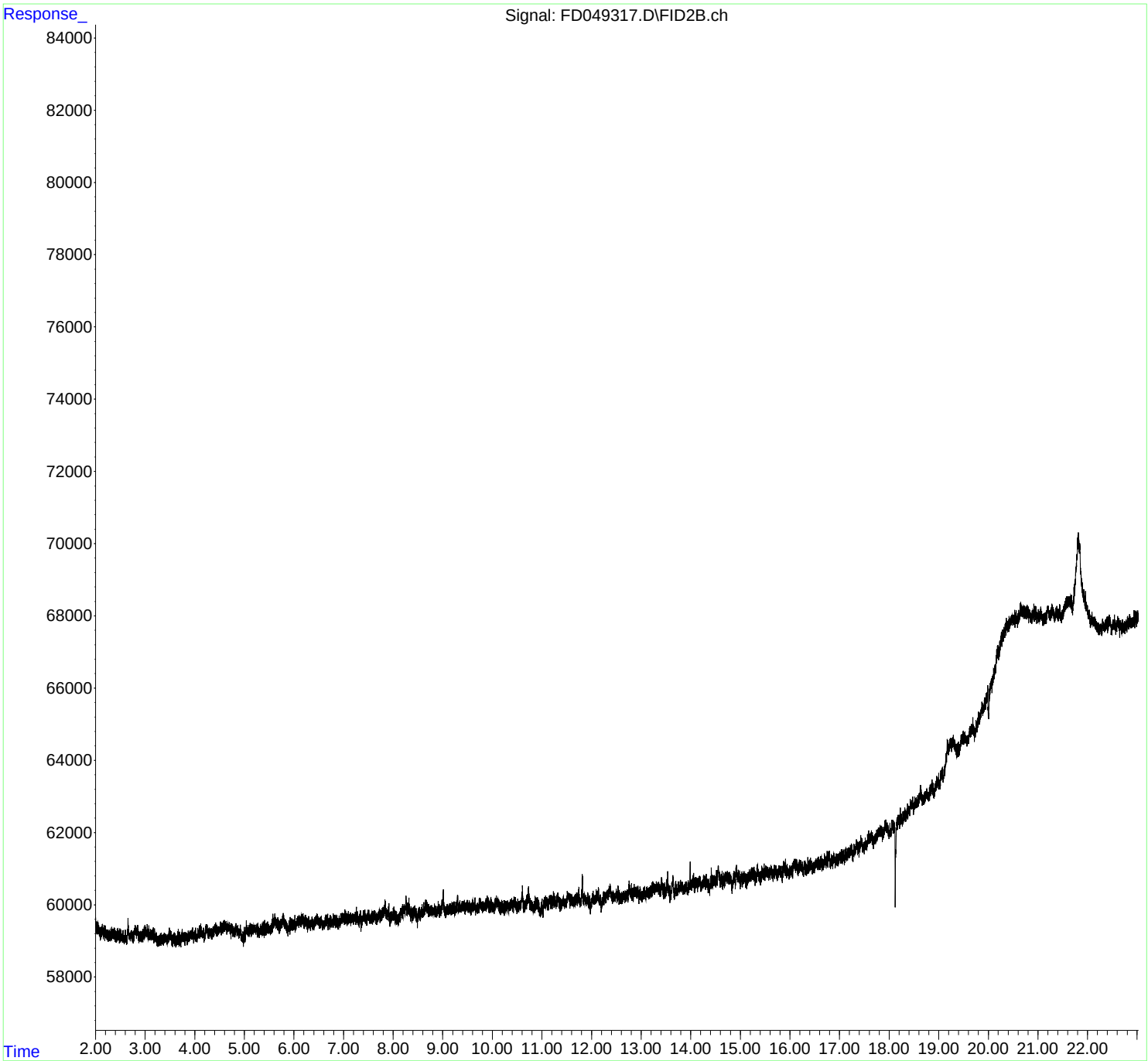
(f)=RT Delta > 1/2 Window (m)=manual int.

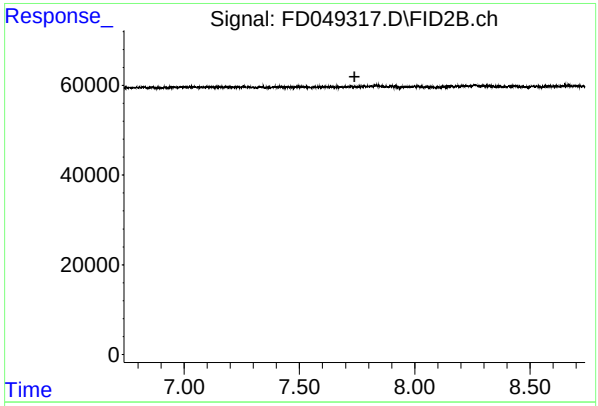
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049317.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 09:30
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 51 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:17:45 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

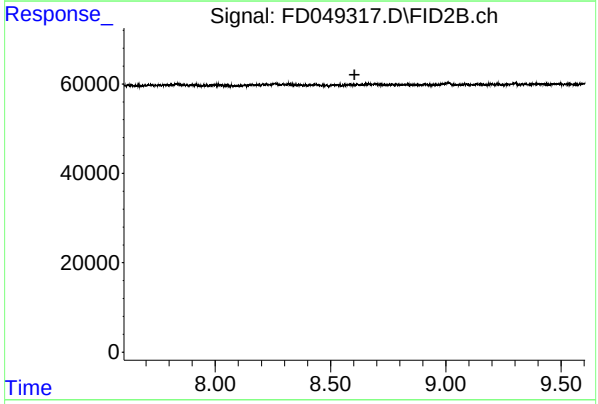




#4 2-Bromonaphthalene (SURR)

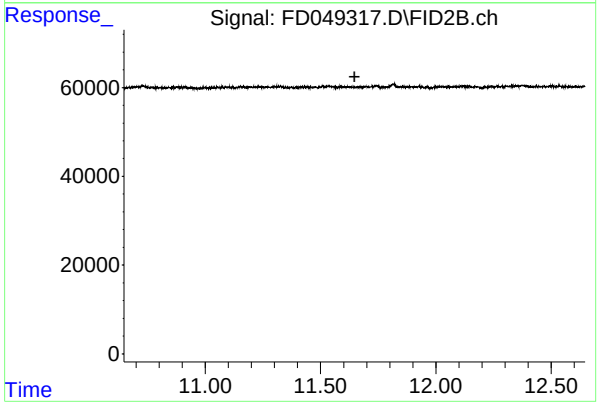
R.T.: 0.000 min
Exp R.T. : 7.739 min
Response: 0
Conc: N.D.

Instrument :
FID_D
ClientSampleId :
I.BLK



#6 2-Flurobiphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 8.604 min
Response: 0
Conc: N.D.



#11 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.647 min
Response: 0
Conc: N.D.

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049317.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 09:30
Sample : I.BLK
Misc :
ALS Vial : 51 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

No peaks were detected!

Aromatic EPH 050125.M Fri May 09 09:45:06 2025

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	I.BLK	Acq On:	08 May 2025 15:57
Client Sample ID:	I.BLK	Operator:	YP/AJ
Data file:	FD049324.D	Misc:	
Instrument:	FID_D	ALS Vial:	51
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
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
2-Bromonaphthalene (SURR)	0.000	0.000	0	0		ug/ml
2-Flurobiphenyl (SURR)	0.000	0.000	0	0		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049324.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 15:57
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 51 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:19:09 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

Target Compounds

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

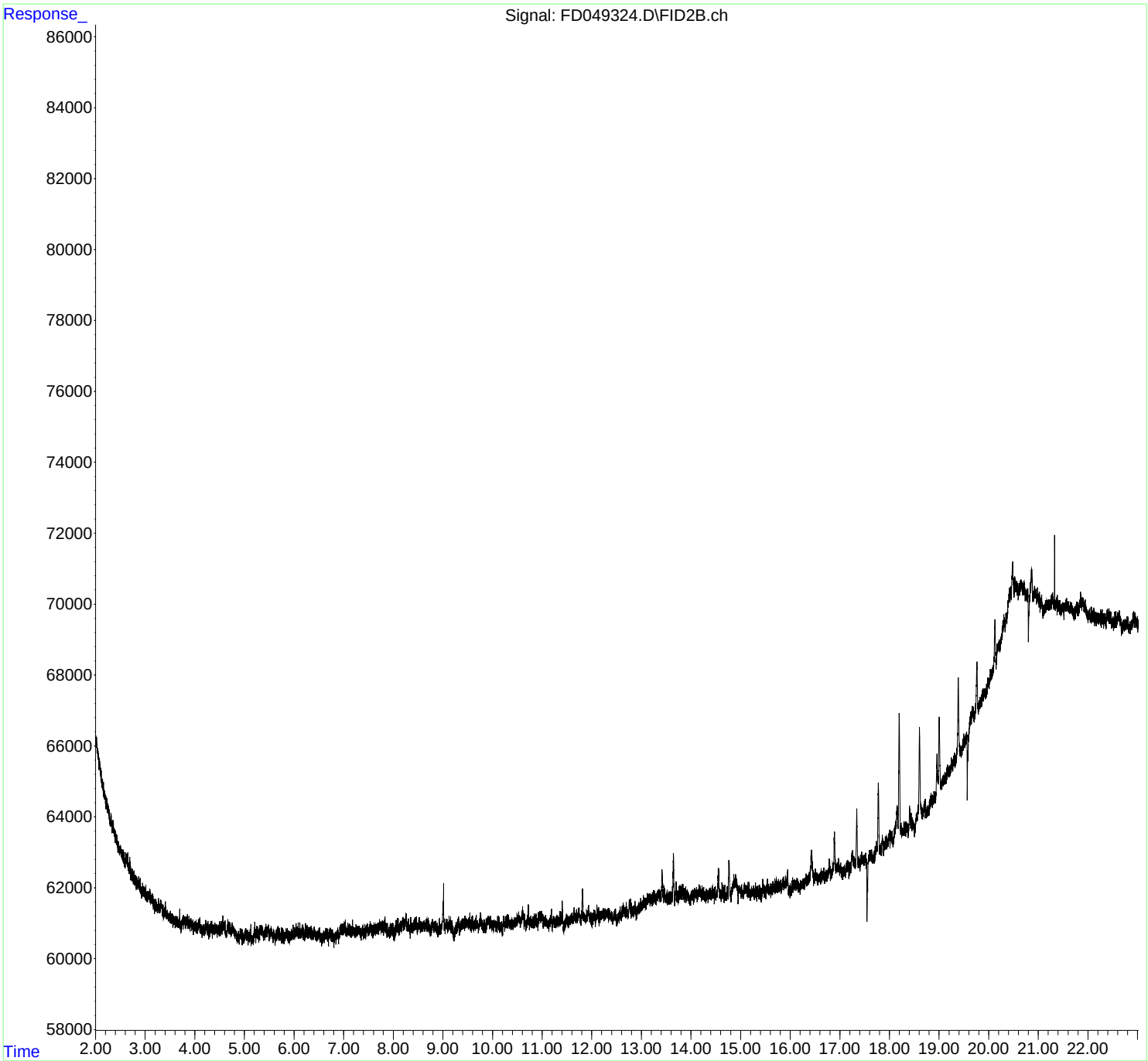
Quantitation Report (QT Reviewed)

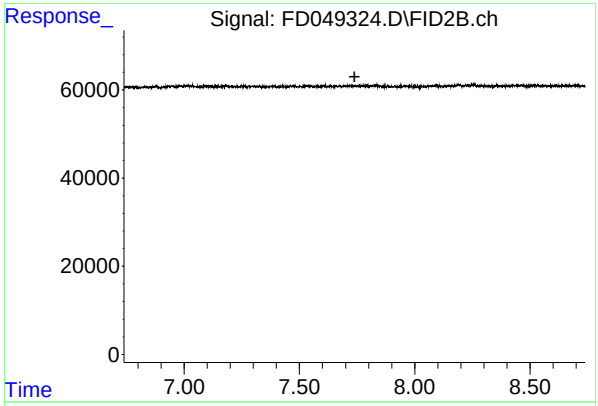
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049324.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 15:57
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 51 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:19:09 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

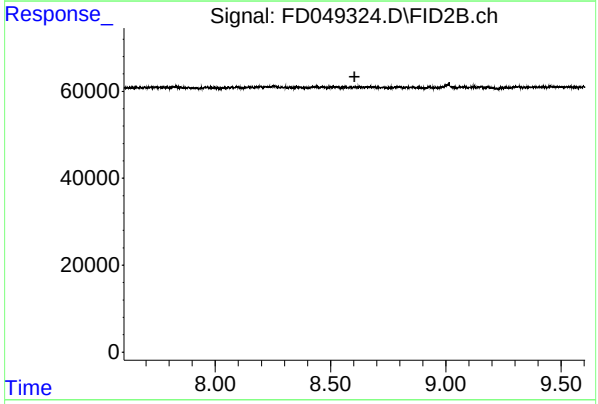




#4 2-Bromonaphthalene (SURR)

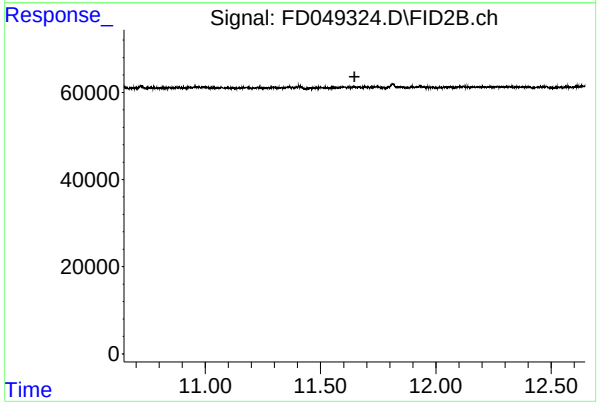
R.T.: 0.000 min
Exp R.T. : 7.739 min
Response: 0
Conc: N.D.

Instrument :
FID_D
ClientSampleId :
I.BLK



#6 2-Flurobiphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 8.604 min
Response: 0
Conc: N.D.



#11 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.647 min
Response: 0
Conc: N.D.

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049324.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 15:57
Sample : I.BLK
Misc :
ALS Vial : 51 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

No peaks were detected!

Aromatic EPH 050125.M Fri May 09 09:45:43 2025

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

Quantitation Report For Aromatic EPH Range.

Lab Sample ID:	I.BLK	Acq On:	08 May 2025 22:56
Client Sample ID:	I.BLK	Operator:	YP/AJ
Data file:	FD049333.D	Misc:	
Instrument:	FID_D	ALS Vial:	51
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)	0.000	0.000	0	0		ug/ml
ortho-Terphenyl (SURR)	0.000	0.000	0	0		ug/ml
2-Flurobiphenyl (SURR)	0.000	0.000	0	0		ug/ml

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049333.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 22:56
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 51 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:22:08 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				
Target Compounds				

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

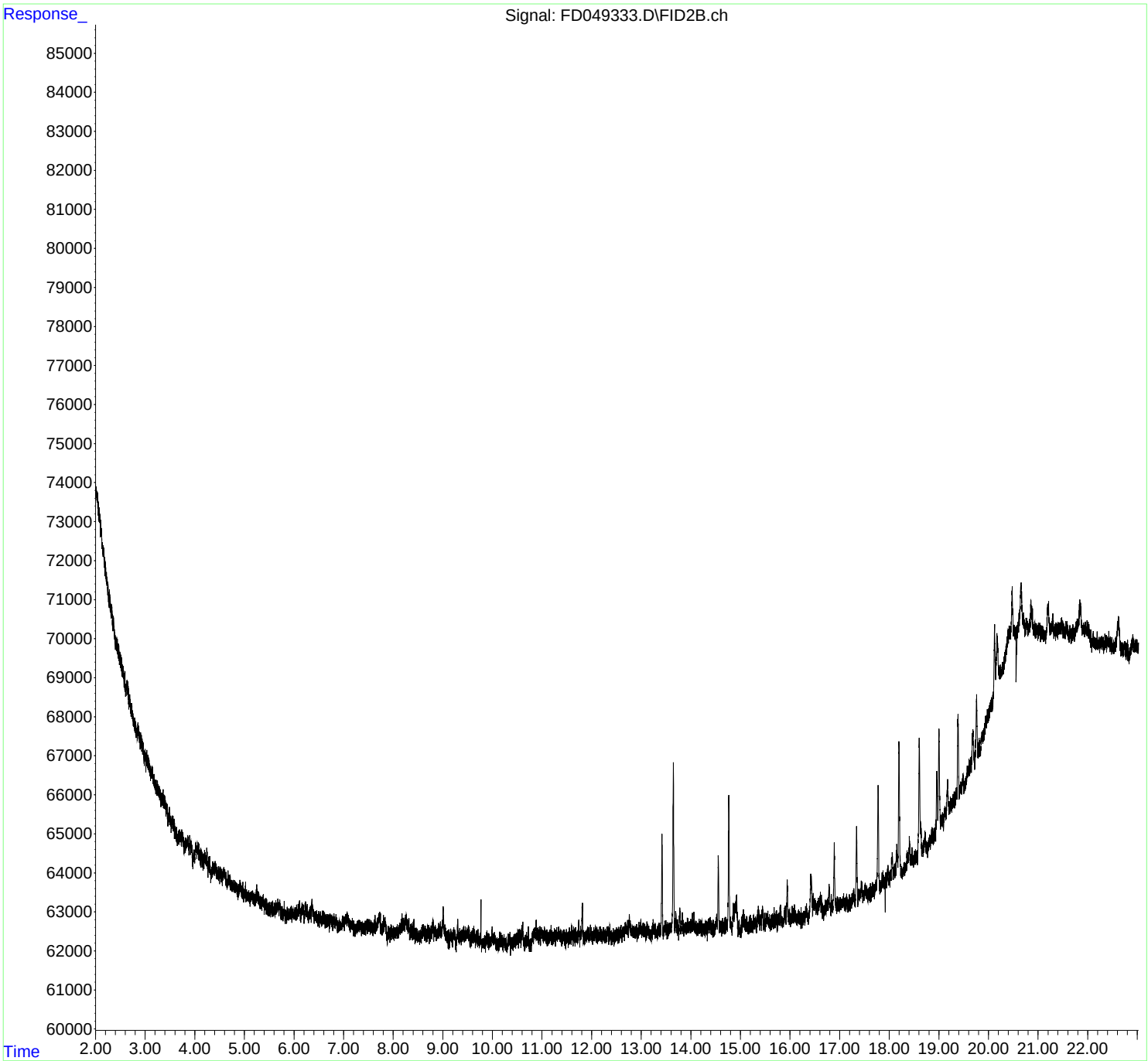
Quantitation Report (QT Reviewed)

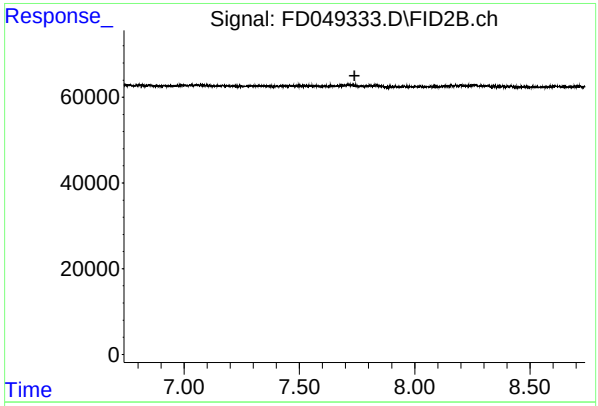
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049333.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 22:56
Operator : YP/AJ
Sample : I.BLK
Misc :
ALS Vial : 51 Sample Multiplier: 1

Instrument :
FID_D
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 09 09:22:08 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

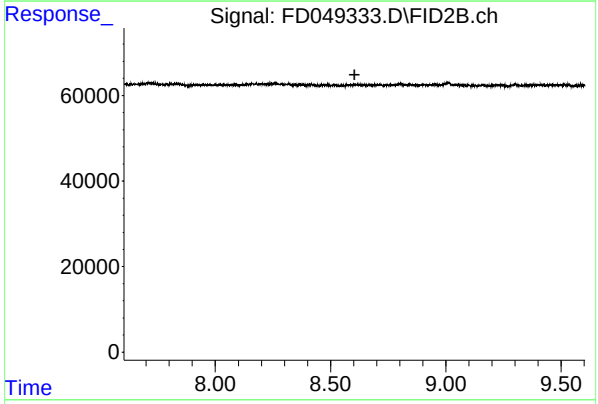




#4 2-Bromonaphthalene (SURR)

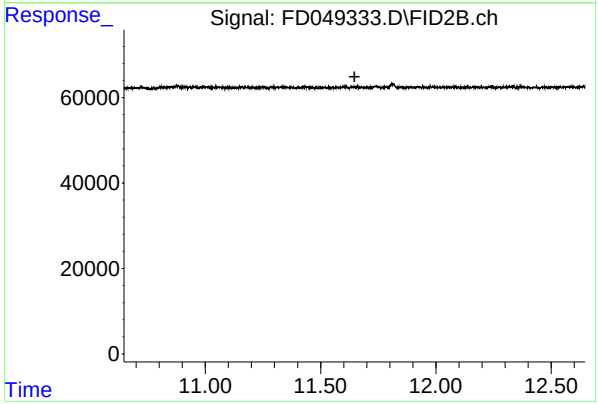
R.T.: 0.000 min
Exp R.T. : 7.739 min
Response: 0
Conc: N.D.

Instrument :
FID_D
ClientSampleId :
I.BLK



#6 2-Flurobiphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 8.604 min
Response: 0
Conc: N.D.



#11 ortho-Terphenyl (SURR)

R.T.: 0.000 min
Exp R.T. : 11.647 min
Response: 0
Conc: N.D.

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049333.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 22:56
Sample : I.BLK
Misc :
ALS Vial : 51 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

No peaks were detected!

Aromatic EPH 050125.M Fri May 09 09:46:21 2025

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

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	PB167903BS	SDG No.:	Q1872
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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	PB167903BS	SDG No.:	Q1872
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 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-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 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.

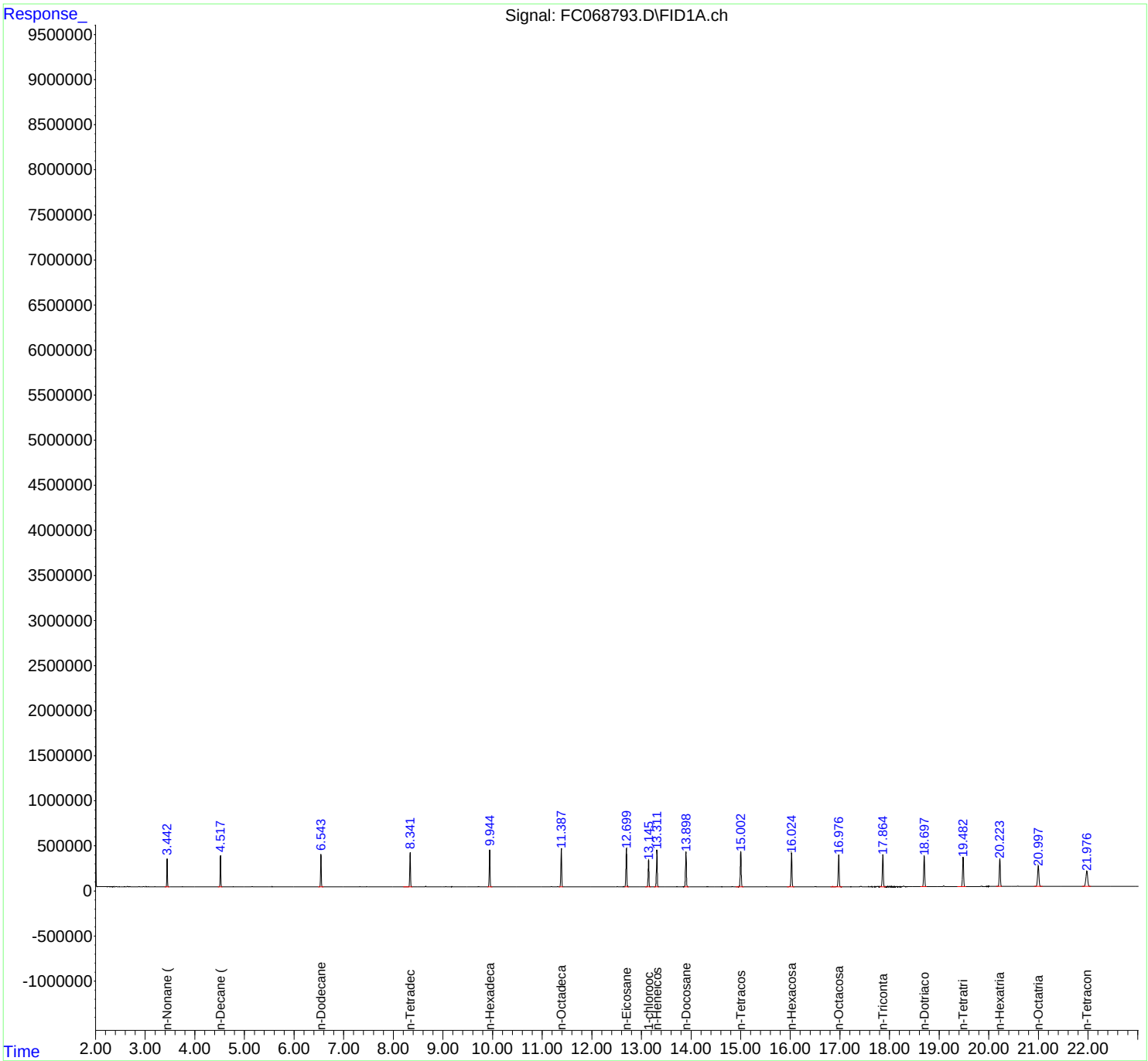
Quantitation Report (QT Reviewed)

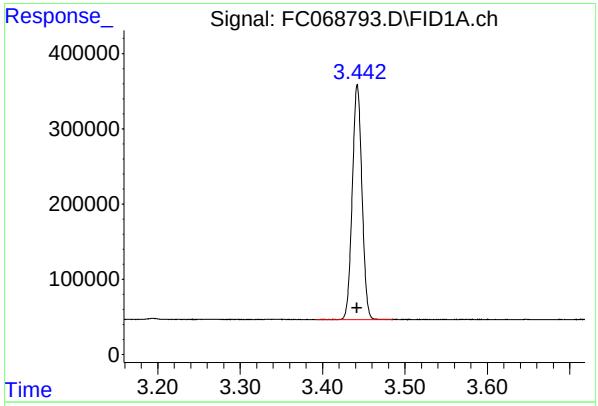
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068793.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 13:01
Operator : YP/AJ
Sample : PB167903BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

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

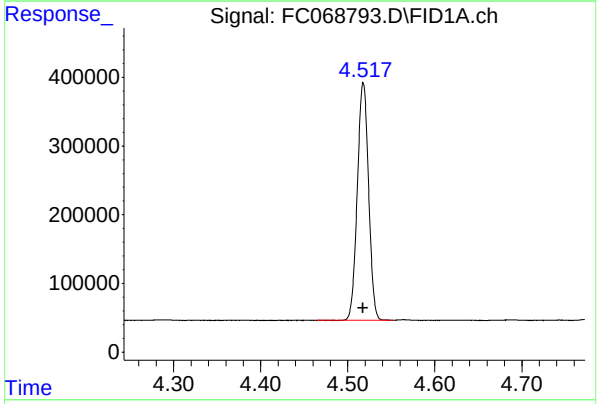




#1 n-Nonane (C9)

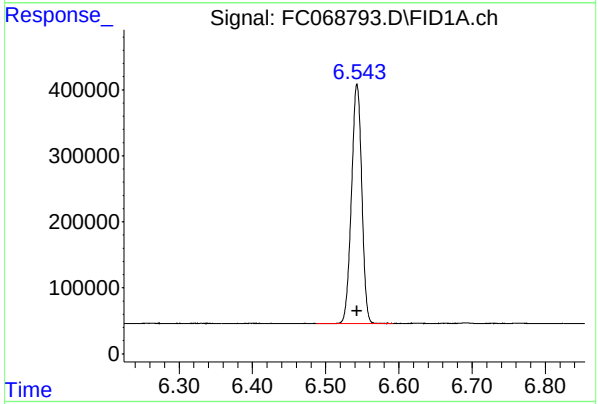
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 2549322
Conc: 25.35 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BS



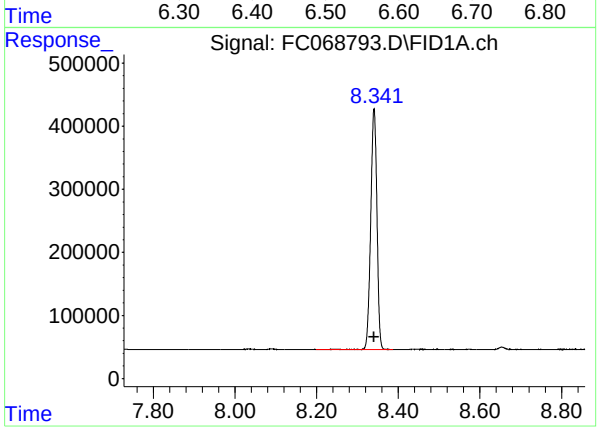
#2 n-Decane (C10)

R.T.: 4.518 min
Delta R.T.: 0.000 min
Response: 3105498
Conc: 31.17 ug/ml



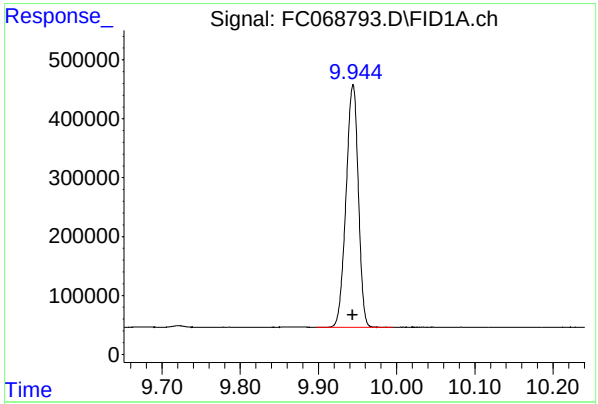
#4 n-Dodecane (C12)

R.T.: 6.543 min
Delta R.T.: 0.000 min
Response: 3536486
Conc: 36.39 ug/ml



#6 n-Tetradecane (C14)

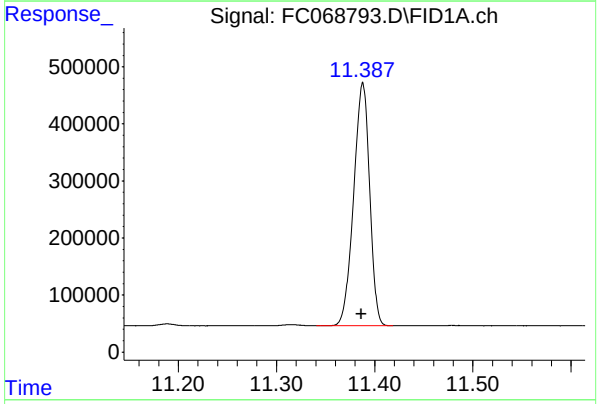
R.T.: 8.341 min
Delta R.T.: 0.000 min
Response: 4025244
Conc: 43.55 ug/ml



#7 n-Hexadecane (C16)

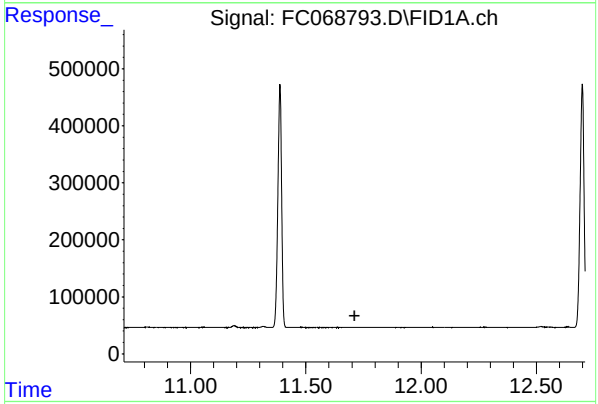
R.T.: 9.944 min
Delta R.T.: 0.000 min
Response: 4491009
Conc: 50.15 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BS



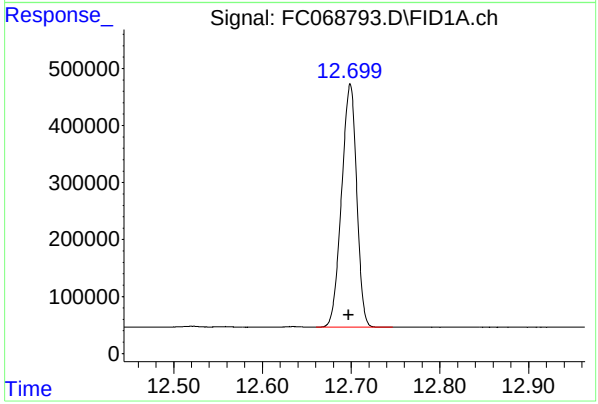
#8 n-Octadecane (C18)

R.T.: 11.388 min
Delta R.T.: 0.002 min
Response: 4808139
Conc: 54.81 ug/ml



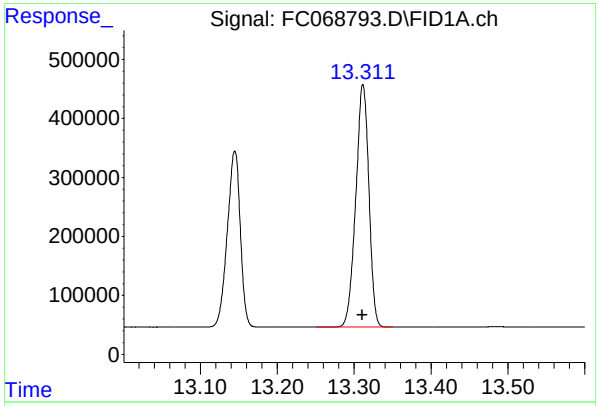
#9 ortho-Terphenyl (SURR)

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



#10 n-Eicosane (C20)

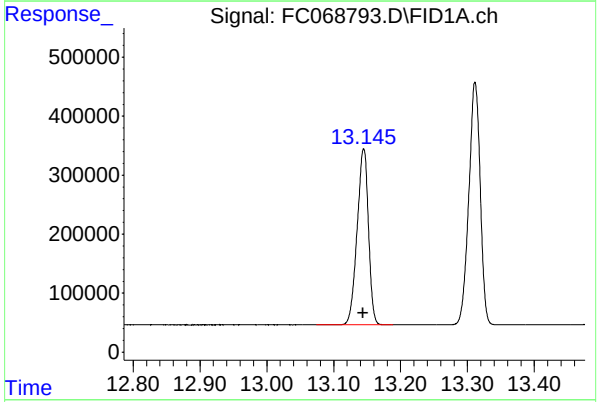
R.T.: 12.699 min
Delta R.T.: 0.002 min
Response: 5054034
Conc: 59.31 ug/ml



#11 n-Heneicosane (C21)

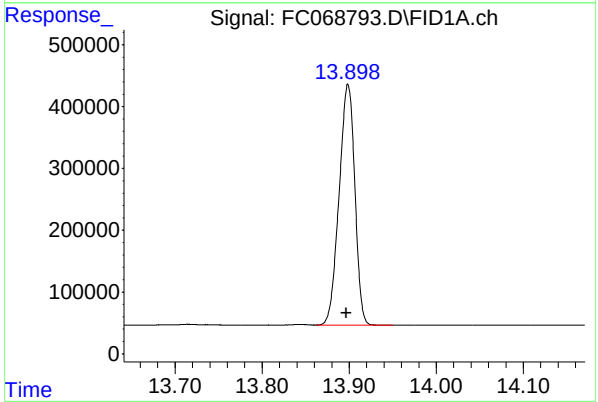
R.T.: 13.312 min
Delta R.T.: 0.001 min
Response: 4875456
Conc: 57.80 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BS



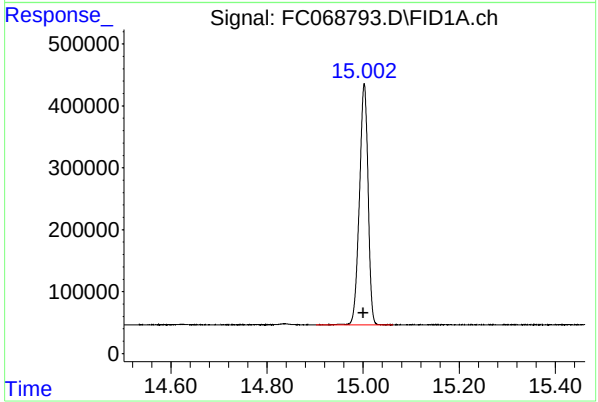
#12 1-chlorooctadecane (SURR)

R.T.: 13.145 min
Delta R.T.: 0.000 min
Response: 3505588
Conc: 43.70 ug/ml



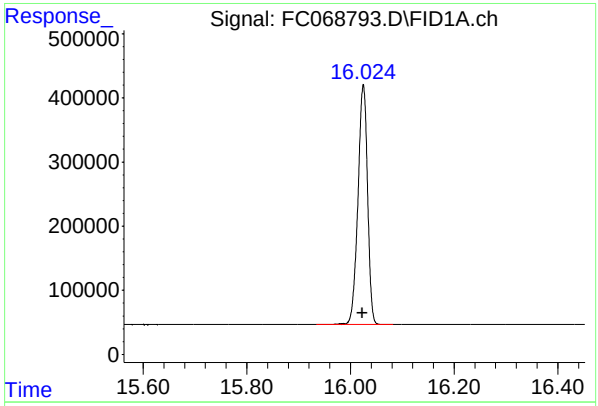
#13 n-Docosane (C22)

R.T.: 13.899 min
Delta R.T.: 0.002 min
Response: 4890977
Conc: 58.46 ug/ml



#14 n-Tetracosane (C24)

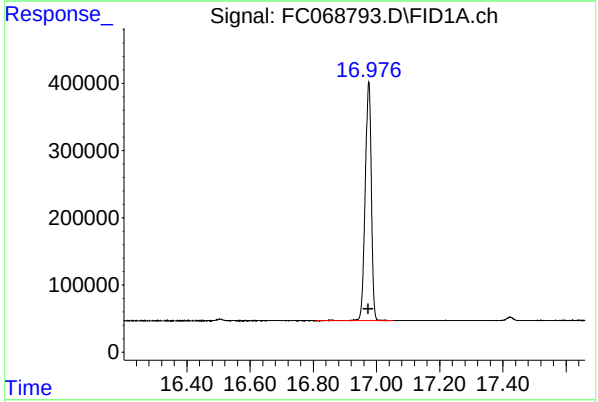
R.T.: 15.002 min
Delta R.T.: 0.002 min
Response: 4855513
Conc: 58.35 ug/ml



#15 n-Hexacosane (C26)

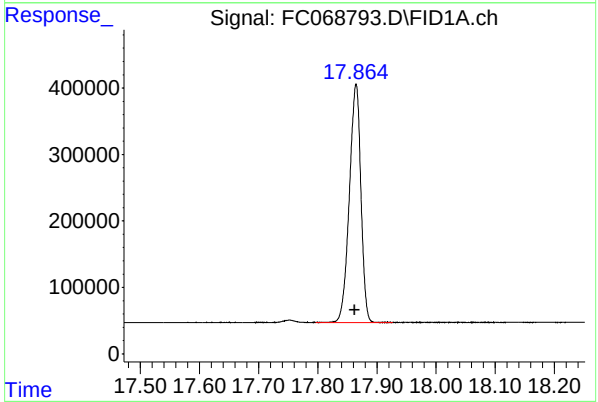
R.T.: 16.025 min
Delta R.T.: 0.002 min
Response: 4796571
Conc: 57.89 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BS



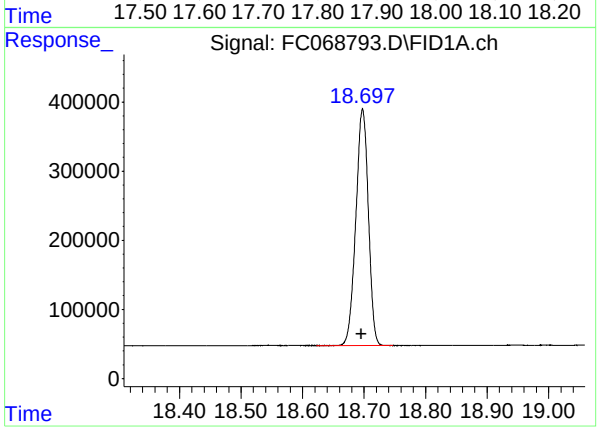
#16 n-Octacosane (C28)

R.T.: 16.975 min
Delta R.T.: 0.001 min
Response: 4779183
Conc: 57.83 ug/ml



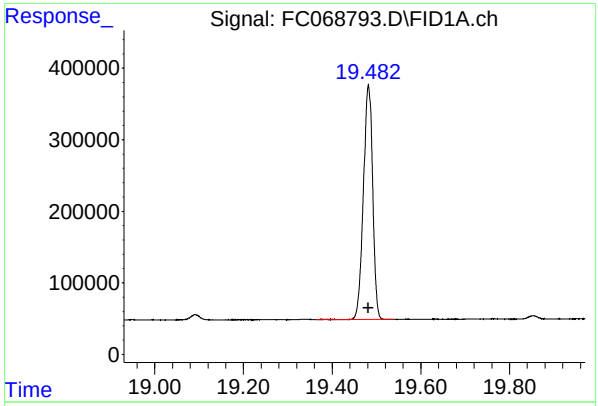
#17 n-Tricontane (C30)

R.T.: 17.865 min
Delta R.T.: 0.002 min
Response: 4861309
Conc: 57.45 ug/ml



#18 n-Dotriacontane (C32)

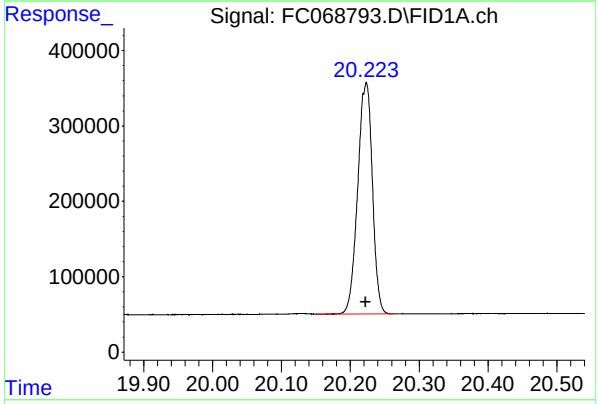
R.T.: 18.698 min
Delta R.T.: 0.002 min
Response: 4843353
Conc: 56.23 ug/ml



#19 n-Tetratriacontane (C34)

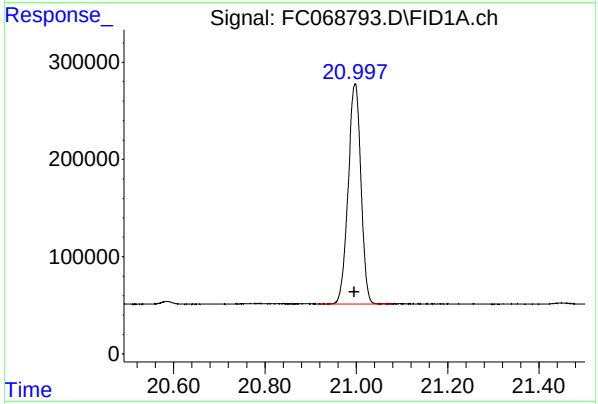
R.T.: 19.482 min
Delta R.T.: 0.000 min
Response: 4766438
Conc: 55.94 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BS



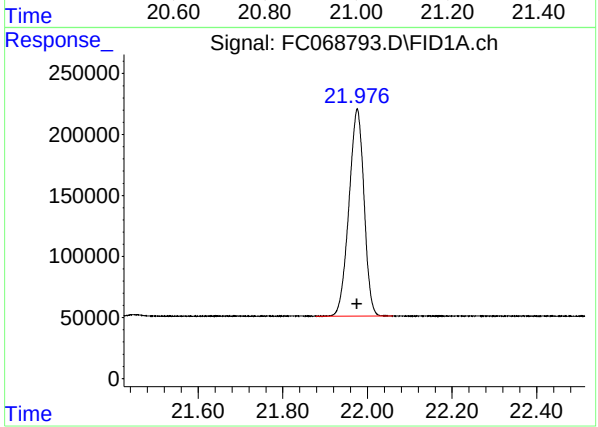
#20 n-Hexatriacontane (C36)

R.T.: 20.223 min
Delta R.T.: 0.000 min
Response: 4538759
Conc: 52.81 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.997 min
Delta R.T.: 0.000 min
Response: 4392982
Conc: 52.37 ug/ml



#22 n-Tetracontane (C40)

R.T.: 21.976 min
Delta R.T.: 0.000 min
Response: 4192290
Conc: 51.15 ug/ml

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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	PB167903BS	SDG No.:	Q1872
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	13.096	18.515	55376857	471.879	800	ug/ml
Aromatic EPH	4.431	18.515	121108416	969.943		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
ortho-Terphenyl (SURR)	11.652	11.652	7262675	52.62		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.

Quantitation Report (QT Reviewed)

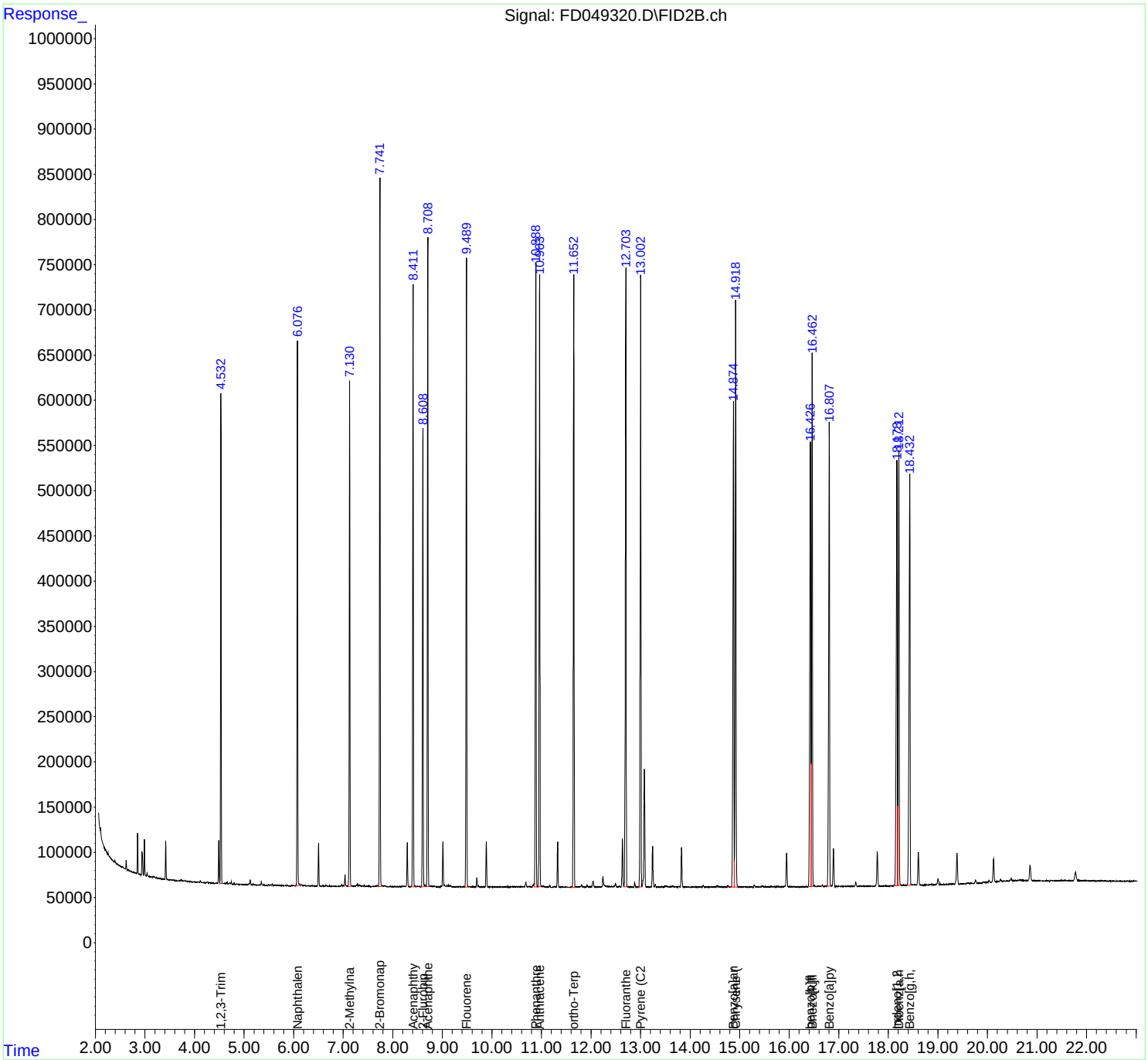
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049320.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:01
Operator : YP/AJ
Sample : PB167903BS
Misc :
ALS Vial : 62 Sample Multiplier: 1

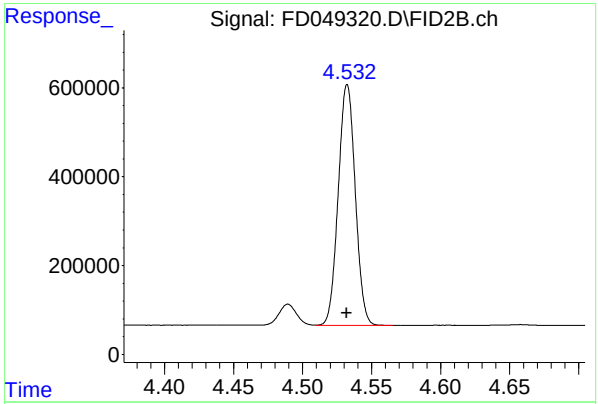
Integration File: autoint1.e
Quant Time: May 09 10:00:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Instrument :
FID_D
ClientSampleId :
PB167903BS

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025





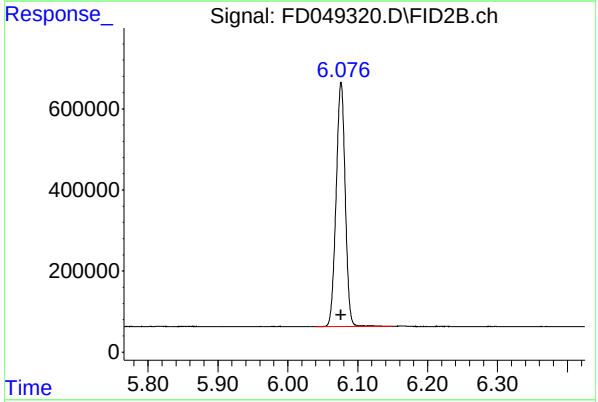
#1 1,2,3-Trimethylbenzene (C10.1)

R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 4653200
Conc: 37.27 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BS

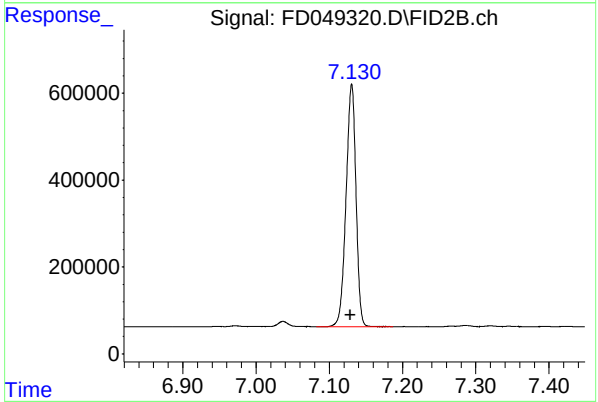
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



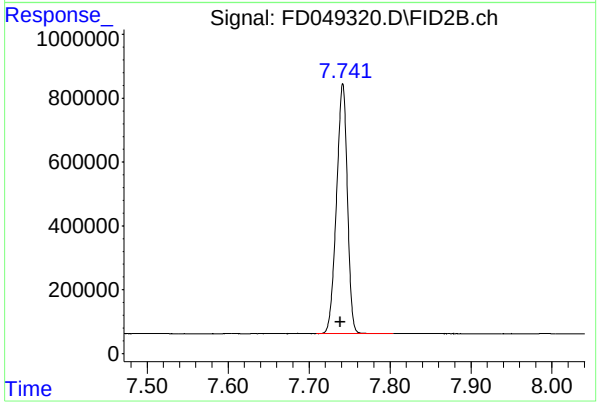
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 5436927
Conc: 41.12 ug/ml



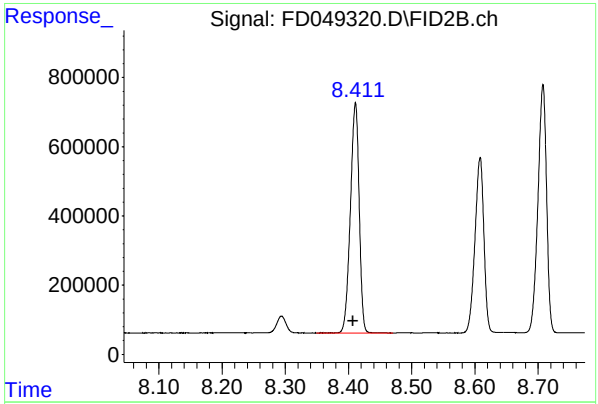
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.131 min
Delta R.T.: 0.002 min
Response: 5271228
Conc: 40.86 ug/ml



#4 2-Bromonaphthalene (SURR)

R.T.: 7.742 min
Delta R.T.: 0.003 min
Response: 7300671
Conc: 61.57 ug/ml



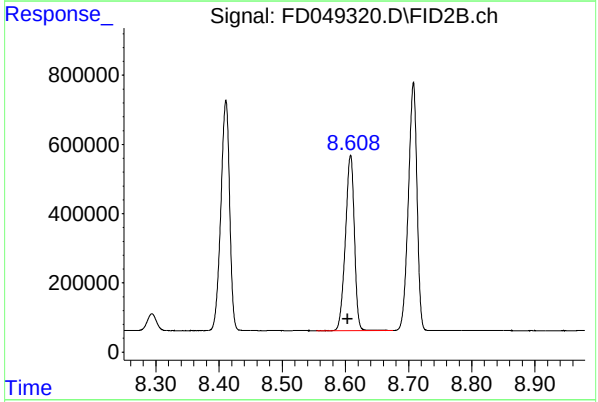
#5 Acenaphthylene (C15.06)

R.T.: 8.411 min
Delta R.T.: 0.004 min
Response: 6432919
Conc: 45.57 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BS

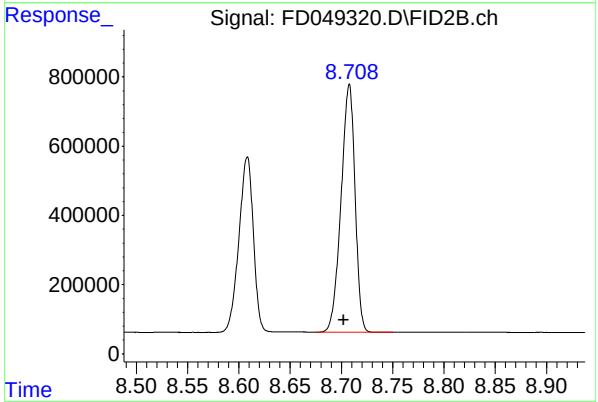
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



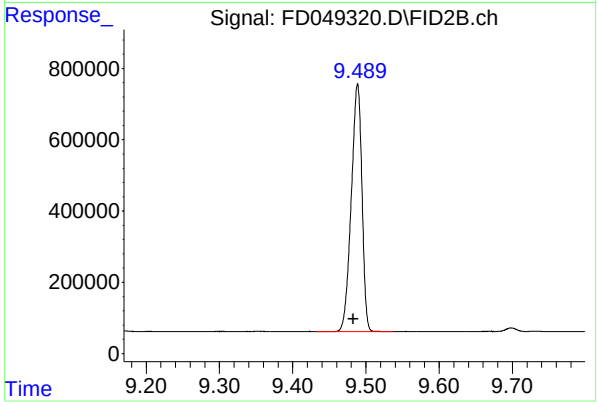
#6 2-Flurobiphenyl (SURR)

R.T.: 8.608 min
Delta R.T.: 0.005 min
Response: 5006396
Conc: 63.39 ug/ml



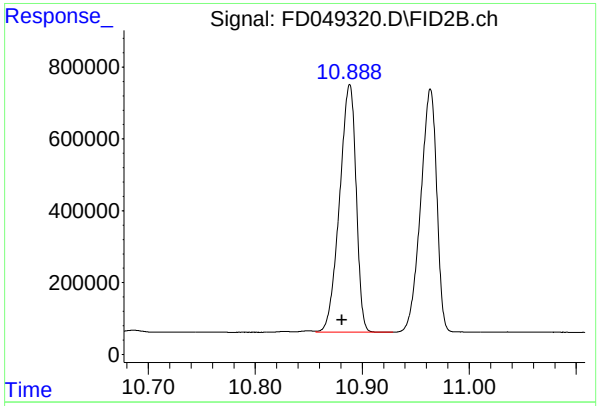
#7 Acenaphthene (C15.5)

R.T.: 8.708 min
Delta R.T.: 0.006 min
Response: 6813172
Conc: 49.73 ug/ml



#8 Flouorene (C16.55)

R.T.: 9.489 min
Delta R.T.: 0.006 min
Response: 7029682
Conc: 51.65 ug/ml



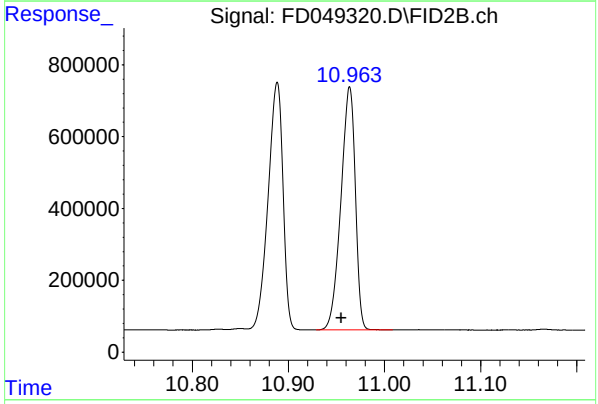
#9 Phenanthrene (C19.36)

R.T.: 10.888 min
Delta R.T.: 0.007 min
Response: 7432716
Conc: 55.13 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BS

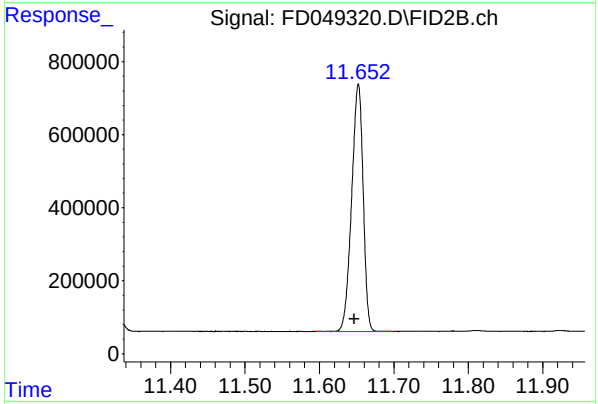
Manual Integrations APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



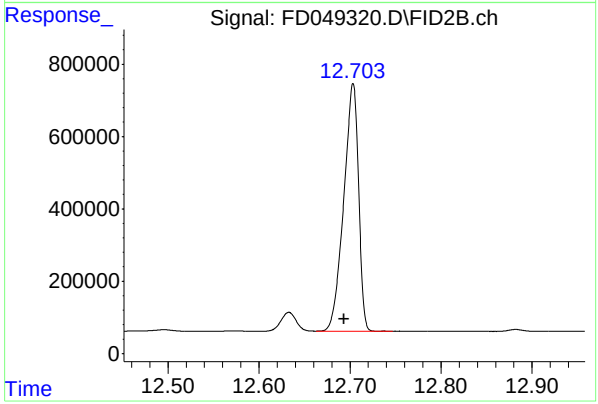
#10 Anthracene (C19.43)

R.T.: 10.964 min
Delta R.T.: 0.009 min
Response: 7069170
Conc: 59.77 ug/ml



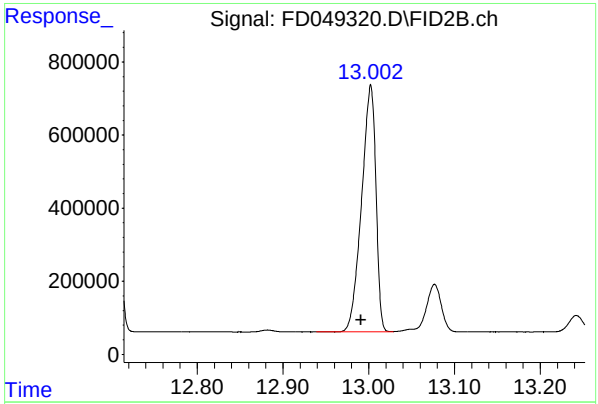
#11 ortho-Terphenyl (SURR)

R.T.: 11.652 min
Delta R.T.: 0.005 min
Response: 7262675
Conc: 52.62 ug/ml



#12 Fluoranthene (C21.85)

R.T.: 12.703 min
Delta R.T.: 0.010 min
Response: 7761429
Conc: 57.59 ug/ml



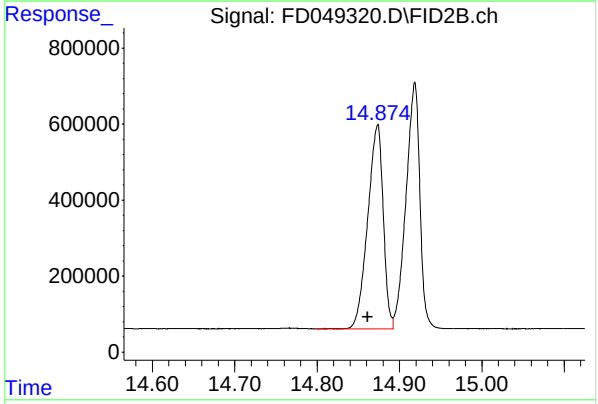
#13 Pyrene (C20.8)

R.T.: 13.002 min
Delta R.T.: 0.012 min
Response: 7831116
Conc: 57.89 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BS

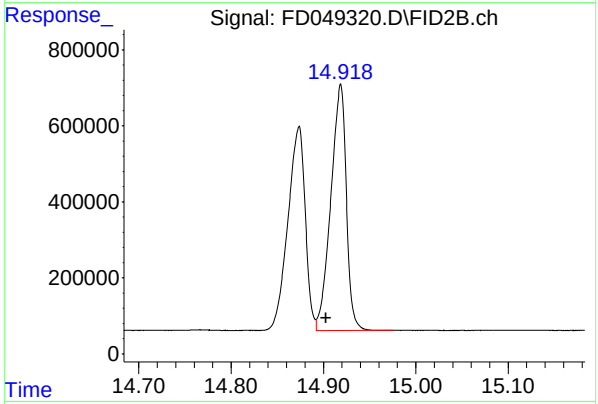
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



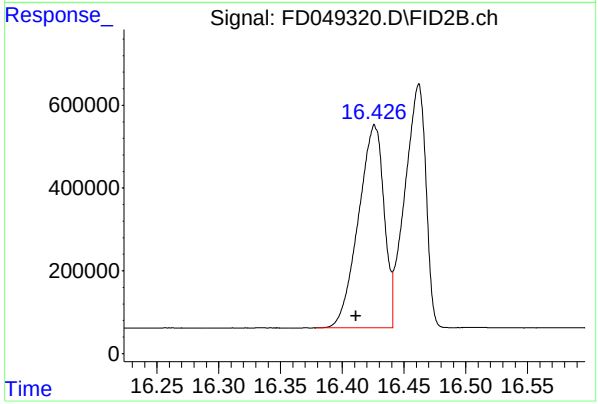
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.873 min
Delta R.T.: 0.012 min
Response: 7009293
Conc: 61.19 ug/ml



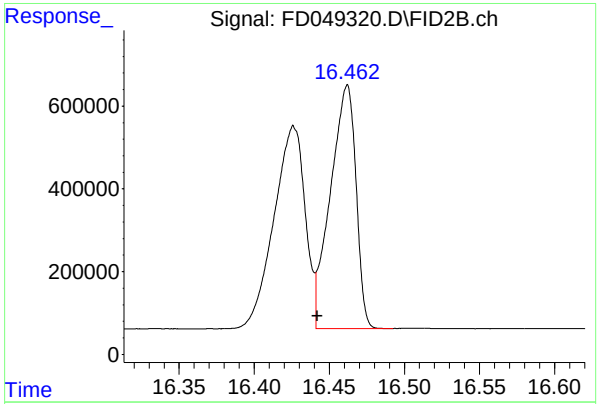
#15 Chrysene (C27.41)

R.T.: 14.919 min
Delta R.T.: 0.016 min
Response: 7558306
Conc: 64.76 ug/ml



#16 benzo[b]fluoranthene (C30.41)

R.T.: 16.426 min
Delta R.T.: 0.015 min
Response: 7083541
Conc: 58.36 ug/ml



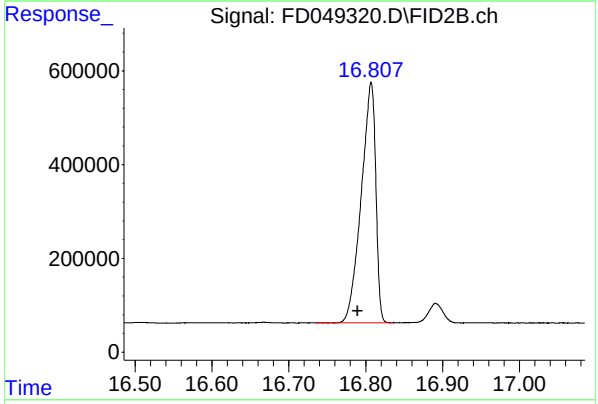
#17 Bnezo[k]fluoranthene (C30.14)

R.T.: 16.462 min
Delta R.T.: 0.020 min
Response: 6938447
Conc: 58.18 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BS

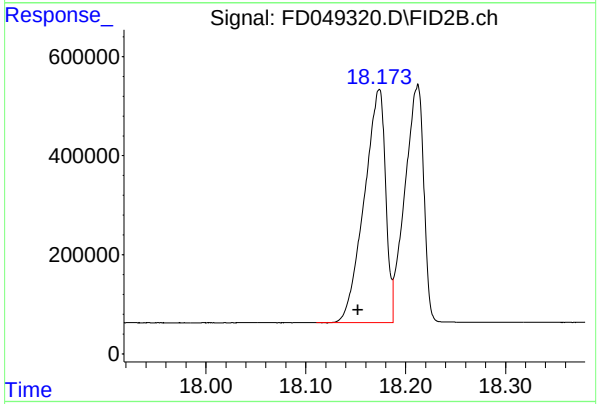
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



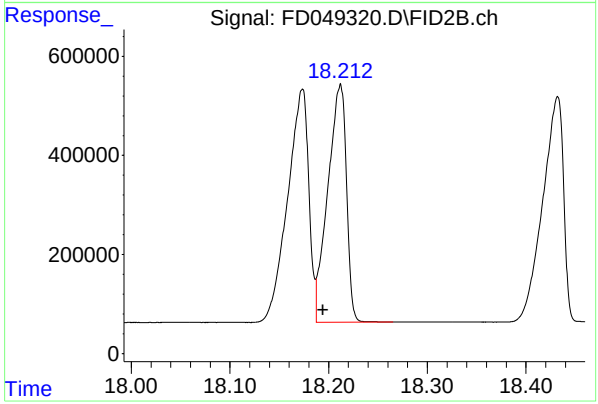
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.807 min
Delta R.T.: 0.017 min
Response: 6738028
Conc: 58.60 ug/ml



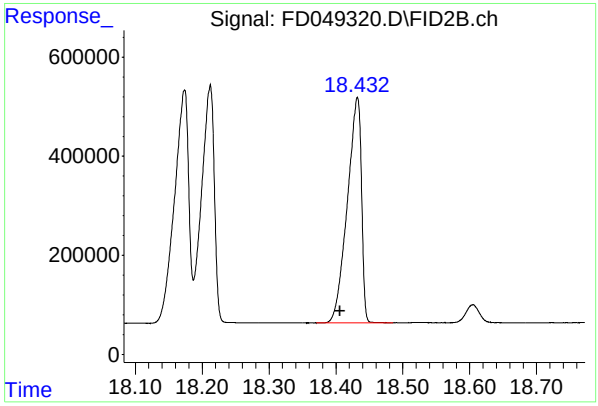
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.173 min
Delta R.T.: 0.021 min
Response: 7007004
Conc: 63.85 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.212 min
Delta R.T.: 0.017 min
Response: 6302568
Conc: 59.68 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.432 min
Delta R.T.: 0.026 mi
Response: 6691597
Conc: 56.15 ug/m

Instrument :
FID_D
ClientSampleId :
PB167903BS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

rteres

Instrument :
FID_D
ClientSampleId :
PB167903BS

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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	PB167903BSD	SDG No.:	Q1872
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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	PB167903BSD	SDG No.:	Q1872
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 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-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 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.

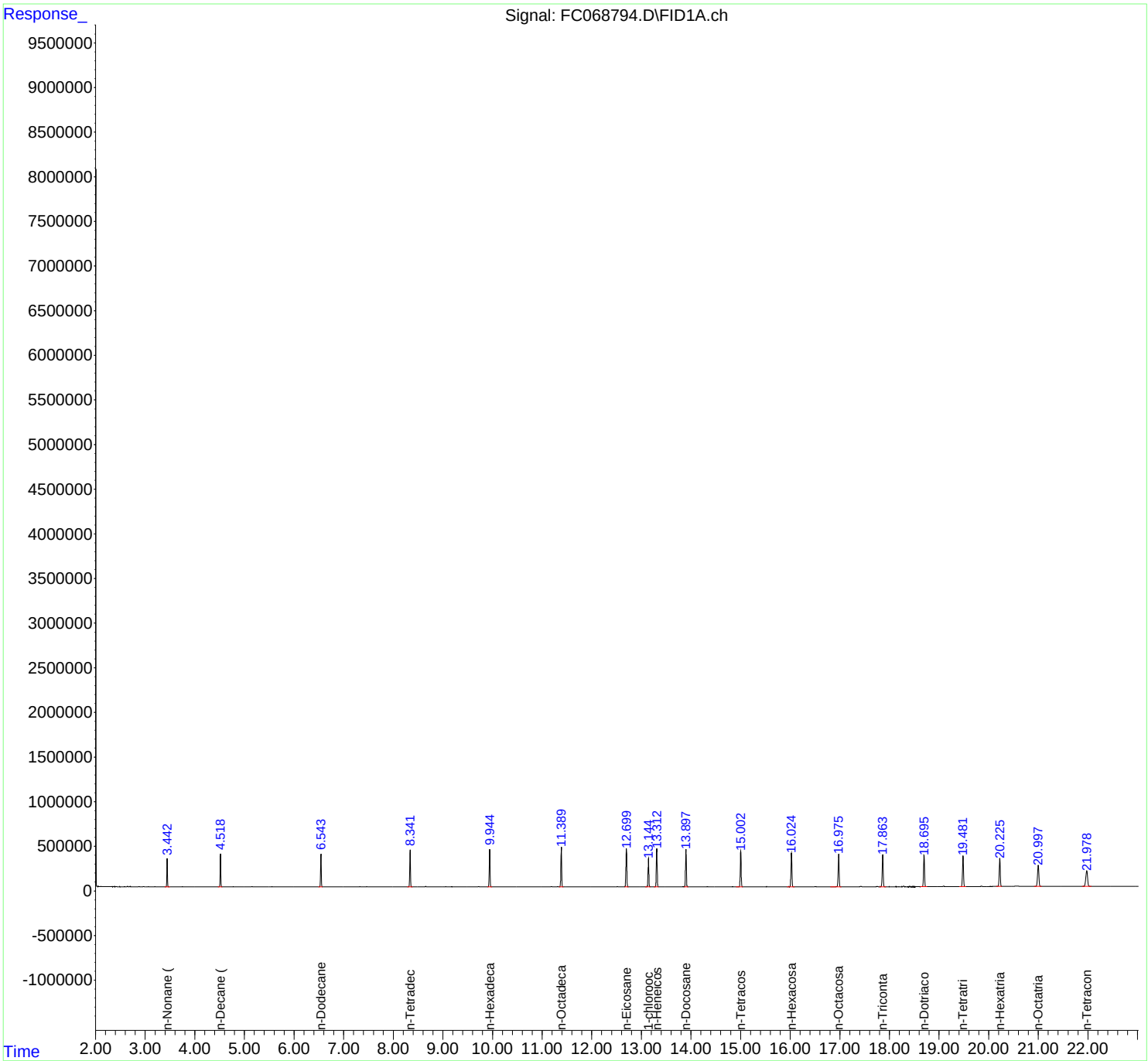
Quantitation Report (QT Reviewed)

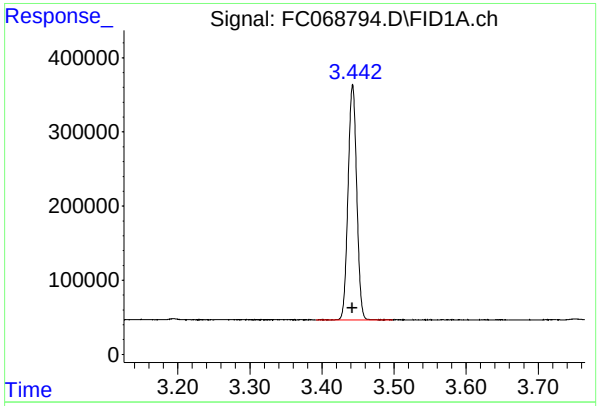
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068794.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 13:38
Operator : YP/AJ
Sample : PB167903BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

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

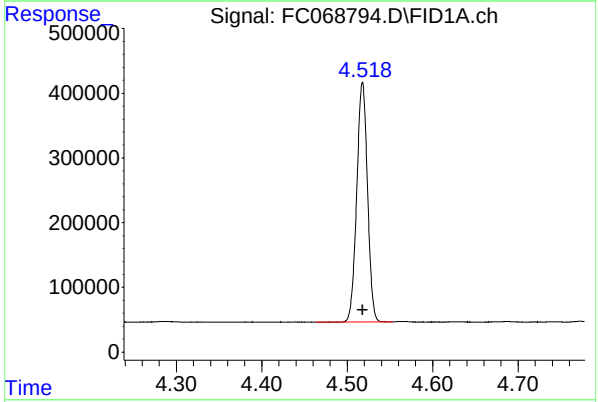




#1 n-Nonane (C9)

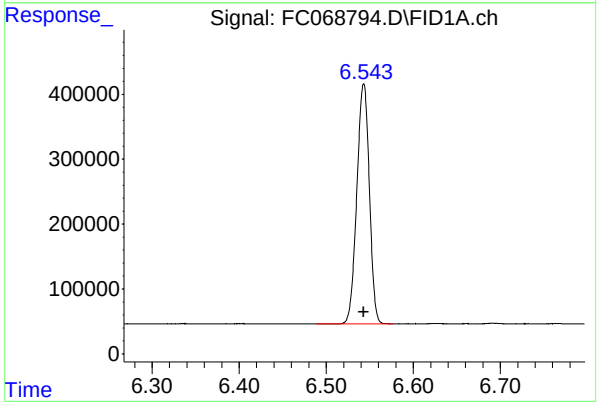
R.T.: 3.443 min
Delta R.T.: 0.000 min
Response: 2647696
Conc: 26.32 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BSD



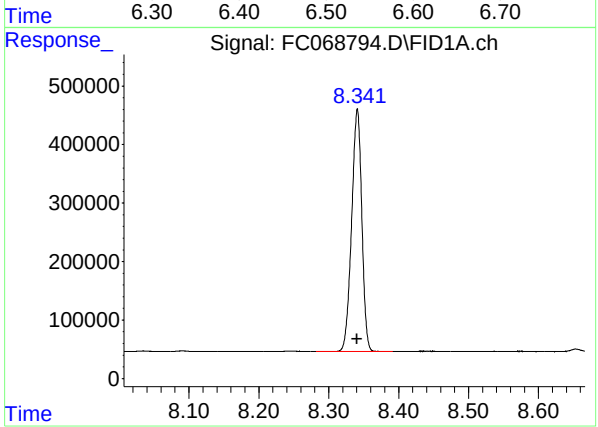
#2 n-Decane (C10)

R.T.: 4.518 min
Delta R.T.: 0.000 min
Response: 3237196
Conc: 32.49 ug/ml



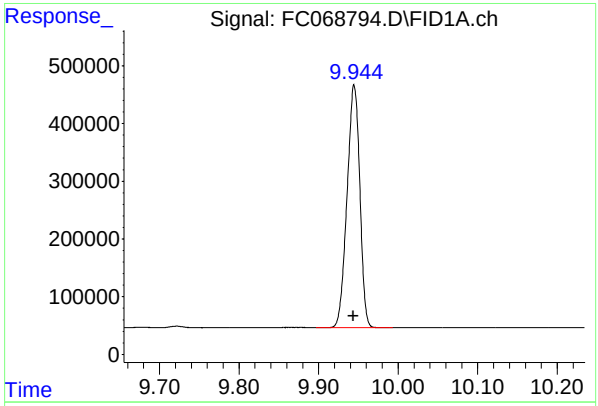
#4 n-Dodecane (C12)

R.T.: 6.543 min
Delta R.T.: 0.000 min
Response: 3691655
Conc: 37.99 ug/ml



#6 n-Tetradecane (C14)

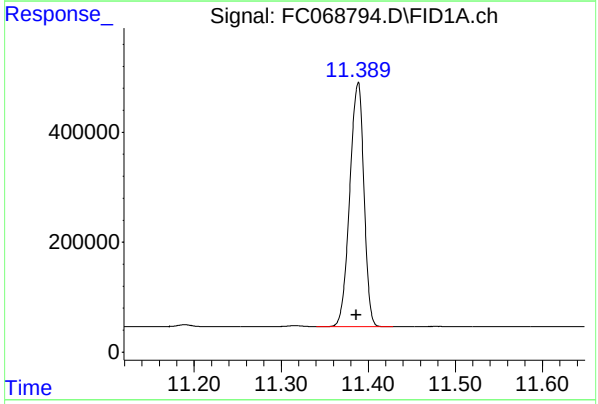
R.T.: 8.341 min
Delta R.T.: 0.000 min
Response: 4194991
Conc: 45.39 ug/ml



#7 n-Hexadecane (C16)

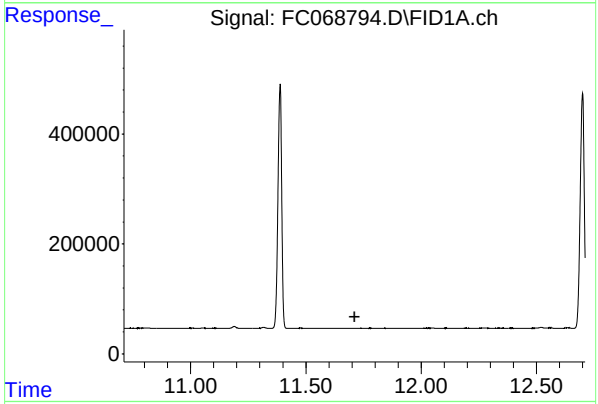
R.T.: 9.945 min
Delta R.T.: 0.001 min
Response: 4692854
Conc: 52.41 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BSD



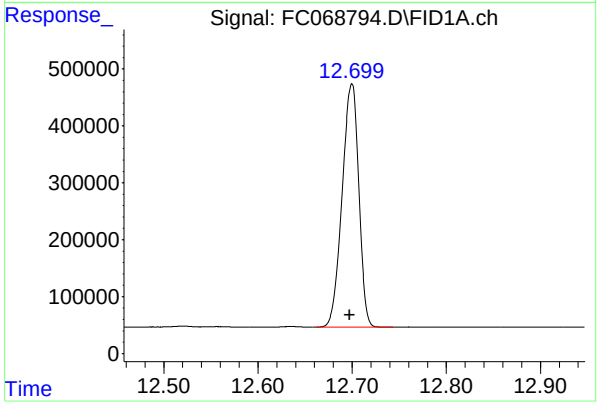
#8 n-Octadecane (C18)

R.T.: 11.388 min
Delta R.T.: 0.002 min
Response: 5017128
Conc: 57.20 ug/ml



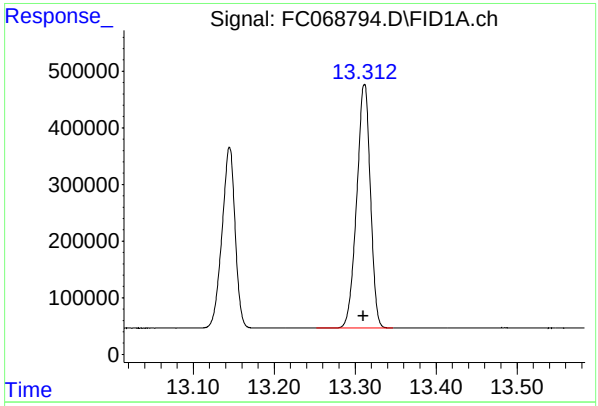
#9 ortho-Terphenyl (SURR)

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



#10 n-Eicosane (C20)

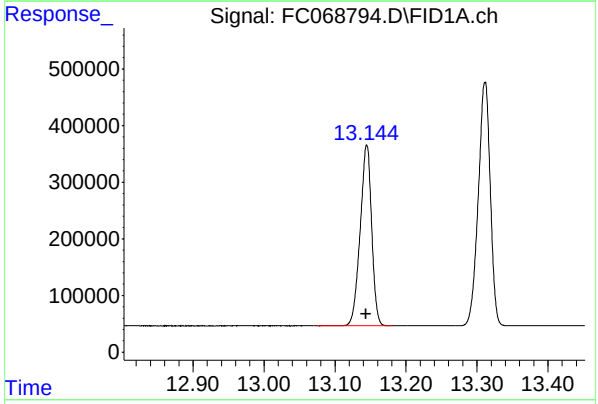
R.T.: 12.699 min
Delta R.T.: 0.002 min
Response: 5259189
Conc: 61.71 ug/ml



#11 n-Heneicosane (C21)

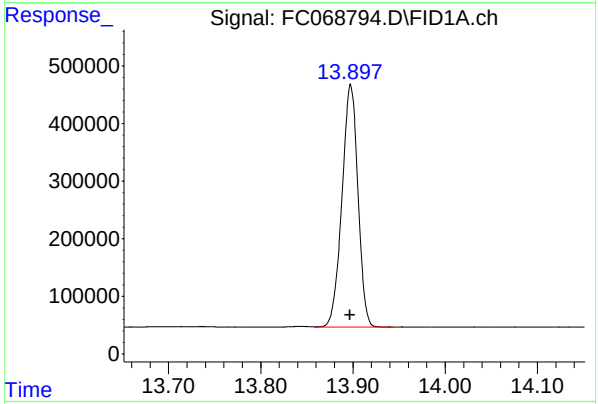
R.T.: 13.311 min
Delta R.T.: 0.001 min
Response: 5057612
Conc: 59.96 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BSD



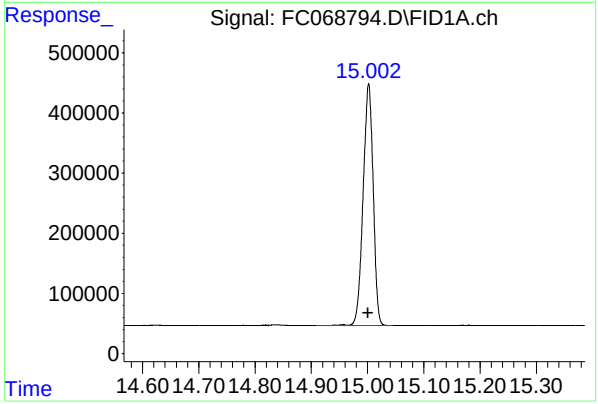
#12 1-chlorooctadecane (SURR)

R.T.: 13.145 min
Delta R.T.: 0.000 min
Response: 3590079
Conc: 44.75 ug/ml



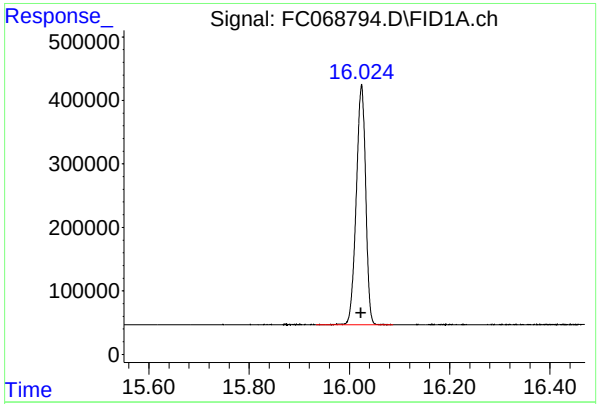
#13 n-Docosane (C22)

R.T.: 13.898 min
Delta R.T.: 0.000 min
Response: 5061922
Conc: 60.51 ug/ml



#14 n-Tetracosane (C24)

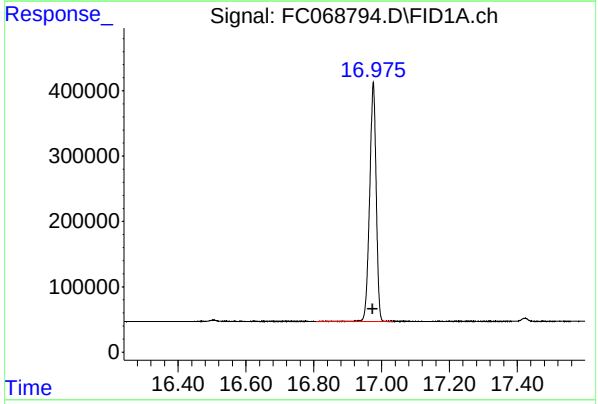
R.T.: 15.002 min
Delta R.T.: 0.001 min
Response: 4996084
Conc: 60.04 ug/ml



#15 n-Hexacosane (C26)

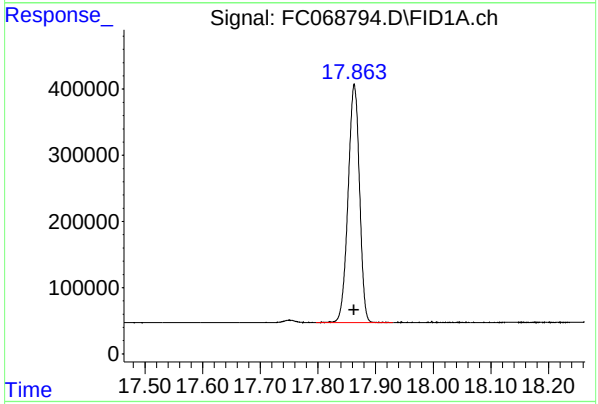
R.T.: 16.024 min
Delta R.T.: 0.000 min
Response: 4919234
Conc: 59.37 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BSD



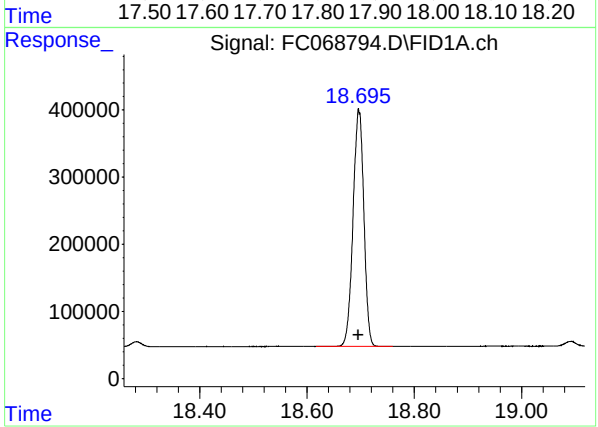
#16 n-Octacosane (C28)

R.T.: 16.976 min
Delta R.T.: 0.001 min
Response: 4878813
Conc: 59.03 ug/ml



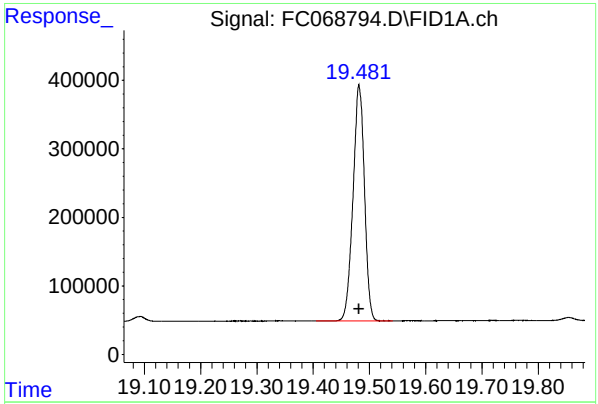
#17 n-Tricontane (C30)

R.T.: 17.863 min
Delta R.T.: 0.000 min
Response: 4961087
Conc: 58.63 ug/ml



#18 n-Dotriacontane (C32)

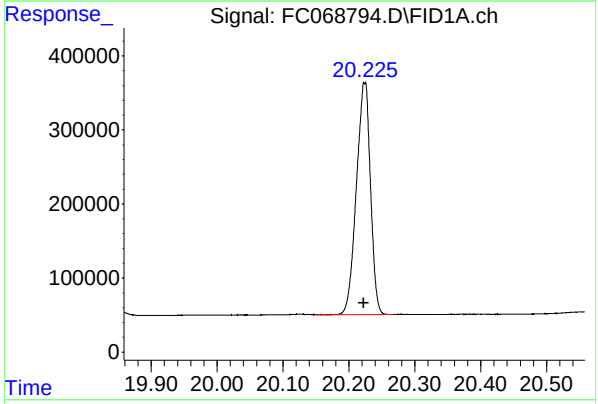
R.T.: 18.697 min
Delta R.T.: 0.001 min
Response: 4939966
Conc: 57.35 ug/ml



#19 n-Tetratriacontane (C34)

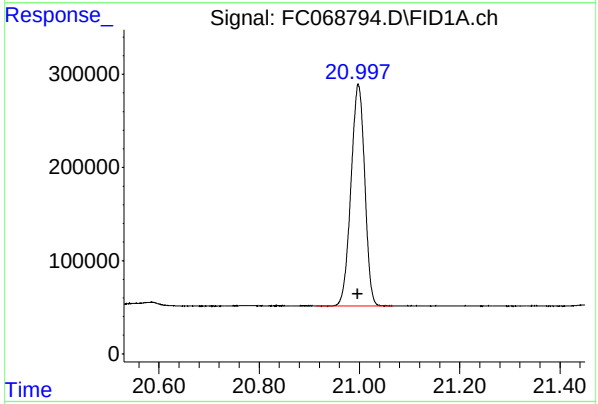
R.T.: 19.482 min
Delta R.T.: 0.000 min
Response: 4864425
Conc: 57.09 ug/ml

Instrument :
FID_C
ClientSampleId :
PB167903BSD



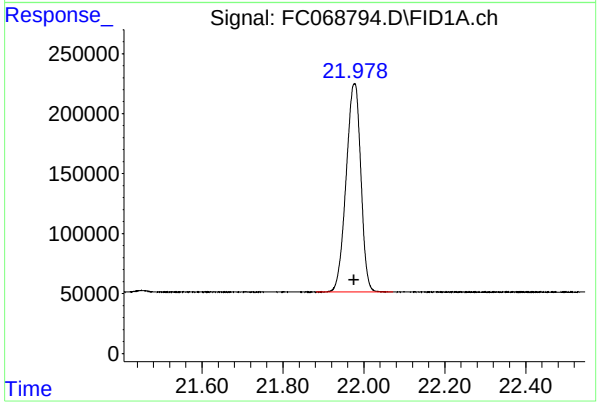
#20 n-Hexatriacontane (C36)

R.T.: 20.224 min
Delta R.T.: 0.001 min
Response: 4652516
Conc: 54.13 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.998 min
Delta R.T.: 0.002 min
Response: 4530376
Conc: 54.01 ug/ml



#22 n-Tetracontane (C40)

R.T.: 21.977 min
Delta R.T.: 0.001 min
Response: 4388059
Conc: 53.54 ug/ml

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:	Alliance Technical Group, LLC - Newark		Date Collected:		
Project:	NJ Soil PT		Date Received:		
Client Sample ID:	PB167903BSD		SDG No.:	Q1872	
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	13.096	18.515	57846531	492.924	800	ug/ml
Aromatic EPH	4.431	18.515	126313628	1010		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
ortho-Terphenyl (SURR)	11.653	11.653	7520284	54.49		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.

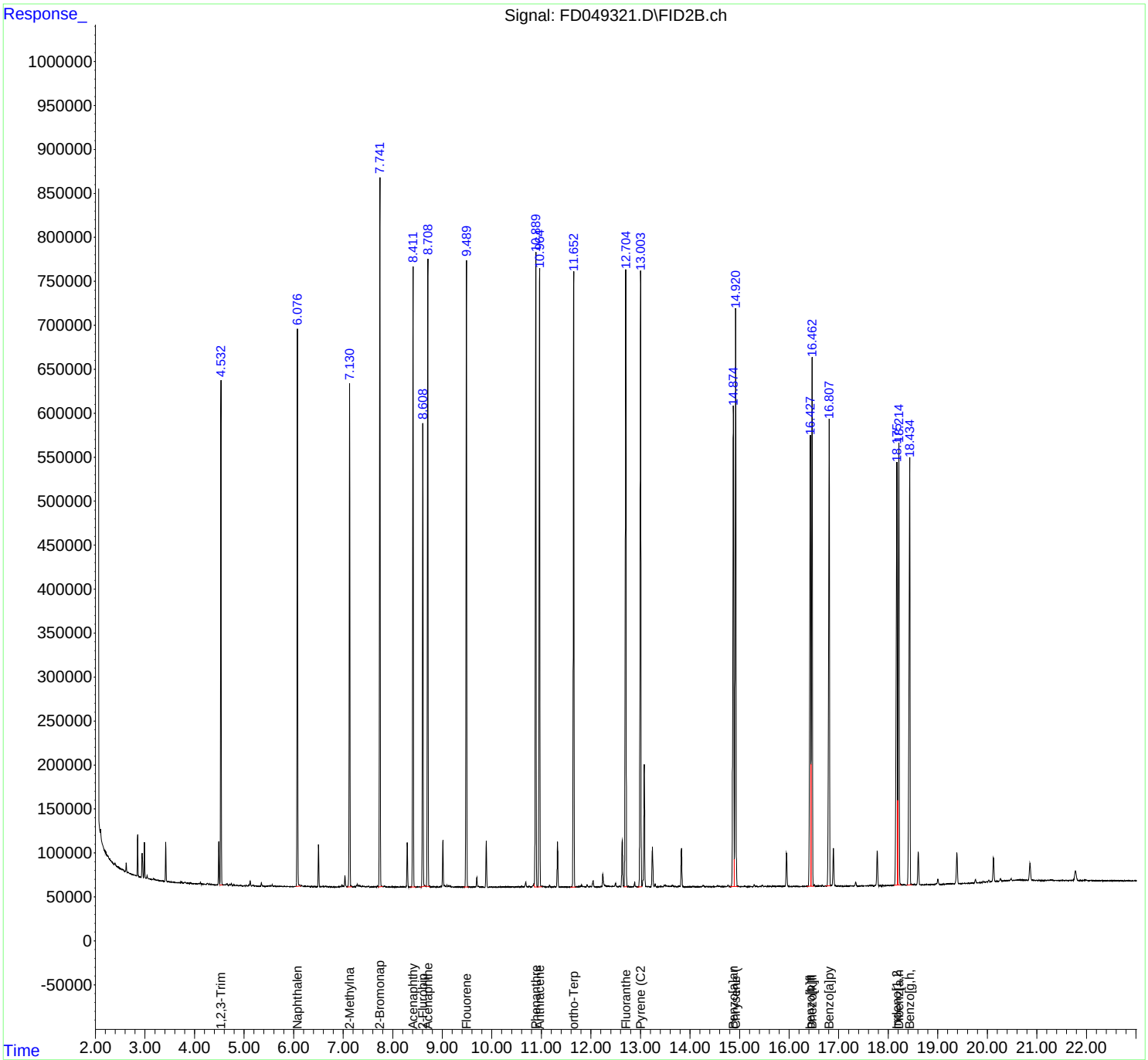
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049321.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 13:38
Operator : YP/AJ
Sample : PB167903BSD
Misc :
ALS Vial : 63 Sample Multiplier: 1

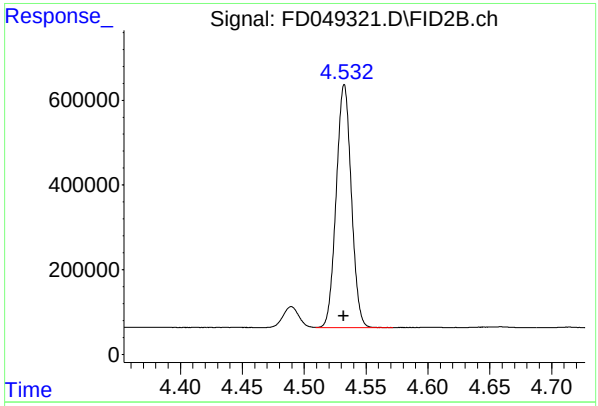
Integration File: autoint1.e
Quant Time: May 09 10:00:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_D\methods\Aromatic EPH 050125.M
Quant Title : GC Extractables
QLast Update : Thu May 01 13:29:48 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Instrument :
FID_D
ClientSampleId :
PB167903BSD

Manual Integrations APPROVED
Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025





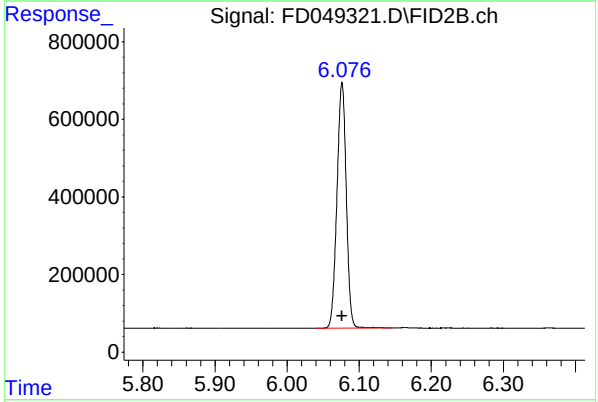
#1 1,2,3-Trimethylbenzene (C10.1)

R.T.: 4.532 min
Delta R.T.: 0.000 min
Response: 4868583
Conc: 38.99 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BSD

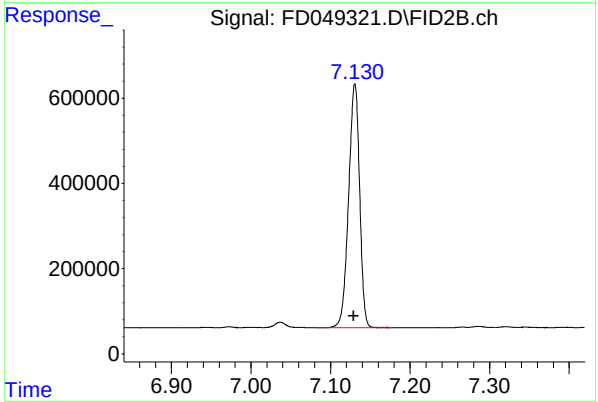
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



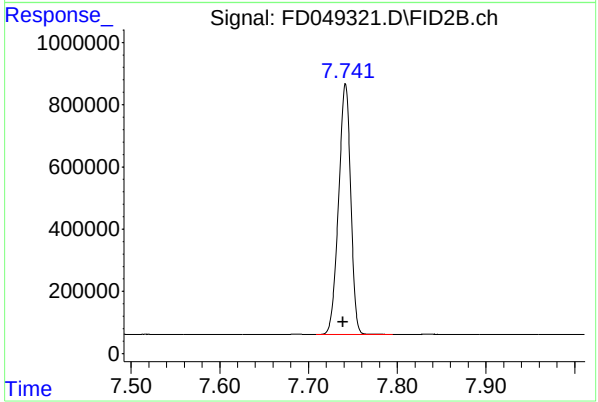
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 5684283
Conc: 43.00 ug/ml



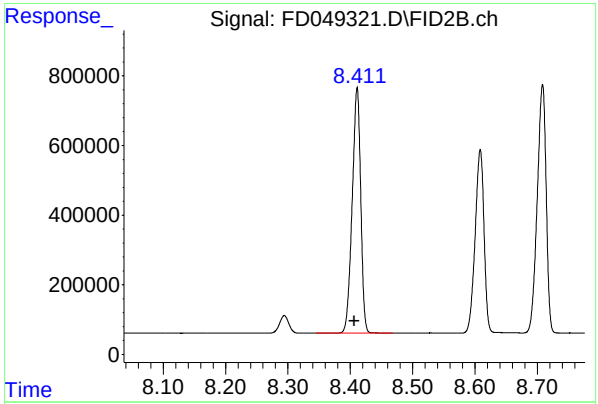
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.131 min
Delta R.T.: 0.002 min
Response: 5511990
Conc: 42.73 ug/ml



#4 2-Bromonaphthalene (SURR)

R.T.: 7.742 min
Delta R.T.: 0.003 min
Response: 7630584
Conc: 64.36 ug/ml



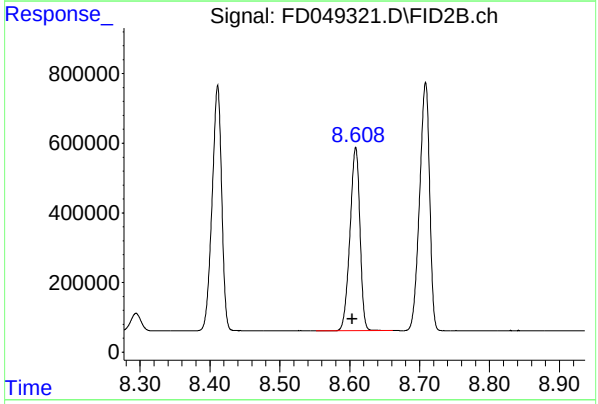
#5 Acenaphthylene (C15.06)

R.T.: 8.411 min
Delta R.T.: 0.004 min
Response: 6708573
Conc: 47.52 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BSD

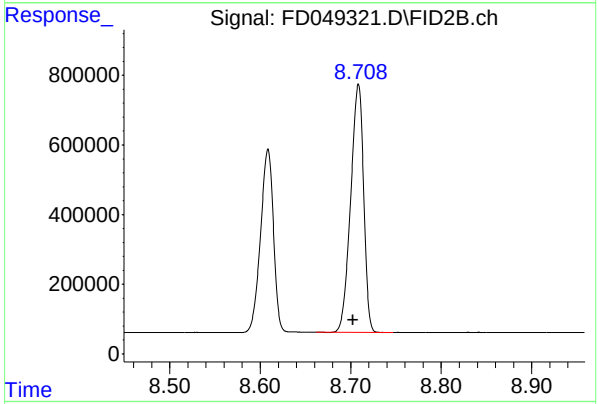
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



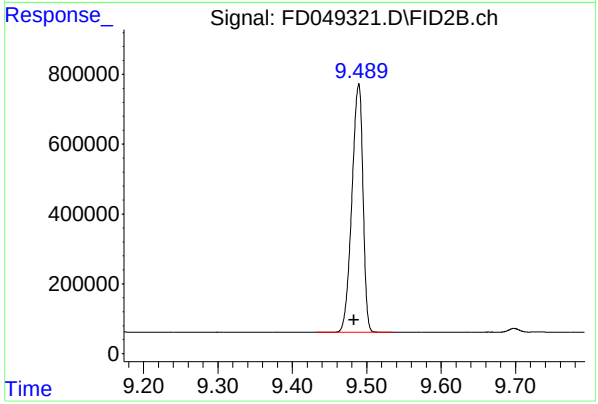
#6 2-Flurobiphenyl (SURR)

R.T.: 8.609 min
Delta R.T.: 0.005 min
Response: 5211926
Conc: 66.00 ug/ml



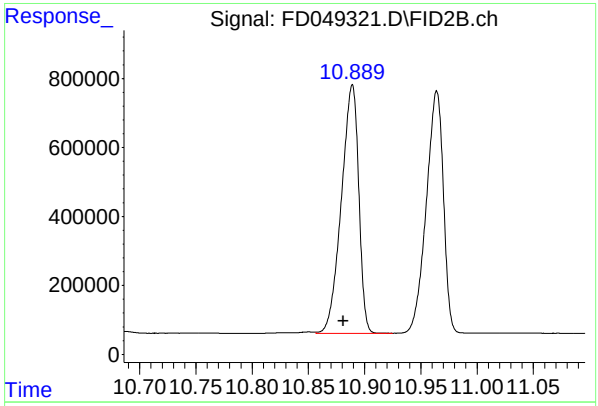
#7 Acenaphthene (C15.5)

R.T.: 8.709 min
Delta R.T.: 0.006 min
Response: 7095143
Conc: 51.78 ug/ml



#8 Flouorene (C16.55)

R.T.: 9.489 min
Delta R.T.: 0.007 min
Response: 7350269
Conc: 54.00 ug/ml



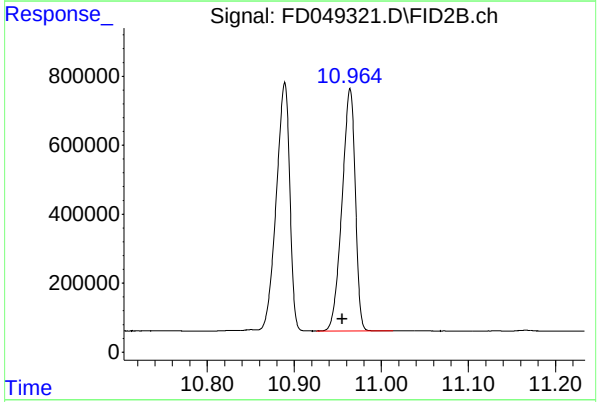
#9 Phenanthrene (C19.36)

R.T.: 10.889 min
Delta R.T.: 0.008 min
Response: 7743726
Conc: 57.44 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BSD

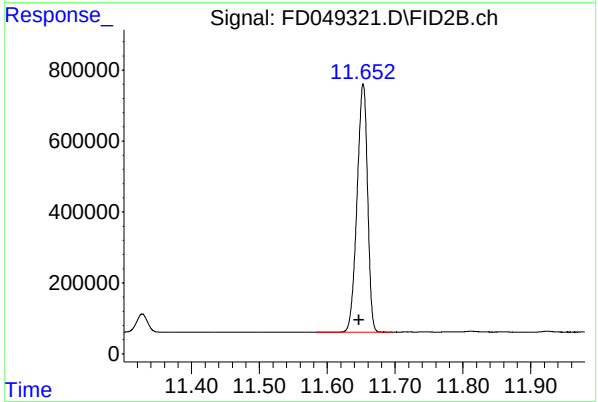
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



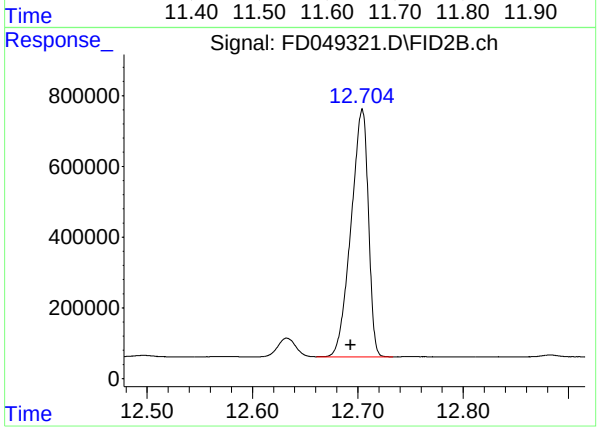
#10 Anthracene (C19.43)

R.T.: 10.964 min
Delta R.T.: 0.009 min
Response: 7447842
Conc: 62.97 ug/ml



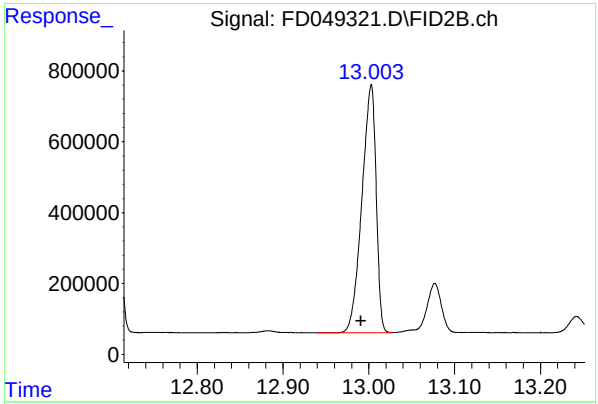
#11 ortho-Terphenyl (SURR)

R.T.: 11.653 min
Delta R.T.: 0.006 min
Response: 7520284
Conc: 54.49 ug/ml



#12 Fluoranthene (C21.85)

R.T.: 12.704 min
Delta R.T.: 0.011 min
Response: 7999797
Conc: 59.36 ug/ml



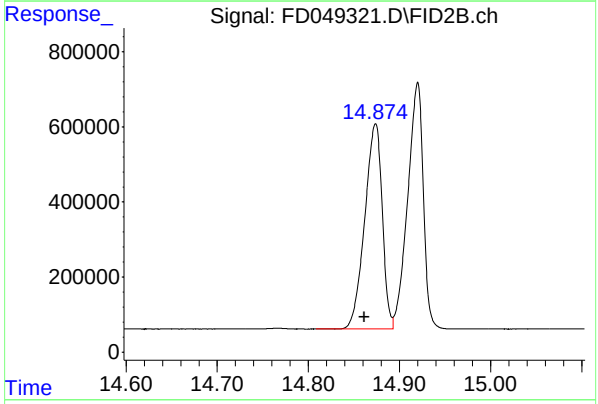
#13 Pyrene (C20.8)

R.T.: 13.003 min
Delta R.T.: 0.012 min
Response: 8056891
Conc: 59.56 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BSD

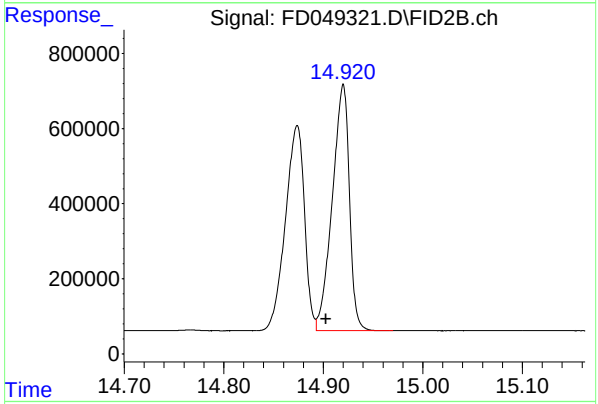
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



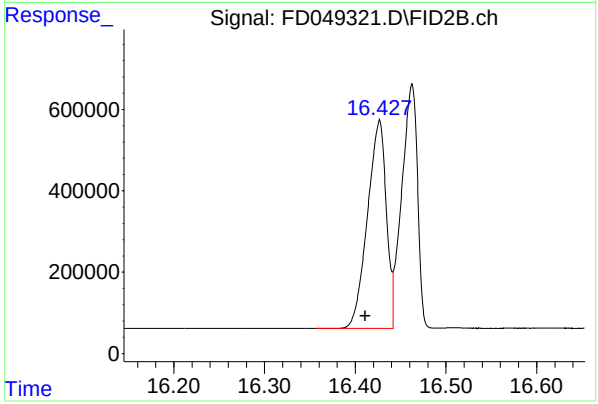
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.874 min
Delta R.T.: 0.012 min
Response: 7291465
Conc: 63.66 ug/ml



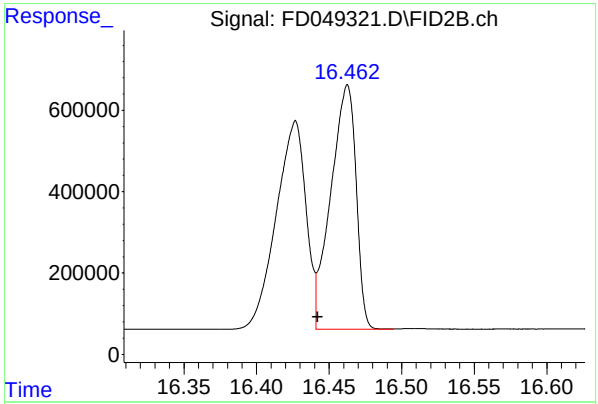
#15 Chrysene (C27.41)

R.T.: 14.920 min
Delta R.T.: 0.017 min
Response: 7835154
Conc: 67.13 ug/ml



#16 benzo[b]fluoranthene (C30.41)

R.T.: 16.427 min
Delta R.T.: 0.016 min
Response: 7351712
Conc: 60.56 ug/ml



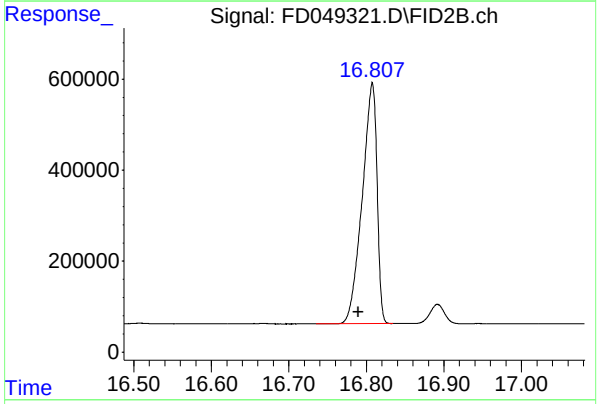
#17 Bnezo[k]fluoranthene (C30.14)

R.T.: 16.462 min
Delta R.T.: 0.020 min
Response: 7266682
Conc: 60.93 ug/ml

Instrument :
FID_D
ClientSampleId :
PB167903BSD

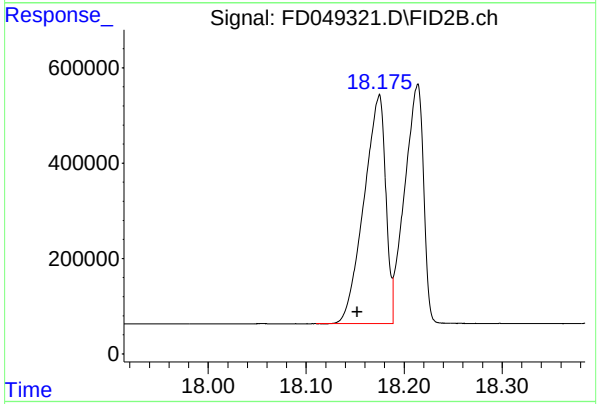
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025



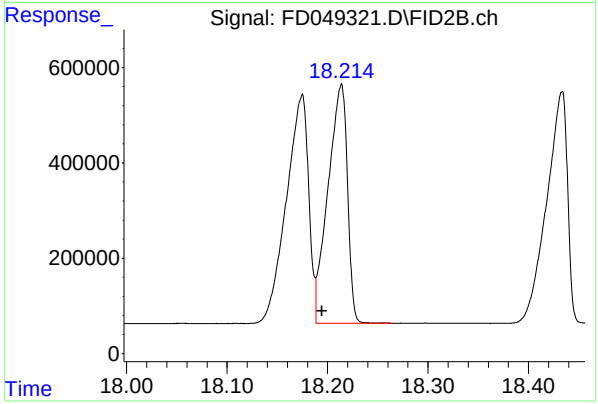
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.808 min
Delta R.T.: 0.018 min
Response: 7006479
Conc: 60.93 ug/ml



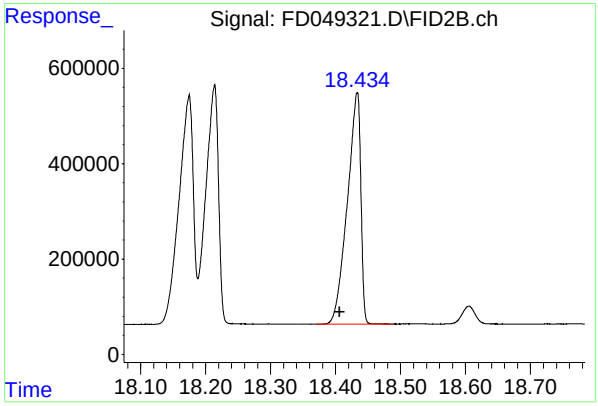
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.175 min
Delta R.T.: 0.022 min
Response: 7393154
Conc: 67.37 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.214 min
Delta R.T.: 0.019 min
Response: 6726835
Conc: 63.69 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.433 min
Delta R.T.: 0.027 mi
Response: 6994367
Conc: 58.69 ug/m

Instrument :
FID_D
ClientSampleId :
PB167903BSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/09/2025
Supervised By :mohammad ahmed 05/12/2025

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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	B-167-SB02MS	SDG No.:	Q1872
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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	B-167-SB02MS	SDG No.:	Q1872
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 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-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 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.

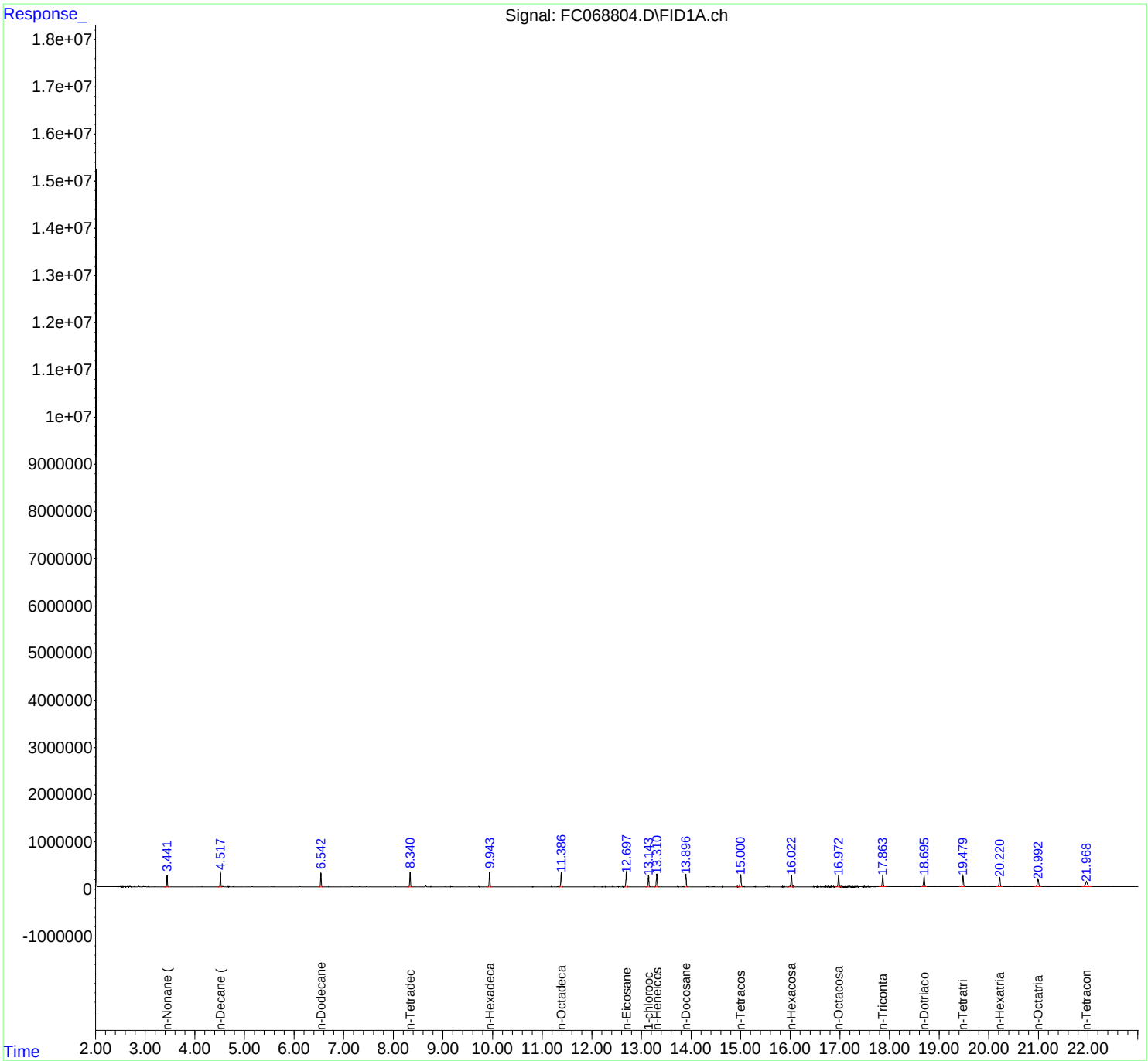
Quantitation Report (QT Reviewed)

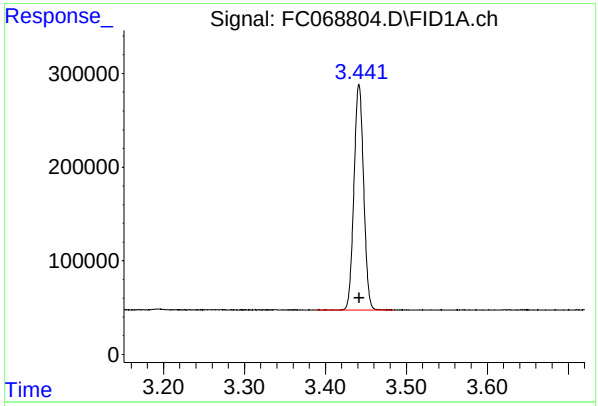
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068804.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 21:04
Operator : YP/AJ
Sample : Q1901-04MS
Misc :
ALS Vial : 21 Sample Multiplier: 1

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

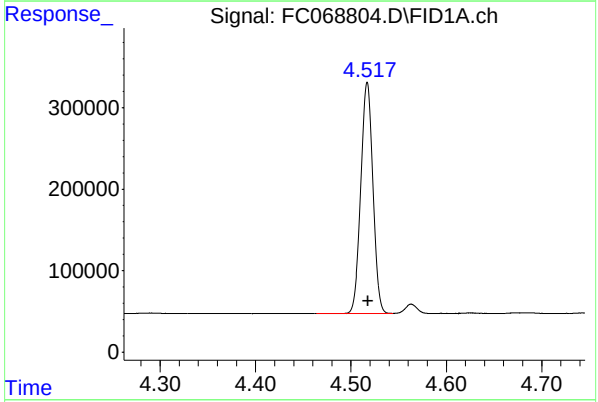




#1 n-Nonane (C9)

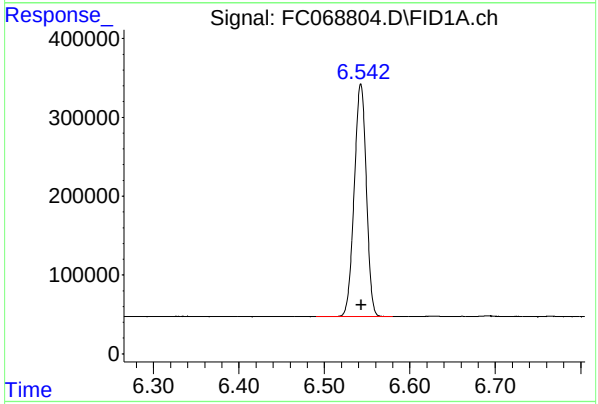
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 1999885
Conc: 19.88 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MS



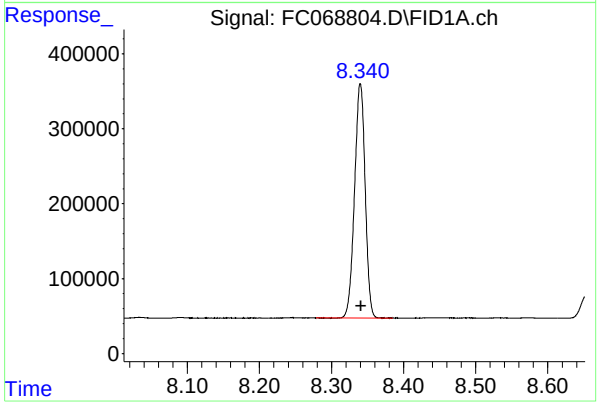
#2 n-Decane (C10)

R.T.: 4.517 min
Delta R.T.: 0.000 min
Response: 2502691
Conc: 25.12 ug/ml



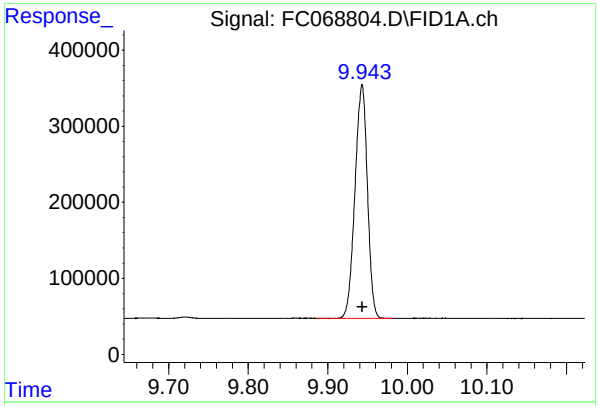
#4 n-Dodecane (C12)

R.T.: 6.543 min
Delta R.T.: 0.000 min
Response: 2907225
Conc: 29.92 ug/ml



#6 n-Tetradecane (C14)

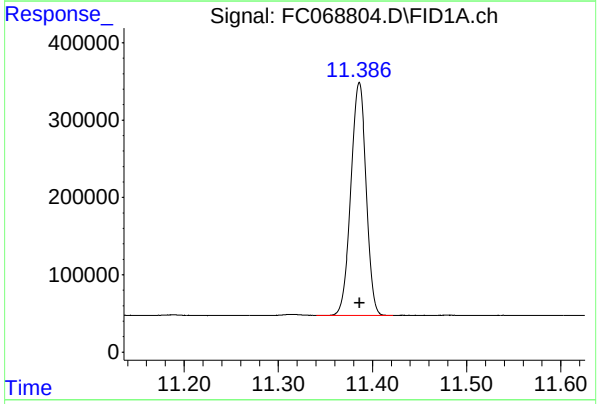
R.T.: 8.340 min
Delta R.T.: 0.000 min
Response: 3201915
Conc: 34.64 ug/ml



#7 n-Hexadecane (C16)

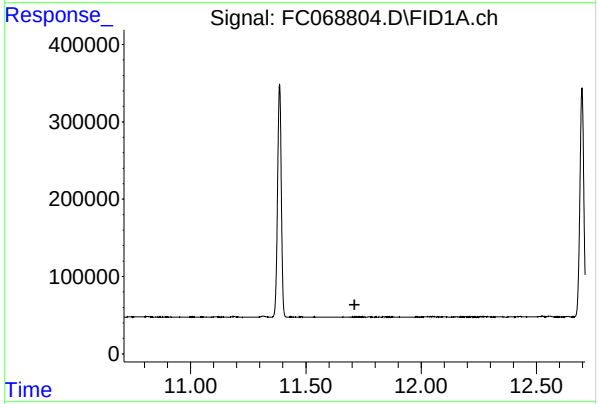
R.T.: 9.943 min
Delta R.T.: 0.000 min
Response: 3341592
Conc: 37.32 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MS



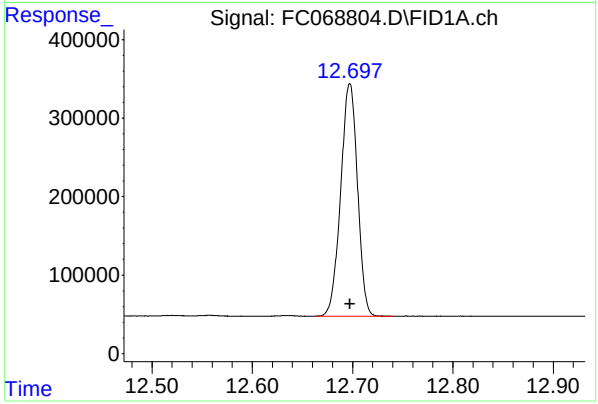
#8 n-Octadecane (C18)

R.T.: 11.386 min
Delta R.T.: 0.000 min
Response: 3386639
Conc: 38.61 ug/ml



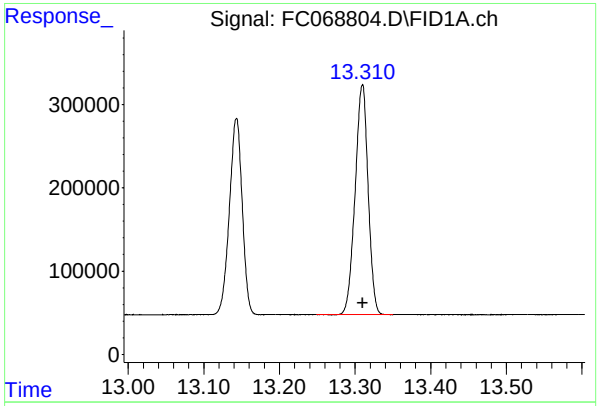
#9 ortho-Terphenyl (SURR)

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



#10 n-Eicosane (C20)

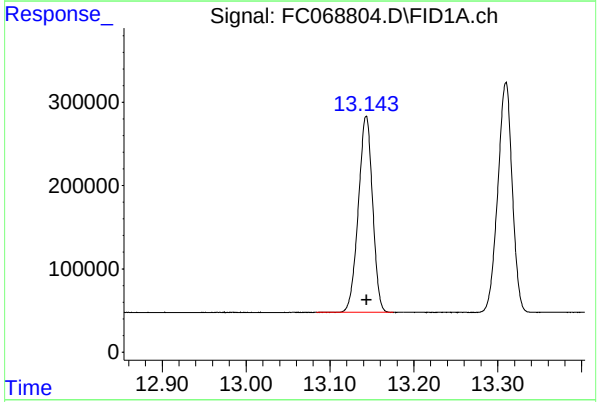
R.T.: 12.697 min
Delta R.T.: 0.000 min
Response: 3458165
Conc: 40.58 ug/ml



#11 n-Heneicosane (C21)

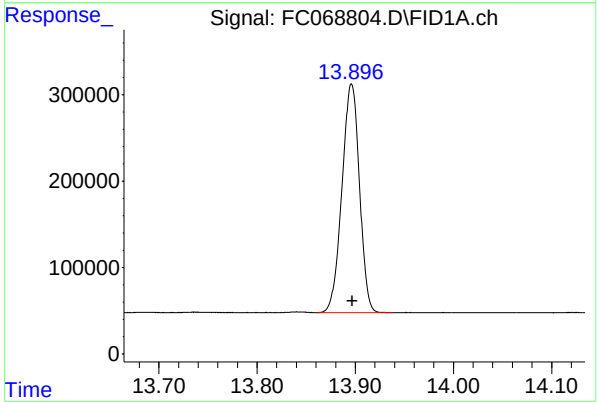
R.T.: 13.310 min
Delta R.T.: 0.000 min
Response: 3300762
Conc: 39.13 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MS



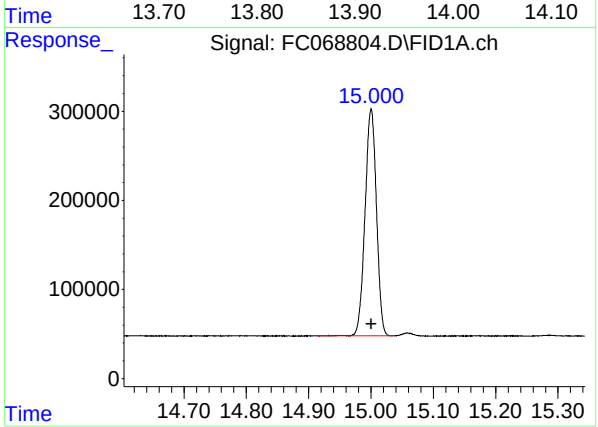
#12 1-chlorooctadecane (SURR)

R.T.: 13.143 min
Delta R.T.: 0.000 min
Response: 2776379
Conc: 34.61 ug/ml



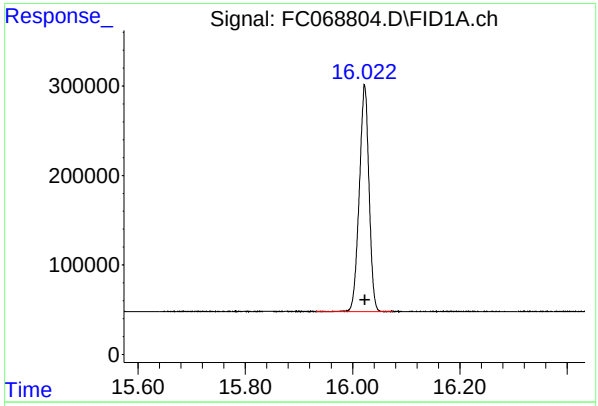
#13 n-Docosane (C22)

R.T.: 13.896 min
Delta R.T.: 0.000 min
Response: 3287092
Conc: 39.29 ug/ml



#14 n-Tetracosane (C24)

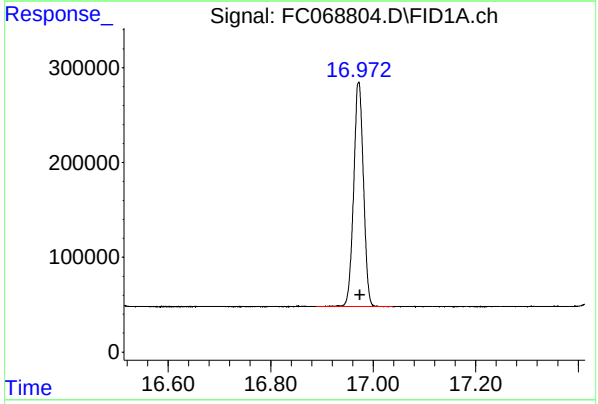
R.T.: 15.000 min
Delta R.T.: 0.000 min
Response: 3238083
Conc: 38.92 ug/ml



#15 n-Hexacosane (C26)

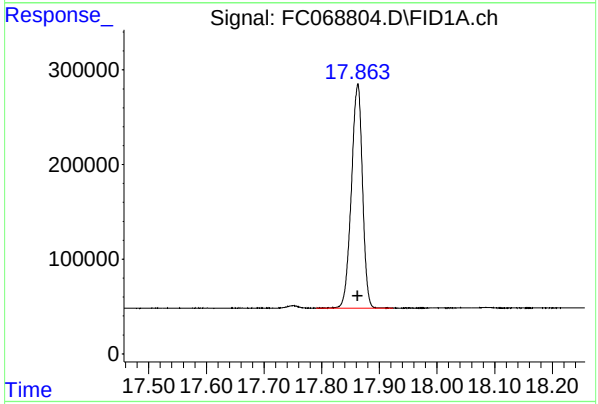
R.T.: 16.022 min
Delta R.T.: 0.000 min
Response: 3181156
Conc: 38.39 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MS



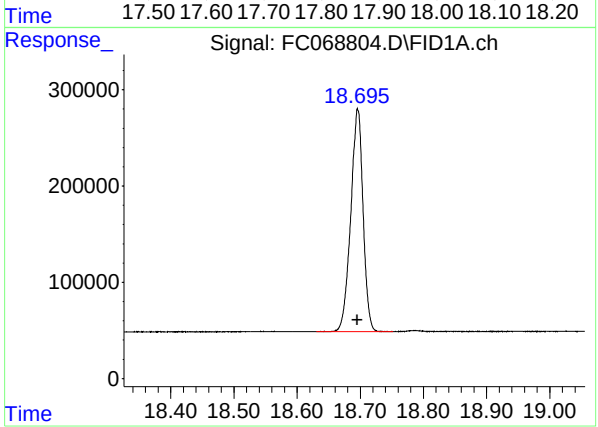
#16 n-Octacosane (C28)

R.T.: 16.972 min
Delta R.T.: -0.002 min
Response: 3138886
Conc: 37.98 ug/ml



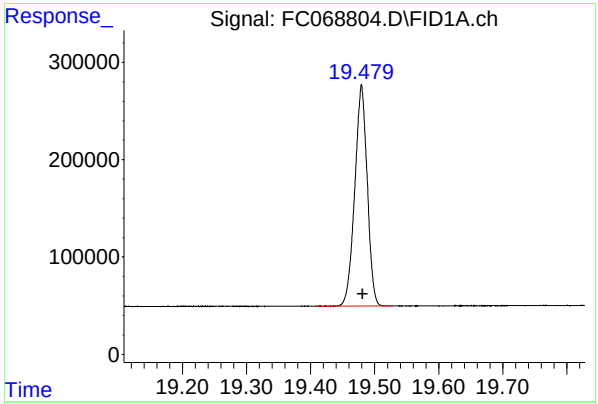
#17 n-Tricontane (C30)

R.T.: 17.862 min
Delta R.T.: 0.000 min
Response: 3171460
Conc: 37.48 ug/ml



#18 n-Dotriacontane (C32)

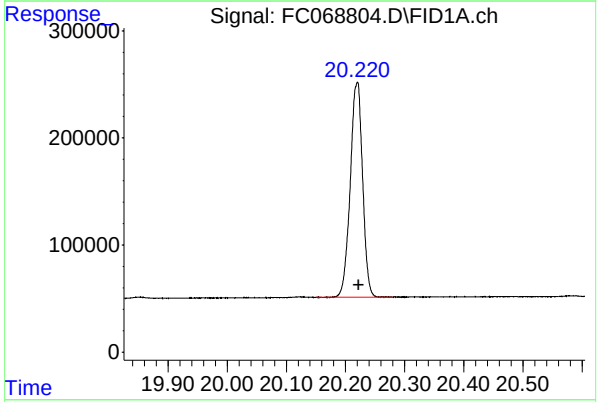
R.T.: 18.696 min
Delta R.T.: 0.000 min
Response: 3133769
Conc: 36.38 ug/ml



#19 n-Tetratriacontane (C34)

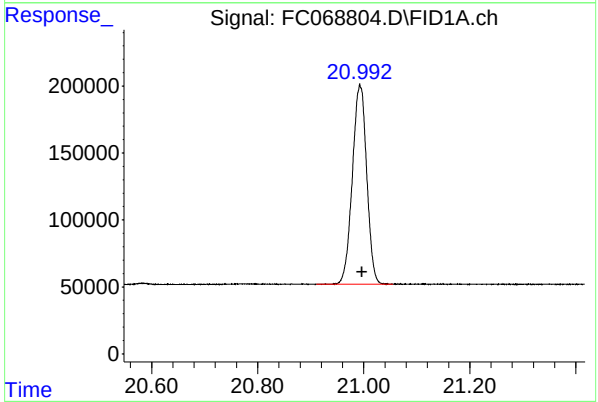
R.T.: 19.479 min
Delta R.T.: -0.002 min
Response: 3070454
Conc: 36.04 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MS



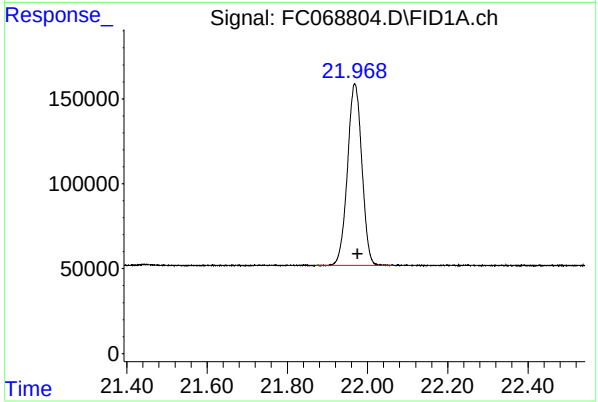
#20 n-Hexatriacontane (C36)

R.T.: 20.219 min
Delta R.T.: -0.003 min
Response: 2910154
Conc: 33.86 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.993 min
Delta R.T.: -0.003 min
Response: 2794773
Conc: 33.32 ug/ml



#22 n-Tetracontane (C40)

R.T.: 21.968 min
Delta R.T.: -0.007 min
Response: 2662824
Conc: 32.49 ug/ml

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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	B-167-SB02MS	SDG No.:	Q1872
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	13.096	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.

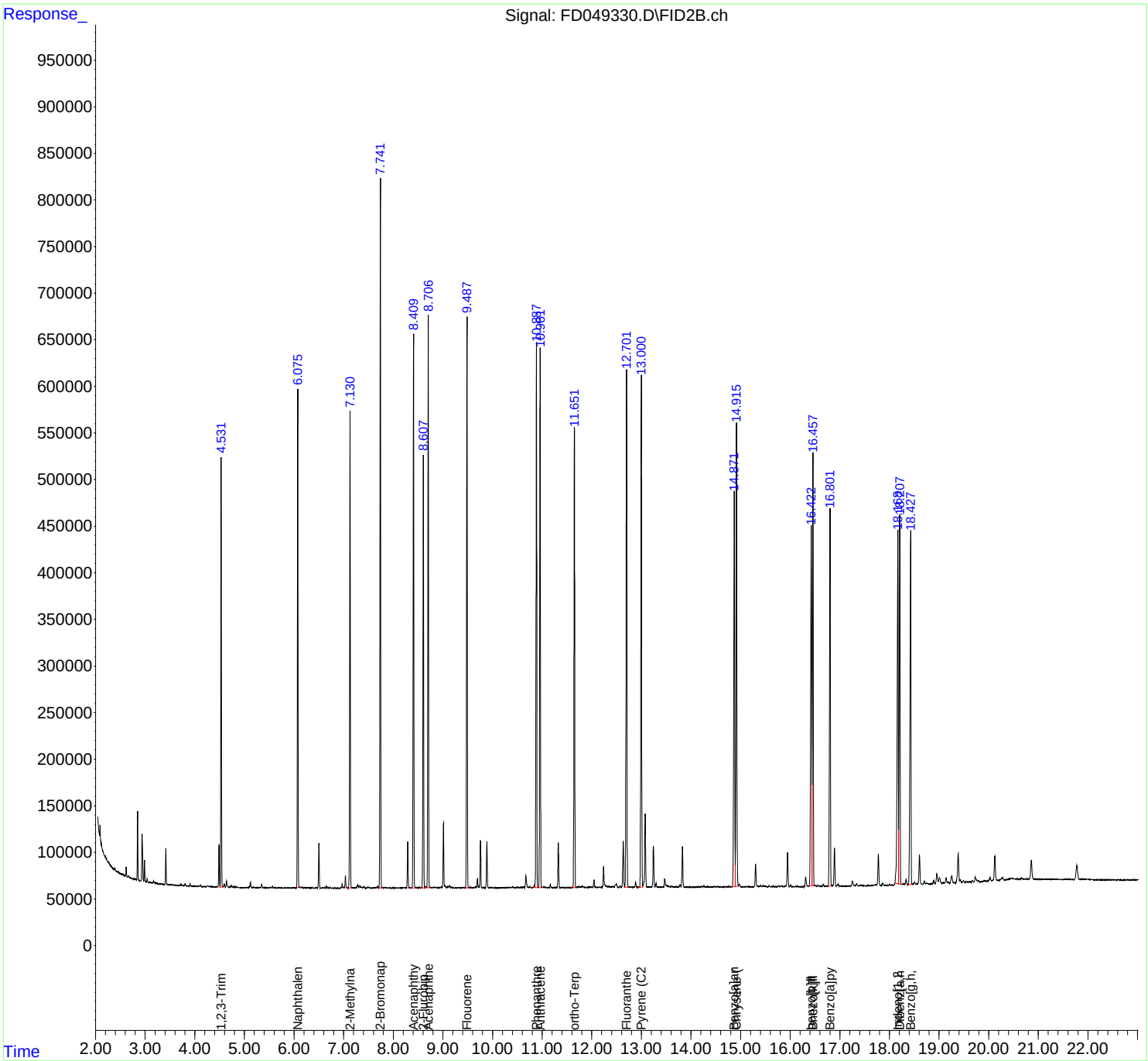
Quantitation Report (QT Reviewed)

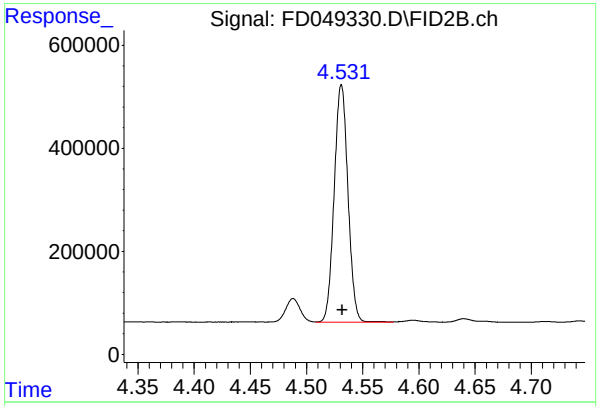
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049330.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 20:25
Operator : YP/AJ
Sample : Q1901-04MS
Misc :
ALS Vial : 70 Sample Multiplier: 1

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

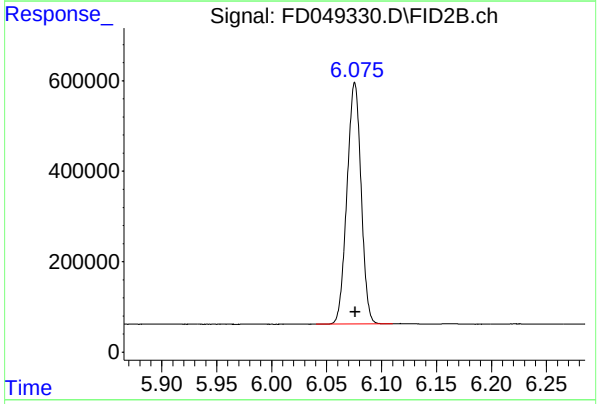




#1 1,2,3-Trimethylbenzene (C10.1)

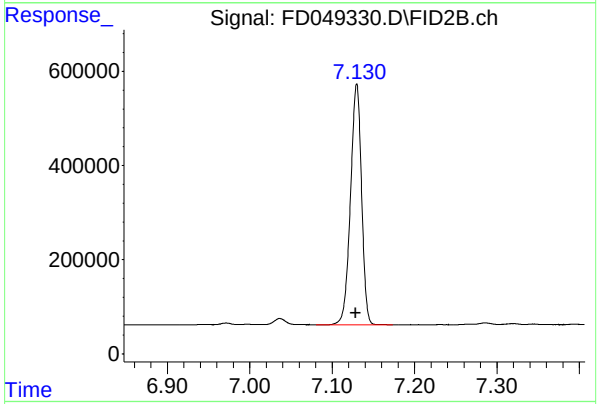
R.T.: 4.531 min
Delta R.T.: 0.000 min
Response: 3923162
Conc: 31.42 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MS



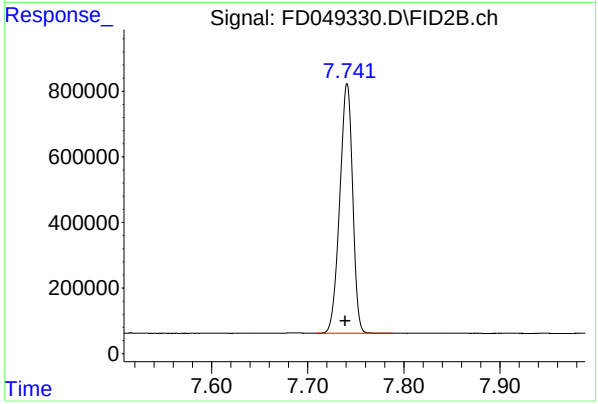
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 4775935
Conc: 36.13 ug/ml



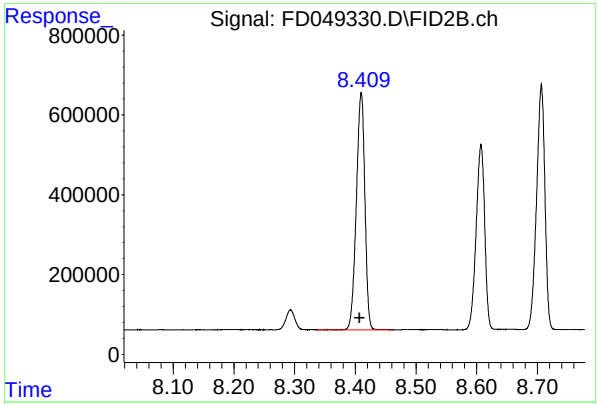
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.130 min
Delta R.T.: 0.001 min
Response: 4775309
Conc: 37.02 ug/ml



#4 2-Bromonaphthalene (SURR)

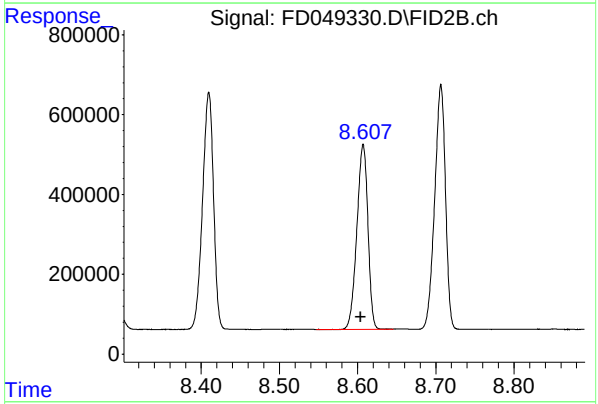
R.T.: 7.741 min
Delta R.T.: 0.002 min
Response: 7098283
Conc: 59.87 ug/ml



#5 Acenaphthylene (C15.06)

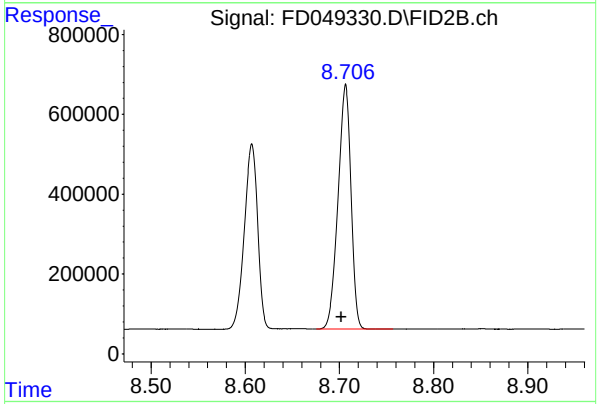
R.T.: 8.410 min
Delta R.T.: 0.003 min
Response: 5798065
Conc: 41.07 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MS



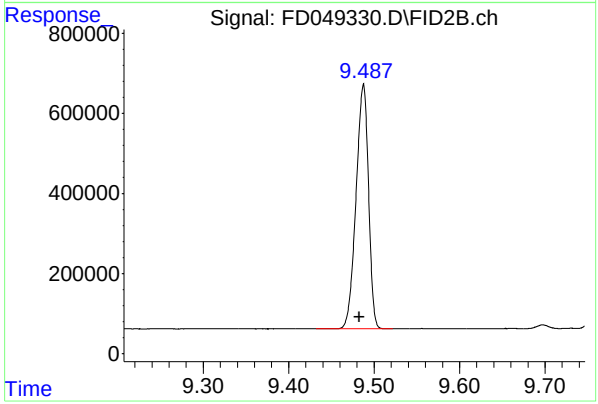
#6 2-Flurobiphenyl (SURR)

R.T.: 8.607 min
Delta R.T.: 0.003 min
Response: 4554552
Conc: 57.67 ug/ml



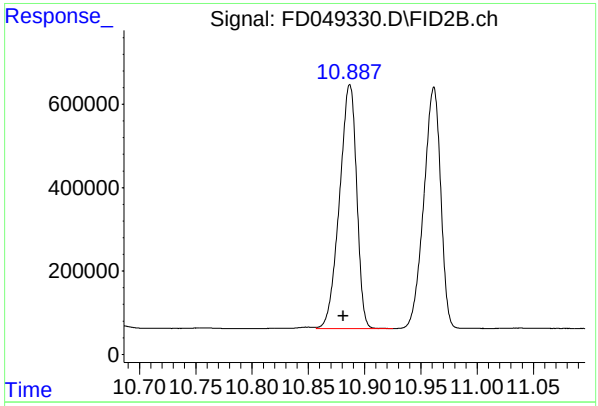
#7 Acenaphthene (C15.5)

R.T.: 8.707 min
Delta R.T.: 0.004 min
Response: 5874209
Conc: 42.87 ug/ml



#8 Flouorene (C16.55)

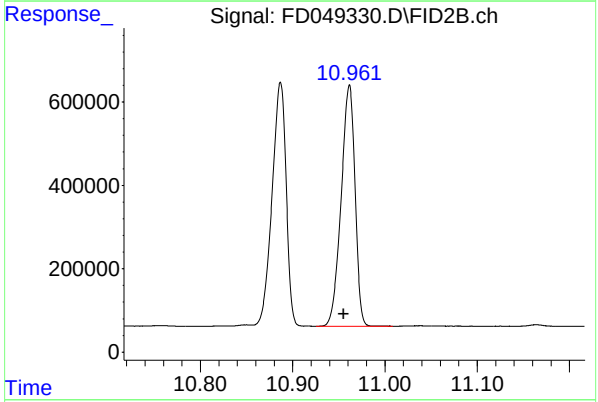
R.T.: 9.488 min
Delta R.T.: 0.005 min
Response: 6193540
Conc: 45.50 ug/ml



#9 Phenanthrene (C19.36)

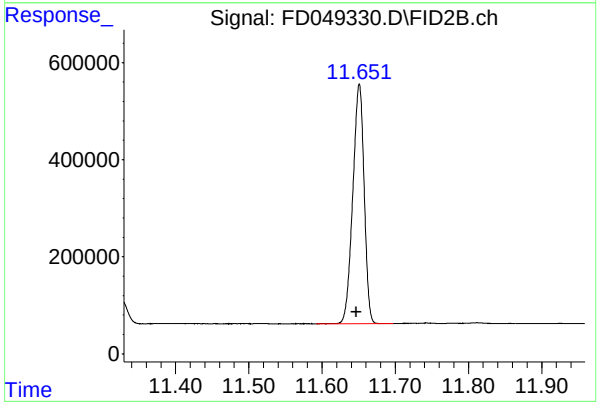
R.T.: 10.887 min
Delta R.T.: 0.006 min
Response: 6216675
Conc: 46.11 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MS



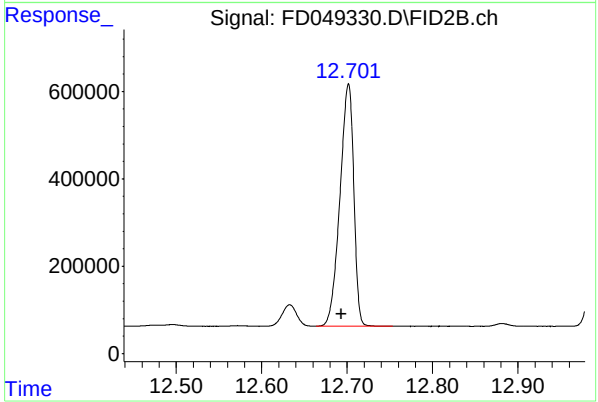
#10 Anthracene (C19.43)

R.T.: 10.961 min
Delta R.T.: 0.006 min
Response: 6051842
Conc: 51.17 ug/ml



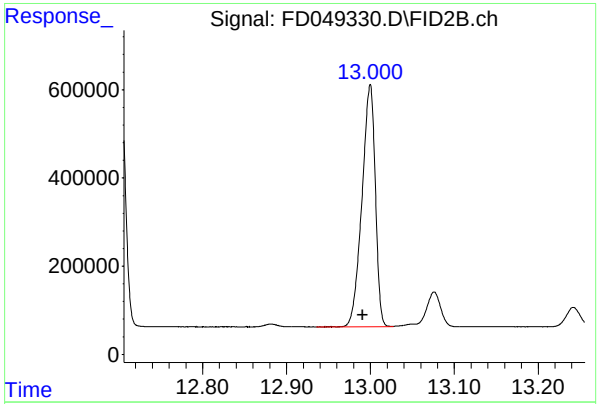
#11 ortho-Terphenyl (SURR)

R.T.: 11.651 min
Delta R.T.: 0.004 min
Response: 5318512
Conc: 38.53 ug/ml



#12 Fluoranthene (C21.85)

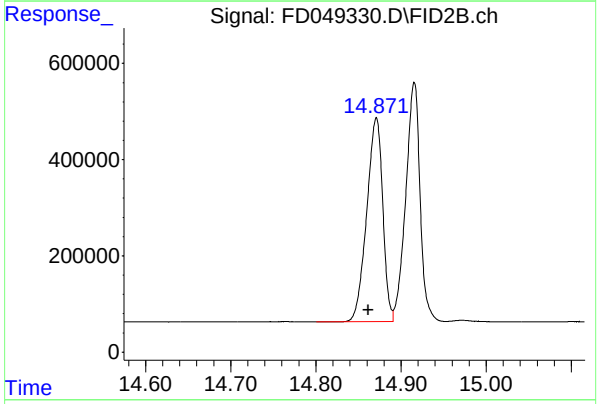
R.T.: 12.702 min
Delta R.T.: 0.008 min
Response: 6246701
Conc: 46.35 ug/ml



#13 Pyrene (C20.8)

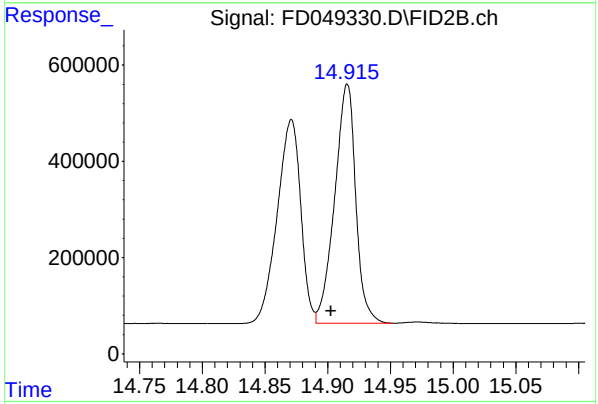
R.T.: 13.000 min
Delta R.T.: 0.009 min
Response: 6082375
Conc: 44.96 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MS



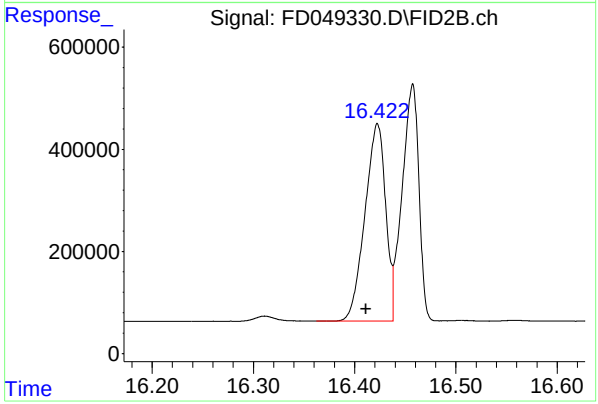
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.871 min
Delta R.T.: 0.010 min
Response: 5537474
Conc: 48.34 ug/ml



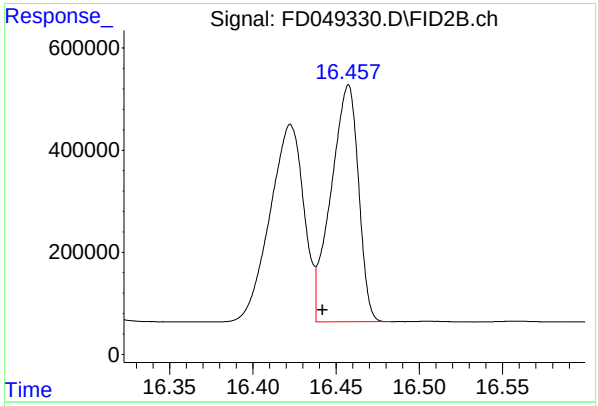
#15 Chrysene (C27.41)

R.T.: 14.916 min
Delta R.T.: 0.013 min
Response: 5818279
Conc: 49.85 ug/ml



#16 benzo[b]fluoranthene (C30.41)

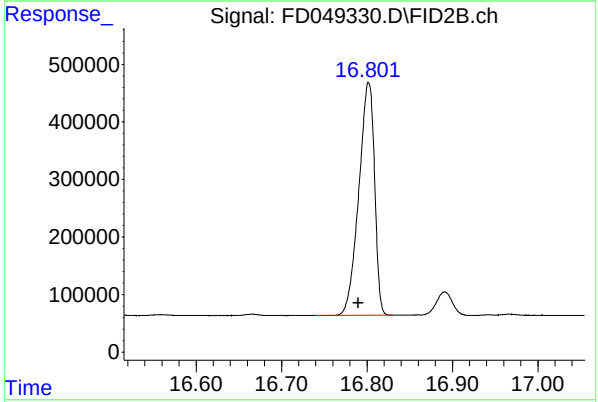
R.T.: 16.423 min
Delta R.T.: 0.011 min
Response: 5484249
Conc: 45.18 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

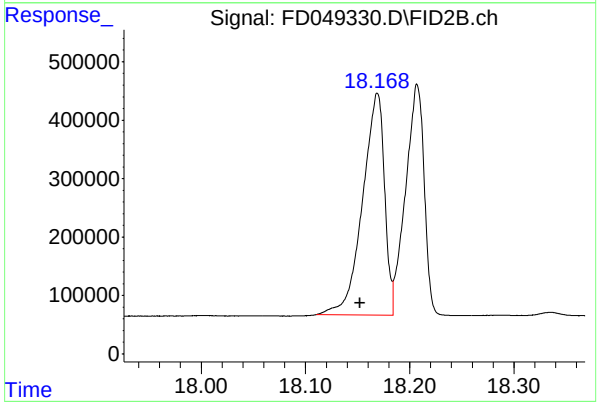
R.T.: 16.457 min
Delta R.T.: 0.015 min
Response: 5331675
Conc: 44.70 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MS



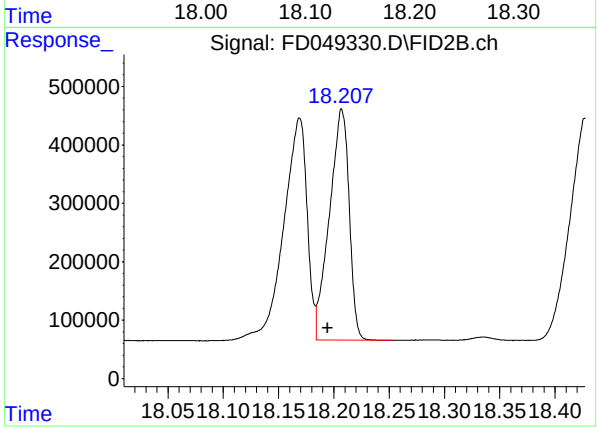
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.802 min
Delta R.T.: 0.012 min
Response: 5167669
Conc: 44.94 ug/ml



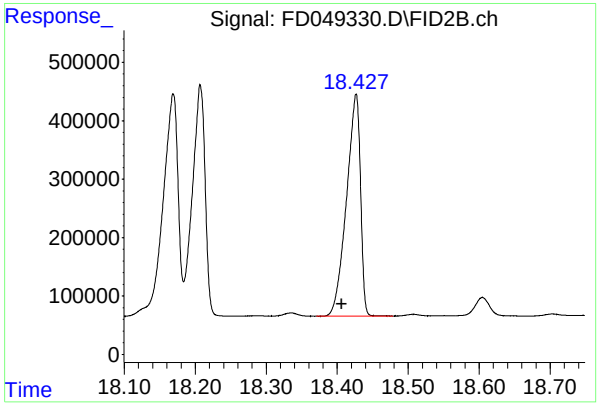
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.169 min
Delta R.T.: 0.017 min
Response: 5564063
Conc: 50.70 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.207 min
Delta R.T.: 0.013 min
Response: 4910368
Conc: 46.49 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.427 min
Delta R.T.: 0.020 mi
Response: 5200377
Conc: 43.64 ug/m

Instrument :
FID_D
ClientSampleId :
B-167-SB02MS

rteres

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%

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%

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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	B-167-SB02MSD	SDG No.:	Q1872
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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	B-167-SB02MSD	SDG No.:	Q1872
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 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-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 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.

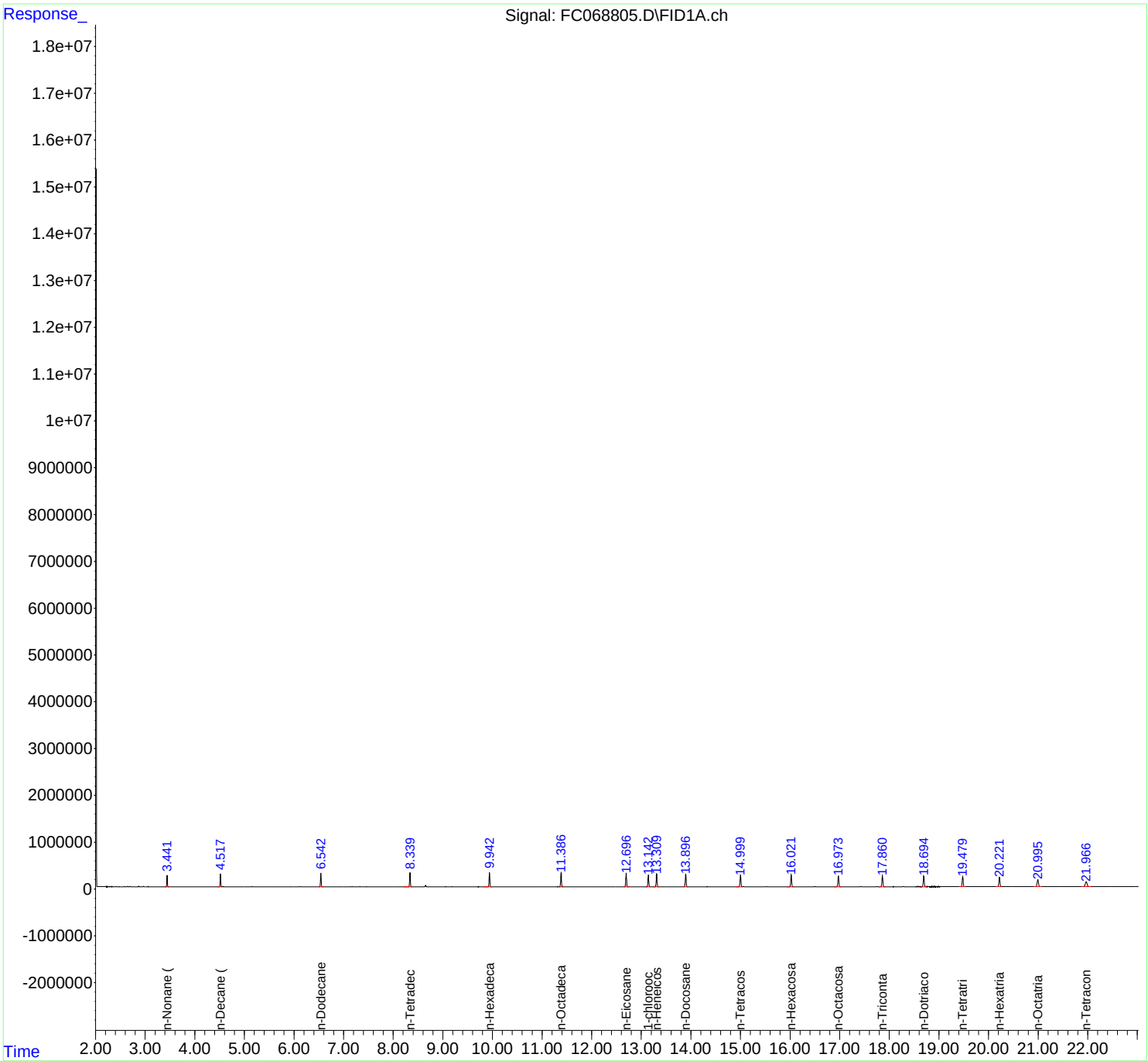
Quantitation Report (QT Reviewed)

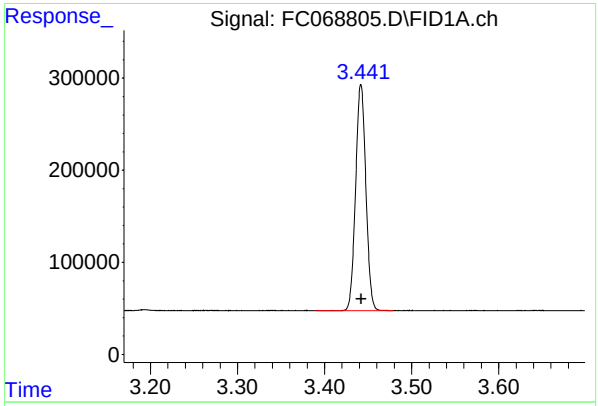
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_C\Data\FC050825AL\
Data File : FC068805.D
Signal(s) : FID1A.ch
Acq On : 08 May 2025 21:41
Operator : YP/AJ
Sample : Q1901-04MSD
Misc :
ALS Vial : 22 Sample Multiplier: 1

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

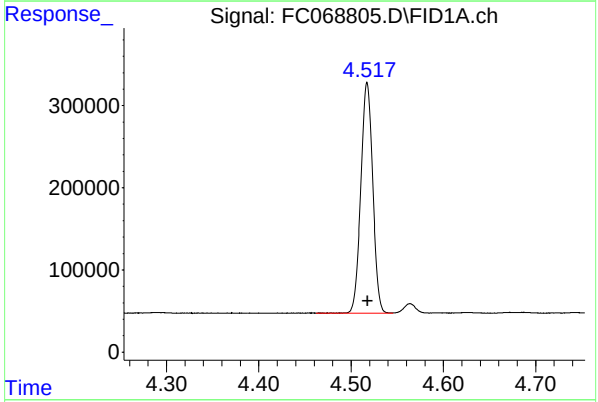




#1 n-Nonane (C9)

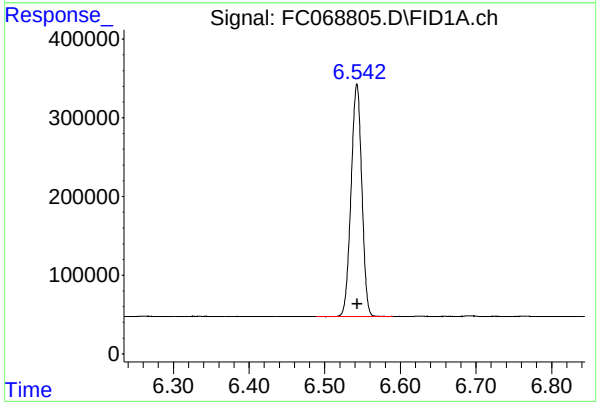
R.T.: 3.442 min
Delta R.T.: 0.000 min
Response: 2011260
Conc: 20.00 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MSD



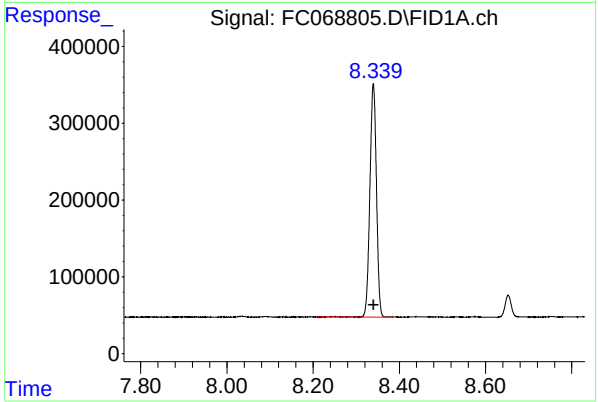
#2 n-Decane (C10)

R.T.: 4.517 min
Delta R.T.: 0.000 min
Response: 2514803
Conc: 25.24 ug/ml



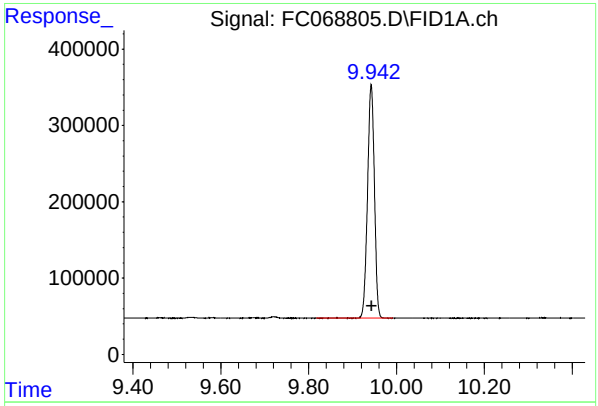
#4 n-Dodecane (C12)

R.T.: 6.542 min
Delta R.T.: 0.000 min
Response: 2910772
Conc: 29.95 ug/ml



#6 n-Tetradecane (C14)

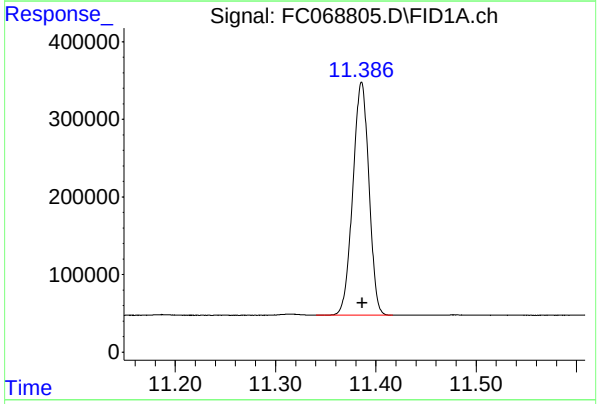
R.T.: 8.340 min
Delta R.T.: 0.000 min
Response: 3204590
Conc: 34.67 ug/ml



#7 n-Hexadecane (C16)

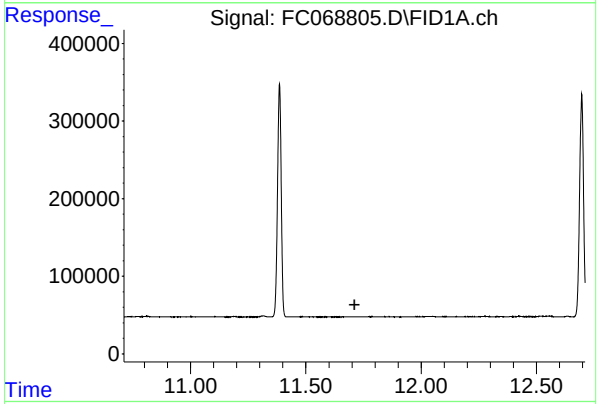
R.T.: 9.942 min
Delta R.T.: -0.001 min
Response: 3326563
Conc: 37.15 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MSD



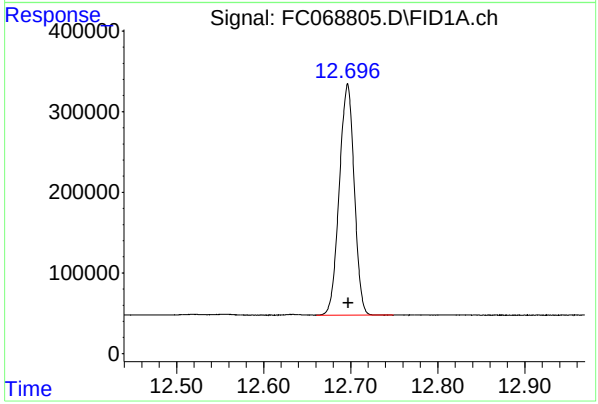
#8 n-Octadecane (C18)

R.T.: 11.386 min
Delta R.T.: 0.000 min
Response: 3352938
Conc: 38.22 ug/ml



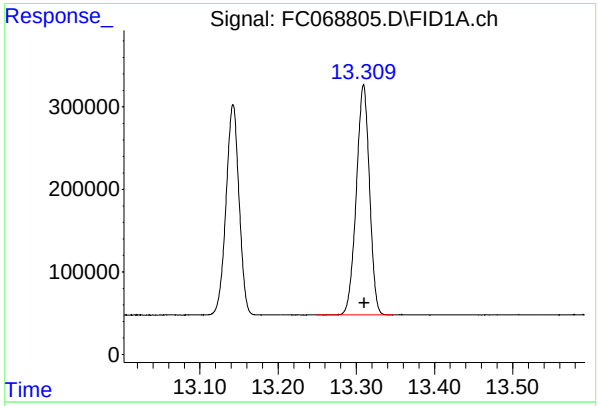
#9 ortho-Terphenyl (SURR)

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



#10 n-Eicosane (C20)

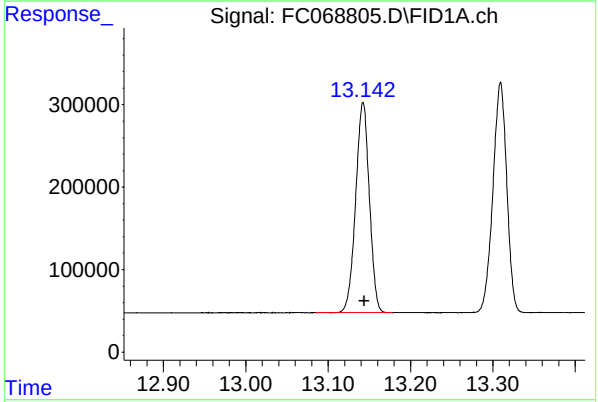
R.T.: 12.696 min
Delta R.T.: 0.000 min
Response: 3421203
Conc: 40.15 ug/ml



#11 n-Heneicosane (C21)

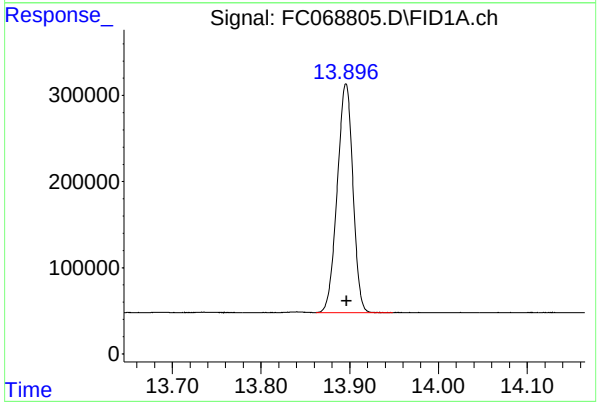
R.T.: 13.309 min
Delta R.T.: -0.001 min
Response: 3266330
Conc: 38.73 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MSD



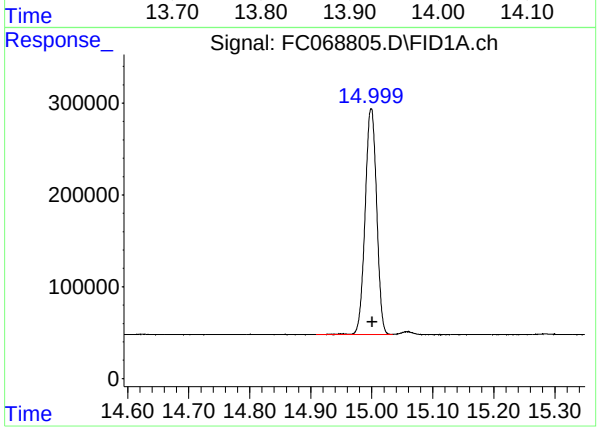
#12 1-chlorooctadecane (SURR)

R.T.: 13.142 min
Delta R.T.: -0.002 min
Response: 2948527
Conc: 36.75 ug/ml



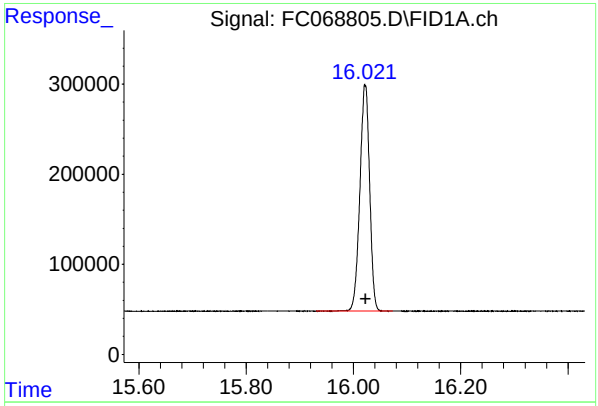
#13 n-Docosane (C22)

R.T.: 13.896 min
Delta R.T.: -0.001 min
Response: 3256569
Conc: 38.93 ug/ml



#14 n-Tetracosane (C24)

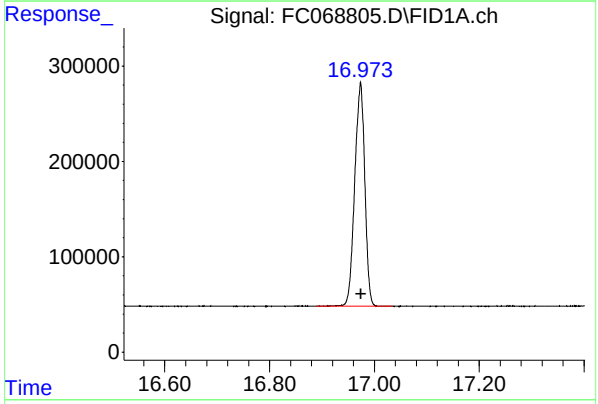
R.T.: 14.999 min
Delta R.T.: -0.002 min
Response: 3217704
Conc: 38.67 ug/ml



#15 n-Hexacosane (C26)

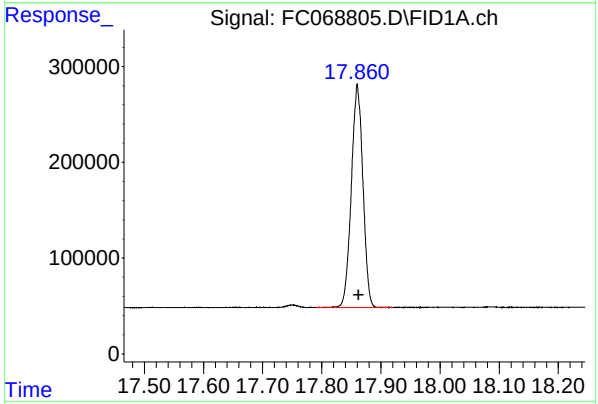
R.T.: 16.022 min
Delta R.T.: -0.001 min
Response: 3170198
Conc: 38.26 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MSD



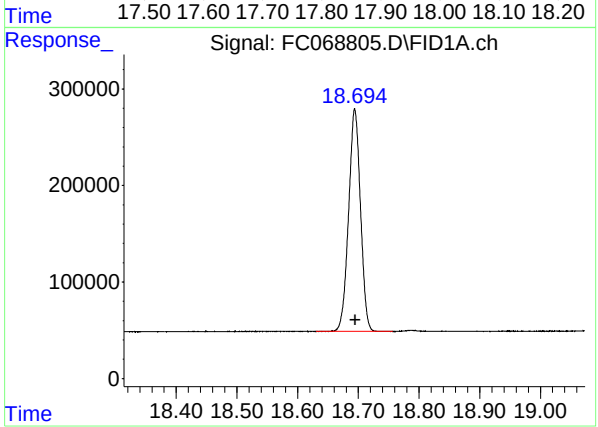
#16 n-Octacosane (C28)

R.T.: 16.973 min
Delta R.T.: 0.000 min
Response: 3130974
Conc: 37.88 ug/ml



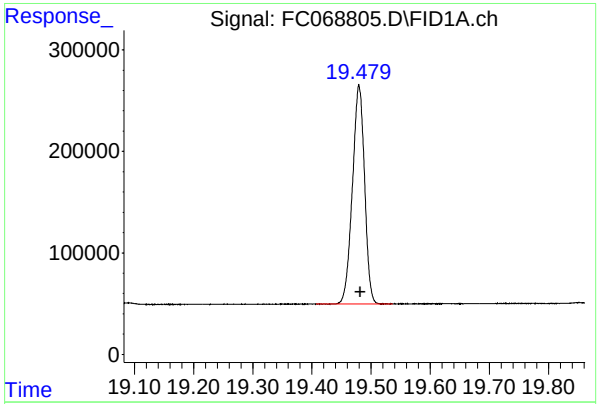
#17 n-Tricontane (C30)

R.T.: 17.860 min
Delta R.T.: -0.002 min
Response: 3173913
Conc: 37.51 ug/ml



#18 n-Dotriacontane (C32)

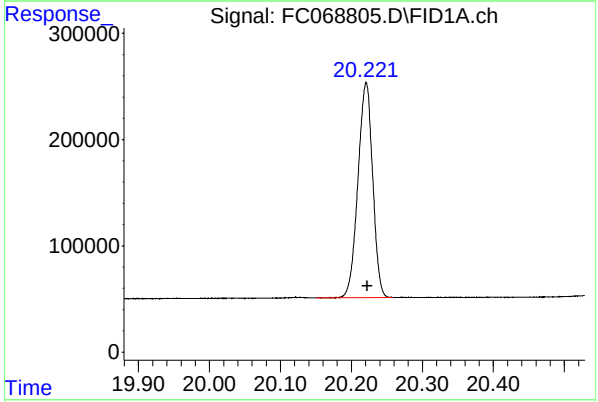
R.T.: 18.694 min
Delta R.T.: -0.001 min
Response: 3135522
Conc: 36.40 ug/ml



#19 n-Tetratriacontane (C34)

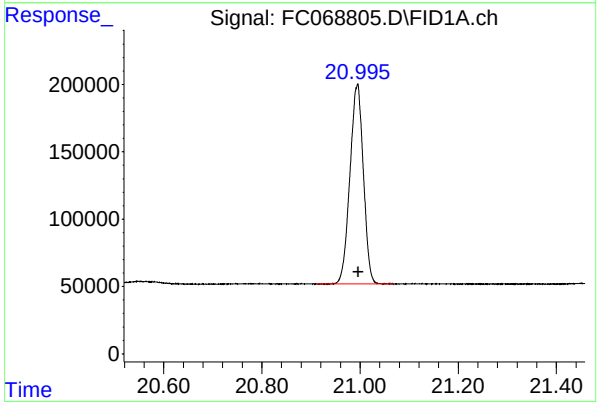
R.T.: 19.480 min
Delta R.T.: -0.002 min
Response: 3078209
Conc: 36.13 ug/ml

Instrument :
FID_C
ClientSampleId :
B-167-SB02MSD



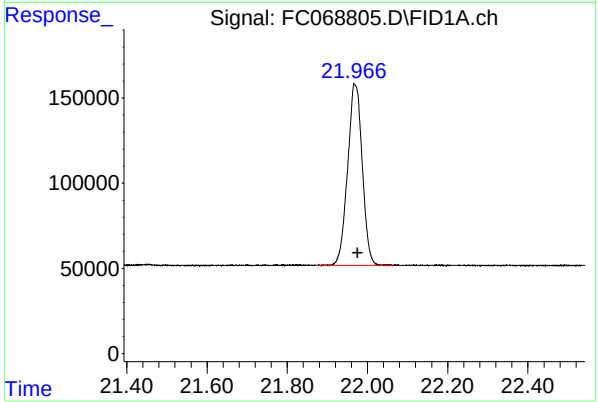
#20 n-Hexatriacontane (C36)

R.T.: 20.221 min
Delta R.T.: -0.002 min
Response: 2916733
Conc: 33.94 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 20.994 min
Delta R.T.: -0.002 min
Response: 2812971
Conc: 33.53 ug/ml



#22 n-Tetracontane (C40)

R.T.: 21.969 min
Delta R.T.: -0.006 min
Response: 2695372
Conc: 32.89 ug/ml

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:	Alliance Technical Group, LLC - Newark	Date Collected:	
Project:	NJ Soil PT	Date Received:	
Client Sample ID:	B-167-SB02MSD	SDG No.:	Q1872
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	13.096	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.

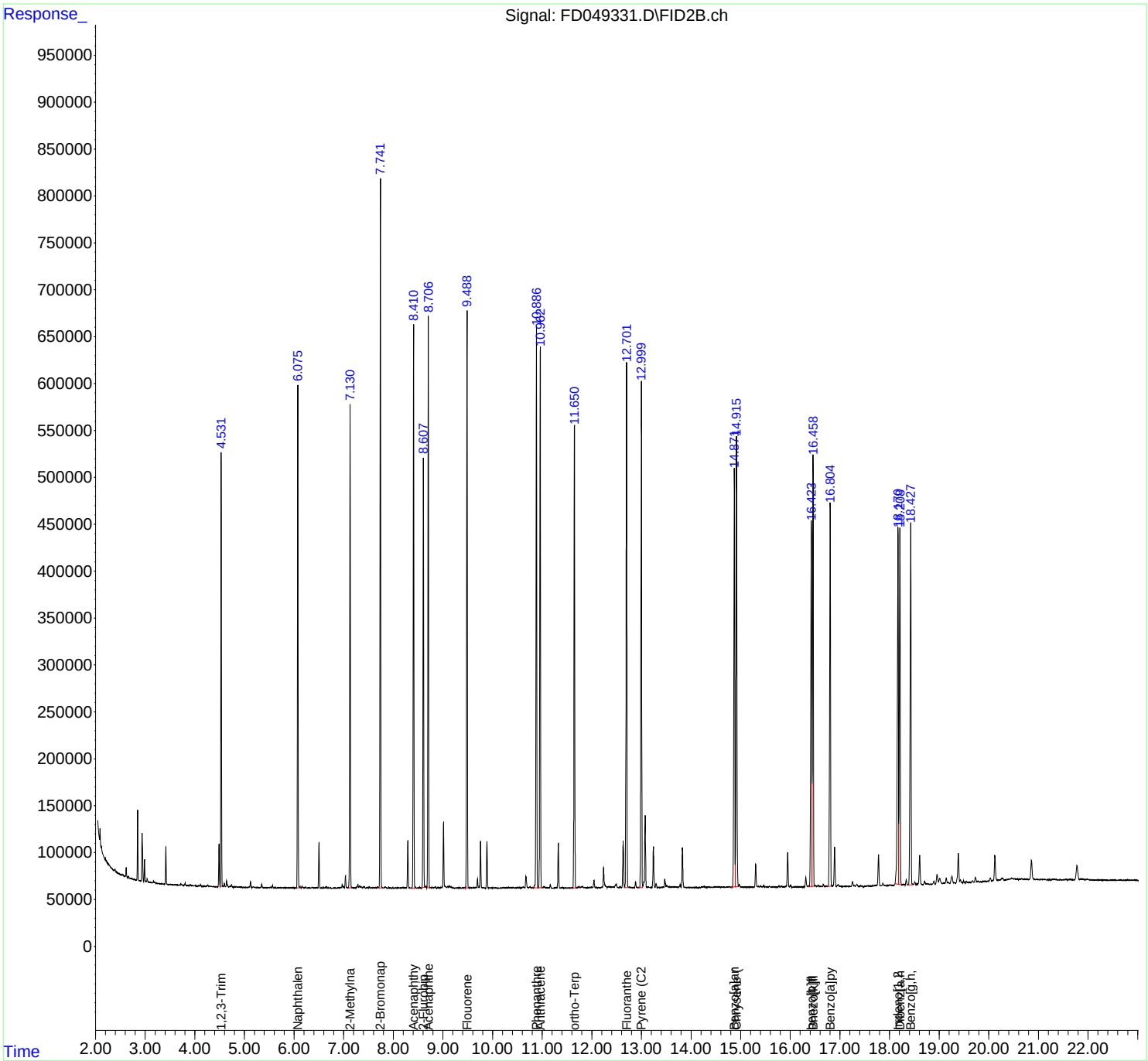
Quantitation Report (QT Reviewed)

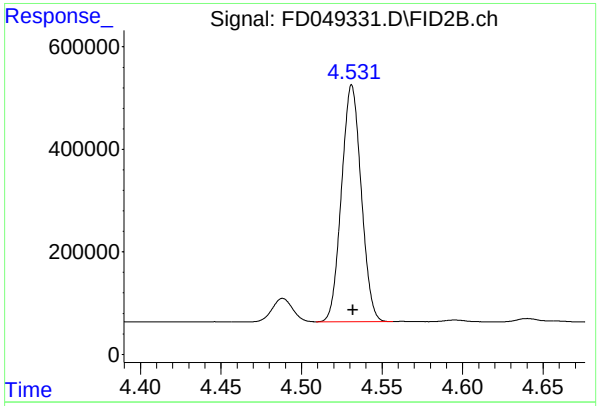
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_D\Data\FD050825AR\
Data File : FD049331.D
Signal(s) : FID2B.ch
Acq On : 08 May 2025 21:04
Operator : YP/AJ
Sample : Q1901-04MSD
Misc :
ALS Vial : 71 Sample Multiplier: 1

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

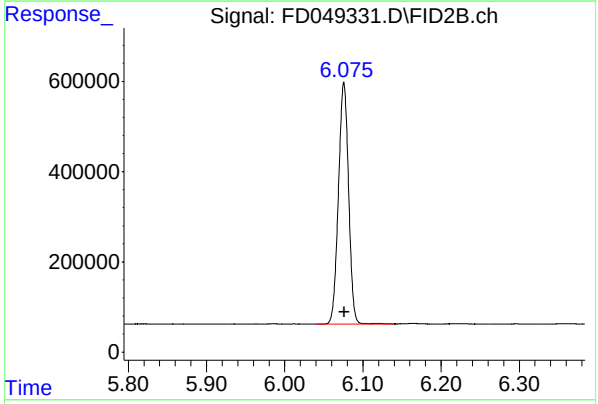




#1 1,2,3-Trimethylbenzene (C10.1)

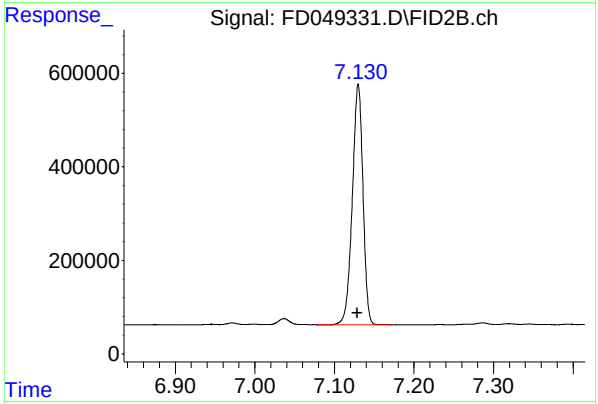
R.T.: 4.531 min
Delta R.T.: 0.000 min
Response: 3927868
Conc: 31.46 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MSD



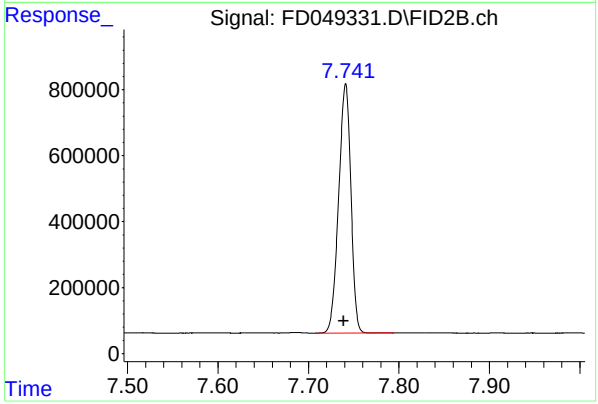
#2 Naphthalene (C11.7)

R.T.: 6.076 min
Delta R.T.: 0.000 min
Response: 4827602
Conc: 36.52 ug/ml



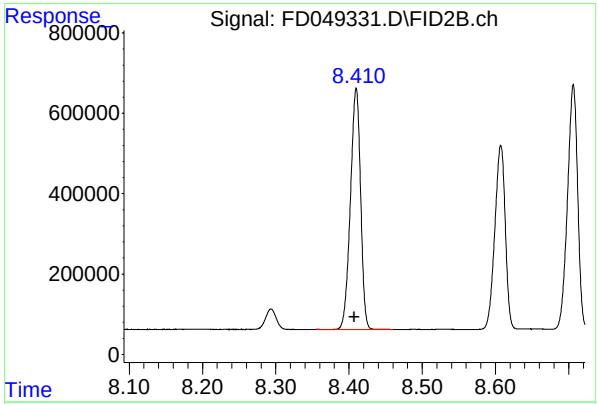
#3 2-Methylnaphthalene (C12.89)

R.T.: 7.130 min
Delta R.T.: 0.001 min
Response: 4789253
Conc: 37.13 ug/ml



#4 2-Bromonaphthalene (SURR)

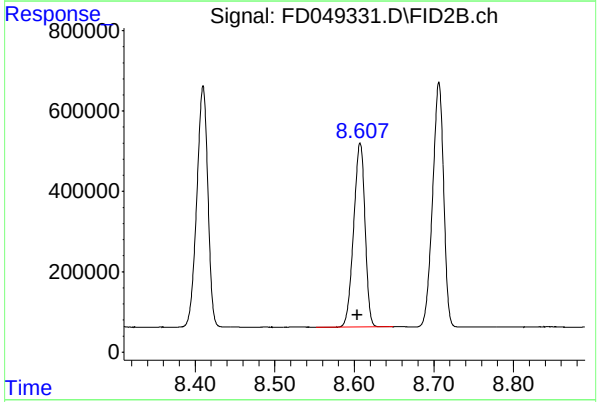
R.T.: 7.741 min
Delta R.T.: 0.002 min
Response: 7121821
Conc: 60.06 ug/ml



#5 Acenaphthylene (C15.06)

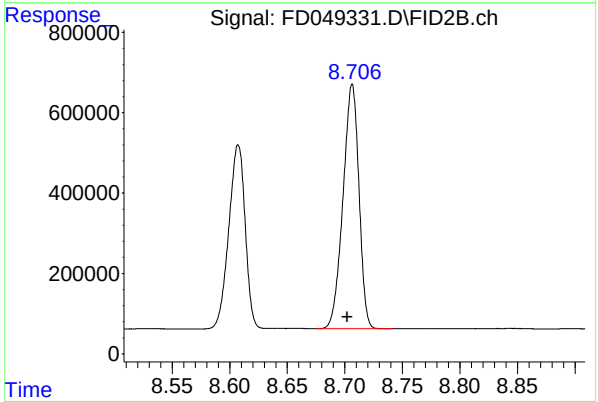
R.T.: 8.410 min
Delta R.T.: 0.003 min
Response: 5796215
Conc: 41.06 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MSD



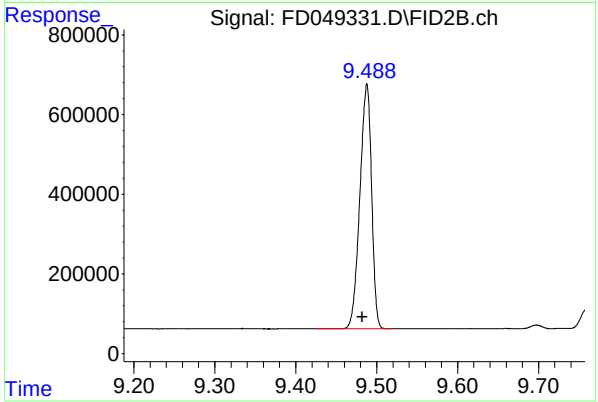
#6 2-Flurobiphenyl (SURR)

R.T.: 8.607 min
Delta R.T.: 0.004 min
Response: 4534162
Conc: 57.41 ug/ml



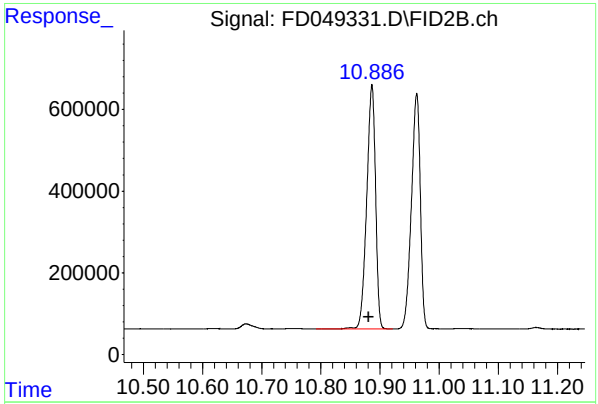
#7 Acenaphthene (C15.5)

R.T.: 8.706 min
Delta R.T.: 0.004 min
Response: 5868027
Conc: 42.83 ug/ml



#8 Flouorene (C16.55)

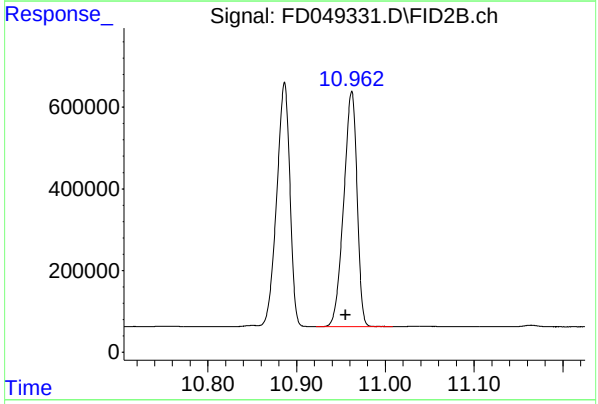
R.T.: 9.488 min
Delta R.T.: 0.005 min
Response: 6177431
Conc: 45.38 ug/ml



#9 Phenanthrene (C19.36)

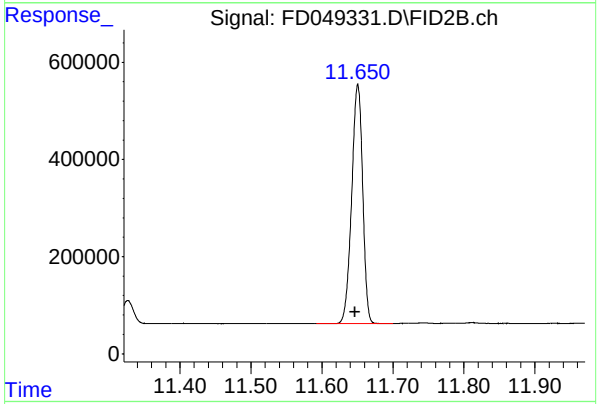
R.T.: 10.886 min
Delta R.T.: 0.005 min
Response: 6214722
Conc: 46.10 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MSD



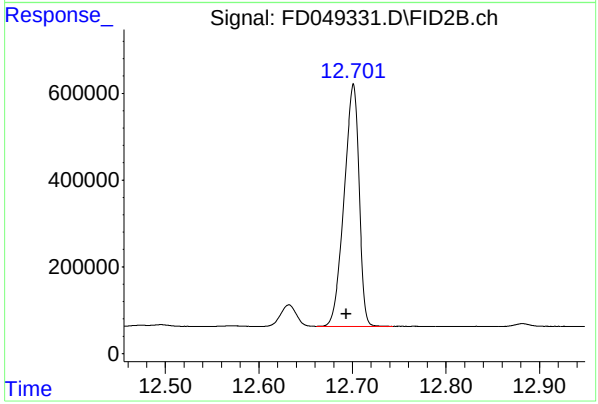
#10 Anthracene (C19.43)

R.T.: 10.962 min
Delta R.T.: 0.007 min
Response: 6027275
Conc: 50.96 ug/ml



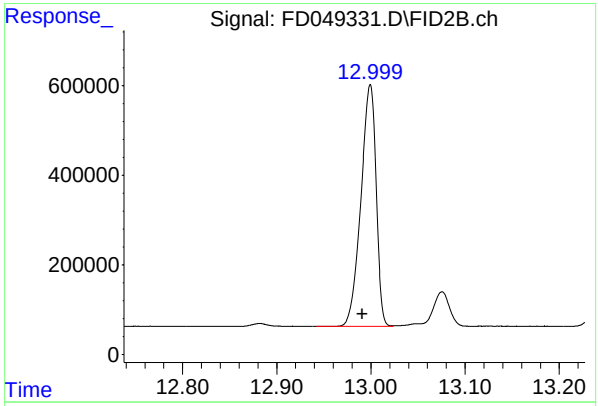
#11 ortho-Terphenyl (SURR)

R.T.: 11.651 min
Delta R.T.: 0.004 min
Response: 5295430
Conc: 38.37 ug/ml



#12 Fluoranthene (C21.85)

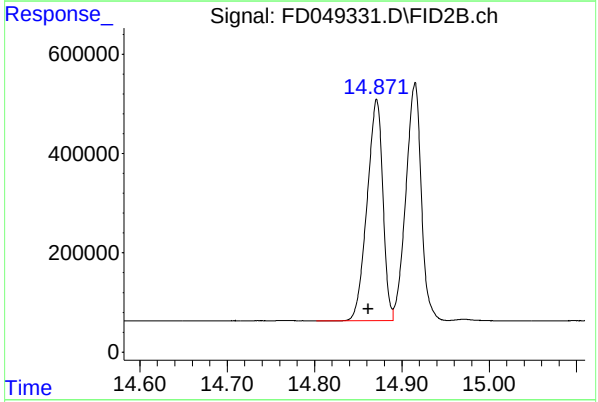
R.T.: 12.701 min
Delta R.T.: 0.008 min
Response: 6221870
Conc: 46.17 ug/ml



#13 Pyrene (C20.8)

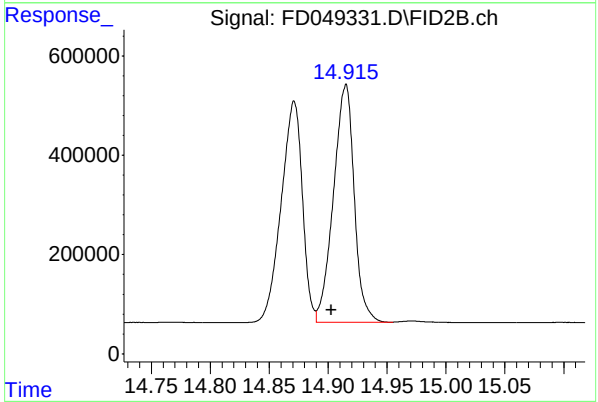
R.T.: 12.999 min
Delta R.T.: 0.009 min
Response: 6051806
Conc: 44.74 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MSD



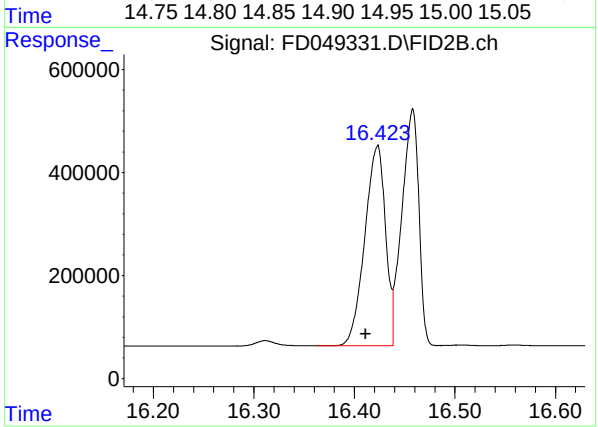
#14 Benzo[a]anthracene (C26.37)

R.T.: 14.871 min
Delta R.T.: 0.010 min
Response: 5583646
Conc: 48.75 ug/ml



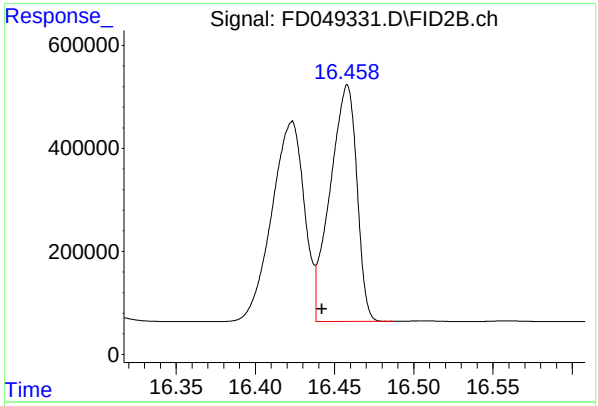
#15 Chrysene (C27.41)

R.T.: 14.915 min
Delta R.T.: 0.012 min
Response: 5871355
Conc: 50.31 ug/ml



#16 benzo[b]fluoranthene (C30.41)

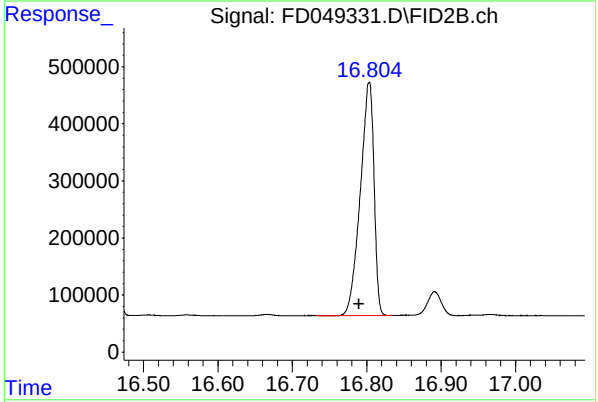
R.T.: 16.423 min
Delta R.T.: 0.011 min
Response: 5562427
Conc: 45.82 ug/ml



#17 Bnezo[k]fluoranthene (C30.14)

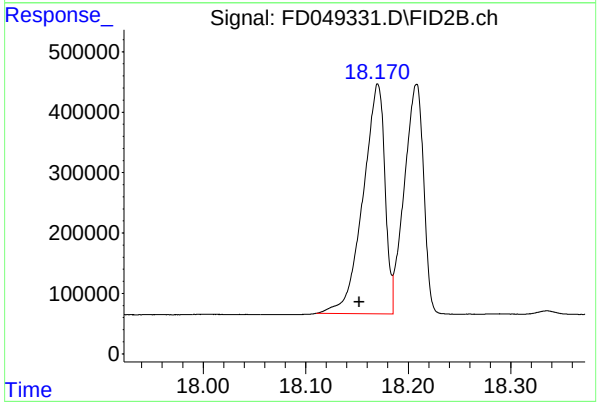
R.T.: 16.458 min
Delta R.T.: 0.015 min
Response: 5381787
Conc: 45.13 ug/ml

Instrument :
FID_D
ClientSampleId :
B-167-SB02MSD



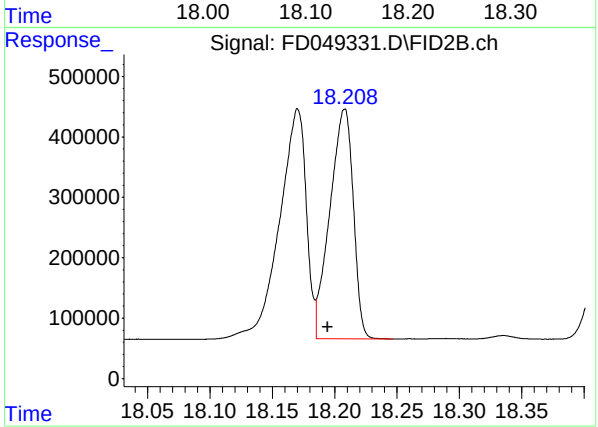
#18 Benzo[a]pyrene (C31.34)

R.T.: 16.803 min
Delta R.T.: 0.013 min
Response: 5232066
Conc: 45.50 ug/ml



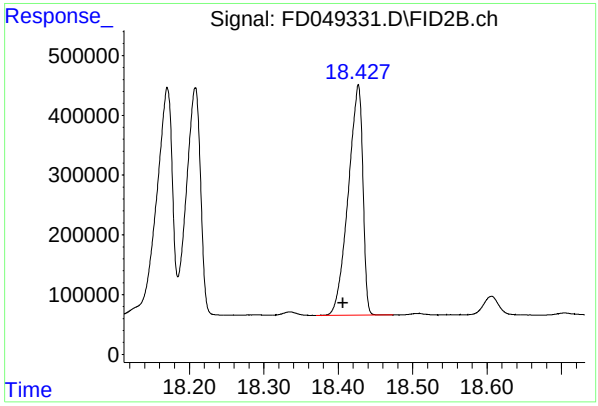
#19 Indeno[1,2,3-cd]pyrene (C35.01)

R.T.: 18.170 min
Delta R.T.: 0.018 min
Response: 5649946
Conc: 51.48 ug/ml



#20 Dibenz[a,h]anthracene (C30.36)

R.T.: 18.208 min
Delta R.T.: 0.013 min
Response: 4973171
Conc: 47.09 ug/ml



#21 Benzo[g,h,i]perylene (C34.01)

R.T.: 18.426 min
Delta R.T.: 0.020 mi
Response: 5259343
Conc: 44.13 ug/m

Instrument :
FID_D
ClientSampleId :
B-167-SB02MSD

rteres

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%

rteres

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%

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:	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:	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 # 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 # 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 # 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-S(	FC068795.D	08 May 2025 14:20	Need 5X,10X	YP/AJ	Dilution
8	Q1872-16DL	HW0425-PT-NJEPH-S(	FC068796.D	08 May 2025 15:19	need further dilution	YP/AJ	Dilution
9	Q1872-16DL2	HW0425-PT-NJEPH-S(	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 # 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: 4/25/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 04/24/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:25
Out Date: 04/25/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135545

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
Q1869-01	MH-F	1	1.14	10.43	11.57	10.47	89.5	
Q1869-02	MH-F-EPH	2	1.18	9.96	11.14	10.12	89.8	
Q1869-03	MH-F-VOC	3	1.16	10.28	11.44	10.4	89.9	
Q1871-01	MH-A	4	1.14	9.59	10.73	9.86	90.9	
Q1871-02	MH-A-EPH	5	1.18	9.97	11.15	10.25	91.0	
Q1871-03	MH-A-VOC	6	1.15	10.22	11.37	10.47	91.2	
Q1871-05	MH-B	7	1.18	10.31	11.49	10.58	91.2	
Q1871-06	MH-B-EPH	8	1.16	9.63	10.79	10.05	92.3	
Q1871-07	MH-B-VOC	9	1.18	10.35	11.53	10.75	92.5	
Q1872-01	HW0425-PT-AN-SOIL	31	1.00	1.00	2.00	2.00	100.0	
Q1872-02	HW0425-PT-CORR-SOIL	32	1.00	1.00	2.00	2.00	100.0	
Q1872-03	HW0425-PT-CN-SOIL	33	1.00	1.00	2.00	2.00	100.0	
Q1872-04	HW0425-PT-CN-SOIL	34	1.00	1.00	2.00	2.00	100.0	
Q1872-05	HW0425-PT-FP-SOIL	35	1.00	1.00	2.00	2.00	100.0	
Q1872-06	HW0425-PT-CR6-SOIL	36	1.00	1.00	2.00	2.00	100.0	
Q1872-07	HW0425-PT-NUT-SOIL	37	1.00	1.00	2.00	2.00	100.0	
Q1872-08	HW0425-PT-NUT-SOIL	38	1.00	1.00	2.00	2.00	100.0	
Q1872-09	HW0425-PT-OGR-SOIL	39	1.00	1.00	2.00	2.00	100.0	
Q1872-10	HW0425-PT-MET-SOIL	40	1.00	1.00	2.00	2.00	100.0	
Q1872-11	HW0425-PT-BNA-SOIL	41	1.00	1.00	2.00	2.00	100.0	
Q1872-12	HW0425-PT-TRIAZINE-SOIL	42	1.00	1.00	2.00	2.00	100.0	
Q1872-13	HW0425-PT-PAH-SOIL	43	1.00	1.00	2.00	2.00	100.0	
Q1872-14	HW0425-PT-DIES-SOIL	44	1.00	1.00	2.00	2.00	100.0	
Q1872-15	HW0425-PT-GAS-SOIL	45	1.00	1.00	2.00	2.00	100.0	
Q1872-16	HW0425-PT-NJEPH-SOIL	46	1.00	1.00	2.00	2.00	100.0	
Q1872-17	HW0425-PT-HERB-SOIL	47	1.00	1.00	2.00	2.00	100.0	
Q1872-18	HW0425-PT-PCB-SOIL	48	1.00	1.00	2.00	2.00	100.0	
Q1872-19	HW0425-PT-PCBO-SOIL	49	1.00	1.00	2.00	2.00	100.0	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 4/25/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 04/24/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:25
Out Date: 04/25/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135545

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
Q1872-20	HW0425-PT-PEST-SOIL	50	1.00	1.00	2.00	2.00	100.0	
Q1872-21	HW0425-PT-CHLR-SOIL	51	1.00	1.00	2.00	2.00	100.0	
Q1872-22	HW0425-PT-TXP-SOIL	52	1.00	1.00	2.00	2.00	100.0	
Q1872-23	HW0425-PT-VOA-SOIL	53	1.00	1.00	2.00	2.00	100.0	
Q1872-25	HW0425-PT-NO2-SOIL	54	1.00	1.00	2.00	2.00	100.0	
Q1873-01	CAM-40619	10	1.14	10.70	11.84	4.97	35.8	
Q1873-02	CAM-40620	11	1.15	10.42	11.57	6.19	48.4	
Q1873-03	CAM-40619-20	12	1.18	10.21	11.39	4.77	35.2	
Q1874-01	VNJ-236	13	1.19	10.45	11.64	10.89	92.8	
Q1874-03	RT1491	14	1.19	11.16	12.35	11.43	91.8	
Q1874-05	HT3727	15	1.16	10.63	11.79	11.06	93.1	
Q1875-01	AUD-25-0053	16	1.14	10.75	11.89	11.19	93.5	
Q1875-03	AUD-25-0054	17	1.14	10.02	11.16	10.52	93.6	
Q1875-04	AUD-25-0024	18	1.14	10.03	11.17	10.77	96.0	
Q1876-01	AUD-25-0058	19	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1876-02	AUD-25-0059	20	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1876-03	AUD-25-0060	21	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1876-04	AUD-25-0061	22	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1876-05	AUD-25-0062	23	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1876-06	AUD-25-0063	24	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1876-07	AUD-25-0064	25	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1876-08	AUD-25-0065	26	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1876-09	AUD-25-0066	27	1.00	1.00	2.00	2.00	100.0	wipe sample
Q1877-01	AU-6-042425	55	1.14	10.25	11.39	10.72	93.5	
Q1877-02	AU-6-042425	28	1.14	10.21	11.35	10.54	92.1	
Q1878-01	TR-4-042425	29	1.14	10.17	11.31	11.2	98.9	
Q1878-02	TR-4-042425-E2	30	1.19	10.28	11.47	10.92	94.6	

Alliance TECHNICAL GROUP

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 4/25/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 04/24/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:25
Out Date: 04/25/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB135545

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

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

WORKLIST(Hardcopy Internal Chain)

LB 135545

WorkList Name : %1-042425 **WorkList ID :** 189122 **Department :** Wet-Chemistry **Date :** 04-24-2025 08:52:24

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1869-01	MH-F	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1869-02	MH-F-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1869-03	MH-F-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1871-01	MH-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1871-02	MH-A-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1871-03	MH-A-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1871-05	MH-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1871-06	MH-B-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1871-07	MH-B-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1872-01	HW0425-PT-AN-SOIL	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1872-02	HW0425-PT-CORR-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-03	HW0425-PT-CN-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-04	HW0425-PT-CN-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-05	HW0425-PT-FP-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-06	HW0425-PT-CR6-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-07	HW0425-PT-NUT-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-08	HW0425-PT-NUT-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-09	HW0425-PT-OGR-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-10	HW0425-PT-MET-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-11	HW0425-PT-BNA-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-12	HW0425-PT-TRIAZINE-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO

Date/Time 04/24/25 1530

Raw Sample Received by:

Raw Sample Relinquished by:

Date/Time 04/24/25 1725

Raw Sample Received by:

Raw Sample Relinquished by:

WORKLIST(Hardcopy Internal Chain)

135545

WorkList Name : %1-042425 **WorkList ID :** 189122 **Department :** Wet-Chemistry **Date :** 04-24-2025 08:52:24

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1872-13	HW0425-PT-PAH-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-14	HW0425-PT-DIES-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-15	HW0425-PT-GAS-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-16	HW0425-PT-NJEPH-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-17	HW0425-PT-HERB-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-18	HW0425-PT-PCB-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-19	HW0425-PT-PCBO-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-20	HW0425-PT-PEST-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-21	HW0425-PT-CHLR-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-22	HW0425-PT-TXP-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-23	HW0425-PT-VOA-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1872-25	HW0425-PT-NO2-SOIL	Solid	Percent Solids	Cool 4 deg C	ALLI03	QA Of	04/21/2025	Chemtech -SO
Q1873-01	CAM-40619	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1873-02	CAM-40620	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1873-03	CAM-40619-20	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1874-01	VNJ-236	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	04/24/2025	Chemtech -SO
Q1874-03	RT1491	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	04/24/2025	Chemtech -SO
Q1874-05	HT3727	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	04/24/2025	Chemtech -SO
Q1875-01	AUD-25-0053	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1875-03	AUD-25-0054	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO
Q1875-04	AUD-25-0024	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	04/24/2025	Chemtech -SO

Date/Time 04/24/25 15:30

Raw Sample Received by: JD WDC

Raw Sample Relinquished by: SH

Date/Time 04/24/25 17:25

Raw Sample Received by: SH

Raw Sample Relinquished by: JD WDC

WORKLIST(Hardcopy Internal Chain)

VB 135545

WorkList Name : %1-042425 **WorkList ID :** 189122 **Department :** Wet-Chemistry **Date :** 04-24-2025 08:52:24

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1876-01	AUD-25-0058	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1876-02	AUD-25-0059	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1876-03	AUD-25-0060	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1876-04	AUD-25-0061	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1876-05	AUD-25-0062	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1876-06	AUD-25-0063	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1876-07	AUD-25-0064	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1876-08	AUD-25-0065	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1876-09	AUD-25-0066	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1877-01	AU-6-042425	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	04/24/2025	Chemtech -SO
Q1877-02	AU-6-042425	Solid	Percent Solids	Cool 4 deg C	PSEG05	L41	04/24/2025	Chemtech -SO
Q1878-01	TR-4-042425	Solid	Percent Solids	Cool 4 deg C	PSEG05	L41	04/24/2025	Chemtech -SO
Q1878-02	TR-4-042425-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	L41	04/24/2025	Chemtech -SO

Date/Time 04/24/25 15:30

Raw Sample Received by: [signature]

Raw Sample Relinquished by: [signature] SM

Date/Time 04/24/25 17:25

Raw Sample Received by: [signature] SM

Raw Sample Relinquished by: [signature] 17:35

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 (cool)

Raw Sample Relinquished by:

Date/Time 04/28/25 17:30

Raw Sample Received by:

Raw Sample Relinquished by: TO (cool)

WORKLIST(Hardcopy Internal Chain)

WB 1355775

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	L41	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	L51	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	PSEG03	L41	04/28/2025	Chemtech -SO
					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

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 : Q1872

Test : EPH

Prepbatch ID : PB167903,

Sequence ID/Qc Batch ID: FC050825AL,FD050825AR,

Standard ID :
EP2600,EP2607,PP24170,PP24174,PP24175,PP24176,PP24177,PP24178,PP24179,PP24462,PP24491,PP24499,PP24500,PP24501,PP24502,PP24503,PP24504,PP24505,PP24506,

Chemical ID :
E2865,E3551,E3904,E3917,E3926,E3928,E3929,E3930,E3933,P10758,P11140,P12363,P12981,P12983,P12989,P12990,P13050,P13279,P13596,P13650,P13660,P13662,P13664,P13667,P13671,P13673,P13674,P13709,P13865,P13896,P13897,P13898,P13899,P13900,P13901,P13903,P13905,P13906,P13912,P13919,P13920,P13921,P13923,P13926,P13927,P13928,P13931,P13950,P13951,P13952,P13953,P13954,P13955,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
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

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

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
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

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

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
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

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

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
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

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

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
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

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

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 #
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-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	10/03/2025	04/03/2025 / Rajesh	03/31/2025 / Rajesh	E3917

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

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-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 #
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

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	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

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

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	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

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

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	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

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	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

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	P13897

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

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	P13905

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

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	P13923

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	11/01/2025	05/01/2025 / Abdul	03/10/2025 / yogesh	P13950

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	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

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

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.

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)

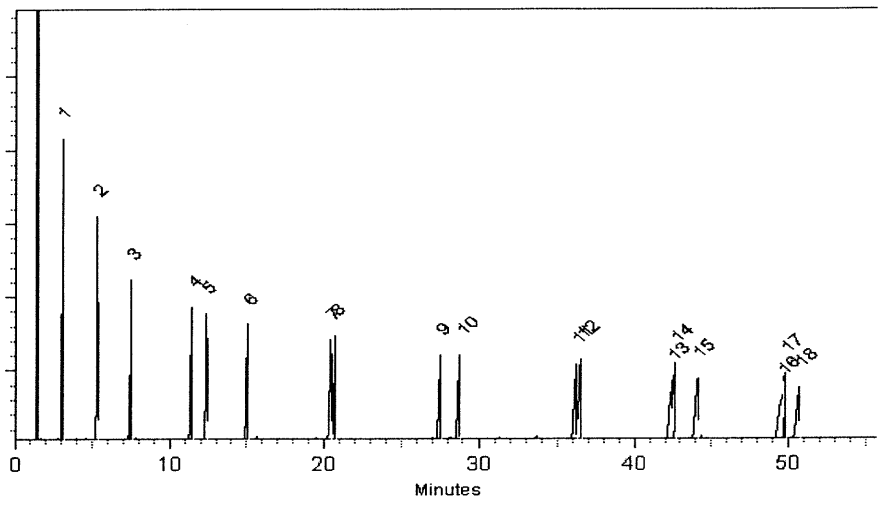
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

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

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

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

Avantor Performance Materials, LLC

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

J Croak
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

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

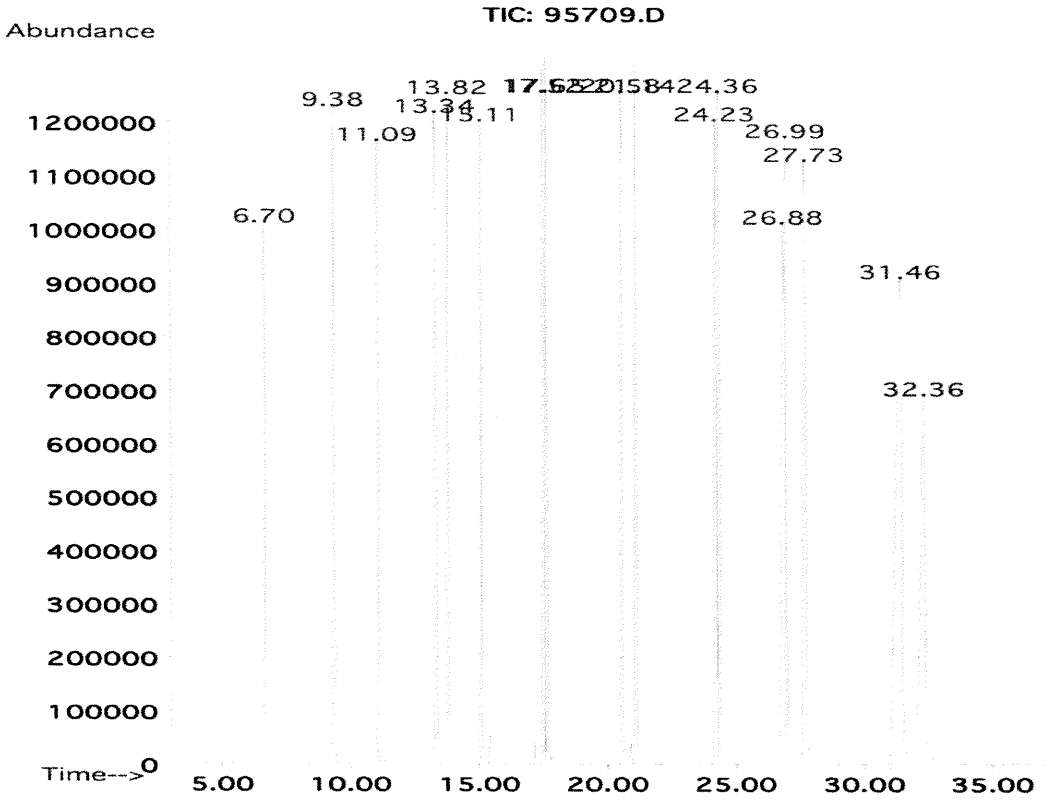
	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acenaphthene	1	MKBJ4871V	2000	99	0.2	1.01003	1.01010	2000.1	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)

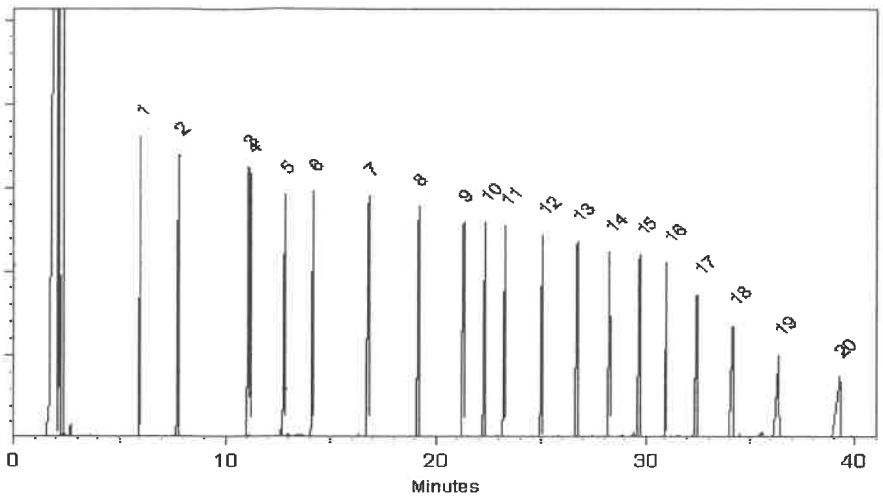
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.)

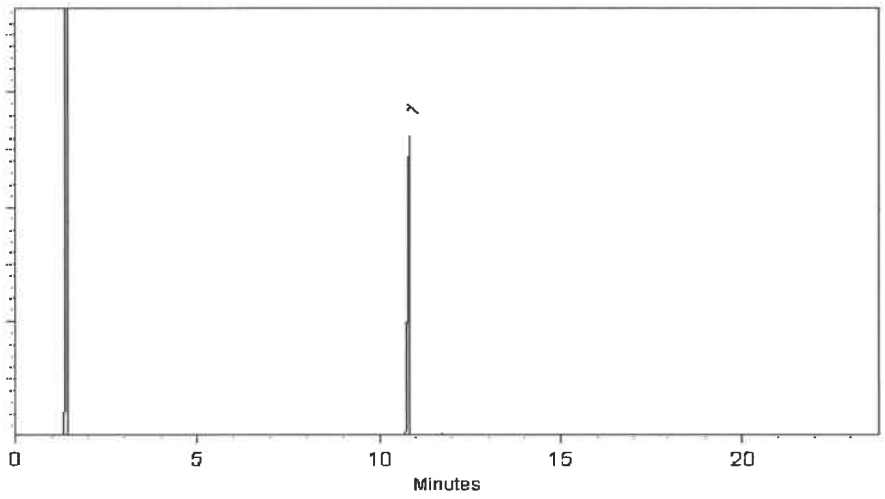
Inj. Temp:
250°C

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.)

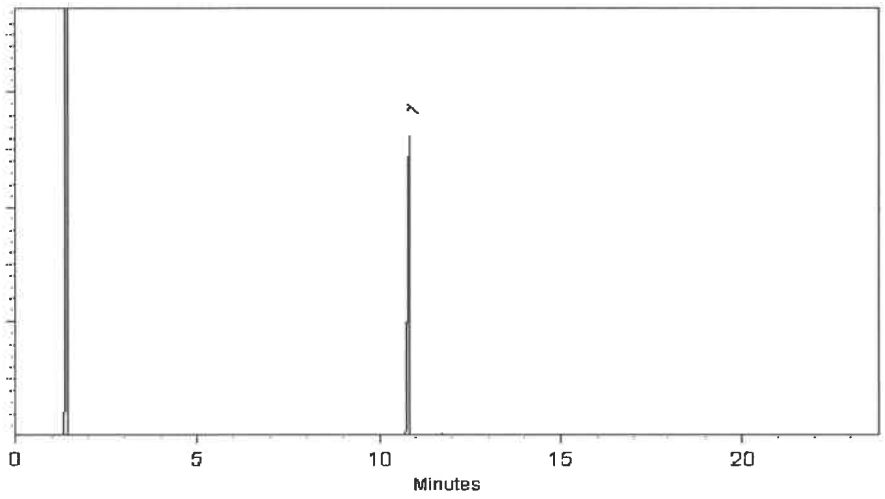
Inj. Temp:
250°C

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.)

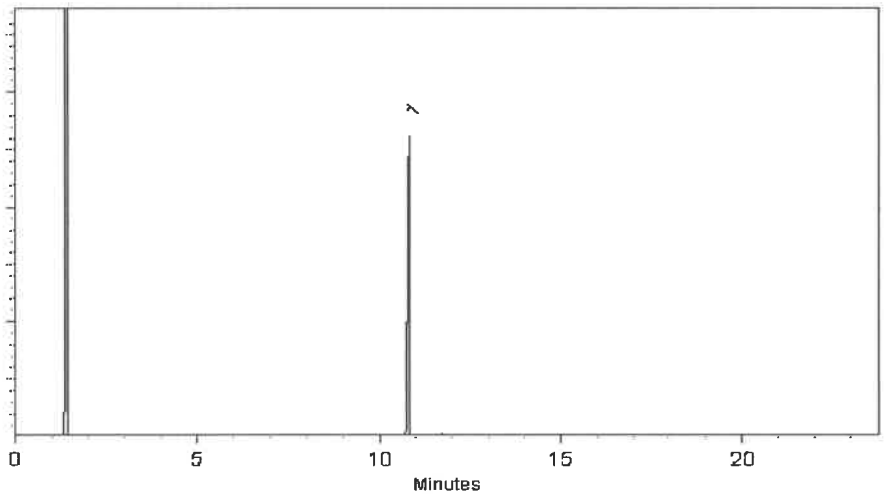
Inj. Temp:
250°C

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.)

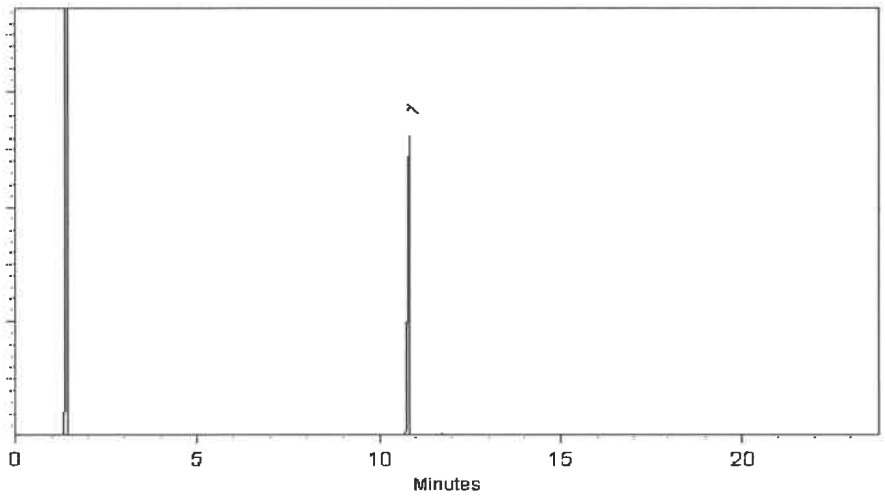
Inj. Temp:
250°C

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.

P130hh
↓
P130s1
} Y.P. 12/26/23

Catalog No. : 31098 **Lot No.:** A0200707

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.)

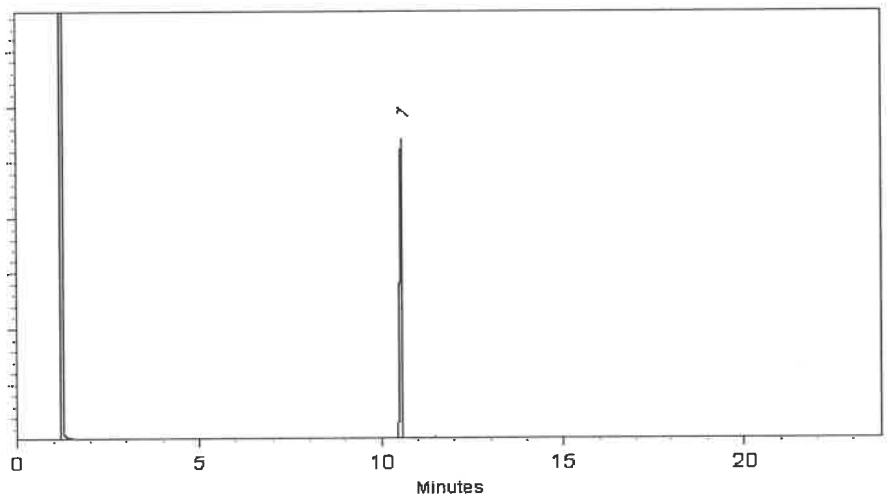
Inj. Temp:
250°C

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

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. : 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.)

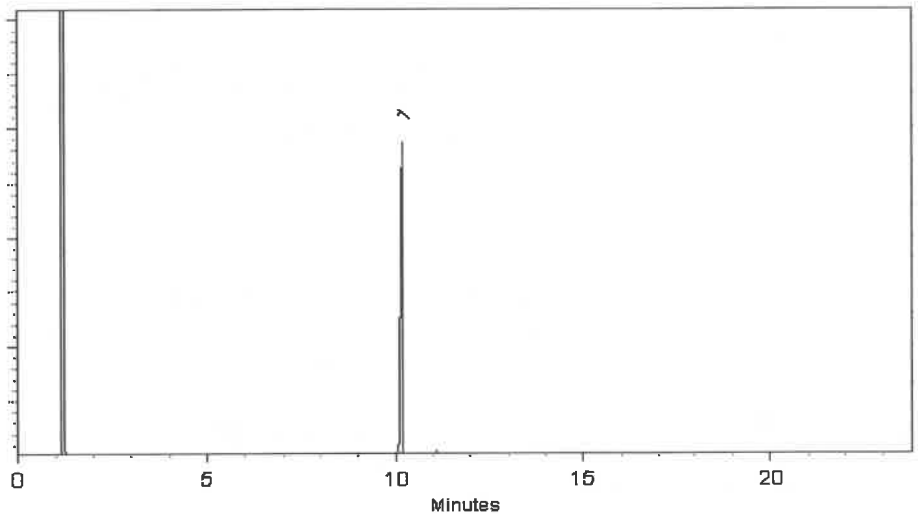
Inj. Temp:
250°C

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

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

P13645 → P13694 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	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.)

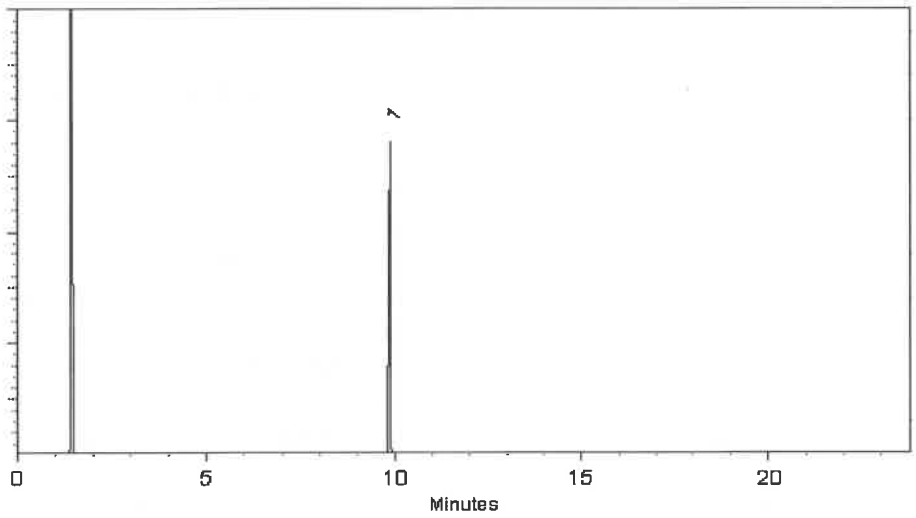
Inj. Temp:
250°C

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

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

P13645 ↓ P13694 } 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	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.)

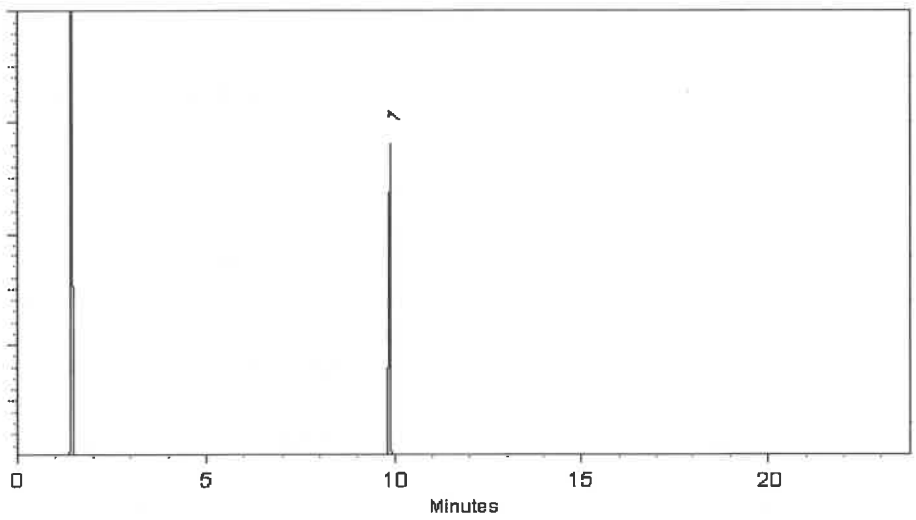
Inj. Temp:
250°C

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

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

P13645 ↓ P13694 } 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	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.)

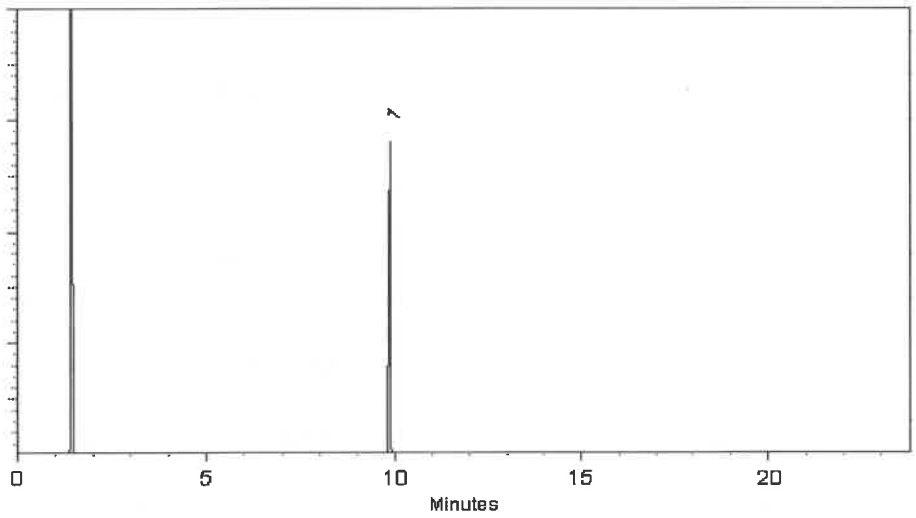
Inj. Temp:
250°C

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

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

P13645 → P13694 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	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.)

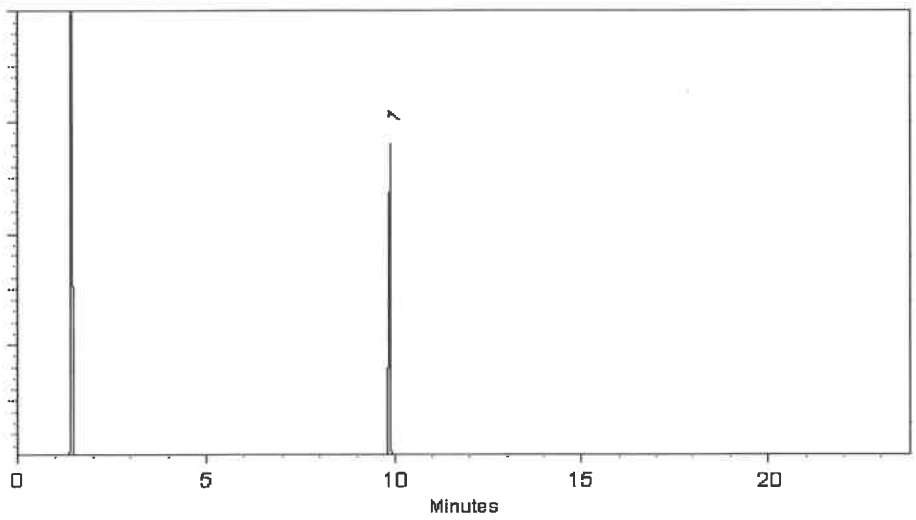
Inj. Temp:
250°C

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

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

P13645 ↓ P13694 } 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	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.)

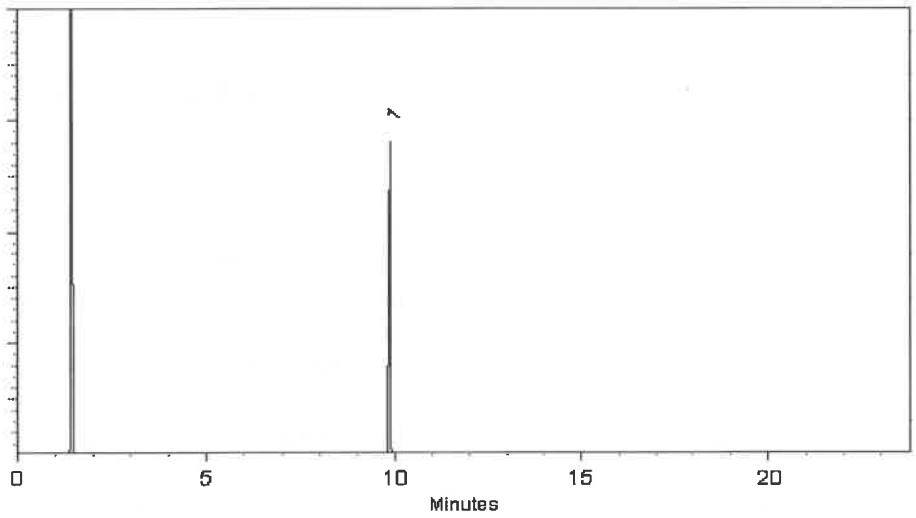
Inj. Temp:
250°C

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

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

P13645 ↓ P13694 } 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	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.)

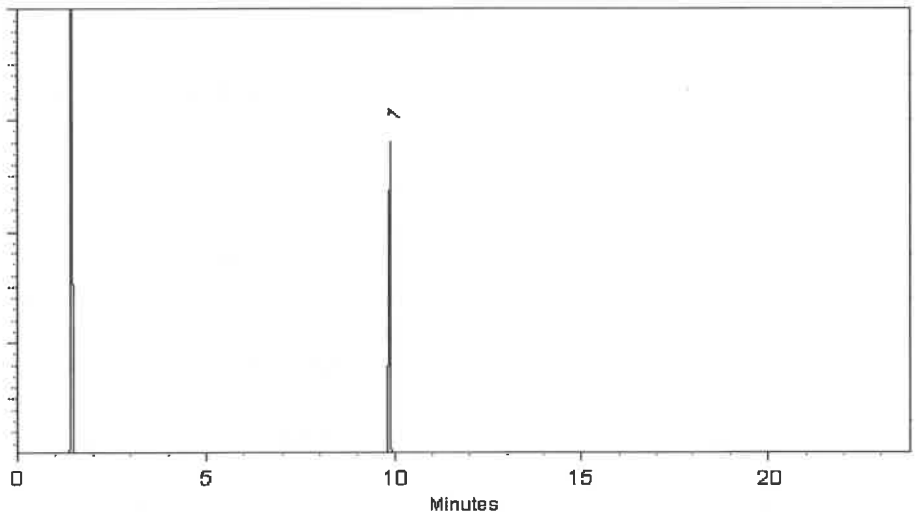
Inj. Temp:
250°C

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

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

P13645 ↓ P13694 } 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	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.)

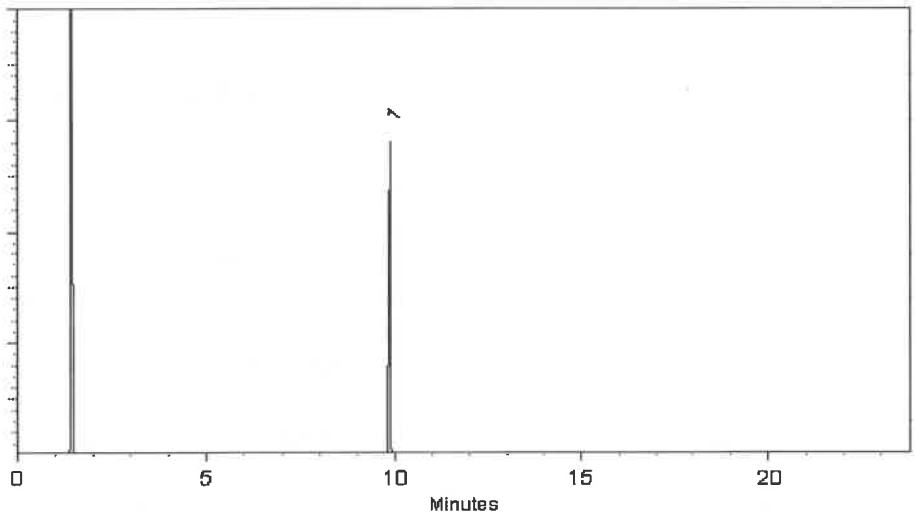
Inj. Temp:
250°C

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

ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 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.)

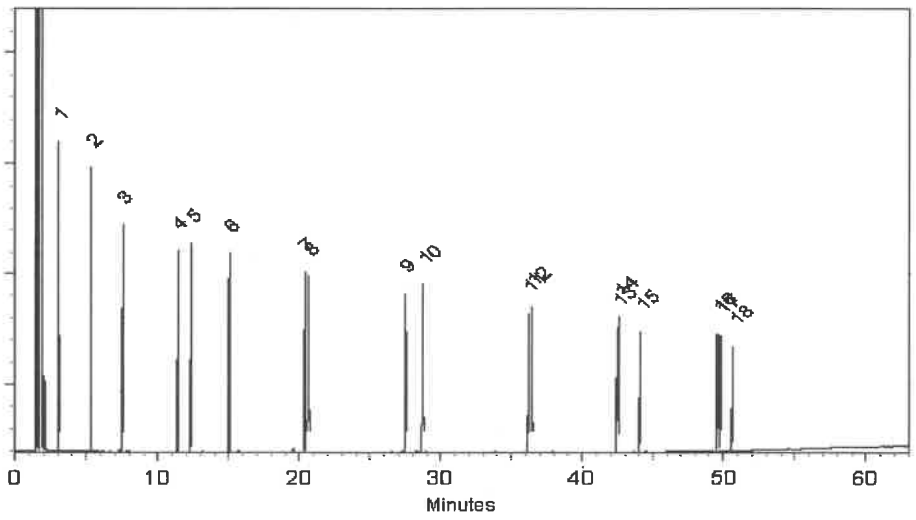
Inj. Temp:
250°C

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

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.)

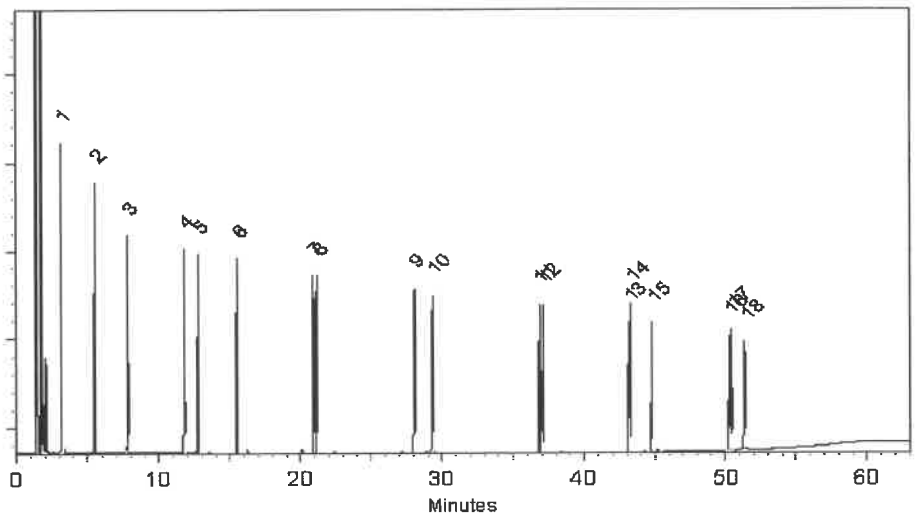
Inj. Temp:
250°C

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 Polino - 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

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

P13896 ↓ P13906 } Y.P. 03/06/25

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.)

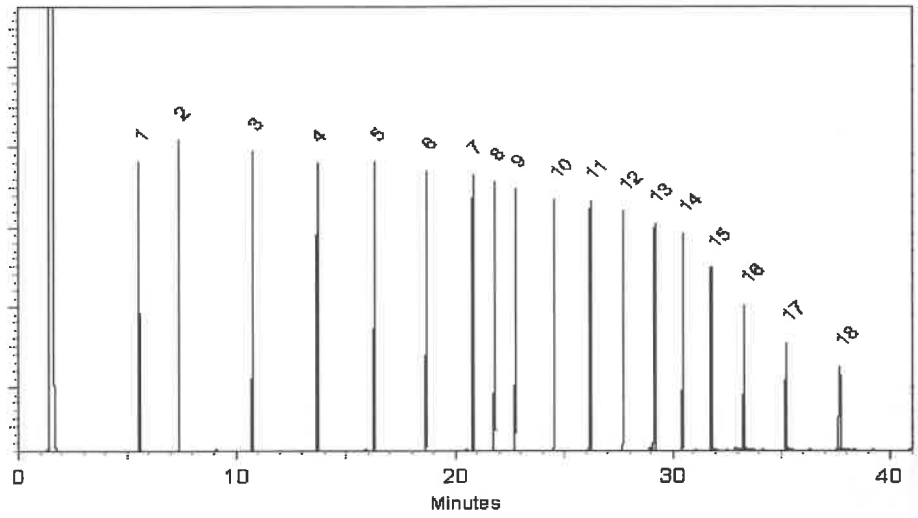
Inj. Temp:
250°C

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

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

P13896 ↓ P13906 } Y.P. 03/06/25

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.)

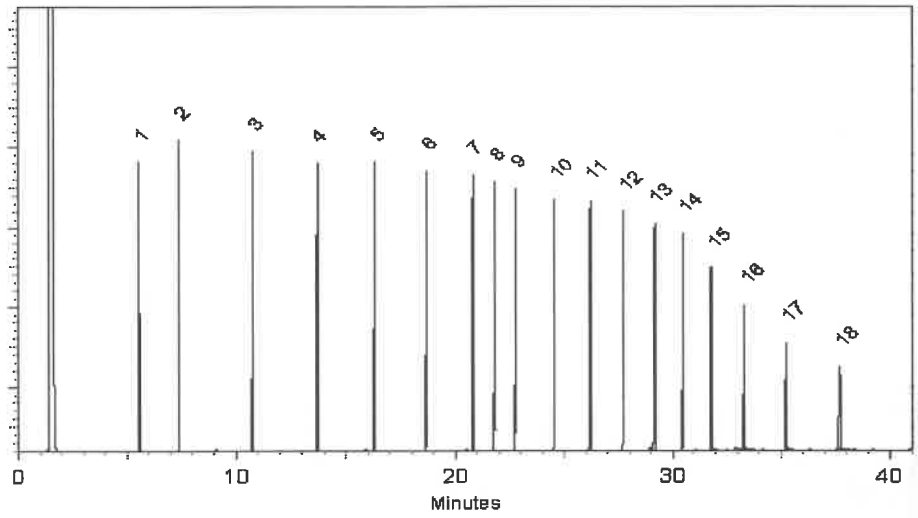
Inj. Temp:
250°C

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

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

P13896 ↓ P13906 } Y.P. 03/06/25

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.)

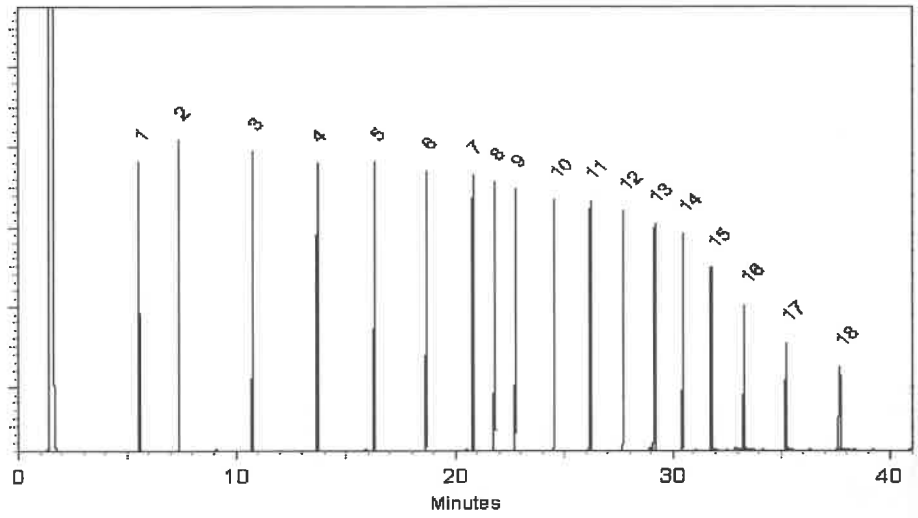
Inj. Temp:
250°C

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

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

P13896 ↓ P13906 } Y.P. 03/06/25

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.)

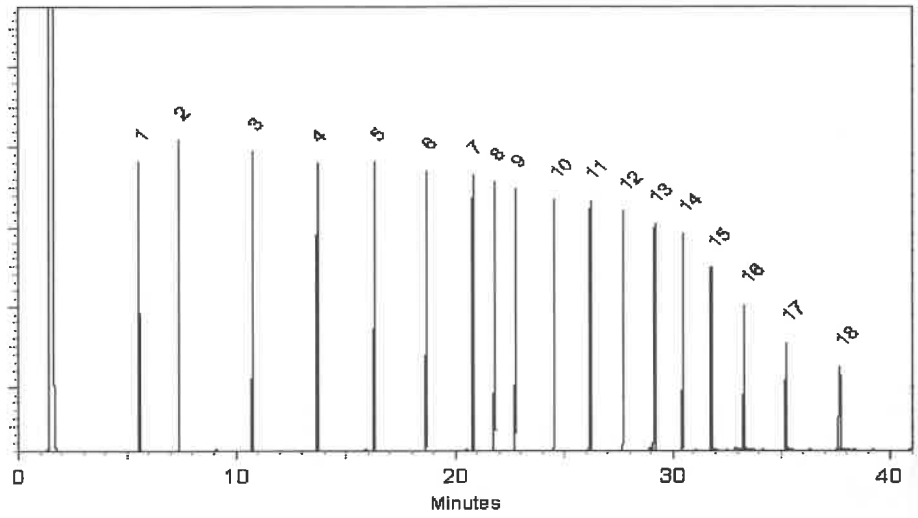
Inj. Temp:
250°C

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

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

P13896 ↓ P13906 } Y.P. 03/06/25

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.)

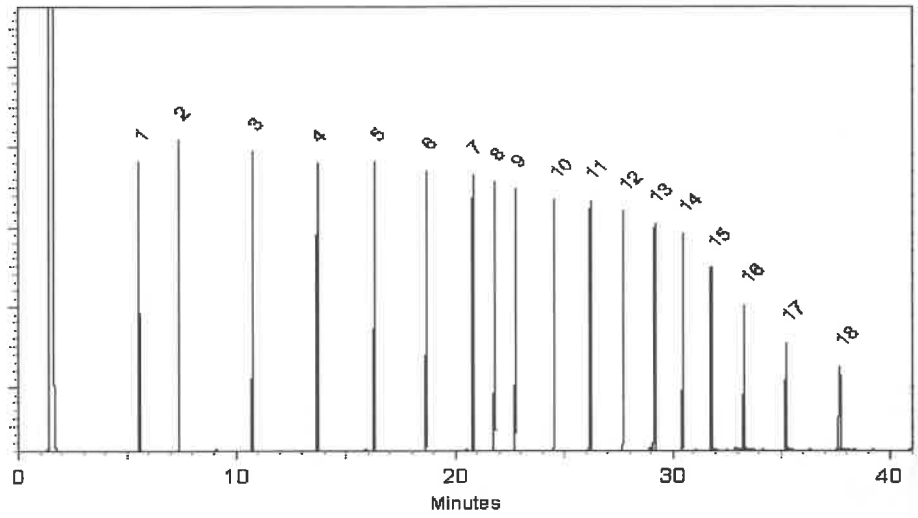
Inj. Temp:
250°C

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

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

P13896 ↓ P13906 } Y.P. 03/06/25

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.)

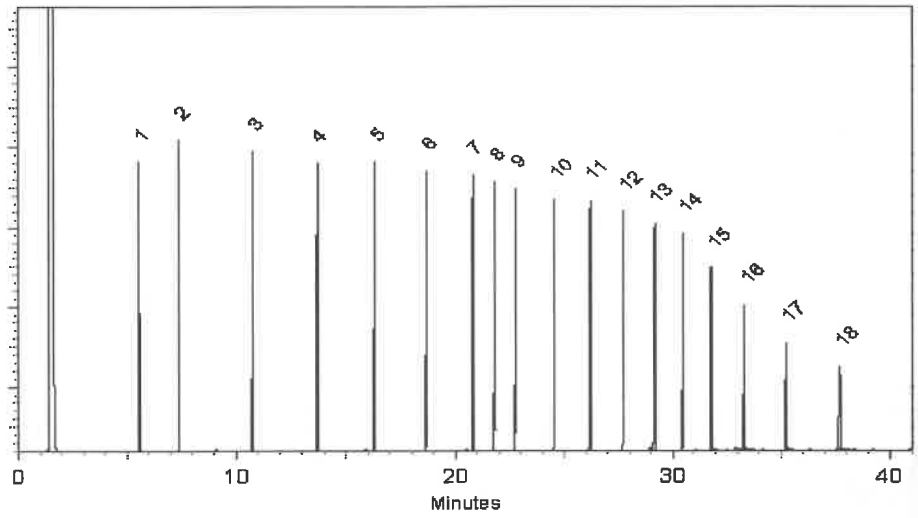
Inj. Temp:
250°C

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

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. : 30542 **Lot No.:** A0217408

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 : November 30, 2031 **Storage:** 10°C or colder

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

P13896 ↓ P13906 } Y.P. 03/06/25

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.)

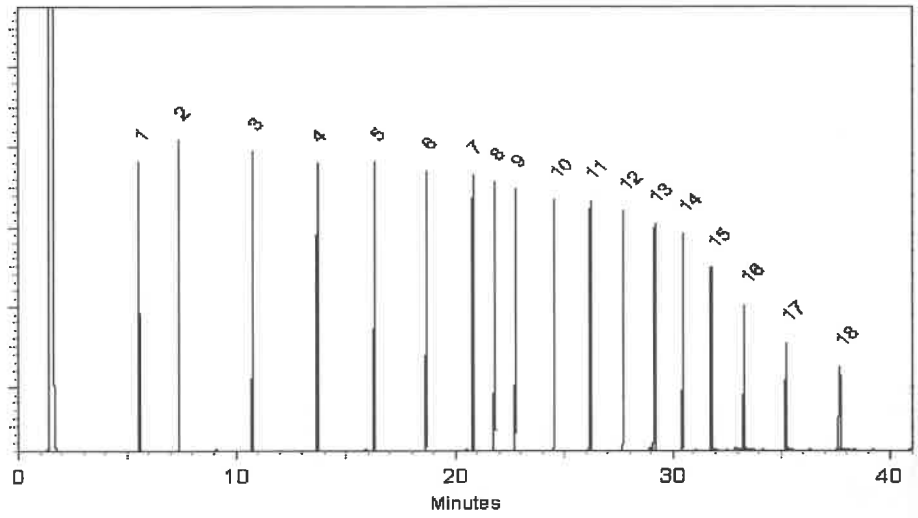
Inj. Temp:
250°C

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

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

P13896 ↓ P13906 } Y.P. 03/06/25

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.)

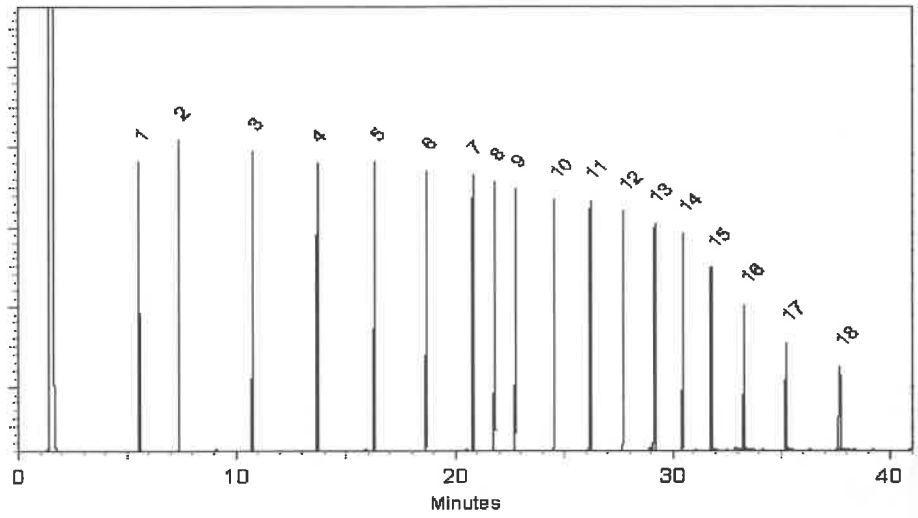
Inj. Temp:
250°C

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

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

P13896 & P13906 } Y.P. 03/06/25

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.)

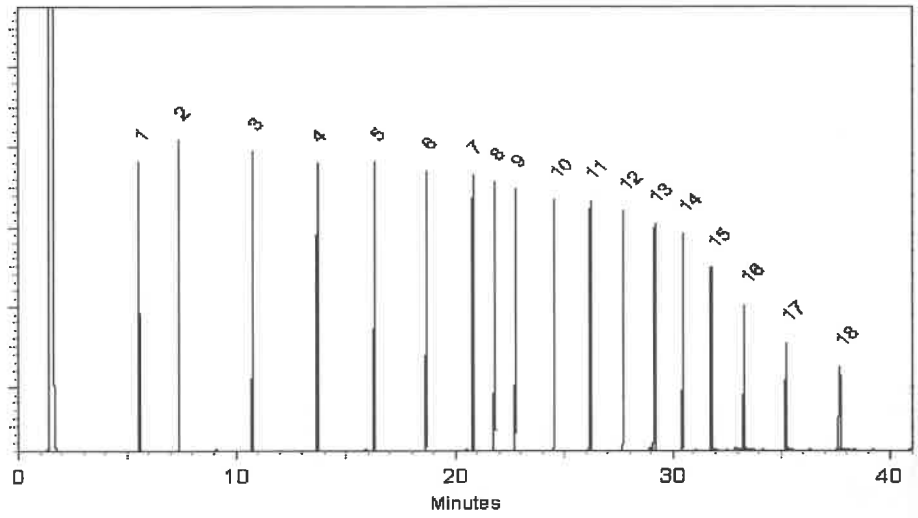
Inj. Temp:
250°C

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

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.

P13907 → P13945 Y.P. 03106/25

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.)

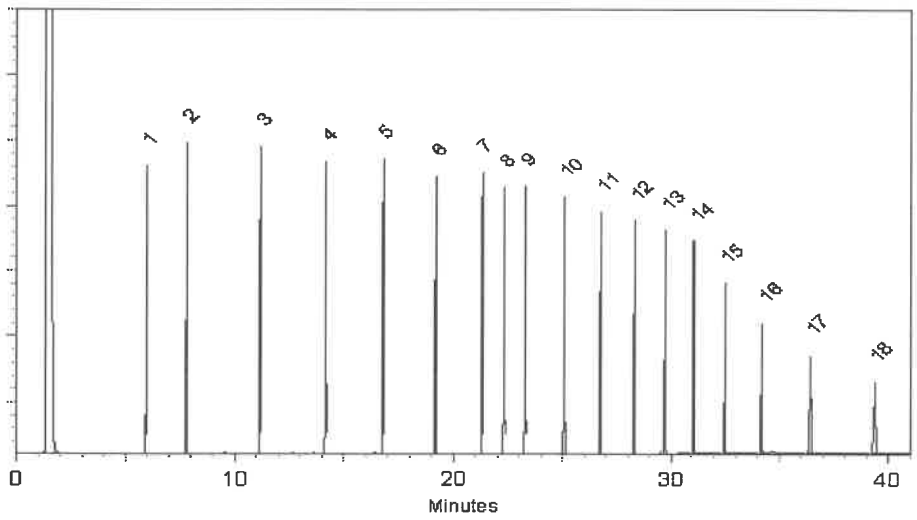
Inj. Temp:
250°C

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

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.:** 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.)

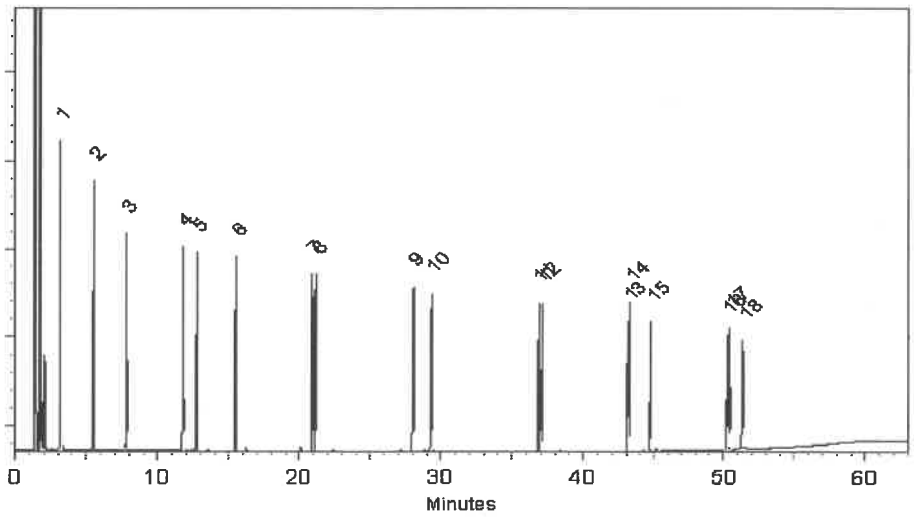
Inj. Temp:
250°C

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

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.:** 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.)

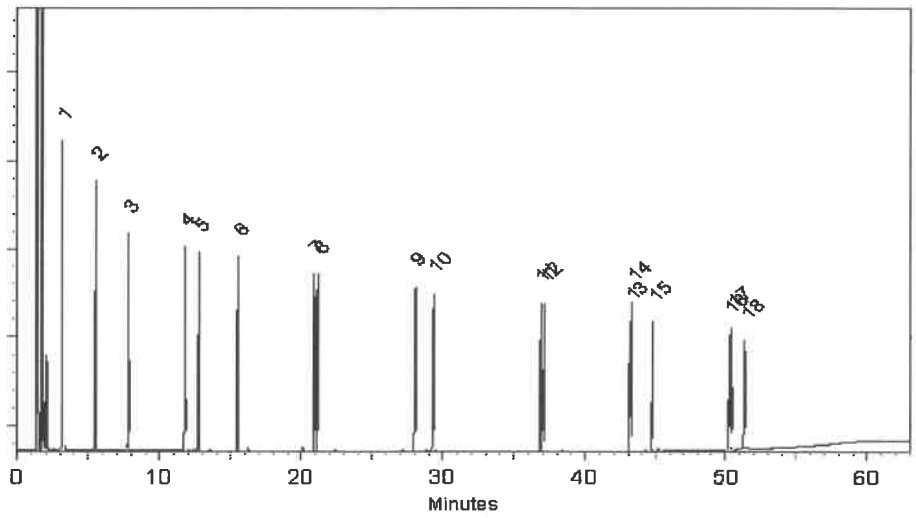
Inj. Temp:
250°C

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

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.:** 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.)

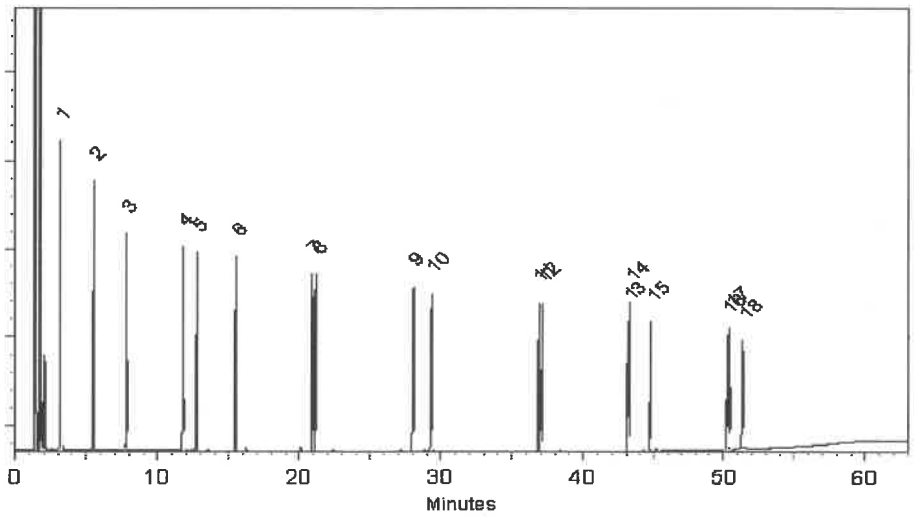
Inj. Temp:
250°C

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

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.:** A0220580

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

P13916 + P13935 } Y.P. 03/06/25

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.)

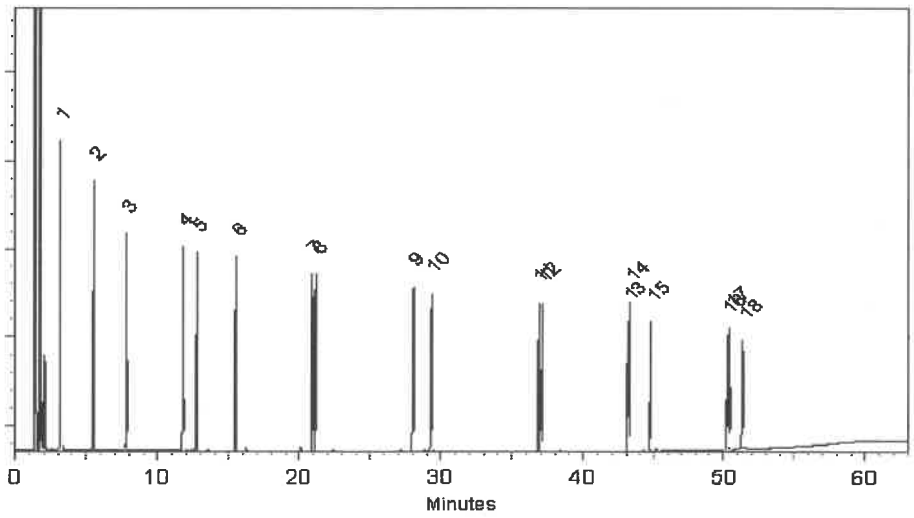
Inj. Temp:
250°C

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

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.:** 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.)

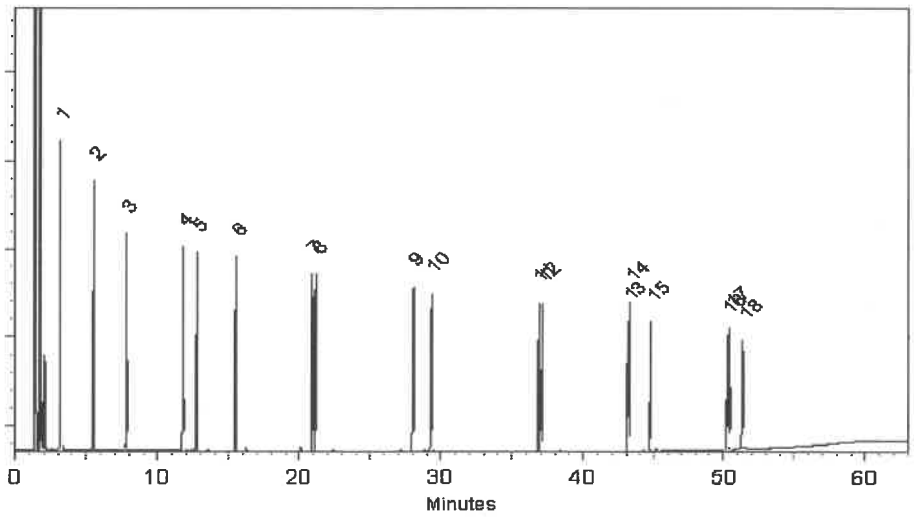
Inj. Temp:
250°C

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

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.:** A0220580

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

P13916 + P13935 } Y.P. 03/06/25

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.)

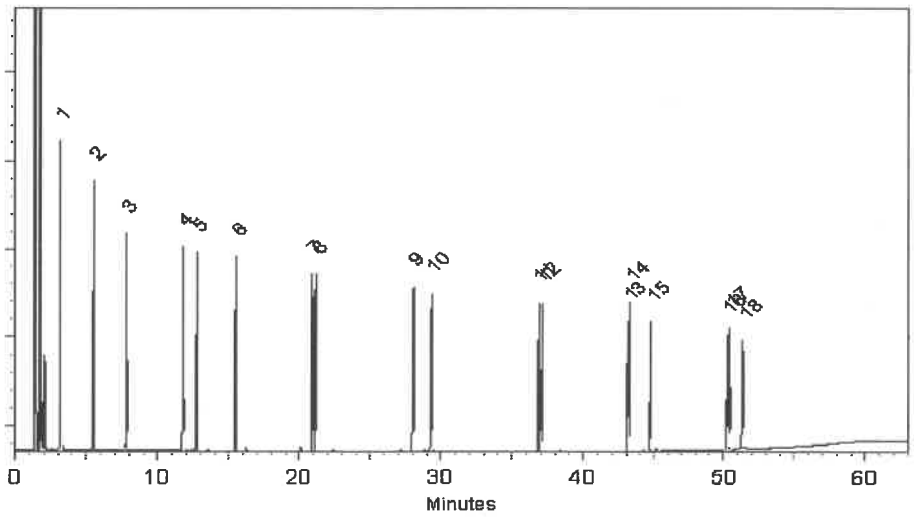
Inj. Temp:
250°C

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

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.:** 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.)

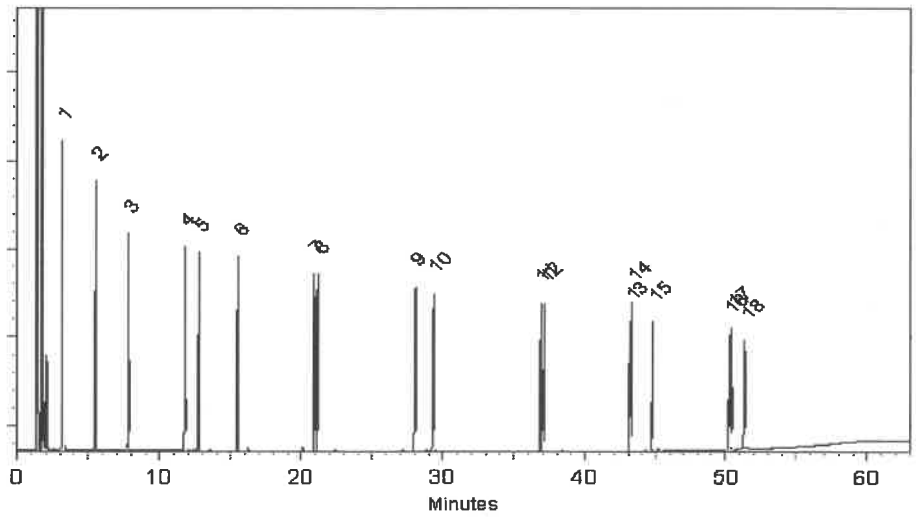
Inj. Temp:
250°C

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

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.:** 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.)

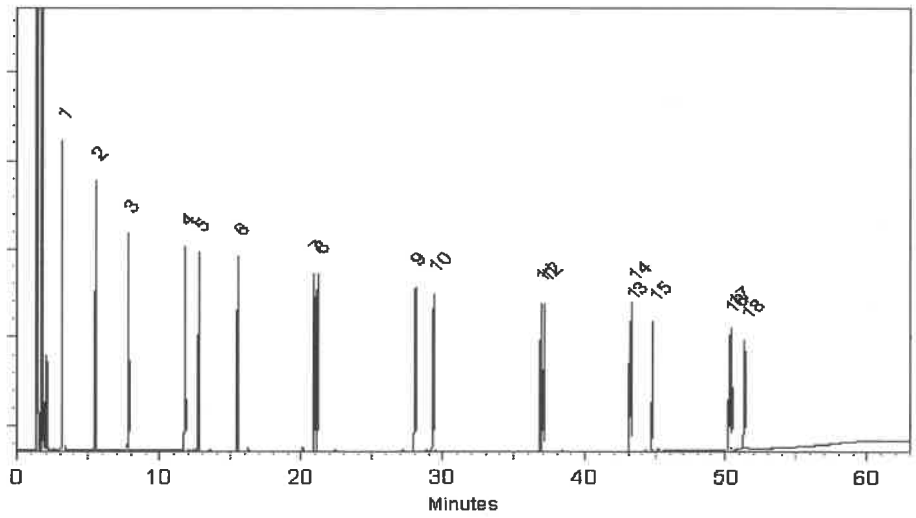
Inj. Temp:
250°C

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

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

P13954

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.)

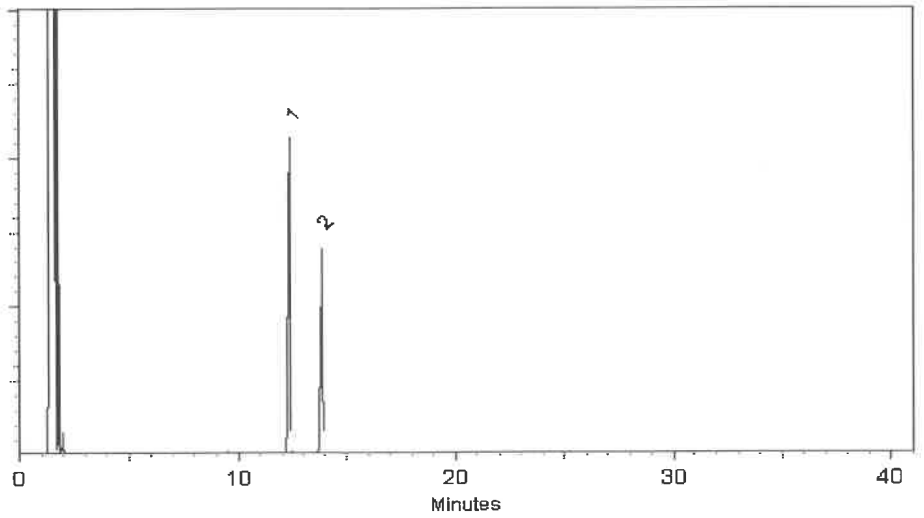
Inj. Temp:
250°C

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.:** 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.)

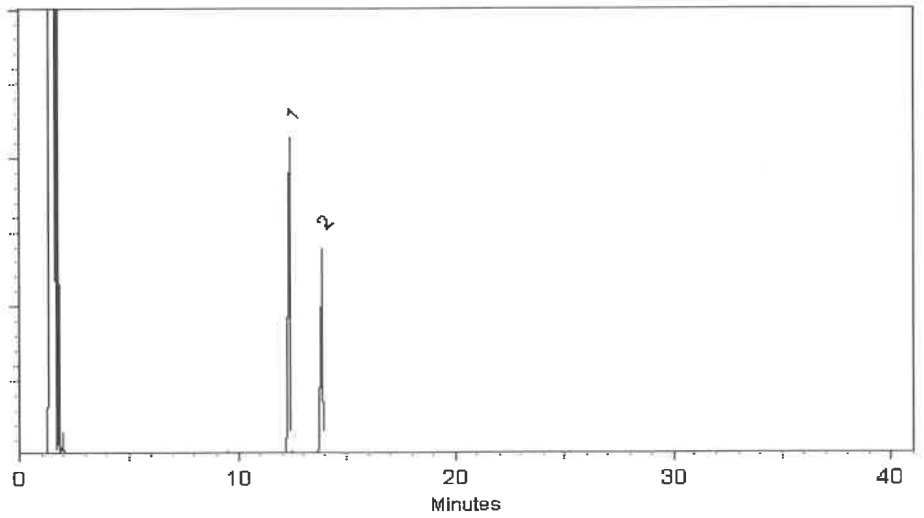
Inj. Temp:
250°C

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

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

P13954

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.)

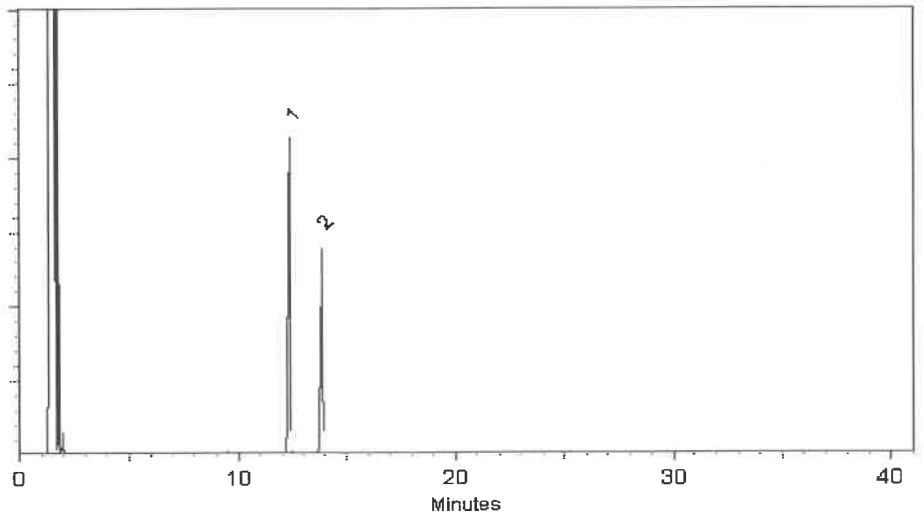
Inj. Temp:
250°C

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.:** A0219106

P13947
L

Description : MA Fractionation Surrogate Spike Mix

MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul

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

P13954

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.)

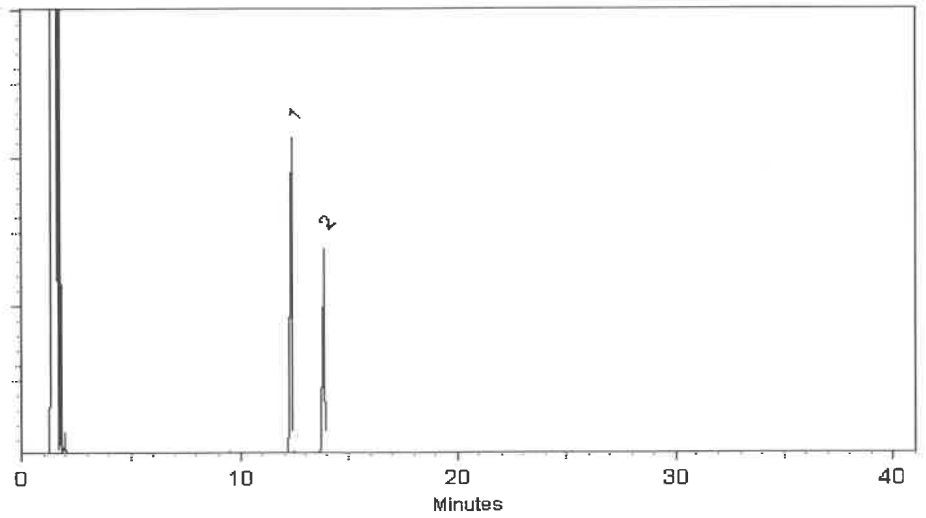
Inj. Temp:
250°C

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

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

P13954

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.)

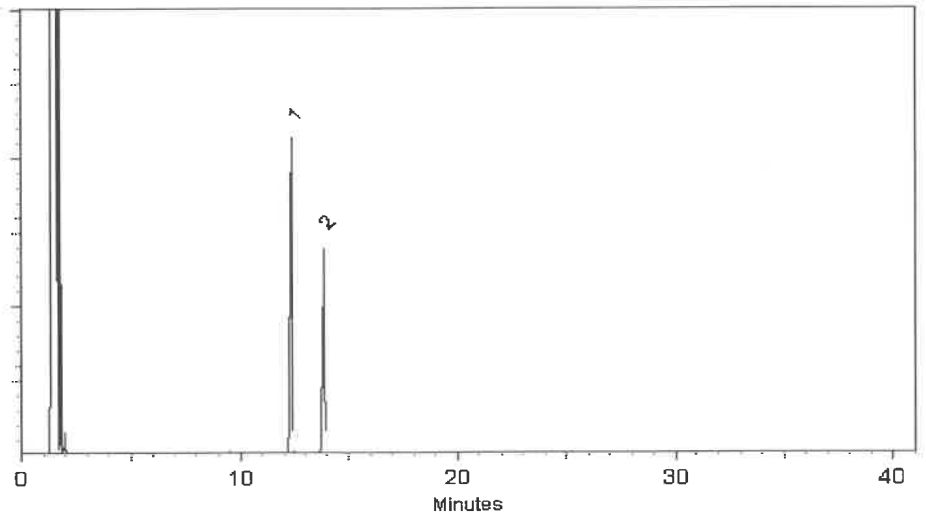
Inj. Temp:
250°C

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.)

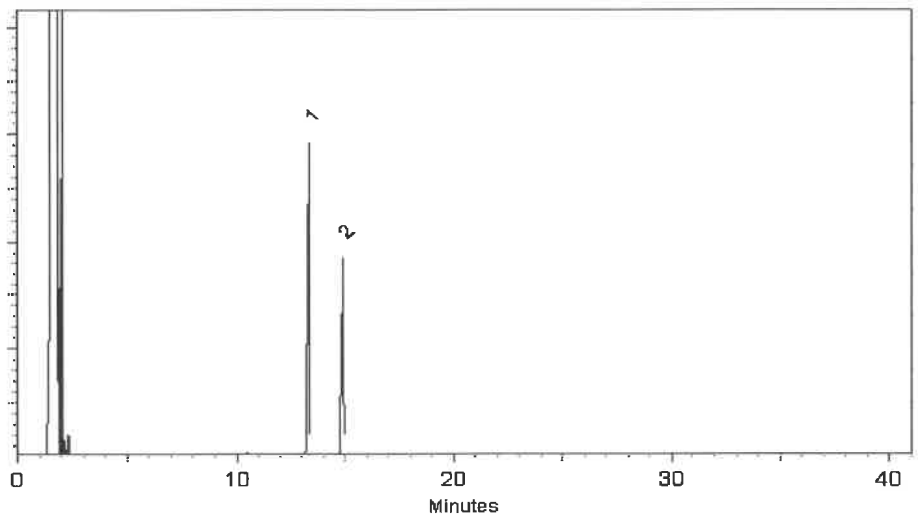
Inj. Temp:
250°C

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

phenova® | A Phenomenex® Company
Certified Reference Materials

Packing List

Date	Order #
04/21/2025	333293

6390 Joyce Dr., #100
Golden, CO 80403

Tel: +1-303-940-0033
Fax: +1-303-940-0043
info@phenova.com
www.phenova.com

Received by: SJ
4/23/2025 15:50

For terms and conditions of your order, please visit:
www.phenova.com/home/termsofsale

Ship To

Alliance Tech Group - Newark
ATTN: Sohil Jodhani
284 Sheffield St., #1
Mountainside, NJ 07092
USA

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
PO2-1668	Net 30	ZCM-100	1500470	FedEx Collect 2nd Day	Golden, CO

Qty Ordered	Qty Shipped	Qty Backorder	Part Number	Part Description	Study Number	Lot Number
1	1	0	PT-MET-SOIL	SOIL/HW Trace Metals	HW0425	7100-04
1	1	0	PT-CR6-SOIL	SOIL/HW Hexavalent Chromium	HW0425	7100-05B
1	1	0	PT-CN-SOIL	SOIL/HW Cyanide	HW0425	7100-06
1	1	0	PT-CORR-SOIL	SOIL/HW Corrosivity/pH	HW0425	7100-11
1	1	0	PT-FP-SOIL	SOIL/HW Flash Point	HW0425	7100-10
1	1	0	PT-AN-SOIL	SOIL/HW Anions	HW0425	7100-08
1	1	0	PT-NUT-SOIL	SOIL/HW Nutrients	HW0425	7100-09B
1	1	0	PT-SOL-SOIL	SOIL/HW Solids	HW0425	7100-31
1	1	0	PT-NO2-SOIL	SOIL/HW Nitrite as N	HW0425	7100-71
1	1	0	PT-GAS-SOIL	SOIL/HW Gasoline	HW0425	7100-96
1	1	0	PT-OGR-SOIL	SOIL/HW Oil and Grease	HW0425	7100-94
1	1	0	PT-VOA-SOIL	SOIL/HW Volatiles	HW0425	7100-12
1	1	0	PT-BNA-SOIL	SOIL/HW BNAs	HW0425	7100-13
1	1	0	PT-PEST-SOIL	SOIL/HW Pesticides	HW0425	7100-14
1	1	0	PT-CHLR-SOIL	SOIL/HW Chlordane	HW0425	7100-15
1	1	0	PT-TXP-SOIL	SOIL/HW Toxaphene	HW0425	7100-16
1	1	0	PT-PCB-SOIL	SOIL/HW PCBs	HW0425	7100-17
1	1	0	PT-PCBO-SOIL	SOIL/HW PCBs in Oil	HW0425	7100-88
1	1	0	PT-HERB-SOIL	SOIL/HW Herbicides	HW0425	7100-18
1	1	0	PT-PAH-SOIL	SOIL/HW PAHs	HW0425	7100-22
1	1	0	PT-TRIAZINE-SOIL	SOIL/HW Triazine Pesticides	HW0425	7100-106
1	1	0	PT-NJEPH-SOIL	NJ EPH in SOIL	HW0425	7100-105

phenova® Certified Reference Materials | A Phenomenex® Company

Packing List

Date	Order #
04/25/2025	337220

6390 Joyce Dr., #100
Golden, CO 80403

Tel: +1-303-940-0033
Fax: +1-303-940-0043
info@phenova.com
www.phenova.com

For terms and conditions of your order, please visit:
www.phenova.com/home/termsofsale

Ship To

Alliance Tech Group - Newark
ATTN: Sohil Jodhani
284 Sheffield St., #1
Mountainside, NJ 07092
USA

Received by: SJ
4/28/2025 9:40

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
CPR	Net 30	ZCM-100	1500470	FedEx Next Day	Golden, CO

Qty Ordered	Qty Shipped	Qty Backorder	Part Number	Part Description	Study Number	Lot Number
1	1	0	PT-DIES-SOIL	SOIL/HW Diesel in Soil	HW0425	7100-100

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