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

DATA PACKAGE

GC SEMI-VOLATILES

PROJECT NAME : CON EDISON - 11TH AVE-WEST 50TH ST SITE

PARSONS ENGINEERING OF NEW YORK, INC.

301 Plainfield Road

Suite 350

Syracuse, NY - 13212

Phone No: 315-451-9560

ORDER ID : Q1739

ATTENTION : Stephen Liberatore

Laboratory Certification ID # 20012

Alliance TECHNICAL GROUP

Table Of Contents for Q1739

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Cover Page

Order ID : Q1739

Project ID : Con Edison - 11th Ave-West 50th St Site

Client : PARSONS Engineering of New York, Inc.

Lab Sample Number	Client Sample Number
Q1739-01	WC-LIQUID-20250404
Q1739-02	WC-LIQUID-20250404

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: 4/17/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

PARSONS Engineering of New York, Inc.
Project Name: Con Edison - 11th Ave-West 50th St Site
Project # N/A
Chemtech Project # Q1739
Test Name: TPH GC

A. Number of Samples and Date of Receipt:
2 Water samples were received on 04/04/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Flash Point, Mercury, Metals ICP-TAL, METALS-TAL, PCB, pH, RCRA CHARACTERISTICS, Reactive Cyanide, Reactive Sulfide, SVOC-TCL BNA -20, TCLP BNA, TCLP Extraction, TCLP Herbicide, TCLP ICP Metals, TCLP Mercury, TCLP METALS, TCLP Pesticide, TCLP VOA, TCLP ZHE Extraction, TPH GC and VOC-TCLVOA-10. This data package contains results for TPH GC.

C. Analytical Techniques:
The analysis of TPH GC was based on method 8015D and extraction was done based on method 3510.

D. QA/ QC Samples:
The Holding Times were met for all analysis.

The Surrogate recoveries met the acceptable criteria except for WC-LIQUID-20250404 [TETRACOSANE-d50 - 0%]Surrogate was diluted out due to the high dilution, no further corrective action was taken.

The Retention Times were acceptable for all samples.
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank Spike Duplicate met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.
The Initial Calibration met the requirements .
The Continuous Calibration met the requirements .

Samples WC-LIQUID-20250404 was diluted due to bad matrix The above samples original run is reported as screening data in miscellaneous data.

E. Additional Comments:

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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

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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1739 MATRIX: Water

METHOD: 8015D/3510

		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. The Surrogate recoveries met the acceptable criteria except for WC-LIQUID-20250404 [TETRACOSANE-d50 - 0%]Surrogate was diluted out due to the high dilution, no further corrective action was taken.		✓	
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 Blank Spike met requirements for all samples . The Blank Spike Duplicate met requirements for all samples . The RPD met criteria .			✓
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:			✓

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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 WC-LIQUID-20250404 was diluted due to bad matrix The above samples original run is reported as screening data in miscellaneous data.

QA REVIEW _____ Date _____

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1739

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

QA Review Signature: SOHIL JODHANI **Date:** 04/17/2025

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LAB CHRONICLE

OrderID:	Q1739	**OrderDate:**	4/4/2025 2:08:31 PM
Client:	PARSONS Engineering of New York, Inc.	**Project:**	Con Edison - 11th Ave-West 50th St Site
Contact:	Stephen Liberatore	**Location:**	L31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1739-01	**WC-LIQUID-20250404**	**WATER**			**04/04/25**			**04/04/25**
			PCB	8082A		04/08/25	04/08/25	
			TPH GC	8015D		04/08/25	04/08/25	
Q1739-02	**WC-LIQUID-20250404**	**TCLP**			**04/04/25**			**04/04/25**
			TCLP Herbicide	8151A		04/09/25	04/09/25	
			TCLP Pesticide	8081B		04/09/25	04/09/25	

QC SUMMARY

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WATER TPH GC SURROGATE RECOVERY

Lab Name: Chemtech Client: PARSONS Engineering of New York, Inc.

Lab Code: CHEM Case No.: Q1739 SAS No.: Q1739 SDG No.: Q1739

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF015754.D	96				0
PIBLK-FF015763.D	93				0
PIBLK-FF015766.D	85				0
PIBLK-FF015772.D	84				0
PB167520BL	75				0
PB167520BS	91				0
PB167520BSD	90				0
WC-LIQUID-20250404	0 *				1

	QC LIMITS
TETRACOSANE-d50	For Water : 29-130 For Soil : 37-130

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

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WATER TPH GC LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** PARSONS Engineering of New York, Inc.

Lab Code: CHEM **Cas No:** Q1739 **SAS No :** Q1739 **SDG No:** Q1739

Matrix Spike - EPA Sample No : PB167520BS **Datafile:** FF015770.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS
Petroleum Hydrocarbons	340	0	267	78	78-117

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WATER TPH GC LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** PARSONS Engineering of New York, Inc.

Lab Code: CHEM **Cas No:** Q1739 **SAS No :** Q1739 **SDG No:** Q1739

Matrix Spike - EPA Sample No : PB167520BSD **Datafile:** FF015771.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS
Petroleum Hydrocarbons	340	0	267	78	78-117

LCS/LCSD % Recovery RPD : 0

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4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.
PB167520BL

Lab Name: CHEMTECH Contract: PARS02

Lab Code: CHEM Case No.: Q1739 SAS No.: Q1739 SDG NO.: Q1739

Lab File ID: FF015769.D Lab Sample ID: PB167520BL

Instrument ID: FF Date Extracted: 04/09/2025

Matrix: (soil/water) Water Date Analyzed: 04/09/25

Level: (low/med) low Time Analyzed: 10:15

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
WC-LIQUID-20250404	Q1739-01	FF015762.D	04/08/25
PB167520BS	PB167520BS	FF015770.D	04/09/25
PB167520BSD	PB167520BSD	FF015771.D	04/09/25

COMMENTS:

SAMPLE DATA

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Report of Analysis

Client:	PARSONS Engineering of New York, Inc.	Date Collected:	04/04/25
Project:	Con Edison - 11th Ave-West 50th St Site	Date Received:	04/04/25
Client Sample ID:	WC-LIQUID-20250404	SDG No.:	Q1739
Lab Sample ID:	Q1739-01	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
Sample Wt/Vol:	980 Units: mL	Final Vol:	5 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015762.D	500	04/08/25 11:05	04/08/25 18:56	PB167520

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	3310000		29800	217000	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	0.00	*	29 - 130	0%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015762.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 18:56
Operator : YP\AJ
Sample : Q1739-01 500X
Misc :
ALS Vial : 76 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
WC-LIQUID-20250404

Integration File: autoint1.e
Quant Time: Apr 09 01:17:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds

Target Compounds

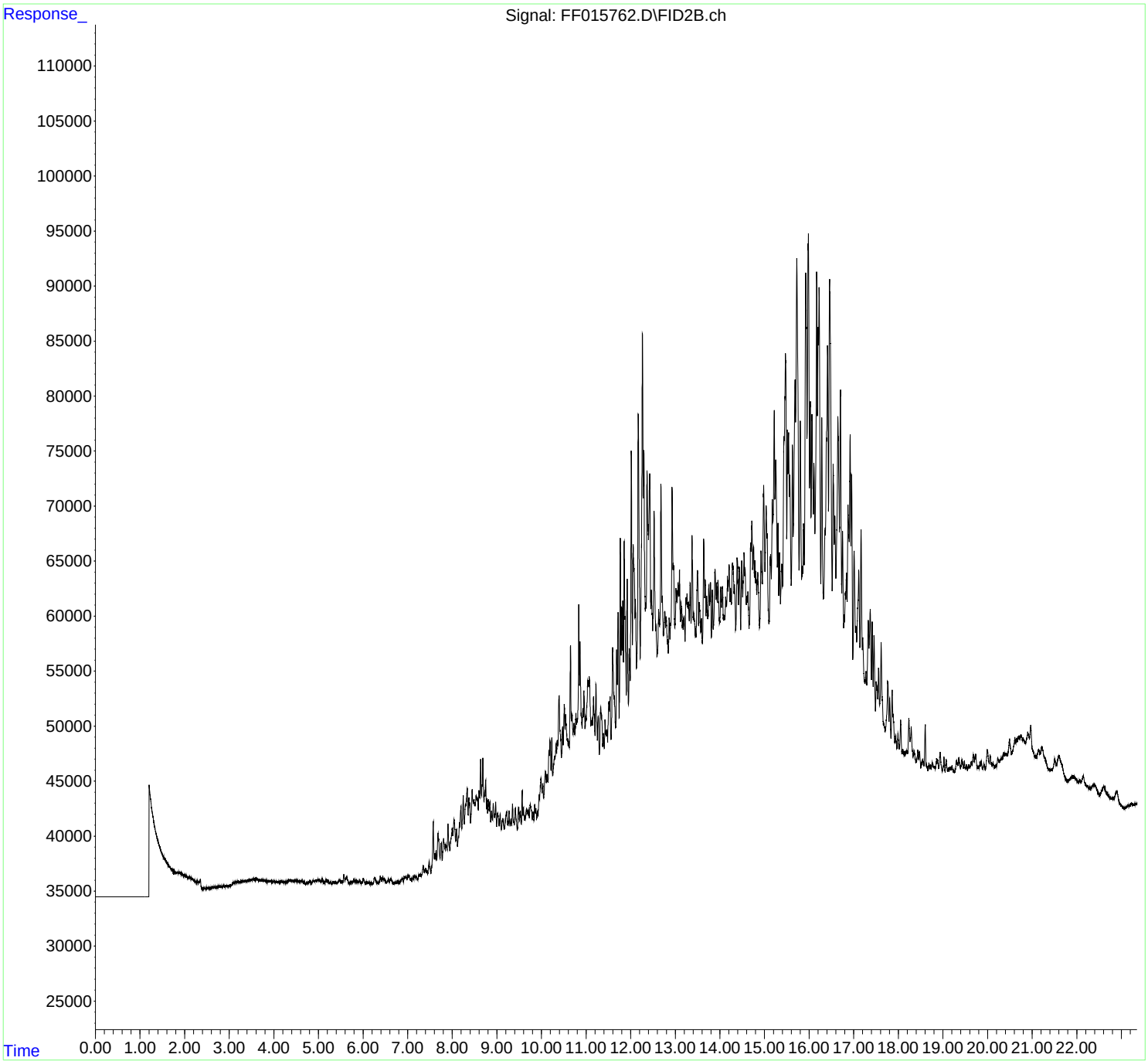
(f)=RT Delta > 1/2 Window (m)=manual int.

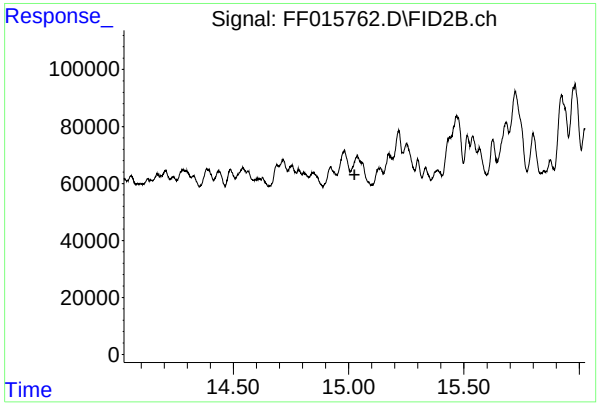
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015762.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 18:56
Operator : YP\AJ
Sample : Q1739-01 500X
Misc :
ALS Vial : 76 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
WC-LIQUID-20250404

Integration File: autoint1.e
Quant Time: Apr 09 01:17:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 0.000 min
Exp R.T. : 15.025 min
Response: 0
Conc: N.D.

Instrument :
FID_F
ClientSampleId :
WC-LIQUID-20250404

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

CALIBRATION SUMMARY

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TPH GC INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: PARS02

ProjectID: Con Edison - 11th Ave-West 50th St Site

Lab Code: CHEM Case No.: Q1739 SAS No.: Q1739 SDG No.: Q1739

Calibration Sequence : FF032625		Test : TPH GC	
Concentration (PPM)	**Area Count**	**Reference Factor**	**File ID**
1700	198527146	116781	FF015731.D
850	95338794	112163	FF015732.D
340	37302499	109713	FF015733.D
170	19378643	113992	FF015734.D
85	8296775	97609	FF015735.D
AVG RF : 110052	**% RSD : 6.742**		**AVG RT : 15.0252**

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015731.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 10:26
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 26 12:49:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:48:23 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.029	11080179	100.029 ug/ml
	Target Compounds			
1)	N-OCTANE	2.027	11812969	101.961 ug/ml
2)	N-DECANE	4.568	11971122	102.109 ug/ml
3)	N-DODECANE	6.738	12253088	102.372 ug/ml
4)	N-TETRADECANE	8.566	12406560	102.340 ug/ml
5)	N-HEXADECANE	10.174	12506096	101.918 ug/ml
6)	N-OCTADECANE	11.618	12782859	101.494 ug/ml
7)	N-EICOSANE	12.929	12956275	100.823 ug/ml
8)	N-DOCOSANE	14.129	12594854	100.658 ug/ml
10)	N-TETRACOSANE	15.235	12578779	100.201 ug/ml
11)	N-HEXACOSANE	16.256	12524022	100.177 ug/ml
12)	N-OCTACOSANE	17.206	12372233	100.122 ug/ml
13)	N-TRIACONTANE	18.094	12402065	100.099 ug/ml
14)	N-DOTRIACONTANE	18.927	11931970	101.680 ug/ml
15)	N-TETRATRIACONTANE	19.711	11040224	106.971 ug/ml
16)	N-HEXATRIACONTANE	20.451	9782612	115.416 ug/ml
17)	N-OCTATRIACONTANE	21.189	8749161	125.716 ug/ml
18)	N-TETRACONTANE	22.102	7862257	136.641 ug/ml

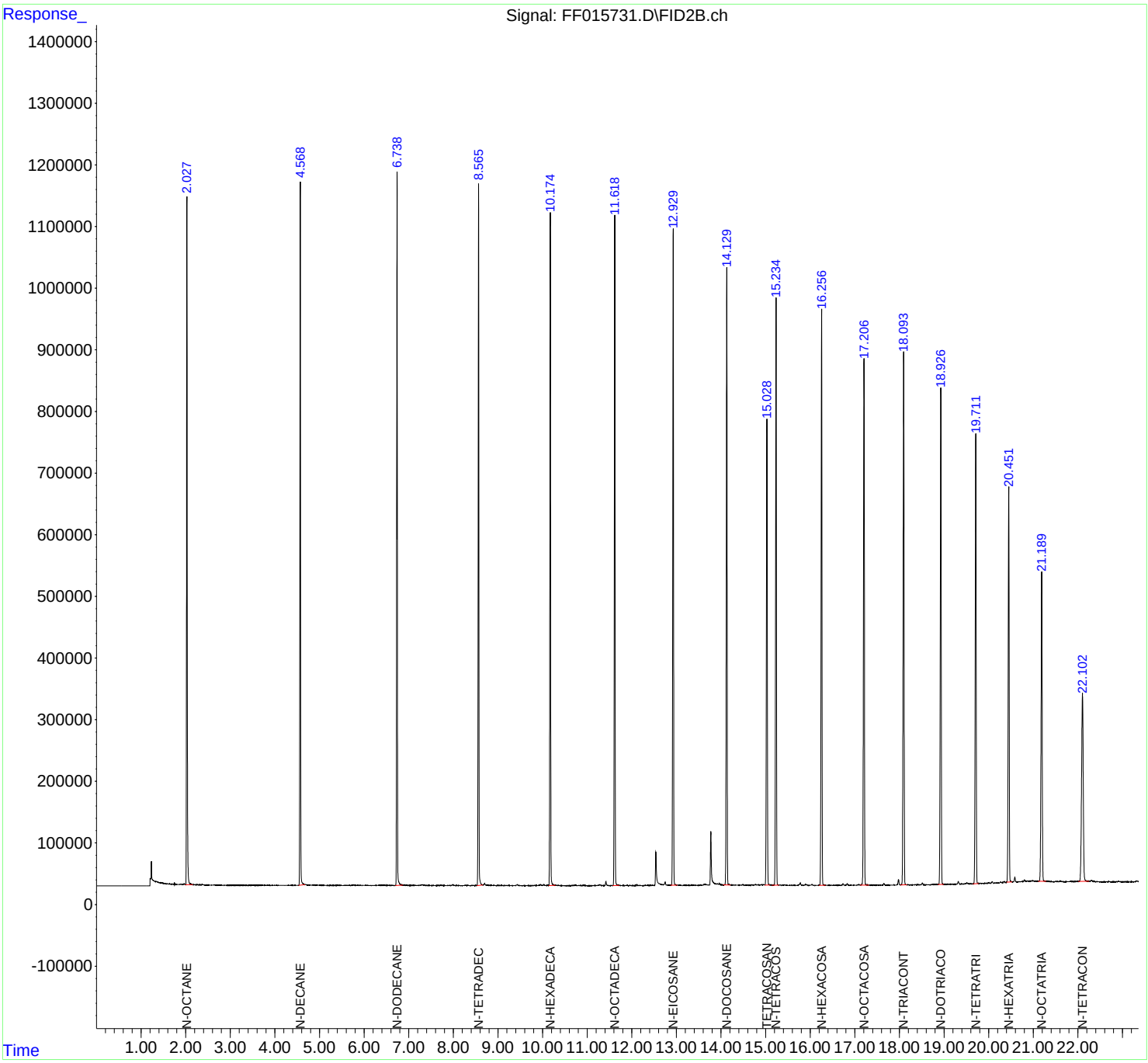
(f)=RT Delta > 1/2 Window (m)=manual int.

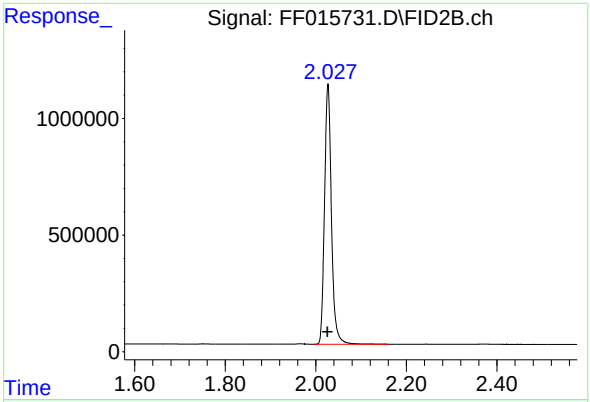
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015731.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 10:26
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 26 12:49:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:48:23 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

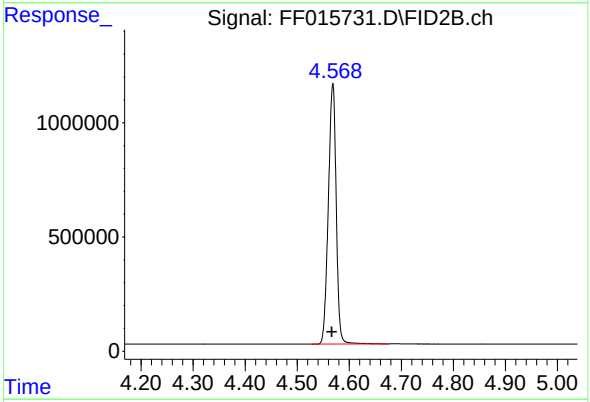




#1 N-OCTANE

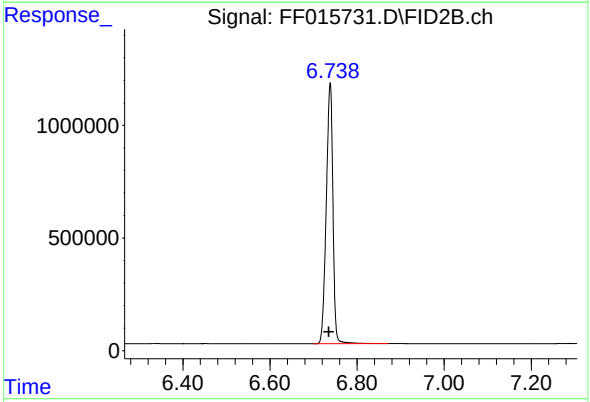
R.T.: 2.027 min
Delta R.T.: 0.001 min
Response: 11812969
Conc: 101.96 ug/ml

Instrument :
FID_F
ClientSampleId :
100 TRPH STD



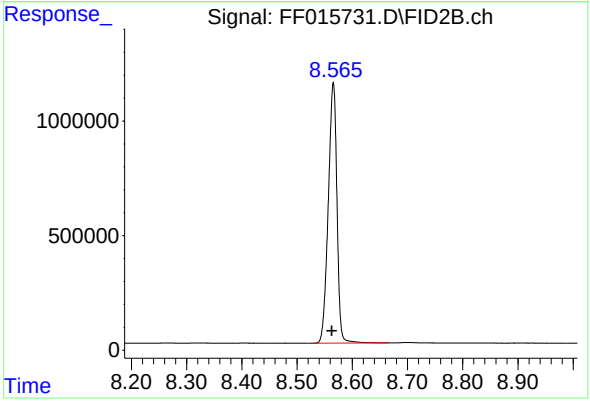
#2 N-DECANE

R.T.: 4.568 min
Delta R.T.: 0.002 min
Response: 11971122
Conc: 102.11 ug/ml



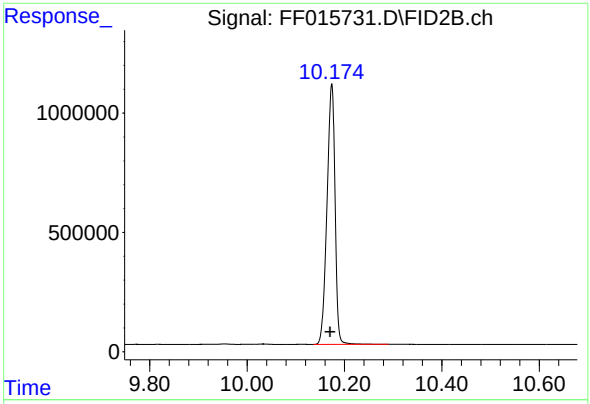
#3 N-DODECANE

R.T.: 6.738 min
Delta R.T.: 0.003 min
Response: 12253088
Conc: 102.37 ug/ml



#4 N-TETRADECANE

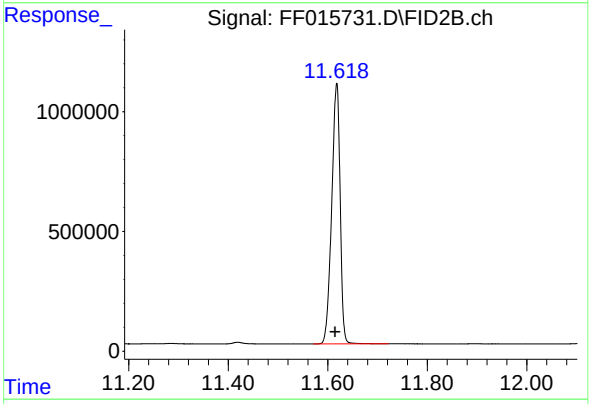
R.T.: 8.566 min
Delta R.T.: 0.003 min
Response: 12406560
Conc: 102.34 ug/ml



#5 N-HEXADECANE

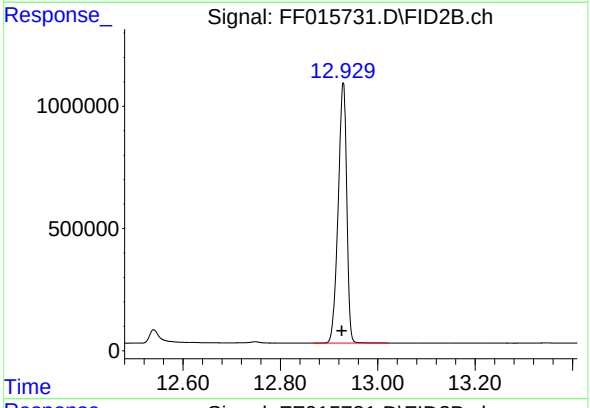
R.T.: 10.174 min
Delta R.T.: 0.003 min
Response: 12506096
Conc: 101.92 ug/ml

Instrument :
FID_F
ClientSampleId :
100 TRPH STD



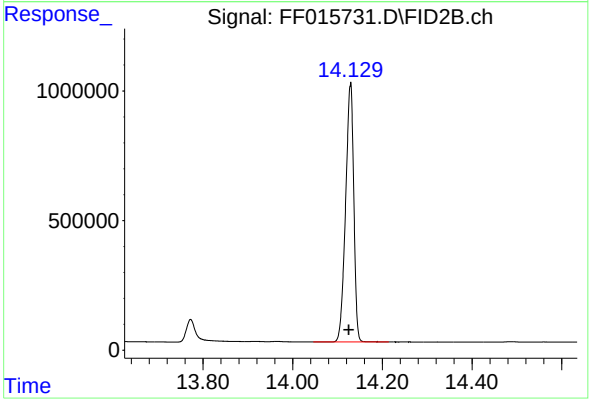
#6 N-OCTADECANE

R.T.: 11.618 min
Delta R.T.: 0.004 min
Response: 12782859
Conc: 101.49 ug/ml



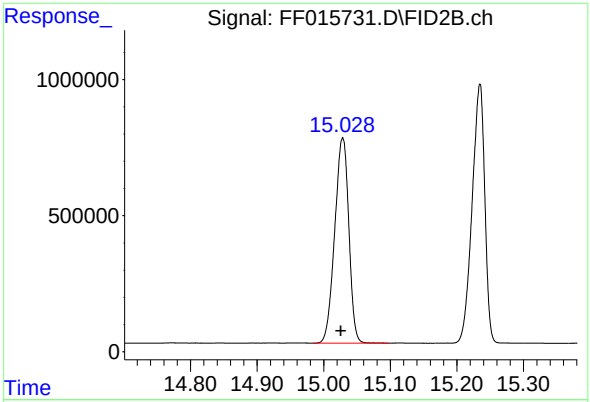
#7 N-EICOSANE

R.T.: 12.929 min
Delta R.T.: 0.004 min
Response: 12956275
Conc: 100.82 ug/ml



#8 N-DOCOSANE

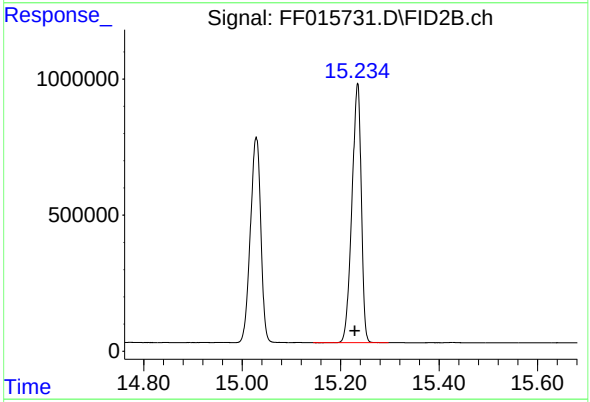
R.T.: 14.129 min
Delta R.T.: 0.004 min
Response: 12594854
Conc: 100.66 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

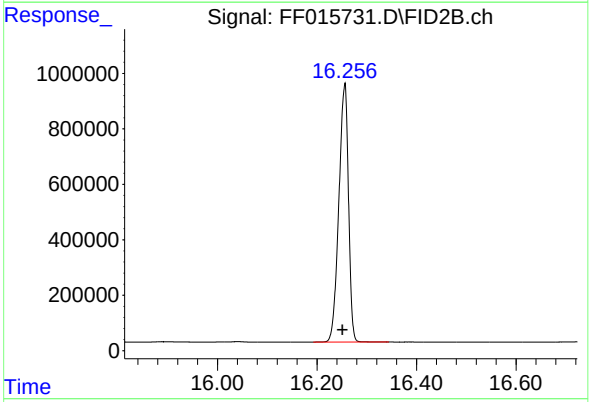
R.T.: 15.029 min
Delta R.T.: 0.003 min
Response: 11080179
Conc: 100.03 ug/ml

Instrument :
FID_F
ClientSampleId :
100 TRPH STD



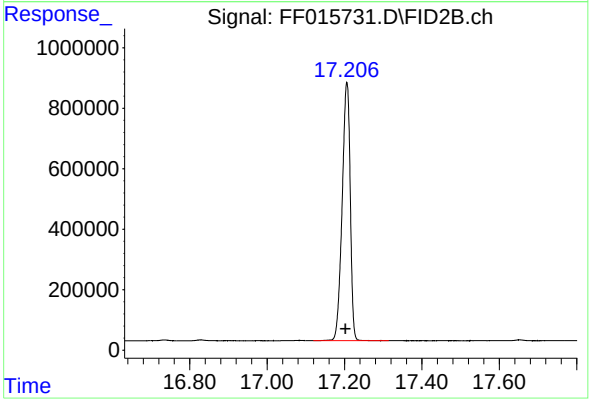
#10 N-TETRACOSANE

R.T.: 15.235 min
Delta R.T.: 0.006 min
Response: 12578779
Conc: 100.20 ug/ml



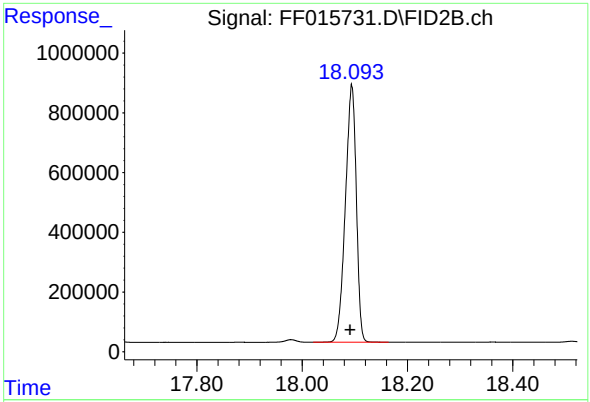
#11 N-HEXACOSANE

R.T.: 16.256 min
Delta R.T.: 0.004 min
Response: 12524022
Conc: 100.18 ug/ml



#12 N-OCTACOSANE

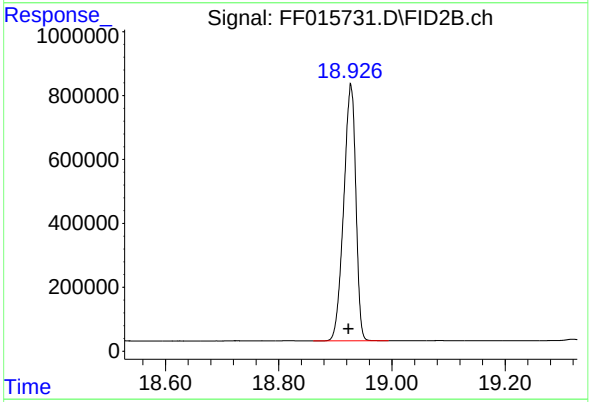
R.T.: 17.206 min
Delta R.T.: 0.004 min
Response: 12372233
Conc: 100.12 ug/ml



#13 N-TRIACONTANE

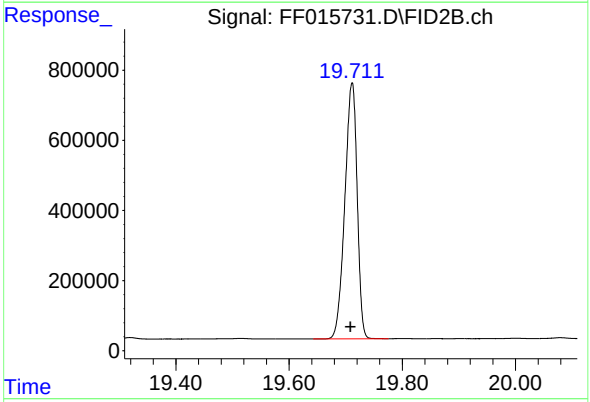
R.T.: 18.094 min
Delta R.T.: 0.004 min
Response: 12402065
Conc: 100.10 ug/ml

Instrument :
FID_F
ClientSampleId :
100 TRPH STD



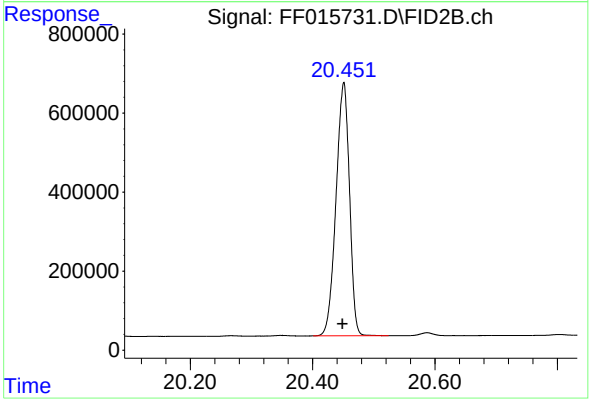
#14 N-DOTRIACONTANE

R.T.: 18.927 min
Delta R.T.: 0.005 min
Response: 11931970
Conc: 101.68 ug/ml



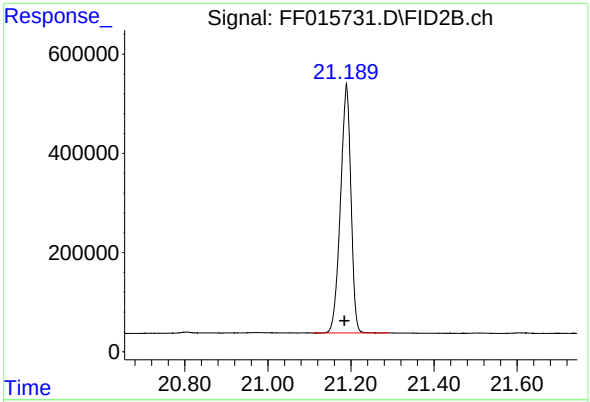
#15 N-TETRATRIACONTANE

R.T.: 19.711 min
Delta R.T.: 0.003 min
Response: 11040224
Conc: 106.97 ug/ml



#16 N-HEXATRIACONTANE

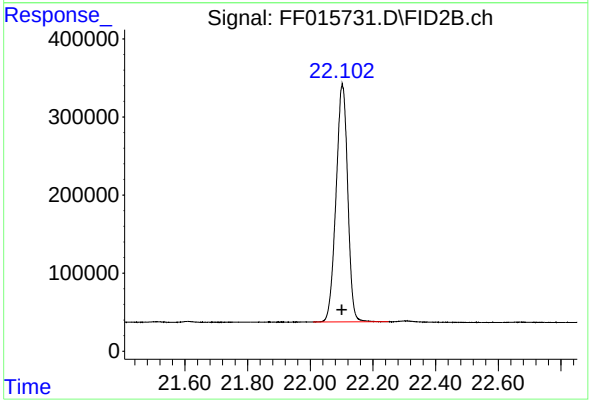
R.T.: 20.451 min
Delta R.T.: 0.003 min
Response: 9782612
Conc: 115.42 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.189 min
Delta R.T.: 0.005 min
Response: 8749161
Conc: 125.72 ug/ml

Instrument :
FID_F
ClientSampleId :
100 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.102 min
Delta R.T.: 0.002 min
Response: 7862257
Conc: 136.64 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015731.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 10:26
Sample : 100 TRPH STD
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.027	1.994	2.161	PB	1117364	11812969	91.18%	5.636%
2	4.568	4.531	4.676	BV	1144497	11971122	92.40%	5.711%
3	6.738	6.699	6.872	BB	1161799	12253088	94.57%	5.846%
4	8.566	8.529	8.666	BV	1138122	12406560	95.76%	5.919%
5	10.174	10.136	10.291	BB	1091720	12506096	96.53%	5.966%
6	11.618	11.571	11.722	BB	1087192	12782859	98.66%	6.098%
7	12.929	12.867	13.022	BB	1066560	12956275	100.00%	6.181%
8	14.129	14.046	14.214	BB	994268	12594854	97.21%	6.009%
9	15.029	14.984	15.097	VV	754719	11080179	85.52%	5.286%
10	15.235	15.144	15.297	BB	954007	12578779	97.09%	6.001%
11	16.256	16.192	16.344	BB	931293	12524022	96.66%	5.975%
12	17.206	17.119	17.314	BB	854553	12372233	95.49%	5.903%
13	18.094	18.021	18.164	VB	862510	12402065	95.72%	5.917%
14	18.928	18.861	18.994	BB	802616	11931970	92.09%	5.693%
15	19.711	19.642	19.776	BV	729693	11040224	85.21%	5.267%
16	20.451	20.401	20.524	BB	641536	9782612	75.50%	4.667%
17	21.189	21.109	21.291	BB	501278	8749161	67.53%	4.174%
18	22.102	22.009	22.250	BBA	305022	7862257	60.68%	3.751%

Sum of corrected areas: 209607322

FF032625.M Wed Mar 26 17:39:03 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015732.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 11:24
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 26 12:49:50 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:48:23 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.025	5538479	50.000 ug/ml
	Target Compounds			
1)	N-OCTANE	2.026	5792876	50.000 ug/ml
2)	N-DECANE	4.566	5861936	50.000 ug/ml
3)	N-DODECANE	6.735	5984561	50.000 ug/ml
4)	N-TETRADECANE	8.563	6061442	50.000 ug/ml
5)	N-HEXADECANE	10.171	6135398	50.000 ug/ml
6)	N-OCTADECANE	11.615	6297371	50.000 ug/ml
7)	N-EICOSANE	12.926	6425282	50.000 ug/ml
8)	N-DOCOSANE	14.125	6256239	50.000 ug/ml
10)	N-TETRACOSANE	15.229	6276780	50.000 ug/ml
11)	N-HEXACOSANE	16.252	6250966	50.000 ug/ml
12)	N-OCTACOSANE	17.202	6178607	50.000 ug/ml
13)	N-TRIACONTANE	18.091	6194887	50.000 ug/ml
14)	N-DOTRIACONTANE	18.923	5867387	50.000 ug/ml
15)	N-TETRATRIACONTANE	19.708	5160377	50.000 ug/ml
16)	N-HEXATRIACONTANE	20.448	4237994	50.000 ug/ml
17)	N-OCTATRIACONTANE	21.184	3479721	50.000 ug/ml
18)	N-TETRACONTANE	22.100	2876970	50.000 ug/ml

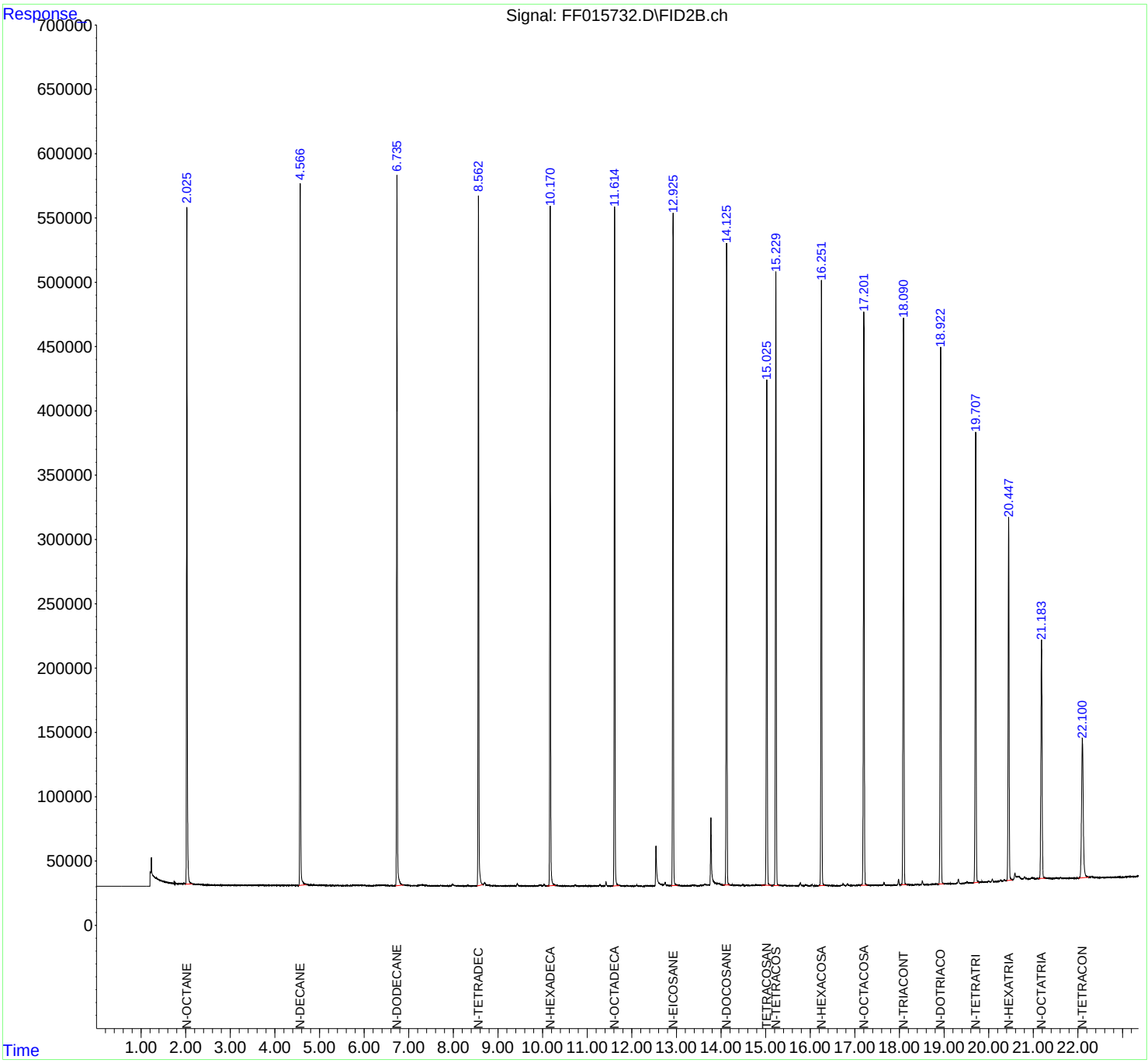
(f)=RT Delta > 1/2 Window (m)=manual int.

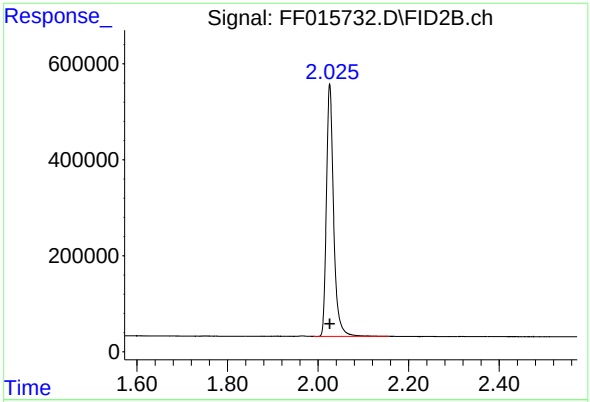
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015732.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 11:24
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 26 12:49:50 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:48:23 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

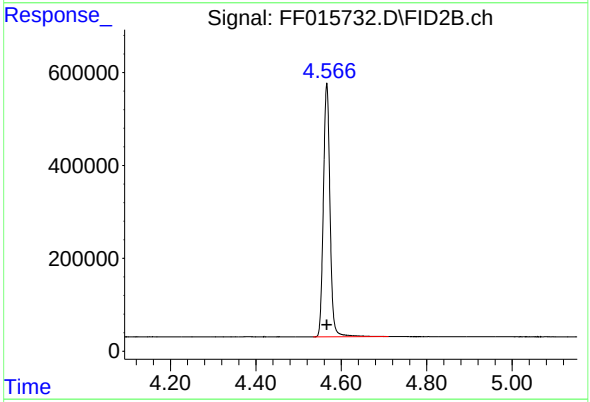




#1 N-OCTANE

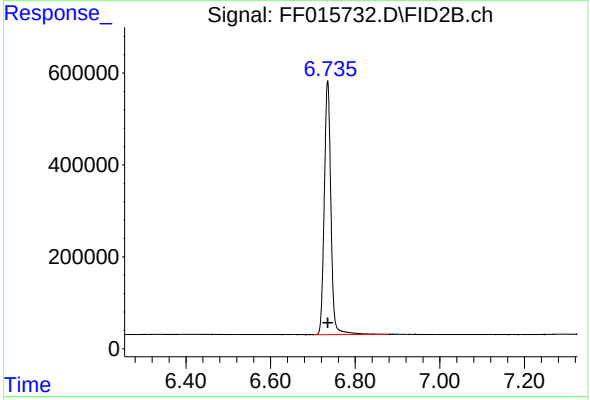
R.T.: 2.026 min
Delta R.T.: 0.000 min
Response: 5792876
Conc: 50.00 ug/ml

Instrument :
FID_F
ClientSampleId :
50 TRPH STD



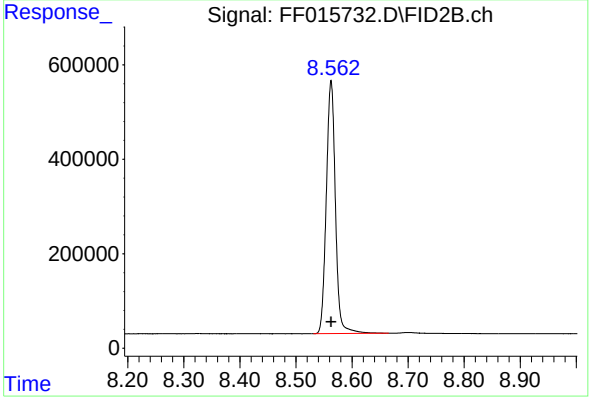
#2 N-DECANE

R.T.: 4.566 min
Delta R.T.: 0.000 min
Response: 5861936
Conc: 50.00 ug/ml



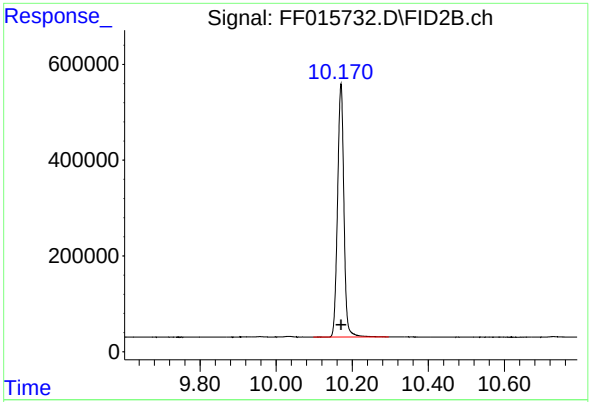
#3 N-DODECANE

R.T.: 6.735 min
Delta R.T.: 0.000 min
Response: 5984561
Conc: 50.00 ug/ml



#4 N-TETRADECANE

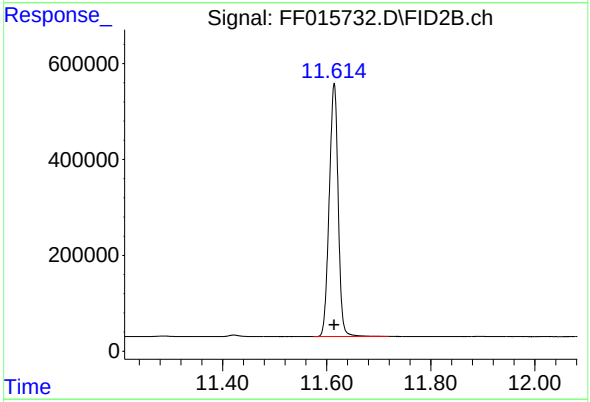
R.T.: 8.563 min
Delta R.T.: 0.000 min
Response: 6061442
Conc: 50.00 ug/ml



#5 N-HEXADECANE

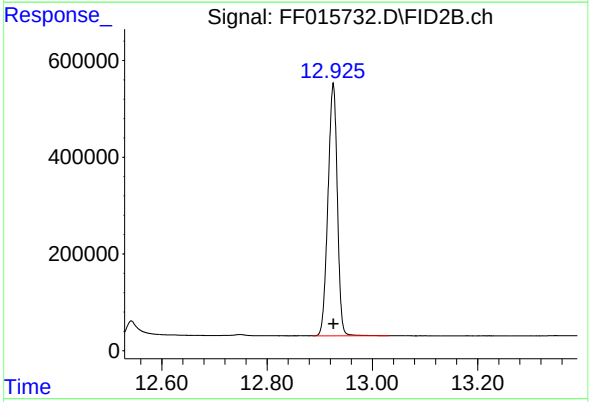
R.T.: 10.171 min
Delta R.T.: 0.000 min
Response: 6135398
Conc: 50.00 ug/ml

Instrument :
FID_F
ClientSampleId :
50 TRPH STD



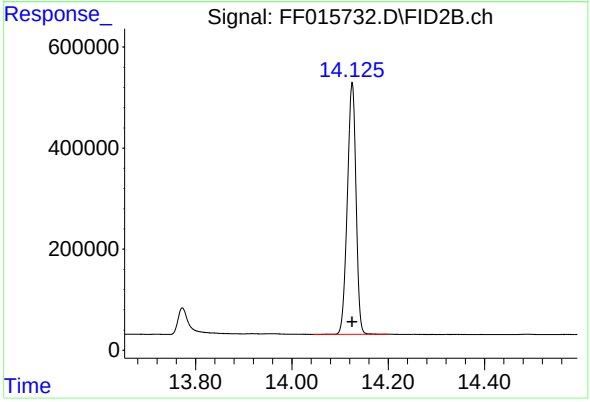
#6 N-OCTADECANE

R.T.: 11.615 min
Delta R.T.: 0.000 min
Response: 6297371
Conc: 50.00 ug/ml



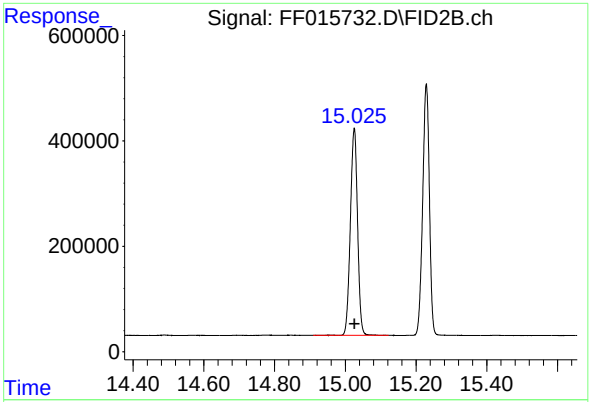
#7 N-EICOSANE

R.T.: 12.926 min
Delta R.T.: 0.000 min
Response: 6425282
Conc: 50.00 ug/ml



#8 N-DOCOSANE

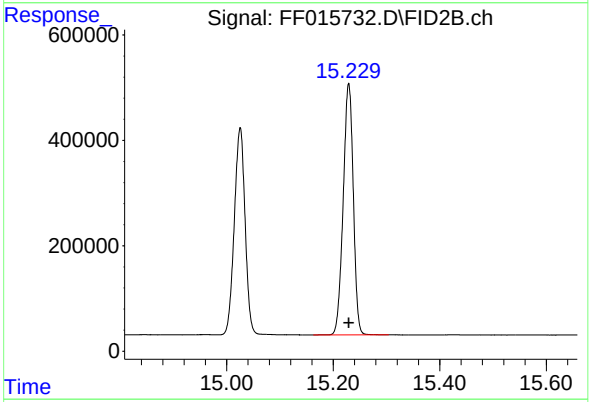
R.T.: 14.125 min
Delta R.T.: 0.000 min
Response: 6256239
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

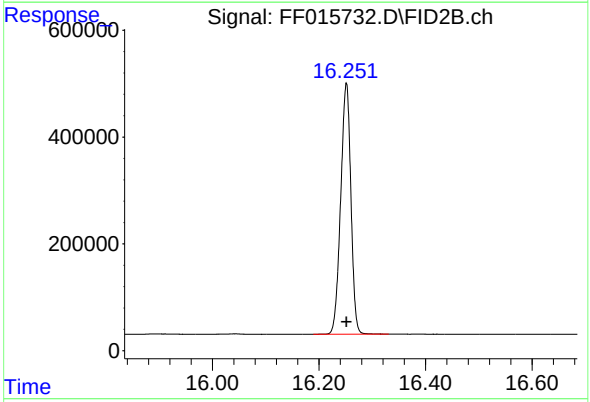
R.T.: 15.025 min
Delta R.T.: 0.000 min
Response: 5538479
Conc: 50.00 ug/ml

Instrument :
FID_F
ClientSampleId :
50 TRPH STD



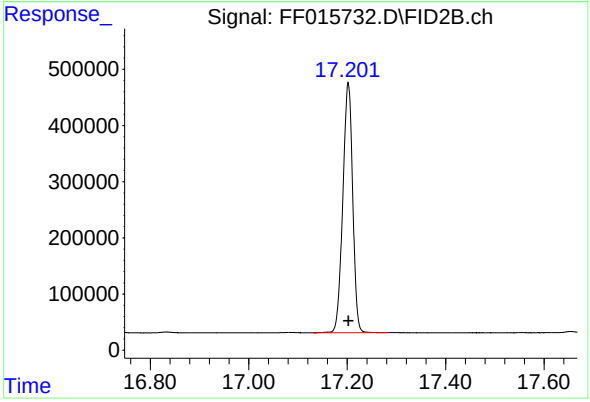
#10 N-TETRACOSANE

R.T.: 15.229 min
Delta R.T.: 0.000 min
Response: 6276780
Conc: 50.00 ug/ml



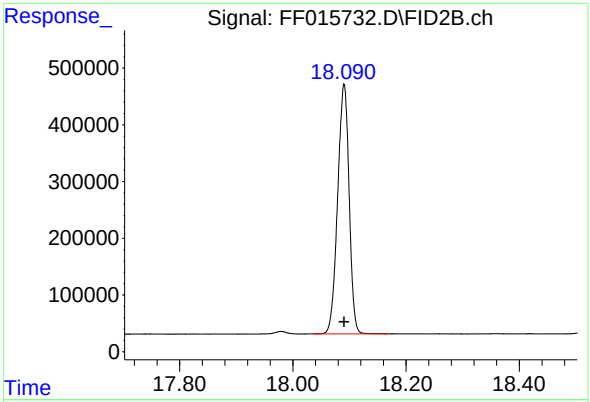
#11 N-HEXACOSANE

R.T.: 16.252 min
Delta R.T.: 0.000 min
Response: 6250966
Conc: 50.00 ug/ml



#12 N-OCTACOSANE

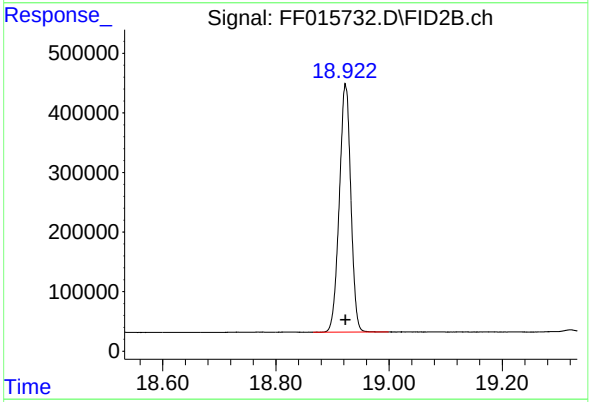
R.T.: 17.202 min
Delta R.T.: 0.000 min
Response: 6178607
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

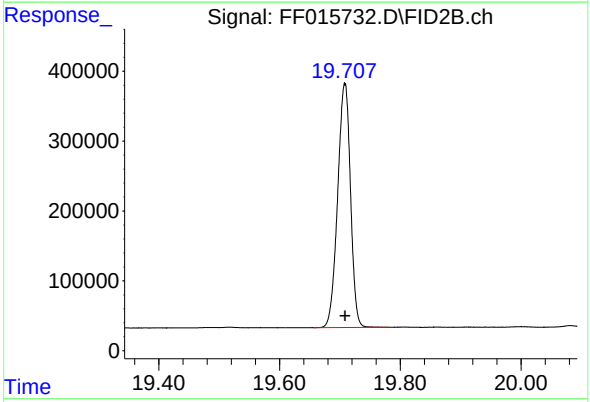
R.T.: 18.091 min
Delta R.T.: 0.000 min
Response: 6194887
Conc: 50.00 ug/ml

Instrument :
FID_F
ClientSampleId :
50 TRPH STD



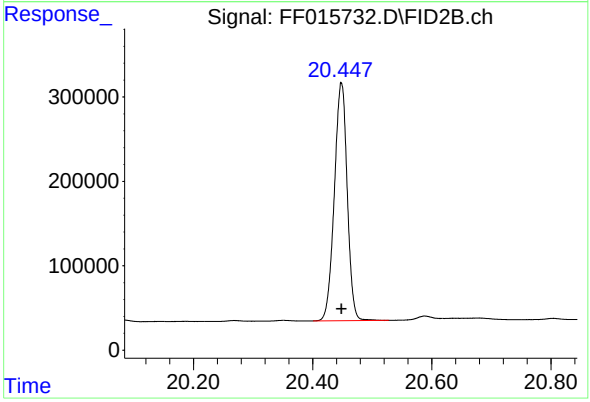
#14 N-DOTRIACONTANE

R.T.: 18.923 min
Delta R.T.: 0.000 min
Response: 5867387
Conc: 50.00 ug/ml



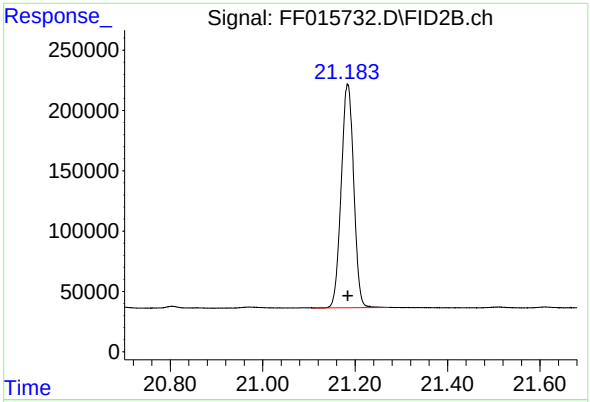
#15 N-TETRATRIACONTANE

R.T.: 19.708 min
Delta R.T.: 0.000 min
Response: 5160377
Conc: 50.00 ug/ml



#16 N-HEXATRIACONTANE

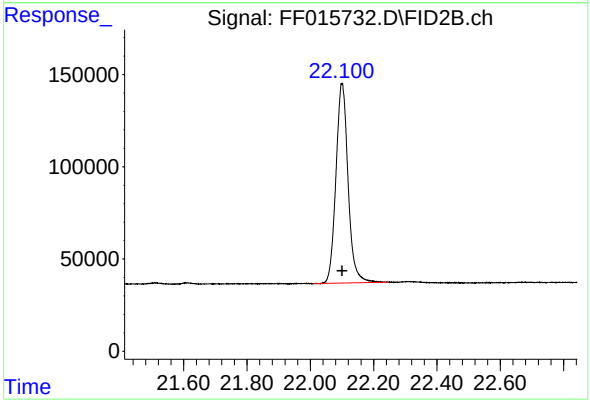
R.T.: 20.448 min
Delta R.T.: 0.000 min
Response: 4237994
Conc: 50.00 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.184 min
Delta R.T.: 0.000 min
Response: 3479721
Conc: 50.00 ug/ml

Instrument :
FID_F
ClientSampleId :
50 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.100 min
Delta R.T.: 0.000 min
Response: 2876970
Conc: 50.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015732.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 11:24
Sample : 50 TRPH STD
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.026	1.989	2.156	BB	525985	5792876	90.16%	5.742%
2	4.566	4.534	4.711	BB	544350	5861936	91.23%	5.811%
3	6.735	6.701	6.879	BB	554217	5984561	93.14%	5.933%
4	8.563	8.531	8.665	BV	535738	6061442	94.34%	6.009%
5	10.171	10.097	10.296	BB	529642	6135398	95.49%	6.082%
6	11.615	11.574	11.719	BB	528164	6297371	98.01%	6.243%
7	12.926	12.887	13.031	BB	522010	6425282	100.00%	6.369%
8	14.125	14.044	14.201	BB	498584	6256239	97.37%	6.202%
9	15.025	14.909	15.122	BB	393509	5538479	86.20%	5.490%
10	15.229	15.162	15.304	BB	476897	6276780	97.69%	6.222%
11	16.252	16.189	16.331	BB	471022	6250966	97.29%	6.197%
12	17.202	17.131	17.284	BB	443787	6178607	96.16%	6.125%
13	18.091	18.036	18.169	BB	440465	6194887	96.41%	6.141%
14	18.923	18.866	18.999	BB	416217	5867387	91.32%	5.816%
15	19.708	19.656	19.781	BB	349775	5160377	80.31%	5.115%
16	20.448	20.401	20.527	BV	281200	4237994	65.96%	4.201%
17	21.184	21.109	21.272	BB	184919	3479721	54.16%	3.449%
18	22.100	22.009	22.247	BB	108206	2876970	44.78%	2.852%

Sum of corrected areas: 100877272

FF032625.M Wed Mar 26 17:38:29 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015733.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 11:53
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 26 12:50:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:48:23 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.023	2195629	19.822 ug/ml
	Target Compounds			
1)	N-OCTANE	2.029	2231661	19.262 ug/ml
2)	N-DECANE	4.567	2210088	18.851 ug/ml
3)	N-DODECANE	6.734	2274006	18.999 ug/ml
4)	N-TETRADECANE	8.562	2306588	19.027 ug/ml
5)	N-HEXADECANE	10.170	2362440	19.253 ug/ml
6)	N-OCTADECANE	11.613	2462472	19.552 ug/ml
7)	N-EICOSANE	12.923	2543551	19.793 ug/ml
8)	N-DOCOSANE	14.122	2479870	19.819 ug/ml
10)	N-TETRACOSANE	15.227	2490879	19.842 ug/ml
11)	N-HEXACOSANE	16.249	2473888	19.788 ug/ml
12)	N-OCTACOSANE	17.200	2451720	19.840 ug/ml
13)	N-TRIACONTANE	18.088	2467315	19.914 ug/ml
14)	N-DOTRIACONTANE	18.921	2347216	20.002 ug/ml
15)	N-TETRATRIACONTANE	19.706	2055921	19.920 ug/ml
16)	N-HEXATRIACONTANE	20.445	1691212	19.953 ug/ml
17)	N-OCTATRIACONTANE	21.184	1365876	19.626 ug/ml
18)	N-TETRACONTANE	22.101	1087796	18.905 ug/ml

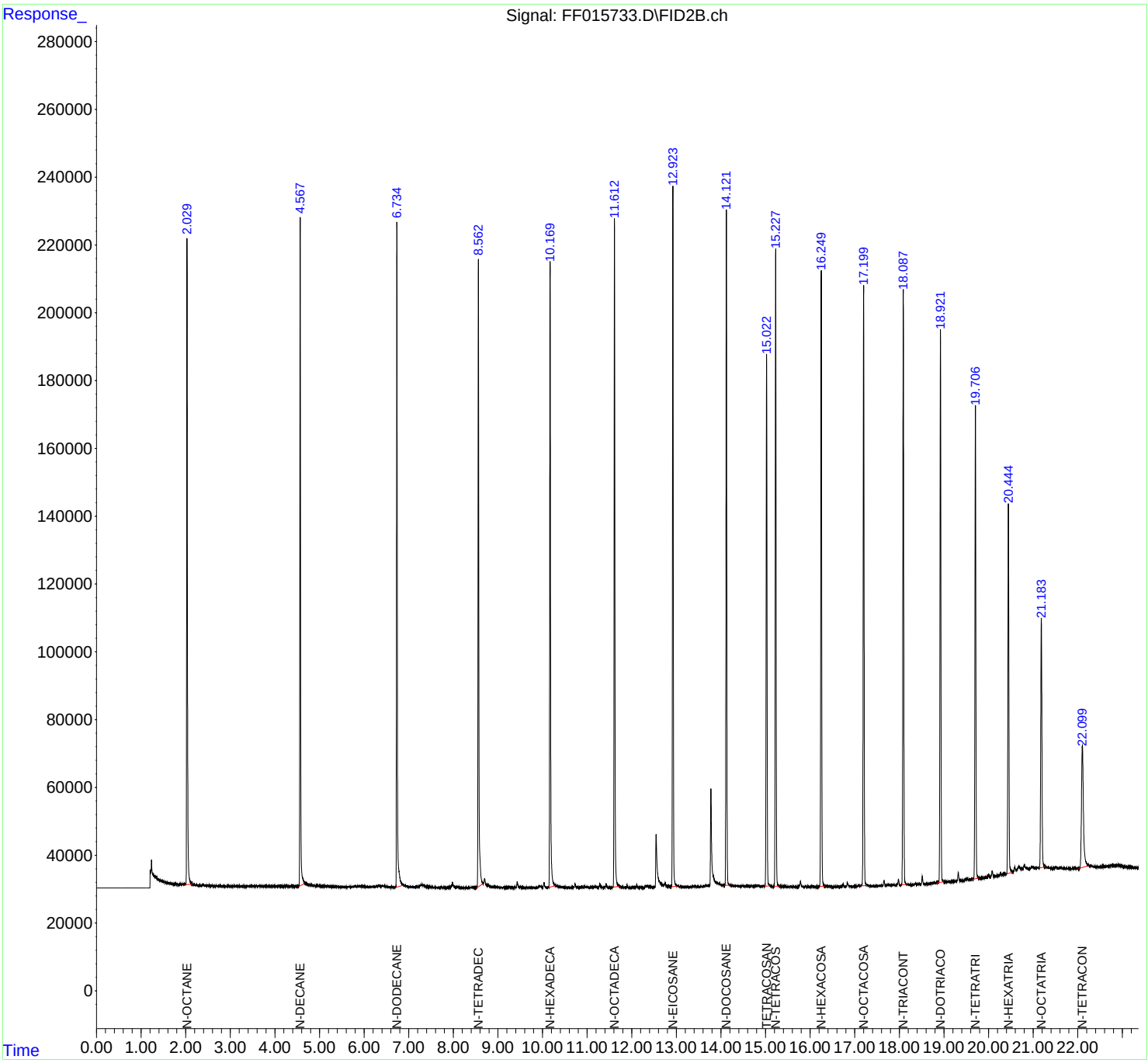
(f)=RT Delta > 1/2 Window (m)=manual int.

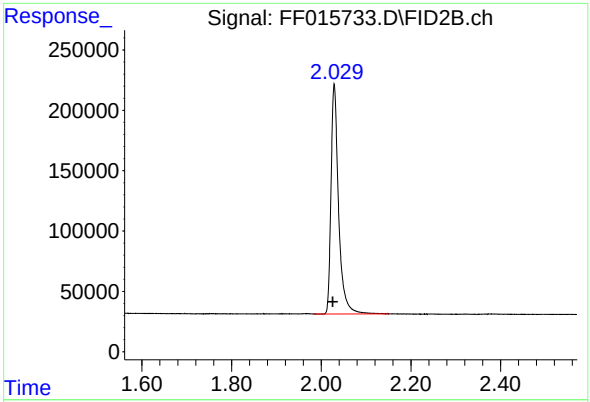
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015733.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 11:53
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 26 12:50:22 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:48:23 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

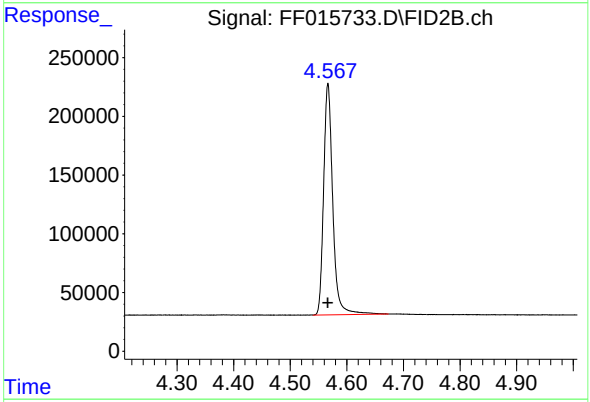




#1 N-OCTANE

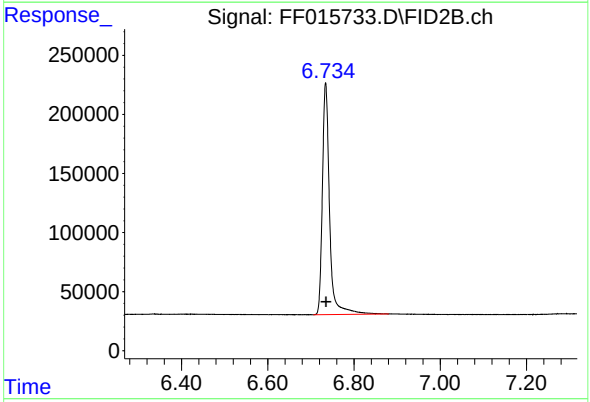
R.T.: 2.029 min
Delta R.T.: 0.003 min
Response: 2231661
Conc: 19.26 ug/ml

Instrument :
FID_F
ClientSampleId :
20 TRPH STD



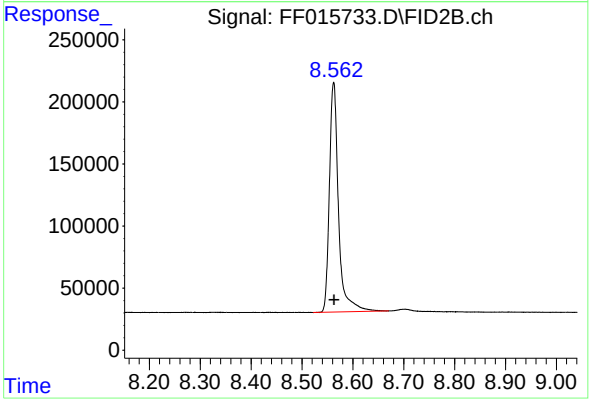
#2 N-DECANE

R.T.: 4.567 min
Delta R.T.: 0.000 min
Response: 2210088
Conc: 18.85 ug/ml



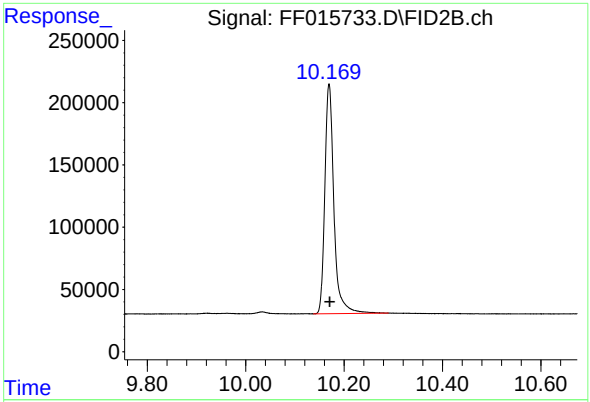
#3 N-DODECANE

R.T.: 6.734 min
Delta R.T.: 0.000 min
Response: 2274006
Conc: 19.00 ug/ml



#4 N-TETRADECANE

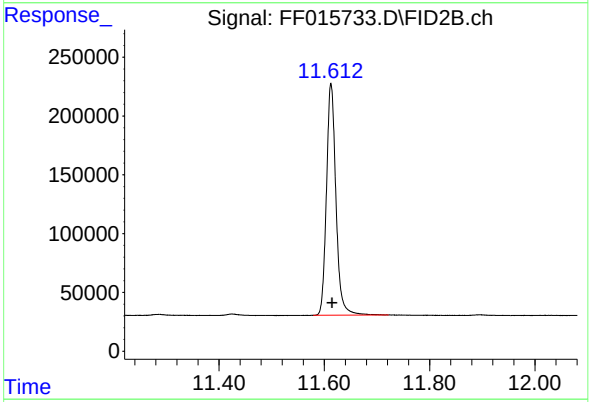
R.T.: 8.562 min
Delta R.T.: 0.000 min
Response: 2306588
Conc: 19.03 ug/ml



#5 N-HEXADECANE

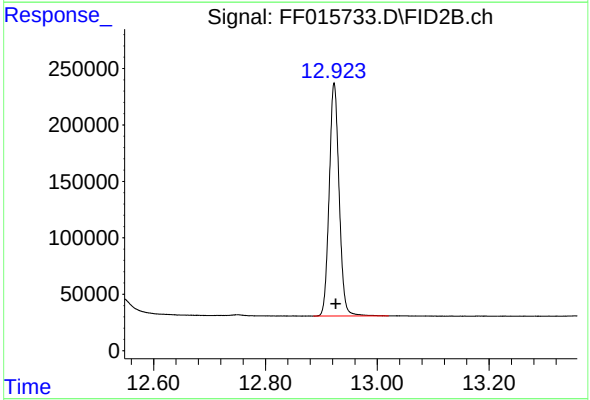
R.T.: 10.170 min
Delta R.T.: 0.000 min
Response: 2362440
Conc: 19.25 ug/ml

Instrument :
FID_F
ClientSampleId :
20 TRPH STD



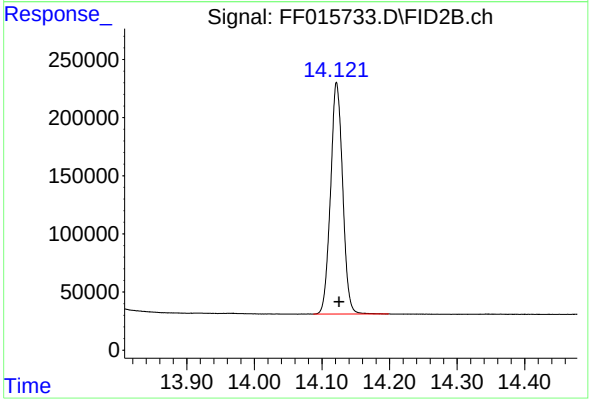
#6 N-OCTADECANE

R.T.: 11.613 min
Delta R.T.: -0.002 min
Response: 2462472
Conc: 19.55 ug/ml



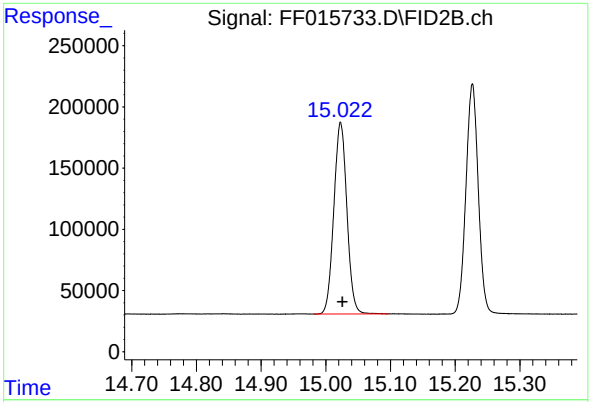
#7 N-EICOSANE

R.T.: 12.923 min
Delta R.T.: -0.003 min
Response: 2543551
Conc: 19.79 ug/ml



#8 N-DOCOSANE

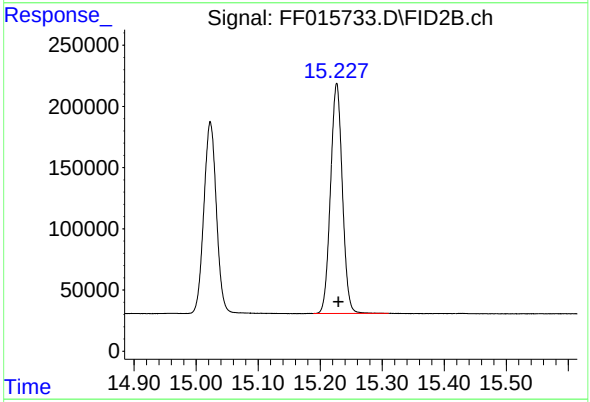
R.T.: 14.122 min
Delta R.T.: -0.004 min
Response: 2479870
Conc: 19.82 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

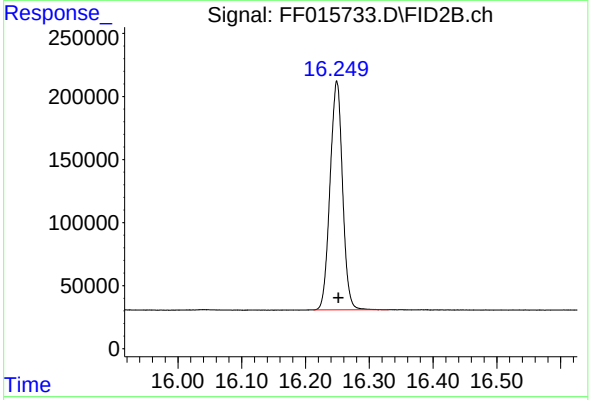
R.T.: 15.023 min
Delta R.T.: -0.003 min
Response: 2195629
Conc: 19.82 ug/ml

Instrument :
FID_F
ClientSampleId :
20 TRPH STD



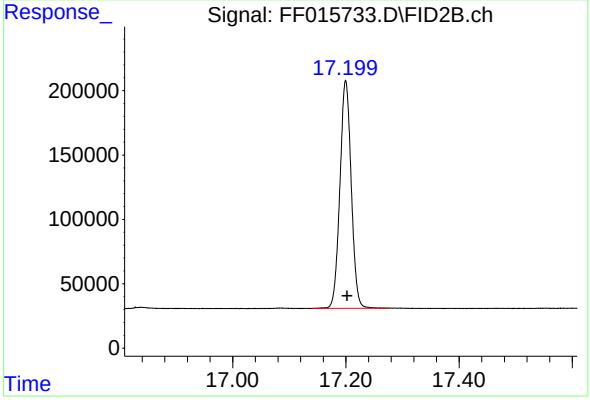
#10 N-TETRACOSANE

R.T.: 15.227 min
Delta R.T.: -0.002 min
Response: 2490879
Conc: 19.84 ug/ml



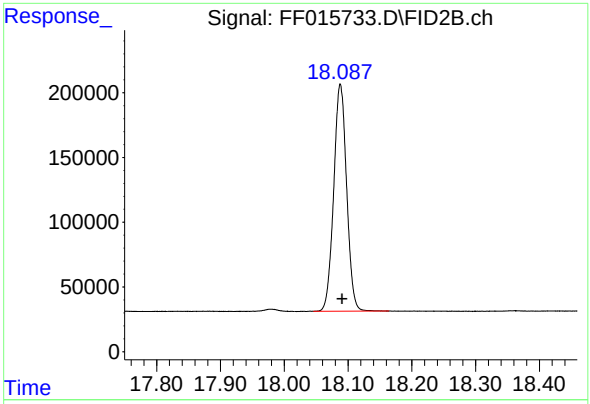
#11 N-HEXACOSANE

R.T.: 16.249 min
Delta R.T.: -0.002 min
Response: 2473888
Conc: 19.79 ug/ml



#12 N-OCTACOSANE

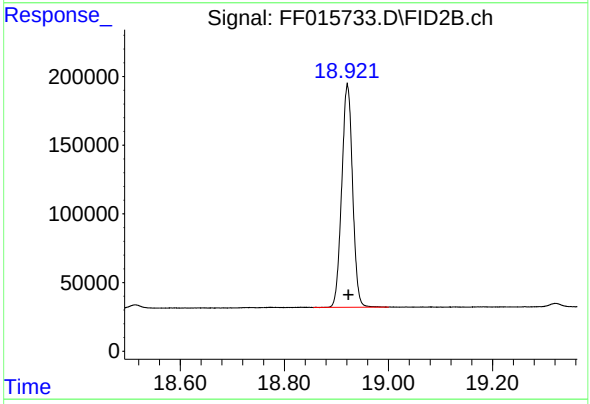
R.T.: 17.200 min
Delta R.T.: -0.003 min
Response: 2451720
Conc: 19.84 ug/ml



#13 N-TRIACONTANE

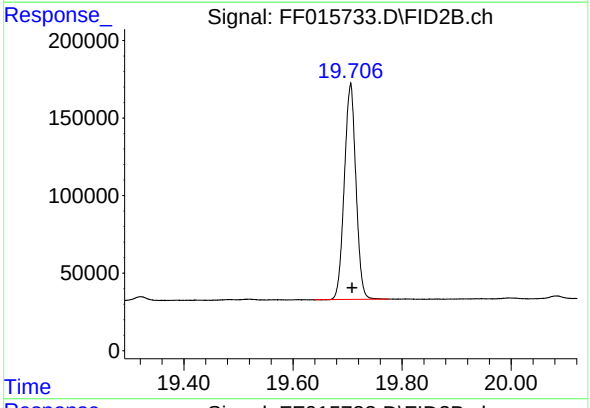
R.T.: 18.088 min
Delta R.T.: -0.003 min
Response: 2467315
Conc: 19.91 ug/ml

Instrument :
FID_F
ClientSampleId :
20 TRPH STD



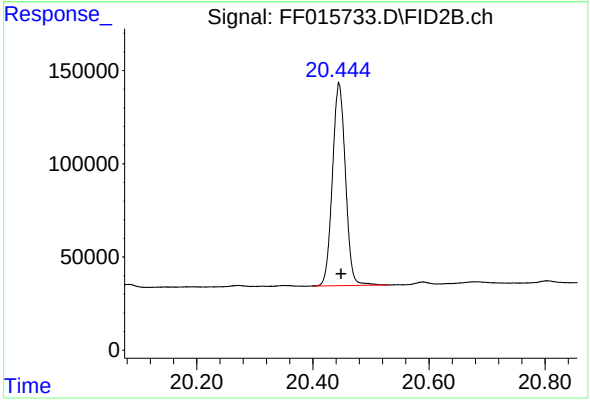
#14 N-DOTRIACONTANE

R.T.: 18.921 min
Delta R.T.: -0.002 min
Response: 2347216
Conc: 20.00 ug/ml



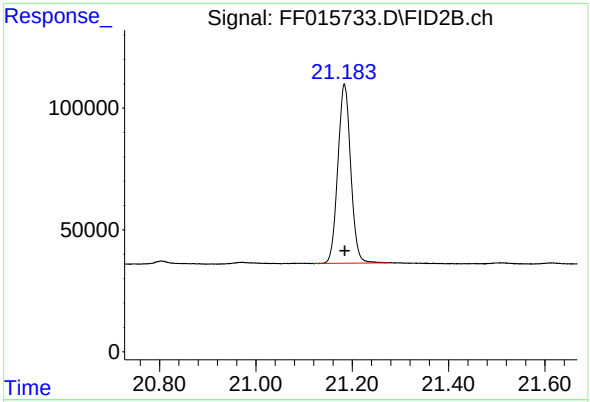
#15 N-TETRATRIACONTANE

R.T.: 19.706 min
Delta R.T.: -0.002 min
Response: 2055921
Conc: 19.92 ug/ml



#16 N-HEXATRIACONTANE

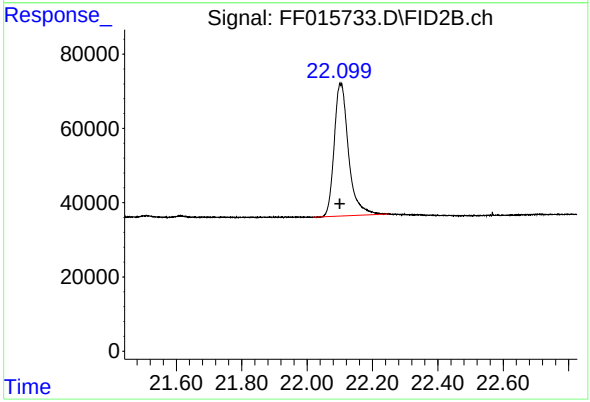
R.T.: 20.445 min
Delta R.T.: -0.003 min
Response: 1691212
Conc: 19.95 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.184 min
Delta R.T.: 0.000 min
Response: 1365876
Conc: 19.63 ug/ml

Instrument :
FID_F
ClientSampleId :
20 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.101 min
Delta R.T.: 0.001 min
Response: 1087796
Conc: 18.91 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015733.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 11:53
Sample : 20 TRPH STD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.029	1.982	2.150	BB	190425	2231661	87.74%	5.650%
2	4.567	4.540	4.674	BB	197187	2210088	86.89%	5.595%
3	6.734	6.705	6.880	BB	196062	2274006	89.40%	5.757%
4	8.562	8.522	8.670	BV	185205	2306588	90.68%	5.840%
5	10.170	10.137	10.290	BB	184774	2362440	92.88%	5.981%
6	11.613	11.579	11.722	BB	197211	2462472	96.81%	6.234%
7	12.923	12.885	13.020	BB	206153	2543551	100.00%	6.440%
8	14.122	14.087	14.199	BB	198990	2479870	97.50%	6.278%
9	15.023	14.980	15.097	BB	156577	2195629	86.32%	5.559%
10	15.227	15.189	15.310	BB	188279	2490879	97.93%	6.306%
11	16.249	16.212	16.330	BB	181684	2473888	97.26%	6.263%
12	17.200	17.142	17.275	BB	176860	2451720	96.39%	6.207%
13	18.088	18.045	18.164	BB	175488	2467315	97.00%	6.247%
14	18.921	18.855	19.000	BB	162070	2347216	92.28%	5.943%
15	19.706	19.637	19.775	BB	138874	2055921	80.83%	5.205%
16	20.445	20.400	20.530	BB	108224	1691212	66.49%	4.282%
17	21.184	21.119	21.275	BB	73585	1365876	53.70%	3.458%
18	22.101	22.019	22.250	BBA	35701	1087796	42.77%	2.754%
			Sum of corrected areas:			39498129		

FF032625.M Wed Mar 26 17:38:00 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015734.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 12:23
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 74 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 26 12:50:55 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:48:23 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.024	1140623	10.297 ug/ml
	Target Compounds			
1)	N-OCTANE	2.030	1178024	10.168 ug/ml
2)	N-DECANE	4.567	1146990	9.783 ug/ml
3)	N-DODECANE	6.735	1164214	9.727 ug/ml
4)	N-TETRADECANE	8.565	1156674	9.541 ug/ml
5)	N-HEXADECANE	10.172	1204080	9.813 ug/ml
6)	N-OCTADECANE	11.614	1262066	10.021 ug/ml
7)	N-EICOSANE	12.924	1323838	10.302 ug/ml
8)	N-DOCOSANE	14.123	1294129	10.343 ug/ml
10)	N-TETRACOSANE	15.228	1293524	10.304 ug/ml
11)	N-HEXACOSANE	16.250	1285614	10.283 ug/ml
12)	N-OCTACOSANE	17.201	1272825	10.300 ug/ml
13)	N-TRIACONTANE	18.089	1292084	10.429 ug/ml
14)	N-DOTRIACONTANE	18.922	1233236	10.509 ug/ml
15)	N-TETRATRIACONTANE	19.707	1088221	10.544 ug/ml
16)	N-HEXATRIACONTANE	20.447	896211	10.574 ug/ml
17)	N-OCTATRIACONTANE	21.188	725010	10.418 ug/ml
18)	N-TETRACONTANE	22.111	561903	9.766 ug/ml

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

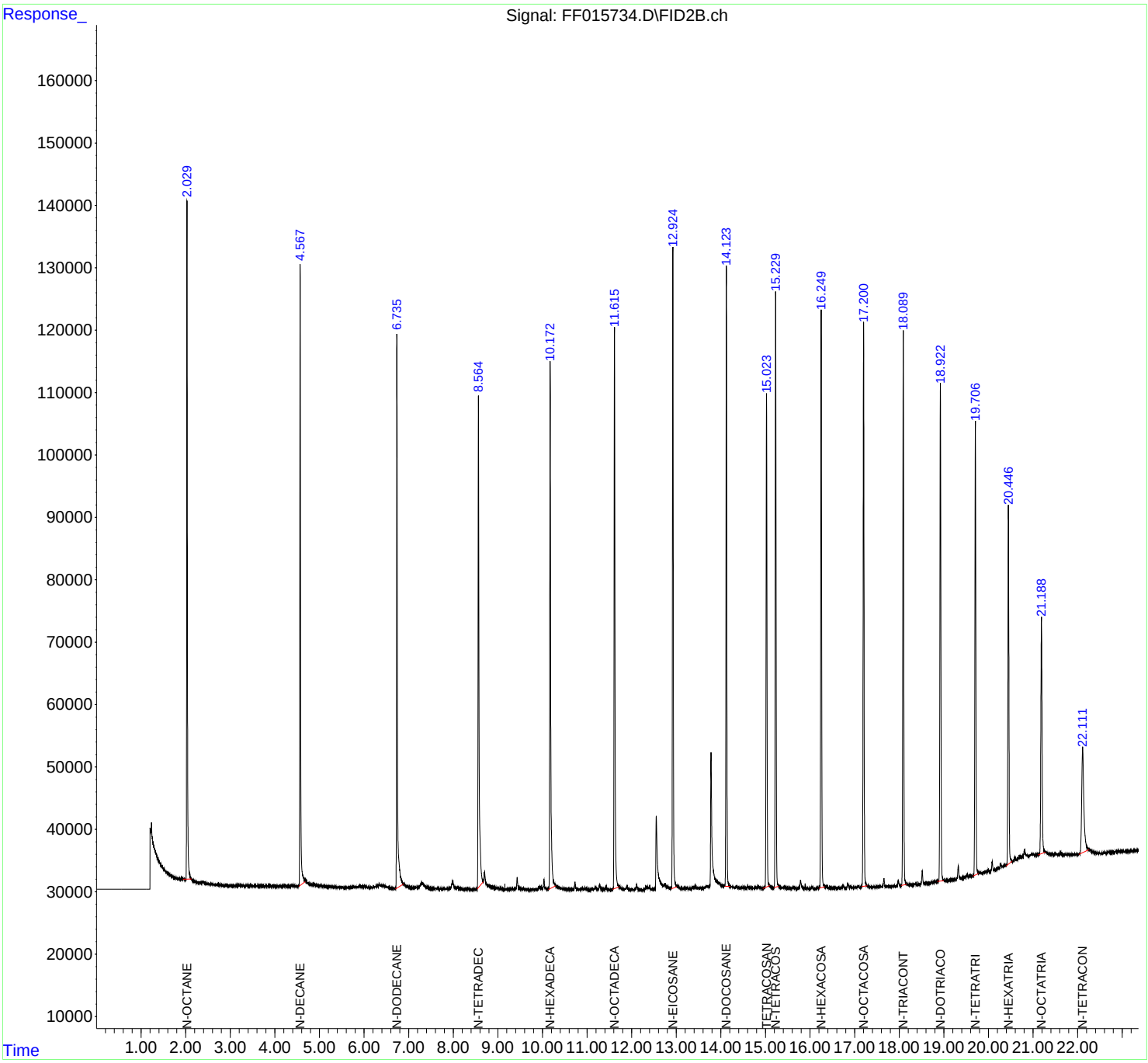
Quantitation Report (QT Reviewed)

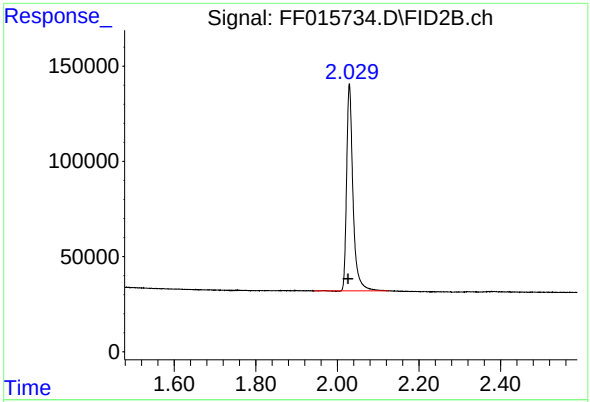
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015734.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 12:23
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 74 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Mar 26 12:50:55 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:48:23 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

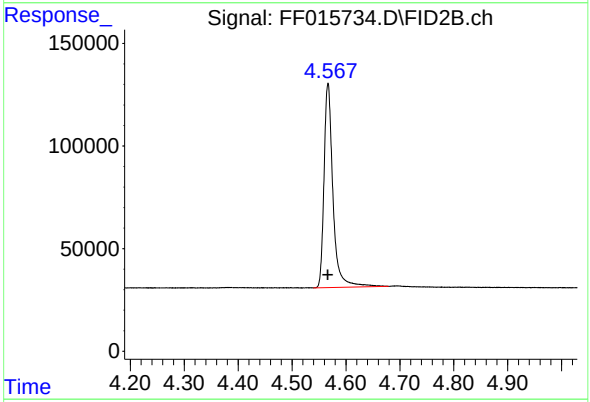




#1 N-OCTANE

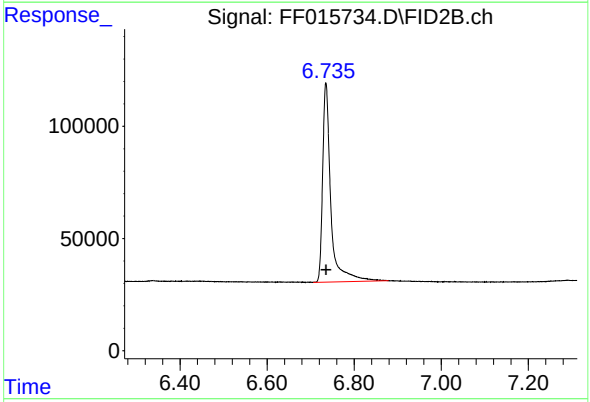
R.T.: 2.030 min
Delta R.T.: 0.004 min
Response: 1178024
Conc: 10.17 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



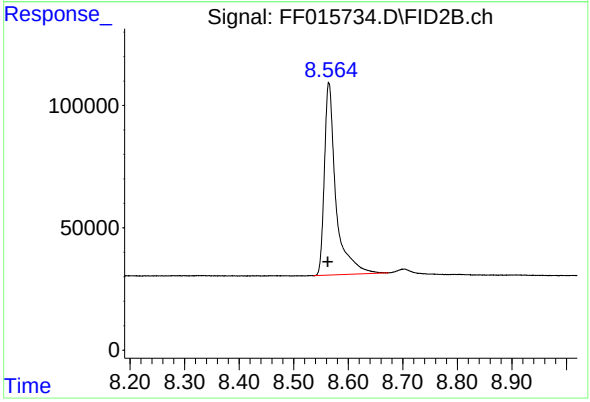
#2 N-DECANE

R.T.: 4.567 min
Delta R.T.: 0.000 min
Response: 1146990
Conc: 9.78 ug/ml



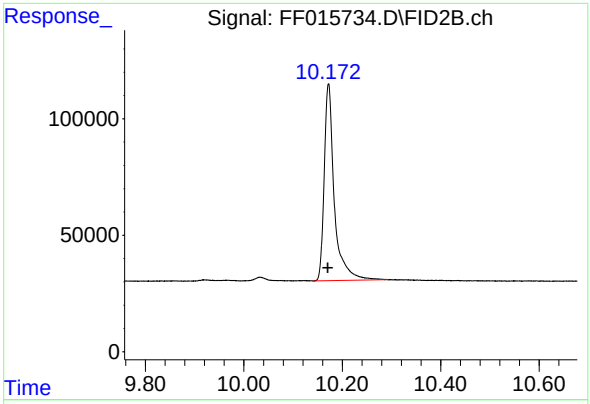
#3 N-DODECANE

R.T.: 6.735 min
Delta R.T.: 0.000 min
Response: 1164214
Conc: 9.73 ug/ml



#4 N-TETRADECANE

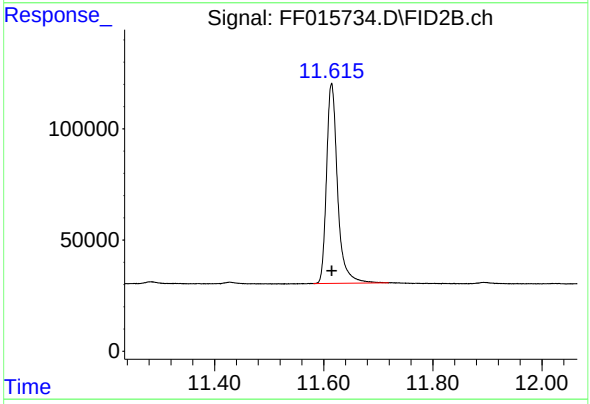
R.T.: 8.565 min
Delta R.T.: 0.002 min
Response: 1156674
Conc: 9.54 ug/ml



#5 N-HEXADECANE

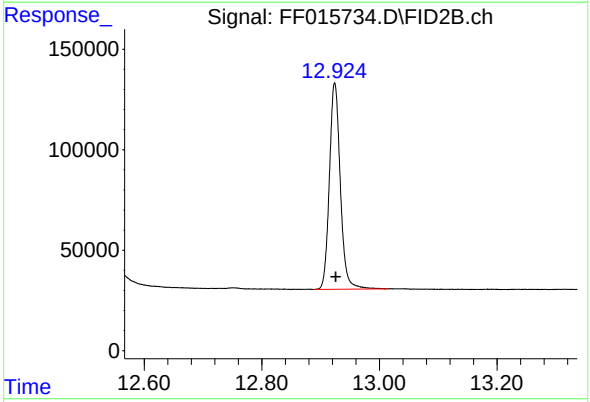
R.T.: 10.172 min
Delta R.T.: 0.002 min
Response: 1204080
Conc: 9.81 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



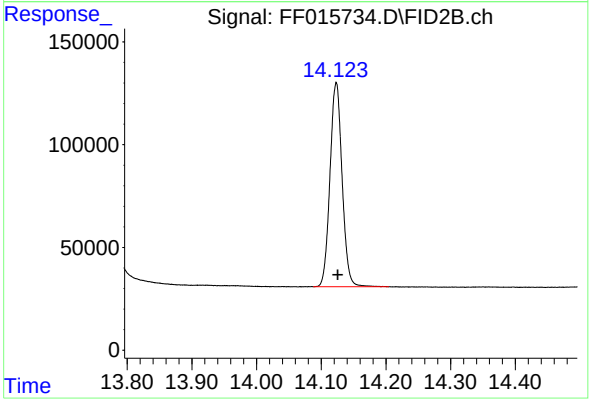
#6 N-OCTADECANE

R.T.: 11.614 min
Delta R.T.: 0.000 min
Response: 1262066
Conc: 10.02 ug/ml



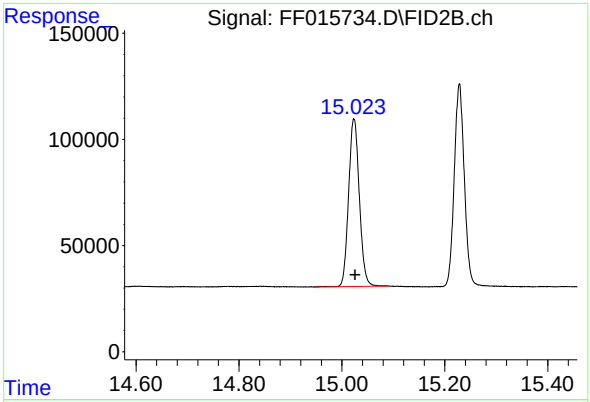
#7 N-EICOSANE

R.T.: 12.924 min
Delta R.T.: -0.002 min
Response: 1323838
Conc: 10.30 ug/ml



#8 N-DOCOSANE

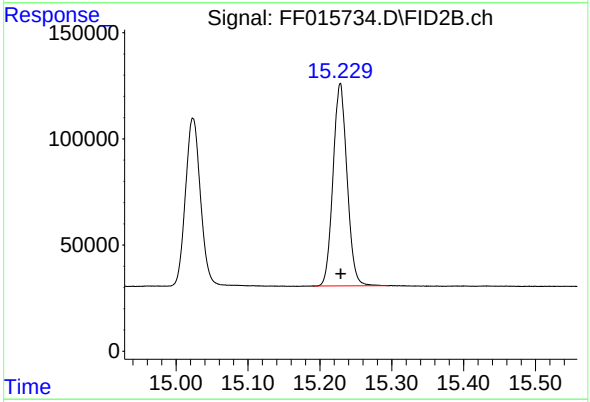
R.T.: 14.123 min
Delta R.T.: -0.002 min
Response: 1294129
Conc: 10.34 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

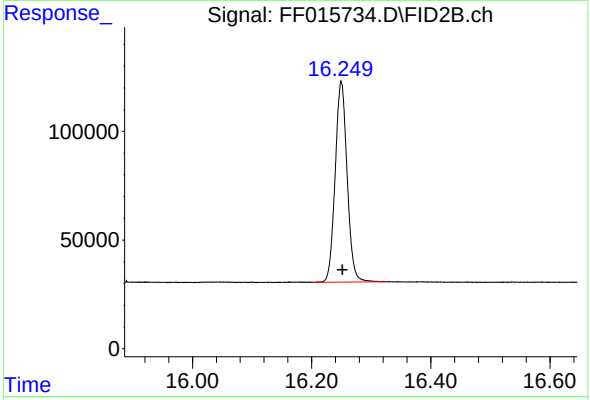
R.T.: 15.024 min
Delta R.T.: -0.002 min
Response: 1140623
Conc: 10.30 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



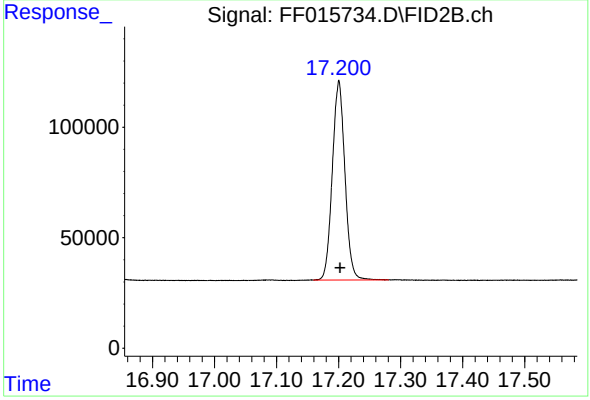
#10 N-TETRACOSANE

R.T.: 15.228 min
Delta R.T.: 0.000 min
Response: 1293524
Conc: 10.30 ug/ml



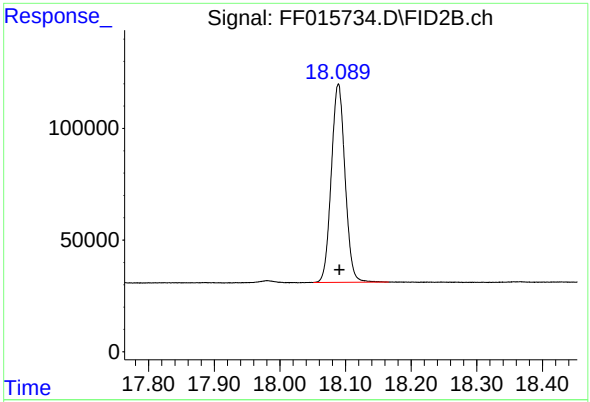
#11 N-HEXACOSANE

R.T.: 16.250 min
Delta R.T.: -0.002 min
Response: 1285614
Conc: 10.28 ug/ml



#12 N-OCTACOSANE

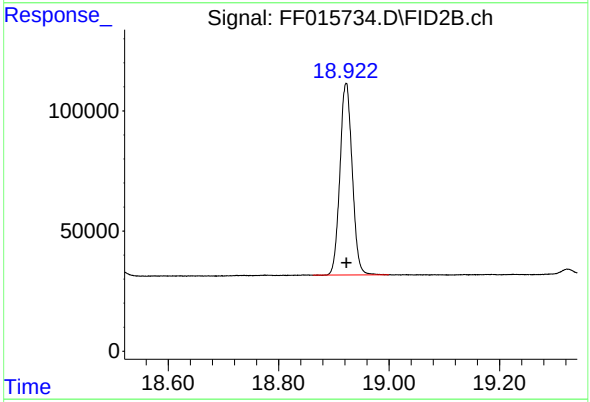
R.T.: 17.201 min
Delta R.T.: -0.002 min
Response: 1272825
Conc: 10.30 ug/ml



#13 N-TRIACONTANE

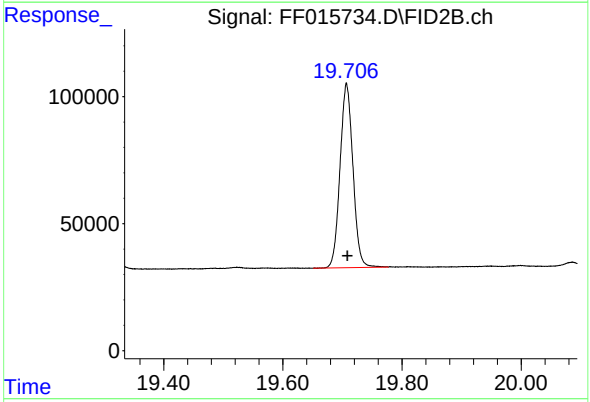
R.T.: 18.089 min
Delta R.T.: -0.001 min
Response: 1292084
Conc: 10.43 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



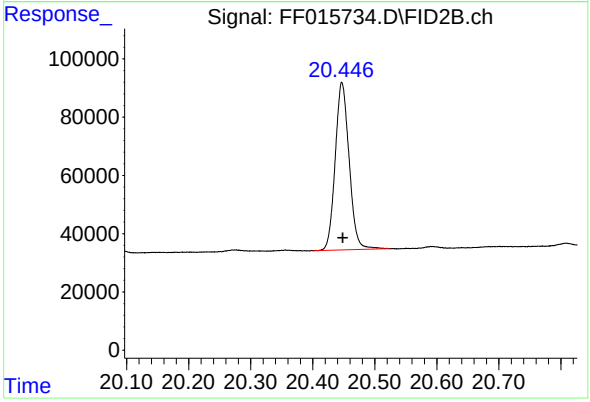
#14 N-DOTRIACONTANE

R.T.: 18.922 min
Delta R.T.: 0.000 min
Response: 1233236
Conc: 10.51 ug/ml



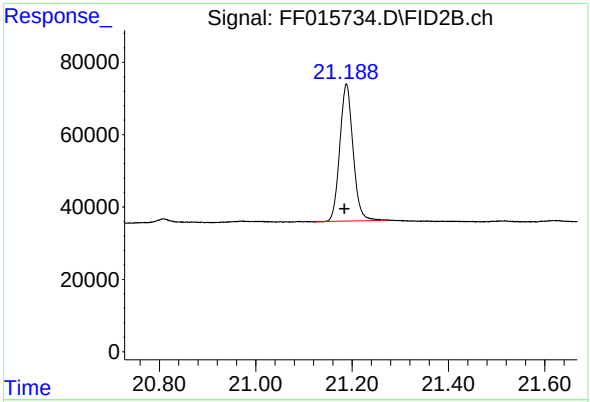
#15 N-TETRATRIACONTANE

R.T.: 19.707 min
Delta R.T.: -0.001 min
Response: 1088221
Conc: 10.54 ug/ml



#16 N-HEXATRIACONTANE

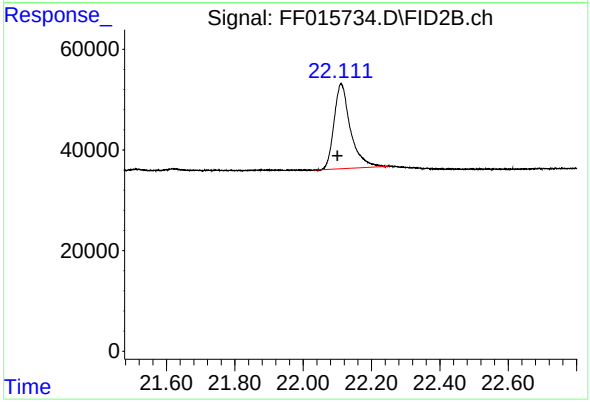
R.T.: 20.447 min
Delta R.T.: -0.001 min
Response: 896211
Conc: 10.57 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.188 min
Delta R.T.: 0.004 min
Response: 725010
Conc: 10.42 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.111 min
Delta R.T.: 0.011 min
Response: 561903
Conc: 9.77 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015734.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 12:23
Sample : 10 TRPH STD
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.030	1.941	2.126	BB	108695	1178024	88.99%	5.741%
2	4.567	4.539	4.679	BB	99740	1146990	86.64%	5.590%
3	6.735	6.706	6.879	BB	88747	1164214	87.94%	5.674%
4	8.565	8.536	8.674	BV	78852	1156674	87.37%	5.637%
5	10.172	10.141	10.294	BB	84624	1204080	90.95%	5.868%
6	11.614	11.581	11.719	BB	89686	1262066	95.33%	6.151%
7	12.924	12.887	13.016	BB	102657	1323838	100.00%	6.452%
8	14.123	14.087	14.204	BB	99420	1294129	97.76%	6.307%
9	15.024	14.944	15.091	BB	78962	1140623	86.16%	5.559%
10	15.228	15.191	15.296	BB	95691	1293524	97.71%	6.304%
11	16.250	16.202	16.329	BB	92495	1285614	97.11%	6.265%
12	17.201	17.159	17.281	BB	90344	1272825	96.15%	6.203%
13	18.089	18.051	18.166	BB	88803	1292084	97.60%	6.297%
14	18.922	18.862	18.999	BB	79789	1233236	93.16%	6.010%
15	19.707	19.651	19.777	BB	72341	1088221	82.20%	5.303%
16	20.447	20.401	20.522	BB	57478	896211	67.70%	4.368%
17	21.188	21.119	21.276	BB	37944	725010	54.77%	3.533%
18	22.111	22.029	22.250	BBA	16928	561903	42.45%	2.738%
			Sum of corrected areas:			20519267		

FF032625.M Wed Mar 26 17:37:39 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015735.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 12:52
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 75 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Mar 26 13:01:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:54:04 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Instrument :
FID_F
ClientSampleId :
5 TRPH STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 03/27/2025
Supervised By :mohammad ahmed 03/28/2025

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.025	512482	4.602 ug/ml
	Target Compounds			
1)	N-OCTANE	2.033	490750	4.236 ug/ml
2)	N-DECANE	4.570	437559	3.787 ug/ml
3)	N-DODECANE	6.740	429396	3.636 ug/ml
4)	N-TETRADECANE	8.582	405542	3.406 ug/ml
5)	N-HEXADECANE	10.183	494294	4.066 ug/ml
6)	N-OCTADECANE	11.621	540901	4.300 ug/ml
7)	N-EICOSANE	12.927	587297	4.538 ug/ml
8)	N-DOCOSANE	14.124	577980	4.583 ug/ml
10)	N-TETRACOSANE	15.230	582073	4.608 ug/ml
11)	N-HEXACOSANE	16.253	571230	4.547 ug/ml
12)	N-OCTACOSANE	17.204	567794	4.568 ug/ml
13)	N-TRIACONTANE	18.093	584488	4.671 ug/ml
14)	N-DOTRIACONTANE	18.926	567632	4.757 ug/ml
15)	N-TETRATRIACONTANE	19.711	478325	4.499 ug/ml
16)	N-HEXATRIACONTANE	20.453	405037	4.541 ug/ml
17)	N-OCTATRIACONTANE	21.197	276360	3.711 ug/ml
18)	N-TETRACONTANE	22.127	300117	4.865 ug/mlm

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015735.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 12:52
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 75 Sample Multiplier: 1

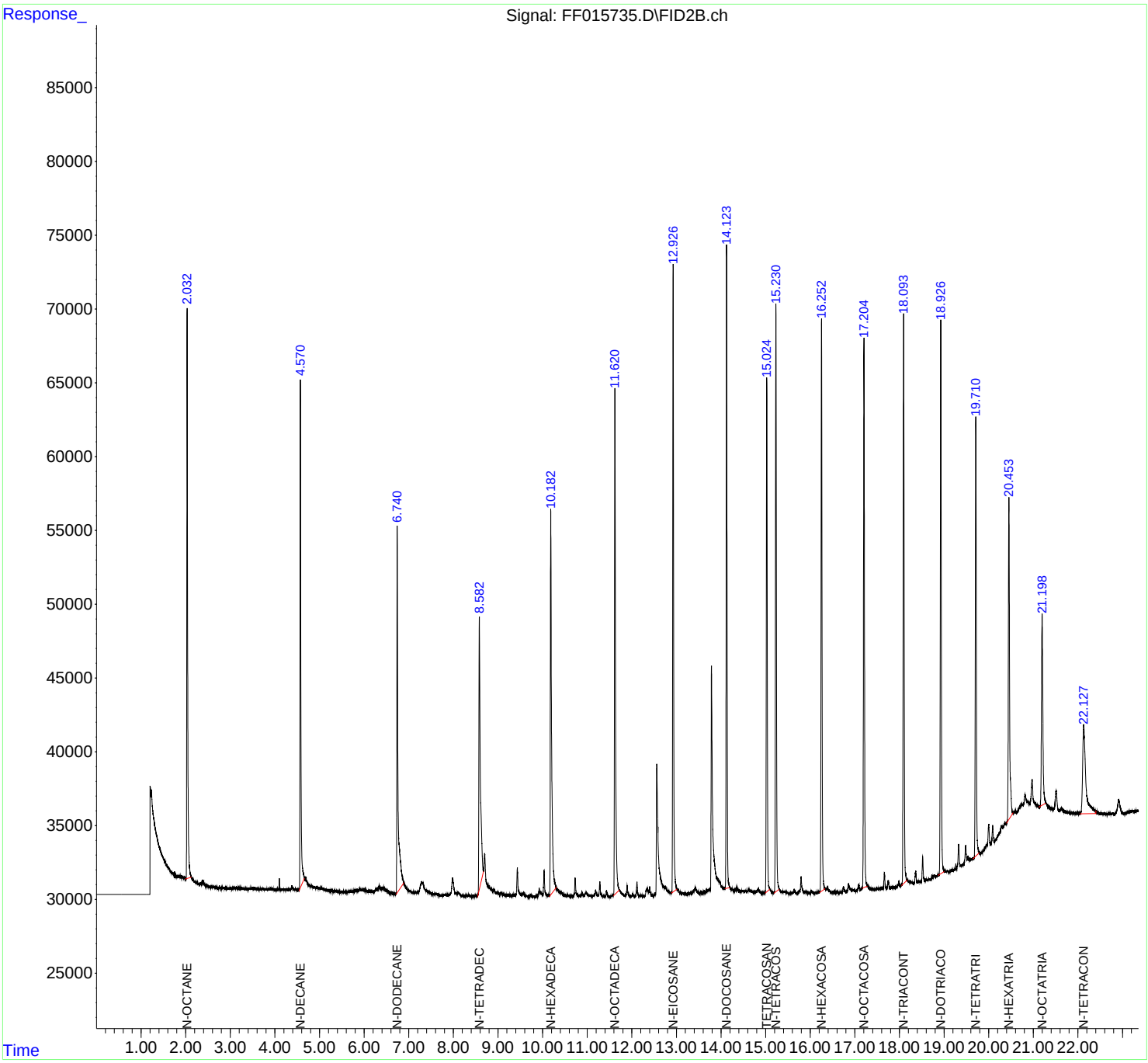
Integration File: autoint1.e
Quant Time: Mar 26 13:01:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 12:54:04 2025
Response via : Initial Calibration
Integrator: ChemStation

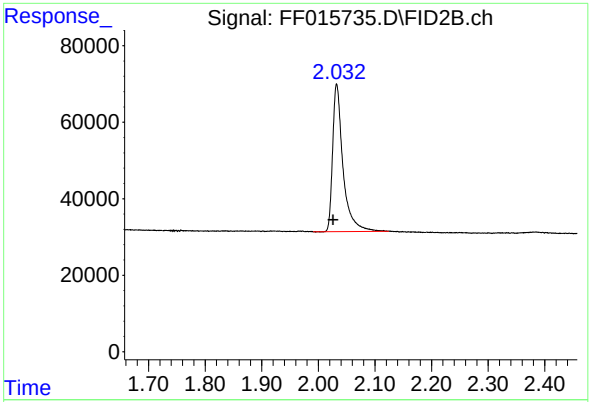
Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Instrument :
FID_F
ClientSampleId :
5 TRPH STD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 03/27/2025
Supervised By :mohammad ahmed 03/28/2025





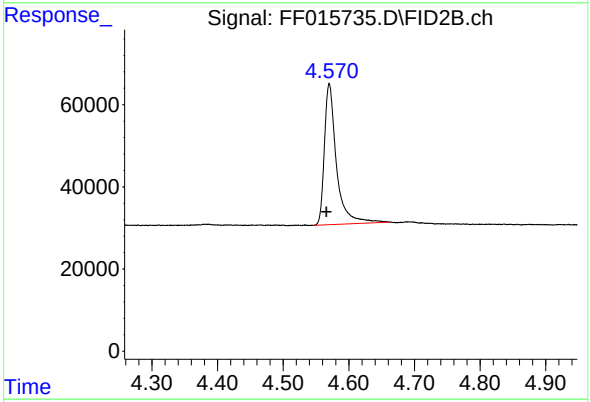
#1 N-OCTANE

R.T.: 2.033 min
Delta R.T.: 0.007 min
Response: 490750
Conc: 4.24 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD

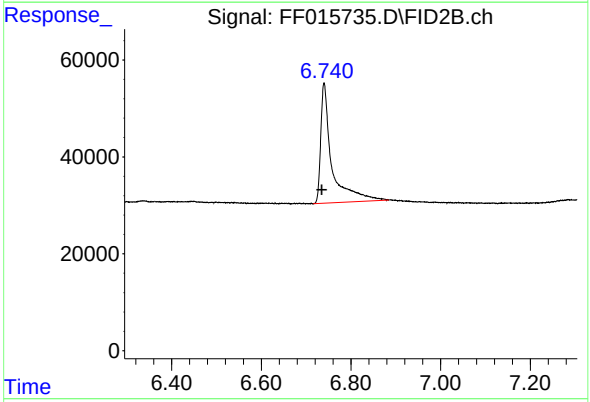
Manual Integrations APPROVED

Reviewed By :Yogesh Patel 03/27/2025
Supervised By :mohammad ahmed 03/28/2025



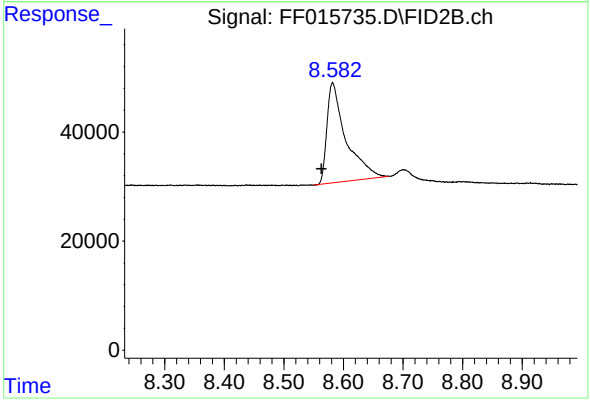
#2 N-DECANE

R.T.: 4.570 min
Delta R.T.: 0.004 min
Response: 437559
Conc: 3.79 ug/ml



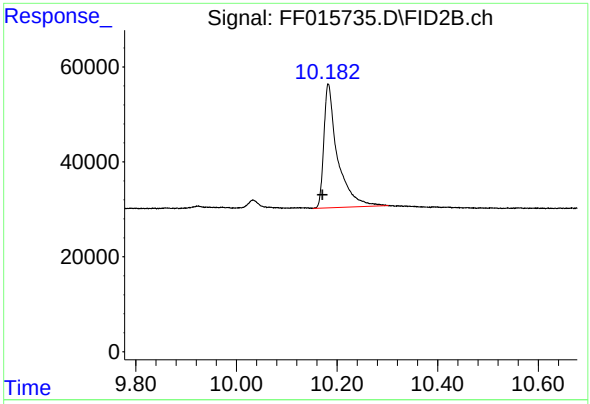
#3 N-DODECANE

R.T.: 6.740 min
Delta R.T.: 0.005 min
Response: 429396
Conc: 3.64 ug/ml



#4 N-TETRADECANE

R.T.: 8.582 min
Delta R.T.: 0.019 min
Response: 405542
Conc: 3.41 ug/ml



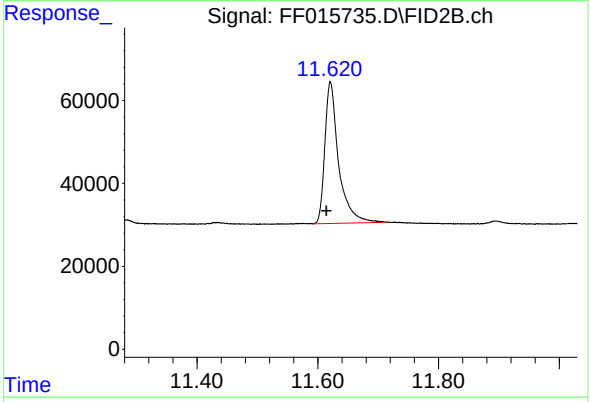
#5 N-HEXADECANE

R.T.: 10.183 min
Delta R.T.: 0.012 min
Response: 494294
Conc: 4.07 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD

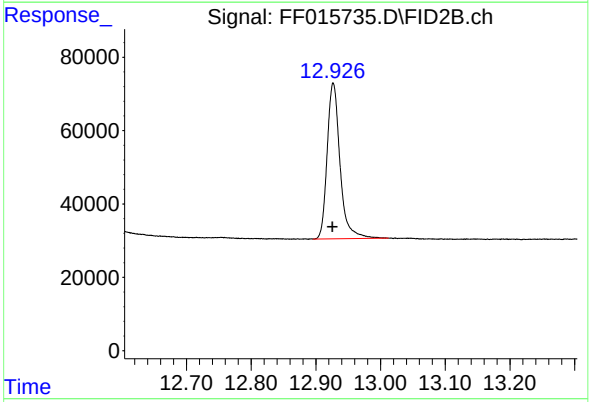
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 03/27/2025
Supervised By :mohammad ahmed 03/28/2025



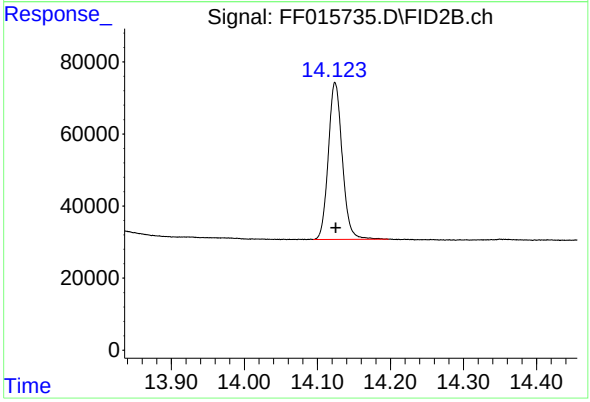
#6 N-OCTADECANE

R.T.: 11.621 min
Delta R.T.: 0.006 min
Response: 540901
Conc: 4.30 ug/ml



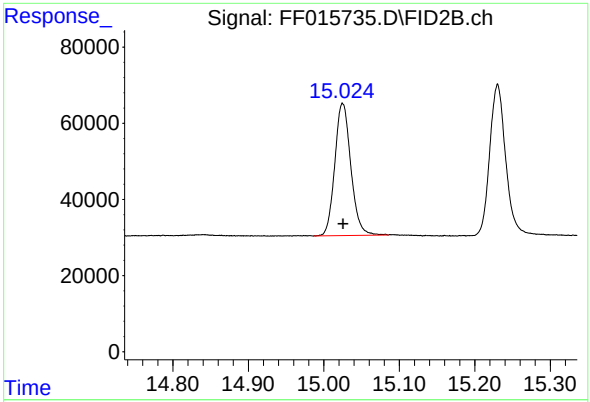
#7 N-EICOSANE

R.T.: 12.927 min
Delta R.T.: 0.001 min
Response: 587297
Conc: 4.54 ug/ml



#8 N-DOCOSANE

R.T.: 14.124 min
Delta R.T.: 0.000 min
Response: 577980
Conc: 4.58 ug/ml



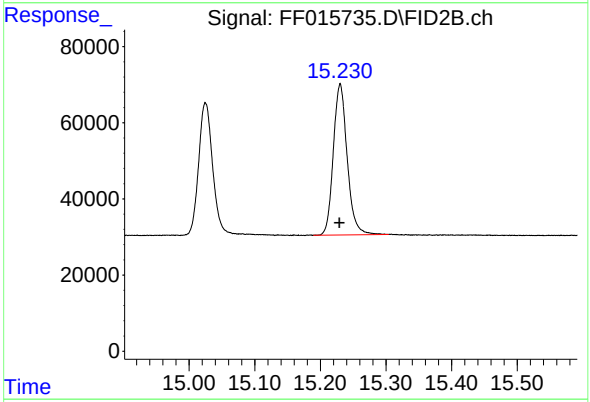
#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.025 min
Delta R.T.: 0.000 min
Response: 512482
Conc: 4.60 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD

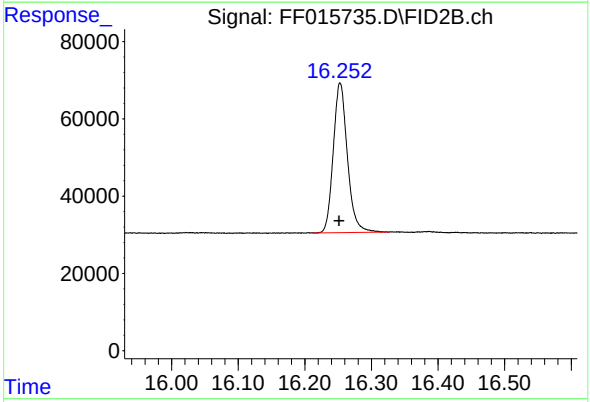
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 03/27/2025
Supervised By :mohammad ahmed 03/28/2025



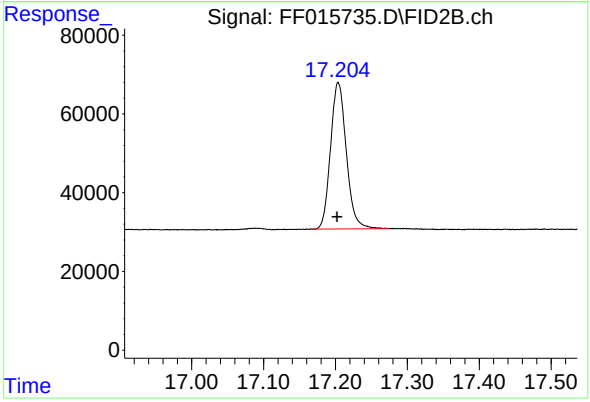
#10 N-TETRACOSANE

R.T.: 15.230 min
Delta R.T.: 0.001 min
Response: 582073
Conc: 4.61 ug/ml



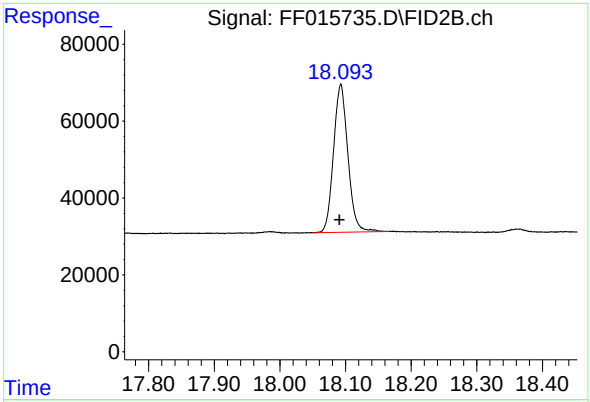
#11 N-HEXACOSANE

R.T.: 16.253 min
Delta R.T.: 0.002 min
Response: 571230
Conc: 4.55 ug/ml



#12 N-OCTACOSANE

R.T.: 17.204 min
Delta R.T.: 0.002 min
Response: 567794
Conc: 4.57 ug/ml



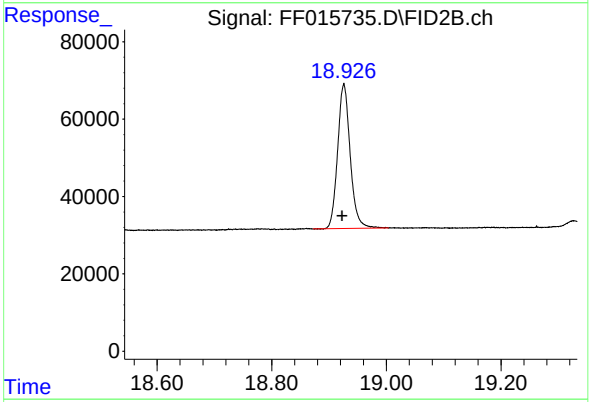
#13 N-TRIACONTANE

R.T.: 18.093 min
Delta R.T.: 0.002 min
Response: 584488
Conc: 4.67 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD

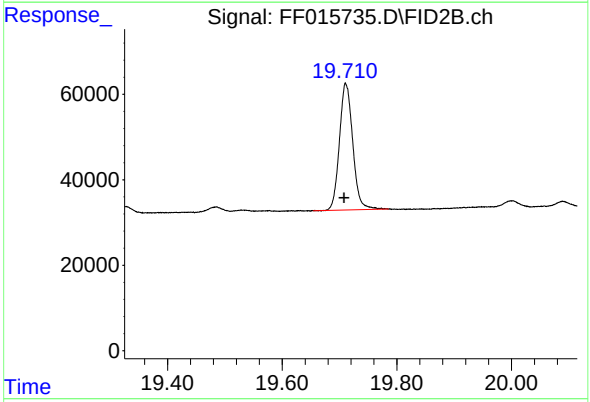
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 03/27/2025
Supervised By :mohammad ahmed 03/28/2025



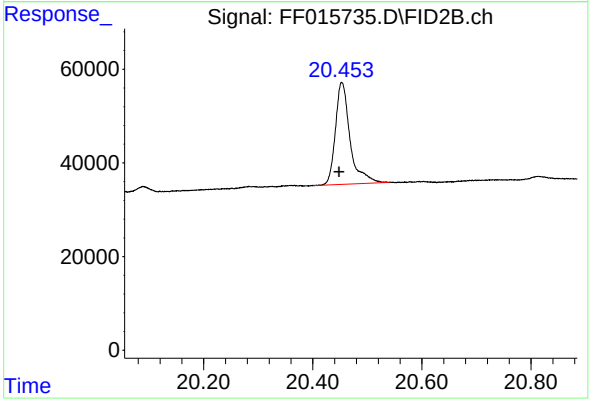
#14 N-DOTRIACONTANE

R.T.: 18.926 min
Delta R.T.: 0.003 min
Response: 567632
Conc: 4.76 ug/ml



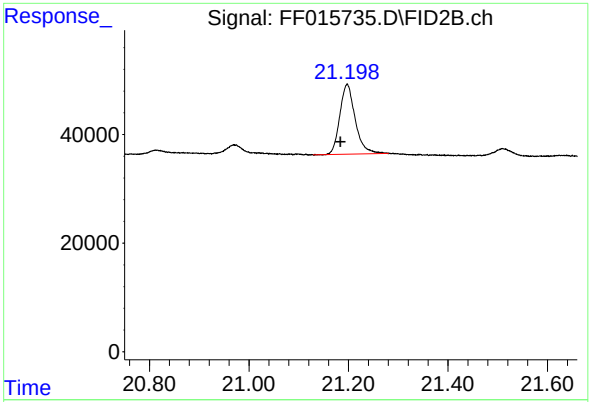
#15 N-TETRATRIACONTANE

R.T.: 19.711 min
Delta R.T.: 0.003 min
Response: 478325
Conc: 4.50 ug/ml



#16 N-HEXATRIACONTANE

R.T.: 20.453 min
Delta R.T.: 0.005 min
Response: 405037
Conc: 4.54 ug/ml



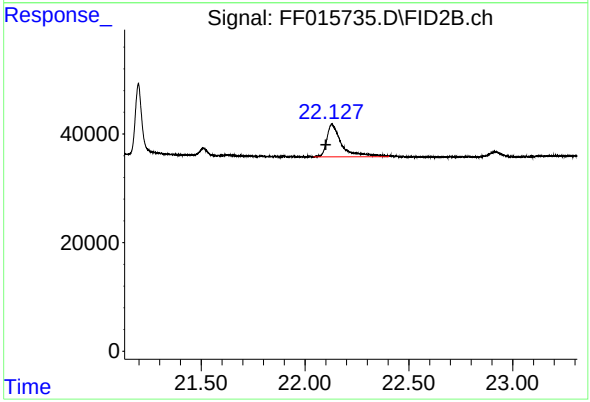
#17 N-OCTATRIACONTANE

R.T.: 21.197 min
Delta R.T.: 0.013 min
Response: 276360
Conc: 3.71 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 03/27/2025
Supervised By :mohammad ahmed 03/28/2025



#18 N-TETRACONTANE

R.T.: 22.127 min
Delta R.T.: 0.027 min
Response: 300117
Conc: 4.87 ug/ml m

Instrument :
FID_F
LabSampleId :
5 TRPH STD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 03/27/2025
Supervised By :mohammad ahmed 03/28/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF
Data File : FF015735.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 12:52
Sample : 5 TRPH STD
Misc :
ALS Vial : 75 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.033	1.991	2.124	BB	38585	490750	83.56%	5.617%
2	4.570	4.546	4.661	BB	34306	437559	74.50%	5.008%
3	6.740	6.716	6.884	BB	24788	429396	73.11%	4.915%
4	8.582	8.549	8.676	BV	18408	405542	69.05%	4.642%
5	10.183	10.152	10.302	BB	26134	494294	84.16%	5.658%
6	11.621	11.592	11.717	BB	34216	540901	92.10%	6.191%
7	12.927	12.896	13.012	BB	42454	587297	100.00%	6.722%
8	14.124	14.094	14.197	BB	43599	577980	98.41%	6.616%
9	15.025	14.986	15.086	BB	34614	512482	87.26%	5.866%
10	15.230	15.189	15.304	BB	39801	582073	99.11%	6.662%
11	16.253	16.212	16.326	BB	38787	571230	97.26%	6.538%
12	17.204	17.169	17.274	BB	37172	567794	96.68%	6.499%
13	18.093	18.051	18.166	BB	38490	584488	99.52%	6.690%
14	18.926	18.872	19.004	BB	37362	567632	96.65%	6.497%
15	19.711	19.654	19.786	BB	29615	478325	81.45%	5.475%
16	20.453	20.401	20.539	BB	21803	405037	68.97%	4.636%
17	21.197	21.129	21.281	BB	12941	276360	47.06%	3.163%
18	22.128	22.049	22.239	BB	5781	227601	38.75%	2.605%
			Sum of corrected areas:			8736742		

FF032625.M Wed Mar 26 17:37:21 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015736.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 13:21
Operator : YP\AJ
Sample : FF032625ICV
Misc :
ALS Vial : 76 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
FF032625ICV

Integration File: autoint1.e
Quant Time: Mar 26 15:00:34 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9) S	TETRACOSANE-d50 (SURR...	15.024	5554792	50.691 ug/ml
	Target Compounds			
1)	N-OCTANE	2.026	5831586	51.927 ug/ml
2)	N-DECANE	4.566	5885500	53.537 ug/ml
3)	N-DODECANE	6.735	6003264	53.771 ug/ml
4)	N-TETRADECANE	8.563	6068108	54.432 ug/ml
5)	N-HEXADECANE	10.171	6142517	52.486 ug/ml
6)	N-OCTADECANE	11.615	6314840	51.652 ug/ml
7)	N-EICOSANE	12.926	6437199	50.679 ug/ml
8)	N-DOCOSANE	14.124	6280184	50.640 ug/ml
10)	N-TETRACOSANE	15.229	6299707	50.671 ug/ml
11)	N-HEXACOSANE	16.251	6277775	50.893 ug/ml
12)	N-OCTACOSANE	17.202	6202845	50.783 ug/ml
13)	N-TRIACONTANE	18.091	6229194	50.448 ug/ml
14)	N-DOTRIACONTANE	18.924	5900810	49.933 ug/ml
15)	N-TETRATRIACONTANE	19.707	5166557	49.593 ug/ml
16)	N-HEXATRIACONTANE	20.447	4258110	48.634 ug/ml
17)	N-OCTATRIACONTANE	21.184	3470905	49.142 ug/ml
18)	N-TETRACONTANE	22.101	2828036	46.094 ug/ml

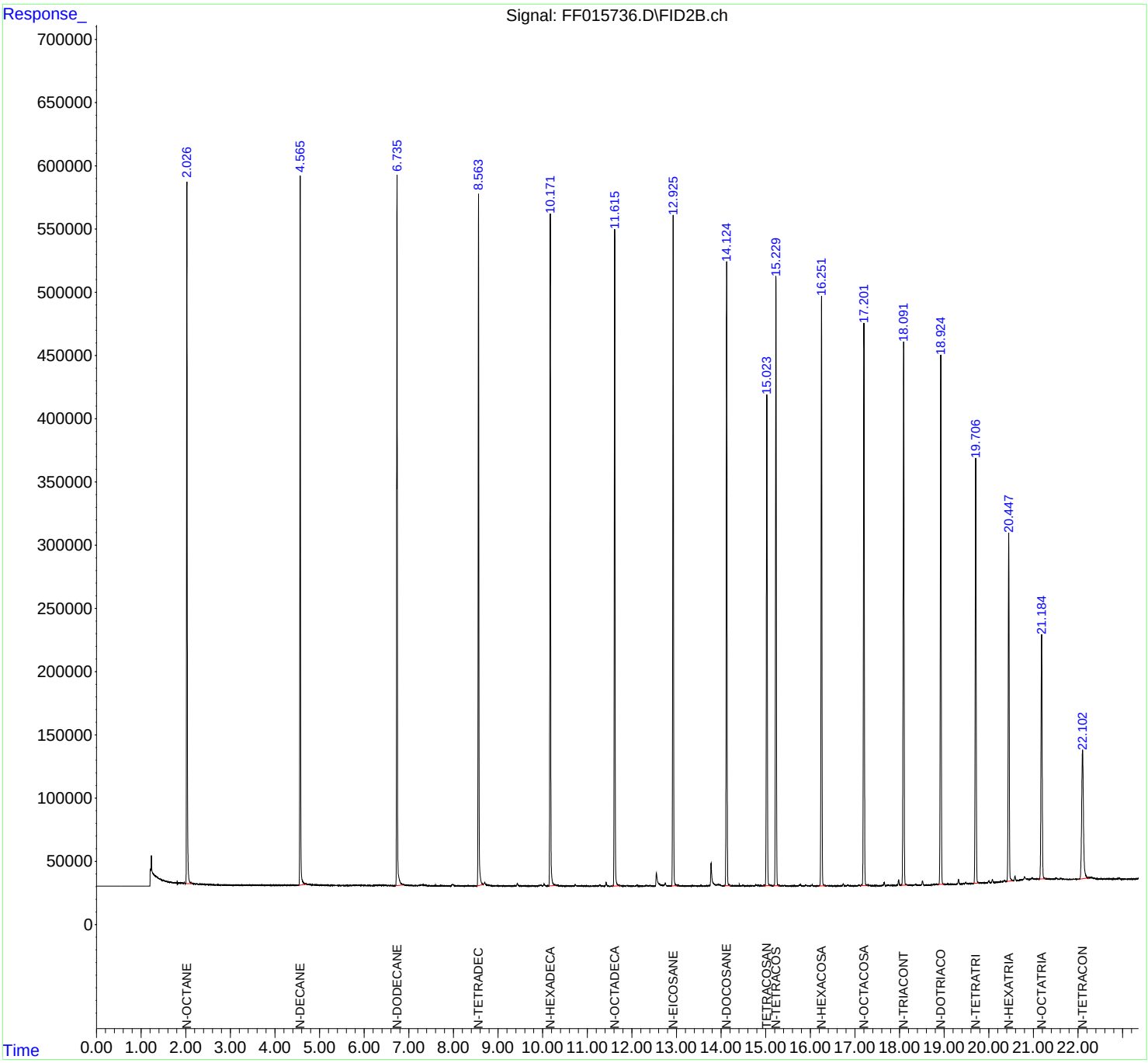
(f)=RT Delta > 1/2 Window (m)=manual int.

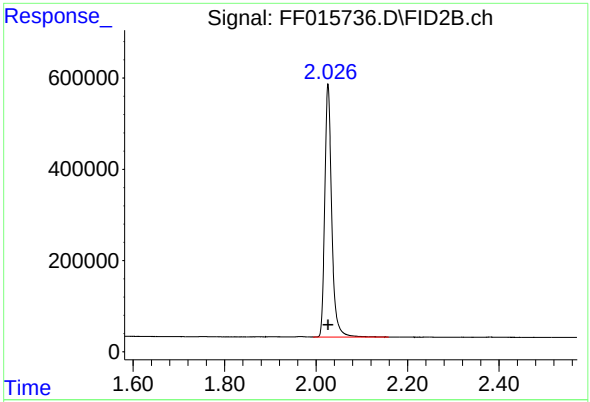
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015736.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 13:21
Operator : YP\AJ
Sample : FF032625ICV
Misc :
ALS Vial : 76 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
FF032625ICV

Integration File: autoint1.e
Quant Time: Mar 26 15:00:34 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

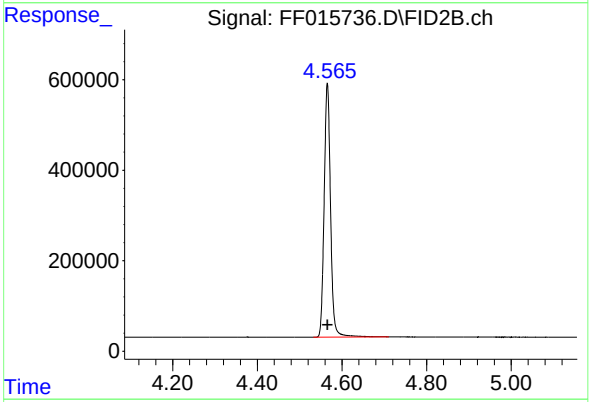




#1 N-OCTANE

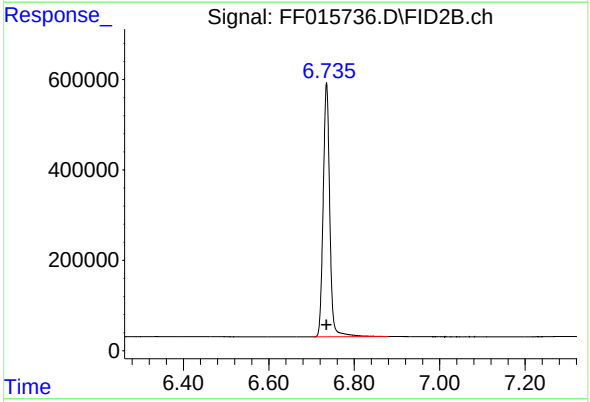
R.T.: 2.026 min
Delta R.T.: 0.000 min
Response: 5831586
Conc: 51.93 ug/ml

Instrument :
FID_F
ClientSampleId :
FF032625ICV



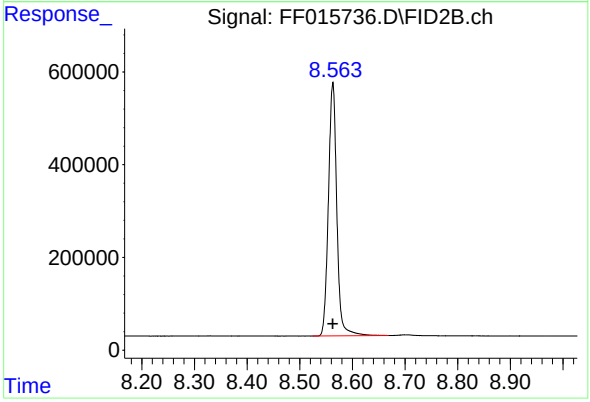
#2 N-DECANE

R.T.: 4.566 min
Delta R.T.: 0.000 min
Response: 5885500
Conc: 53.54 ug/ml



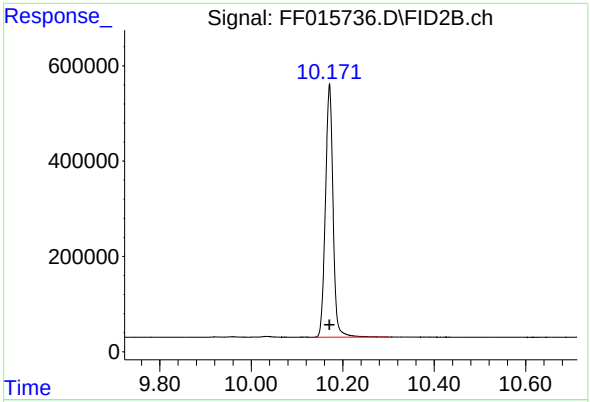
#3 N-DODECANE

R.T.: 6.735 min
Delta R.T.: 0.000 min
Response: 6003264
Conc: 53.77 ug/ml



#4 N-TETRADECANE

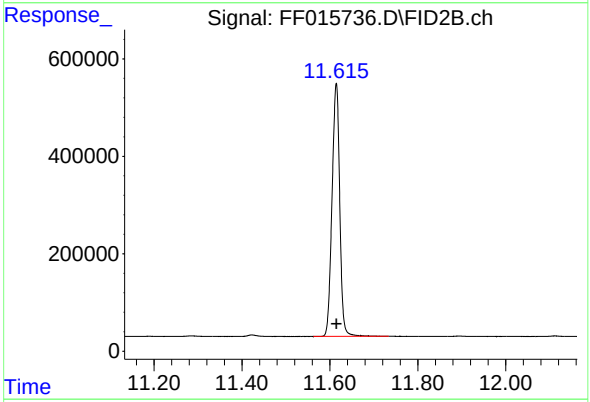
R.T.: 8.563 min
Delta R.T.: 0.000 min
Response: 6068108
Conc: 54.43 ug/ml



#5 N-HEXADECANE

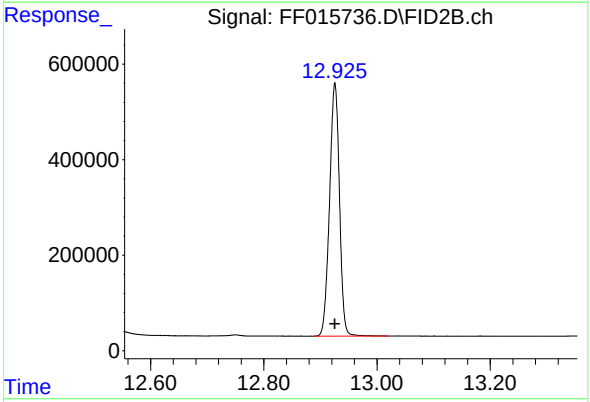
R.T.: 10.171 min
Delta R.T.: 0.000 min
Response: 6142517
Conc: 52.49 ug/ml

Instrument :
FID_F
ClientSampleId :
FF032625ICV



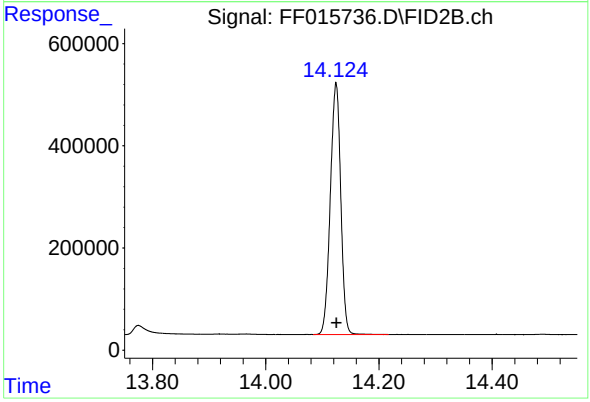
#6 N-OCTADECANE

R.T.: 11.615 min
Delta R.T.: 0.000 min
Response: 6314840
Conc: 51.65 ug/ml



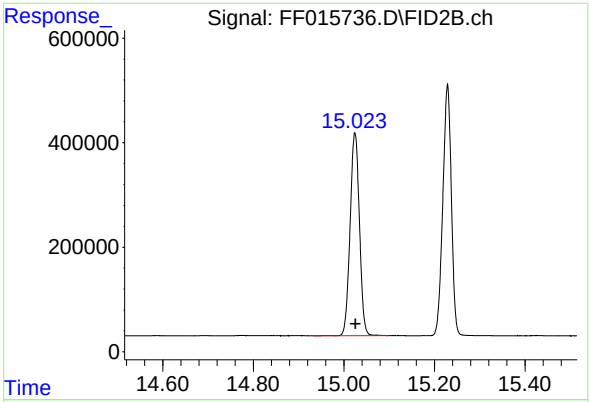
#7 N-EICOSANE

R.T.: 12.926 min
Delta R.T.: 0.000 min
Response: 6437199
Conc: 50.68 ug/ml



#8 N-DOCOSANE

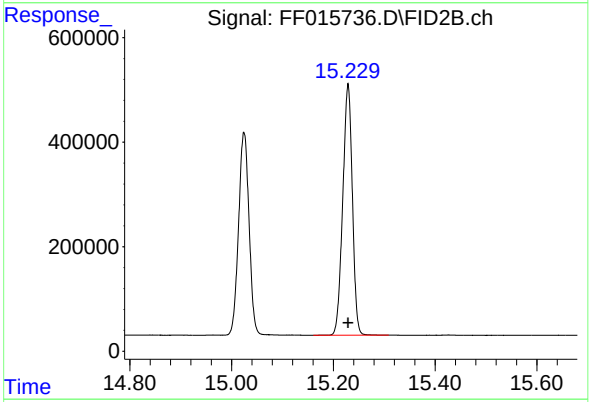
R.T.: 14.124 min
Delta R.T.: 0.000 min
Response: 6280184
Conc: 50.64 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

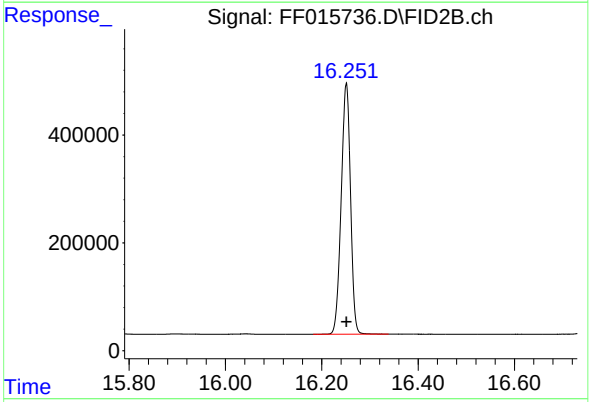
R.T.: 15.024 min
Delta R.T.: -0.001 min
Response: 5554792
Conc: 50.69 ug/ml

Instrument :
FID_F
ClientSampleId :
FF032625ICV



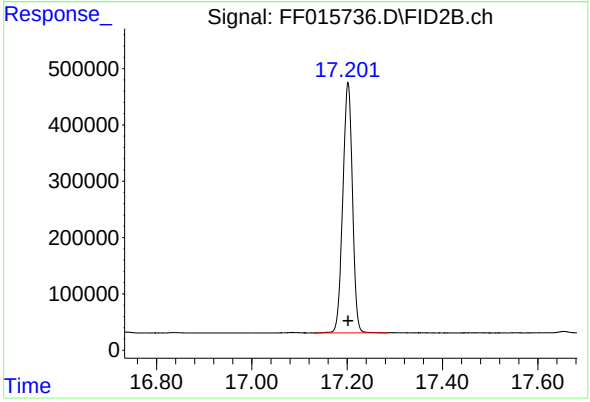
#10 N-TETRACOSANE

R.T.: 15.229 min
Delta R.T.: 0.000 min
Response: 6299707
Conc: 50.67 ug/ml



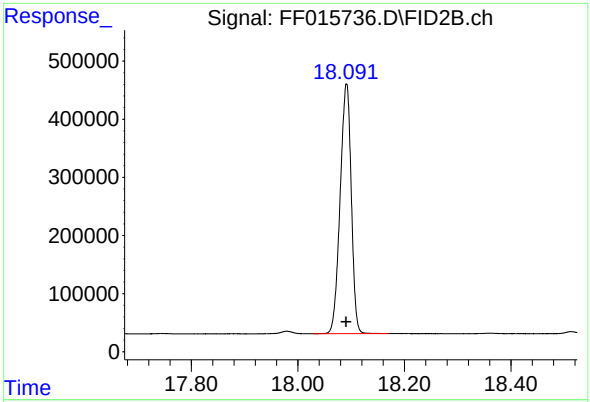
#11 N-HEXACOSANE

R.T.: 16.251 min
Delta R.T.: 0.000 min
Response: 6277775
Conc: 50.89 ug/ml



#12 N-OCTACOSANE

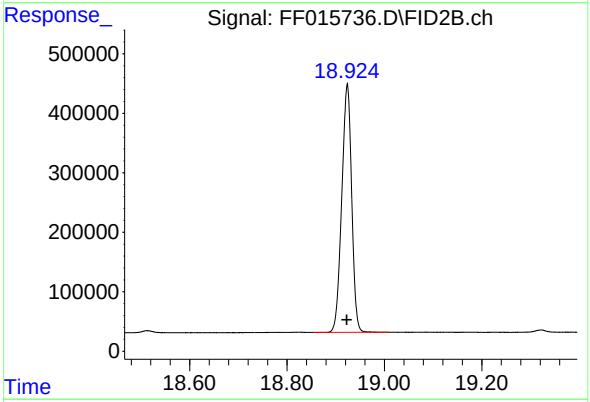
R.T.: 17.202 min
Delta R.T.: 0.000 min
Response: 6202845
Conc: 50.78 ug/ml



#13 N-TRIACONTANE

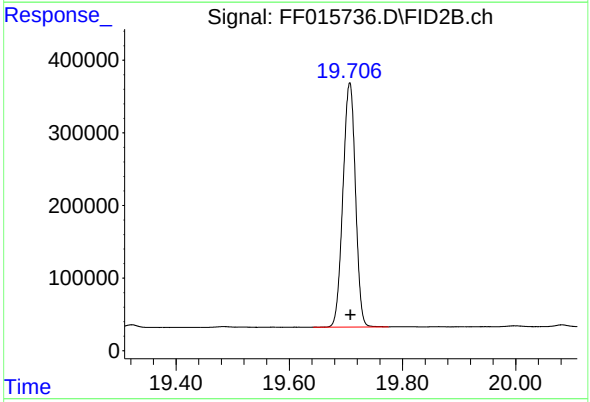
R.T.: 18.091 min
Delta R.T.: 0.000 min
Response: 6229194
Conc: 50.45 ug/ml

Instrument :
FID_F
ClientSampleId :
FF032625ICV



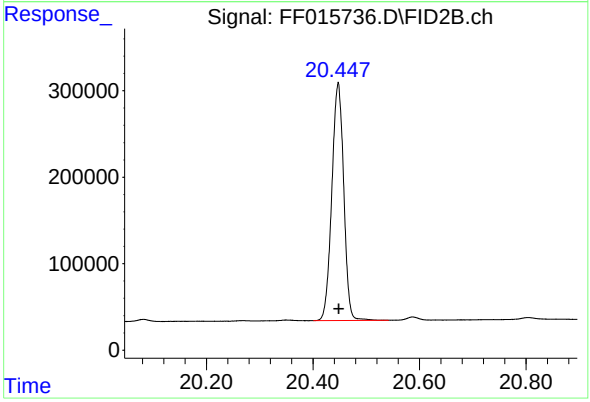
#14 N-DOTRIACONTANE

R.T.: 18.924 min
Delta R.T.: 0.000 min
Response: 5900810
Conc: 49.93 ug/ml



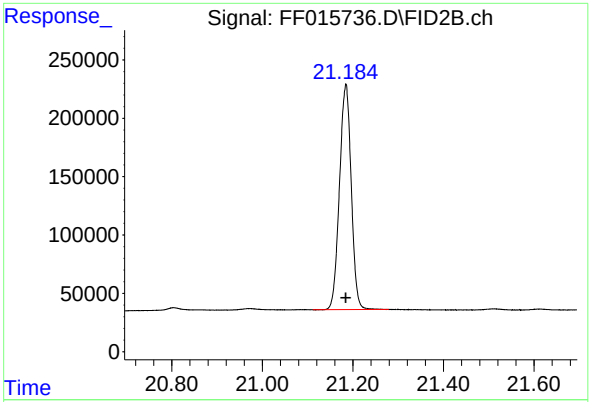
#15 N-TETRATRIACONTANE

R.T.: 19.707 min
Delta R.T.: -0.002 min
Response: 5166557
Conc: 49.59 ug/ml



#16 N-HEXATRIACONTANE

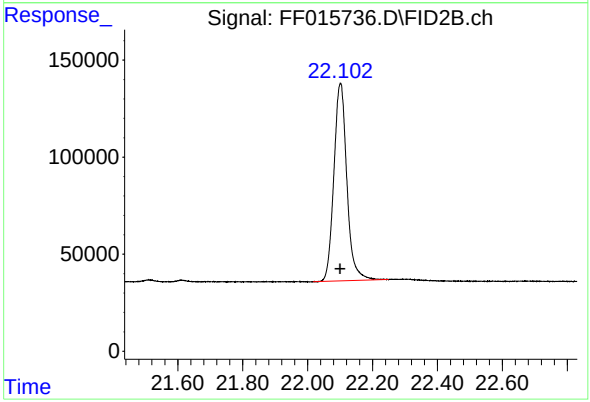
R.T.: 20.447 min
Delta R.T.: -0.001 min
Response: 4258110
Conc: 48.63 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.184 min
Delta R.T.: 0.000 min
Response: 3470905
Conc: 49.14 ug/ml

Instrument :
FID_F
ClientSampleId :
FF032625ICV



#18 N-TETRACONTANE

R.T.: 22.101 min
Delta R.T.: 0.001 min
Response: 2828036
Conc: 46.09 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF032625\
Data File : FF015736.D
Signal(s) : FID2B.ch
Acq On : 26 Mar 2025 13:21
Sample : FF032625ICV
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.026	1.994	2.159	BB	554012	5831586	90.59%	5.765%
2	4.566	4.532	4.710	BB	560884	5885500	91.43%	5.818%
3	6.735	6.704	6.880	BB	561237	6003264	93.26%	5.935%
4	8.563	8.525	8.669	BV	548947	6068108	94.27%	5.999%
5	10.171	10.135	10.300	BB	529453	6142517	95.42%	6.073%
6	11.615	11.562	11.734	BB	520438	6314840	98.10%	6.243%
7	12.926	12.887	13.020	BB	529617	6437199	100.00%	6.364%
8	14.124	14.084	14.217	BB	492585	6280184	97.56%	6.209%
9	15.024	14.932	15.099	BB	389229	5554792	86.29%	5.492%
10	15.229	15.160	15.309	BB	481014	6299707	97.86%	6.228%
11	16.251	16.182	16.339	BB	464775	6277775	97.52%	6.206%
12	17.202	17.129	17.287	BB	444716	6202845	96.36%	6.132%
13	18.091	18.029	18.170	BB	431553	6229194	96.77%	6.158%
14	18.924	18.854	19.009	BB	417929	5900810	91.67%	5.834%
15	19.707	19.642	19.775	BB	336949	5166557	80.26%	5.108%
16	20.447	20.400	20.542	BB	275251	4258110	66.15%	4.210%
17	21.184	21.112	21.279	BB	192818	3470905	53.92%	3.431%
18	22.101	22.017	22.250	BBA	101736	2828036	43.93%	2.796%

Sum of corrected areas: 101151929

FF032625.M Wed Mar 26 17:36:36 2025

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

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: PARS02

ProjectID: Con Edison - 11th Ave-West 50th St Site

Lab Code: CHEM Case No.: Q1739 SAS No.: Q1739 SDG No.: Q1739

DataFile: FF015755.D Analyst Name: YP\AJ Analyst Date: 04-08-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	91348406	107469	110052	2.347

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015755.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 11:13
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Apr 09 01:15:27 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.019	4642756	42.368 ug/ml
	Target Compounds			
1)	N-OCTANE	2.021	4828946	42.999 ug/ml
2)	N-DECANE	4.559	5030190	45.757 ug/ml
3)	N-DODECANE	6.729	5151264	46.140 ug/ml
4)	N-TETRADECANE	8.557	5209683	46.732 ug/ml
5)	N-HEXADECANE	10.165	5208465	44.505 ug/ml
6)	N-OCTADECANE	11.608	5343154	43.704 ug/ml
7)	N-EICOSANE	12.919	5424730	42.708 ug/ml
8)	N-DOCOSANE	14.119	5301131	42.746 ug/ml
10)	N-TETRACOSANE	15.224	5280431	42.472 ug/ml
11)	N-HEXACOSANE	16.246	5210737	42.243 ug/ml
12)	N-OCTACOSANE	17.197	5160618	42.250 ug/ml
13)	N-TRIACONTANE	18.086	5262039	42.615 ug/ml
14)	N-DOTRIACONTANE	18.919	5360258	45.358 ug/ml
15)	N-TETRATRIACONTANE	19.705	5664860	54.376 ug/ml
16)	N-HEXATRIACONTANE	20.445	5935531	67.792 ug/ml
17)	N-OCTATRIACONTANE	21.181	6040130	85.517 ug/ml
18)	N-TETRACONTANE	22.094	5936239	96.755 ug/ml

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

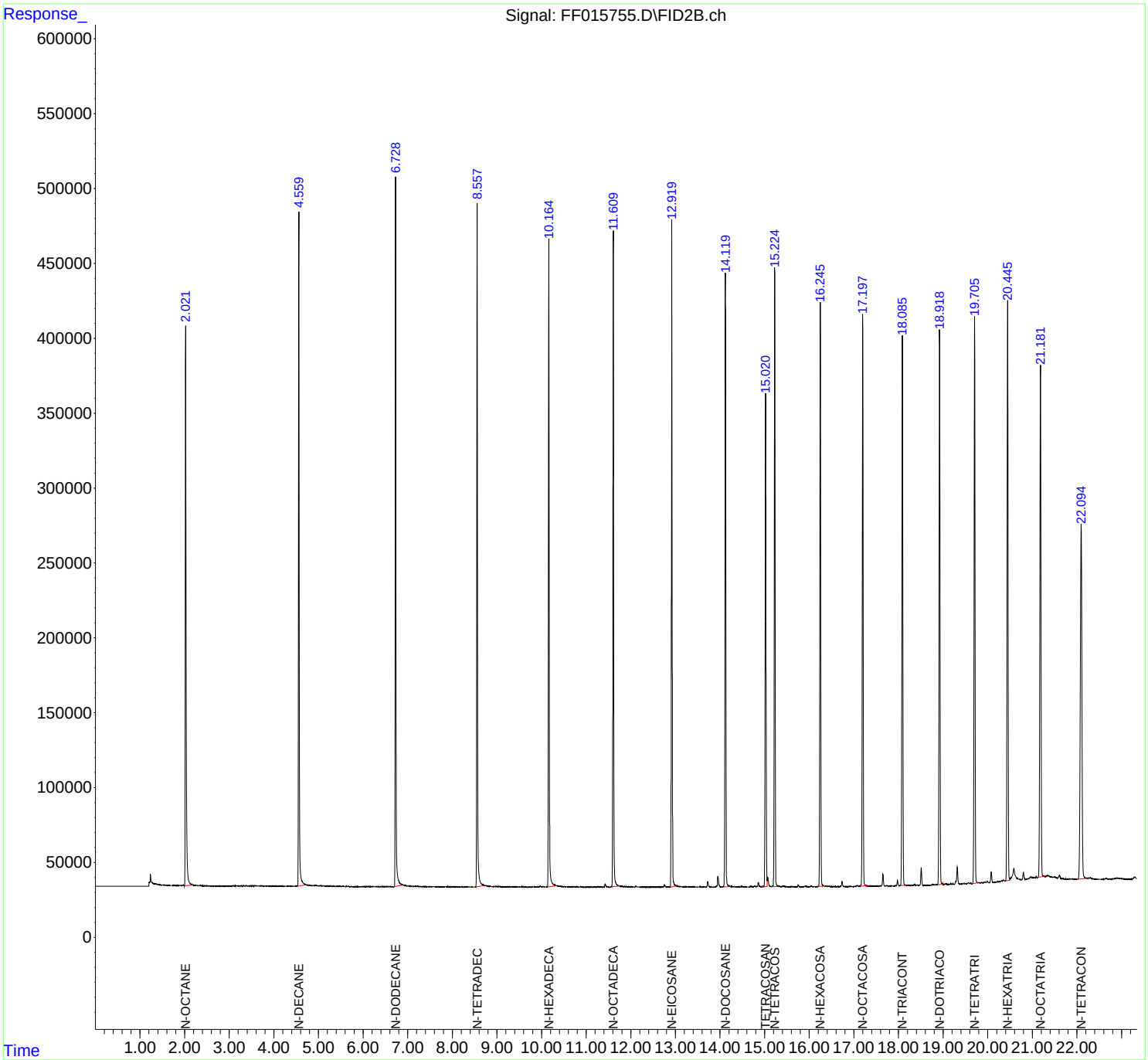
Quantitation Report (QT Reviewed)

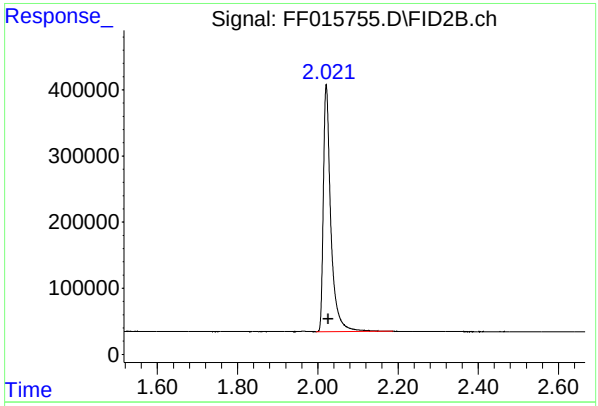
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015755.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 11:13
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Apr 09 01:15:27 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

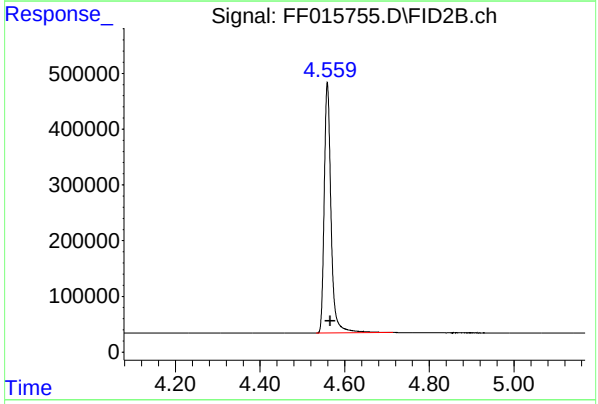




#1 N-OCTANE

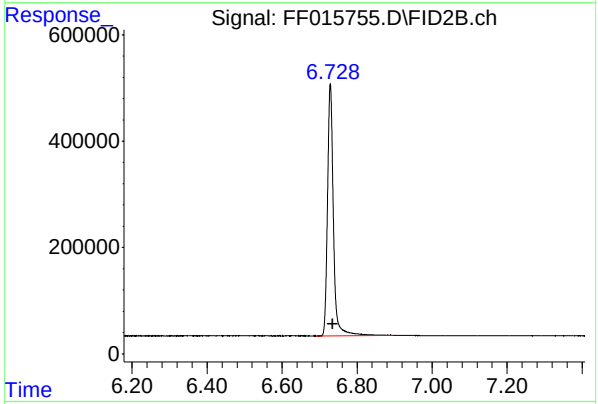
R.T.: 2.021 min
Delta R.T.: -0.005 min
Response: 4828946
Conc: 43.00 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



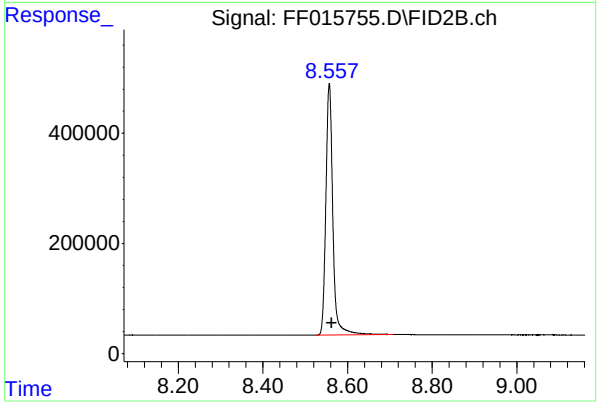
#2 N-DECANE

R.T.: 4.559 min
Delta R.T.: -0.007 min
Response: 5030190
Conc: 45.76 ug/ml



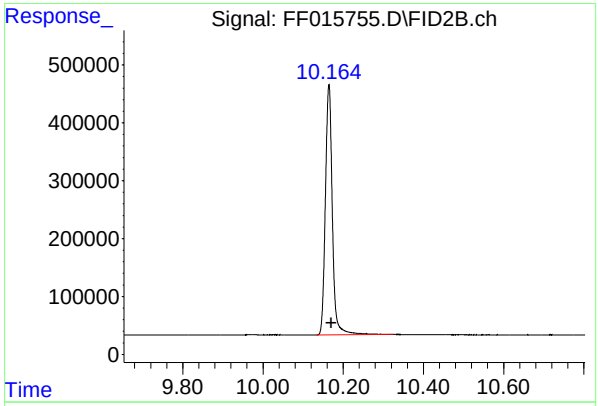
#3 N-DODECANE

R.T.: 6.729 min
Delta R.T.: -0.006 min
Response: 5151264
Conc: 46.14 ug/ml



#4 N-TETRADECANE

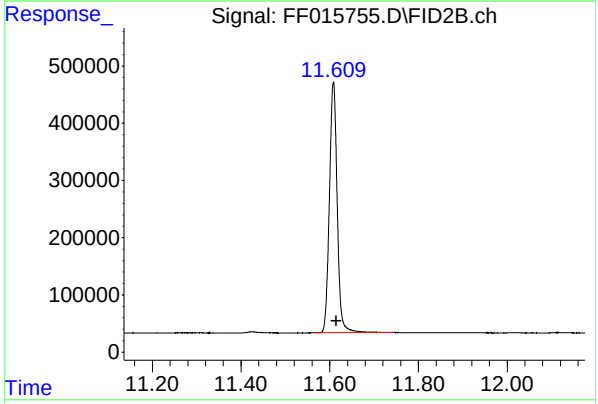
R.T.: 8.557 min
Delta R.T.: -0.006 min
Response: 5209683
Conc: 46.73 ug/ml



#5 N-HEXADECANE

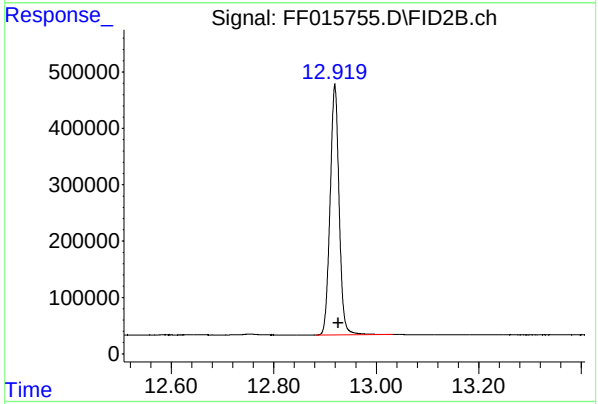
R.T.: 10.165 min
Delta R.T.: -0.006 min
Response: 5208465
Conc: 44.50 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



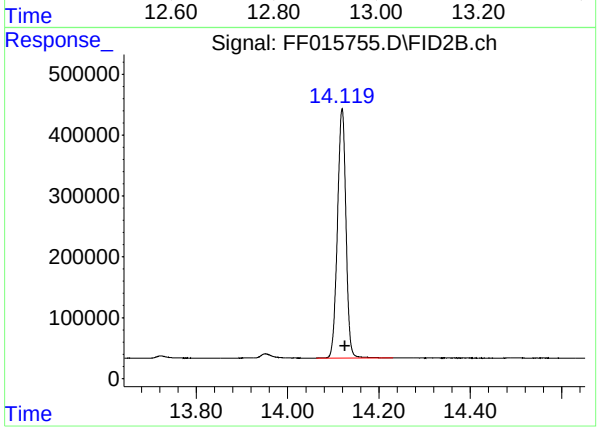
#6 N-OCTADECANE

R.T.: 11.608 min
Delta R.T.: -0.006 min
Response: 5343154
Conc: 43.70 ug/ml



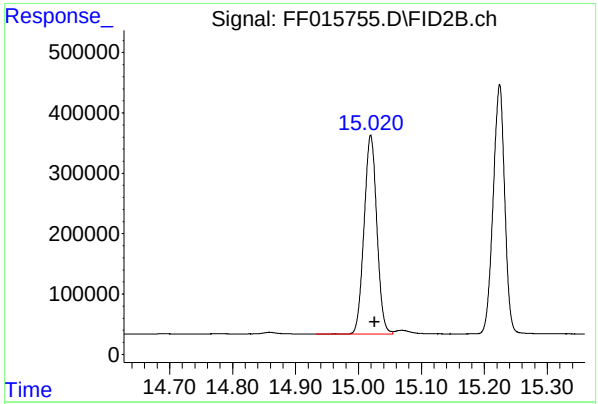
#7 N-EICOSANE

R.T.: 12.919 min
Delta R.T.: -0.006 min
Response: 5424730
Conc: 42.71 ug/ml



#8 N-DOCOSANE

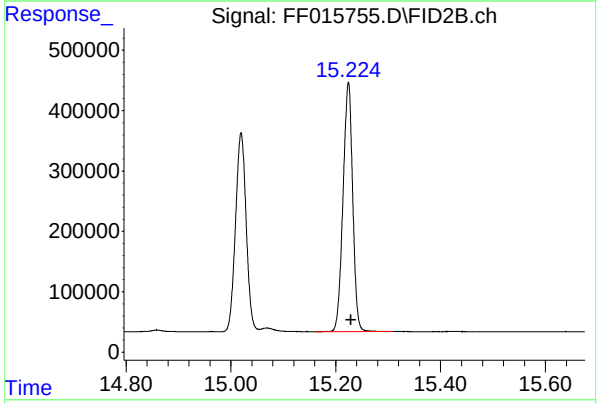
R.T.: 14.119 min
Delta R.T.: -0.006 min
Response: 5301131
Conc: 42.75 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

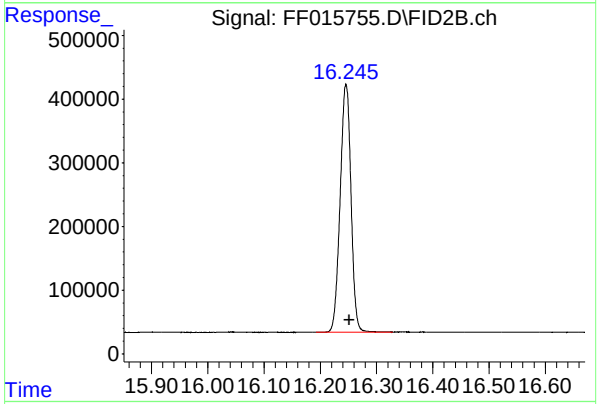
R.T.: 15.019 min
Delta R.T.: -0.006 min
Response: 4642756
Conc: 42.37 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



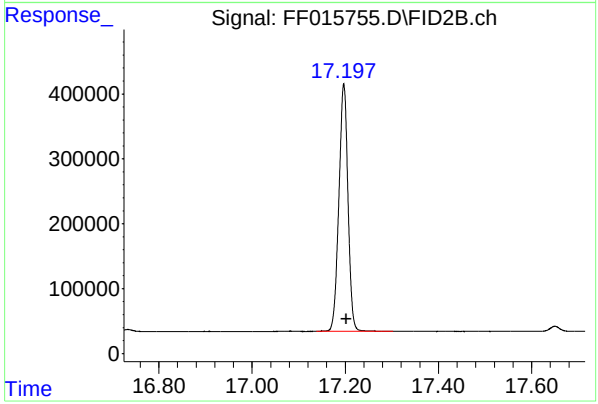
#10 N-TETRACOSANE

R.T.: 15.224 min
Delta R.T.: -0.005 min
Response: 5280431
Conc: 42.47 ug/ml



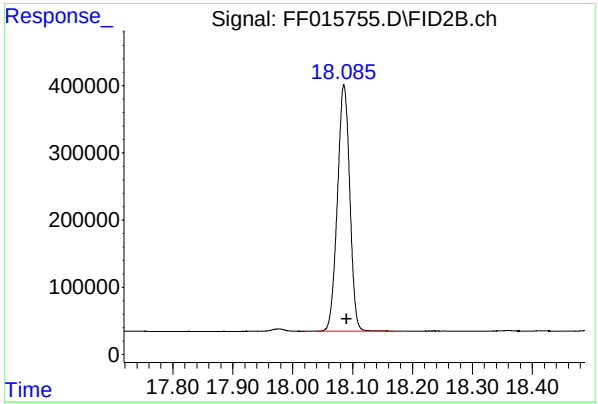
#11 N-HEXACOSANE

R.T.: 16.246 min
Delta R.T.: -0.006 min
Response: 5210737
Conc: 42.24 ug/ml



#12 N-OCTACOSANE

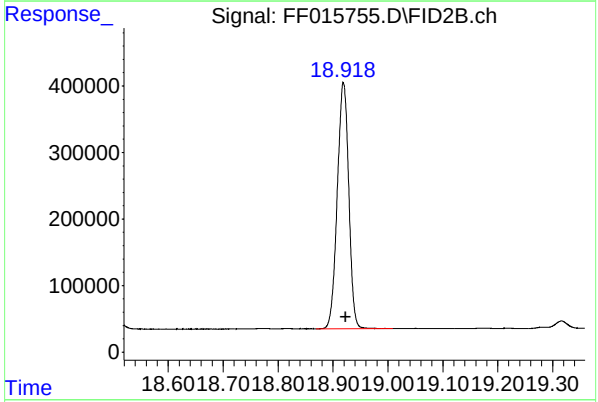
R.T.: 17.197 min
Delta R.T.: -0.005 min
Response: 5160618
Conc: 42.25 ug/ml



#13 N-TRIACONTANE

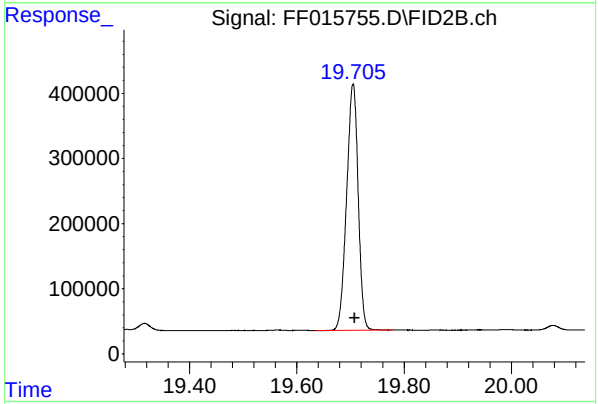
R.T.: 18.086 min
Delta R.T.: -0.005 min
Response: 5262039
Conc: 42.62 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



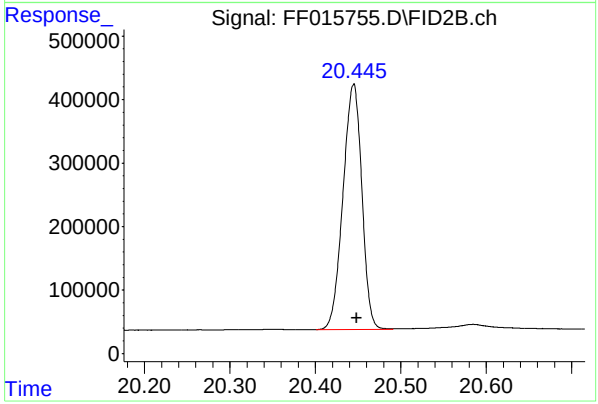
#14 N-DOTRIACONTANE

R.T.: 18.919 min
Delta R.T.: -0.004 min
Response: 5360258
Conc: 45.36 ug/ml



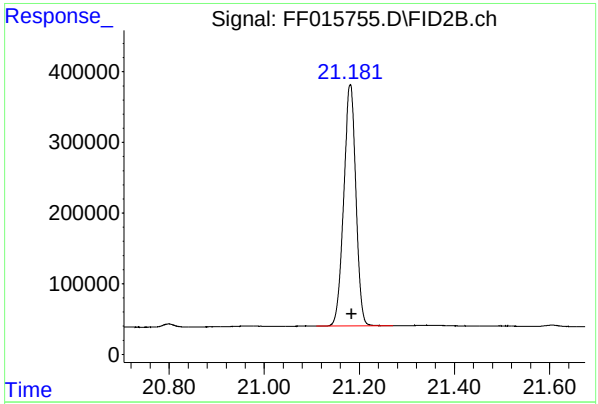
#15 N-TETRATRIACONTANE

R.T.: 19.705 min
Delta R.T.: -0.003 min
Response: 5664860
Conc: 54.38 ug/ml



#16 N-HEXATRIACONTANE

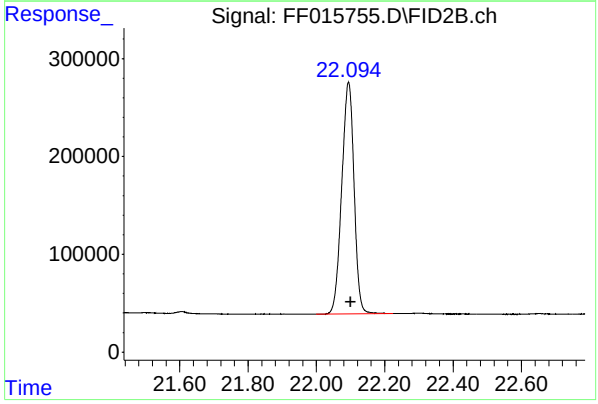
R.T.: 20.445 min
Delta R.T.: -0.003 min
Response: 5935531
Conc: 67.79 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.181 min
Delta R.T.: -0.003 min
Response: 6040130
Conc: 85.52 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



#18 N-TETRACONTANE

R.T.: 22.094 min
Delta R.T.: -0.006 min
Response: 5936239
Conc: 96.76 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015755.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 11:13
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.021	1.996	2.187	BB	373560	4828946	79.95%	5.031%
2	4.559	4.532	4.714	BB	449374	5030190	83.28%	5.240%
3	6.729	6.691	6.896	BB	474187	5151264	85.28%	5.366%
4	8.557	8.526	8.707	BB	457008	5209683	86.25%	5.427%
5	10.165	10.132	10.324	BB	432306	5208465	86.23%	5.426%
6	11.608	11.569	11.742	BB	438908	5343154	88.46%	5.566%
7	12.919	12.882	13.032	BB	444035	5424730	89.81%	5.651%
8	14.119	14.062	14.231	BB	409059	5301131	87.77%	5.523%
9	15.019	14.932	15.055	BV	329242	4642756	76.87%	4.837%
10	15.224	15.162	15.309	BB	413589	5280431	87.42%	5.501%
11	16.246	16.192	16.329	BB	389100	5210737	86.27%	5.428%
12	17.197	17.137	17.302	BB	381011	5160618	85.44%	5.376%
13	18.086	18.039	18.167	BB	366786	5262039	87.12%	5.482%
14	18.919	18.869	19.009	BB	369943	5360258	88.74%	5.584%
15	19.705	19.636	19.779	BB	379521	5664860	93.79%	5.901%
16	20.445	20.401	20.491	BV	386340	5935531	98.27%	6.183%
17	21.181	21.109	21.271	BB	341144	6040130	100.00%	6.292%
18	22.094	21.999	22.224	BB	236578	5936239	98.28%	6.184%
			Sum of corrected areas:			95991160		

FF032625.M Wed Apr 09 01:52:26 2025

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

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: PARS02

ProjectID: Con Edison - 11th Ave-West 50th St Site

Lab Code: CHEM Case No.: Q1739 SAS No.: Q1739 SDG No.: Q1739

DataFile: FF015764.D Analyst Name: YP\AJ Analyst Date: 04-08-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	93884259	110452	110052	0.363

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015764.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 20:24
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Apr 09 01:18:09 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc	Units
	System Monitoring Compounds				
9)	S TETRACOSANE-d50 (SURR...	15.022	5762215	52.583	ug/ml
	Target Compounds				
1)	N-OCTANE	2.026	5421532	48.275	ug/ml
2)	N-DECANE	4.565	5641564	51.318	ug/ml
3)	N-DODECANE	6.734	5893939	52.792	ug/ml
4)	N-TETRADECANE	8.560	5960200	53.464	ug/ml
5)	N-HEXADECANE	10.168	6044468	51.648	ug/ml
6)	N-OCTADECANE	11.612	6331065	51.785	ug/ml
7)	N-EICOSANE	12.923	6377717	50.211	ug/ml
8)	N-DOCOSANE	14.122	6316931	50.937	ug/ml
10)	N-TETRACOSANE	15.226	6354210	51.109	ug/ml
11)	N-HEXACOSANE	16.248	6239248	50.581	ug/ml
12)	N-OCTACOSANE	17.198	6206379	50.812	ug/ml
13)	N-TRIACONTANE	18.087	6198664	50.201	ug/ml
14)	N-DOTRIACONTANE	18.919	5897371	49.903	ug/ml
15)	N-TETRATRIACONTANE	19.703	4941575	47.434	ug/ml
16)	N-HEXATRIACONTANE	20.443	3920770	44.781	ug/ml
17)	N-OCTATRIACONTANE	21.179	3284266	46.499	ug/ml
18)	N-TETRACONTANE	22.091	2854360	46.523	ug/ml

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

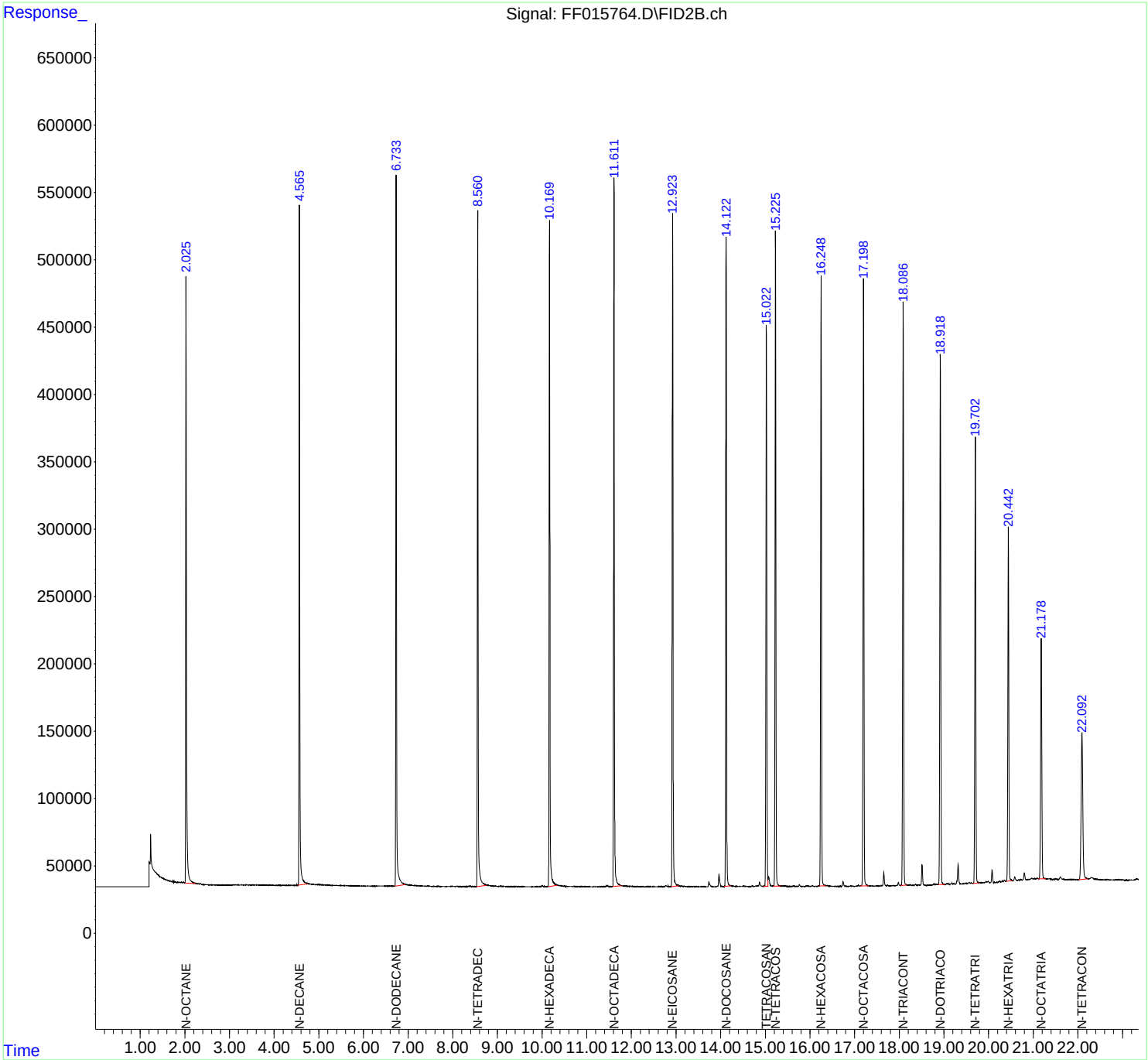
Quantitation Report (QT Reviewed)

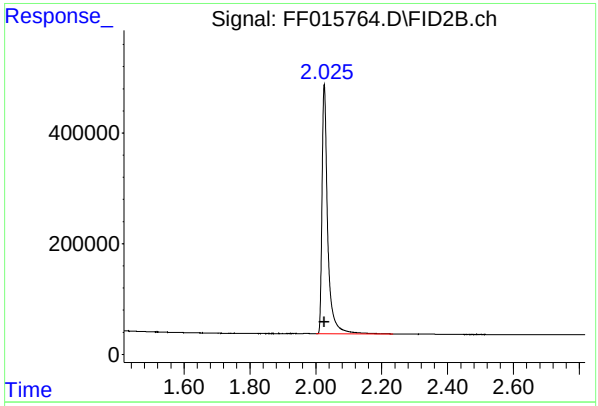
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015764.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 20:24
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Apr 09 01:18:09 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

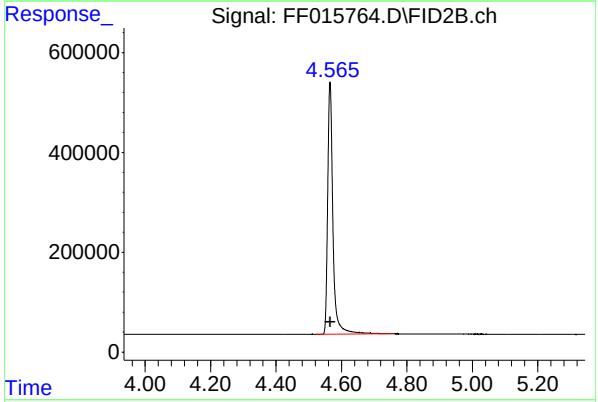




#1 N-OCTANE

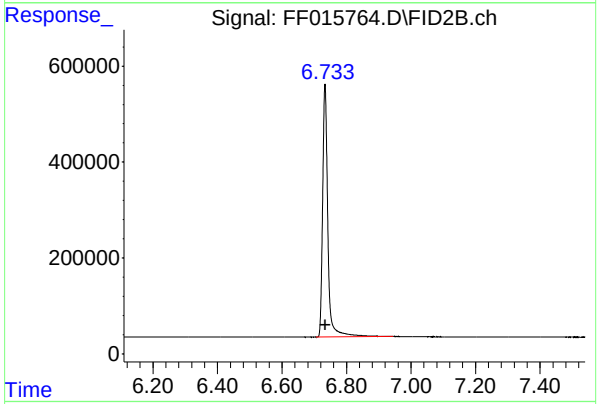
R.T.: 2.026 min
Delta R.T.: 0.000 min
Response: 5421532
Conc: 48.28 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



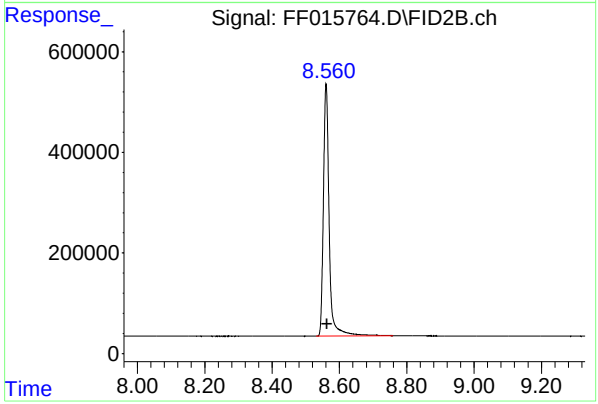
#2 N-DECANE

R.T.: 4.565 min
Delta R.T.: 0.000 min
Response: 5641564
Conc: 51.32 ug/ml



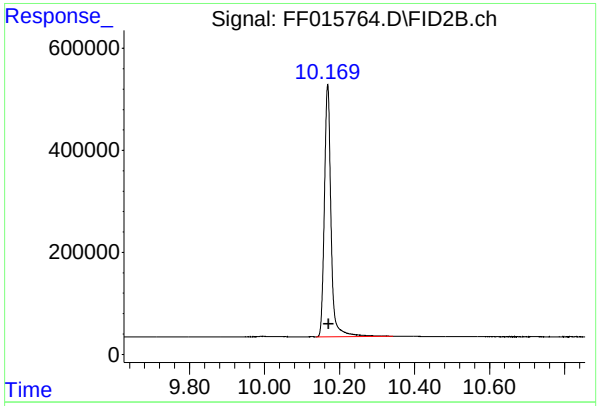
#3 N-DODECANE

R.T.: 6.734 min
Delta R.T.: -0.001 min
Response: 5893939
Conc: 52.79 ug/ml



#4 N-TETRADECANE

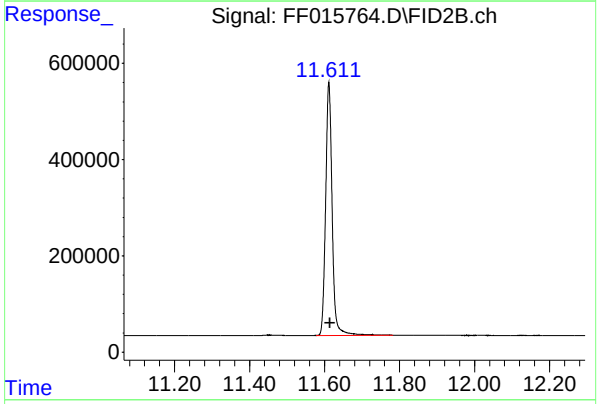
R.T.: 8.560 min
Delta R.T.: -0.002 min
Response: 5960200
Conc: 53.46 ug/ml



#5 N-HEXADECANE

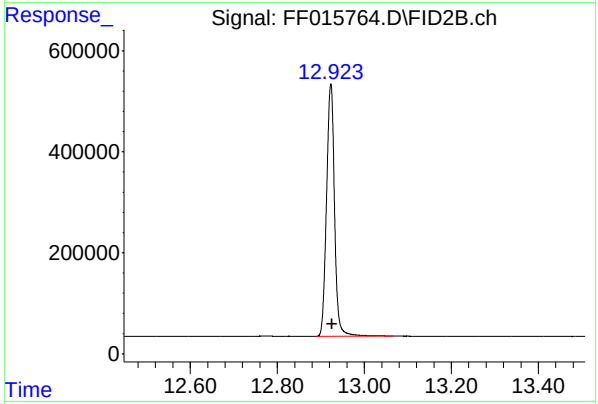
R.T.: 10.168 min
Delta R.T.: -0.002 min
Response: 6044468
Conc: 51.65 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



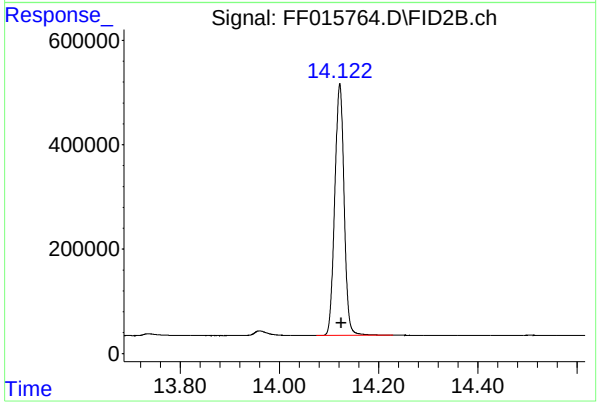
#6 N-OCTADECANE

R.T.: 11.612 min
Delta R.T.: -0.003 min
Response: 6331065
Conc: 51.78 ug/ml



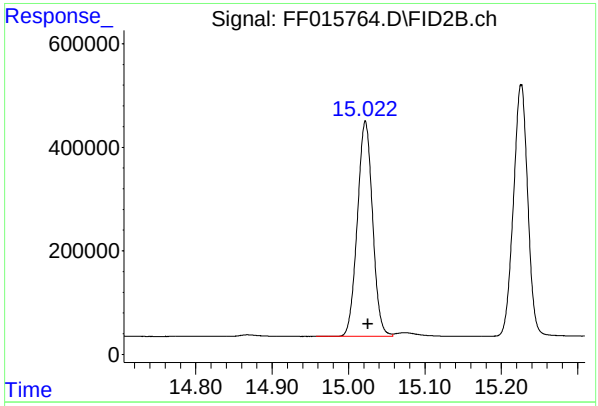
#7 N-EICOSANE

R.T.: 12.923 min
Delta R.T.: -0.002 min
Response: 6377717
Conc: 50.21 ug/ml



#8 N-DOCOSANE

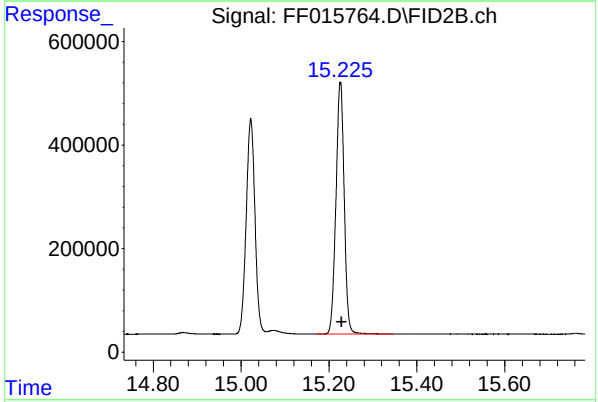
R.T.: 14.122 min
Delta R.T.: -0.003 min
Response: 6316931
Conc: 50.94 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

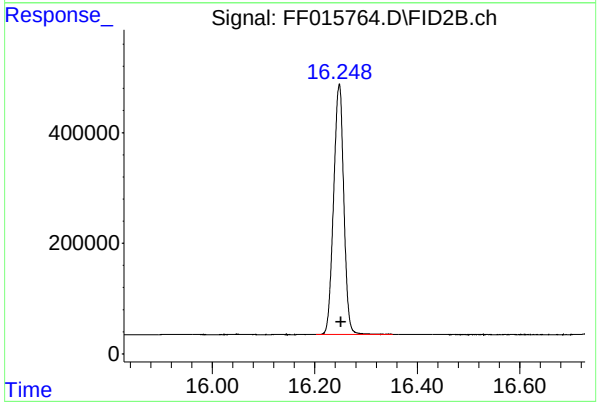
R.T.: 15.022 min
Delta R.T.: -0.003 min
Response: 5762215
Conc: 52.58 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



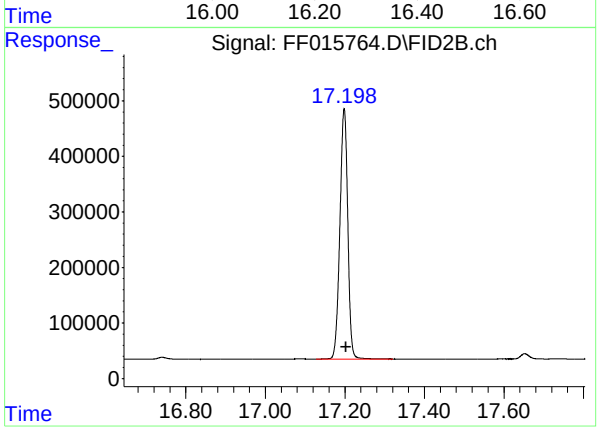
#10 N-TETRACOSANE

R.T.: 15.226 min
Delta R.T.: -0.003 min
Response: 6354210
Conc: 51.11 ug/ml



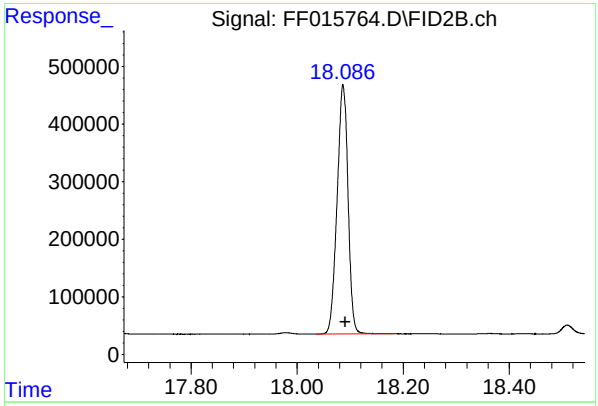
#11 N-HEXACOSANE

R.T.: 16.248 min
Delta R.T.: -0.004 min
Response: 6239248
Conc: 50.58 ug/ml



#12 N-OCTACOSANE

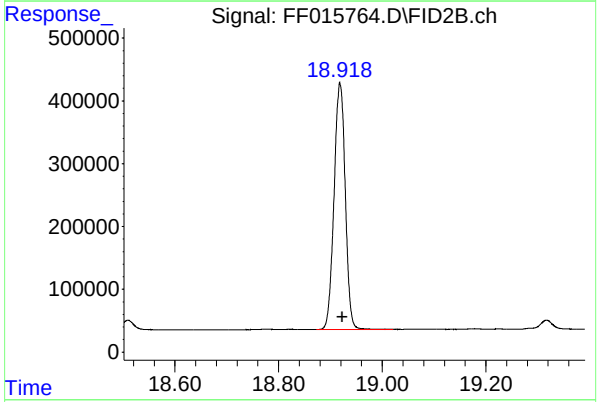
R.T.: 17.198 min
Delta R.T.: -0.004 min
Response: 6206379
Conc: 50.81 ug/ml



#13 N-TRIACONTANE

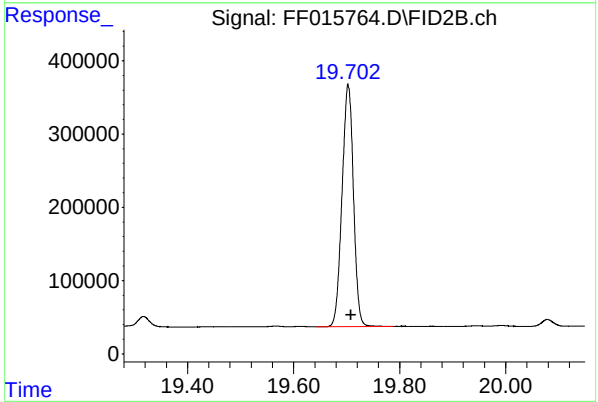
R.T.: 18.087 min
Delta R.T.: -0.004 min
Response: 6198664
Conc: 50.20 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



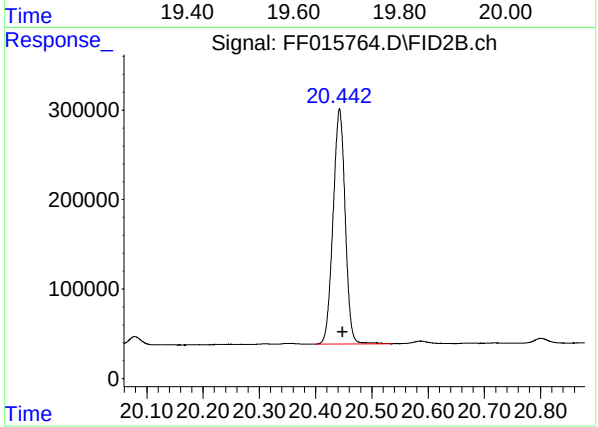
#14 N-DOTRIACONTANE

R.T.: 18.919 min
Delta R.T.: -0.004 min
Response: 5897371
Conc: 49.90 ug/ml



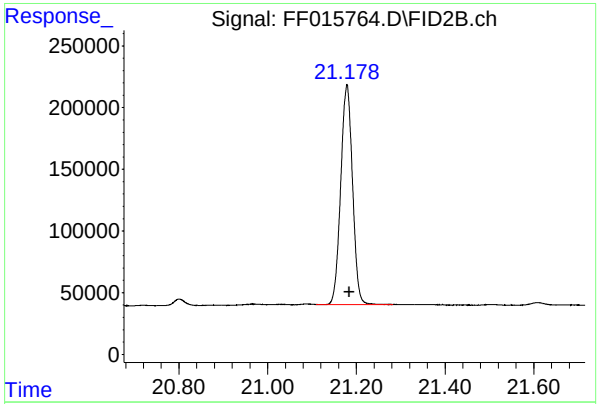
#15 N-TETRATRIACONTANE

R.T.: 19.703 min
Delta R.T.: -0.005 min
Response: 4941575
Conc: 47.43 ug/ml



#16 N-HEXATRIACONTANE

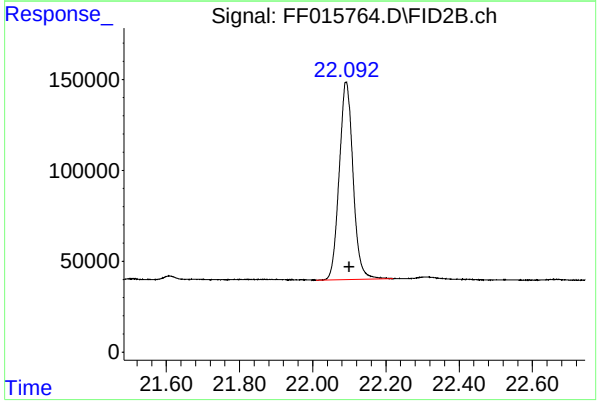
R.T.: 20.443 min
Delta R.T.: -0.006 min
Response: 3920770
Conc: 44.78 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.179 min
Delta R.T.: -0.005 mi
Response: 3284266
Conc: 46.50 ug/m

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



#18 N-TETRACONTANE

R.T.: 22.091 min
Delta R.T.: -0.009 min
Response: 2854360
Conc: 46.52 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015764.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 20:24
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.026	2.001	2.234	PB	450272	5421532	85.01%	5.441%
2	4.565	4.522	4.757	BB	504711	5641564	88.46%	5.662%
3	6.734	6.706	6.944	BB	527804	5893939	92.41%	5.915%
4	8.561	8.531	8.759	BB	501633	5960200	93.45%	5.981%
5	10.168	10.137	10.342	PB	496166	6044468	94.77%	6.066%
6	11.612	11.577	11.782	BB	525875	6331065	99.27%	6.354%
7	12.923	12.889	13.066	BB	500300	6377717	100.00%	6.400%
8	14.122	14.074	14.229	BB	482692	6316931	99.05%	6.339%
9	15.022	14.957	15.058	BV	416656	5762215	90.35%	5.783%
10	15.226	15.171	15.346	BB	486889	6354210	99.63%	6.377%
11	16.248	16.202	16.352	BB	452148	6239248	97.83%	6.261%
12	17.198	17.127	17.321	BB	451592	6206379	97.31%	6.228%
13	18.087	18.036	18.181	BB	433828	6198664	97.19%	6.221%
14	18.919	18.872	19.021	BB	390984	5897371	92.47%	5.918%
15	19.703	19.642	19.787	BB	331149	4941575	77.48%	4.959%
16	20.443	20.401	20.537	BB	263036	3920770	61.48%	3.935%
17	21.179	21.109	21.282	BB	178336	3284266	51.50%	3.296%
18	22.091	22.009	22.219	BB	108540	2854360	44.76%	2.864%
			Sum of corrected areas:			99646474		

FF032625.M Wed Apr 09 01:54:40 2025

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

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: PARS02

ProjectID: Con Edison - 11th Ave-West 50th St Site

Lab Code: CHEM Case No.: Q1739 SAS No.: Q1739 SDG No.: Q1739

DataFile: FF015767.D Analyst Name: YP\AJ Analyst Date: 04-09-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	96582358	113626	110052	3.248

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015767.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 09:16
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Apr 10 01:29:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.022	5958038	54.370 ug/ml
	Target Compounds			
1)	N-OCTANE	2.027	5437391	48.416 ug/ml
2)	N-DECANE	4.565	5711344	51.953 ug/ml
3)	N-DODECANE	6.734	6032167	54.030 ug/ml
4)	N-TETRADECANE	8.561	6125232	54.945 ug/ml
5)	N-HEXADECANE	10.168	6262677	53.513 ug/ml
6)	N-OCTADECANE	11.611	6543948	53.526 ug/ml
7)	N-EICOSANE	12.922	6604993	52.001 ug/ml
8)	N-DOCOSANE	14.121	6551391	52.827 ug/ml
10)	N-TETRACOSANE	15.225	6562792	52.787 ug/ml
11)	N-HEXACOSANE	16.247	6453079	52.314 ug/ml
12)	N-OCTACOSANE	17.197	6399570	52.393 ug/ml
13)	N-TRIACONTANE	18.086	6402415	51.851 ug/ml
14)	N-DOTRIACONTANE	18.919	6092777	51.557 ug/ml
15)	N-TETRATRIACONTANE	19.702	5096769	48.923 ug/ml
16)	N-HEXATRIACONTANE	20.441	4032828	46.060 ug/ml
17)	N-OCTATRIACONTANE	21.177	3358867	47.555 ug/ml
18)	N-TETRACONTANE	22.089	2914118	47.497 ug/ml

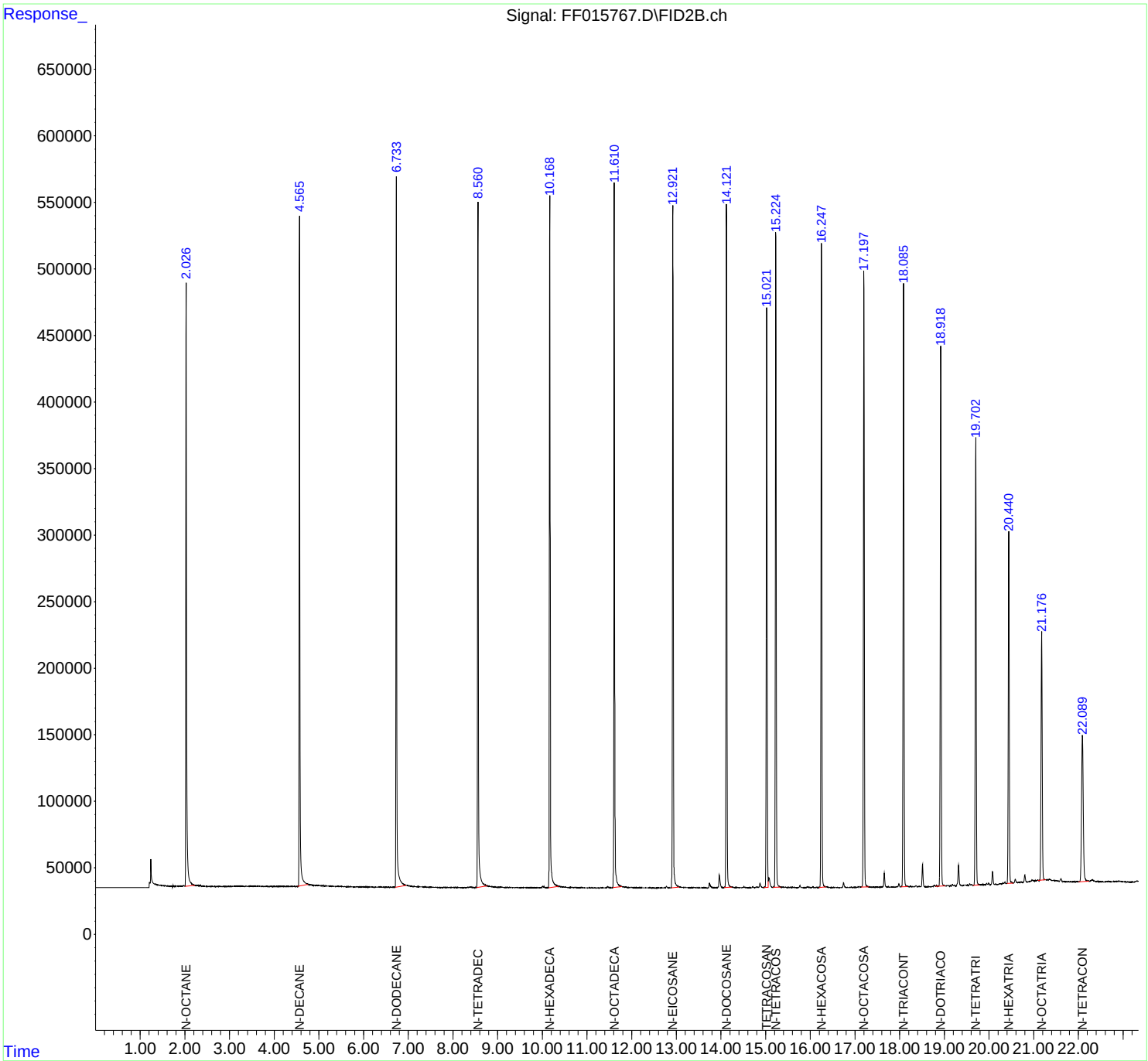
(f)=RT Delta > 1/2 Window (m)=manual int.

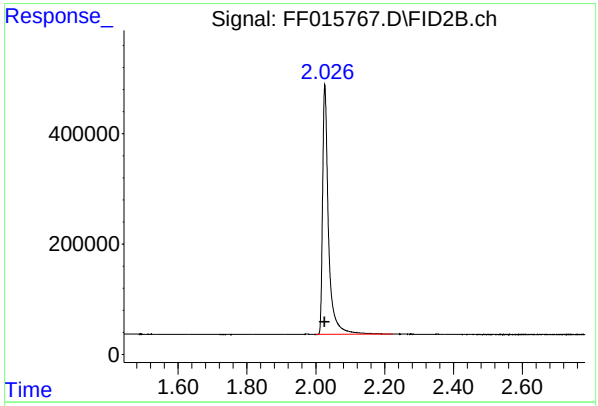
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015767.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 09:16
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Apr 10 01:29:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

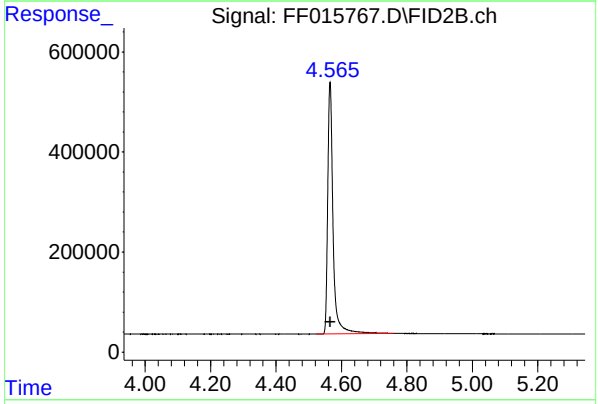




#1 N-OCTANE

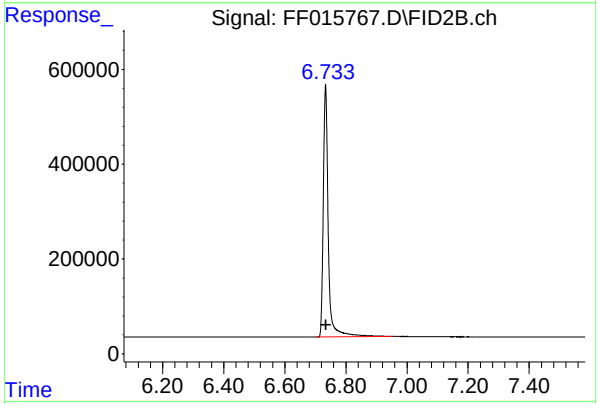
R.T.: 2.027 min
Delta R.T.: 0.000 min
Response: 5437391
Conc: 48.42 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



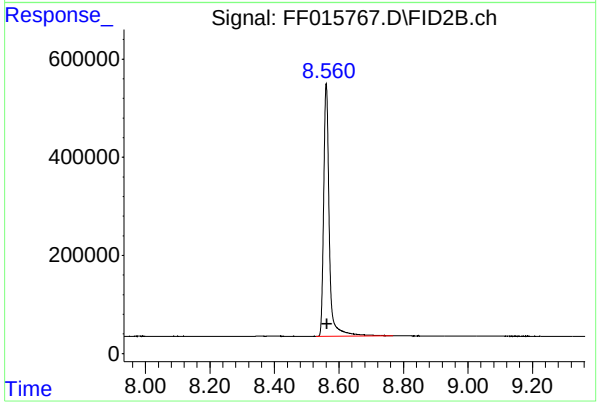
#2 N-DECANE

R.T.: 4.565 min
Delta R.T.: 0.000 min
Response: 5711344
Conc: 51.95 ug/ml



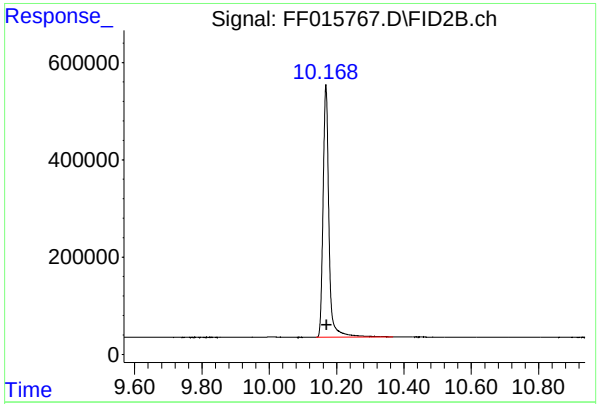
#3 N-DODECANE

R.T.: 6.734 min
Delta R.T.: -0.001 min
Response: 6032167
Conc: 54.03 ug/ml



#4 N-TETRADECANE

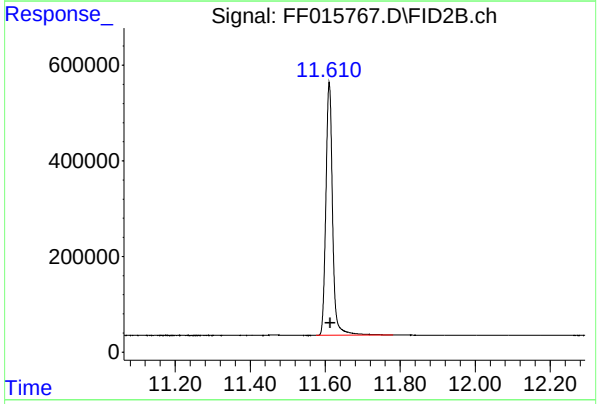
R.T.: 8.561 min
Delta R.T.: -0.002 min
Response: 6125232
Conc: 54.94 ug/ml



#5 N-HEXADECANE

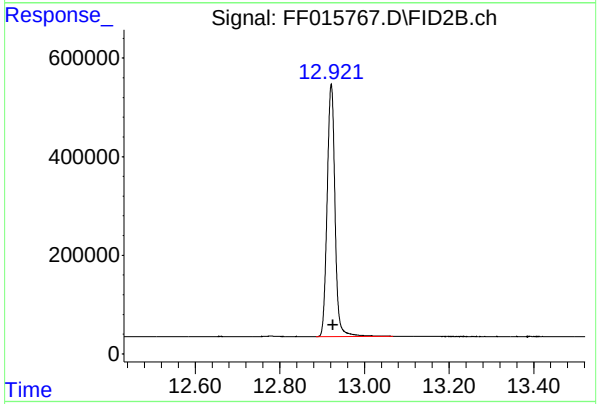
R.T.: 10.168 min
Delta R.T.: -0.002 min
Response: 6262677
Conc: 53.51 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



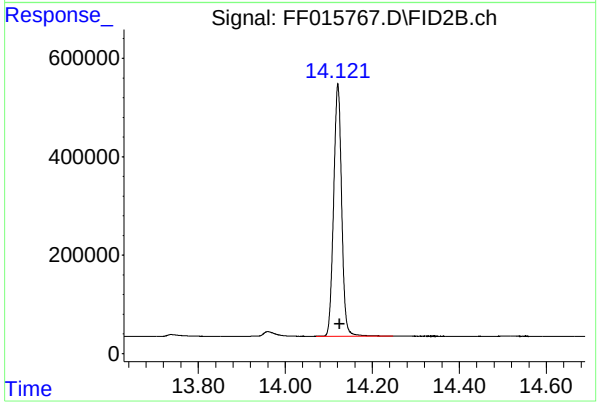
#6 N-OCTADECANE

R.T.: 11.611 min
Delta R.T.: -0.004 min
Response: 6543948
Conc: 53.53 ug/ml



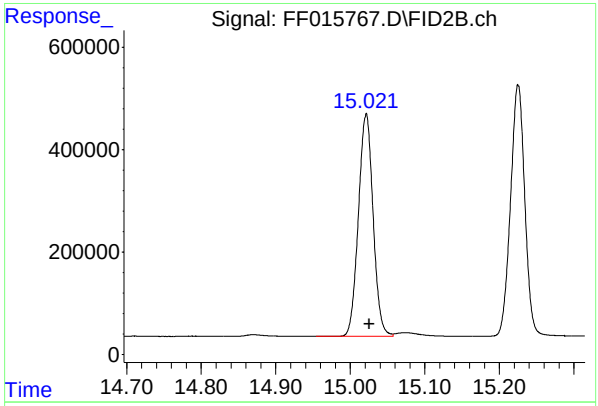
#7 N-EICOSANE

R.T.: 12.922 min
Delta R.T.: -0.004 min
Response: 6604993
Conc: 52.00 ug/ml



#8 N-DOCOSANE

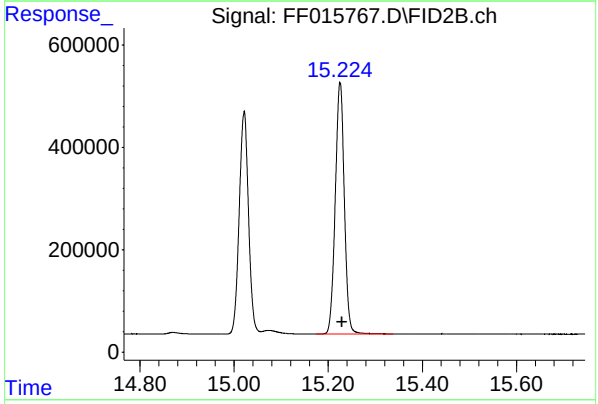
R.T.: 14.121 min
Delta R.T.: -0.004 min
Response: 6551391
Conc: 52.83 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

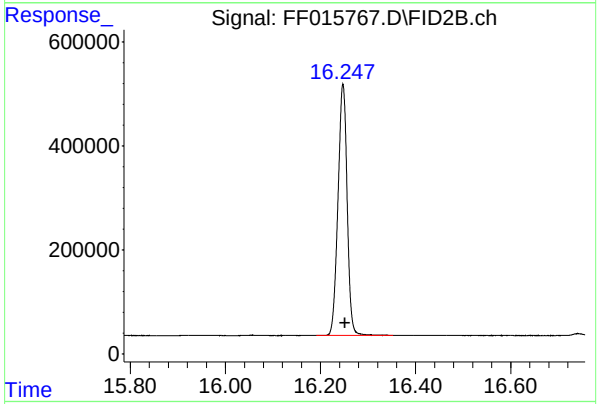
R.T.: 15.022 min
Delta R.T.: -0.004 min
Response: 5958038
Conc: 54.37 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



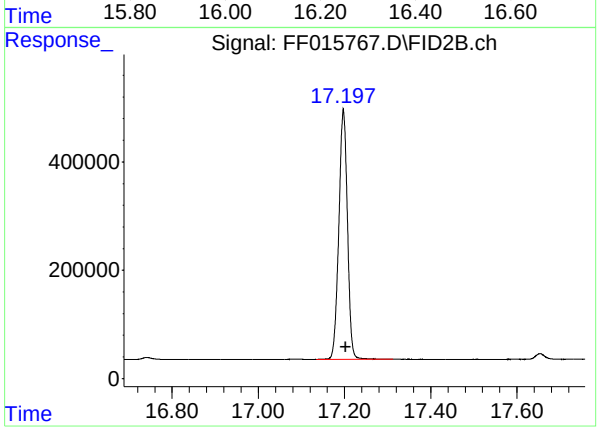
#10 N-TETRACOSANE

R.T.: 15.225 min
Delta R.T.: -0.004 min
Response: 6562792
Conc: 52.79 ug/ml



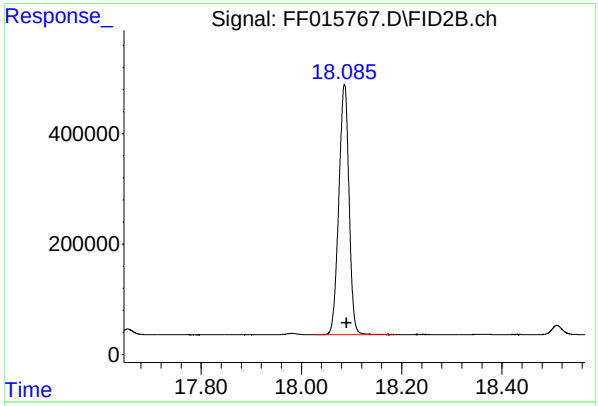
#11 N-HEXACOSANE

R.T.: 16.247 min
Delta R.T.: -0.004 min
Response: 6453079
Conc: 52.31 ug/ml



#12 N-OCTACOSANE

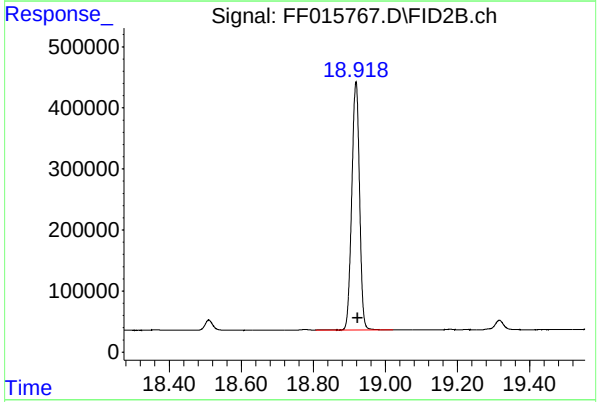
R.T.: 17.197 min
Delta R.T.: -0.005 min
Response: 6399570
Conc: 52.39 ug/ml



#13 N-TRIACONTANE

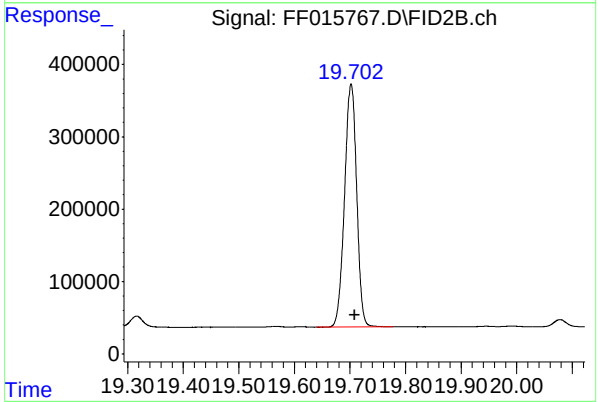
R.T.: 18.086 min
Delta R.T.: -0.005 min
Response: 6402415
Conc: 51.85 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



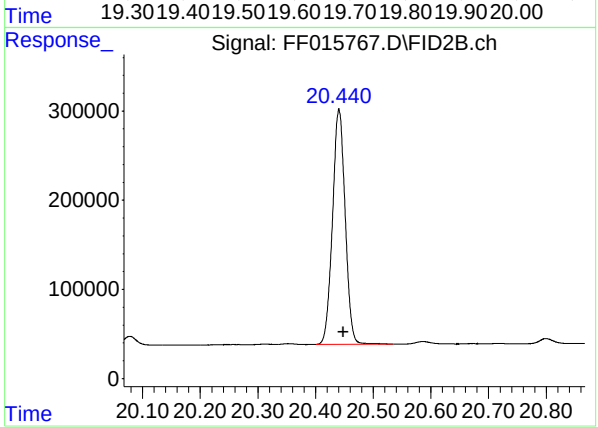
#14 N-DOTRIACONTANE

R.T.: 18.919 min
Delta R.T.: -0.004 min
Response: 6092777
Conc: 51.56 ug/ml



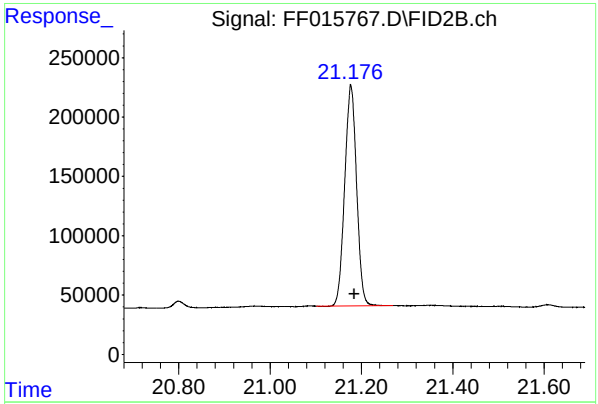
#15 N-TETRATRIACONTANE

R.T.: 19.702 min
Delta R.T.: -0.006 min
Response: 5096769
Conc: 48.92 ug/ml



#16 N-HEXATRIACONTANE

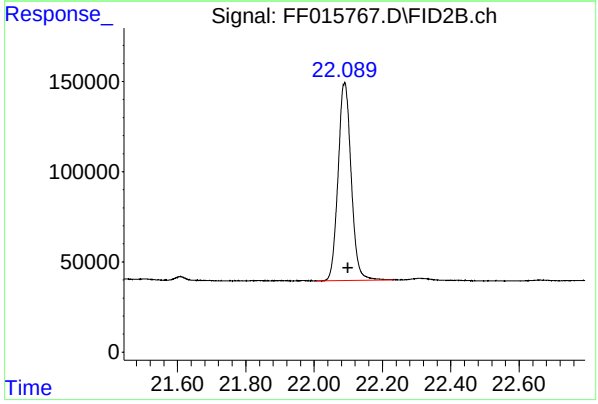
R.T.: 20.441 min
Delta R.T.: -0.008 min
Response: 4032828
Conc: 46.06 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.177 min
Delta R.T.: -0.007 min
Response: 3358867
Conc: 47.56 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



#18 N-TETRACONTANE

R.T.: 22.089 min
Delta R.T.: -0.011 min
Response: 2914118
Conc: 47.50 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015767.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 09:16
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.027	2.001	2.224	BB	453041	5437391	82.32%	5.303%
2	4.565	4.522	4.757	BB	503305	5711344	86.47%	5.570%
3	6.734	6.702	6.954	BB	533401	6032167	91.33%	5.883%
4	8.561	8.529	8.767	BB	514740	6125232	92.74%	5.973%
5	10.168	10.139	10.367	BB	516281	6262677	94.82%	6.108%
6	11.611	11.576	11.781	BB	528898	6543948	99.08%	6.382%
7	12.922	12.886	13.067	BB	511878	6604993	100.00%	6.441%
8	14.121	14.071	14.247	BB	512470	6551391	99.19%	6.389%
9	15.022	14.954	15.057	BV	433093	5958038	90.21%	5.810%
10	15.225	15.174	15.337	BB	490532	6562792	99.36%	6.400%
11	16.247	16.191	16.352	BB	483101	6453079	97.70%	6.293%
12	17.197	17.134	17.312	BB	461811	6399570	96.89%	6.241%
13	18.086	18.029	18.182	BB	452794	6402415	96.93%	6.244%
14	18.919	18.807	19.021	BB	406111	6092777	92.25%	5.942%
15	19.702	19.639	19.777	BB	336152	5096769	77.17%	4.970%
16	20.441	20.401	20.534	BB	263987	4032828	61.06%	3.933%
17	21.177	21.101	21.269	BB	185497	3358867	50.85%	3.276%
18	22.089	22.006	22.231	BB	109787	2914118	44.12%	2.842%

Sum of corrected areas: 102540393

FF032625.M Thu Apr 10 01:53:19 2025

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

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: PARS02

ProjectID: Con Edison - 11th Ave-West 50th St Site

Lab Code: CHEM Case No.: Q1739 SAS No.: Q1739 SDG No.: Q1739

DataFile: FF015773.D Analyst Name: YP\AJ Analyst Date: 04-09-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	95564124	112428	110052	2.159

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015773.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 12:41
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Apr 10 01:31:32 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.022	5854188	53.423 ug/ml
	Target Compounds			
1)	N-OCTANE	2.025	5465534	48.667 ug/ml
2)	N-DECANE	4.566	5654811	51.439 ug/ml
3)	N-DODECANE	6.734	5964559	53.425 ug/ml
4)	N-TETRADECANE	8.561	6054987	54.315 ug/ml
5)	N-HEXADECANE	10.168	6164776	52.676 ug/ml
6)	N-OCTADECANE	11.612	6459922	52.839 ug/ml
7)	N-EICOSANE	12.922	6506868	51.228 ug/ml
8)	N-DOCOSANE	14.121	6454698	52.048 ug/ml
10)	N-TETRACOSANE	15.225	6455442	51.923 ug/ml
11)	N-HEXACOSANE	16.247	6336177	51.367 ug/ml
12)	N-OCTACOSANE	17.196	6287828	51.479 ug/ml
13)	N-TRIACONTANE	18.086	6304664	51.059 ug/ml
14)	N-DOTRIACONTANE	18.918	6026742	50.998 ug/ml
15)	N-TETRATRIACONTANE	19.702	5046448	48.440 ug/ml
16)	N-HEXATRIACONTANE	20.441	4043876	46.187 ug/ml
17)	N-OCTATRIACONTANE	21.178	3371318	47.732 ug/ml
18)	N-TETRACONTANE	22.089	2965474	48.335 ug/ml

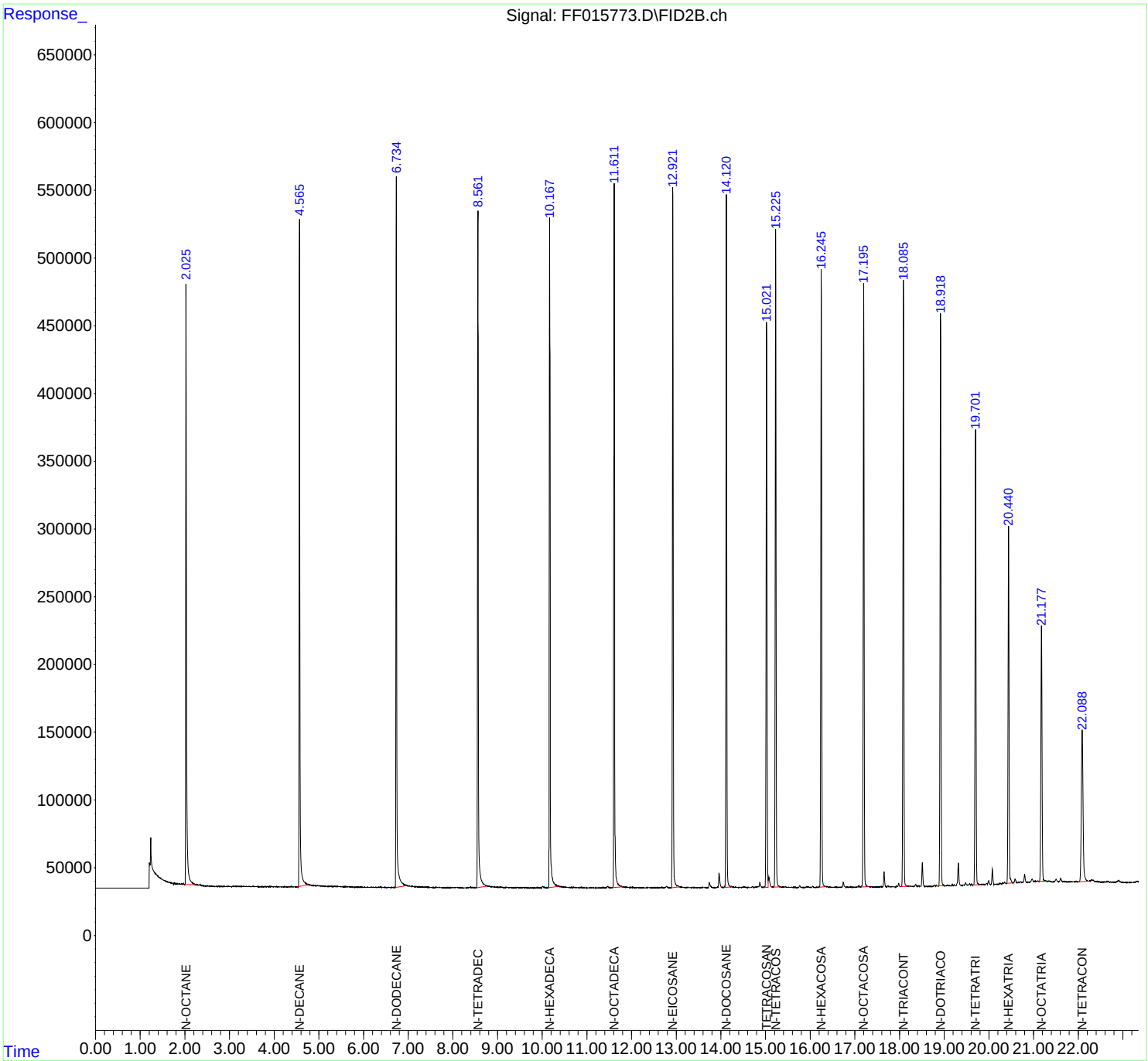
(f)=RT Delta > 1/2 Window (m)=manual int.

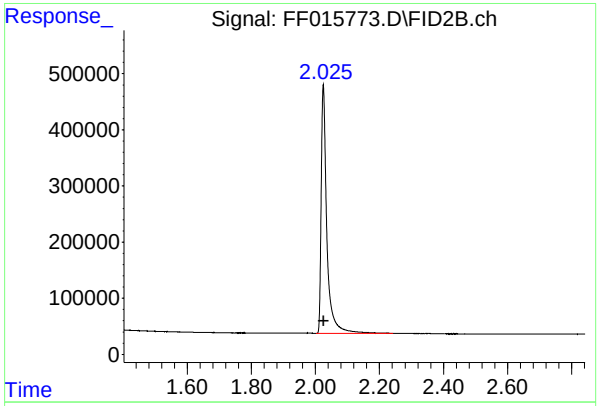
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015773.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 12:41
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Apr 10 01:31:32 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

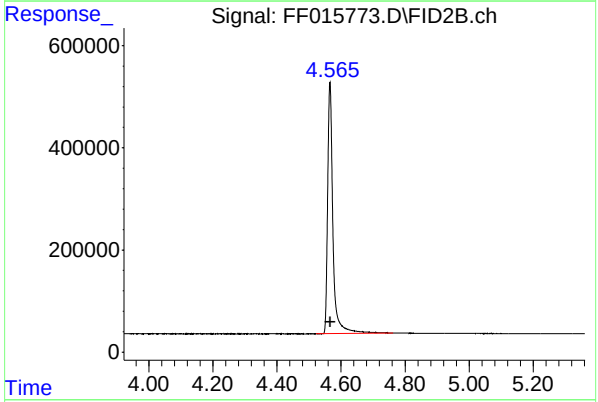




#1 N-OCTANE

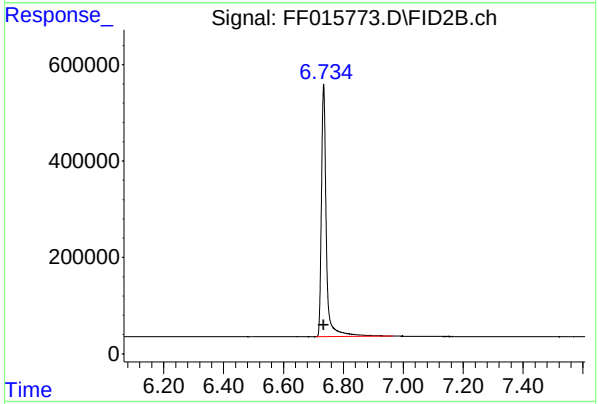
R.T.: 2.025 min
Delta R.T.: 0.000 min
Response: 5465534
Conc: 48.67 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



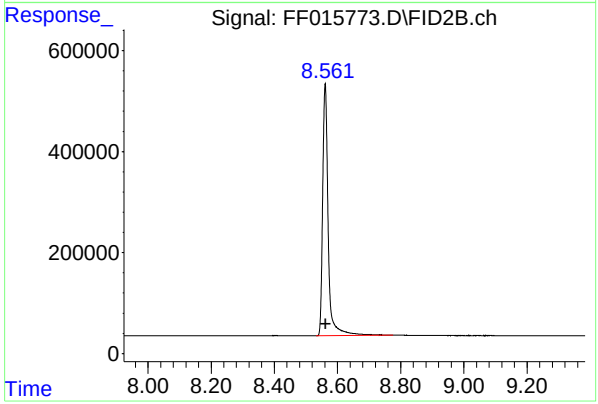
#2 N-DECANE

R.T.: 4.566 min
Delta R.T.: 0.000 min
Response: 5654811
Conc: 51.44 ug/ml



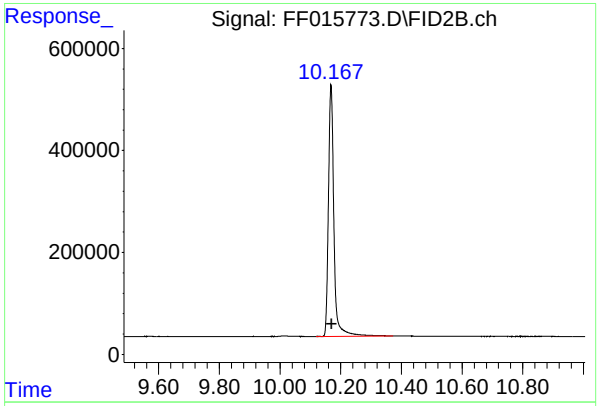
#3 N-DODECANE

R.T.: 6.734 min
Delta R.T.: 0.000 min
Response: 5964559
Conc: 53.42 ug/ml



#4 N-TETRADECANE

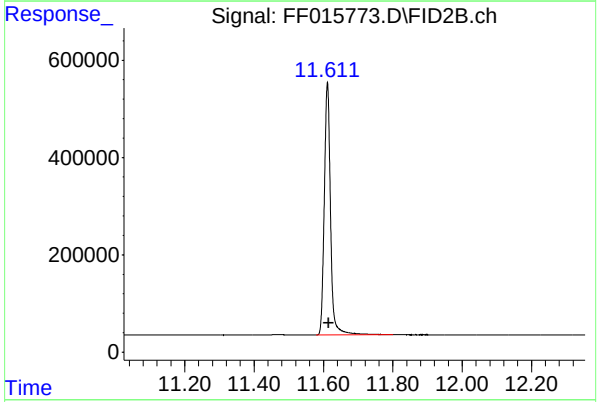
R.T.: 8.561 min
Delta R.T.: -0.002 min
Response: 6054987
Conc: 54.31 ug/ml



#5 N-HEXADECANE

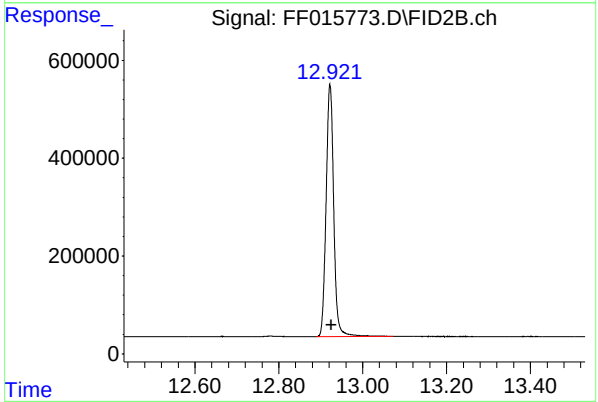
R.T.: 10.168 min
Delta R.T.: -0.002 min
Response: 6164776
Conc: 52.68 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



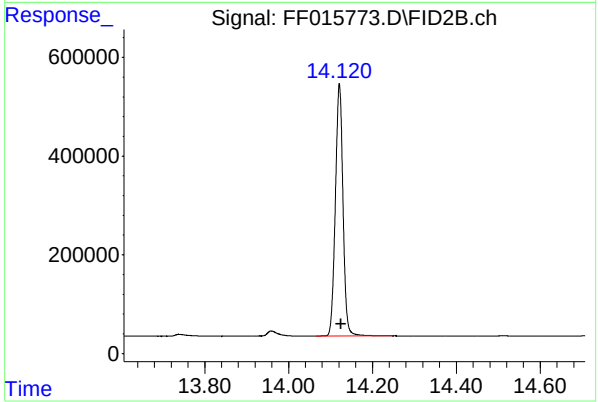
#6 N-OCTADECANE

R.T.: 11.612 min
Delta R.T.: -0.003 min
Response: 6459922
Conc: 52.84 ug/ml



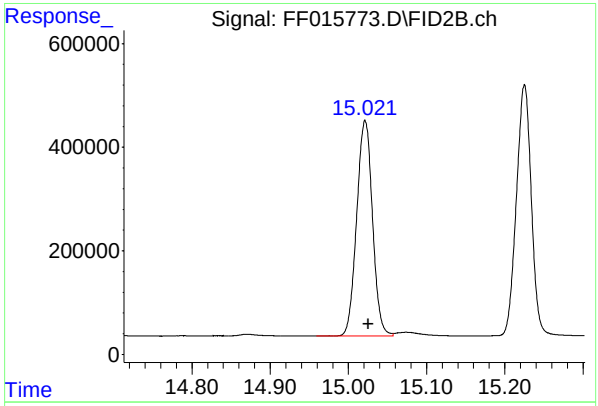
#7 N-EICOSANE

R.T.: 12.922 min
Delta R.T.: -0.004 min
Response: 6506868
Conc: 51.23 ug/ml



#8 N-DOCOSANE

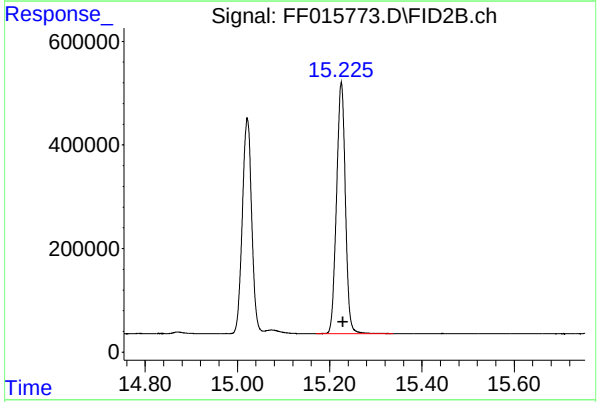
R.T.: 14.121 min
Delta R.T.: -0.004 min
Response: 6454698
Conc: 52.05 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

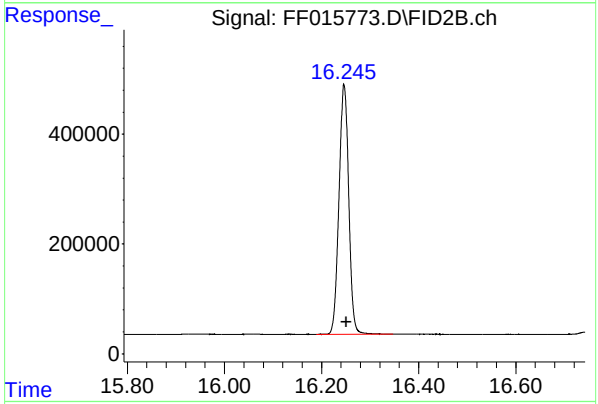
R.T.: 15.022 min
Delta R.T.: -0.004 min
Response: 5854188
Conc: 53.42 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



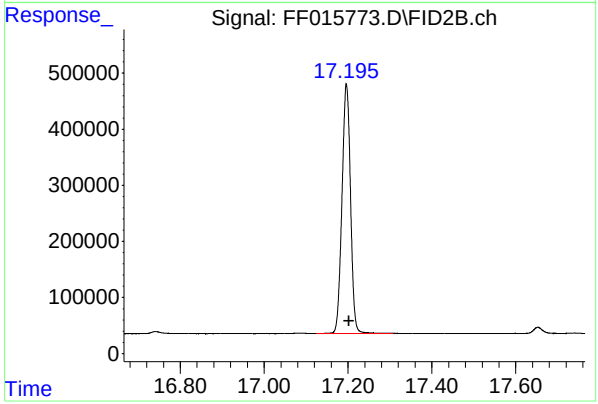
#10 N-TETRACOSANE

R.T.: 15.225 min
Delta R.T.: -0.004 min
Response: 6455442
Conc: 51.92 ug/ml



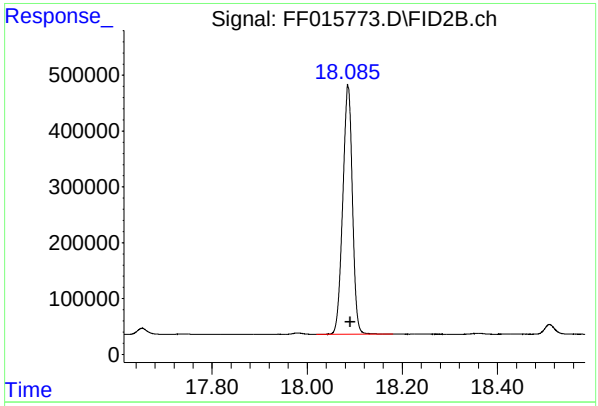
#11 N-HEXACOSANE

R.T.: 16.247 min
Delta R.T.: -0.005 min
Response: 6336177
Conc: 51.37 ug/ml



#12 N-OCTACOSANE

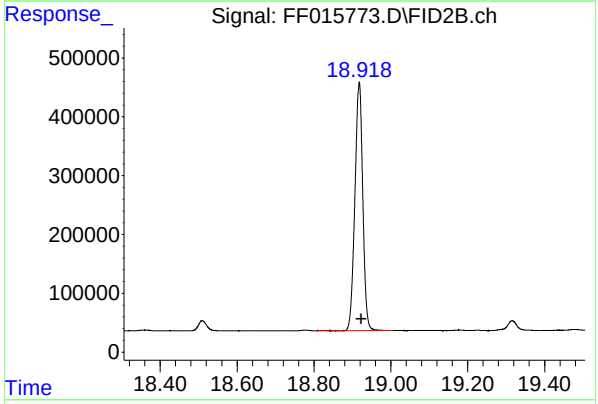
R.T.: 17.196 min
Delta R.T.: -0.006 min
Response: 6287828
Conc: 51.48 ug/ml



#13 N-TRIACONTANE

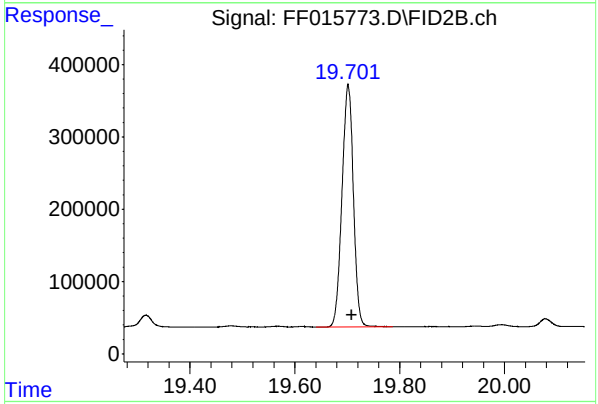
R.T.: 18.086 min
Delta R.T.: -0.005 min
Response: 6304664
Conc: 51.06 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



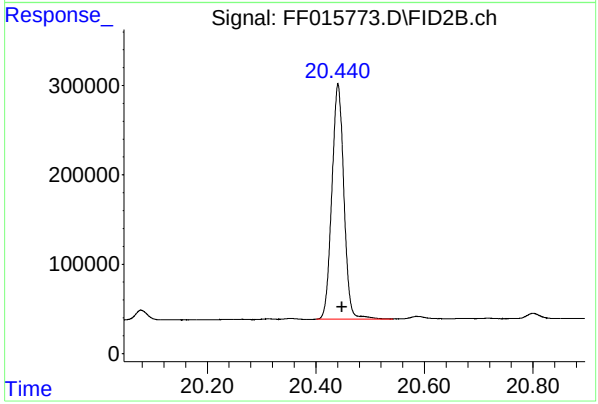
#14 N-DOTRIACONTANE

R.T.: 18.918 min
Delta R.T.: -0.005 min
Response: 6026742
Conc: 51.00 ug/ml



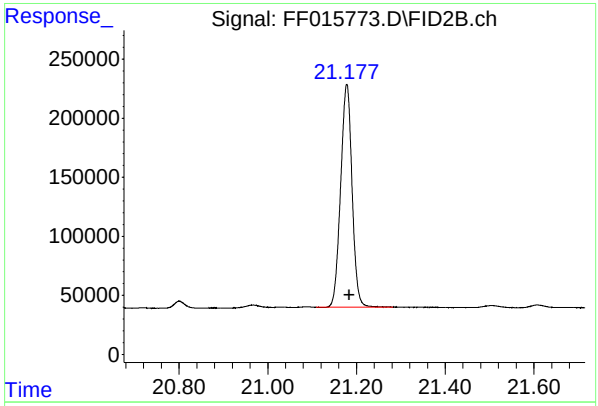
#15 N-TETRATRIACONTANE

R.T.: 19.702 min
Delta R.T.: -0.006 min
Response: 5046448
Conc: 48.44 ug/ml



#16 N-HEXATRIACONTANE

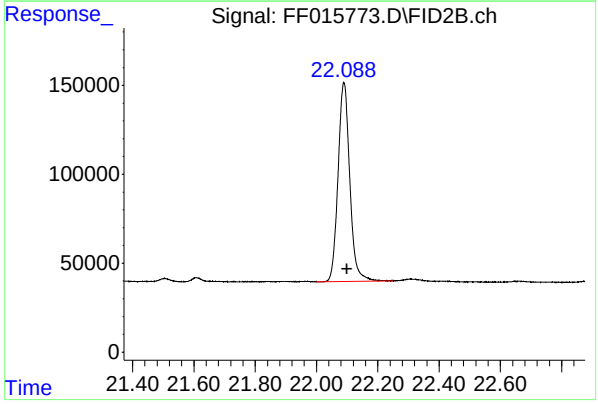
R.T.: 20.441 min
Delta R.T.: -0.008 min
Response: 4043876
Conc: 46.19 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.178 min
Delta R.T.: -0.006 mi
Response: 3371318
Conc: 47.73 ug/m

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



#18 N-TETRACONTANE

R.T.: 22.089 min
Delta R.T.: -0.011 min
Response: 2965474
Conc: 48.33 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015773.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 12:41
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.025	2.002	2.242	PB	442503	5465534	84.00%	5.389%
2	4.566	4.522	4.762	BB	492905	5654811	86.91%	5.576%
3	6.734	6.709	6.965	BB	523181	5964559	91.67%	5.881%
4	8.561	8.532	8.775	BB	498623	6054987	93.06%	5.970%
5	10.168	10.119	10.372	BB	493634	6164776	94.74%	6.079%
6	11.612	11.579	11.800	BB	520464	6459922	99.28%	6.370%
7	12.922	12.889	13.072	BB	515055	6506868	100.00%	6.416%
8	14.121	14.065	14.249	BB	511436	6454698	99.20%	6.364%
9	15.022	14.959	15.057	BV	415194	5854188	89.97%	5.772%
10	15.225	15.170	15.337	BB	485252	6455442	99.21%	6.365%
11	16.247	16.189	16.347	BB	453276	6336177	97.38%	6.248%
12	17.196	17.124	17.307	BB	445870	6287828	96.63%	6.200%
13	18.086	18.019	18.180	BB	447102	6304664	96.89%	6.216%
14	18.918	18.805	19.005	BB	423048	6026742	92.62%	5.942%
15	19.702	19.640	19.787	BB	334833	5046448	77.56%	4.976%
16	20.441	20.400	20.542	BV	263571	4043876	62.15%	3.987%
17	21.178	21.109	21.282	BB	188762	3371318	51.81%	3.324%
18	22.089	21.999	22.250	BBA	112006	2965474	45.57%	2.924%

Sum of corrected areas: 101418310

FF032625.M Thu Apr 10 01:56:52 2025

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

Analytical Sequence

Client: PARSONS Engineering of New York, Inc. **SDG No.:** Q1739

Project: Con Edison - 11th Ave-West 50th St Site **Instrument ID:** FID_F

GC Column: RXI-1MS **ID:** 0.18 **(mm)**

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SUROGATE RT FROM INITIAL CALIBRATION **15.0252**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	08 Apr 2025 10:01	FF015754.D	15.021	
50 PPM TRPH STD	50 PPM TRPH STD	08 Apr 2025 11:13	FF015755.D	15.019	
WC-LIQUID-20250404	Q1739-01	08 Apr 2025 18:56	FF015762.D	00.000	
PIBLK02	I.BLK02	08 Apr 2025 19:25	FF015763.D	15.025	
50 PPM TRPH STD	50 PPM TRPH STD	08 Apr 2025 20:24	FF015764.D	15.022	
PIBLK03	I.BLK03	09 Apr 2025 08:47	FF015766.D	15.027	
50 PPM TRPH STD	50 PPM TRPH STD	09 Apr 2025 09:16	FF015767.D	15.022	
PB167520BL	PB167520BL	09 Apr 2025 10:15	FF015769.D	15.030	
PB167520BS	PB167520BS	09 Apr 2025 10:44	FF015770.D	15.021	
PB167520BSD	PB167520BSD	09 Apr 2025 11:42	FF015771.D	15.021	
PIBLK04	I.BLK04	09 Apr 2025 12:12	FF015772.D	15.030	
50 PPM TRPH STD	50 PPM TRPH STD	09 Apr 2025 12:41	FF015773.D	15.022	

 # Column used to flag RT values with an * values outside of QC limits

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	14.9252	15.1252

QC SAMPLE DATA

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

Report of Analysis

Client:	PARSONS Engineering of New York, Inc.	Date Collected:	
Project:	Con Edison - 11th Ave-West 50th St Site	Date Received:	
Client Sample ID:	PB167520BL	SDG No.:	Q1739
Lab Sample ID:	PB167520BL	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015769.D	1	04/08/25 11:05	04/09/25 10:15	PB167520

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	15.1		29 - 130	75%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015769.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 10:15
Operator : YP\AJ
Sample : PB167520BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167520BL

Integration File: autoint1.e
Quant Time: Apr 10 01:30:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.030	1653326	15.088 ug/ml
Target Compounds			

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

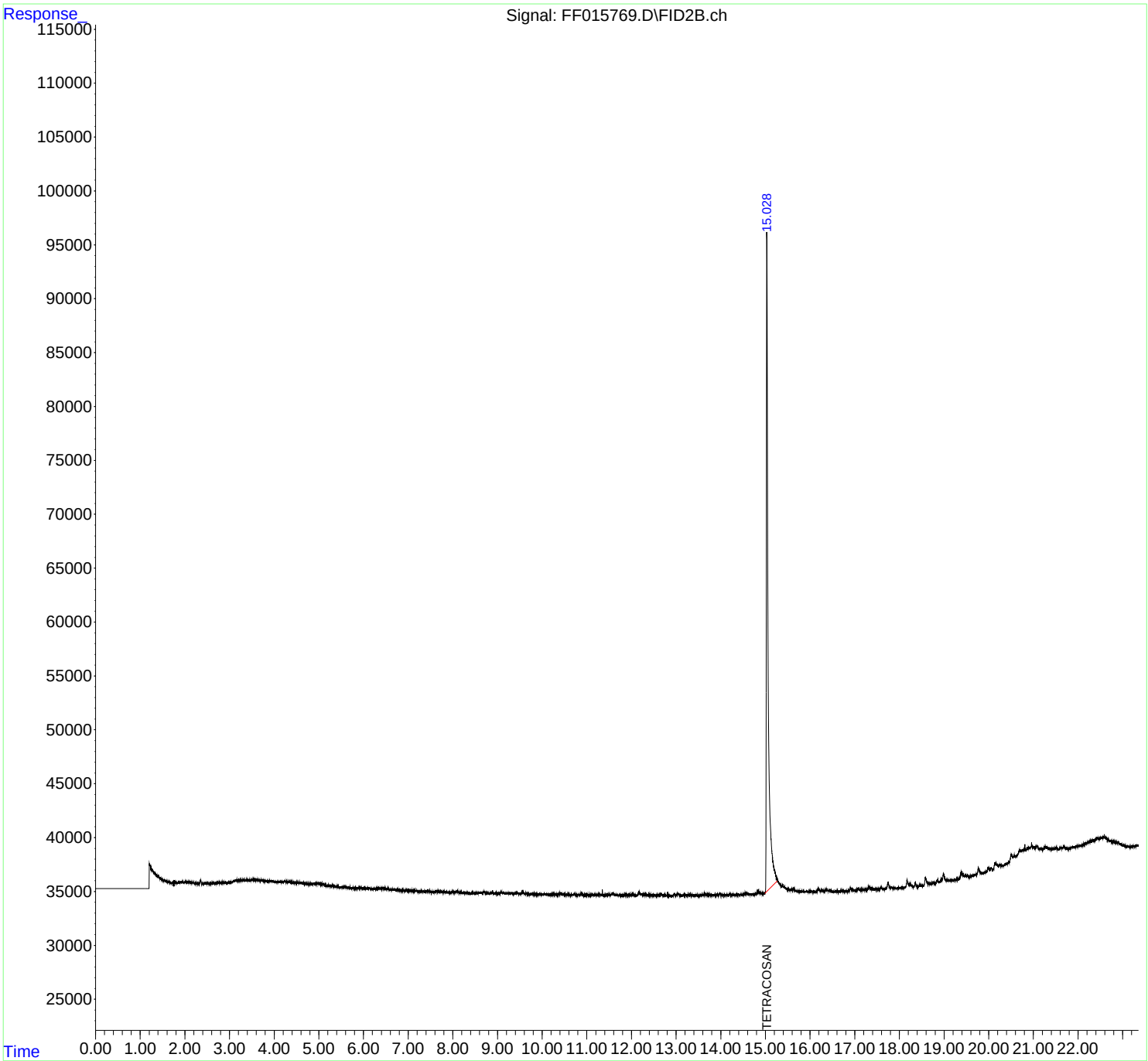
Quantitation Report (QT Reviewed)

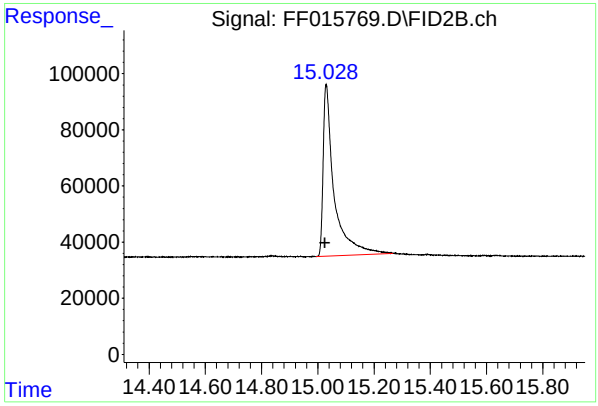
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015769.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 10:15
Operator : YP\AJ
Sample : PB167520BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167520BL

Integration File: autoint1.e
Quant Time: Apr 10 01:30:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.030 min
Delta R.T.: 0.004 mi
Response: 1653326
Conc: 15.09 ug/m

Instrument :
FID_F
ClientSampleId :
PB167520BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015769.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 10:15
Sample : PB167520BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.030	14.994	15.267	BB	60865	1653326	100.00%	100.000%
			Sum of corrected areas:			1653326		

FF032625.M Thu Apr 10 01:53:59 2025

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

Report of Analysis

Client:	PARSONS Engineering of New York, Inc.	Date Collected:	04/08/25
Project:	Con Edison - 11th Ave-West 50th St Site	Date Received:	04/08/25
Client Sample ID:	PIBLK-FF015754.D	SDG No.:	Q1739
Lab Sample ID:	I.BLK-FF015754.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015754.D	1		04/08/25	FF040825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	19.1		29 - 130	96%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015754.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 10:01
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 09 01:15:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.021	2094163	19.110 ug/ml
Target Compounds			

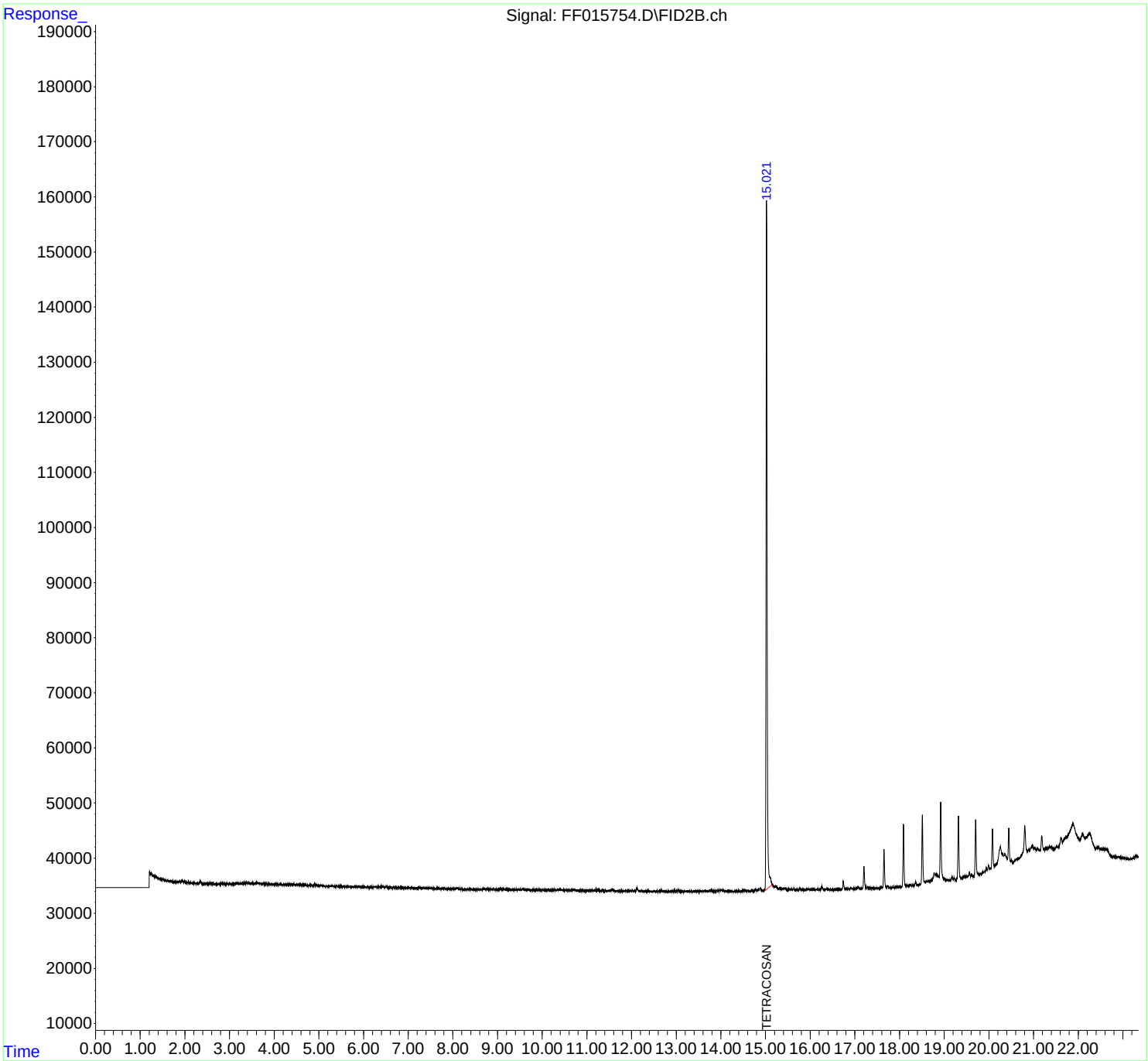
(f)=RT Delta > 1/2 Window (m)=manual int.

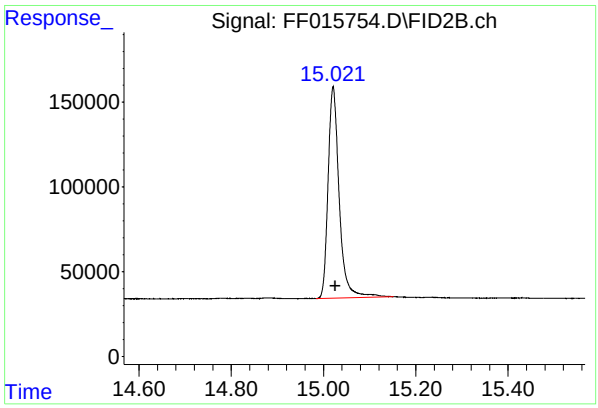
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015754.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 10:01
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 09 01:15:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.021 min
Delta R.T.: -0.005 mi
Response: 2094163
Conc: 19.11 ug/m

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015754.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 10:01
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.021	14.984	15.150	BB	124907	2094163	100.00%	100.000%

Sum of corrected areas: 2094163

FF032625.M Wed Apr 09 01:51:28 2025

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

Report of Analysis

Client:	PARSONS Engineering of New York, Inc.	Date Collected:	04/08/25
Project:	Con Edison - 11th Ave-West 50th St Site	Date Received:	04/08/25
Client Sample ID:	PIBLK-FF015763.D	SDG No.:	Q1739
Lab Sample ID:	I.BLK-FF015763.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015763.D	1		04/08/25	FF040825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	18.6		29 - 130	93%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015763.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 19:25
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 09 01:17:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.025	2039041	18.607 ug/ml
Target Compounds			

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

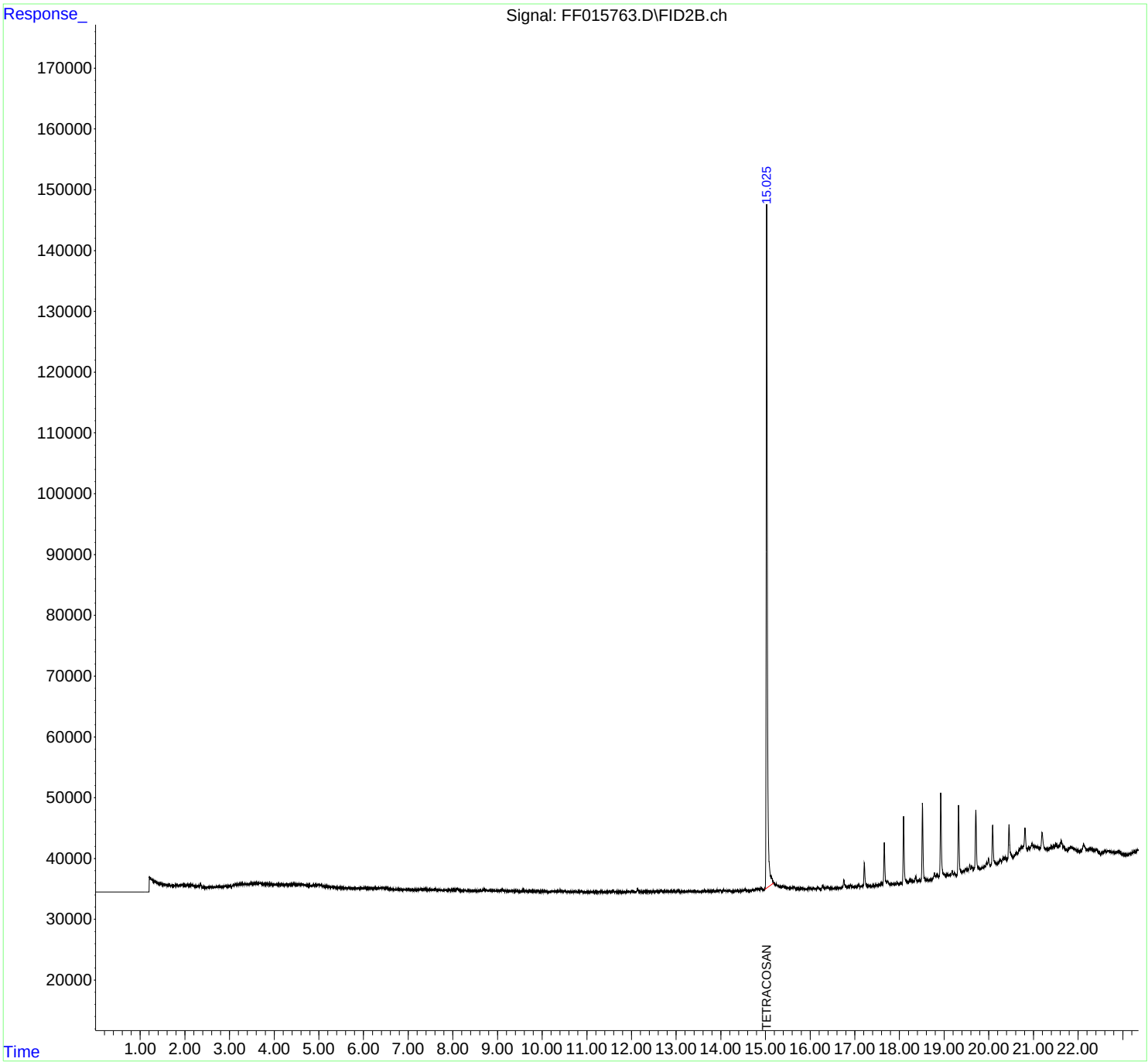
Quantitation Report (QT Reviewed)

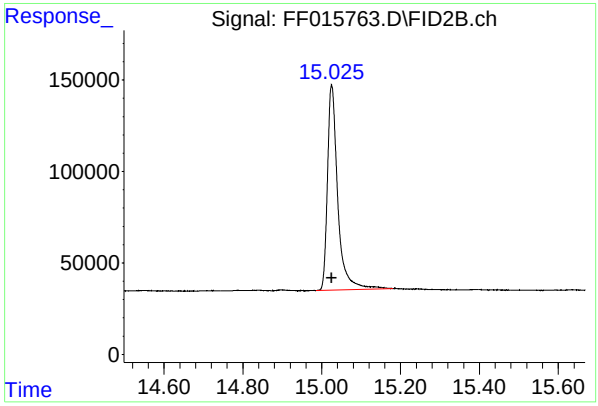
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015763.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 19:25
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 09 01:17:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.025 min
Delta R.T.: 0.000 mi
Response: 2039041
Conc: 18.61 ug/m

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015763.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 19:25
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.025	14.986	15.181	BB	111949	2039041	100.00%	100.000%
			Sum of corrected areas:			2039041		

FF032625.M Wed Apr 09 01:54:02 2025

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

Report of Analysis

Client:	PARSONS Engineering of New York, Inc.	Date Collected:	04/09/25
Project:	Con Edison - 11th Ave-West 50th St Site	Date Received:	04/09/25
Client Sample ID:	PIBLK-FF015766.D	SDG No.:	Q1739
Lab Sample ID:	I.BLK-FF015766.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015766.D	1		04/09/25	FF040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	17.0		29 - 130	85%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015766.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 08:47
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 10 01:29:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.027	1860749	16.980 ug/ml
Target Compounds			

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

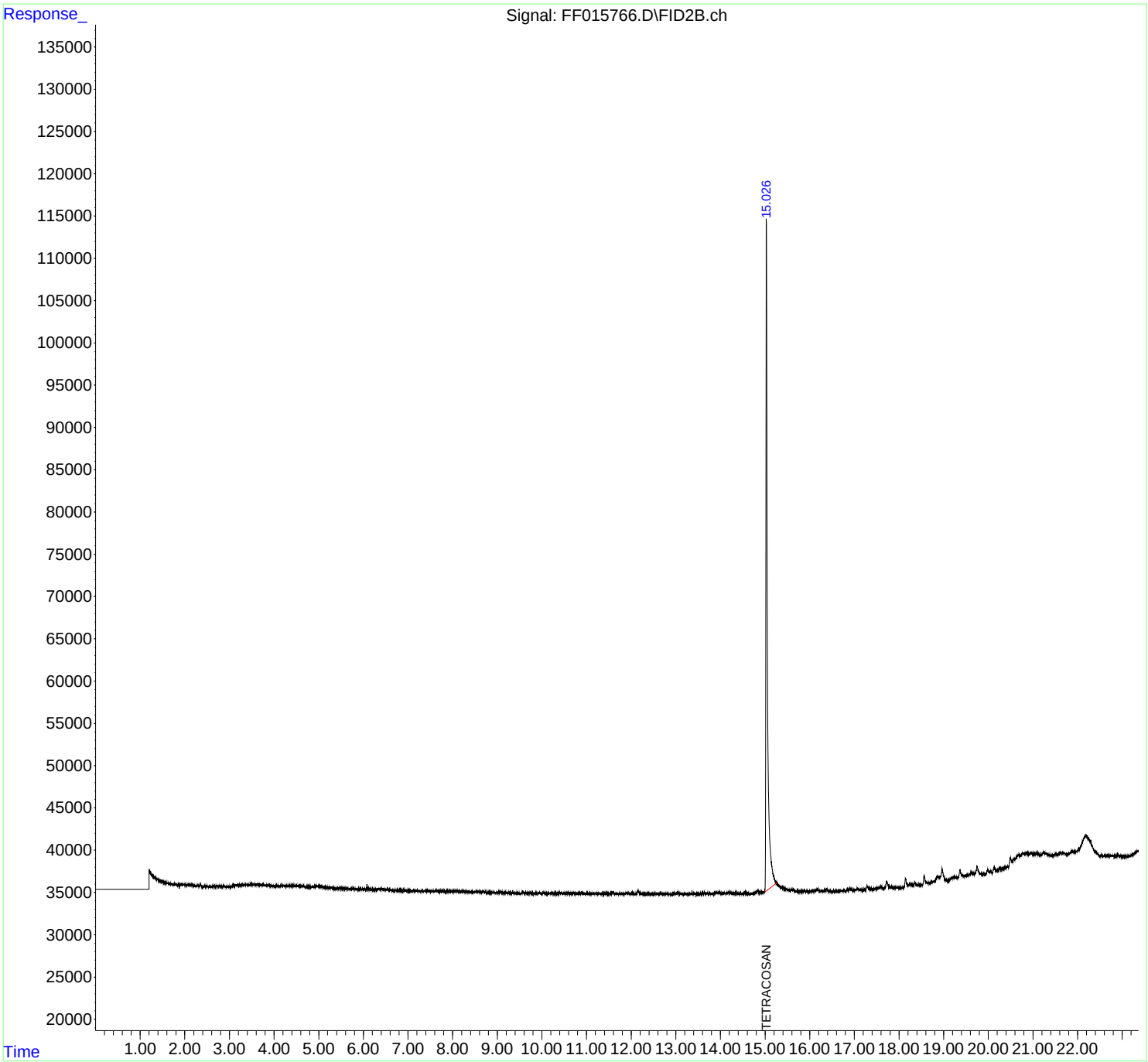
Quantitation Report (QT Reviewed)

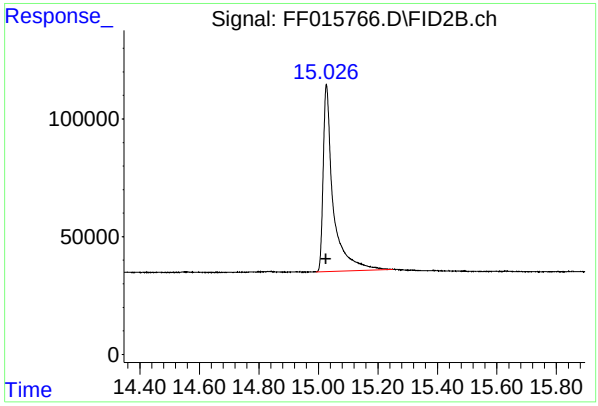
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015766.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 08:47
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 10 01:29:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.027 min
Delta R.T.: 0.002 mi
Response: 1860749
Conc: 16.98 ug/m

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015766.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 08:47
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.027	14.992	15.251	BB	79367	1860749	100.00%	100.000%

Sum of corrected areas: 1860749

FF032625.M Thu Apr 10 01:52:37 2025

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

Report of Analysis

Client:	PARSONS Engineering of New York, Inc.	Date Collected:	04/09/25
Project:	Con Edison - 11th Ave-West 50th St Site	Date Received:	04/09/25
Client Sample ID:	PIBLK-FF015772.D	SDG No.:	Q1739
Lab Sample ID:	I.BLK-FF015772.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015772.D	1		04/09/25	FF040925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	16.8		29 - 130	84%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015772.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 12:12
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 10 01:31:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.030	1844017	16.828 ug/ml
Target Compounds			

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

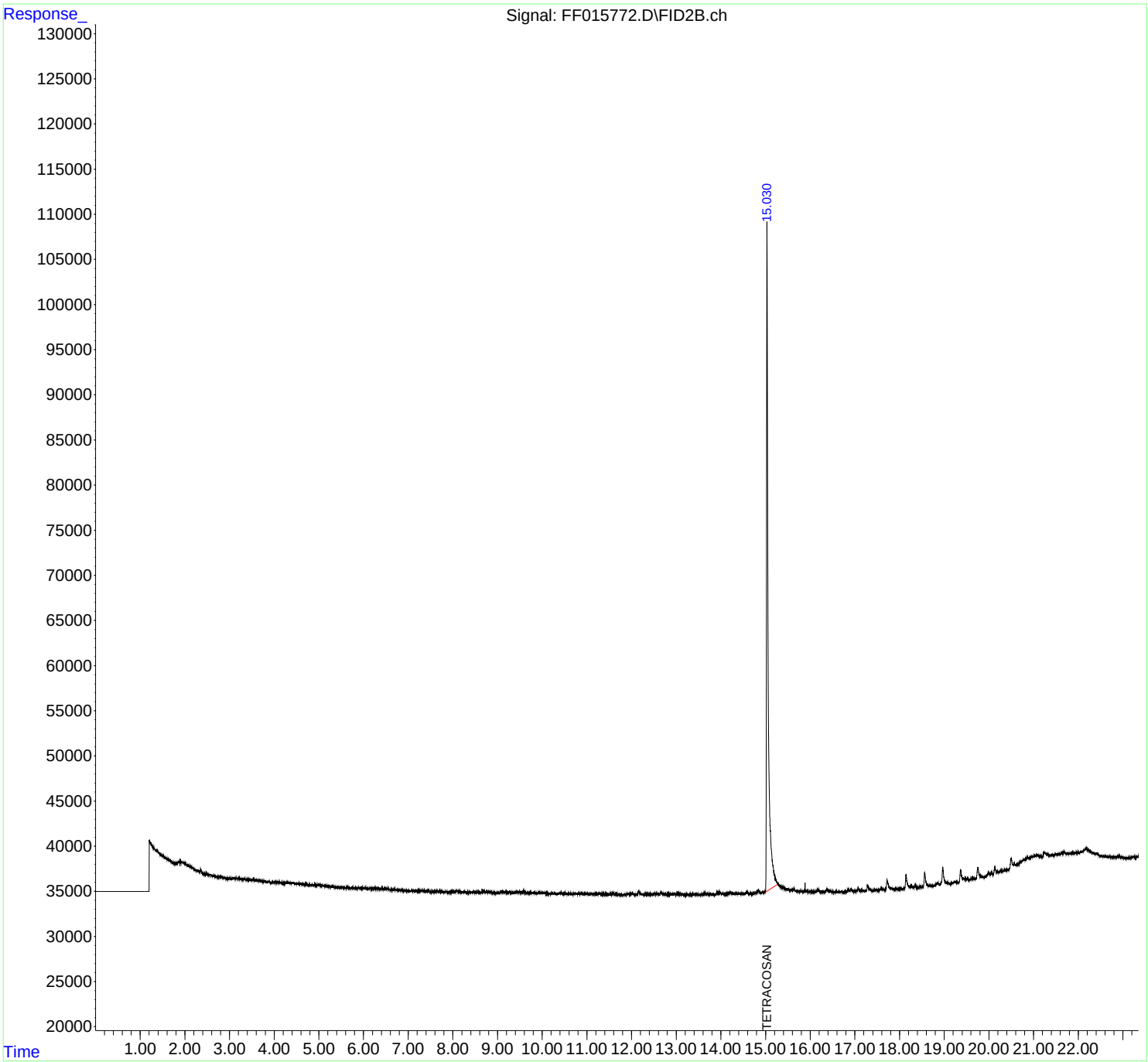
Quantitation Report (QT Reviewed)

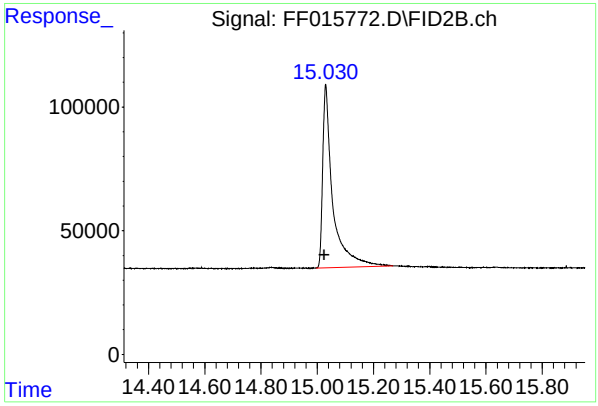
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015772.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 12:12
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Apr 10 01:31:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.030 min
Delta R.T.: 0.005 mi
Response: 1844017
Conc: 16.83 ug/m

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015772.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 12:12
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.030	14.996	15.269	BB	74025	1844017	100.00%	100.000%
			Sum of corrected areas:			1844017		

FF032625.M Thu Apr 10 01:55:44 2025

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

Report of Analysis

Client:	PARSONS Engineering of New York, Inc.	Date Collected:	
Project:	Con Edison - 11th Ave-West 50th St Site	Date Received:	
Client Sample ID:	PB167520BS	SDG No.:	Q1739
Lab Sample ID:	PB167520BS	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015770.D	1	04/08/25 11:05	04/09/25 10:44	PB167520

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	267		12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	18.1		29 - 130	91%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015770.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 10:44
Operator : YP\AJ
Sample : PB167520BS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167520BS

Integration File: autoint1.e
Quant Time: Apr 10 01:30:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.021	1986470	18.128 ug/ml
	Target Compounds			
1)	N-OCTANE	2.033	1536857	13.685 ug/ml
2)	N-DECANE	4.571	1636832	14.889 ug/ml
3)	N-DODECANE	6.737	1891907	16.946 ug/ml
4)	N-TETRADECANE	8.565	1952921	17.518 ug/ml
5)	N-HEXADECANE	10.171	2044217	17.467 ug/ml
6)	N-OCTADECANE	11.613	2242296	18.341 ug/ml
7)	N-EICOSANE	12.922	2298080	18.093 ug/ml
8)	N-DOCOSANE	14.121	2318473	18.695 ug/ml
10)	N-TETRACOSANE	15.224	2352534	18.922 ug/ml
11)	N-HEXACOSANE	16.246	2296490	18.617 ug/ml
12)	N-OCTACOSANE	17.196	2270998	18.593 ug/ml
13)	N-TRIACONTANE	18.084	2201850	17.832 ug/ml
14)	N-DOTRIACONTANE	18.917	1815862	15.366 ug/ml
15)	N-TETRATRIACONTANE	19.703	1074611	10.315 ug/ml
16)	N-HEXATRIACONTANE	20.444	661934	7.560 ug/ml
17)	N-OCTATRIACONTANE	21.185	477840	6.765 ug/ml
18)	N-TETRACONTANE	22.108	359436	5.858 ug/ml

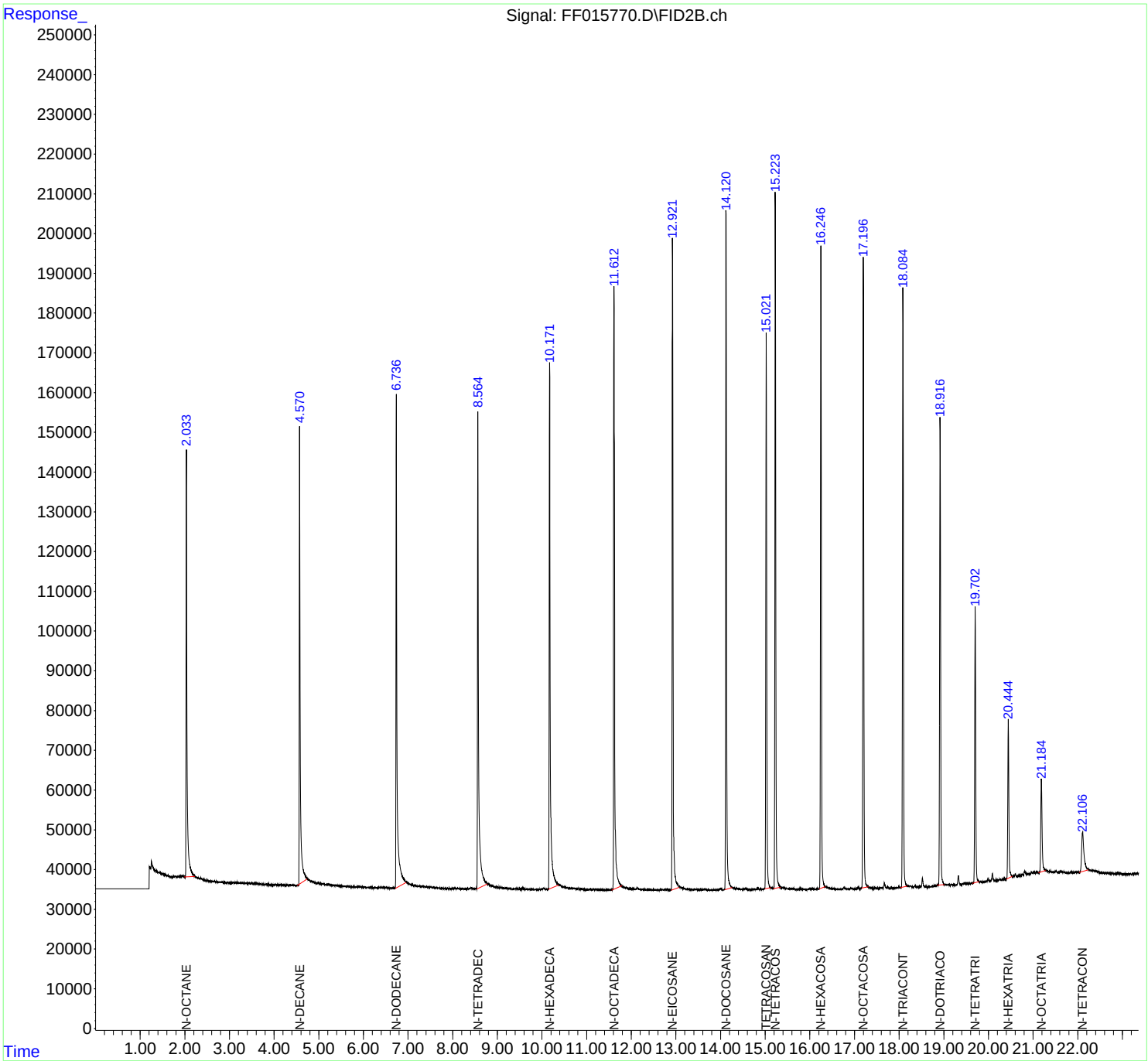
(f)=RT Delta > 1/2 Window (m)=manual int.

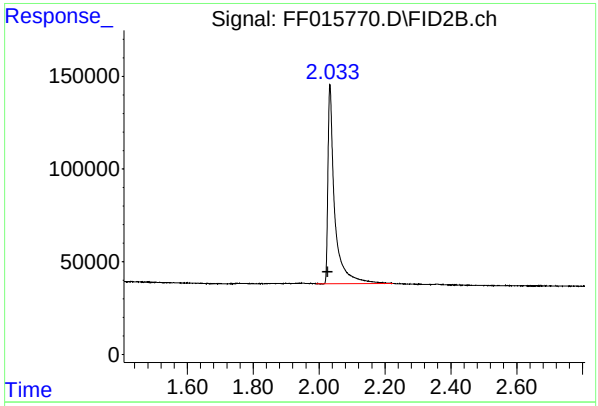
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015770.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 10:44
Operator : YP\AJ
Sample : PB167520BS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167520BS

Integration File: autoint1.e
Quant Time: Apr 10 01:30:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

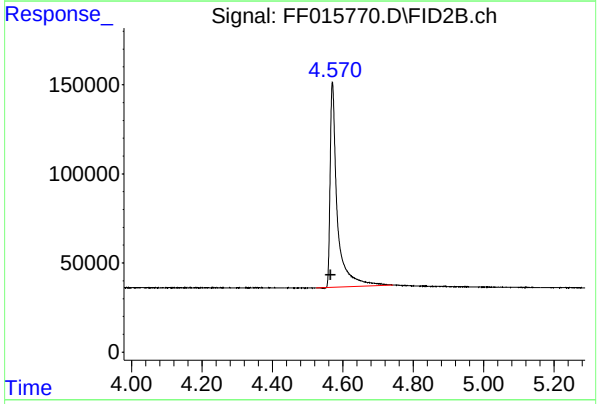




#1 N-OCTANE

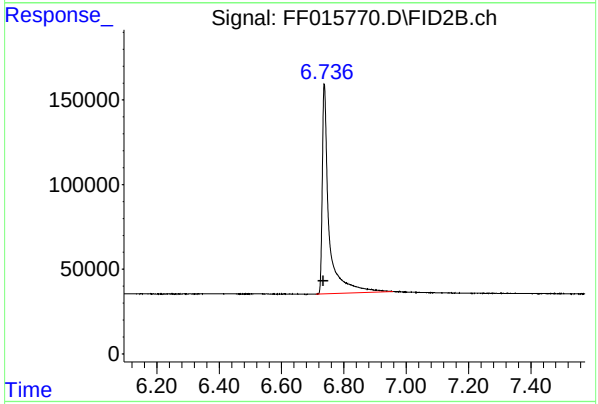
R.T.: 2.033 min
Delta R.T.: 0.007 min
Response: 1536857
Conc: 13.68 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BS



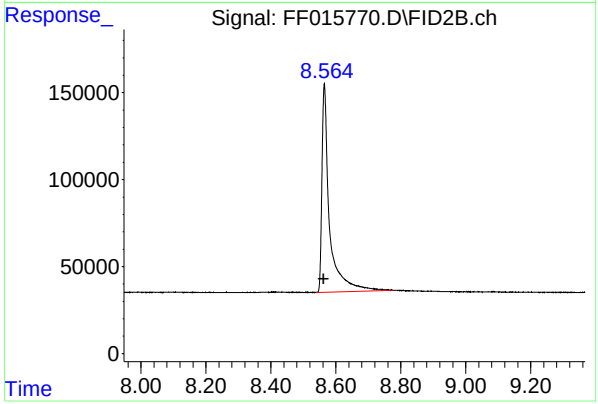
#2 N-DECANE

R.T.: 4.571 min
Delta R.T.: 0.005 min
Response: 1636832
Conc: 14.89 ug/ml



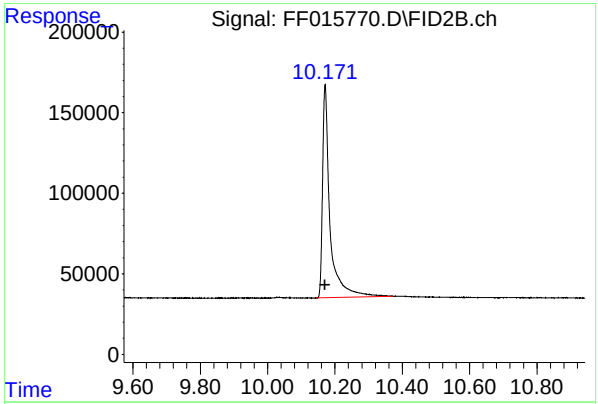
#3 N-DODECANE

R.T.: 6.737 min
Delta R.T.: 0.002 min
Response: 1891907
Conc: 16.95 ug/ml



#4 N-TETRADECANE

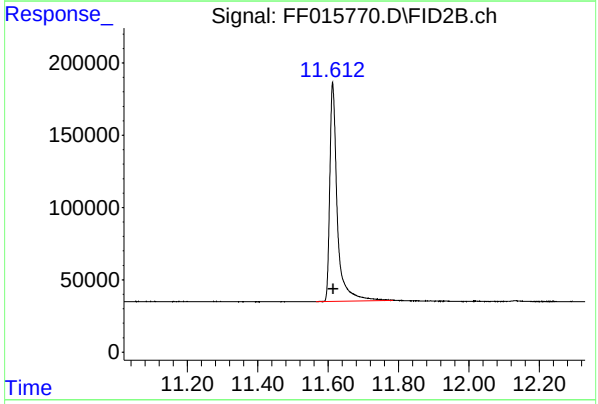
R.T.: 8.565 min
Delta R.T.: 0.002 min
Response: 1952921
Conc: 17.52 ug/ml



#5 N-HEXADECANE

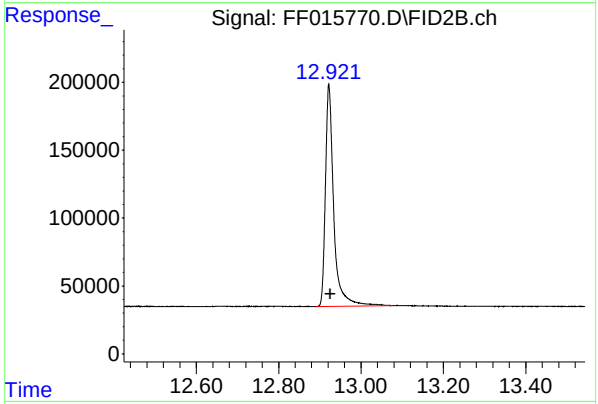
R.T.: 10.171 min
Delta R.T.: 0.000 min
Response: 2044217
Conc: 17.47 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BS



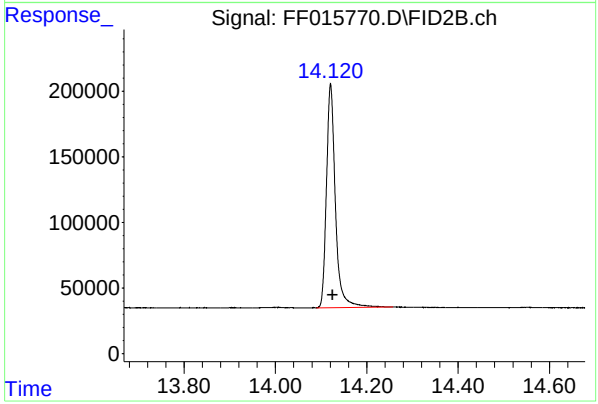
#6 N-OCTADECANE

R.T.: 11.613 min
Delta R.T.: -0.002 min
Response: 2242296
Conc: 18.34 ug/ml



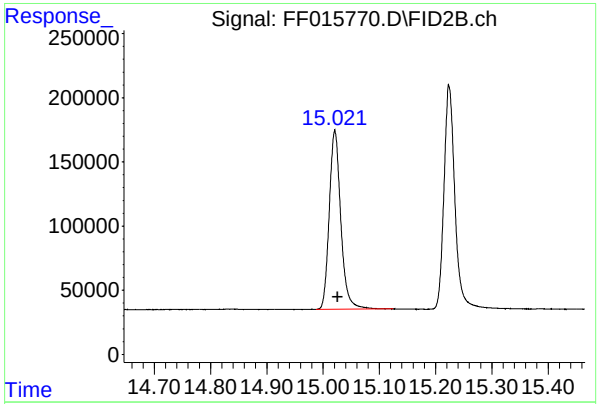
#7 N-EICOSANE

R.T.: 12.922 min
Delta R.T.: -0.004 min
Response: 2298080
Conc: 18.09 ug/ml



#8 N-DOCOSANE

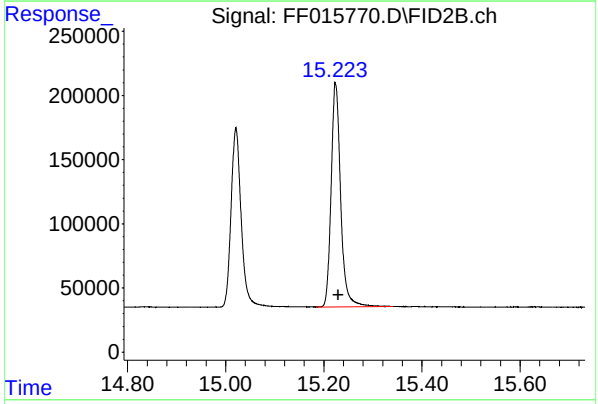
R.T.: 14.121 min
Delta R.T.: -0.004 min
Response: 2318473
Conc: 18.70 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

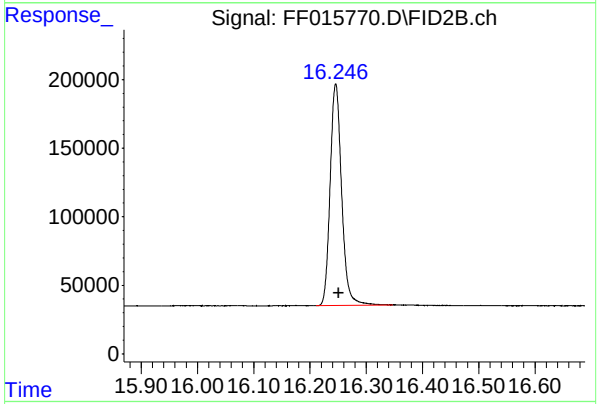
R.T.: 15.021 min
Delta R.T.: -0.005 min
Response: 1986470
Conc: 18.13 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BS



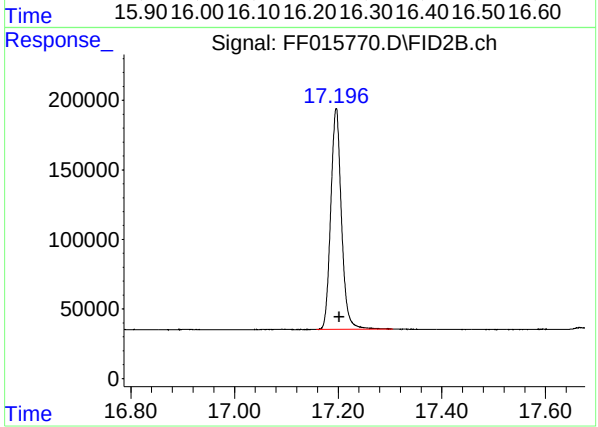
#10 N-TETRACOSANE

R.T.: 15.224 min
Delta R.T.: -0.005 min
Response: 2352534
Conc: 18.92 ug/ml



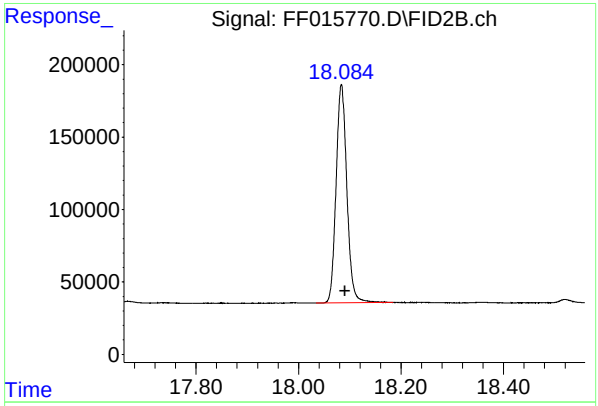
#11 N-HEXACOSANE

R.T.: 16.246 min
Delta R.T.: -0.006 min
Response: 2296490
Conc: 18.62 ug/ml



#12 N-OCTACOSANE

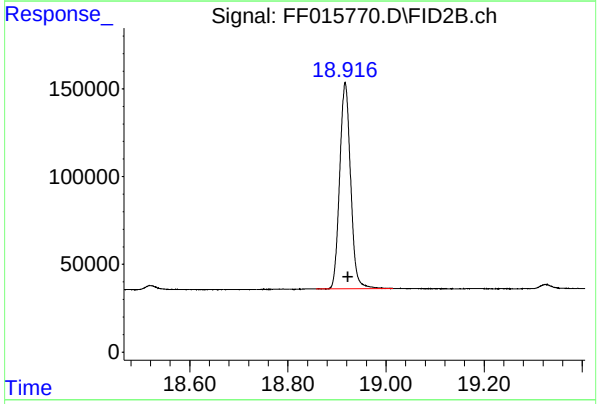
R.T.: 17.196 min
Delta R.T.: -0.006 min
Response: 2270998
Conc: 18.59 ug/ml



#13 N-TRIACONTANE

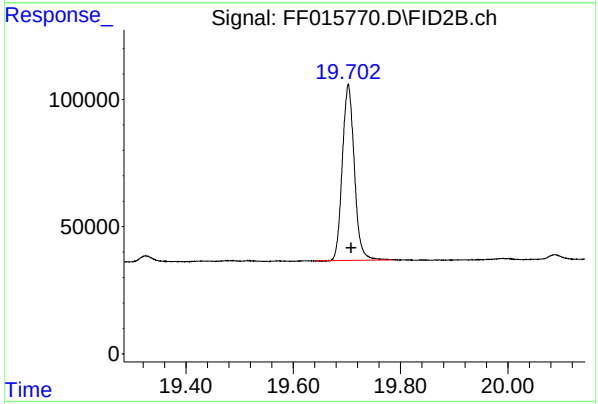
R.T.: 18.084 min
Delta R.T.: -0.007 min
Response: 2201850
Conc: 17.83 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BS



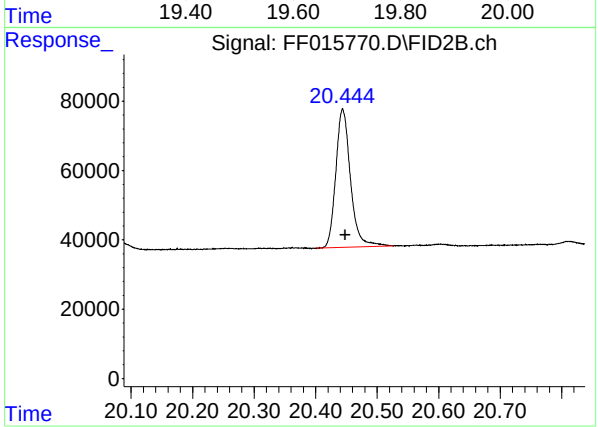
#14 N-DOTRIACONTANE

R.T.: 18.917 min
Delta R.T.: -0.006 min
Response: 1815862
Conc: 15.37 ug/ml



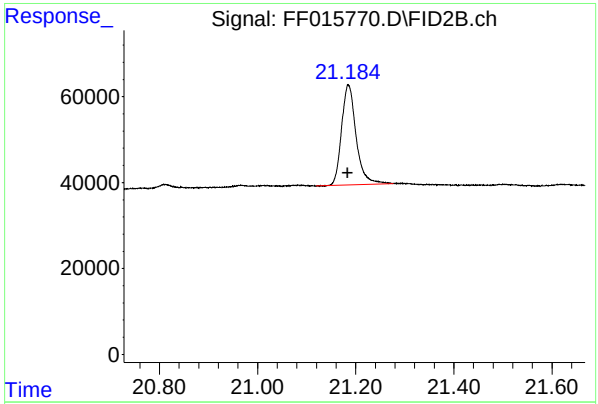
#15 N-TETRATRIACONTANE

R.T.: 19.703 min
Delta R.T.: -0.005 min
Response: 1074611
Conc: 10.32 ug/ml



#16 N-HEXATRIACONTANE

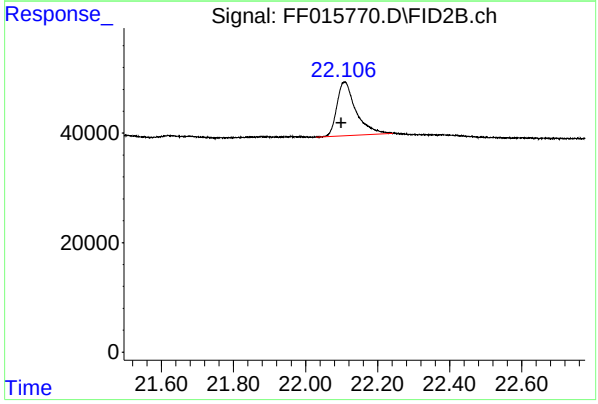
R.T.: 20.444 min
Delta R.T.: -0.004 min
Response: 661934
Conc: 7.56 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.185 min
Delta R.T.: 0.000 min
Response: 477840
Conc: 6.77 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BS



#18 N-TETRACONTANE

R.T.: 22.108 min
Delta R.T.: 0.008 min
Response: 359436
Conc: 5.86 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015770.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 10:44
Sample : PB167520BS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.033	1.991	2.224	BB	107622	1536857	65.33%	4.891%
2	4.571	4.524	4.742	BB	115015	1636832	69.58%	5.210%
3	6.738	6.711	6.957	BB	124035	1891907	80.42%	6.021%
4	8.565	8.539	8.776	BB	119954	1952921	83.01%	6.216%
5	10.171	10.144	10.372	BB	132325	2044217	86.89%	6.506%
6	11.613	11.566	11.784	BB	151524	2242296	95.31%	7.137%
7	12.922	12.891	13.077	BB	163162	2298080	97.69%	7.314%
8	14.121	14.089	14.257	BB	170566	2318473	98.55%	7.379%
9	15.021	14.987	15.124	BB	139418	1986470	84.44%	6.322%
10	15.224	15.184	15.341	BB	173666	2352534	100.00%	7.487%
11	16.246	16.211	16.347	BB	161715	2296490	97.62%	7.309%
12	17.196	17.157	17.306	BB	158873	2270998	96.53%	7.228%
13	18.084	18.034	18.184	BB	150875	2201850	93.59%	7.008%
14	18.917	18.857	19.014	BB	117331	1815862	77.19%	5.779%
15	19.703	19.642	19.786	BB	69326	1074611	45.68%	3.420%
16	20.444	20.401	20.526	BB	39977	661934	28.14%	2.107%
17	21.185	21.119	21.276	BB	23212	477840	20.31%	1.521%
18	22.108	22.029	22.242	BB	9763	359436	15.28%	1.144%
			Sum of corrected areas:			31419609		

FF032625.M Thu Apr 10 01:54:33 2025

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

Report of Analysis

Client:	PARSONS Engineering of New York, Inc.	Date Collected:	
Project:	Con Edison - 11th Ave-West 50th St Site	Date Received:	
Client Sample ID:	PB167520BSD	SDG No.:	Q1739
Lab Sample ID:	PB167520BSD	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015771.D	1	04/08/25 11:05	04/09/25 11:42	PB167520

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	267		12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	18.0		29 - 130	90%	SPK: 20

Comments:

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
P = Indicates >25% difference for detected concentrations between the two GC columns
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.
() = Laboratory InHouse Limit

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015771.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 11:42
Operator : YP\AJ
Sample : PB167520BSD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167520BSD

Integration File: autoint1.e
Quant Time: Apr 10 01:30:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.021	1971819	17.994 ug/ml
	Target Compounds			
1)	N-OCTANE	2.034	1554722	13.844 ug/ml
2)	N-DECANE	4.571	1644692	14.961 ug/ml
3)	N-DODECANE	6.738	1883043	16.866 ug/ml
4)	N-TETRADECANE	8.565	1934780	17.355 ug/ml
5)	N-HEXADECANE	10.172	2012093	17.193 ug/ml
6)	N-OCTADECANE	11.613	2225658	18.205 ug/ml
7)	N-EICOSANE	12.923	2283033	17.974 ug/ml
8)	N-DOCOSANE	14.121	2309243	18.621 ug/ml
10)	N-TETRACOSANE	15.225	2335155	18.782 ug/ml
11)	N-HEXACOSANE	16.246	2282181	18.501 ug/ml
12)	N-OCTACOSANE	17.197	2264976	18.543 ug/ml
13)	N-TRIACONTANE	18.085	2203795	17.848 ug/ml
14)	N-DOTRIACONTANE	18.917	1828900	15.476 ug/ml
15)	N-TETRATRIACONTANE	19.702	1096225	10.523 ug/ml
16)	N-HEXATRIACONTANE	20.445	684452	7.817 ug/ml
17)	N-OCTATRIACONTANE	21.185	501989	7.107 ug/ml
18)	N-TETRACONTANE	22.108	376076	6.130 ug/ml

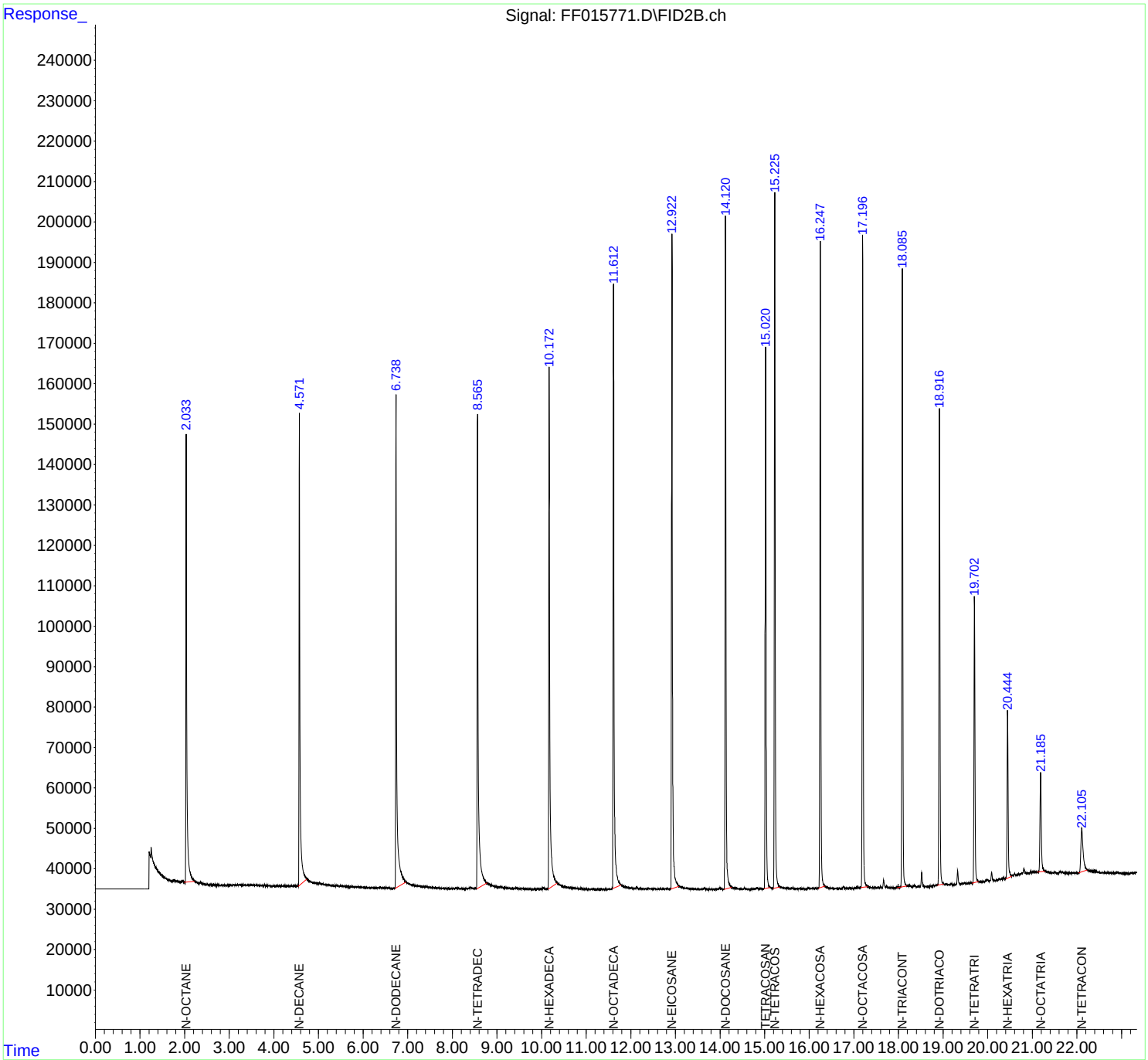
(f)=RT Delta > 1/2 Window (m)=manual int.

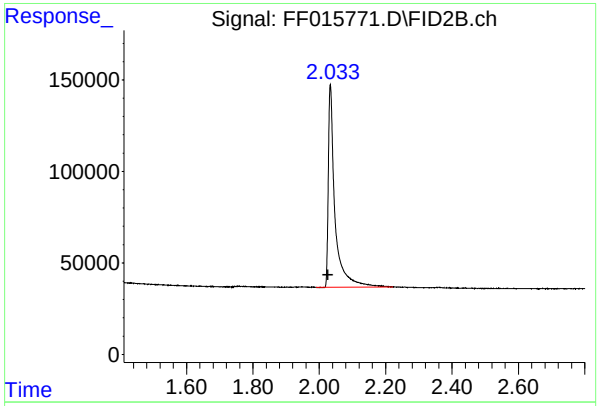
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015771.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 11:42
Operator : YP\AJ
Sample : PB167520BSD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167520BSD

Integration File: autoint1.e
Quant Time: Apr 10 01:30:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

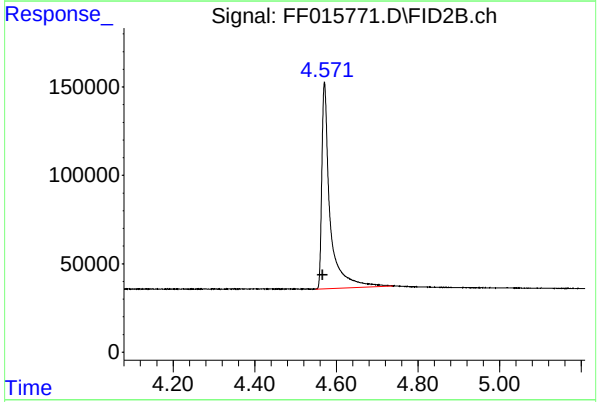




#1 N-OCTANE

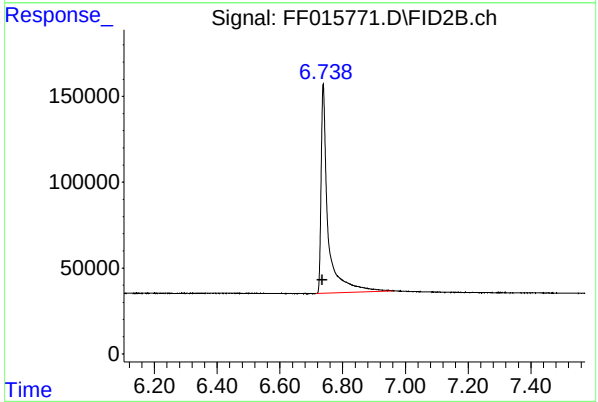
R.T.: 2.034 min
Delta R.T.: 0.008 min
Response: 1554722
Conc: 13.84 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BSD



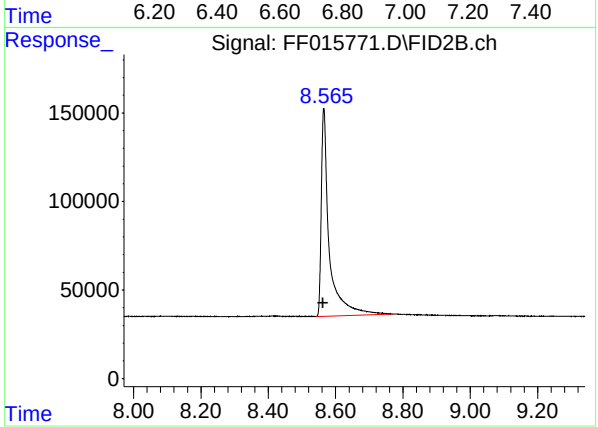
#2 N-DECANE

R.T.: 4.571 min
Delta R.T.: 0.005 min
Response: 1644692
Conc: 14.96 ug/ml



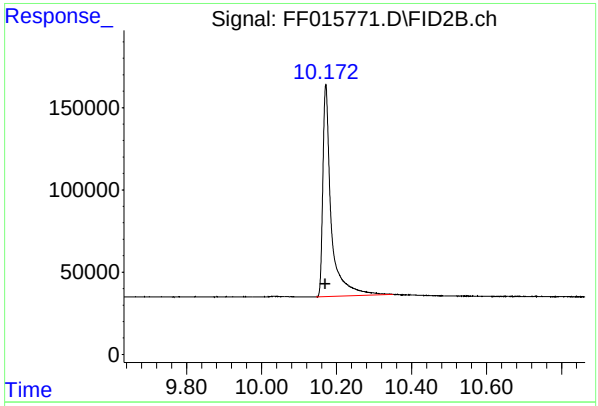
#3 N-DODECANE

R.T.: 6.738 min
Delta R.T.: 0.003 min
Response: 1883043
Conc: 16.87 ug/ml



#4 N-TETRADECANE

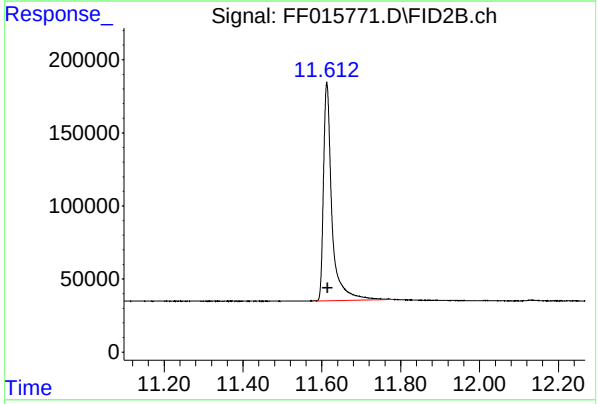
R.T.: 8.565 min
Delta R.T.: 0.002 min
Response: 1934780
Conc: 17.36 ug/ml



#5 N-HEXADECANE

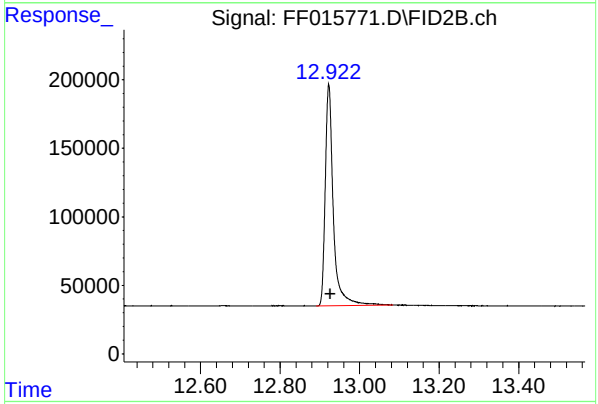
R.T.: 10.172 min
Delta R.T.: 0.000 min
Response: 2012093
Conc: 17.19 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BSD



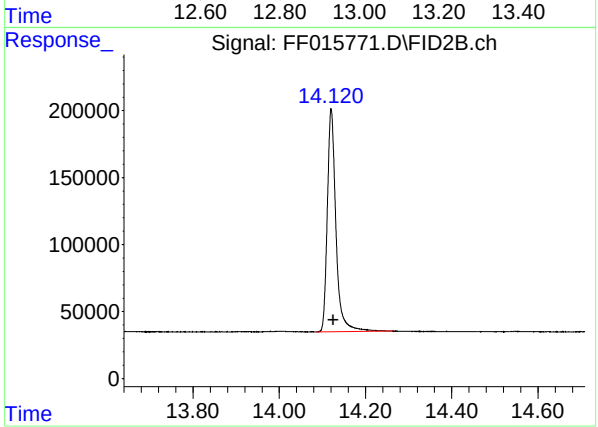
#6 N-OCTADECANE

R.T.: 11.613 min
Delta R.T.: -0.002 min
Response: 2225658
Conc: 18.20 ug/ml



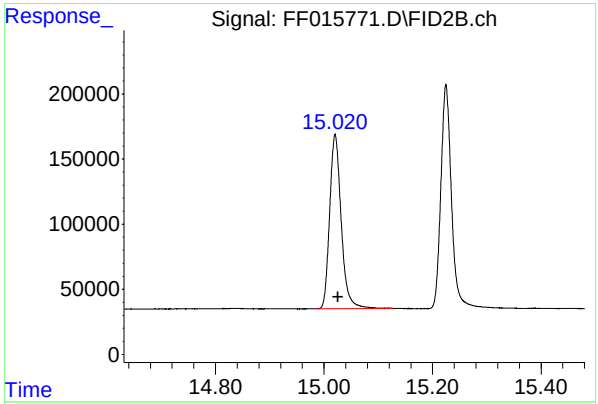
#7 N-EICOSANE

R.T.: 12.923 min
Delta R.T.: -0.003 min
Response: 2283033
Conc: 17.97 ug/ml



#8 N-DOCOSANE

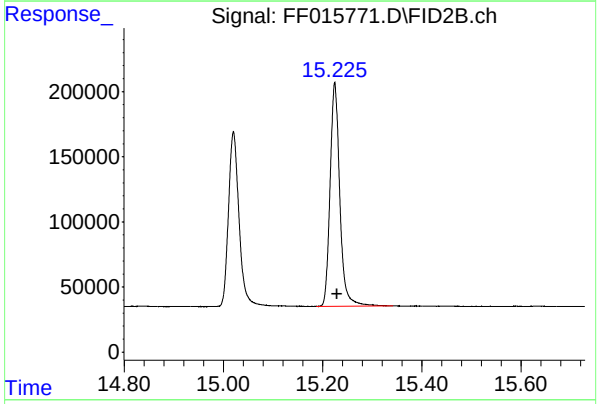
R.T.: 14.121 min
Delta R.T.: -0.005 min
Response: 2309243
Conc: 18.62 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

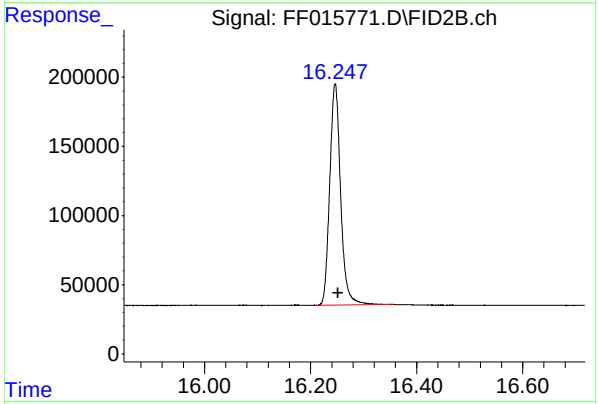
R.T.: 15.021 min
Delta R.T.: -0.005 min
Response: 1971819
Conc: 17.99 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BSD



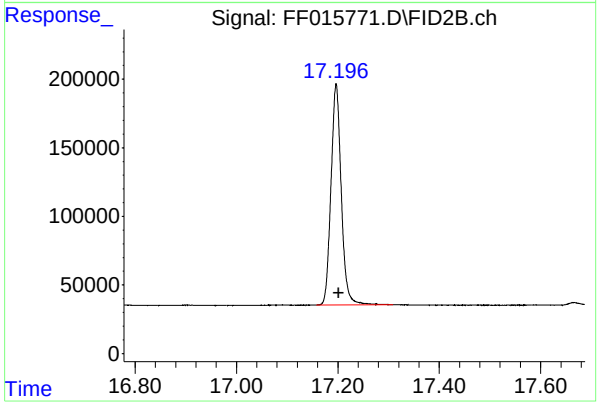
#10 N-TETRACOSANE

R.T.: 15.225 min
Delta R.T.: -0.004 min
Response: 2335155
Conc: 18.78 ug/ml



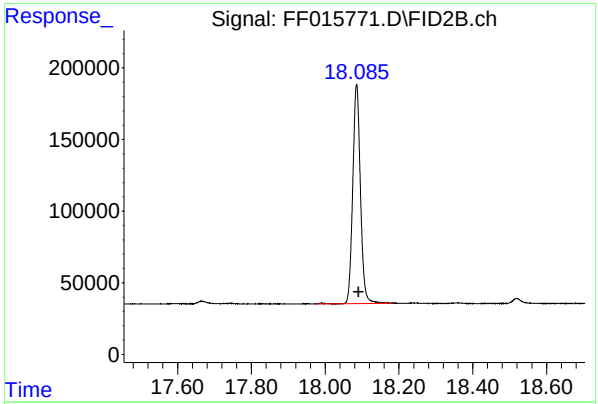
#11 N-HEXACOSANE

R.T.: 16.246 min
Delta R.T.: -0.005 min
Response: 2282181
Conc: 18.50 ug/ml



#12 N-OCTACOSANE

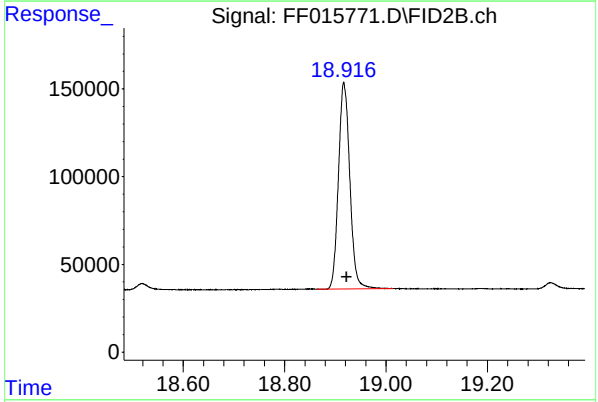
R.T.: 17.197 min
Delta R.T.: -0.005 min
Response: 2264976
Conc: 18.54 ug/ml



#13 N-TRIACONTANE

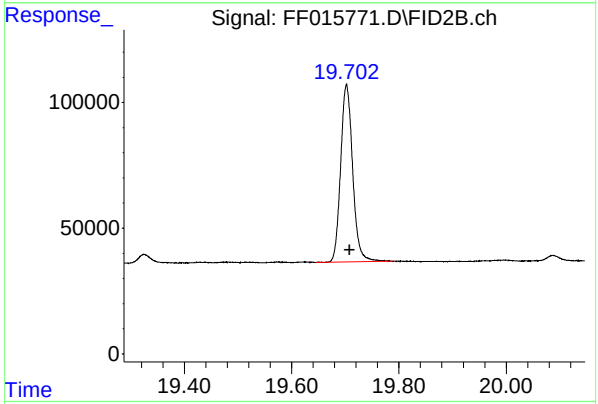
R.T.: 18.085 min
Delta R.T.: -0.005 min
Response: 2203795
Conc: 17.85 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BSD



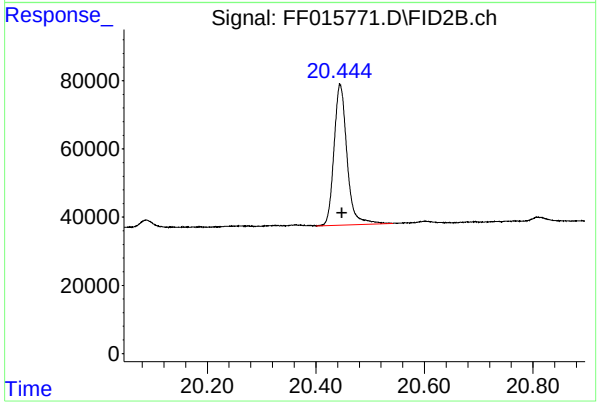
#14 N-DOTRIACONTANE

R.T.: 18.917 min
Delta R.T.: -0.006 min
Response: 1828900
Conc: 15.48 ug/ml



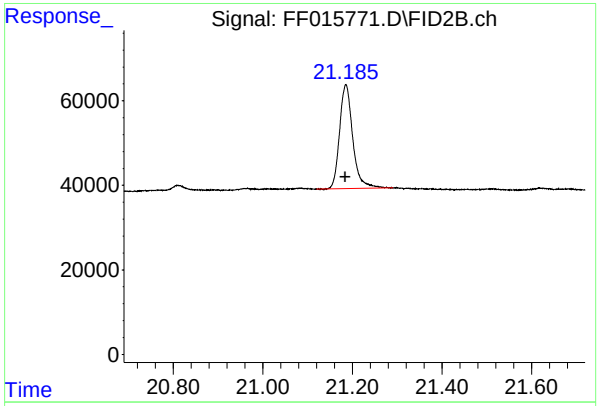
#15 N-TETRATRIACONTANE

R.T.: 19.702 min
Delta R.T.: -0.006 min
Response: 1096225
Conc: 10.52 ug/ml



#16 N-HEXATRIACONTANE

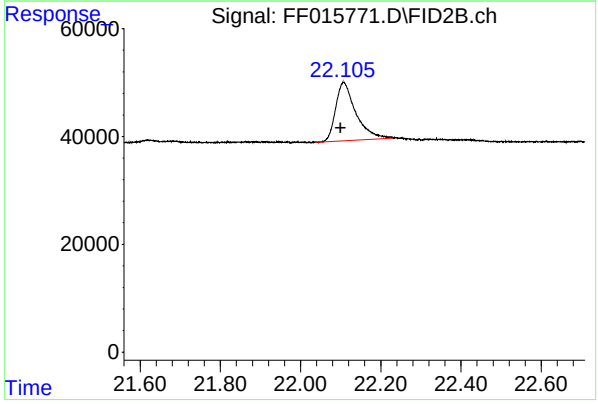
R.T.: 20.445 min
Delta R.T.: -0.004 min
Response: 684452
Conc: 7.82 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.185 min
Delta R.T.: 0.001 min
Response: 501989
Conc: 7.11 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167520BSD



#18 N-TETRACONTANE

R.T.: 22.108 min
Delta R.T.: 0.008 min
Response: 376076
Conc: 6.13 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040925\
Data File : FF015771.D
Signal(s) : FID2B.ch
Acq On : 09 Apr 2025 11:42
Sample : PB167520BSD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.034	1.990	2.222	BB	110538	1554722	66.58%	4.952%
2	4.571	4.550	4.739	BB	116846	1644692	70.43%	5.239%
3	6.738	6.715	6.960	BB	122067	1883043	80.64%	5.998%
4	8.565	8.542	8.770	BB	117353	1934780	82.85%	6.163%
5	10.172	10.145	10.350	BB	129255	2012093	86.17%	6.409%
6	11.613	11.585	11.780	BB	149360	2225658	95.31%	7.090%
7	12.923	12.890	13.084	BB	161908	2283033	97.77%	7.272%
8	14.121	14.085	14.264	BB	166236	2309243	98.89%	7.356%
9	15.021	14.985	15.127	BB	133974	1971819	84.44%	6.281%
10	15.225	15.187	15.342	BB	172242	2335155	100.00%	7.438%
11	16.246	16.210	16.355	BB	160325	2282181	97.73%	7.270%
12	17.197	17.157	17.309	BB	161192	2264976	96.99%	7.215%
13	18.085	17.975	18.184	BB	153035	2203795	94.37%	7.020%
14	18.917	18.862	19.014	BB	117670	1828900	78.32%	5.826%
15	19.702	19.645	19.789	BB	70667	1096225	46.94%	3.492%
16	20.445	20.400	20.542	BB	41389	684452	29.31%	2.180%
17	21.185	21.119	21.290	BB	24642	501989	21.50%	1.599%
18	22.108	22.039	22.230	BB	10814	376076	16.10%	1.198%
			Sum of corrected areas:			31392829		

FF032625.M Thu Apr 10 01:55:04 2025

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

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
5 TRPH STD		FF015735.D	FF032625	N-TETRACONTANE	mohammad	3/28/2025 1:19:01 AM	Peak Integrated by Software incorrectly

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

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
PB167520BS		FF015758.D	FF040825	N-TETRACONTANE	mohammad	4/10/2025 5:30:24 AM	Peak Integrated by Software incorrectly
Q1739-01		FF015760.D	FF040825	TETRACOSANE-d50 (SURROGA	mohammad	4/10/2025 5:30:24 AM	Peak Integrated by Software incorrectly

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Fax : 908 789 8922

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QCBatch ID # FF032625

Review By	yogesh	Review On	3/26/2025 1:06:33 PM		
Supervise By	mohammad	Supervise On	3/28/2025 1:19:01 AM		
SubDirectory	FF032625	HP Acquire Method		HP Processing Method	FF032625

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FF015729.D	26 Mar 2025 09:27	YP\AJ	Ok
2	I.BLK	FF015730.D	26 Mar 2025 09:56	YP\AJ	Ok
3	100 TRPH STD	FF015731.D	26 Mar 2025 10:26	YP\AJ	Ok
4	50 TRPH STD	FF015732.D	26 Mar 2025 11:24	YP\AJ	Ok
5	20 TRPH STD	FF015733.D	26 Mar 2025 11:53	YP\AJ	Ok
6	10 TRPH STD	FF015734.D	26 Mar 2025 12:23	YP\AJ	Ok
7	5 TRPH STD	FF015735.D	26 Mar 2025 12:52	YP\AJ	Ok,M
8	FF032625ICV	FF015736.D	26 Mar 2025 13:21	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QCBatch ID # FF040825

Review By	yogesh	Review On	4/8/2025 3:03:29 PM		
Supervise By	mohammad	Supervise On	4/10/2025 5:30:24 AM		
SubDirectory	FF040825	HP Acquire Method		HP Processing Method	FF032625

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FF015753.D	08 Apr 2025 09:32	YP\AJ	Ok
2	I.BLK	FF015754.D	08 Apr 2025 10:01	YP\AJ	Ok
3	50 PPM TRPH STD	FF015755.D	08 Apr 2025 11:13	YP\AJ	Ok
4	RT MARKER	FF015756.D	08 Apr 2025 12:20	YP\AJ	Ok
5	PB167520BL	FF015757.D	08 Apr 2025 16:29	YP\AJ	Not Ok
6	PB167520BS	FF015758.D	08 Apr 2025 16:58	YP\AJ	Not Ok
7	PB167520BSD	FF015759.D	08 Apr 2025 17:27	YP\AJ	Not Ok
8	Q1739-01	FF015760.D	08 Apr 2025 17:57	YP\AJ	Dilution
9	Q1739-01	FF015761.D	08 Apr 2025 18:26	YP\AJ	Not Ok
10	Q1739-01	FF015762.D	08 Apr 2025 18:56	YP\AJ	Ok
11	I.BLK	FF015763.D	08 Apr 2025 19:25	YP\AJ	Ok
12	50 PPM TRPH STD	FF015764.D	08 Apr 2025 20:24	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QCBatch ID # FF040925

Review By	yogesh	Review On	4/9/2025 11:45:48 AM		
Supervise By	mohammad	Supervise On	4/11/2025 1:23:46 AM		
SubDirectory	FF040925	HP Acquire Method		HP Processing Method	FF032625

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FF015765.D	09 Apr 2025 07:49	YP\AJ	Ok
2	I.BLK	FF015766.D	09 Apr 2025 08:47	YP\AJ	Ok
3	50 PPM TRPH STD	FF015767.D	09 Apr 2025 09:16	YP\AJ	Ok
4	RT MARKER	FF015768.D	09 Apr 2025 09:45	YP\AJ	Ok
5	PB167520BL	FF015769.D	09 Apr 2025 10:15	YP\AJ	Ok
6	PB167520BS	FF015770.D	09 Apr 2025 10:44	YP\AJ	Ok
7	PB167520BSD	FF015771.D	09 Apr 2025 11:42	YP\AJ	Ok
8	I.BLK	FF015772.D	09 Apr 2025 12:12	YP\AJ	Ok
9	50 PPM TRPH STD	FF015773.D	09 Apr 2025 12:41	YP\AJ	Ok

M : Manual Integration

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Fax : 908 789 8922

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QCBatch ID # FF032625

Review By	yogesh	Review On	3/26/2025 1:06:33 PM		
Supervise By	mohammad	Supervise On	3/28/2025 1:19:01 AM		
SubDirectory	FF032625	HP Acquire Method		HP Processing Method	FF032625

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF015729.D	26 Mar 2025 09:27		YP\AJ	Ok
2	I.BLK		FF015730.D	26 Mar 2025 09:56		YP\AJ	Ok
3	100 TRPH STD		FF015731.D	26 Mar 2025 10:26		YP\AJ	Ok
4	50 TRPH STD		FF015732.D	26 Mar 2025 11:24		YP\AJ	Ok
5	20 TRPH STD		FF015733.D	26 Mar 2025 11:53		YP\AJ	Ok
6	10 TRPH STD		FF015734.D	26 Mar 2025 12:23		YP\AJ	Ok
7	5 TRPH STD		FF015735.D	26 Mar 2025 12:52		YP\AJ	Ok,M
8	FF032625ICV		FF015736.D	26 Mar 2025 13:21		YP\AJ	Ok

M : Manual Integration

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Fax : 908 789 8922

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QCBatch ID # FF040825

Review By	yogesh	Review On	4/8/2025 3:03:29 PM		
Supervise By	mohammad	Supervise On	4/10/2025 5:30:24 AM		
SubDirectory	FF040825	HP Acquire Method		HP Processing Method	FF032625

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF015753.D	08 Apr 2025 09:32		YP\AJ	Ok
2	I.BLK		FF015754.D	08 Apr 2025 10:01		YP\AJ	Ok
3	50 PPM TRPH STD		FF015755.D	08 Apr 2025 11:13		YP\AJ	Ok
4	RT MARKER		FF015756.D	08 Apr 2025 12:20		YP\AJ	Ok
5	PB167520BL		FF015757.D	08 Apr 2025 16:29		YP\AJ	Not Ok
6	PB167520BS		FF015758.D	08 Apr 2025 16:58		YP\AJ	Not Ok
7	PB167520BSD		FF015759.D	08 Apr 2025 17:27	Surr Fail, Recovery fail	YP\AJ	Not Ok
8	Q1739-01		FF015760.D	08 Apr 2025 17:57	need 10x dilution	YP\AJ	Dilution
9	Q1739-01		FF015761.D	08 Apr 2025 18:26	Not Required	YP\AJ	Not Ok
10	Q1739-01		FF015762.D	08 Apr 2025 18:56		YP\AJ	Ok
11	I.BLK		FF015763.D	08 Apr 2025 19:25		YP\AJ	Ok
12	50 PPM TRPH STD		FF015764.D	08 Apr 2025 20:24		YP\AJ	Ok

M : Manual Integration

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Fax : 908 789 8922

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QCBatch ID # FF040925

Review By	yogesh	Review On	4/9/2025 11:45:48 AM		
Supervise By	mohammad	Supervise On	4/11/2025 1:23:46 AM		
SubDirectory	FF040925	HP Acquire Method		HP Processing Method	FF032625

STD. NAME	STD REF.#
Tune/Reschk	
Initial Calibration Stds	PP23961,PP23963,PP23964,PP23965,PP23966
CCC	PP23963
Internal Standard/PEM	
ICV/I.BLK	PP23962,PP23967
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF015765.D	09 Apr 2025 07:49		YP\AJ	Ok
2	I.BLK		FF015766.D	09 Apr 2025 08:47		YP\AJ	Ok
3	50 PPM TRPH STD		FF015767.D	09 Apr 2025 09:16		YP\AJ	Ok
4	RT MARKER		FF015768.D	09 Apr 2025 09:45		YP\AJ	Ok
5	PB167520BL		FF015769.D	09 Apr 2025 10:15		YP\AJ	Ok
6	PB167520BS		FF015770.D	09 Apr 2025 10:44		YP\AJ	Ok
7	PB167520BSD		FF015771.D	09 Apr 2025 11:42		YP\AJ	Ok
8	I.BLK		FF015772.D	09 Apr 2025 12:12		YP\AJ	Ok
9	50 PPM TRPH STD		FF015773.D	09 Apr 2025 12:41		YP\AJ	Ok

M : Manual Integration

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB167520

SOP ID:	M3510C,3580A-Extraction DRO-12				
Clean Up SOP #:	N/A			**Extraction Start Date :**	04/08/2025
Matrix :	Water			**Extraction Start Time :**	11:05
Weigh By:	N/A	**Extraction By:**	RS	**Extraction End Date :**	04/08/2025
Balance check:	N/A	**Filter By:**	RS	**Extraction End Time :**	15:55
Balance ID:	N/A	**pH Meter ID:**	N/A	**Concentration By:**	EH
pH Strip Lot#:	E3880	**Hood ID:**	4,5,6,7	**Supervisor By :**	RUPESH

Extraction Method: [√] Seperatory Funnel [ ] Continious Liquid/Liquid [ ] Sonication [ ] Waste Dilution [ ] Soxhlet

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Surrogate	1.0ML	20 PPM	PP24162
Spike Sol 1	1.0ML	20 PPM	PP24180
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3878
Baked Na2SO4	N/A	EP2593
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210673.

KD Bath ID:	WATER BATH-1,2	**Envap ID:**	NEVAP-02
KD Bath Temperature:	60 °C	**Envap Temperature:**	40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/08/25	RP (Ext lab)	T.P. Ext lab
16:00	**Preparation Group**	**Analysis Group**

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB167520

Analytical Method: M3510C,3580A-Extraction DRO-12

Concentration Date: 04/08/2025

Sample ID	Client Sample ID	Test	g /(mL)	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167520BL	PB167520BL	TPH GC	1000	6	ritesh	rajesh	1			
PB167520BS	PB167520BS	TPH GC	1000	6	ritesh	rajesh	1			
PB167520BSD	PB167520BSD	TPH GC	1000	6	ritesh	rajesh	1			
Q1739-01	WC-LIQUID-20250404	TPH GC	980	6	ritesh	rajesh	5	D	Oily	

* **Extracts relinquished on the same date as received.**

4/8/25

Q1739-TPH GC

4/7/25 11:05 TBR

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1741 **WorkList ID :** 188807 **Department :** Extraction **Date :** 04-08-2025 10:05:19

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1739-01	WC-LIQUID-20250404	Water	SVOC-TCL BNA -20	Cool 4 deg C	PARS02	L31	04/04/2025	8270E
Q1739-01	WC-LIQUID-20250404	Water	TPH GC	Cool 4 deg C	PARS02	L31	04/04/2025	8015D
Q1741-01	RMW-02B-66-040425	Water	SVOC-SIMGroup1	Cool 4 deg C	JACO05	L33	04/04/2025	8270-Modified
Q1741-02	RMW-02B-74-040425	Water	SVOC-SIMGroup1	Cool 4 deg C	JACO05	L33	04/04/2025	8270-Modified
Q1741-03	FB01-040425	Water	SVOC-SIMGroup1	Cool 4 deg C	JACO05	L33	04/04/2025	8270-Modified
Q1746-05	B-158-GW01	Water	SVOC-TCL BNA -20	Cool 4 deg C	PORT06	L41	04/05/2025	8270E
Q1746-06	B-149-GW01	Water	SVOC-TCL BNA -20	Cool 4 deg C	PORT06	L41	04/06/2025	8270E
Q1746-07	EB-2025-4-7	Water	SVOC-TCL BNA -20	Cool 4 deg C	PORT06	L41	04/07/2025	8270E

Date/Time 04/08/25 17:00
Raw Sample Received by: RJ (Ext Lab)
Raw Sample Relinquished by:

Date/Time 04/08/25 11:15
Raw Sample Received by:
Raw Sample Relinquished by: RJ (Ext Lab)

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Prep Standard - Chemical Standard Summary

Order ID : Q1739

Test : TPH GC

Prepbatch ID : PB167520,

Sequence ID/Qc Batch ID: FF040825,FF040925,

Standard ID :
EP2593,PP23961,PP23962,PP23963,PP23964,PP23965,PP23966,PP23967,PP24162,PP24180,

Chemical ID :
E3551,E3828,E3874,E3878,P11955,P11956,P11958,P11959,P13213,P13218,P13219,P13487,P13488,P13489,P13490
,

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Fax : 908 789 8922

Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2593	03/07/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SCALE_2 (EX-SC-2)	None	Riteshkumar Patel 03/07/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
433	100/100 PPM DRO (Restek)	PP23961	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 1.00000ml of P11958 + 1.00000ml of P11959 + 1.00000ml of P13213 + 7.00000ml of E3828 = Final Quantity: 10.000 ml

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3796	100/100 PPM DRO STD (CPI)	PP23962	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 1.00000ml of P13213 + 1.00000ml of P13218 + 1.00000ml of P13219 + 7.00000ml of E3828 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
435	50 PPM ICC DRO STD (Restek)	PP23963	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.50000ml of E3828 + 0.50000ml of PP23961 = 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
437	20 PPM ICC DRO STD (Restek)	PP23964	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.80000ml of E3828 + 0.20000ml of PP23961 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
438	10 PPM ICC DRO STD (Restek)	PP23965	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.90000ml of E3828 + 0.10000ml of PP23961 = 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
439	5 PPM ICC DRO STD (Restek)	PP23966	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.90000ml of E3828 + 0.10000ml of PP23963 = Final Quantity: 1.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3797	50 PPM DRO ICV STD (CPI)	PP23967	11/13/2024	05/09/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

FROM 0.80000ml of E3828 + 0.50000ml of PP23962 = Final Quantity: 1.000 ml

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Fax : 908 789 8922

Pest/Pcb STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3609	20 PPM DRO SPIKE SOLUTION (RESTEK)	PP24162	01/31/2025	07/30/2025	Yogesh Patel	None	None	Ankita Jodhani 01/31/2025

FROM 1.00000ml of P11955 + 1.00000ml of P11956 + 48.00000ml of E3874 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
147	20 PPM DRO Surrogate Spike Solution	PP24180	02/03/2025	07/30/2025	Yogesh Patel	None	None	Ankita Jodhani 02/03/2025

FROM 1.00000ml of P13487 + 1.00000ml of P13488 + 1.00000ml of P13489 + 1.00000ml of P13490 + 196.00000ml of E3874 = Final Quantity: 200.000 ml

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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

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)	24G0862003	05/09/2025	11/09/2024 / Rajesh	11/04/2024 / Rajesh	E3828

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	07/30/2025	01/30/2025 / Rajesh	01/20/2025 / Rajesh	E3874

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	08/14/2025	02/14/2025 / Rajesh	12/27/2024 / Rajesh	E3878

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	07/31/2025	01/31/2025 / yogesh	07/11/2022 / Yogesh	P11955

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	07/31/2025	01/31/2025 / yogesh	07/11/2022 / Yogesh	P11956

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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	31266 / Florida TRPH Standard	A0186840	05/13/2025	11/13/2024 / yogesh	07/11/2022 / Yogesh	P11958

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	05/13/2025	11/13/2024 / yogesh	07/11/2022 / Yogesh	P11959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	05/13/2025	11/13/2024 / yogesh	01/17/2024 / Ankita	P13213

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml	514983	02/14/2025	08/14/2024 / yogesh	01/31/2024 / Ankita	P13218

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml	514983	05/13/2025	11/13/2024 / yogesh	01/31/2024 / Ankita	P13219

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13487

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 #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13488

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13489

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13490

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 RP on 7/24/23 E3551

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

avantor™ | J.T.Baker

Material No.: 9266-A4
Batch No.: 24J0862003
Manufactured Date: 2024-09-12
Expiration Date:2025-12-12
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol)Single Impurity Peak (ng/mL)	<= 5	2
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	<= 10	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Titrable Acid (µeq/g)	<= 0.3	<0.1
Chloride (Cl)	<= 10 ppm	<5 ppm
Water (by KF, coulometric)	<= 0.02 %	<0.01 %

For Laboratory,Research,or Manufacturing Use
MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

E 3828

JCroak
Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

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

E 3874

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials,LLC
100 Matsonford Rd, Suite 200,Radnor,PA,19087.U.S.A.Phone 610.386.1700

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

avantor | J.T.Baker

Material No.: 9266-A4
Batch No.: 24K1762005
Manufactured Date: 2024-10-08
Expiration Date:2026-01-07
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	2
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.5 ppm
Titrable Acid (µeq/g)	<= 0.3	0.0
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 3878

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

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.

P11948 & P11962 } 7.6 07/...

Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

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

Expiration Date : July 31, 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-Octane (C8) **CAS #** 111-65-9 **Purity** 99%	(Lot SHBN3807)	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 **Purity** 99%	(Lot SHBN8619)	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 **Purity** 99%	(Lot SHBN7174)	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 **Purity** 99%	(Lot STBK2282)	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 **Purity** 98%	(Lot SHBM4146)	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 **Purity** 97%	(Lot VZKOJ)	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 **Purity** 99%	(Lot MKCF7888)	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

8	n-Docosane (C22) **CAS #** 629-97-0 **Purity** 99%	(Lot MKCL8918)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) **CAS #** 646-31-1 **Purity** 99%	(Lot MKCN2863)	503.5	µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) **CAS #** 630-01-3 **Purity** 99%	(Lot MKCD4540)	504.0	µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) **CAS #** 630-02-4 **Purity** 99%	(Lot BCCG0084)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) **CAS #** 638-68-6 **Purity** 99%	(Lot MKCN9321)	505.0	µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) **CAS #** 544-85-4 **Purity** 99%	(Lot BCBW0661)	505.0	µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) **CAS #** 14167-59-0 **Purity** 99%	(Lot OML4N)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) **CAS #** 630-06-8 **Purity** 99%	(Lot U25B014)	504.0	µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) **CAS #** 7194-85-6 **Purity** 97%	(Lot 0000127235)	504.4	µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) **CAS #** 4181-95-7 **Purity** 98%	(Lot PADGI)	504.7	µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

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

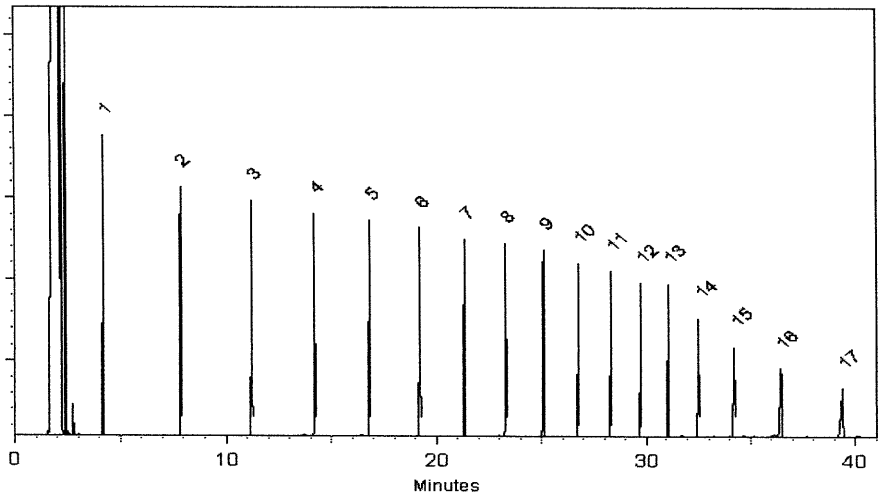
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-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: (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

ilac-MRA

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.

P11948 & P11962 } 7.6 07/...

Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

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

Expiration Date : July 31, 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-Octane (C8) **CAS #** 111-65-9 (Lot SHBN3807) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 (Lot SHBM4146) **Purity** 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 (Lot VZKOJ) **Purity** 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 (Lot MKCF7888) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

8	n-Docosane (C22) **CAS #** 629-97-0 **Purity** 99%	(Lot MKCL8918)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) **CAS #** 646-31-1 **Purity** 99%	(Lot MKCN2863)	503.5	µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) **CAS #** 630-01-3 **Purity** 99%	(Lot MKCD4540)	504.0	µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) **CAS #** 630-02-4 **Purity** 99%	(Lot BCCG0084)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) **CAS #** 638-68-6 **Purity** 99%	(Lot MKCN9321)	505.0	µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) **CAS #** 544-85-4 **Purity** 99%	(Lot BCBW0661)	505.0	µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) **CAS #** 14167-59-0 **Purity** 99%	(Lot OML4N)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) **CAS #** 630-06-8 **Purity** 99%	(Lot U25B014)	504.0	µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) **CAS #** 7194-85-6 **Purity** 97%	(Lot 0000127235)	504.4	µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) **CAS #** 4181-95-7 **Purity** 98%	(Lot PADGI)	504.7	µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

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

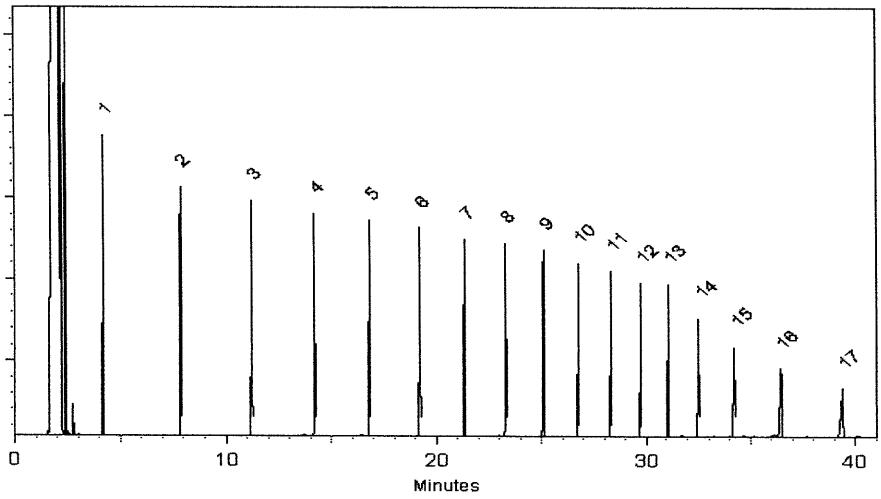
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-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.

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Fax: (814)353-1309

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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.

P11948 & P11962 } 7.6 07/...

Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

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

Expiration Date : July 31, 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-Octane (C8) **CAS #** 111-65-9 (Lot SHBN3807) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 (Lot SHBN8619) **Purity** 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 (Lot SHBN7174) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 (Lot STBK2282) **Purity** 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 (Lot SHBM4146) **Purity** 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 (Lot VZKOJ) **Purity** 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 (Lot MKCF7888) **Purity** 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

8	n-Docosane (C22) **CAS #** 629-97-0 **Purity** 99%	(Lot MKCL8918)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) **CAS #** 646-31-1 **Purity** 99%	(Lot MKCN2863)	503.5	µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) **CAS #** 630-01-3 **Purity** 99%	(Lot MKCD4540)	504.0	µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) **CAS #** 630-02-4 **Purity** 99%	(Lot BCCG0084)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) **CAS #** 638-68-6 **Purity** 99%	(Lot MKCN9321)	505.0	µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) **CAS #** 544-85-4 **Purity** 99%	(Lot BCBW0661)	505.0	µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) **CAS #** 14167-59-0 **Purity** 99%	(Lot OML4N)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) **CAS #** 630-06-8 **Purity** 99%	(Lot U25B014)	504.0	µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) **CAS #** 7194-85-6 **Purity** 97%	(Lot 0000127235)	504.4	µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) **CAS #** 4181-95-7 **Purity** 98%	(Lot PADGI)	504.7	µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

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

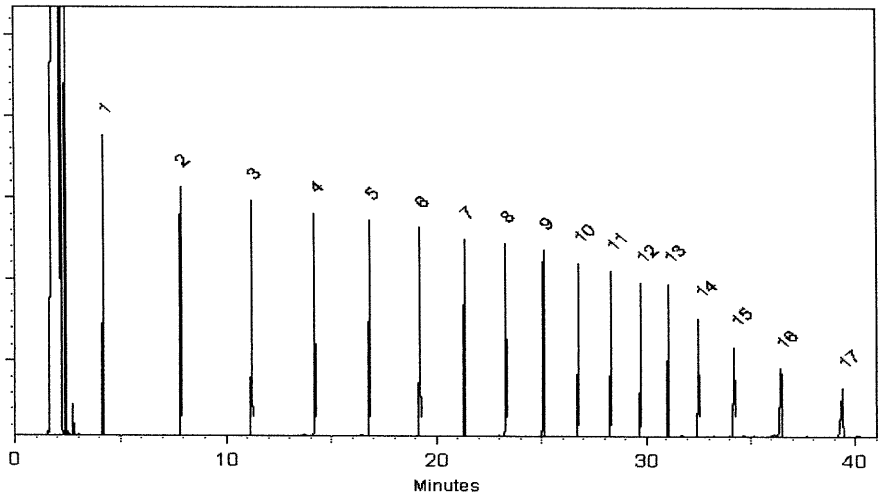
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-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.
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- Purity of isomeric compounds is reported as the sum of the isomers.
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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:

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

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Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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Certificate of Analysis

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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.

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P11962
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07/...

Catalog No. : 31266 **Lot No.:** A0186840

Description : Florida TRPH Standard

Florida TRPH Standard 500µg/mL, Hexane, 1mL/ampul

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

Expiration Date : July 31, 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-Octane (C8) **CAS #** 111-65-9 **Purity** 99%	(Lot SHBN3807)	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) **CAS #** 124-18-5 **Purity** 99%	(Lot SHBN8619)	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) **CAS #** 112-40-3 **Purity** 99%	(Lot SHBN7174)	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) **CAS #** 629-59-4 **Purity** 99%	(Lot STBK2282)	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) **CAS #** 544-76-3 **Purity** 98%	(Lot SHBM4146)	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) **CAS #** 593-45-3 **Purity** 97%	(Lot VZKOJ)	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) **CAS #** 112-95-8 **Purity** 99%	(Lot MKCF7888)	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

8	n-Docosane (C22) **CAS #** 629-97-0 **Purity** 99%	(Lot MKCL8918)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) **CAS #** 646-31-1 **Purity** 99%	(Lot MKCN2863)	503.5	µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) **CAS #** 630-01-3 **Purity** 99%	(Lot MKCD4540)	504.0	µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) **CAS #** 630-02-4 **Purity** 99%	(Lot BCCG0084)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) **CAS #** 638-68-6 **Purity** 99%	(Lot MKCN9321)	505.0	µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) **CAS #** 544-85-4 **Purity** 99%	(Lot BCBW0661)	505.0	µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) **CAS #** 14167-59-0 **Purity** 99%	(Lot OML4N)	504.5	µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) **CAS #** 630-06-8 **Purity** 99%	(Lot U25B014)	504.0	µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) **CAS #** 7194-85-6 **Purity** 97%	(Lot 0000127235)	504.4	µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) **CAS #** 4181-95-7 **Purity** 98%	(Lot PADGI)	504.7	µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: Hexane
CAS # 110-54-3
Purity 99%

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

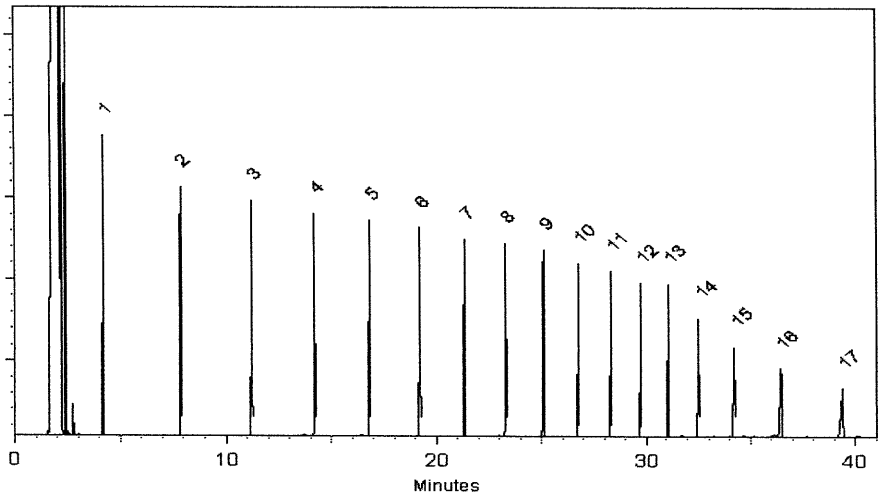
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022 **Balance:** 1128360905

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-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.

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- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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Manufacturing Notes:

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CERTIFIED WEIGHT REPORT

Part Number: 72072
Lot Number: 101122
Description: n-Tetracosane-d50

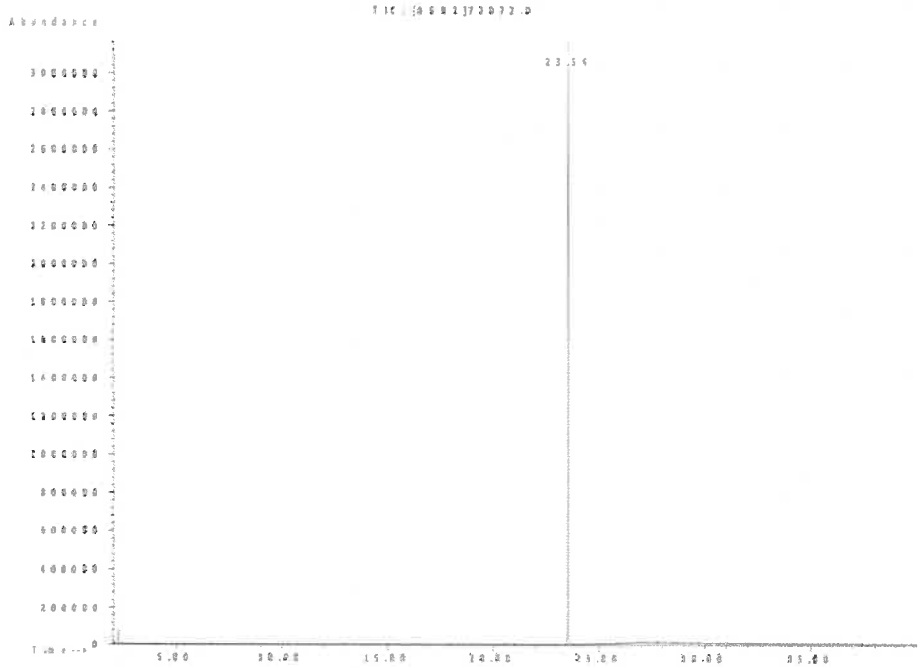
Solvent(s): Methylene chloride **Lot#** 105345

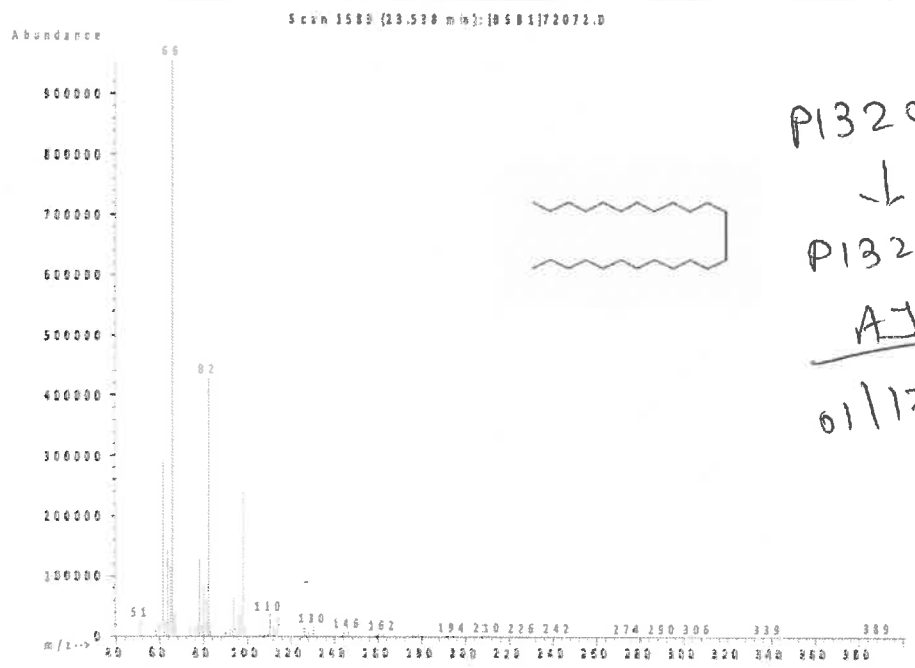
Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty

Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	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. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





P13205
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P13214
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01/17/24

- 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).

CPI INTERNATIONAL

5580 Skylane Blvd
Santa Rosa, CA 95403

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

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

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110400-05 -01	514983	≤ -10 Degrees C	Hexane	11/20/2028	TRPH Standard (C8-C40), 500 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
decane (C10)	124-18-5	99.7	415.7.2P	498.5 ± 6.92
docosane (C22)	629-97-0	98.8	420.9.1P	499.4 ± 6.93
dodecane (C12)	112-40-3	99.7	416.9.3P	502 ± 6.97
dotriacontane (C32)	544-85-4	97	425.9.2.2P	499.6 ± 8.53
eicosane (C20)	112-95-8	99.8	419.7.1P	501 ± 6.95
hexacosane (C26)	630-01-3	99.3	422.7.2.1P	501 ± 6.95
hexatriacontane (C36)	630-06-8	98	427.29.1.1P	499.3 ± 8.53
n-hexadecane (C16)	544-76-3	99.45	368.271.1P	498.7 ± 6.91
octacosane (C28)	630-02-4	99.1	423.24.1P	500.5 ± 6.95
n-octadecane (C18)	593-45-3	99.5	418.29.1P	499.5 ± 6.92
octane (C8)	111-65-9	99.4	385.7.2.1P	498.5 ± 6.92
octatriacontane (C38)	7194-85-6	95	428.1.2P	500.2 ± 6.94
tetracontane (C40)	4181-95-7	97	429.7.2P	499.6 ± 6.93
n-tetracosane (C24)	646-31-1	99.5	421.7.1P	499.5 ± 6.93
n-tetradecane (C14)	629-59-4	99.3	417.9.1P	500 ± 6.94
tetratriacontane (C34)	14167-59-0	96.1	426.7.2.2P	499.7 ± 8.53
triacontane (C30)	638-68-6	99.5	424.7.1.1P	500 ± 6.94

P 13215
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P 13224

AJ
01/31/24

*Not a certified value

Let the standard warm to room temperature and sonicate before opening.

Certified By: Andrea Schaible

Andrea Schaible
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

CPI INTERNATIONAL

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Santa Rosa, CA 95403

(707)525-5788
(800)878-7654 Toll Free
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Manufacturer's Quality System
Audited & Registered
by TUV USA to ISO 9001:2015

Date Received:_____

Certificate of Analysis

Rev 0

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
Z-110400-05 -01	514983	≤ -10 Degrees C	Hexane	11/20/2028	TRPH Standard (C8-C40), 500 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
decane (C10)	124-18-5	99.7	415.7.2P	498.5 ± 6.92
docosane (C22)	629-97-0	98.8	420.9.1P	499.4 ± 6.93
dodecane (C12)	112-40-3	99.7	416.9.3P	502 ± 6.97
dotriacontane (C32)	544-85-4	97	425.9.2.2P	499.6 ± 8.53
eicosane (C20)	112-95-8	99.8	419.7.1P	501 ± 6.95
hexacosane (C26)	630-01-3	99.3	422.7.2.1P	501 ± 6.95
hexatriacontane (C36)	630-06-8	98	427.29.1.1P	499.3 ± 8.53
n-hexadecane (C16)	544-76-3	99.45	368.271.1P	498.7 ± 6.91
octacosane (C28)	630-02-4	99.1	423.24.1P	500.5 ± 6.95
n-octadecane (C18)	593-45-3	99.5	418.29.1P	499.5 ± 6.92
octane (C8)	111-65-9	99.4	385.7.2.1P	498.5 ± 6.92
octatriacontane (C38)	7194-85-6	95	428.1.2P	500.2 ± 6.94
tetracontane (C40)	4181-95-7	97	429.7.2P	499.6 ± 6.93
n-tetracosane (C24)	646-31-1	99.5	421.7.1P	499.5 ± 6.93
n-tetradecane (C14)	629-59-4	99.3	417.9.1P	500 ± 6.94
tetratriacontane (C34)	14167-59-0	96.1	426.7.2.2P	499.7 ± 8.53
triacontane (C30)	638-68-6	99.5	424.7.1.1P	500 ± 6.94

P 13215
↓
P 13224

AJ
01/31/24

*Not a certified value

Let the standard warm to room temperature and sonicate before opening.

Certified By: Andrea Schaible

Andrea Schaible
Chemist

All weights are traceable through N. I. S. T. Test No. 822/264157-00.
Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within +/- 0.5% of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: U_{CRM} is the expanded uncertainty which utilizes a K = 2 (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

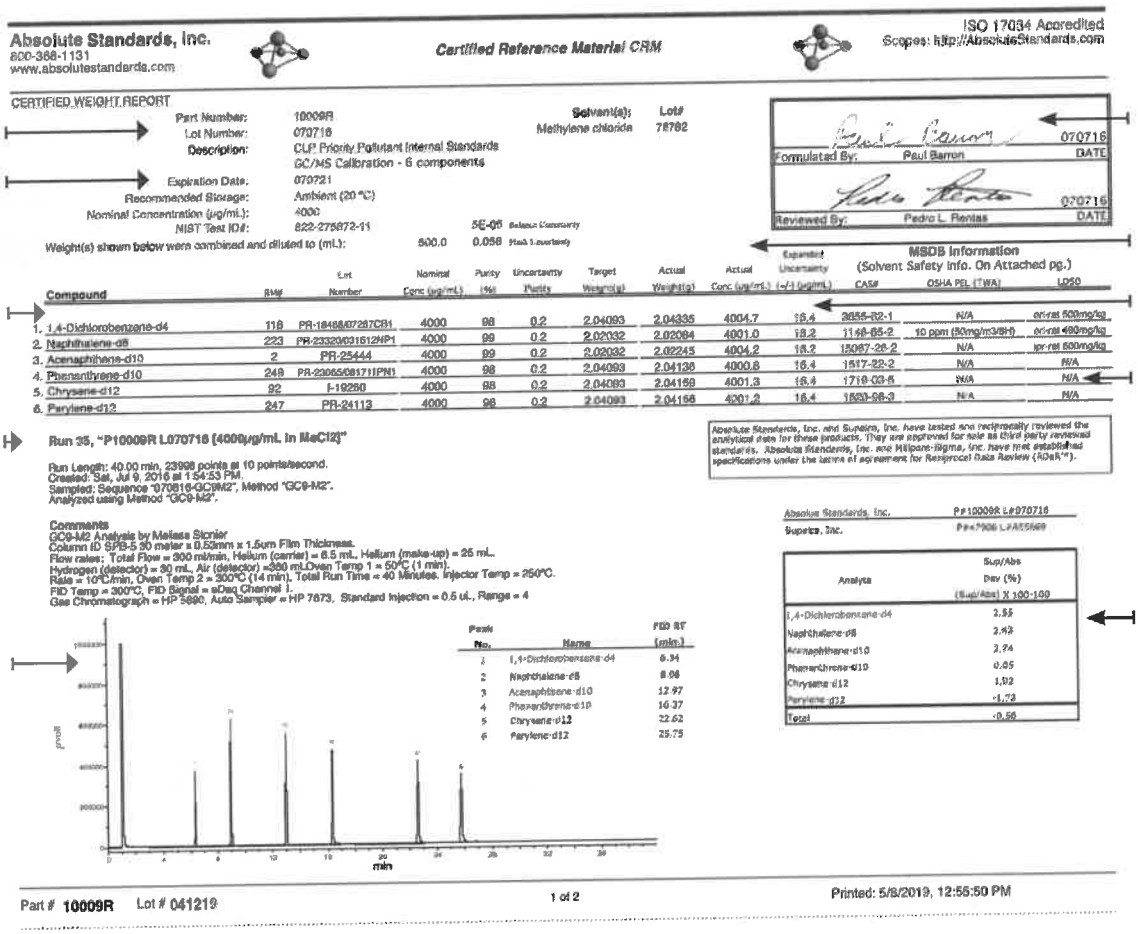
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards GC/MS Calibration - 6 components

Solvent(s): Methylene chloride
Lot#: 78782

Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 0.058

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)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233230/31612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	or-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-230650/31711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Run 35, "P10009R L070716 (4000µg/mL in MeC12)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =300 mL.Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.06
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. P# 10009R L# 070716
Supelco, Inc. P# [illegible] L# [illegible]

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	3.74
Phenanthrene-d10	0.05
Chrysene-d12	1.02
Perylene-d12	-1.73
Total	-0.56

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # / Shelf Life

Formulator / Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

3rd Party Comparison

Qualitative / Quantitative

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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: 72072
Lot Number: 101122
Description: n-Tetracosane-d50

Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s):	Lot#
Methylene chloride	105345

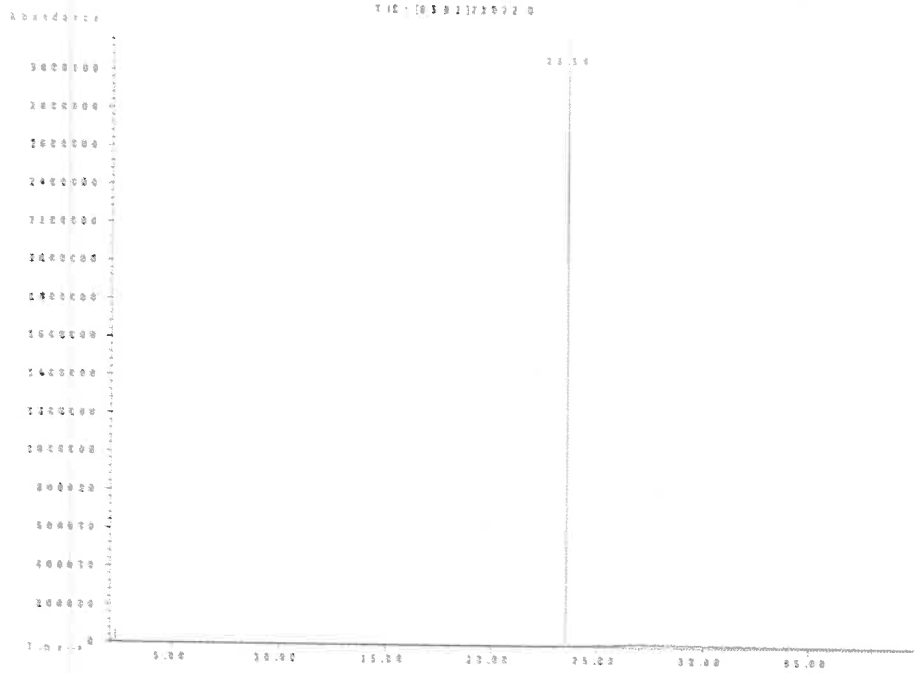
P13477 → P13496 } X.P. 07/24/24

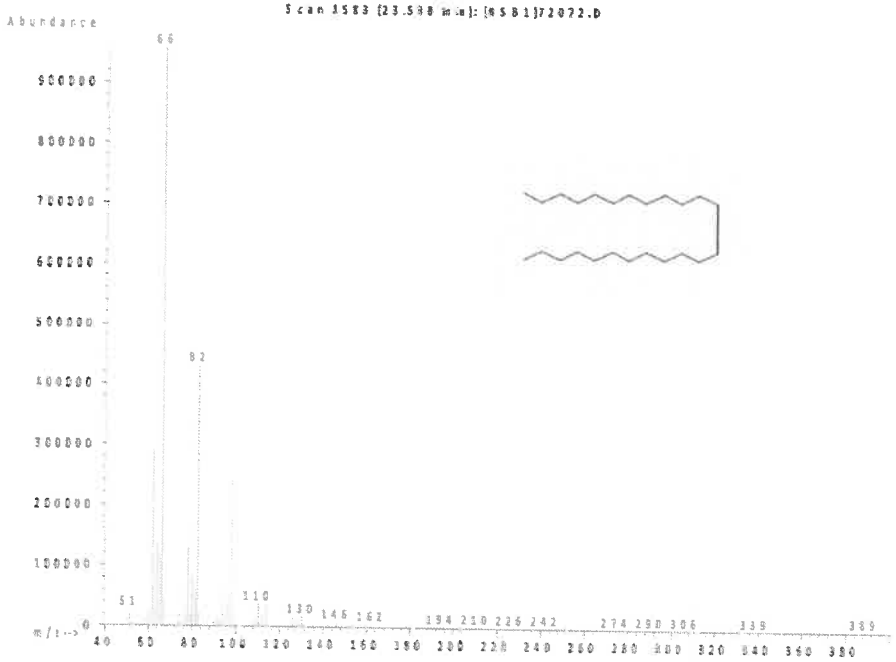
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty

Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	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. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





- 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).

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within +/- 0.5% of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: U_{CRM} is the expanded uncertainty which utilizes a K = 2 (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

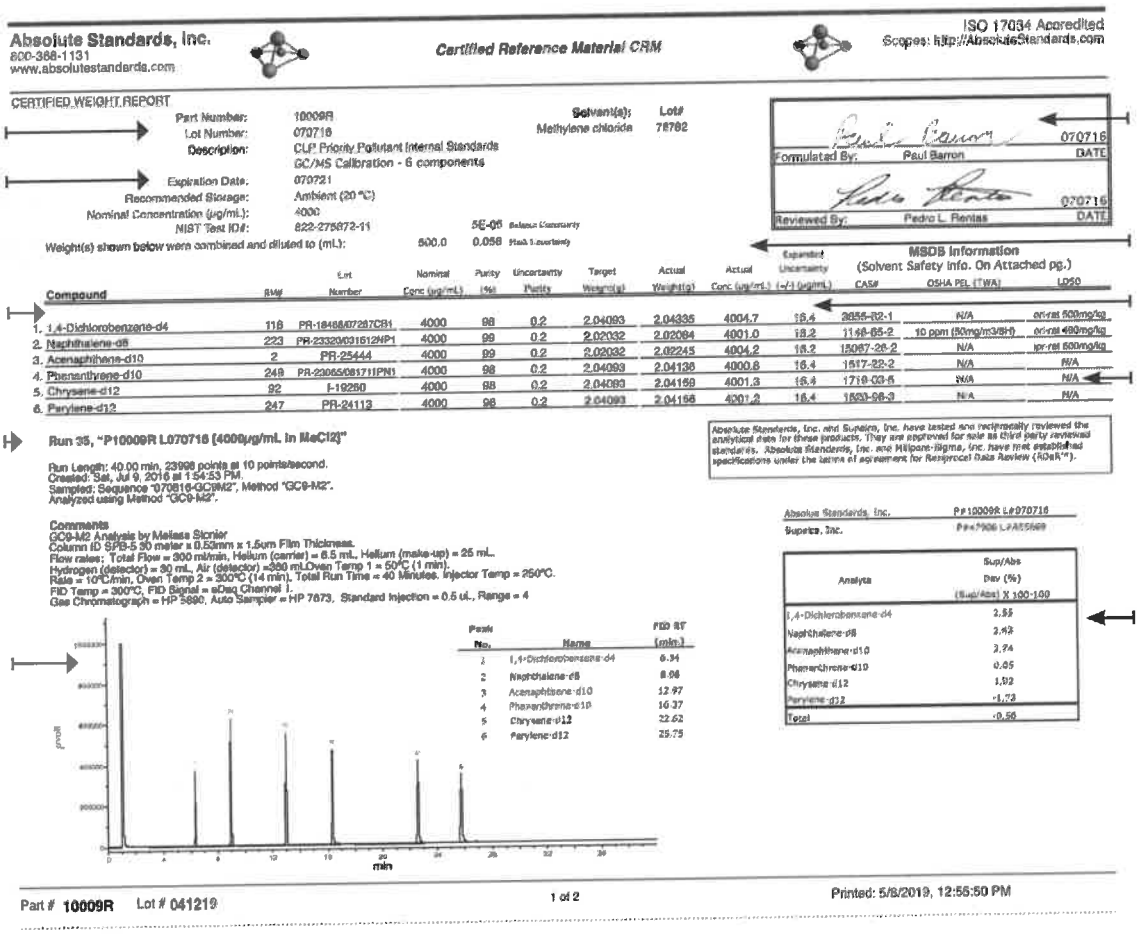
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.



Absolute Standards, Inc.
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Certified Reference Material CRM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards GC/MS Calibration - 6 components

Solvent(s): Methylene chloride
Lot#: 78782

Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinlas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 0.058

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)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233203031612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	or-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-230605081711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Run 35, "P10009R L070716 (4000µg/mL in MeC12)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =300 mL.Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.06
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. P# 10009R L# 070716
Supelco, Inc. P# [illegible] L# [illegible]

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	3.74
Phenanthrene-d10	0.05
Chrysene-d12	1.02
Perylene-d12	-1.73
Total	-0.56

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # / Shelf Life

Formulator / Reviewer

Actual Concentration

Target Compounds

Uncertainty Values

Health & Safety

Method of Analysis

3rd Party Comparison

Qualitative / Quantitative

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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: 72072
Lot Number: 101122
Description: n-Tetracosane-d50

Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s):	Lot#
Methylene chloride	105345

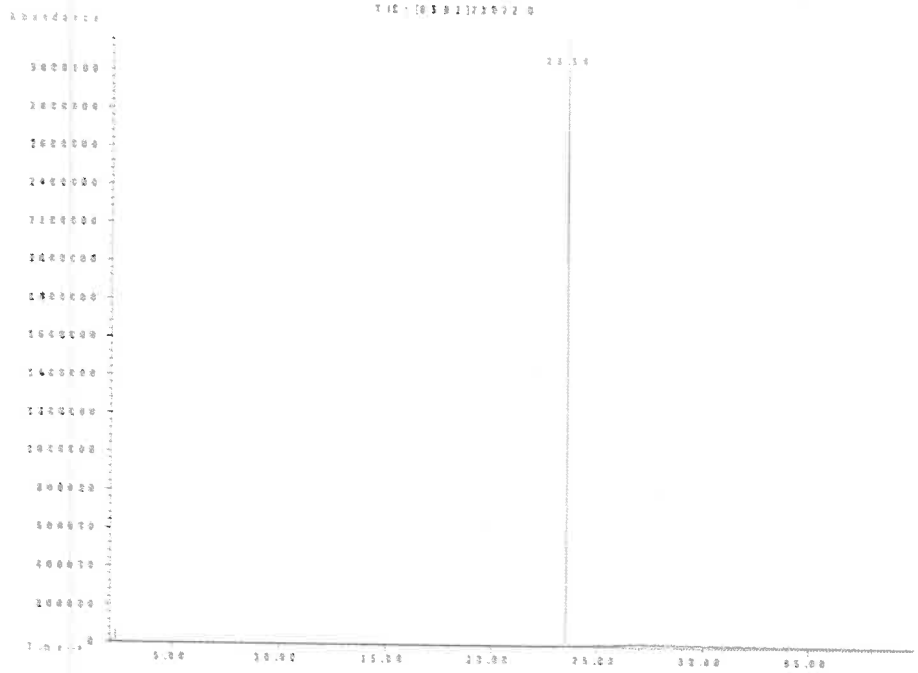
P13477 → P13496 } X.P. 07/24/24

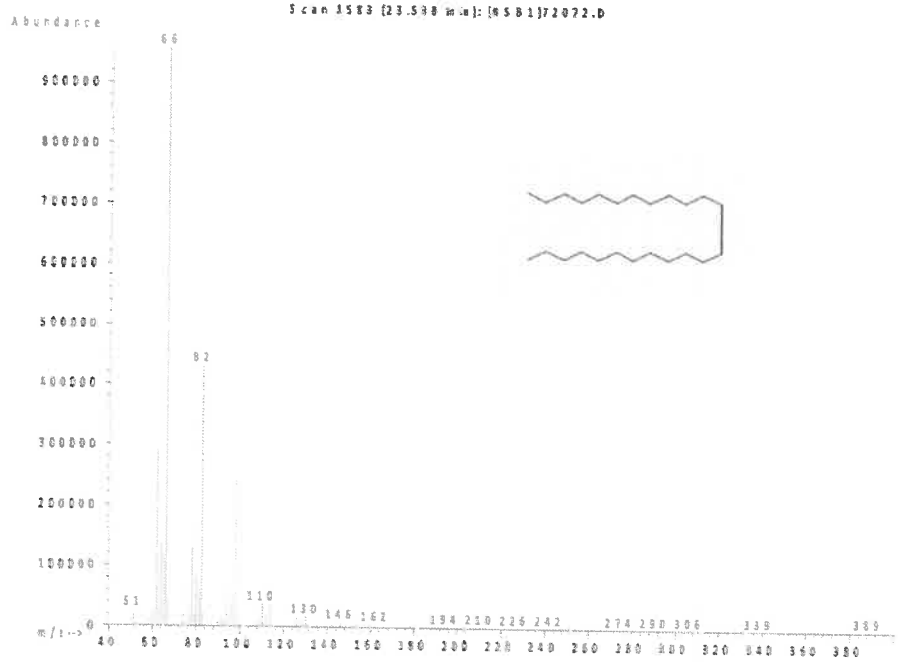
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	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. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





- 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).

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within +/- 0.5% of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: U_{CRM} is the expanded uncertainty which utilizes a K = 2 (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

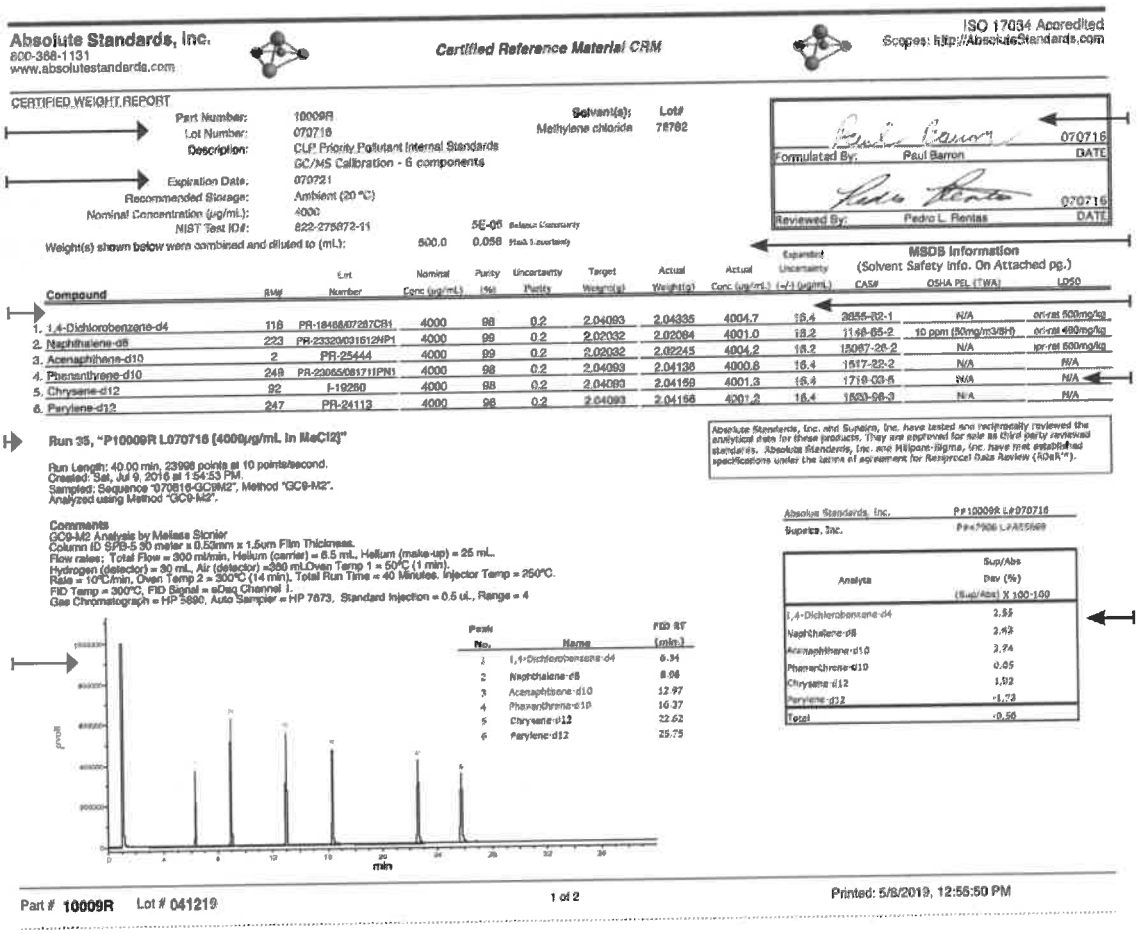
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

Each Certified Reference Material (CRM) is supported by a Certified Weight Report. Assigned values for concentrations and associated uncertainties are based upon NIST traceable masses & volumes used in production.



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards GC/MS Calibration - 6 components

Solvent(s): Methylene chloride
Lot#: 78782

Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11

Weight(s) shown below were combined and diluted to (mL): 500.0

Formulated By: Paul Barron 070716 DATE
Reviewed By: Pedro L. Reinas 070716 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)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-233230/31612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	or-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-230650/31711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Run 35, "P10009R L070716 (4000µg/mL in MeC12)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =300 mL.Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.06
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. P# 10009R L# 070716
Supelco, Inc. P# [illegible] L# [illegible]

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	3.74
Phenanthrene-d10	0.05
Chrysene-d12	1.02
Perylene-d12	-1.73
Total	-0.56

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # / Shelf Life

Target Compounds

Method of Analysis

Qualitative Quantitative

Formulator Reviewer

Actual Concentration

Uncertainty Values

Health & Safety

3rd Party Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 72072
Lot Number: 101122
Description: n-Tetracosane-d50

Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s):	Lot#
Methylene chloride	105345

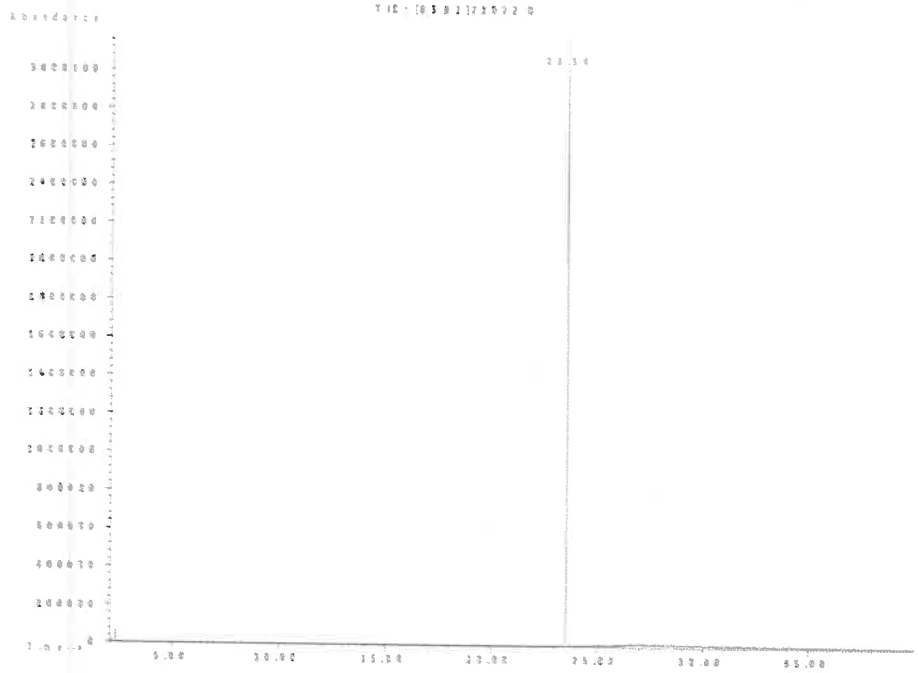
P13477 → P13496 } X.P. 07/24/24

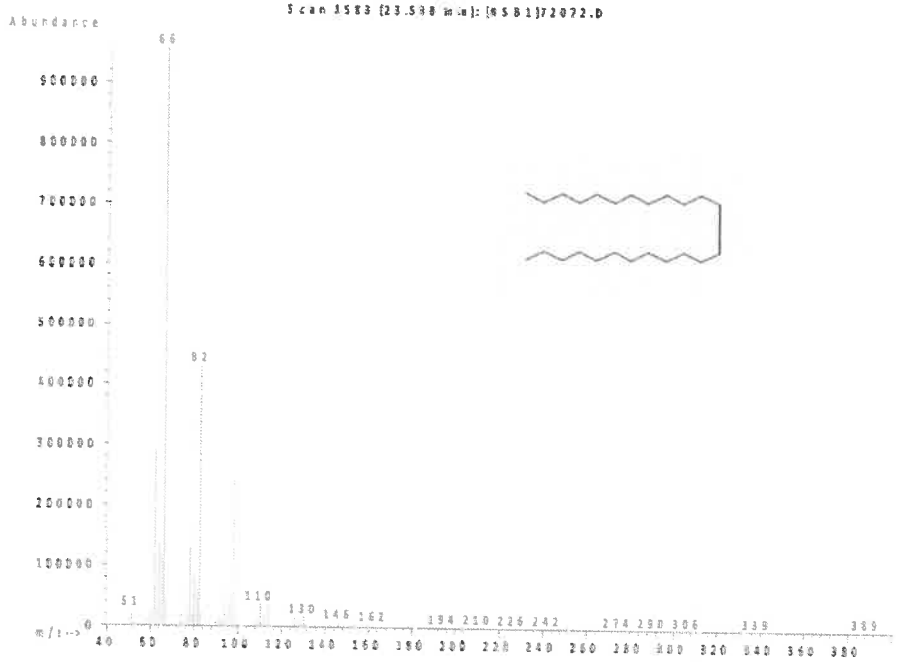
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	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. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





- 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).

ABSOLUTE STANDARDS, INC.

ISO - 17034

Certificate of Analysis

Certified Reference Material (CRM)

Conformance: The "Certificate of Analysis" is applicable for CRM's, fulfilling the requirements in the current version of: ISO 17034.

Health & Safety: See the attached SDS & Certified Weight Report before use.

Intended Use: This Certified Reference Material (CRM) is intended primarily for use in the characterization of unknowns and the establishment of analyzer or instrument response factors by qualified personnel. Typical instrumental organic assays include: GC & LC, and inorganic assays include: ICP & AA. This product is for laboratory use only.

Characterization Values: In production, gravimetric/volumetric readings are certified to be within +/- 0.5% of the stated value & are valid between 18 °C & 30 °C. The measured characterization of uncertainty can be found on the Certified Weight Report. All product weighings are performed on an analytical balance that is calibrated to NIST Traceable standard weights & certified by the manufacturer. The volumetric glassware used is Class "A" type & conforms to ASTM E-288 unless otherwise stated. The solvents & compounds used are of the highest practical purity & typically meet or exceed ACS Reagent Grade & ACS Standards Grade specifications. The expanded uncertainty field on Certified Wt. Report represents CRM uncertainty as described in ISO 17034.

Homogeneity: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Verification: Uncertainties that are due to the analytical procedure(s) are within +/-5% unless specifically stated on the Certified Wt. Report.

Stability: Uncertainties for short-term stability are determined in accordance with ISO 17034. Long-term stability is determined in accordance with ISO 17034. The shelf life is limited by the stated expiration for each product. Expiration dates and additional technical information can be found on the Certified Weight Report and on the product label.

Uncertainty: U_{CRM} is the expanded uncertainty which utilizes a K = 2 (coverage factor of 2), in accordance with ISO 17034 as listed above (Characterization, Homogeneity, Verification, and Stability).

Purity & Identity: Organic solutions are typically formulated from neat materials whose purity & identity have been characterized by GC-MSD & LC-PDA techniques with comparison to a NIST Traceable library of mass spectra when available. Additional characterization techniques may include but are not limited to: refractive index measurements of liquids, melting point measurements of solids, & GC-FID, ECD, PID, ELCD, LC-PDA measurements for purity. Inorganic solutions & neats are typically formulated from materials whose purity & identity have been characterized by ICPMS with comparison to a NIST SRM® when available. Additional characterization techniques may include but are not limited to: titrimetry, and densitometry.

Storage: Sealed ampules and other containers should be stored in the dark and at temperatures indicated on the Certified Weight Report or product label. Certification by Absolute Standards, Inc. is typically valid for 3 years from the date of manufacture. Each product will show its own expiration date as the limit of certification. Certified values are not applicable to opened ampules or for any materials stored in re-sealable containers. Please see the "Certified Weight Report" for specific values and any exceptions.

Usage: Ampules & bottles should be brought to room temperature (18 to 30 °C) before opening. Sonication may be required for high concentration solutions or solutions that may precipitate during storage. After opening, care should be exercised to avoid concentration changes owing to evaporation of the solvent or essential components. We recommend that a suitable re-sealable container be available before opening an ampule to decant the standard for short-term storage and use.

Minimum Sample Size: 0.5 uL for analytical applications.

Legal Notice: Warranty of products are as described when shipped. No warranty as to fitness for any particular application is expressed or implied. Errant shipments and/or quality claims must be made within 10 days of receipt. Liability is limited solely to the replacement of the product or refund of purchase price.

Certifying Officer: Stephen J. Arpie, M.S., Director General

Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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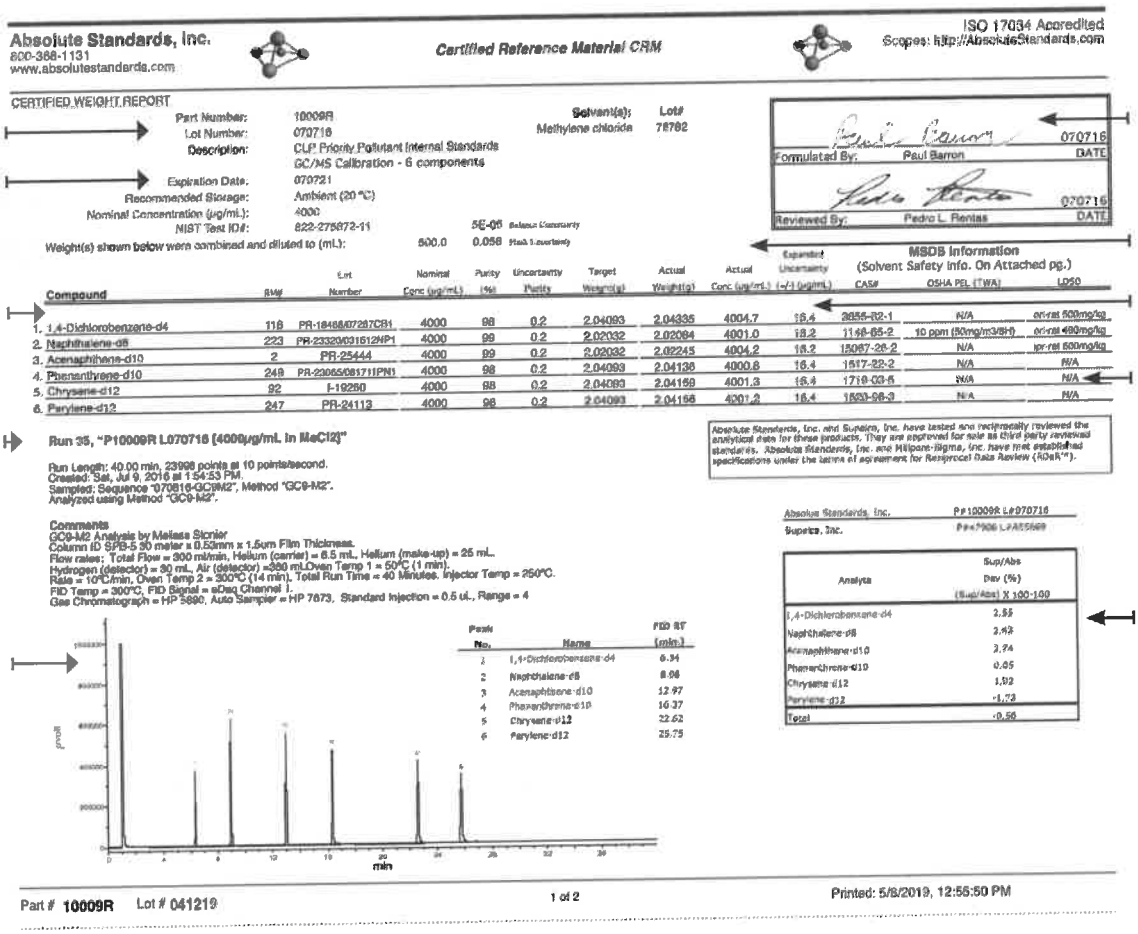

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Certified Reference Material CRM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards GC/MS Calibration - 6 components

Solvent(s): Methylene chloride
Lot#: 78782

Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11

Formulated By: Paul Barron DATE 070716
Reviewed By: Pedro L. Reinas DATE 070716

Weight(s) shown below were combined and diluted to (mL): 500.0 | 5E-05 Balance Uncertainty | 0.058 Flask Uncertainty

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)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-18488/07267CB1	4000	98	0.2	2.04093	2.04335	4004.7	16.4	3855-82-1	N/A	orl-rat 500mg/kg
2. Naphthalene-d8	223	PR-233230/31612NP1	4000	99	0.2	2.02032	2.02064	4001.0	16.2	1146-65-2	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	16.2	15067-26-2	N/A	ipr-rat 500mg/kg
4. Phenanthrene-d10	248	PR-230650/31711PN1	4000	98	0.2	2.04093	2.04136	4000.8	16.4	1517-22-2	N/A	N/A
5. Chrysene-d12	92	I-19250	4000	98	0.2	2.04093	2.04159	4001.3	16.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	96	0.2	2.04093	2.04156	4001.2	16.4	1520-96-3	N/A	N/A

Run 35, "P10009R L070716 (4000µg/mL in MeC12)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070816-GC9M2", Method "GC9-M2".
Analyzed using Method "GC9-M2".

Comments
GC9-M2 Analysis by Melissa Sicnier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =300 mL.Oven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4

Peak No.	Name	FID RT (min.)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.06
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

Absolute Standards, Inc. and Supelco, Inc. have tested and reciprocally reviewed the analytical data for these products. They are approved for sale as third party reviewed standards. Absolute Standards, Inc. and Millipore-Sigma, Inc. have met established specifications under the terms of agreement for Reciprocal Data Review (RDaR™).

Absolute Standards, Inc. P# 10009R L# 070716
Supelco, Inc. P# [illegible] L# [illegible]

Analyte	Sup/Abs Dev (%) (Sup/Abs) X 100-100
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	3.74
Phenanthrene-d10	0.05
Chrysene-d12	1.02
Perylene-d12	-1.73
Total	-0.56

Part # 10009R Lot # 041219 1 of 2 Printed: 5/8/2019, 12:55:50 PM

Part # / Lot # / Shelf Life

Target Compounds

Method of Analysis

Qualitative Quantitative

Formulator Reviewer

Actual Concentration

Uncertainty Values

Health & Safety

3rd Party Comparison

For More Information, Contact:

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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 72072
Lot Number: 101122
Description: n-Tetracosane-d50

Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UTB

Solvent(s):	Lot#
Methylene chloride	105345

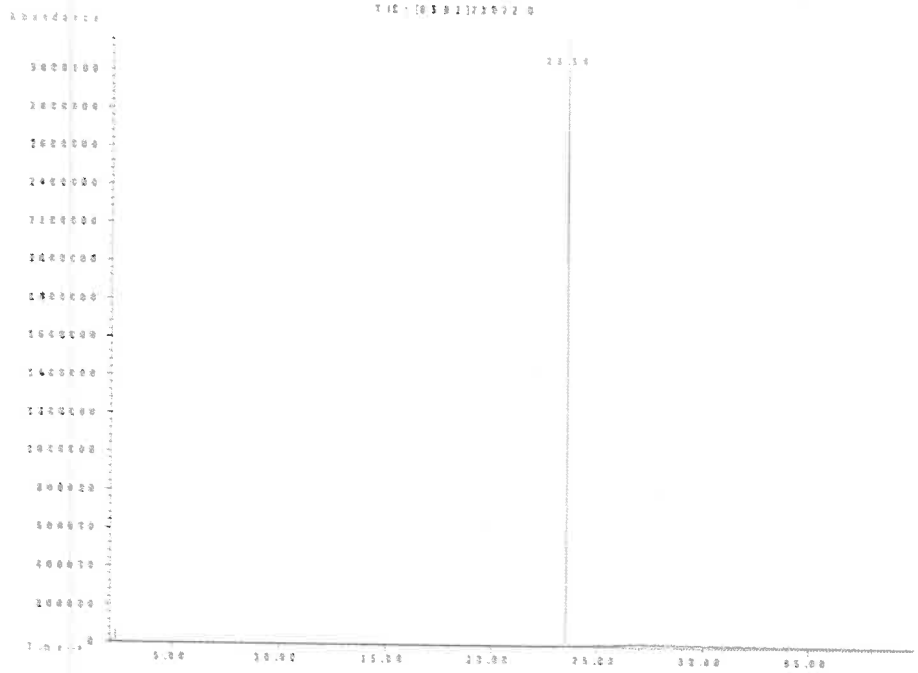
P13477 → P13496 } X.P. 07/24/24

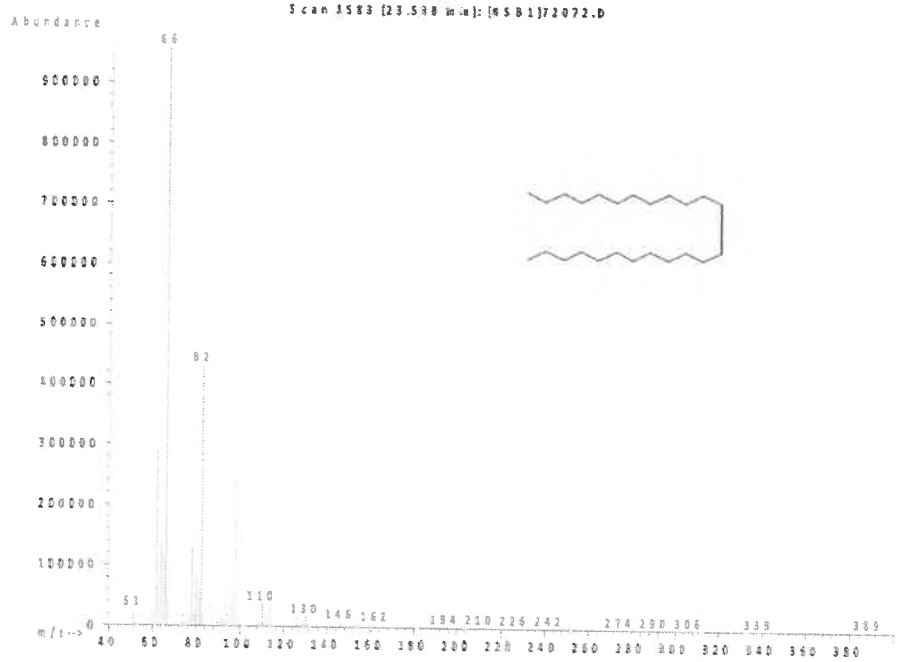
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 200.0 0.058 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Assay (%D)	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. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A	N/A

Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.





- 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).

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015760.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 17:57
Operator : YP\AJ
Sample : Q1739-01 50X
Misc :
ALS Vial : 74 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
WC-LIQUID-20250404

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

Integration File: autoint1.e
Quant Time: Apr 09 01:17:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

	Compound	R.T.	Response	Conc Units
System Monitoring Compounds				
9) S	TETRACOSANE-d50 (SURR...	15.047	2377060	21.692 ug/mlm
Target Compounds				

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF040825\
Data File : FF015760.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 17:57
Operator : YP\AJ
Sample : Q1739-01 50X
Misc :
ALS Vial : 74 Sample Multiplier: 1

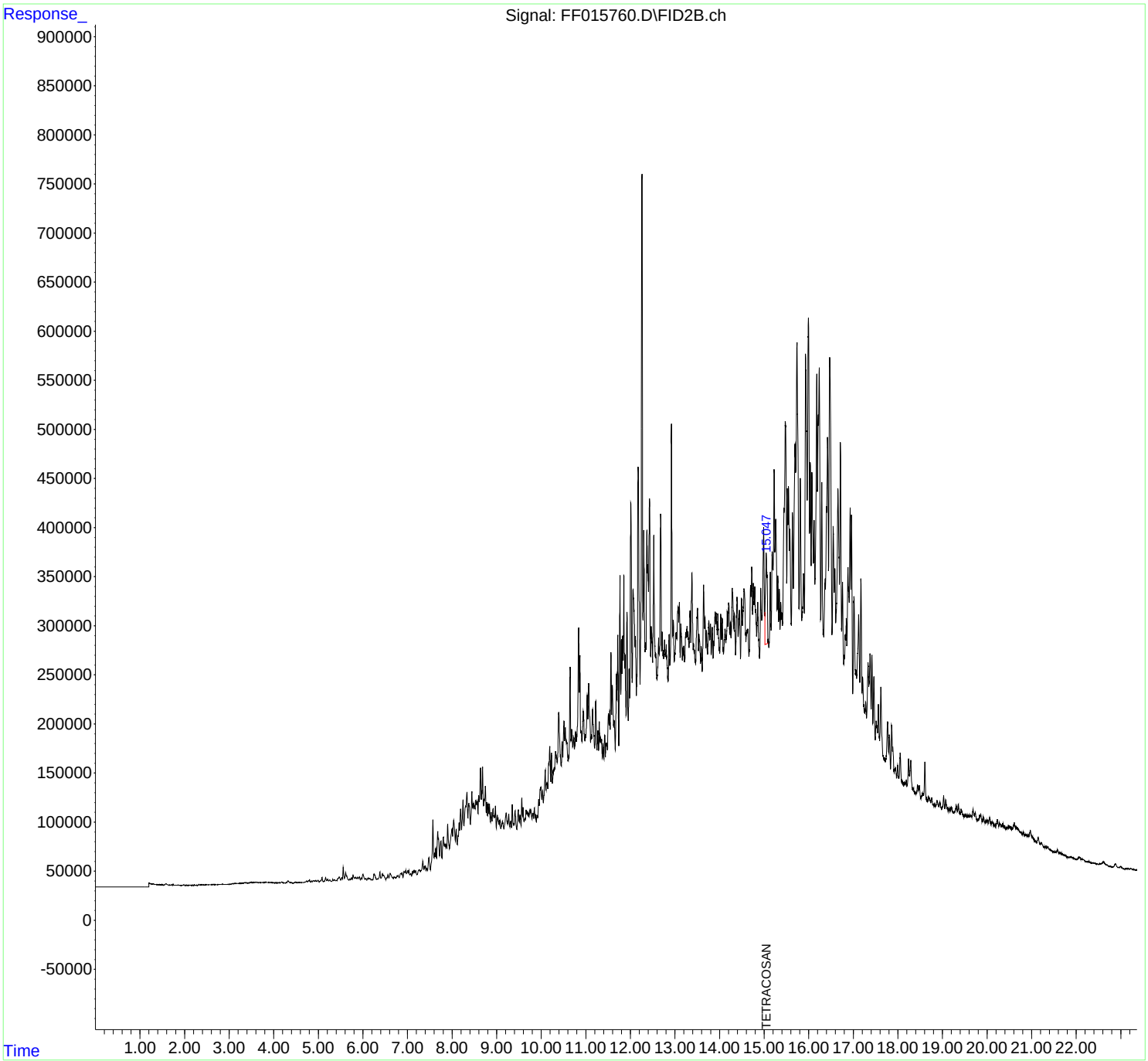
Integration File: autoint1.e
Quant Time: Apr 09 01:17:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Quant Title :
QLast Update : Wed Mar 26 13:03:21 2025
Response via : Initial Calibration
Integrator: ChemStation

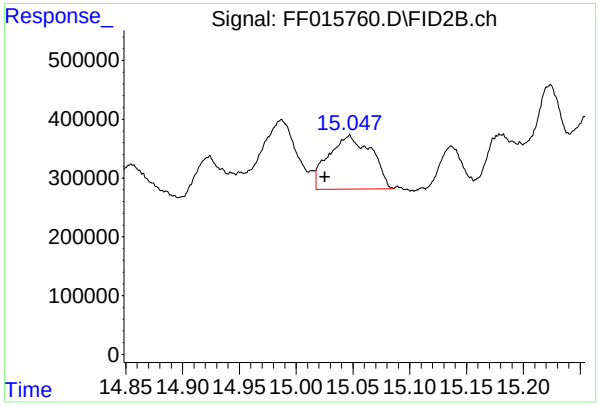
Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Instrument :
FID_F
ClientSampleId :
WC-LIQUID-20250404

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.047 min
Delta R.T.: 0.022 mi
Response: 2377060
Conc: 21.69 ug/m

Instrument :
FID_F
ClientSampleId :
WC-LIQUID-20250404

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

Instrument :
FID_F
ClientSampleId :
WC-LIQUID-20250404

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF04082
Data File : FF015760.D
Signal(s) : FID2B.ch
Acq On : 08 Apr 2025 17:57
Sample : Q1739-01 50X
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF032625.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.044	2.024	2.049	BV	119	359	0.00%	0.000%
2	2.055	2.049	2.067	PV	156	941	0.00%	0.000%
3	2.075	2.067	2.086	VV	144	1037	0.00%	0.000%
4	2.090	2.086	2.094	VV	101	399	0.00%	0.000%
5	2.121	2.094	2.133	VV	332	4360	0.02%	0.000%
6	2.137	2.133	2.155	VV	255	2146	0.01%	0.000%
7	2.162	2.155	2.189	VV	177	2117	0.01%	0.000%
8	2.221	2.189	2.270	VV	386	10161	0.05%	0.001%
9	2.320	2.270	2.352	PV	807	16979	0.08%	0.001%
10	2.378	2.352	2.397	VV	655	12394	0.06%	0.001%
11	2.409	2.397	2.455	VV	555	14248	0.07%	0.001%
12	2.506	2.455	2.529	VV	475	15793	0.08%	0.001%
13	2.532	2.529	2.538	VV	336	1797	0.01%	0.000%
14	2.545	2.538	2.551	VV	431	2693	0.01%	0.000%
15	2.599	2.551	2.615	VV	447	13103	0.06%	0.001%
16	2.623	2.615	2.635	VV	446	4850	0.02%	0.000%
17	2.644	2.635	2.649	VV	497	4035	0.02%	0.000%
18	2.652	2.649	2.664	VV	537	3510	0.02%	0.000%
19	2.687	2.664	2.707	VV	429	7912	0.04%	0.001%
20	2.710	2.707	2.718	VV	303	1787	0.01%	0.000%
21	2.722	2.718	2.731	VV	281	1865	0.01%	0.000%
22	2.748	2.731	2.752	VV	323	3147	0.01%	0.000%
23	2.785	2.752	2.805	VV	477	12372	0.06%	0.001%
24	2.808	2.805	2.825	VV	402	4095	0.02%	0.000%
25	2.843	2.825	2.847	VV	421	4786	0.02%	0.000%
26	2.860	2.847	2.866	VV	384	4061	0.02%	0.000%
27	2.873	2.866	2.884	VV	390	3399	0.02%	0.000%
28	2.887	2.884	2.916	VV	281	5025	0.02%	0.000%
29	2.922	2.916	2.927	VV	262	1472	0.01%	0.000%
30	2.970	2.927	2.982	VV	322	8356	0.04%	0.001%
31	2.989	2.982	3.011	VV	358	5364	0.03%	0.000%
32	3.044	3.011	3.049	VV	580	8536	0.04%	0.001%
33	3.083	3.049	3.101	VV	1017	26305	0.13%	0.002%
34	3.110	3.101	3.114	VV	949	7023	0.03%	0.001%
35	3.136	3.114	3.159	VV	1129	26980	0.13%	0.002%
36	3.167	3.159	3.185	VV	1114	16569	0.08%	0.001%

Instrument :
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ClientSampleId :
WC-LIQUID-20250404

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

					rteres			
37	3.190	3.185	3.210	VV	1036	14979	0.07%	0.001%
38	3.245	3.210	3.257	VV	1165	29710		
39	3.263	3.257	3.275	VV	1045	11226		
40	3.297	3.275	3.315	VV	1263	26530		
41	3.341	3.315	3.376	VV	1567	50076		
42	3.385	3.376	3.411	VV	1407	26801		
43	3.425	3.411	3.449	VV	1367	28685	0.14%	0.002%
44	3.481	3.449	3.494	VV	1851	42780	0.20%	0.003%
45	3.505	3.494	3.538	VV	1752	43109	0.21%	0.003%
46	3.553	3.538	3.570	VV	1798	31573	0.15%	0.002%
47	3.573	3.570	3.577	VV	1544	6161	0.03%	0.000%
48	3.591	3.577	3.602	VV	1836	25993	0.12%	0.002%
49	3.606	3.602	3.647	VV	1820	43566	0.21%	0.003%
50	3.654	3.647	3.661	VV	1451	12041	0.06%	0.001%
51	3.669	3.661	3.700	VV	1524	32105	0.15%	0.002%
52	3.734	3.700	3.738	VV	1428	30345	0.14%	0.002%
53	3.744	3.738	3.750	VV	1367	9844	0.05%	0.001%
54	3.755	3.750	3.782	VV	1405	25192	0.12%	0.002%
55	3.796	3.782	3.816	VV	1419	26108	0.12%	0.002%
56	3.829	3.816	3.852	VV	1657	30614	0.15%	0.002%
57	3.896	3.852	3.942	VV	1500	66347	0.32%	0.005%
58	3.947	3.942	3.960	VV	993	10065	0.05%	0.001%
59	3.968	3.960	4.003	VV	1026	21174	0.10%	0.002%
60	4.043	4.003	4.077	VV	843	29385	0.14%	0.002%
61	4.083	4.077	4.090	VV	626	4468	0.02%	0.000%
62	4.094	4.090	4.100	VV	606	3272	0.02%	0.000%
63	4.111	4.100	4.121	VV	602	7014	0.03%	0.001%
64	4.132	4.121	4.142	VV	670	7397	0.04%	0.001%
65	4.171	4.142	4.246	VV	1390	45340	0.22%	0.003%
66	4.288	4.246	4.296	VV	1009	16546	0.08%	0.001%
67	4.328	4.296	4.368	VV	2325	65441	0.31%	0.005%
68	4.379	4.368	4.430	VV	724	15817	0.08%	0.001%
69	4.486	4.430	4.509	PV	770	18399	0.09%	0.001%
70	4.518	4.509	4.524	VV	416	3178	0.02%	0.000%
71	4.528	4.524	4.541	VV	436	3538	0.02%	0.000%
72	4.558	4.541	4.562	VV	386	3599	0.02%	0.000%
73	4.566	4.562	4.584	VV	340	3596	0.02%	0.000%
74	4.614	4.584	4.632	VV	493	9651	0.05%	0.001%
75	4.641	4.632	4.656	VV	396	4337	0.02%	0.000%
76	4.665	4.656	4.677	VV	369	4229	0.02%	0.000%
77	4.694	4.677	4.705	VV	817	9913	0.05%	0.001%
78	4.738	4.705	4.757	VV	1904	36269	0.17%	0.003%
79	4.777	4.757	4.788	VV	2065	30055	0.14%	0.002%
80	4.806	4.788	4.836	VV	2682	47543	0.23%	0.004%
81	4.854	4.836	4.867	VV	1554	22228	0.11%	0.002%
82	4.896	4.867	4.915	VV	2029	46273	0.22%	0.003%
83	4.932	4.915	4.973	VV	1992	51760	0.25%	0.004%
84	4.990	4.973	5.020	VV	2281	43656	0.21%	0.003%
85	5.084	5.020	5.112	VV	5076	108619	0.52%	0.008%
86	5.126	5.112	5.137	VV	1311	16481	0.08%	0.001%
87	5.165	5.137	5.189	VV	4788	85626	0.41%	0.006%
88	5.210	5.189	5.233	VV	3112	53579	0.26%	0.004%
89	5.258	5.233	5.299	VV	2407	57034	0.27%	0.004%

Instrument :
FID_F
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WC-LIQUID-20250404

Manual IntegrationsAPPROVED

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rteres

90	5.327	5.299	5.342	VV	2698	40204	0.19%	0.003%
91	5.366	5.342	5.394	VV	2608	53960		
92	5.409	5.394	5.418	VV	1634	20302		
93	5.436	5.418	5.442	VV	3233	36124		
94	5.471	5.442	5.503	VV	5174	135009		
95	5.526	5.503	5.540	VV	4264	69081		
96	5.559	5.540	5.587	VV	14600	216174	1.03%	0.016%
97	5.615	5.587	5.689	VV	9134	284014	1.35%	0.021%
98	5.706	5.689	5.718	VV	2813	37511	0.18%	0.003%
99	5.747	5.718	5.763	VV	4108	78050	0.37%	0.006%
100	5.781	5.763	5.814	VV	6488	131125	0.62%	0.010%
101	5.832	5.814	5.850	VV	4415	82375	0.39%	0.006%
102	5.872	5.850	5.891	VV	4069	81659	0.39%	0.006%
103	5.922	5.891	5.943	VV	4487	104832	0.50%	0.008%
104	5.962	5.943	5.979	VV	3408	53761	0.26%	0.004%
105	5.999	5.979	6.047	VV	7208	182529	0.87%	0.014%
106	6.065	6.047	6.088	VV	2991	51177	0.24%	0.004%
107	6.104	6.088	6.110	VV	2195	23340	0.11%	0.002%
108	6.126	6.110	6.142	VV	3155	50772	0.24%	0.004%
109	6.155	6.142	6.182	VV	2799	50735	0.24%	0.004%
110	6.197	6.182	6.214	VV	1738	25009	0.12%	0.002%
111	6.218	6.214	6.223	VV	1012	5552	0.03%	0.000%
112	6.249	6.223	6.260	VV	7304	98696	0.47%	0.007%
113	6.267	6.260	6.311	VV	6270	112992	0.54%	0.008%
114	6.324	6.311	6.337	VV	2046	28038	0.13%	0.002%
115	6.382	6.337	6.407	VV	8950	173186	0.82%	0.013%
116	6.439	6.407	6.455	VV	7240	139812	0.67%	0.011%
117	6.468	6.455	6.516	VV	5733	135381	0.64%	0.010%
118	6.563	6.516	6.585	VV	5927	136122	0.65%	0.010%
119	6.613	6.585	6.682	VV	7195	257561	1.23%	0.019%
120	6.698	6.682	6.734	VV	3639	87482	0.42%	0.007%
121	6.767	6.734	6.773	VV	4237	72498	0.35%	0.005%
122	6.788	6.773	6.817	VV	4920	102870	0.49%	0.008%
123	6.860	6.817	6.872	VV	7040	187470	0.89%	0.014%
124	6.883	6.872	6.901	VV	7003	90839	0.43%	0.007%
125	6.924	6.901	6.947	VV	8950	192313	0.92%	0.014%
126	6.963	6.947	6.981	VV	9669	168380	0.80%	0.013%
127	7.006	6.981	7.019	VV	9403	186374	0.89%	0.014%
128	7.032	7.019	7.050	VV	9633	142558	0.68%	0.011%
129	7.076	7.050	7.094	VV	6753	145838	0.69%	0.011%
130	7.116	7.094	7.130	VV	8837	145761	0.69%	0.011%
131	7.150	7.130	7.165	VV	9804	178089	0.85%	0.013%
132	7.183	7.165	7.212	VV	9296	210754	1.00%	0.016%
133	7.262	7.212	7.290	VV	10004	383145	1.82%	0.029%
134	7.303	7.290	7.310	VV	9353	106073	0.51%	0.008%
135	7.346	7.310	7.364	VV	18796	442670	2.11%	0.033%
136	7.377	7.364	7.388	VV	13475	175665	0.84%	0.013%
137	7.404	7.388	7.422	VV	13798	241158	1.15%	0.018%
138	7.434	7.422	7.452	VV	11454	187110	0.89%	0.014%
139	7.480	7.452	7.516	VV	22134	600306	2.86%	0.045%
140	7.572	7.516	7.597	VV	60831	1379505	6.57%	0.104%
141	7.609	7.597	7.621	VV	26795	351584	1.67%	0.026%

Instrument :
FID_F
ClientSampleId :
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Manual IntegrationsAPPROVED

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rteres

142	7.635	7.621	7.652	VV	31527	493859	2.35%	0.037%
143	7.680	7.652	7.694	VV	48500	937947	4	
144	7.699	7.694	7.722	VV	40825	562474	2	
145	7.751	7.722	7.774	VV	38703	964278	4	
146	7.805	7.774	7.835	VV	42761	1252133	5	
147	7.845	7.835	7.860	VV	35485	519365	2	
148	7.871	7.860	7.884	VV	34953	470066	2.24%	0.035%
149	7.903	7.884	7.945	VV	55832	1478147	7.04%	0.111%
150	7.999	7.945	8.014	VV	50932	1760026	8.38%	0.132%
151	8.038	8.014	8.074	VV	59584	1834457	8.73%	0.138%
152	8.094	8.074	8.117	VV	50146	1106017	5.27%	0.083%
153	8.138	8.117	8.142	VV	43737	598156	2.85%	0.045%
154	8.159	8.142	8.170	VV	57073	849357	4.04%	0.064%
155	8.194	8.170	8.214	VV	71121	1581671	7.53%	0.119%
156	8.247	8.214	8.267	VV	80130	2016892	9.60%	0.152%
157	8.302	8.267	8.308	VV	73495	1611102	7.67%	0.121%
158	8.336	8.308	8.355	VV	87745	2192925	10.44%	0.165%
159	8.377	8.355	8.412	VV	76273	2371781	11.29%	0.178%
160	8.446	8.412	8.472	VV	88294	2553271	12.16%	0.192%
161	8.488	8.472	8.518	VV	76436	2033072	9.68%	0.153%
162	8.532	8.518	8.544	VV	79460	1206704	5.75%	0.091%
163	8.568	8.544	8.582	VV	78197	1711885	8.15%	0.129%
164	8.600	8.582	8.613	VV	84052	1402642	6.68%	0.105%
165	8.640	8.613	8.656	VV	112215	2448661	11.66%	0.184%
166	8.686	8.656	8.706	VV	113181	2744782	13.07%	0.206%
167	8.728	8.706	8.733	VV	80633	1225229	5.83%	0.092%
168	8.748	8.733	8.768	VV	93563	1758507	8.37%	0.132%
169	8.780	8.768	8.793	VV	76807	1072189	5.11%	0.081%
170	8.811	8.793	8.827	VV	74976	1396245	6.65%	0.105%
171	8.841	8.827	8.861	VV	75273	1397559	6.65%	0.105%
172	8.879	8.861	8.898	VV	66647	1345871	6.41%	0.101%
173	8.919	8.898	8.946	VV	70109	1850970	8.81%	0.139%
174	8.974	8.946	8.994	VV	72834	1824655	8.69%	0.137%
175	9.015	8.994	9.056	VV	63424	2144671	10.21%	0.161%
176	9.072	9.056	9.095	VV	58589	1305542	6.22%	0.098%
177	9.132	9.095	9.162	VV	57327	2149786	10.24%	0.161%
178	9.218	9.162	9.240	VV	65544	2705325	12.88%	0.203%
179	9.251	9.240	9.259	VV	57362	619109	2.95%	0.047%
180	9.274	9.259	9.295	VV	64425	1282033	6.10%	0.096%
181	9.315	9.295	9.332	VV	56755	1188036	5.66%	0.089%
182	9.352	9.332	9.376	VV	74160	1629276	7.76%	0.122%
183	9.385	9.376	9.394	VV	54412	555891	2.65%	0.042%
184	9.415	9.394	9.453	VV	67656	2056054	9.79%	0.154%
185	9.487	9.453	9.504	VV	68461	1824345	8.69%	0.137%
186	9.524	9.504	9.548	VV	62935	1543558	7.35%	0.116%
187	9.566	9.548	9.581	VV	80236	1336587	6.36%	0.100%
188	9.594	9.581	9.615	VV	70794	1294490	6.16%	0.097%
189	9.633	9.615	9.643	VV	59558	1002399	4.77%	0.075%
190	9.662	9.643	9.680	VV	67998	1427319	6.80%	0.107%
191	9.690	9.680	9.704	VV	64957	896712	4.27%	0.067%
192	9.714	9.704	9.726	VV	64623	850229	4.05%	0.064%
193	9.752	9.726	9.793	VV	68579	2593593	12.35%	0.195%
194	9.814	9.793	9.831	VV	64423	1411327	6.72%	0.106%

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195	9.847	9.831	9.865	VV	69389	1336907	6.37%	0.100%
196	9.873	9.865	9.892	VV	63115	985218		
197	9.907	9.892	9.923	VV	62281	1121246		
198	9.945	9.923	9.958	VV	78396	1487879		
199	9.987	9.958	10.016	VV	90488	2930732		
200	10.033	10.016	10.050	VV	87303	1661558		
201	10.092	10.050	10.108	VV	107730	3207256	15.27%	0.241%
202	10.123	10.108	10.148	VV	94502	2184753	10.40%	0.164%
203	10.169	10.148	10.175	VV	115539	1719554	8.19%	0.129%
204	10.193	10.175	10.214	VV	131620	2759689	13.14%	0.207%
205	10.231	10.214	10.251	VV	125302	2394918	11.40%	0.180%
206	10.276	10.251	10.282	VV	108165	1960676	9.34%	0.147%
207	10.324	10.282	10.360	VV	126975	5419261	25.80%	0.407%
208	10.392	10.360	10.446	VV	166807	7016479	33.41%	0.527%
209	10.471	10.446	10.484	VV	136106	2869345	13.66%	0.216%
210	10.511	10.484	10.526	VV	157431	3584663	17.07%	0.269%
211	10.539	10.526	10.601	VV	150400	6060956	28.86%	0.455%
212	10.616	10.601	10.621	VV	121443	1474359	7.02%	0.111%
213	10.649	10.621	10.671	VV	211585	4722918	22.49%	0.355%
214	10.685	10.671	10.709	VV	148720	3247047	15.46%	0.244%
215	10.732	10.709	10.746	VV	140547	2998747	14.28%	0.225%
216	10.771	10.746	10.789	VV	146054	3587328	17.08%	0.269%
217	10.840	10.789	10.855	VV	252007	7111255	33.86%	0.534%
218	10.868	10.855	10.889	VV	223375	3857247	18.37%	0.290%
219	10.895	10.889	10.914	VV	146853	2150058	10.24%	0.162%
220	10.945	10.914	10.982	VV	167011	6178117	29.42%	0.464%
221	10.993	10.982	11.003	VV	143052	1783068	8.49%	0.134%
222	11.032	11.003	11.047	VV	182411	4255961	20.26%	0.320%
223	11.063	11.047	11.111	VV	194893	6385093	30.40%	0.480%
224	11.125	11.111	11.132	VV	142739	1802505	8.58%	0.135%
225	11.152	11.132	11.200	VV	168129	6041803	28.77%	0.454%
226	11.222	11.200	11.253	VV	176961	4745086	22.59%	0.356%
227	11.273	11.253	11.287	VV	146259	2820486	13.43%	0.212%
228	11.304	11.287	11.318	VV	156039	2633452	12.54%	0.198%
229	11.330	11.318	11.342	VV	139461	2009508	9.57%	0.151%
230	11.350	11.342	11.371	VV	137929	2236902	10.65%	0.168%
231	11.387	11.371	11.407	VV	133537	2756766	13.13%	0.207%
232	11.425	11.407	11.440	VV	141005	2549957	12.14%	0.192%
233	11.468	11.440	11.485	VV	133846	3554009	16.92%	0.267%
234	11.507	11.485	11.524	VV	163585	3432602	16.34%	0.258%
235	11.537	11.524	11.548	VV	166403	2310288	11.00%	0.174%
236	11.564	11.548	11.580	VV	225659	3640504	17.33%	0.273%
237	11.594	11.580	11.627	VV	191827	4781033	22.76%	0.359%
238	11.637	11.627	11.660	VV	156074	2926616	13.93%	0.220%
239	11.688	11.660	11.700	VV	203580	3984649	18.97%	0.299%
240	11.718	11.700	11.740	VV	243633	4704130	22.40%	0.353%
241	11.766	11.740	11.785	VV	303817	5917797	28.18%	0.445%
242	11.800	11.785	11.813	VV	238513	3745298	17.83%	0.281%
243	11.827	11.813	11.837	VV	242160	3157970	15.04%	0.237%
244	11.853	11.837	11.871	VV	304163	5220850	24.86%	0.392%
245	11.882	11.871	11.903	VV	221096	3862884	18.39%	0.290%
246	11.924	11.903	11.951	VV	266451	5869898	27.95%	0.441%

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247	11.972	11.951	11.986	VV	208880	3868843	18.42%	0.291%
248	12.010	11.986	12.040	VV	377269	8796224	41	
249	12.061	12.040	12.103	VV	288957	9871584	47	
250	12.111	12.103	12.134	VV	241747	3988950	18	
251	12.174	12.134	12.216	VV	413883	13584481	64	
252	12.260	12.216	12.283	VV	709626	15766749	75	
253	12.301	12.283	12.334	VV	349083	8477165	40.36%	0.637%
254	12.342	12.334	12.351	VV	234698	2323522	11.06%	0.175%
255	12.371	12.351	12.382	VV	349164	5717888	27.23%	0.430%
256	12.389	12.382	12.402	VV	314004	3662670	17.44%	0.275%
257	12.429	12.402	12.453	VV	380582	9569476	45.56%	0.719%
258	12.468	12.453	12.475	VV	250853	3097351	14.75%	0.233%
259	12.478	12.475	12.499	VV	244726	3350187	15.95%	0.252%
260	12.526	12.499	12.563	VV	344304	10178160	48.46%	0.765%
261	12.569	12.563	12.598	VV	223860	4404135	20.97%	0.331%
262	12.631	12.598	12.649	VV	238556	6633496	31.58%	0.498%
263	12.679	12.649	12.701	VV	365595	8746966	41.65%	0.657%
264	12.712	12.701	12.731	VV	244989	4193954	19.97%	0.315%
265	12.737	12.731	12.745	VV	226486	1960330	9.33%	0.147%
266	12.764	12.745	12.789	VV	237195	5873636	27.97%	0.441%
267	12.803	12.789	12.846	VV	231876	7365225	35.07%	0.553%
268	12.869	12.846	12.884	VV	242582	5088828	24.23%	0.382%
269	12.921	12.884	12.952	VV	454745	11885407	56.59%	0.893%
270	12.963	12.952	12.987	VV	256803	5070521	24.14%	0.381%
271	13.024	12.987	13.042	VV	244801	7656749	36.46%	0.575%
272	13.073	13.042	13.085	VV	270614	6756296	32.17%	0.508%
273	13.097	13.085	13.116	VV	275129	4721335	22.48%	0.355%
274	13.131	13.116	13.163	VV	253103	6631577	31.58%	0.498%
275	13.178	13.163	13.185	VV	227640	3026607	14.41%	0.227%
276	13.194	13.185	13.216	VV	229153	4091057	19.48%	0.307%
277	13.244	13.216	13.249	VV	243159	4594295	21.88%	0.345%
278	13.270	13.249	13.284	VV	250960	5137309	24.46%	0.386%
279	13.292	13.284	13.313	VV	244812	4186869	19.94%	0.315%
280	13.338	13.313	13.355	VV	266334	6112376	29.10%	0.459%
281	13.379	13.355	13.407	VV	304961	8393073	39.96%	0.630%
282	13.419	13.407	13.459	VV	231947	6991073	33.29%	0.525%
283	13.506	13.459	13.527	VV	267723	9874836	47.02%	0.742%
284	13.539	13.527	13.571	VV	241584	6091759	29.01%	0.458%
285	13.587	13.571	13.611	VV	228900	5240937	24.95%	0.394%
286	13.641	13.611	13.663	VV	291938	7950297	37.85%	0.597%
287	13.674	13.663	13.691	VV	258645	4171990	19.86%	0.313%
288	13.704	13.691	13.730	VV	245474	5512042	26.25%	0.414%
289	13.760	13.730	13.776	VV	256042	6560918	31.24%	0.493%
290	13.796	13.776	13.815	VV	250663	5615901	26.74%	0.422%
291	13.836	13.815	13.854	VV	248805	5478613	26.09%	0.412%
292	13.902	13.854	13.914	VV	264071	8746976	41.65%	0.657%
293	13.924	13.914	13.947	VV	263109	5079686	24.19%	0.382%
294	13.960	13.947	14.004	VV	262275	8197191	39.03%	0.616%
295	14.025	14.004	14.043	VV	260915	5793322	27.58%	0.435%
296	14.060	14.043	14.089	VV	255395	6503489	30.97%	0.489%
297	14.126	14.089	14.142	VV	246311	7623300	36.30%	0.573%
298	14.172	14.142	14.186	VV	264098	6458642	30.75%	0.485%
299	14.205	14.186	14.230	VV	273099	6969274	33.18%	0.524%

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300	14.245	14.230	14.257	VV	253550	3970809	18.91%	0.298%
301	14.286	14.257	14.318	VV	286295	9683494	46	
302	14.331	14.318	14.358	VV	262291	5930661	28	
303	14.392	14.358	14.419	VV	278207	9336163	44	
304	14.444	14.419	14.469	VV	264907	7452507	35	
305	14.491	14.469	14.512	VV	277404	6604363	31	
306	14.549	14.512	14.592	VV	286893	12722153	60.58%	0.956%
307	14.605	14.592	14.612	VV	243641	2799288	13.33%	0.210%
308	14.623	14.612	14.630	VV	244805	2643925	12.59%	0.199%
309	14.634	14.630	14.658	VV	245841	3933438	18.73%	0.295%
310	14.693	14.658	14.706	VV	289365	7393957	35.21%	0.555%
311	14.723	14.706	14.742	VV	308559	6232013	29.67%	0.468%
312	14.757	14.742	14.779	VV	293032	6274300	29.87%	0.471%
313	14.789	14.779	14.830	VV	288492	8103860	38.59%	0.609%
314	14.855	14.830	14.897	VV	272370	9893536	47.11%	0.743%
315	14.923	14.897	14.947	VV	287688	7785378	37.07%	0.585%
316	14.987	14.947	15.011	VV	348828	11373426	54.15%	0.854%
317	15.047	15.011	15.103	VV	322645	15222340	72.48%	1.143%
318	15.137	15.103	15.157	VV	303002	8445959	40.21%	0.634%
319	15.180	15.157	15.200	VV	321559	7648573	36.42%	0.575%
320	15.224	15.200	15.241	VV	407939	8701843	41.43%	0.654%
321	15.258	15.241	15.292	VV	356409	9980904	47.52%	0.750%
322	15.307	15.292	15.324	VV	299500	5319230	25.33%	0.400%
323	15.340	15.324	15.357	VV	285302	5326601	25.36%	0.400%
324	15.375	15.357	15.390	VV	271886	5128895	24.42%	0.385%
325	15.396	15.390	15.411	VV	261708	3160709	15.05%	0.237%
326	15.474	15.411	15.506	VV	456683	21002246	100.00%	1.578%
327	15.523	15.506	15.534	VV	387795	5814235	27.68%	0.437%
328	15.547	15.534	15.565	VV	389880	6760428	32.19%	0.508%
329	15.577	15.565	15.609	VV	346182	7902747	37.63%	0.594%
330	15.634	15.609	15.653	VV	363150	8113161	38.63%	0.609%
331	15.692	15.653	15.707	VV	433130	12407341	59.08%	0.932%
332	15.735	15.707	15.782	VV	534769	19118286	91.03%	1.436%
333	15.809	15.782	15.844	VV	395023	11562970	55.06%	0.869%
334	15.883	15.844	15.902	VV	300197	9680906	46.09%	0.727%
335	15.929	15.902	15.965	VV	523738	15816975	75.31%	1.188%
336	15.994	15.965	16.018	VV	560776	15132755	72.05%	1.137%
337	16.034	16.018	16.052	VV	412537	7320409	34.86%	0.550%
338	16.071	16.052	16.105	VV	401231	11265203	53.64%	0.846%
339	16.119	16.105	16.137	VV	354264	6308856	30.04%	0.474%
340	16.179	16.137	16.195	VV	503935	13593345	64.72%	1.021%
341	16.234	16.195	16.268	VV	509426	18394806	87.58%	1.382%
342	16.292	16.268	16.336	VV	392194	11912203	56.72%	0.895%
343	16.368	16.336	16.374	VV	294249	6209768	29.57%	0.466%
344	16.421	16.374	16.444	VV	437961	15350666	73.09%	1.153%
345	16.470	16.444	16.524	VV	519178	19002975	90.48%	1.427%
346	16.549	16.524	16.570	VV	345818	8365132	39.83%	0.628%
347	16.587	16.570	16.606	VV	304736	6059636	28.85%	0.455%
348	16.657	16.606	16.689	VV	385803	15797902	75.22%	1.187%
349	16.710	16.689	16.739	VV	429917	10102480	48.10%	0.759%
350	16.756	16.739	16.786	VV	290565	6955584	33.12%	0.523%
351	16.817	16.786	16.822	VV	234860	4855292	23.12%	0.365%

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352	16.826	16.822	16.830	VV	234006	1112181	5.30%	0.084%
353	16.844	16.830	16.856	VV	253890	3717847	17	
354	16.879	16.856	16.907	VV	305840	8452621	40	
355	16.928	16.907	16.944	VV	366819	7152811	34	
356	16.960	16.944	16.986	VV	357772	7126207	33	
357	17.016	16.986	17.052	VV	274635	8918763	42	
358	17.059	17.052	17.074	VV	201494	2628091	12.51%	0.197%
359	17.119	17.074	17.144	VV	257077	9294868	44.26%	0.698%
360	17.171	17.144	17.198	VV	293766	7426152	35.36%	0.558%
361	17.210	17.198	17.260	VV	193212	6432788	30.63%	0.483%
362	17.278	17.260	17.296	VV	168470	3491617	16.62%	0.262%
363	17.330	17.296	17.349	VV	208485	5808773	27.66%	0.436%
364	17.375	17.349	17.399	VV	216742	5845162	27.83%	0.439%
365	17.418	17.399	17.439	VV	214317	4316887	20.55%	0.324%
366	17.461	17.439	17.491	VV	193154	5099684	24.28%	0.383%
367	17.513	17.491	17.524	VV	148427	2808561	13.37%	0.211%
368	17.529	17.524	17.542	VV	143825	1570031	7.48%	0.118%
369	17.562	17.542	17.590	VV	165603	4144068	19.73%	0.311%
370	17.617	17.590	17.689	VV	182704	8111562	38.62%	0.609%
371	17.694	17.689	17.718	VV	110785	1892103	9.01%	0.142%
372	17.725	17.718	17.730	VV	110279	766737	3.65%	0.058%
373	17.766	17.730	17.792	VV	147387	4721383	22.48%	0.355%
374	17.809	17.792	17.836	VV	133668	3169209	15.09%	0.238%
375	17.860	17.836	17.879	VV	144242	3235355	15.40%	0.243%
376	17.885	17.879	17.919	VV	122030	2632737	12.54%	0.198%
377	17.929	17.919	17.944	VV	99674	1475122	7.02%	0.111%
378	17.949	17.944	17.976	VV	100631	1808800	8.61%	0.136%
379	17.996	17.976	18.025	VV	103249	2831296	13.48%	0.213%
380	18.051	18.025	18.092	VV	115672	3924338	18.69%	0.295%
381	18.097	18.092	18.126	VV	86291	1756885	8.37%	0.132%
382	18.145	18.126	18.156	VV	86503	1517839	7.23%	0.114%
383	18.185	18.156	18.201	VV	85973	2299277	10.95%	0.173%
384	18.238	18.201	18.261	VV	109598	3366180	16.03%	0.253%
385	18.289	18.261	18.333	VV	106761	3969892	18.90%	0.298%
386	18.343	18.333	18.347	VV	79009	691660	3.29%	0.052%
387	18.352	18.347	18.374	VV	79070	1230141	5.86%	0.092%
388	18.376	18.374	18.382	VV	76425	346651	1.65%	0.026%
389	18.392	18.382	18.399	VV	74671	783954	3.73%	0.059%
390	18.408	18.399	18.414	VV	74590	657944	3.13%	0.049%
391	18.438	18.414	18.457	VV	82286	2034997	9.69%	0.153%
392	18.482	18.457	18.520	VV	82002	2827143	13.46%	0.212%
393	18.547	18.520	18.560	VV	74484	1730339	8.24%	0.130%
394	18.572	18.560	18.579	VV	74048	838591	3.99%	0.063%
395	18.605	18.579	18.639	VV	105959	2959927	14.09%	0.222%
396	18.647	18.639	18.667	VV	69355	1150511	5.48%	0.086%
397	18.702	18.667	18.738	VV	69526	2859901	13.62%	0.215%
398	18.764	18.738	18.785	VV	69212	1850611	8.81%	0.139%
399	18.790	18.785	18.807	VV	62270	807950	3.85%	0.061%
400	18.817	18.807	18.835	VV	62025	1031357	4.91%	0.077%
401	18.840	18.835	18.846	VV	61553	407615	1.94%	0.031%
402	18.850	18.846	18.855	VV	61629	358298	1.71%	0.027%
403	18.879	18.855	18.922	VV	66483	2511435	11.96%	0.189%
404	18.944	18.922	18.978	VV	64361	2059375	9.81%	0.155%

Instrument :
FID_F
ClientSampleId :
WC-LIQUID-20250404

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

rteres

405	18.997	18.978	19.002	VV	59694	851721	4.06%	0.064%
406	19.026	19.002	19.048	VV	70507	1735431	8	
407	19.073	19.048	19.106	VV	66614	2142910	10	
408	19.111	19.106	19.132	VV	58763	912641	4	
409	19.158	19.132	19.162	VV	57555	1003200	4	
410	19.166	19.162	19.188	VV	57460	890716	4	
411	19.209	19.188	19.247	VV	58745	1979250	9.42%	0.149%
412	19.270	19.247	19.274	VV	54832	870793	4.15%	0.065%
413	19.307	19.274	19.334	VV	61140	2049138	9.76%	0.154%
414	19.353	19.334	19.397	VV	61563	2129646	10.14%	0.160%
415	19.423	19.397	19.464	VV	56337	2125245	10.12%	0.160%
416	19.473	19.464	19.490	VV	50623	763777	3.64%	0.057%
417	19.501	19.490	19.506	VV	49870	486449	2.32%	0.037%
418	19.522	19.506	19.554	VV	50905	1415759	6.74%	0.106%
419	19.566	19.554	19.587	VV	50366	979300	4.66%	0.074%
420	19.595	19.587	19.616	VV	49482	867675	4.13%	0.065%
421	19.638	19.616	19.657	VV	50518	1227040	5.84%	0.092%
422	19.685	19.657	19.719	VV	56516	1928447	9.18%	0.145%
423	19.736	19.719	19.776	VV	53208	1665016	7.93%	0.125%
424	19.788	19.776	19.795	VV	46260	526514	2.51%	0.040%
425	19.804	19.795	19.809	VV	45680	381106	1.81%	0.029%
426	19.831	19.809	19.846	VV	50245	1053385	5.02%	0.079%
427	19.861	19.846	19.894	VV	50486	1368815	6.52%	0.103%
428	19.917	19.894	19.949	VV	48305	1510185	7.19%	0.113%
429	19.954	19.949	19.961	VV	42964	292659	1.39%	0.022%
430	19.966	19.961	19.970	VV	42652	233269	1.11%	0.018%
431	19.976	19.970	19.979	VV	44267	241721	1.15%	0.018%
432	19.984	19.979	20.000	VV	44545	542265	2.58%	0.041%
433	20.015	20.000	20.026	VV	44917	672548	3.20%	0.051%
434	20.056	20.026	20.090	VV	47640	1696265	8.08%	0.127%
435	20.115	20.090	20.125	VV	43140	876344	4.17%	0.066%
436	20.132	20.125	20.148	VV	42376	571235	2.72%	0.043%
437	20.156	20.148	20.184	VV	40001	835831	3.98%	0.063%
438	20.230	20.184	20.263	VV	45325	1962777	9.35%	0.147%
439	20.281	20.263	20.286	VV	41470	541201	2.58%	0.041%
440	20.292	20.286	20.315	VV	40983	677468	3.23%	0.051%
441	20.323	20.315	20.338	VV	39206	551529	2.63%	0.041%
442	20.349	20.338	20.384	VV	41071	1074403	5.12%	0.081%
443	20.387	20.384	20.420	VV	38183	791428	3.77%	0.059%
444	20.439	20.420	20.457	VV	36193	813305	3.87%	0.061%
445	20.461	20.457	20.464	VV	36960	139576	0.66%	0.010%
446	20.468	20.464	20.471	VV	37129	168465	0.80%	0.013%
447	20.477	20.471	20.482	VV	37268	243651	1.16%	0.018%
448	20.499	20.482	20.511	VV	37480	629418	3.00%	0.047%
449	20.515	20.511	20.547	VV	37392	805511	3.84%	0.061%
450	20.556	20.547	20.567	VV	36043	416103	1.98%	0.031%
451	20.610	20.567	20.639	VV	41317	1635932	7.79%	0.123%
452	20.643	20.639	20.687	VV	37120	1047864	4.99%	0.079%
453	20.692	20.687	20.704	VV	35721	352961	1.68%	0.027%
454	20.711	20.704	20.729	VV	34494	504281	2.40%	0.038%
455	20.735	20.729	20.752	VV	32720	441021	2.10%	0.033%
456	20.762	20.752	20.801	VV	31570	886423	4.22%	0.067%

Instrument :
FID_F
ClientSampleId :
WC-LIQUID-20250404

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 04/09/2025
Supervised By :mohammad ahmed 04/10/2025

rteres

457	20.814	20.801	20.843	VV	31163	742024	3.53%	0.056%
458	20.847	20.843	20.867	VV	28851	423514		
459	20.875	20.867	20.882	VV	28909	256593		
460	20.889	20.882	20.914	VV	28775	526856		
461	20.930	20.914	20.941	VV	28537	454695		
462	20.971	20.941	21.009	VV	32938	1200508		
463	21.021	21.009	21.059	VV	26755	748463	3.56%	0.056%
464	21.069	21.059	21.116	VV	22772	744662	3.55%	0.056%
465	21.148	21.116	21.191	VV	25195	998505	4.75%	0.075%
466	21.220	21.191	21.275	VV	20157	921466	4.39%	0.069%
467	21.284	21.275	21.289	VV	16112	127463	0.61%	0.010%
468	21.315	21.289	21.338	VV	16226	464137	2.21%	0.035%
469	21.366	21.338	21.406	VV	15776	594544	2.83%	0.045%
470	21.417	21.406	21.441	VV	13013	258892	1.23%	0.019%
471	21.447	21.441	21.456	VV	12183	110227	0.52%	0.008%
472	21.462	21.456	21.474	VV	11549	117575	0.56%	0.009%
473	21.481	21.474	21.486	VV	10734	75078	0.36%	0.006%
474	21.493	21.486	21.497	VV	10976	76196	0.36%	0.006%
475	21.501	21.497	21.504	VV	10766	41492	0.20%	0.003%
476	21.510	21.504	21.542	VV	11122	238743	1.14%	0.018%
477	21.578	21.542	21.614	VV	12639	468595	2.23%	0.035%
478	21.627	21.614	21.655	VV	9450	221948	1.06%	0.017%
479	21.666	21.655	21.684	VV	9269	154881	0.74%	0.012%
480	21.690	21.684	21.736	VV	8369	226340	1.08%	0.017%
481	21.742	21.736	21.827	VV	6901	308026	1.47%	0.023%
482	21.835	21.827	21.852	VV	4829	69689	0.33%	0.005%
483	21.855	21.852	21.857	VV	4727	12987	0.06%	0.001%
484	21.863	21.857	21.894	VV	5107	105901	0.50%	0.008%
485	21.899	21.894	21.930	VV	4730	90421	0.43%	0.007%
486	21.936	21.930	21.941	VV	3938	24096	0.11%	0.002%
487	21.946	21.941	21.964	VV	3960	48155	0.23%	0.004%
488	21.970	21.964	21.976	VV	2897	20741	0.10%	0.002%
489	21.983	21.976	21.992	VV	2701	22892	0.11%	0.002%
490	22.068	21.992	22.128	VV	4844	256723	1.22%	0.019%
491	22.134	22.128	22.201	VBA	2690	82687	0.39%	0.006%

Sum of corrected areas: 1331206946

FF032625.M Wed Apr 09 02:00:46 2025

SHIPPING DOCUMENTS

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q1739
COC Number 2045994

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Parsons
ADDRESS: 301 Plainfied Rd
CITY Syracuse STATE: NY ZIP: 13212
ATTENTION: Stephen Liberatore
PHONE: 315-552-9738 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Con Ed 11th Ave
PROJECT NO.: LOCATION: 11th Ave New York, NY
PROJECT MANAGER: Stephen Liberatore
e-mail: Stephen.Liberatore@parsons.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: Parsons PO#: 454053
ADDRESS: 301 Plainfied Road
CITY Syracuse STATE: NY ZIP: 13212
ATTENTION: Stephen Liberatore PHONE: 315-552-9738

DATA TURNAROUND INFORMATION

FAX (RUSH) 5-day rush DAYS*
HARDCOPY (DATA PACKAGE): 5-day rush DAYS*
EDD: 5-day rus DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

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

ANALYSIS

1 TPH
2 TCLP Pesticide/Herbicide
3 Flash Point/TCLP VOA
4 SVOC-TCL BNA-20/PCB
5 TCLP BNA/Extraction
6 pH Reactive Cyanide/Sulfide
7 VOC-TCL VOA-10/
8 Mercury Metals TCP-TAL
9 TCLP ICP Metals/Mercury

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES H2SO4 1	ICE 2	ICE 3	E 4	E 5	E 6	HCl 7	HNO3 8	ICE 9	COMMENTS
1.	WC-Liquid_20250404	L	X		4/4/25	0940	16	X	X	X	X	X	X	X	X	X	
2.																	
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

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

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Francine Phillips	4/4/25 1400	1. 4-4-25 1460
2.		2.
3.	4-4-25 1630	3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.4 °C
Comments: Include kirstenovalentini@parsons.com

Temp 2.4 C Adjustment Factor +1 IR Gun #1

Page 1 of 1

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1739 PARS02
Client Name : PARSONS Engineering of N
Client Contact : Stephen Liberatore
Invoice Name : PARSONS Engineering of N
Invoice Contact : Stephen Liberatore

Order Date : 4/4/2025 2:08:31 PM
Project Name : Con Edison - 11th Ave-Wes
Receive DateTime : 4/4/2025 ~~12:00:00 AM~~ 04:30 PM
Purchase Order :

yg 04/11/25

Project Mgr :
Report Type : ~~Results Only~~ Level 4
EDD Type : Excel NY
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1739-01	WC-LIQUID-20250404	Water	04/04/2025	09:40					
					VOC-TCLVOA-10		8260D		10 Bus. Days

Relinguished By :
Date / Time : 4/7/25 0915

Received By :
Date / Time : 4/7/25 09:15

Storage Area : VOA Refridgerator Room