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

DATA PACKAGE

GC SEMI-VOLATILES

PROJECT NAME : FT MEADE TIPTON AIRFIELD PARCEL RI - PO 0111169

WESTON SOLUTIONS

1400 Weston Way

PO Box 2653

West Chester, PA - 19380

Phone No: 610-701-7400

ORDER ID : Q1211

ATTENTION : Nathan Fretz

Laboratory Certification ID # 20012

Table Of Contents for Q1211

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

Cover Page

Order ID : Q1211

Project ID : Ft Meade Tipton Airfield Parcel RI - PO 0111169

Client : Weston Solutions

Lab Sample Number	Client Sample Number
Q1211-01	TAPHHA-MW01-012825-00-T4
Q1211-02	TAPIAL2-MW03-012825-00-T3
Q1211-03	TAP-TB-02-012825-T4

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 : APPROVED
By Nimisha Pandya, QA/QC Supervisor at 11:37 am, Feb 11, 2025

Date: 2/4/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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

CASE NARRATIVE

Weston Solutions
Project Name: Ft Meade Tipton Airfield Parcel RI - PO 0111169
Project # N/A
Chemtech Project # Q1211
Test Name: Diesel Range Organics

A. Number of Samples and Date of Receipt:
3 Water samples were received on 01/29/2025.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: Ammonia, Anions Group5, Diesel Range Organics, Gasoline Range Organics, Hardness, Total, Hexavalent Chromium, Mercury, Metals ICP-TAL, METALS-TAL, Oil and Grease, PESTICIDE Group1, SVOC-TCL BNA -20, TOC and VOC-TCLVOA-10. This data package contains results for Diesel Range Organics.

C. Analytical Techniques:
The analysis were performed on instrument FID_E. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 10224.The analysis of Diesel Range Organics 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.
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 .

E. Additional Comments:

The not QT review data is reported in the Miscellaneous.

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

F. Calculation for Concentration in WATER samples :

The sample concentrations (Cs) in ug/L are calculated as follows:

$$Cs = \frac{\{\text{Extract DRO-net (ug/mL)}\}\{\text{Final vol. extract (mL)}\}\{Df\}}{Ws}$$

Where
DRO (net)ug/mL = DRO (total) ug /mL - DRO (solvent) ug /mL
Df = Dilution factor
Ws= Weight of sample in mL

G. 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_____ **APPROVED**
By Nimisha Pandya, QA/QC Supervisor at 11:37 am, Feb 11, 2025

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

QA Control # A3040960

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

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1211 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.			✓
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:			✓
9.	Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓

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

GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

ADDITIONAL COMMENTS:

The not QT review data is reported in the Miscellaneous.

QA REVIEW

REVIEWED

By Sohil Jodhani, QA/QC Director at 9:25 am, Feb 11, 2025

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1211

	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: NILESH PRAJAPATI **Date:** 02/04/2025

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

LAB CHRONICLE

OrderID:	Q1211	**OrderDate:**	1/29/2025 10:10:00 AM
Client:	Weston Solutions	**Project:**	Ft Meade Tipton Airfield Parcel RI - PO 0111169
Contact:	Nathan Fretz	**Location:**	N31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1211-01	**TAPHHA-MW01-01282 5-00-T4**	**Water**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	
Q1211-02	**TAPIAL2-MW03-0128 25-00-T3**	**Water**			**01/28/25**			**01/29/25**
			Diesel Range Organics	8015D		01/30/25	01/30/25	
			Gasoline Range Organics	8015D			01/29/25	

QC SUMMARY

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

WATER DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: Weston Solutions

Lab Code: CHEM Case No.: Q1211 SAS No.: Q1211 SDG No.: Q1211

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FE052157.D	87				0
PIBLK-FE052164.D	88				0
PB166364BL	82				0
PB166364BS	88				0
PB166364BSD	78				0
TAPHHA-MW01-012825-00-T4	85				0
TAPIAL2-MW03-012825-00-T3	76				0

	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

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

WATER DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE

Lab Name: Chemtech **Client:** Weston Solutions

Lab Code: CHEM **Cas No:** Q1211 **SAS No :** Q1211 **SDG No:** Q1211

Matrix Spike - EPA Sample No : PB166364BS **Datafile:** FE052160.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS
DRO	200	0	182	91	78-117

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

WATER DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE

Lab Name: Chemtech **Client:** Weston Solutions

Lab Code: CHEM **Cas No:** Q1211 **SAS No :** Q1211 **SDG No:** Q1211

Matrix Spike - EPA Sample No : PB166364BSD **Datafile:** FE052161.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS
DRO	200	0	162	81	78-117

LCS/LCSD % Recovery RPD : 11.6

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

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.
PB166364BL

Lab Name: CHEMTECH Contract: WEST04

Lab Code: CHEM Case No.: Q1211 SAS No.: Q1211 SDG NO.: Q1211

Lab File ID: FE052159.D Lab Sample ID: PB166364BL

Instrument ID: FE Date Extracted: 01/30/2025

Matrix: (soil/water) Water Date Analyzed: 01/30/25

Level: (low/med) low Time Analyzed: 14:37

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB166364BS	PB166364BS	FE052160.D	01/30/25
PB166364BSD	PB166364BSD	FE052161.D	01/30/25
TAPHHA-MW01-012825-00-T4	Q1211-01	FE052162.D	01/30/25
TAPIAL2-MW03-012825-00-T3	Q1211-02	FE052163.D	01/30/25

COMMENTS:

Form IV

SAMPLE DATA

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

Report of Analysis

Client:	Weston Solutions	Date Collected:	01/28/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	01/29/25
Client Sample ID:	TAPHHA-MW01-012825-00-T4	SDG No.:	Q1211
Lab Sample ID:	Q1211-01	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052162.D	1	01/30/25 08:33	01/30/25 16:07	PB166364

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	25.0	J	10.0	25.0	50.0	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_E\Data\FE012925\
Data File : FE052162.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 16:07
Operator : YP\AJ
Sample : Q1211-01
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
TAPHHA-MW01-012825-00-T4

Integration File: autoint1.e
Quant Time: Jan 31 02:04:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.269	1688848	16.957 ug/ml
Target Compounds			

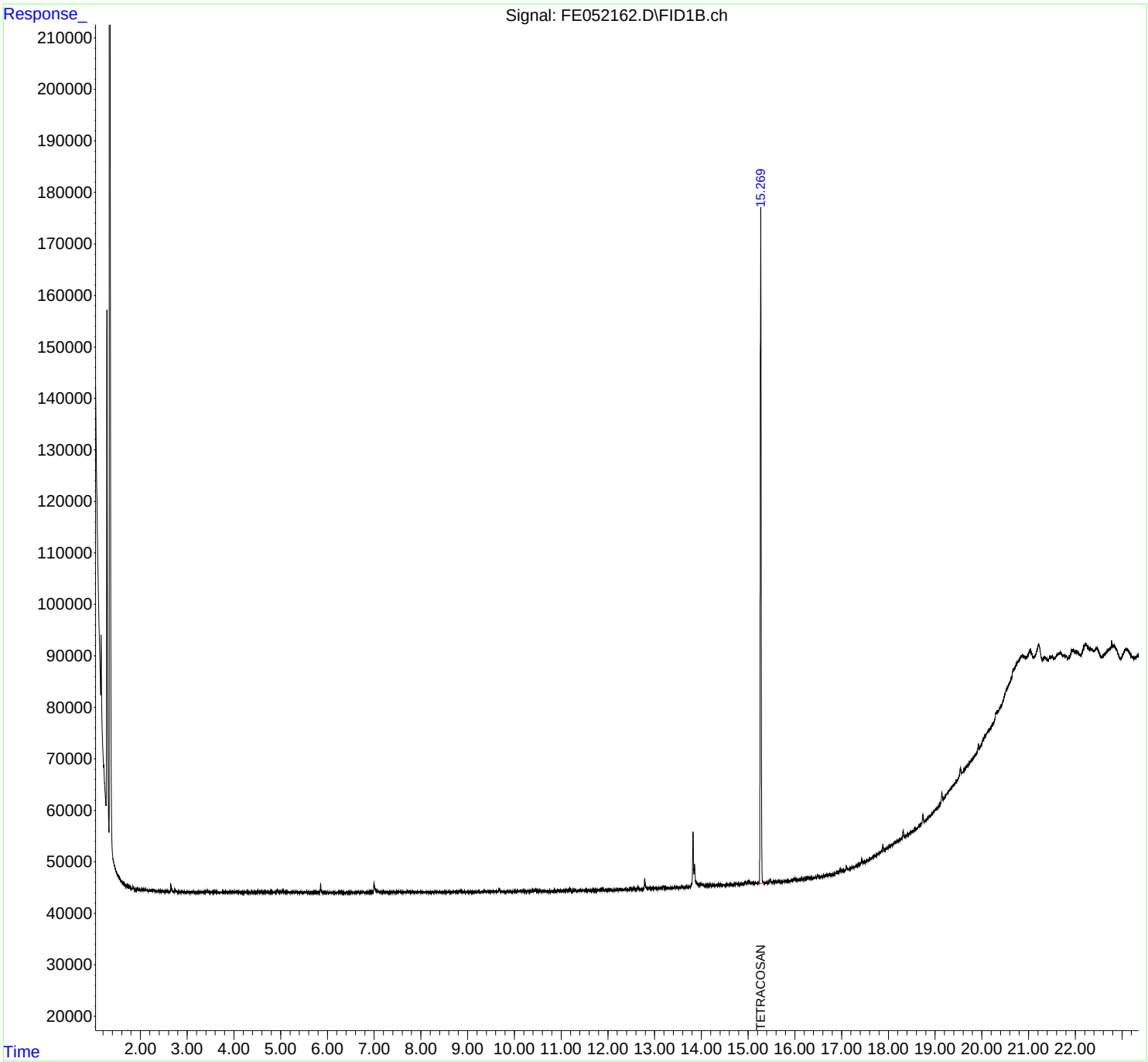
(f)=RT Delta > 1/2 Window (m)=manual int.

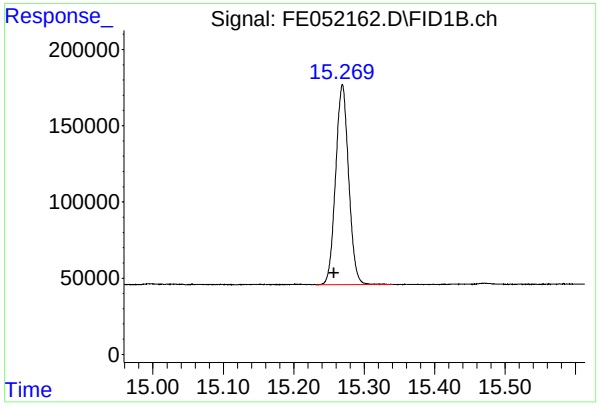
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052162.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 16:07
Operator : YP\AJ
Sample : Q1211-01
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
TAPHHA-MW01-012825-00-T4

Integration File: autoint1.e
Quant Time: Jan 31 02:04:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.269 min
Delta R.T.: 0.012 mi
Response: 1688848
Conc: 16.96 ug/m

Instrument :
FID_E
ClientSampleId :
TAPHHA-MW01-012825-00-T4

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052162.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 16:07
Sample : Q1211-01
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.890	4.857	4.895	BV	105	716	0.04%	0.017%
2	4.906	4.895	4.913	VV	185	908	0.05%	0.021%
3	4.935	4.913	4.970	VV	489	7064	0.42%	0.164%
4	4.973	4.970	4.976	VV	122	360	0.02%	0.008%
5	4.981	4.976	4.986	VV	173	713	0.04%	0.017%
6	4.991	4.986	5.001	VV	195	1177	0.07%	0.027%
7	5.005	5.001	5.020	VV	217	1146	0.07%	0.027%
8	5.053	5.020	5.074	VV	506	7186	0.42%	0.167%
9	5.079	5.074	5.082	PV	168	466	0.03%	0.011%
10	5.089	5.082	5.120	VV	210	2995	0.18%	0.070%
11	5.125	5.120	5.137	VV	178	1112	0.07%	0.026%
12	5.151	5.137	5.159	VV	217	1686	0.10%	0.039%
13	5.165	5.159	5.174	VV	179	1300	0.08%	0.030%
14	5.181	5.174	5.195	VV	196	1735	0.10%	0.040%
15	5.198	5.195	5.204	VV	168	649	0.04%	0.015%
16	5.221	5.204	5.228	VV	236	1959	0.12%	0.046%
17	5.231	5.228	5.239	VV	269	1020	0.06%	0.024%
18	5.245	5.239	5.265	VV	211	1956	0.12%	0.045%
19	5.279	5.265	5.293	VV	193	2309	0.14%	0.054%
20	5.297	5.293	5.302	VV	195	911	0.05%	0.021%
21	5.307	5.302	5.336	VV	245	3023	0.18%	0.070%
22	5.345	5.336	5.369	VV	300	2953	0.17%	0.069%
23	5.373	5.369	5.386	VV	223	1368	0.08%	0.032%
24	5.390	5.386	5.393	VV	140	542	0.03%	0.013%
25	5.404	5.393	5.411	VV	210	1613	0.10%	0.038%
26	5.420	5.411	5.427	VV	210	1142	0.07%	0.027%
27	5.438	5.427	5.451	VV	257	2271	0.13%	0.053%
28	5.459	5.451	5.475	PV	204	1792	0.11%	0.042%
29	5.481	5.475	5.489	VV	209	904	0.05%	0.021%
30	5.491	5.489	5.500	VV	168	708	0.04%	0.016%
31	5.503	5.500	5.506	VV	233	449	0.03%	0.010%
32	5.520	5.506	5.535	VV	186	2193	0.13%	0.051%
33	5.538	5.535	5.547	VV	159	1087	0.06%	0.025%
34	5.554	5.547	5.582	VV	249	3413	0.20%	0.079%
35	5.584	5.582	5.615	VV	230	2609	0.15%	0.061%
36	5.622	5.615	5.632	VV	134	1213	0.07%	0.028%

rteres

37	5.640	5.632	5.669	VV	200	2505	0.15%	0.058%
38	5.672	5.669	5.698	VV	200	2316	0.14%	0.054%
39	5.701	5.698	5.714	VV	165	1078	0.06%	0.025%
40	5.732	5.714	5.754	VV	213	3718	0.22%	0.086%
41	5.758	5.754	5.766	VV	194	756	0.04%	0.018%
42	5.783	5.766	5.826	VV	229	3584	0.21%	0.083%
43	5.855	5.826	5.878	VV	1666	17443	1.03%	0.406%
44	5.885	5.878	5.890	VV	224	1214	0.07%	0.028%
45	5.894	5.890	5.915	VV	188	1984	0.12%	0.046%
46	5.921	5.915	5.932	VV	181	1246	0.07%	0.029%
47	5.936	5.932	5.943	VV	157	717	0.04%	0.017%
48	5.949	5.943	5.981	VV	160	2472	0.15%	0.057%
49	5.990	5.981	6.030	VV	219	3094	0.18%	0.072%
50	6.035	6.030	6.054	VV	185	1309	0.08%	0.030%
51	6.065	6.054	6.080	VV	157	1684	0.10%	0.039%
52	6.082	6.080	6.088	VV	127	553	0.03%	0.013%
53	6.096	6.088	6.110	VV	115	1355	0.08%	0.032%
54	6.115	6.110	6.121	VV	180	632	0.04%	0.015%
55	6.126	6.121	6.156	VV	142	1757	0.10%	0.041%
56	6.176	6.156	6.185	VV	180	1751	0.10%	0.041%
57	6.191	6.185	6.202	VV	189	882	0.05%	0.021%
58	6.206	6.202	6.212	VV	78	550	0.03%	0.013%
59	6.227	6.212	6.248	VV	330	3528	0.21%	0.082%
60	6.268	6.248	6.280	VV	233	2250	0.13%	0.052%
61	6.285	6.280	6.300	VV	192	1292	0.08%	0.030%
62	6.305	6.300	6.341	VV	174	1924	0.11%	0.045%
63	6.347	6.341	6.359	VV	179	1340	0.08%	0.031%
64	6.368	6.359	6.470	VV	139	6344	0.37%	0.147%
65	6.472	6.470	6.475	VV	123	286	0.02%	0.007%
66	6.483	6.475	6.498	VV	168	1242	0.07%	0.029%
67	6.523	6.498	6.531	VV	138	1847	0.11%	0.043%
68	6.565	6.531	6.577	VV	211	2875	0.17%	0.067%
69	6.602	6.577	6.632	VV	205	4241	0.25%	0.099%
70	6.637	6.632	6.641	VV	196	786	0.05%	0.018%
71	6.644	6.641	6.648	VV	171	650	0.04%	0.015%
72	6.654	6.648	6.675	VV	300	2931	0.17%	0.068%
73	6.685	6.675	6.690	PV	144	933	0.06%	0.022%
74	6.701	6.690	6.743	VV	176	3797	0.22%	0.088%
75	6.765	6.743	6.780	VV	340	4140	0.24%	0.096%
76	6.785	6.780	6.799	VV	160	1296	0.08%	0.030%
77	6.812	6.799	6.822	VV	165	1162	0.07%	0.027%
78	6.840	6.822	6.866	VV	169	3054	0.18%	0.071%
79	6.870	6.866	6.879	VV	151	802	0.05%	0.019%
80	6.898	6.879	6.932	VV	295	5321	0.31%	0.124%
81	6.934	6.932	6.937	VV	200	483	0.03%	0.011%
82	6.941	6.937	6.981	VV	169	3315	0.20%	0.077%
83	6.996	6.981	7.046	VV	2005	34752	2.05%	0.808%
84	7.050	7.046	7.074	VV	424	5667	0.33%	0.132%
85	7.076	7.074	7.132	VV	333	7539	0.44%	0.175%
86	7.135	7.132	7.147	VV	236	1541	0.09%	0.036%
87	7.153	7.147	7.172	VV	206	2332	0.14%	0.054%
88	7.179	7.172	7.188	VV	194	1458	0.09%	0.034%
89	7.193	7.188	7.210	VV	180	1846	0.11%	0.043%

rteres

90	7.227	7.210	7.237	VV	202	2084	0.12%	0.048%
91	7.247	7.237	7.263	VV	165	1939	0.11%	0.045%
92	7.269	7.263	7.272	VV	161	802	0.05%	0.019%
93	7.283	7.272	7.321	VV	202	3668	0.22%	0.085%
94	7.330	7.321	7.340	VV	146	1142	0.07%	0.027%
95	7.345	7.340	7.366	VV	129	1208	0.07%	0.028%
96	7.371	7.366	7.376	VV	139	484	0.03%	0.011%
97	7.385	7.376	7.409	VV	111	1976	0.12%	0.046%
98	7.414	7.409	7.425	VV	114	910	0.05%	0.021%
99	7.428	7.425	7.435	VV	106	466	0.03%	0.011%
100	7.452	7.435	7.470	VV	179	1743	0.10%	0.041%
101	7.482	7.470	7.499	VV	197	1774	0.10%	0.041%
102	7.519	7.499	7.539	VV	438	6099	0.36%	0.142%
103	7.542	7.539	7.551	VV	253	1594	0.09%	0.037%
104	7.555	7.551	7.574	VV	254	2525	0.15%	0.059%
105	7.577	7.574	7.589	VV	208	1369	0.08%	0.032%
106	7.593	7.589	7.596	VV	204	769	0.05%	0.018%
107	7.599	7.596	7.623	VV	186	2115	0.12%	0.049%
108	7.628	7.623	7.685	VV	201	5109	0.30%	0.119%
109	7.721	7.685	7.810	VV	377	12986	0.77%	0.302%
110	7.814	7.810	7.817	VV	164	539	0.03%	0.013%
111	7.828	7.817	7.843	VV	218	2495	0.15%	0.058%
112	7.846	7.843	7.855	VV	135	840	0.05%	0.020%
113	7.862	7.855	7.876	VV	153	1391	0.08%	0.032%
114	7.888	7.876	7.906	VV	196	2338	0.14%	0.054%
115	7.913	7.906	7.948	VV	222	3591	0.21%	0.084%
116	7.955	7.948	7.964	VV	208	1582	0.09%	0.037%
117	7.965	7.964	7.970	VV	242	718	0.04%	0.017%
118	7.977	7.970	7.985	VV	244	1370	0.08%	0.032%
119	7.994	7.985	8.004	VV	215	1869	0.11%	0.043%
120	8.013	8.004	8.030	VV	160	2209	0.13%	0.051%
121	8.043	8.030	8.052	VV	287	1850	0.11%	0.043%
122	8.058	8.052	8.072	VV	173	1217	0.07%	0.028%
123	8.079	8.072	8.084	VV	183	801	0.05%	0.019%
124	8.090	8.084	8.102	VV	167	888	0.05%	0.021%
125	8.117	8.102	8.129	VV	192	1631	0.10%	0.038%
126	8.135	8.129	8.145	VV	177	920	0.05%	0.021%
127	8.157	8.145	8.197	VV	121	3192	0.19%	0.074%
128	8.207	8.197	8.231	VV	137	1669	0.10%	0.039%
129	8.241	8.231	8.257	VV	120	993	0.06%	0.023%
130	8.260	8.257	8.269	VV	53	486	0.03%	0.011%
131	8.316	8.269	8.347	VV	243	6301	0.37%	0.146%
132	8.360	8.347	8.374	VV	185	1919	0.11%	0.045%
133	8.397	8.374	8.429	VV	214	5903	0.35%	0.137%
134	8.448	8.429	8.475	VV	261	4345	0.26%	0.101%
135	8.485	8.475	8.497	VV	213	1919	0.11%	0.045%
136	8.507	8.497	8.577	VV	161	5005	0.30%	0.116%
137	8.589	8.577	8.632	VV	210	3804	0.22%	0.088%
138	8.650	8.632	8.672	VV	202	2823	0.17%	0.066%
139	8.700	8.672	8.727	VV	319	6094	0.36%	0.142%
140	8.760	8.727	8.777	VV	334	6525	0.38%	0.152%
141	8.827	8.777	8.849	VV	396	10175	0.60%	0.237%

rteres

142	8.863	8.849	8.950	VV	353	11791	0.70%	0.274%
143	8.981	8.950	8.992	VV	239	4081	0.24%	0.095%
144	8.998	8.992	9.033	VV	200	3243	0.19%	0.075%
145	9.039	9.033	9.056	VV	178	1370	0.08%	0.032%
146	9.067	9.056	9.102	PV	126	3251	0.19%	0.076%
147	9.111	9.102	9.119	VV	158	1113	0.07%	0.026%
148	9.146	9.119	9.172	VV	169	3122	0.18%	0.073%
149	9.189	9.172	9.210	PV	183	2241	0.13%	0.052%
150	9.222	9.210	9.247	VV	198	2935	0.17%	0.068%
151	9.250	9.247	9.259	VV	178	837	0.05%	0.019%
152	9.296	9.259	9.305	VV	219	3832	0.23%	0.089%
153	9.328	9.305	9.404	VV	265	11321	0.67%	0.263%
154	9.407	9.404	9.417	VV	223	1395	0.08%	0.032%
155	9.427	9.417	9.460	VV	239	4077	0.24%	0.095%
156	9.477	9.460	9.496	VV	315	3829	0.23%	0.089%
157	9.504	9.496	9.562	VV	298	7546	0.45%	0.175%
158	9.584	9.562	9.642	VV	298	9510	0.56%	0.221%
159	9.675	9.642	9.725	VV	496	12383	0.73%	0.288%
160	9.734	9.725	9.747	VV	167	1835	0.11%	0.043%
161	9.760	9.747	9.770	VV	178	2014	0.12%	0.047%
162	9.775	9.770	9.802	VV	150	2280	0.13%	0.053%
163	9.807	9.802	9.819	VV	218	1035	0.06%	0.024%
164	9.856	9.819	9.900	VV	248	6937	0.41%	0.161%
165	9.920	9.900	9.942	VV	181	3092	0.18%	0.072%
166	9.960	9.942	9.975	VV	204	2671	0.16%	0.062%
167	9.997	9.975	10.027	VV	344	6371	0.38%	0.148%
168	10.034	10.027	10.045	VV	261	1765	0.10%	0.041%
169	10.073	10.045	10.098	VV	296	5901	0.35%	0.137%
170	10.105	10.098	10.128	VV	264	3346	0.20%	0.078%
171	10.152	10.128	10.202	VV	256	7399	0.44%	0.172%
172	10.216	10.202	10.255	VV	149	4289	0.25%	0.100%
173	10.290	10.255	10.337	VV	269	7755	0.46%	0.180%
174	10.398	10.337	10.425	VV	403	11133	0.66%	0.259%
175	10.451	10.425	10.537	VV	461	15095	0.89%	0.351%
176	10.557	10.537	10.585	VV	203	4059	0.24%	0.094%
177	10.592	10.585	10.602	VV	114	1260	0.07%	0.029%
178	10.625	10.602	10.697	VV	207	6211	0.37%	0.144%
179	10.718	10.697	10.765	PV	250	5174	0.31%	0.120%
180	10.781	10.765	10.794	VV	184	1930	0.11%	0.045%
181	10.838	10.794	10.874	VV	270	8097	0.48%	0.188%
182	10.889	10.874	10.920	VV	269	4576	0.27%	0.106%
183	10.938	10.920	10.959	VV	287	3775	0.22%	0.088%
184	11.006	10.959	11.045	VV	288	8859	0.52%	0.206%
185	11.053	11.045	11.089	VV	220	3714	0.22%	0.086%
186	11.107	11.089	11.142	VV	274	6085	0.36%	0.141%
187	11.186	11.142	11.217	VV	565	13066	0.77%	0.304%
188	11.226	11.217	11.234	VV	183	1307	0.08%	0.030%
189	11.264	11.234	11.279	VV	173	3931	0.23%	0.091%
190	11.301	11.279	11.373	VV	217	8068	0.48%	0.188%
191	11.404	11.373	11.437	VV	231	5956	0.35%	0.138%
192	11.465	11.437	11.509	VV	332	8324	0.49%	0.194%
193	11.541	11.509	11.560	VV	237	5339	0.31%	0.124%
194	11.582	11.560	11.592	VV	260	3456	0.20%	0.080%

rteres

195	11.606	11.592	11.627	VV	310	3248	0.19%	0.076%
196	11.639	11.627	11.657	VV	140	2126	0.13%	0.049%
197	11.686	11.657	11.727	VV	209	5505	0.32%	0.128%
198	11.762	11.727	11.795	VV	225	5649	0.33%	0.131%
199	11.815	11.795	11.847	VV	252	5868	0.35%	0.136%
200	11.855	11.847	11.863	VV	237	1958	0.12%	0.046%
201	11.884	11.863	11.917	VV	551	9227	0.54%	0.215%
202	11.926	11.917	11.935	PV	159	1399	0.08%	0.033%
203	11.961	11.935	11.977	VV	295	4452	0.26%	0.103%
204	11.979	11.977	11.999	VV	305	2190	0.13%	0.051%
205	12.007	11.999	12.028	VV	181	2377	0.14%	0.055%
206	12.046	12.028	12.097	VV	253	5782	0.34%	0.134%
207	12.144	12.097	12.162	VV	225	5252	0.31%	0.122%
208	12.174	12.162	12.189	VV	154	1535	0.09%	0.036%
209	12.197	12.189	12.237	VV	160	3135	0.18%	0.073%
210	12.255	12.237	12.270	VV	279	3597	0.21%	0.084%
211	12.287	12.270	12.330	VV	213	5079	0.30%	0.118%
212	12.364	12.330	12.428	VV	340	8912	0.53%	0.207%
213	12.451	12.428	12.474	VV	163	2287	0.13%	0.053%
214	12.485	12.474	12.527	VV	224	3965	0.23%	0.092%
215	12.548	12.527	12.580	VV	601	7603	0.45%	0.177%
216	12.646	12.580	12.727	VV	729	14247	0.84%	0.331%
217	12.788	12.727	12.874	VV	2040	37112	2.19%	0.863%
218	12.881	12.874	12.908	VV	193	3597	0.21%	0.084%
219	12.939	12.908	12.972	VV	280	6533	0.39%	0.152%
220	13.005	12.972	13.034	VV	224	5876	0.35%	0.137%
221	13.043	13.034	13.067	VV	174	2690	0.16%	0.063%
222	13.076	13.067	13.090	VV	156	1544	0.09%	0.036%
223	13.125	13.090	13.161	PV	269	6618	0.39%	0.154%
224	13.186	13.161	13.239	VV	582	11475	0.68%	0.267%
225	13.248	13.239	13.267	VV	177	1842	0.11%	0.043%
226	13.276	13.267	13.303	VV	195	2741	0.16%	0.064%
227	13.316	13.303	13.347	VV	139	2172	0.13%	0.050%
228	13.364	13.347	13.404	PV	141	2402	0.14%	0.056%
229	13.427	13.404	13.460	VV	412	5265	0.31%	0.122%
230	13.467	13.460	13.492	PV	98	1464	0.09%	0.034%
231	13.499	13.492	13.525	VV	155	1989	0.12%	0.046%
232	13.553	13.525	13.560	VV	182	2276	0.13%	0.053%
233	13.587	13.560	13.622	VV	381	6999	0.41%	0.163%
234	13.630	13.622	13.647	VV	112	1193	0.07%	0.028%
235	13.669	13.647	13.707	VV	219	4520	0.27%	0.105%
236	13.749	13.707	13.765	VV	261	5640	0.33%	0.131%
237	13.820	13.765	13.842	VV	10667	160108	9.44%	3.722%
238	13.854	13.842	13.969	VV	4399	95060	5.61%	2.210%
239	13.988	13.969	14.005	VV	599	10485	0.62%	0.244%
240	14.021	14.005	14.119	VV	609	19897	1.17%	0.463%
241	14.162	14.119	14.219	VV	335	14095	0.83%	0.328%
242	14.228	14.219	14.285	VV	229	6073	0.36%	0.141%
243	14.325	14.285	14.351	VV	328	6821	0.40%	0.159%
244	14.376	14.351	14.403	VV	460	7378	0.44%	0.172%
245	14.423	14.403	14.454	VV	387	5904	0.35%	0.137%
246	14.485	14.454	14.530	VV	226	5951	0.35%	0.138%

rteres

247	14.598	14.530	14.622	VV	285	7197	0.42%	0.167%
248	14.638	14.622	14.665	VV	293	5166	0.30%	0.120%
249	14.689	14.665	14.714	VV	180	3261	0.19%	0.076%
250	14.733	14.714	14.772	VV	465	8463	0.50%	0.197%
251	14.777	14.772	14.824	VV	215	4312	0.25%	0.100%
252	14.855	14.824	14.873	VV	218	4681	0.28%	0.109%
253	14.886	14.873	14.905	VV	304	3226	0.19%	0.075%
254	14.937	14.905	14.975	VV	558	13697	0.81%	0.318%
255	14.995	14.975	15.017	VV	729	12579	0.74%	0.292%
256	15.027	15.017	15.049	VV	514	7734	0.46%	0.180%
257	15.060	15.049	15.088	VV	344	6071	0.36%	0.141%
258	15.096	15.088	15.120	VV	311	3557	0.21%	0.083%
259	15.159	15.120	15.177	VV	337	7543	0.44%	0.175%
260	15.205	15.177	15.232	VV	296	6912	0.41%	0.161%
261	15.269	15.232	15.346	VV	131293	1695357	100.00%	39.416%
262	15.360	15.346	15.392	VV	185	4594	0.27%	0.107%
263	15.443	15.392	15.454	VV	394	9081	0.54%	0.211%
264	15.471	15.454	15.514	VV	904	16391	0.97%	0.381%
265	15.524	15.514	15.550	VV	265	4520	0.27%	0.105%
266	15.583	15.550	15.613	VV	402	10427	0.62%	0.242%
267	15.619	15.613	15.642	VV	238	3922	0.23%	0.091%
268	15.669	15.642	15.734	VV	405	13135	0.77%	0.305%
269	15.781	15.734	15.796	VV	296	8594	0.51%	0.200%
270	15.813	15.796	15.824	VV	325	4339	0.26%	0.101%
271	15.874	15.824	15.897	VV	408	13358	0.79%	0.311%
272	15.947	15.897	15.960	VV	466	13746	0.81%	0.320%
273	15.988	15.960	16.002	VV	823	13582	0.80%	0.316%
274	16.010	16.002	16.030	VV	627	8763	0.52%	0.204%
275	16.045	16.030	16.060	VV	437	7045	0.42%	0.164%
276	16.122	16.060	16.150	VV	703	28991	1.71%	0.674%
277	16.158	16.150	16.180	VV	675	10112	0.60%	0.235%
278	16.195	16.180	16.210	VV	534	8879	0.52%	0.206%
279	16.237	16.210	16.257	VV	682	16781	0.99%	0.390%
280	16.274	16.257	16.324	VV	833	26917	1.59%	0.626%
281	16.357	16.324	16.375	VV	749	20087	1.18%	0.467%
282	16.382	16.375	16.406	VV	684	12035	0.71%	0.280%
283	16.454	16.406	16.465	VV	866	26074	1.54%	0.606%
284	16.486	16.465	16.519	VV	1248	29863	1.76%	0.694%
285	16.617	16.519	16.642	VV	1009	63617	3.75%	1.479%
286	16.741	16.642	16.754	VV	1076	67342	3.97%	1.566%
287	16.969	16.754	17.008	VV	2001	215370	12.70%	5.007%
288	17.019	17.008	17.029	VV	1770	21336	1.26%	0.496%
289	17.058	17.029	17.071	VV	1866	44908	2.65%	1.044%
290	17.103	17.071	17.142	VV	2589	90027	5.31%	2.093%
291	17.210	17.142	17.226	VV	2215	107608	6.35%	2.502%
292	17.318	17.226	17.326	VV	2632	145451	8.58%	3.382%
293	17.433	17.326	17.463	VBA	3919	253027	14.92%	5.883%
			Sum of corrected areas:			4301159		

FE012325.M Fri Jan 31 03:09:45 2025

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

Report of Analysis

Client:	Weston Solutions	Date Collected:	01/28/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	01/29/25
Client Sample ID:	TAPIAL2-MW03-012825-00-T3	SDG No.:	Q1211
Lab Sample ID:	Q1211-02	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052163.D	1	01/30/25 08:33	01/30/25 16:37	PB166364

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	28.0	J	10.0	25.0	50.0	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	15.3		29 - 130		76%	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_E\Data\FE012925\
Data File : FE052163.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 16:37
Operator : YP\AJ
Sample : Q1211-02
Misc :
ALS Vial : 18 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
TAPIAL2-MW03-012825-00-T3

Integration File: autoint1.e
Quant Time: Jan 31 02:04:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.267	1521577	15.277 ug/ml
Target Compounds			

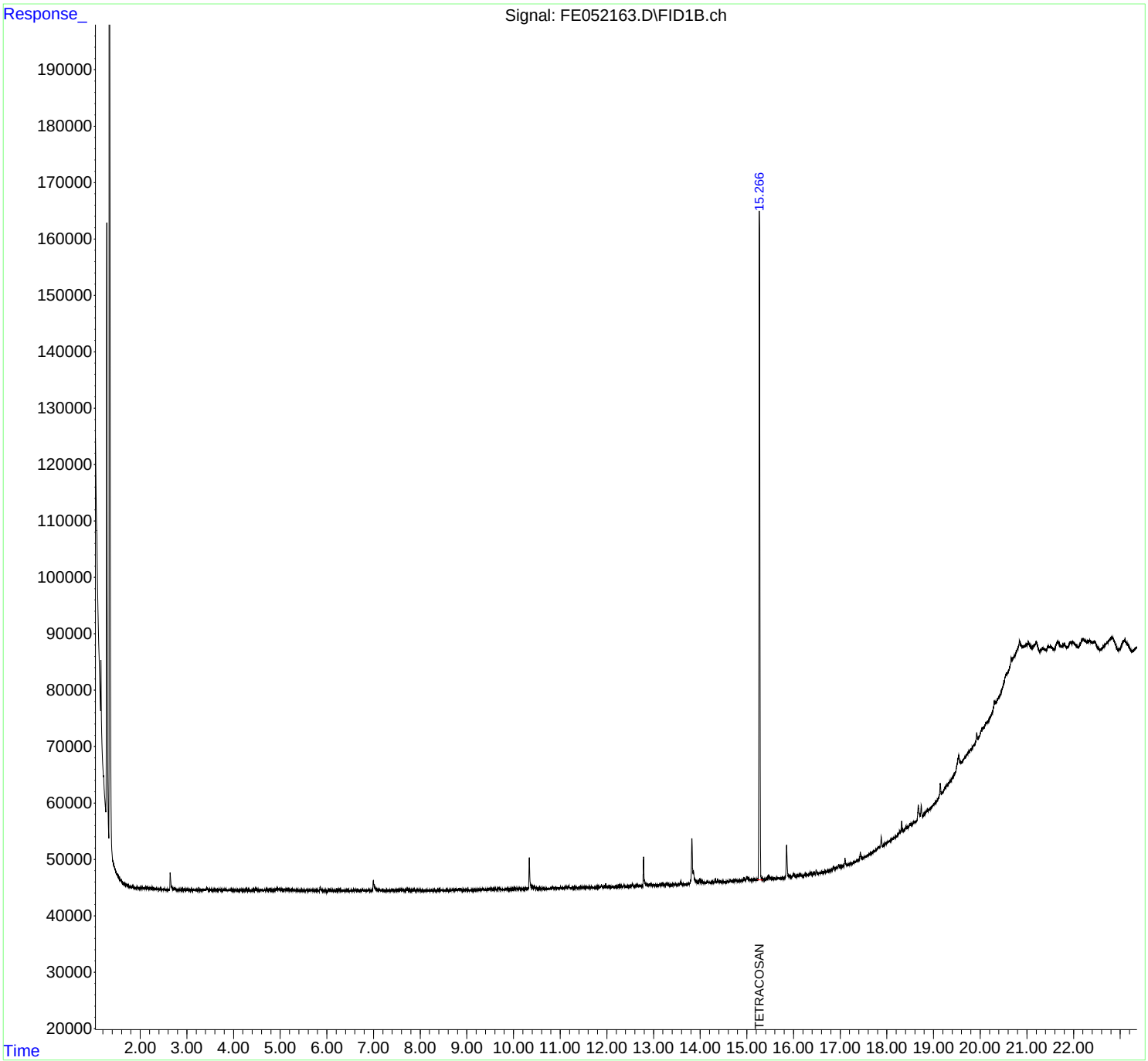
(f)=RT Delta > 1/2 Window (m)=manual int.

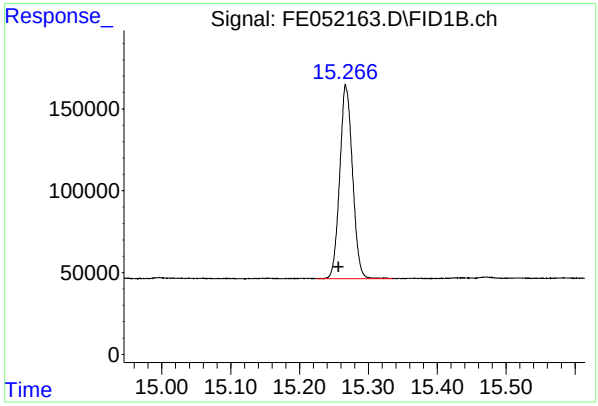
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052163.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 16:37
Operator : YP\AJ
Sample : Q1211-02
Misc :
ALS Vial : 18 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
TAPIAL2-MW03-012825-00-T3

Integration File: autoint1.e
Quant Time: Jan 31 02:04:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.267 min
Delta R.T.: 0.010 mi
Response: 1521577
Conc: 15.28 ug/m

Instrument :
FID_E
ClientSampleId :
TAPIAL2-MW03-012825-00-T3

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052163.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 16:37
Sample : Q1211-02
Misc :
ALS Vial : 18 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.872	4.857	4.890	BV	122	676	0.04%	0.015%
2	4.897	4.890	4.914	PV	118	1161	0.08%	0.026%
3	4.932	4.914	4.965	VV	502	8017	0.52%	0.176%
4	4.966	4.965	4.992	VV	342	3207	0.21%	0.071%
5	4.997	4.992	5.024	VV	202	2476	0.16%	0.054%
6	5.040	5.024	5.049	VV	224	2305	0.15%	0.051%
7	5.054	5.049	5.065	VV	224	1286	0.08%	0.028%
8	5.089	5.065	5.143	VV	358	8136	0.53%	0.179%
9	5.159	5.143	5.173	VV	238	2574	0.17%	0.057%
10	5.180	5.173	5.185	VV	568	1352	0.09%	0.030%
11	5.188	5.185	5.201	VV	184	1444	0.09%	0.032%
12	5.206	5.201	5.230	VV	185	2659	0.17%	0.059%
13	5.233	5.230	5.245	VV	139	1412	0.09%	0.031%
14	5.252	5.245	5.258	VV	250	1236	0.08%	0.027%
15	5.262	5.258	5.266	VV	149	618	0.04%	0.014%
16	5.270	5.266	5.290	VV	154	2359	0.15%	0.052%
17	5.294	5.290	5.307	VV	237	1996	0.13%	0.044%
18	5.322	5.307	5.338	VV	278	3604	0.24%	0.079%
19	5.351	5.338	5.374	VV	266	3995	0.26%	0.088%
20	5.387	5.374	5.407	VV	194	3546	0.23%	0.078%
21	5.409	5.407	5.418	VV	215	996	0.06%	0.022%
22	5.430	5.418	5.436	VV	225	1816	0.12%	0.040%
23	5.445	5.436	5.474	VV	349	4716	0.31%	0.104%
24	5.479	5.474	5.484	VV	346	1308	0.09%	0.029%
25	5.503	5.484	5.517	VV	284	4015	0.26%	0.088%
26	5.553	5.517	5.587	VV	328	9588	0.63%	0.211%
27	5.590	5.587	5.607	VV	257	2611	0.17%	0.057%
28	5.613	5.607	5.620	VV	237	1753	0.11%	0.039%
29	5.624	5.620	5.629	VV	261	1280	0.08%	0.028%
30	5.636	5.629	5.641	VV	292	1832	0.12%	0.040%
31	5.664	5.641	5.670	VV	282	4338	0.28%	0.095%
32	5.673	5.670	5.690	VV	271	2946	0.19%	0.065%
33	5.699	5.690	5.722	VV	306	5514	0.36%	0.121%
34	5.729	5.722	5.771	VV	395	8273	0.54%	0.182%
35	5.774	5.771	5.777	VV	288	993	0.06%	0.022%
36	5.784	5.777	5.793	VV	329	2503	0.16%	0.055%

rteres

37	5.797	5.793	5.810	VV	289	2769	0.18%	0.061%
38	5.816	5.810	5.835	VV	345	4329	0.28%	0.095%
39	5.855	5.835	5.907	VV	990	20994	1.37%	0.462%
40	5.915	5.907	5.922	VV	395	3154	0.21%	0.069%
41	5.926	5.922	5.932	VV	428	2170	0.14%	0.048%
42	5.943	5.932	5.959	VV	418	5443	0.36%	0.120%
43	5.986	5.959	5.995	VV	413	6451	0.42%	0.142%
44	6.030	5.995	6.054	PV	475	9981	0.65%	0.220%
45	6.083	6.054	6.104	VV	594	12939	0.84%	0.285%
46	6.111	6.104	6.119	VV	428	3242	0.21%	0.071%
47	6.124	6.119	6.139	VV	445	4726	0.31%	0.104%
48	6.163	6.139	6.176	VV	460	7882	0.51%	0.173%
49	6.199	6.176	6.205	VV	316	4213	0.27%	0.093%
50	6.209	6.205	6.217	VV	610	2599	0.17%	0.057%
51	6.225	6.217	6.249	VV	377	6062	0.40%	0.133%
52	6.261	6.249	6.285	VV	512	9363	0.61%	0.206%
53	6.292	6.285	6.325	VV	403	8326	0.54%	0.183%
54	6.326	6.325	6.356	VV	390	4949	0.32%	0.109%
55	6.365	6.356	6.392	VV	370	6068	0.40%	0.134%
56	6.408	6.392	6.416	VV	370	4136	0.27%	0.091%
57	6.420	6.416	6.427	VV	328	1695	0.11%	0.037%
58	6.443	6.427	6.455	VV	332	4684	0.31%	0.103%
59	6.459	6.455	6.465	VV	327	1678	0.11%	0.037%
60	6.470	6.465	6.484	VV	282	2807	0.18%	0.062%
61	6.487	6.484	6.505	VV	296	3209	0.21%	0.071%
62	6.513	6.505	6.519	VV	338	2285	0.15%	0.050%
63	6.529	6.519	6.533	VV	305	2248	0.15%	0.049%
64	6.557	6.533	6.565	VV	337	5558	0.36%	0.122%
65	6.572	6.565	6.595	VV	436	6096	0.40%	0.134%
66	6.601	6.595	6.643	VV	404	9541	0.62%	0.210%
67	6.652	6.643	6.658	VV	349	2839	0.19%	0.062%
68	6.678	6.658	6.684	VV	344	4923	0.32%	0.108%
69	6.688	6.684	6.738	VV	398	9323	0.61%	0.205%
70	6.760	6.738	6.788	VV	517	9999	0.65%	0.220%
71	6.802	6.788	6.806	VV	318	2674	0.17%	0.059%
72	6.809	6.806	6.812	VV	222	808	0.05%	0.018%
73	6.836	6.812	6.865	VV	423	9183	0.60%	0.202%
74	6.871	6.865	6.884	VV	298	2874	0.19%	0.063%
75	6.898	6.884	6.923	VV	517	8271	0.54%	0.182%
76	6.929	6.923	6.939	VV	304	2593	0.17%	0.057%
77	6.942	6.939	6.949	VV	307	1445	0.09%	0.032%
78	6.956	6.949	6.977	VV	347	4938	0.32%	0.109%
79	6.994	6.977	7.080	VV	2011	49509	3.23%	1.089%
80	7.084	7.080	7.091	VV	429	2360	0.15%	0.052%
81	7.096	7.091	7.124	VV	384	6704	0.44%	0.148%
82	7.132	7.124	7.143	VV	395	3932	0.26%	0.087%
83	7.149	7.143	7.175	VV	317	5752	0.38%	0.127%
84	7.179	7.175	7.187	VV	344	2068	0.13%	0.046%
85	7.197	7.187	7.208	VV	398	3839	0.25%	0.084%
86	7.215	7.208	7.220	VV	312	1905	0.12%	0.042%
87	7.224	7.220	7.227	VV	295	1115	0.07%	0.025%
88	7.231	7.227	7.236	VV	329	1495	0.10%	0.033%
89	7.240	7.236	7.256	VV	288	3178	0.21%	0.070%

rteres

90	7.260	7.256	7.269	VV	293	1939	0.13%	0.043%
91	7.276	7.269	7.297	VV	280	4265	0.28%	0.094%
92	7.305	7.297	7.312	VV	269	2195	0.14%	0.048%
93	7.314	7.312	7.319	VV	299	934	0.06%	0.021%
94	7.333	7.319	7.348	VV	292	4071	0.27%	0.090%
95	7.362	7.348	7.378	VV	247	4032	0.26%	0.089%
96	7.411	7.378	7.437	VV	320	9020	0.59%	0.198%
97	7.440	7.437	7.444	VV	292	1091	0.07%	0.024%
98	7.454	7.444	7.459	VV	274	2004	0.13%	0.044%
99	7.463	7.459	7.489	VV	240	3962	0.26%	0.087%
100	7.492	7.489	7.503	VV	275	1969	0.13%	0.043%
101	7.520	7.503	7.540	VV	426	7440	0.49%	0.164%
102	7.546	7.540	7.554	VV	332	2224	0.15%	0.049%
103	7.555	7.554	7.567	VV	310	1802	0.12%	0.040%
104	7.578	7.567	7.583	VV	294	2209	0.14%	0.049%
105	7.606	7.583	7.629	VV	305	7161	0.47%	0.158%
106	7.633	7.629	7.657	VV	272	3538	0.23%	0.078%
107	7.661	7.657	7.668	VV	254	1209	0.08%	0.027%
108	7.706	7.668	7.712	VV	302	5616	0.37%	0.124%
109	7.725	7.712	7.735	VV	380	4155	0.27%	0.091%
110	7.738	7.735	7.757	VV	356	3214	0.21%	0.071%
111	7.765	7.757	7.790	VV	263	4387	0.29%	0.097%
112	7.800	7.790	7.808	VV	262	2106	0.14%	0.046%
113	7.821	7.808	7.837	VV	263	3374	0.22%	0.074%
114	7.842	7.837	7.849	VV	216	1305	0.09%	0.029%
115	7.858	7.849	7.884	VV	280	4105	0.27%	0.090%
116	7.885	7.884	7.904	VV	233	2060	0.13%	0.045%
117	7.906	7.904	7.922	VV	216	1987	0.13%	0.044%
118	7.928	7.922	7.932	VV	241	1163	0.08%	0.026%
119	7.934	7.932	7.956	VV	283	2799	0.18%	0.062%
120	7.969	7.956	7.995	VV	293	5156	0.34%	0.113%
121	7.999	7.995	8.020	VV	208	2902	0.19%	0.064%
122	8.029	8.020	8.067	VV	210	4018	0.26%	0.088%
123	8.071	8.067	8.075	VV	192	615	0.04%	0.014%
124	8.080	8.075	8.087	VV	189	1058	0.07%	0.023%
125	8.119	8.087	8.132	VV	254	3848	0.25%	0.085%
126	8.138	8.132	8.194	VV	234	4103	0.27%	0.090%
127	8.206	8.194	8.227	VV	154	2036	0.13%	0.045%
128	8.246	8.227	8.255	VV	162	1746	0.11%	0.038%
129	8.271	8.255	8.305	VV	219	4025	0.26%	0.089%
130	8.317	8.305	8.350	VV	178	3578	0.23%	0.079%
131	8.357	8.350	8.369	VV	118	1153	0.08%	0.025%
132	8.396	8.369	8.417	VV	352	6045	0.39%	0.133%
133	8.430	8.417	8.438	VV	249	2078	0.14%	0.046%
134	8.454	8.438	8.469	VV	210	2877	0.19%	0.063%
135	8.490	8.469	8.506	VV	200	3276	0.21%	0.072%
136	8.522	8.506	8.574	VV	148	4688	0.31%	0.103%
137	8.588	8.574	8.609	VV	211	2465	0.16%	0.054%
138	8.687	8.609	8.725	VV	193	8486	0.55%	0.187%
139	8.758	8.725	8.806	VV	232	8374	0.55%	0.184%
140	8.825	8.806	8.840	VV	401	5497	0.36%	0.121%
141	8.864	8.840	8.913	VV	303	8811	0.57%	0.194%

rteres

142	8.918	8.913	8.961	VV	137	3098	0.20%	0.068%
143	8.970	8.961	8.976	VV	146	1201	0.08%	0.026%
144	8.985	8.976	9.030	VV	185	4063	0.27%	0.089%
145	9.048	9.030	9.071	VV	123	1960	0.13%	0.043%
146	9.090	9.071	9.113	VV	119	1532	0.10%	0.034%
147	9.291	9.113	9.310	PV	286	11847	0.77%	0.261%
148	9.332	9.310	9.343	VV	274	4278	0.28%	0.094%
149	9.350	9.343	9.384	VV	230	4311	0.28%	0.095%
150	9.404	9.384	9.426	VV	201	3528	0.23%	0.078%
151	9.441	9.426	9.462	VV	188	2723	0.18%	0.060%
152	9.485	9.462	9.570	VV	314	12147	0.79%	0.267%
153	9.589	9.570	9.649	VV	306	8601	0.56%	0.189%
154	9.679	9.649	9.723	VV	465	10460	0.68%	0.230%
155	9.733	9.723	9.750	VV	169	2091	0.14%	0.046%
156	9.858	9.750	9.892	VV	188	9458	0.62%	0.208%
157	9.906	9.892	9.915	VV	135	1570	0.10%	0.035%
158	9.928	9.915	9.970	VV	148	3515	0.23%	0.077%
159	9.996	9.970	10.050	VV	304	7960	0.52%	0.175%
160	10.068	10.050	10.137	VV	264	9823	0.64%	0.216%
161	10.145	10.137	10.166	VV	217	2793	0.18%	0.061%
162	10.181	10.166	10.206	VV	187	3068	0.20%	0.068%
163	10.236	10.206	10.263	VV	231	4501	0.29%	0.099%
164	10.282	10.263	10.306	VV	203	4191	0.27%	0.092%
165	10.340	10.306	10.410	VV	5668	82572	5.39%	1.817%
166	10.416	10.410	10.427	VV	318	3291	0.21%	0.072%
167	10.452	10.427	10.500	VV	593	14558	0.95%	0.320%
168	10.516	10.500	10.542	VV	218	3827	0.25%	0.084%
169	10.561	10.542	10.594	VV	197	3931	0.26%	0.086%
170	10.620	10.594	10.667	VV	155	4189	0.27%	0.092%
171	10.690	10.667	10.736	VV	130	3907	0.25%	0.086%
172	10.811	10.736	10.826	VV	285	7104	0.46%	0.156%
173	10.843	10.826	10.872	VV	268	5703	0.37%	0.125%
174	10.883	10.872	10.915	VV	299	5630	0.37%	0.124%
175	10.932	10.915	10.966	VV	257	5575	0.36%	0.123%
176	11.004	10.966	11.025	VV	271	6834	0.45%	0.150%
177	11.042	11.025	11.062	VV	174	3223	0.21%	0.071%
178	11.073	11.062	11.082	VV	156	1780	0.12%	0.039%
179	11.113	11.082	11.130	VV	296	6957	0.45%	0.153%
180	11.186	11.130	11.242	VV	573	17160	1.12%	0.378%
181	11.251	11.242	11.286	VV	174	4207	0.27%	0.093%
182	11.301	11.286	11.377	VV	211	8699	0.57%	0.191%
183	11.401	11.377	11.426	VV	219	5442	0.35%	0.120%
184	11.456	11.426	11.488	VV	297	7792	0.51%	0.171%
185	11.500	11.488	11.555	VV	265	8622	0.56%	0.190%
186	11.585	11.555	11.596	VV	272	5584	0.36%	0.123%
187	11.642	11.596	11.683	VV	276	10045	0.66%	0.221%
188	11.693	11.683	11.729	VV	294	4330	0.28%	0.095%
189	11.752	11.729	11.789	PV	213	5646	0.37%	0.124%
190	11.811	11.789	11.841	VV	331	6722	0.44%	0.148%
191	11.884	11.841	11.922	VV	633	12864	0.84%	0.283%
192	11.950	11.922	11.965	VV	277	4490	0.29%	0.099%
193	11.976	11.965	12.019	VV	422	5891	0.38%	0.130%
194	12.046	12.019	12.100	VV	276	6984	0.46%	0.154%

rteres

195	12.116	12.100	12.126	VV	206	2522	0.16%	0.055%
196	12.143	12.126	12.176	VV	177	4239	0.28%	0.093%
197	12.191	12.176	12.228	VV	286	4530	0.30%	0.100%
198	12.255	12.228	12.266	VV	353	4359	0.28%	0.096%
199	12.299	12.266	12.326	VV	433	7925	0.52%	0.174%
200	12.363	12.326	12.413	VV	311	9060	0.59%	0.199%
201	12.424	12.413	12.443	VV	118	1604	0.10%	0.035%
202	12.448	12.443	12.462	VV	58	849	0.06%	0.019%
203	12.481	12.462	12.515	VV	172	3682	0.24%	0.081%
204	12.549	12.515	12.582	VV	528	9547	0.62%	0.210%
205	12.645	12.582	12.694	VV	599	11470	0.75%	0.252%
206	12.719	12.694	12.740	VV	174	3026	0.20%	0.067%
207	12.751	12.740	12.757	VV	99	614	0.04%	0.014%
208	12.787	12.757	12.875	VV	5255	74877	4.88%	1.647%
209	12.898	12.875	12.912	VV	310	5924	0.39%	0.130%
210	12.924	12.912	12.975	VV	342	8788	0.57%	0.193%
211	12.992	12.975	13.071	VV	273	9108	0.59%	0.200%
212	13.080	13.071	13.087	VV	139	886	0.06%	0.020%
213	13.097	13.087	13.110	VV	162	1585	0.10%	0.035%
214	13.132	13.110	13.161	VV	216	4997	0.33%	0.110%
215	13.185	13.161	13.220	PV	601	9583	0.63%	0.211%
216	13.284	13.220	13.329	VV	427	11558	0.75%	0.254%
217	13.339	13.329	13.350	VV	105	978	0.06%	0.022%
218	13.362	13.350	13.383	VV	217	2092	0.14%	0.046%
219	13.424	13.383	13.460	VV	221	5075	0.33%	0.112%
220	13.466	13.460	13.496	VV	138	1950	0.13%	0.043%
221	13.510	13.496	13.540	VV	127	2186	0.14%	0.048%
222	13.582	13.540	13.620	VV	522	10817	0.71%	0.238%
223	13.631	13.620	13.640	PV	114	1091	0.07%	0.024%
224	13.644	13.640	13.661	VV	141	1339	0.09%	0.029%
225	13.744	13.661	13.763	VV	238	7369	0.48%	0.162%
226	13.820	13.763	13.943	VV	8070	184148	12.01%	4.052%
227	13.987	13.943	14.006	VV	909	18526	1.21%	0.408%
228	14.018	14.006	14.063	VV	600	12853	0.84%	0.283%
229	14.073	14.063	14.119	VV	229	6387	0.42%	0.141%
230	14.157	14.119	14.170	VV	261	6290	0.41%	0.138%
231	14.174	14.170	14.209	VV	280	4629	0.30%	0.102%
232	14.235	14.209	14.246	VV	220	3835	0.25%	0.084%
233	14.266	14.246	14.283	VV	221	3711	0.24%	0.082%
234	14.326	14.283	14.346	VV	768	12585	0.82%	0.277%
235	14.374	14.346	14.395	VV	578	9048	0.59%	0.199%
236	14.419	14.395	14.456	VV	291	7211	0.47%	0.159%
237	14.479	14.456	14.564	VV	264	9700	0.63%	0.213%
238	14.590	14.564	14.616	VV	165	3805	0.25%	0.084%
239	14.643	14.616	14.673	VV	518	9049	0.59%	0.199%
240	14.691	14.673	14.712	VV	235	3486	0.23%	0.077%
241	14.735	14.712	14.746	VV	389	5176	0.34%	0.114%
242	14.763	14.746	14.833	VV	537	12594	0.82%	0.277%
243	14.852	14.833	14.873	VV	306	5248	0.34%	0.115%
244	14.886	14.873	14.913	VV	212	4592	0.30%	0.101%
245	14.939	14.913	14.973	VV	661	14285	0.93%	0.314%
246	14.997	14.973	15.118	VV	820	32108	2.09%	0.706%

rteres

247	15.155	15.118	15.182	VV	440	9239	0.60%	0.203%
248	15.210	15.182	15.226	VV	302	6084	0.40%	0.134%
249	15.268	15.226	15.353	VV	118555	1533247	100.00%	33.735%
250	15.367	15.353	15.401	VV	291	5571	0.36%	0.123%
251	15.430	15.401	15.451	VV	521	10859	0.71%	0.239%
252	15.470	15.451	15.498	VV	904	15401	1.00%	0.339%
253	15.518	15.498	15.538	VV	411	7126	0.46%	0.157%
254	15.547	15.538	15.558	VV	212	2565	0.17%	0.056%
255	15.583	15.558	15.633	VV	419	11784	0.77%	0.259%
256	15.671	15.633	15.760	VV	401	17614	1.15%	0.388%
257	15.777	15.760	15.792	VV	276	4150	0.27%	0.091%
258	15.850	15.792	15.938	VV	6057	116905	7.62%	2.572%
259	15.951	15.938	15.966	VV	503	7336	0.48%	0.161%
260	15.989	15.966	16.001	VV	860	13041	0.85%	0.287%
261	16.012	16.001	16.053	VV	846	17195	1.12%	0.378%
262	16.086	16.053	16.103	VV	571	14120	0.92%	0.311%
263	16.119	16.103	16.144	VV	642	13994	0.91%	0.308%
264	16.151	16.144	16.181	VV	562	11522	0.75%	0.254%
265	16.189	16.181	16.212	VV	469	8343	0.54%	0.184%
266	16.244	16.212	16.252	VV	648	13653	0.89%	0.300%
267	16.276	16.252	16.297	VV	782	17467	1.14%	0.384%
268	16.306	16.297	16.325	VV	588	10175	0.66%	0.224%
269	16.359	16.325	16.416	VV	948	38840	2.53%	0.855%
270	16.446	16.416	16.460	VV	844	19262	1.26%	0.424%
271	16.486	16.460	16.513	VV	1312	30117	1.96%	0.663%
272	16.624	16.513	16.636	VV	956	61085	3.98%	1.344%
273	16.686	16.636	16.700	VV	1010	36429	2.38%	0.802%
274	16.834	16.700	16.838	VV	1294	92283	6.02%	2.030%
275	16.858	16.838	16.886	VV	1770	44035	2.87%	0.969%
276	16.934	16.886	16.943	VV	1583	51308	3.35%	1.129%
277	16.967	16.943	17.000	VV	2140	61488	4.01%	1.353%
278	17.056	17.000	17.076	VV	1880	78644	5.13%	1.730%
279	17.102	17.076	17.164	VV	3166	115447	7.53%	2.540%
280	17.431	17.164	17.463	VBA	4069	459448	29.97%	10.109%

Sum of corrected areas: 4544991

FE012325.M Fri Jan 31 03:10:32 2025

CALIBRATION SUMMARY

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

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: WEST04

ProjectID: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Lab Code: CHEM Case No.: Q1211 SAS No.: Q1211 SDG No.: Q1211

Calibration Sequence : FE012325		Test : Diesel Range Organics	
Concentration (PPM)	**Area Count**	**Reference Factor**	**File ID**
1000	100840417	100840	FE052027.D
500	49711032	99422	FE052028.D
200	20907011	104535	FE052029.D
100	11272495	112725	FE052030.D
50	5669298	113386	FE052031.D
AVG RF : 106182	**% RSD : 6.169**		**AVG RT : 15.2554**

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052027.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 22:06
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.260	9326838	100.174 ug/ml
	Target Compounds			
1)	N-OCTANE	2.414	8352750	103.369 ug/ml
2)	N-DECANE	4.910	8964173	103.553 ug/ml
3)	N-DODECANE	7.039	9720116	103.116 ug/ml
4)	N-TETRADECANE	8.845	9800969	102.624 ug/ml
5)	N-HEXADECANE	10.439	10191868	102.144 ug/ml
6)	N-OCTADECANE	11.873	10670149	101.681 ug/ml
7)	N-EICOSANE	13.174	10511987	101.149 ug/ml
8)	N-DOCOSANE	14.367	10414135	100.677 ug/ml
10)	N-TETRACOSANE	15.465	10358861	100.274 ug/ml
11)	N-HEXACOSANE	16.482	10187153	100.078 ug/ml
12)	N-OCTACOSANE	17.429	10021006	99.509 ug/ml
13)	N-TRIACONTANE	18.313	9878203	99.283 ug/ml
14)	N-DOTRIACONTANE	19.143	9582276	99.145 ug/ml
15)	N-TETRATRIACONTANE	19.925	8712926	100.310 ug/ml
16)	N-HEXATRIACONTANE	20.662	7584514	101.793 ug/ml
17)	N-OCTATRIACONTANE	21.449	7106830	103.214 ug/ml
18)	N-TETRACONTANE	22.450	7068311	105.034 ug/ml

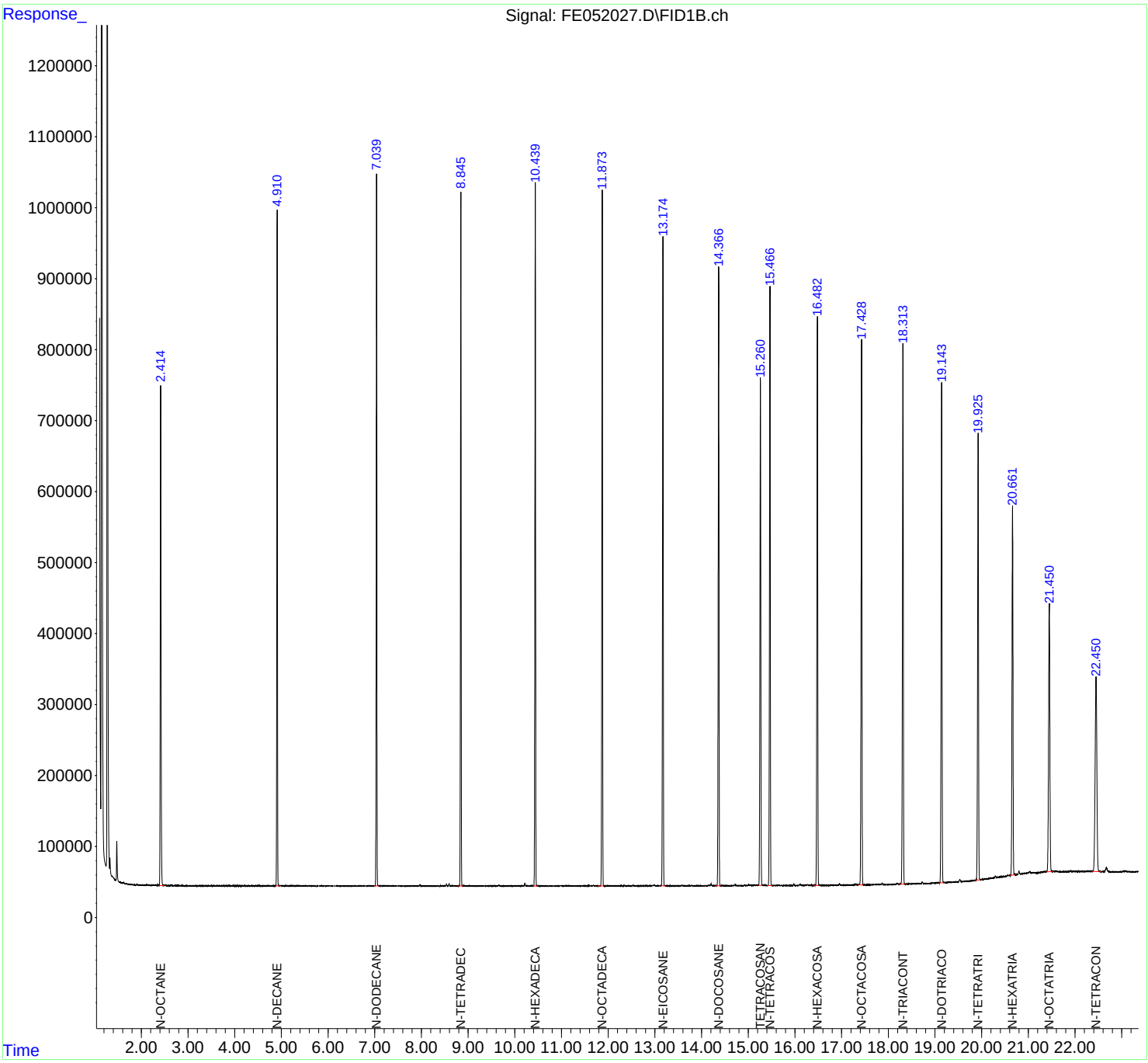
(f)=RT Delta > 1/2 Window (m)=manual int.

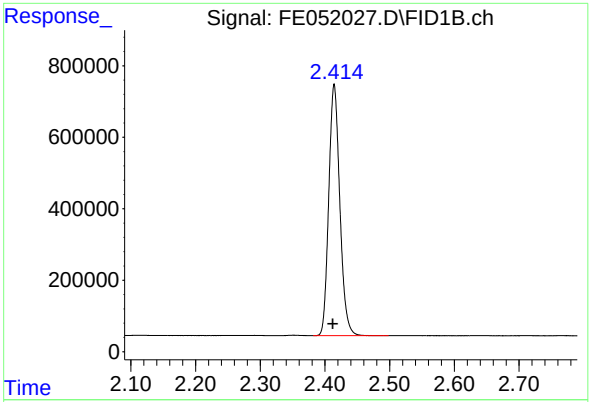
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052027.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 22:06
Operator : YP\AJ
Sample : 100 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
100 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:18 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

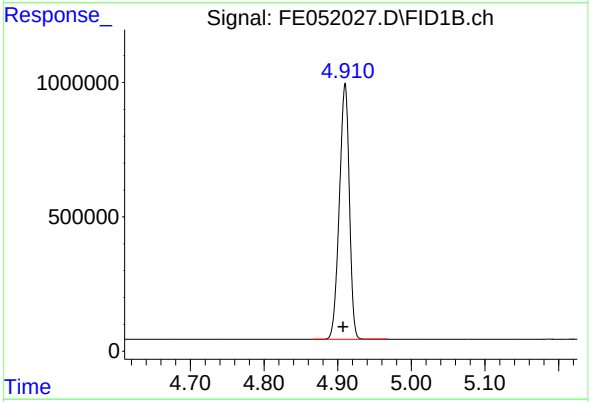




#1 N-OCTANE

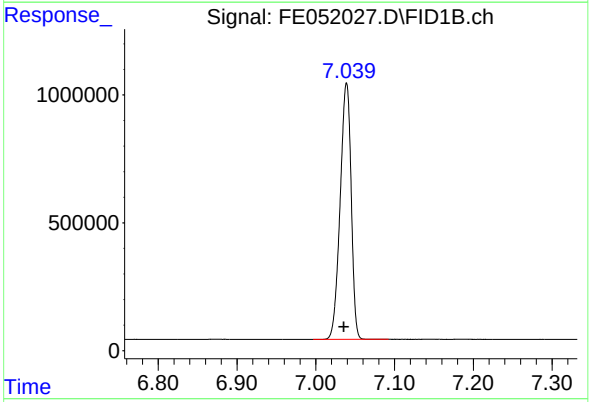
R.T.: 2.414 min
Delta R.T.: 0.002 min
Response: 8352750
Conc: 103.37 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



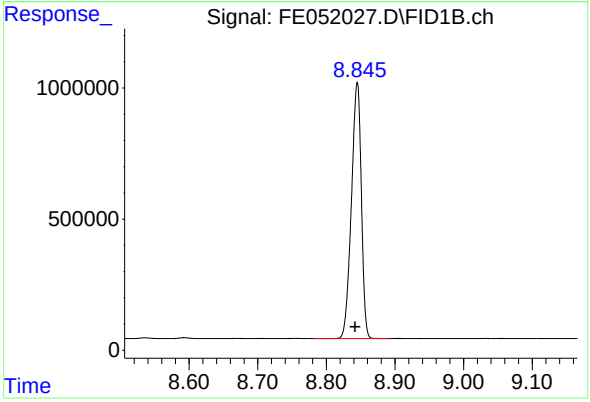
#2 N-DECANE

R.T.: 4.910 min
Delta R.T.: 0.003 min
Response: 8964173
Conc: 103.55 ug/ml



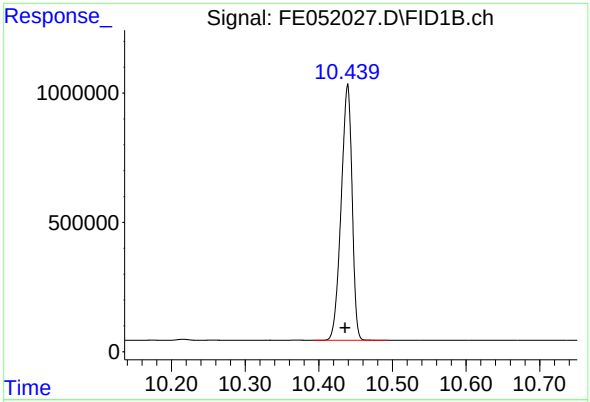
#3 N-DODECANE

R.T.: 7.039 min
Delta R.T.: 0.003 min
Response: 9720116
Conc: 103.12 ug/ml



#4 N-TETRADECANE

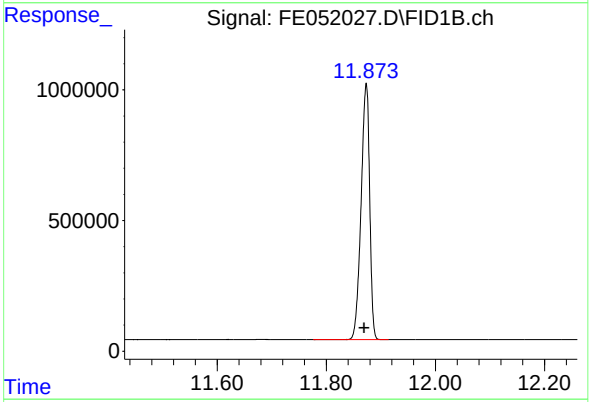
R.T.: 8.845 min
Delta R.T.: 0.003 min
Response: 9800969
Conc: 102.62 ug/ml



#5 N-HEXADECANE

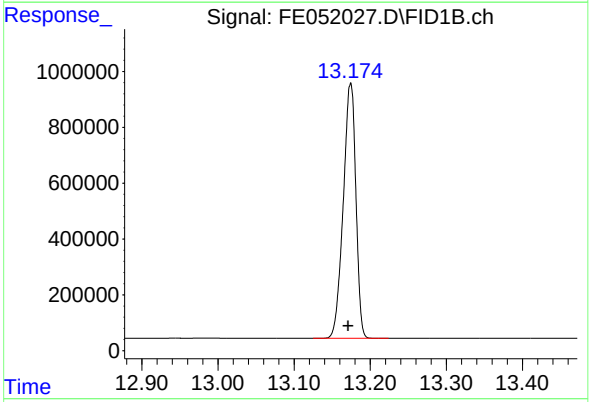
R.T.: 10.439 min
Delta R.T.: 0.004 min
Response: 10191868
Conc: 102.14 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



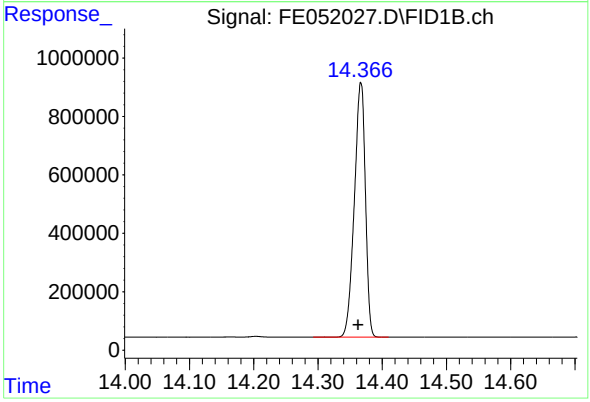
#6 N-OCTADECANE

R.T.: 11.873 min
Delta R.T.: 0.004 min
Response: 10670149
Conc: 101.68 ug/ml



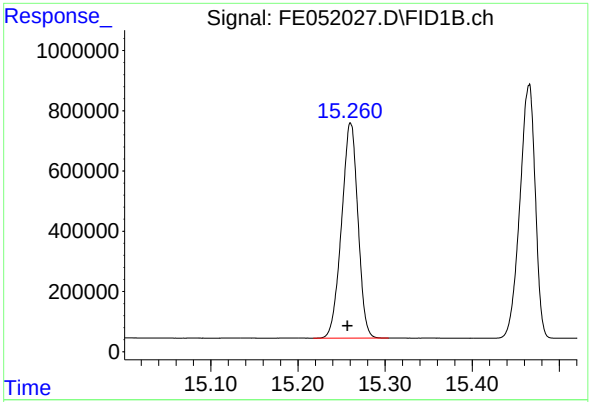
#7 N-EICOSANE

R.T.: 13.174 min
Delta R.T.: 0.003 min
Response: 10511987
Conc: 101.15 ug/ml



#8 N-DOCOSANE

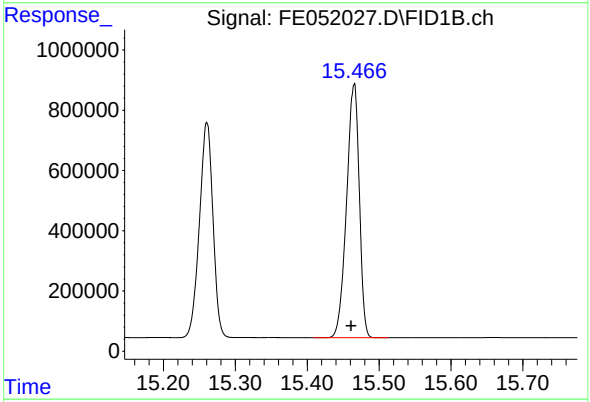
R.T.: 14.367 min
Delta R.T.: 0.004 min
Response: 10414135
Conc: 100.68 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

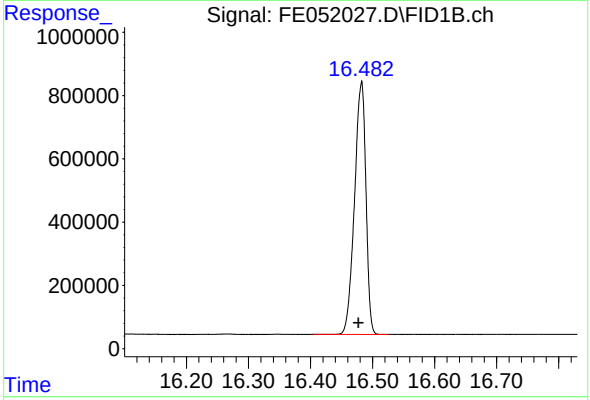
R.T.: 15.260 min
Delta R.T.: 0.003 min
Response: 9326838
Conc: 100.17 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



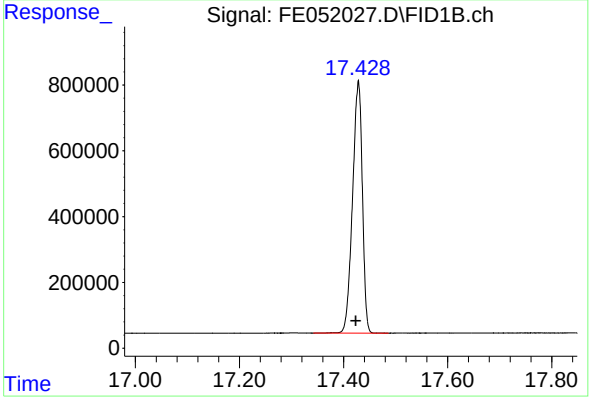
#10 N-TETRACOSANE

R.T.: 15.465 min
Delta R.T.: 0.004 min
Response: 10358861
Conc: 100.27 ug/ml



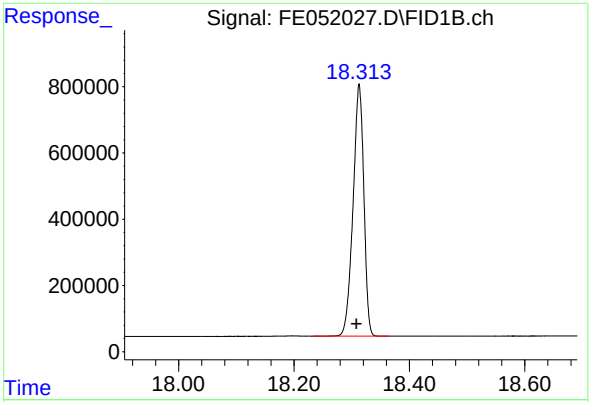
#11 N-HEXACOSANE

R.T.: 16.482 min
Delta R.T.: 0.005 min
Response: 10187153
Conc: 100.08 ug/ml



#12 N-OCTACOSANE

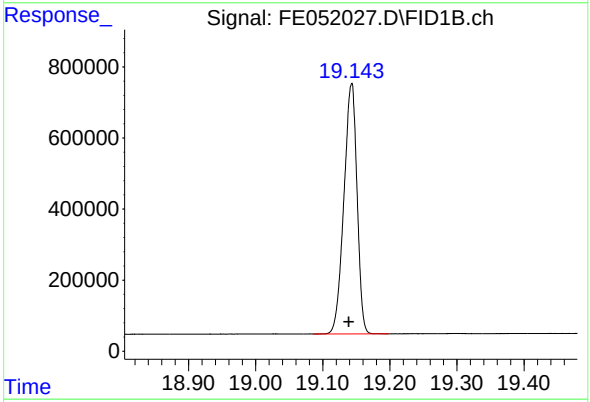
R.T.: 17.429 min
Delta R.T.: 0.005 min
Response: 10021006
Conc: 99.51 ug/ml



#13 N-TRIACONTANE

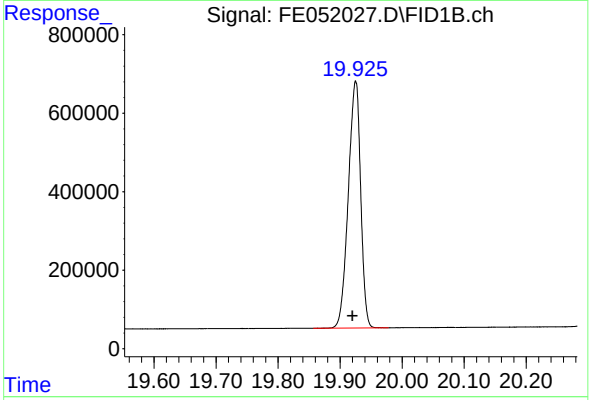
R.T.: 18.313 min
Delta R.T.: 0.005 min
Response: 9878203
Conc: 99.28 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



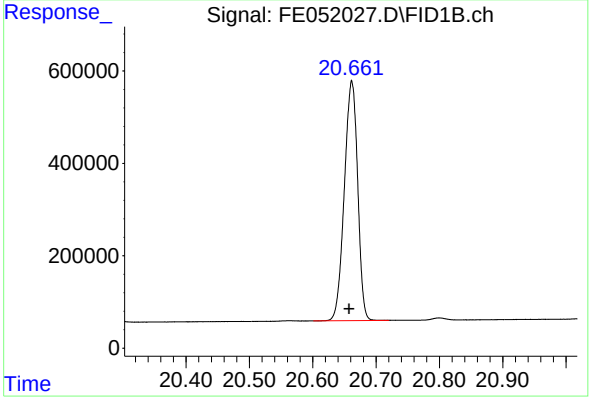
#14 N-DOTRIACONTANE

R.T.: 19.143 min
Delta R.T.: 0.004 min
Response: 9582276
Conc: 99.15 ug/ml



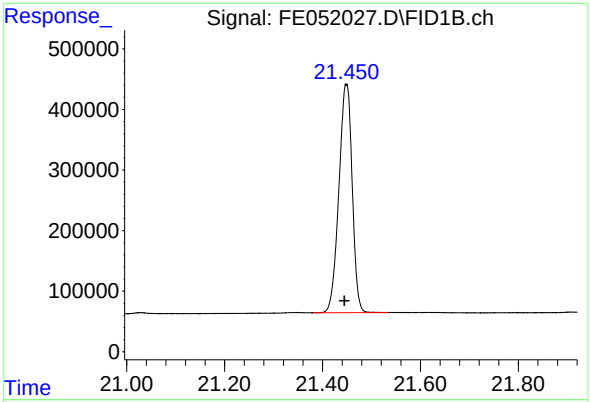
#15 N-TETRATRIACONTANE

R.T.: 19.925 min
Delta R.T.: 0.005 min
Response: 8712926
Conc: 100.31 ug/ml



#16 N-HEXATRIACONTANE

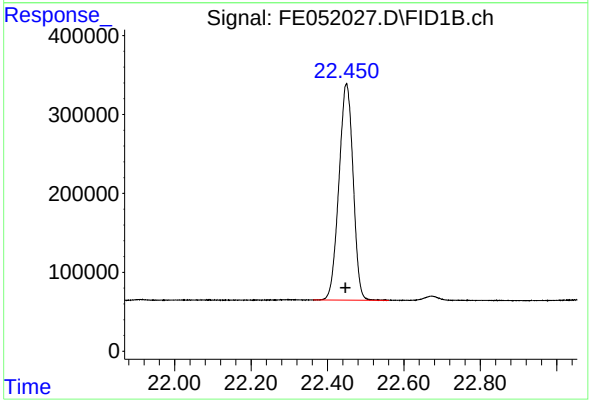
R.T.: 20.662 min
Delta R.T.: 0.004 min
Response: 7584514
Conc: 101.79 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.449 min
Delta R.T.: 0.004 min
Response: 7106830
Conc: 103.21 ug/ml

Instrument :
FID_E
ClientSampleId :
100 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.450 min
Delta R.T.: 0.002 min
Response: 7068311
Conc: 105.03 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052027.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 22:06
Sample : 100 TRPH STD
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.414	2.382	2.498	PB	704049	8352750	78.28%	4.959%
2	4.910	4.867	4.969	BB	951340	8964173	84.01%	5.321%
3	7.039	6.997	7.092	BB	1002810	9720116	91.10%	5.770%
4	8.845	8.781	8.891	BV	977530	9800969	91.85%	5.818%
5	10.439	10.392	10.495	BB	989021	10191868	95.52%	6.050%
6	11.873	11.776	11.914	BB	979790	10670149	100.00%	6.334%
7	13.174	13.125	13.224	BB	912737	10511987	98.52%	6.240%
8	14.367	14.292	14.410	BB	871499	10414135	97.60%	6.182%
9	15.260	15.217	15.304	PV	713126	9326838	87.41%	5.537%
10	15.465	15.408	15.513	BB	842402	10358861	97.08%	6.149%
11	16.482	16.404	16.526	BB	799959	10187153	95.47%	6.047%
12	17.429	17.342	17.487	BB	765387	10021006	93.92%	5.949%
13	18.313	18.233	18.364	BB	762184	9878203	92.58%	5.864%
14	19.143	19.086	19.198	BB	704937	9582276	89.80%	5.688%
15	19.925	19.857	19.978	BV	629323	8712926	81.66%	5.172%
16	20.662	20.601	20.720	BB	519502	7584514	71.08%	4.502%
17	21.449	21.381	21.535	BB	375187	7106830	66.60%	4.219%
18	22.450	22.362	22.560	BB	274238	7068311	66.24%	4.196%

Sum of corrected areas: 168453064

FE012325.M Fri Jan 24 03:17:50 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052028.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:06
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.257	4655317	50.000 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	4040248	50.000 ug/ml
2)	N-DECANE	4.907	4328284	50.000 ug/ml
3)	N-DODECANE	7.036	4713212	50.000 ug/ml
4)	N-TETRADECANE	8.842	4775185	50.000 ug/ml
5)	N-HEXADECANE	10.436	4988963	50.000 ug/ml
6)	N-OCTADECANE	11.869	5246868	50.000 ug/ml
7)	N-EICOSANE	13.171	5196311	50.000 ug/ml
8)	N-DOCOSANE	14.362	5172075	50.000 ug/ml
10)	N-TETRACOSANE	15.461	5165286	50.000 ug/ml
11)	N-HEXACOSANE	16.477	5089619	50.000 ug/ml
12)	N-OCTACOSANE	17.424	5035229	50.000 ug/ml
13)	N-TRIACONTANE	18.308	4974786	50.000 ug/ml
14)	N-DOTRIACONTANE	19.139	4832453	50.000 ug/ml
15)	N-TETRATRIACONTANE	19.920	4342985	50.000 ug/ml
16)	N-HEXATRIACONTANE	20.657	3725450	50.000 ug/ml
17)	N-OCTATRIACONTANE	21.445	3442776	50.000 ug/ml
18)	N-TETRACONTANE	22.447	3364772	50.000 ug/ml

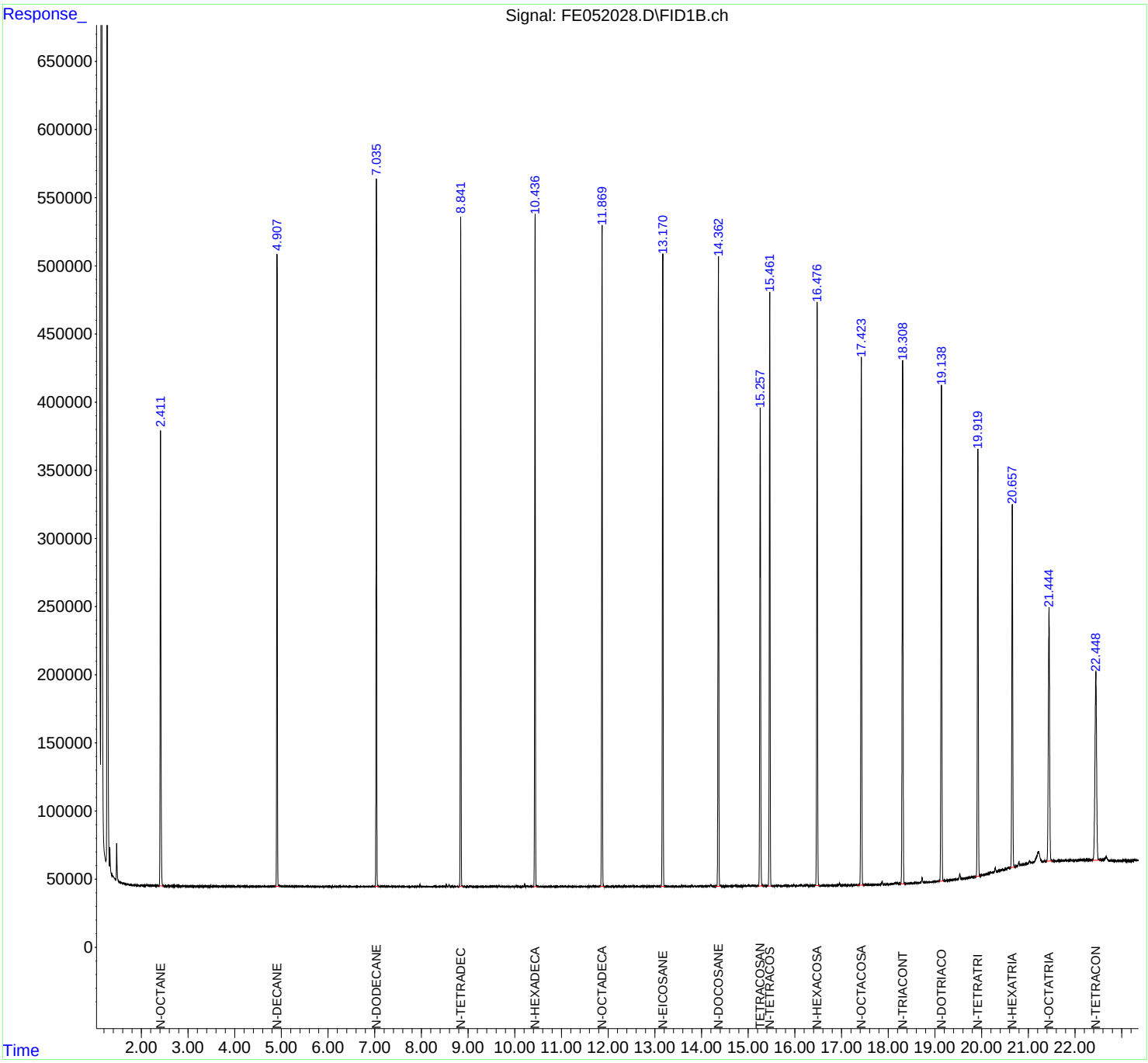
(f)=RT Delta > 1/2 Window (m)=manual int.

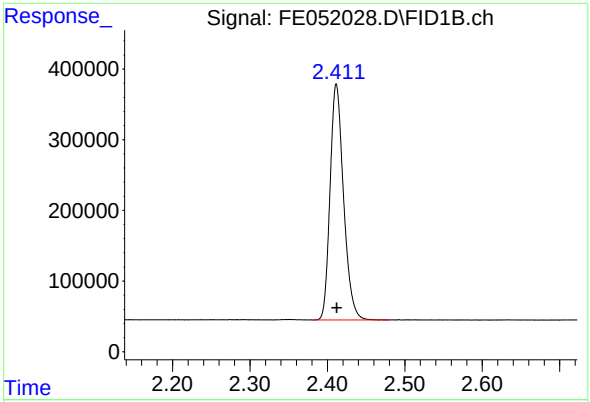
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052028.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:06
Operator : YP\AJ
Sample : 50 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

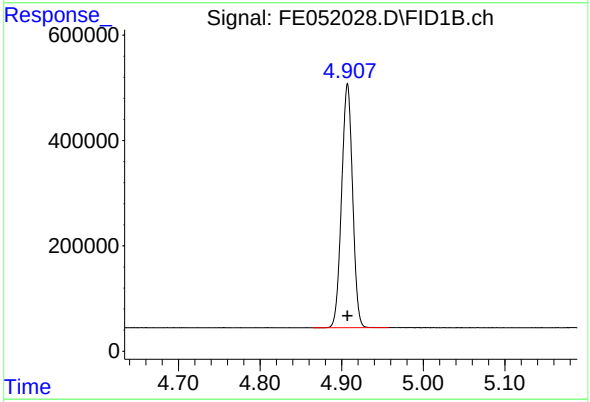




#1 N-OCTANE

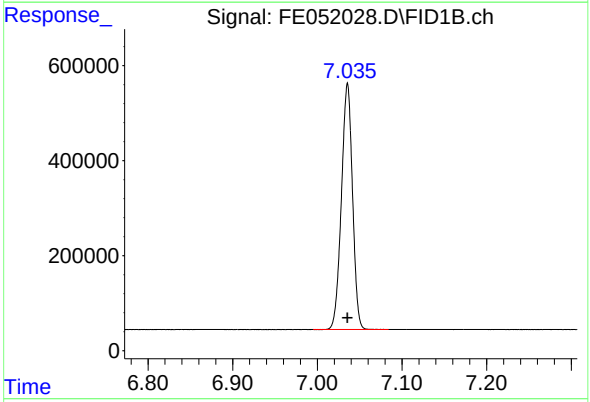
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 4040248
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



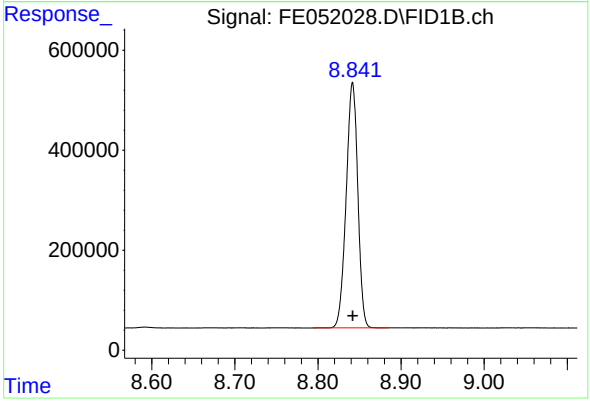
#2 N-DECANE

R.T.: 4.907 min
Delta R.T.: 0.000 min
Response: 4328284
Conc: 50.00 ug/ml



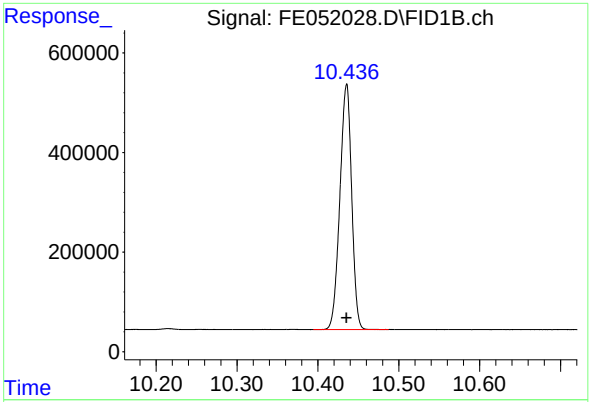
#3 N-DODECANE

R.T.: 7.036 min
Delta R.T.: 0.000 min
Response: 4713212
Conc: 50.00 ug/ml



#4 N-TETRADECANE

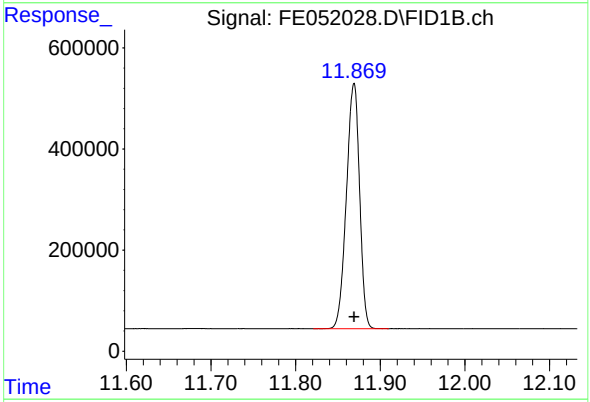
R.T.: 8.842 min
Delta R.T.: 0.000 min
Response: 4775185
Conc: 50.00 ug/ml



#5 N-HEXADECANE

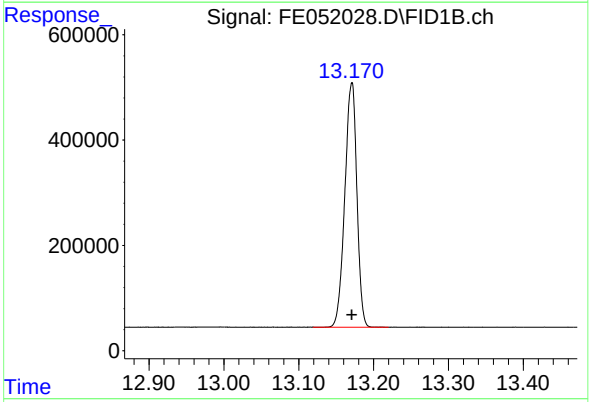
R.T.: 10.436 min
Delta R.T.: 0.000 min
Response: 4988963
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



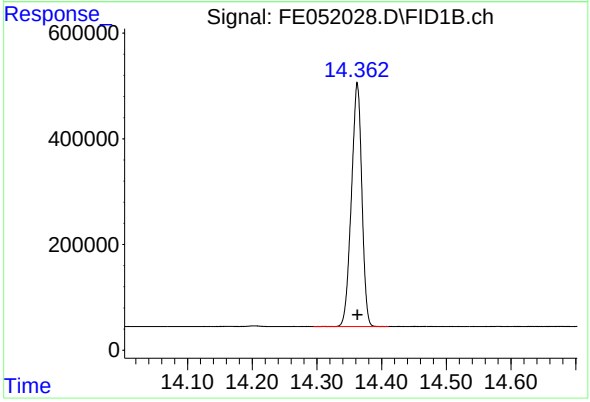
#6 N-OCTADECANE

R.T.: 11.869 min
Delta R.T.: 0.000 min
Response: 5246868
Conc: 50.00 ug/ml



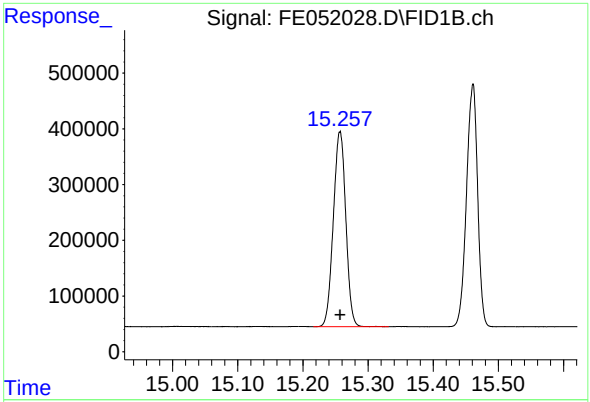
#7 N-EICOSANE

R.T.: 13.171 min
Delta R.T.: 0.000 min
Response: 5196311
Conc: 50.00 ug/ml



#8 N-DOCOSANE

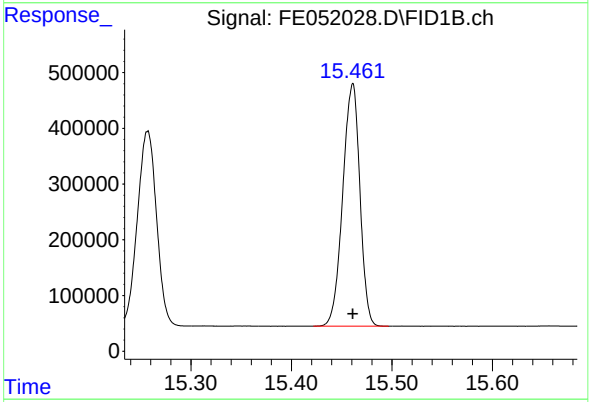
R.T.: 14.362 min
Delta R.T.: 0.000 min
Response: 5172075
Conc: 50.00 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

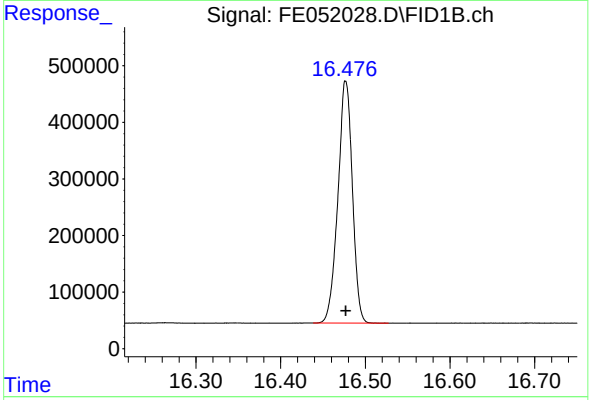
R.T.: 15.257 min
Delta R.T.: 0.000 min
Response: 4655317
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



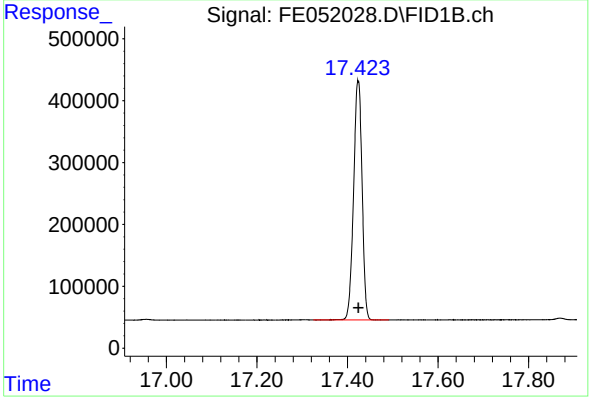
#10 N-TETRACOSANE

R.T.: 15.461 min
Delta R.T.: 0.000 min
Response: 5165286
Conc: 50.00 ug/ml



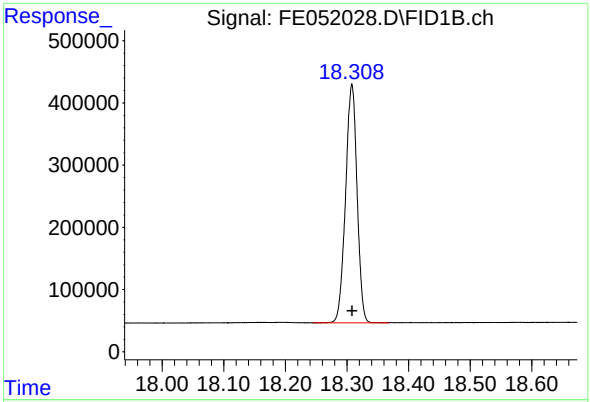
#11 N-HEXACOSANE

R.T.: 16.477 min
Delta R.T.: 0.000 min
Response: 5089619
Conc: 50.00 ug/ml



#12 N-OCTACOSANE

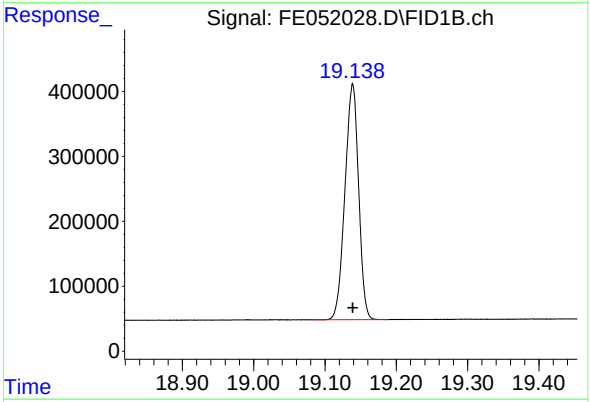
R.T.: 17.424 min
Delta R.T.: 0.000 min
Response: 5035229
Conc: 50.00 ug/ml



#13 N-TRIACONTANE

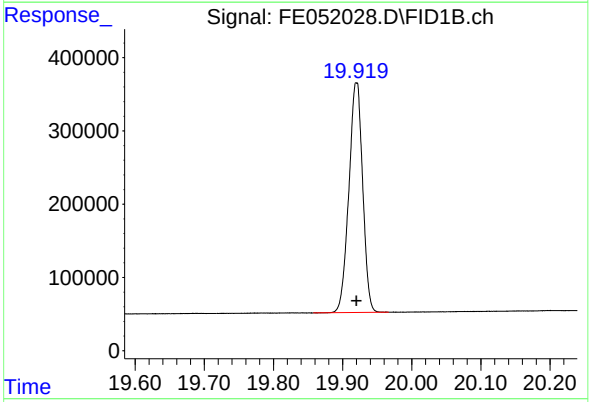
R.T.: 18.308 min
Delta R.T.: 0.000 min
Response: 4974786
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



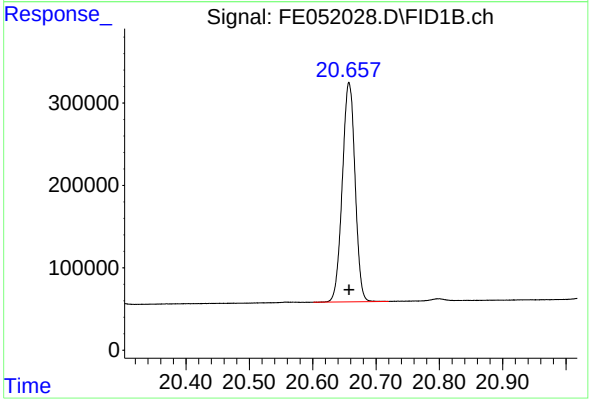
#14 N-DOTRIACONTANE

R.T.: 19.139 min
Delta R.T.: 0.000 min
Response: 4832453
Conc: 50.00 ug/ml



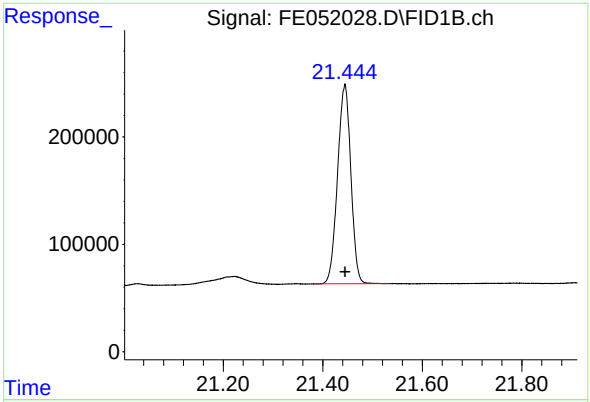
#15 N-TETRATRIACONTANE

R.T.: 19.920 min
Delta R.T.: 0.000 min
Response: 4342985
Conc: 50.00 ug/ml



#16 N-HEXATRIACONTANE

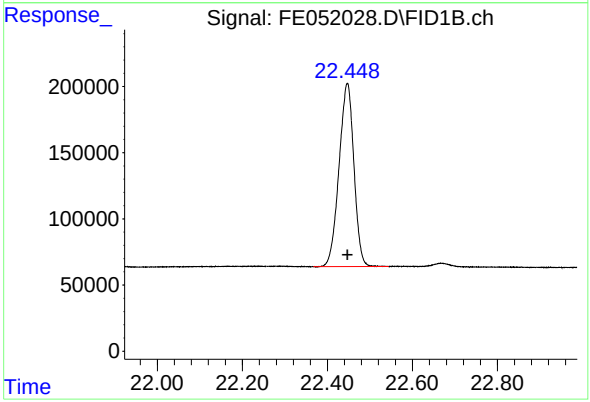
R.T.: 20.657 min
Delta R.T.: 0.000 min
Response: 3725450
Conc: 50.00 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.445 min
Delta R.T.: 0.000 min
Response: 3442776
Conc: 50.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.447 min
Delta R.T.: 0.000 min
Response: 3364772
Conc: 50.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052028.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:06
Sample : 50 TRPH STD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.382	2.479	BB	334007	4040248	77.00%	4.863%
2	4.907	4.865	4.957	BB	463698	4328284	82.49%	5.209%
3	7.036	6.995	7.084	BB	518684	4713212	89.83%	5.672%
4	8.842	8.794	8.885	BB	491118	4775185	91.01%	5.747%
5	10.436	10.394	10.487	BB	493549	4988963	95.08%	6.004%
6	11.869	11.821	11.910	BB	485508	5246868	100.00%	6.315%
7	13.171	13.119	13.220	BB	464348	5196311	99.04%	6.254%
8	14.362	14.294	14.411	BB	460694	5172075	98.57%	6.225%
9	15.257	15.216	15.332	BV	349212	4655317	88.73%	5.603%
10	15.461	15.422	15.497	BB	435610	5165286	98.45%	6.217%
11	16.477	16.438	16.527	BB	427488	5089619	97.00%	6.125%
12	17.424	17.324	17.491	BB	386262	5035229	95.97%	6.060%
13	18.308	18.245	18.367	BB	384042	4974786	94.81%	5.987%
14	19.139	19.083	19.189	BB	362886	4832453	92.10%	5.816%
15	19.920	19.857	19.967	BB	313315	4342985	82.77%	5.227%
16	20.657	20.601	20.720	BV	266273	3725450	71.00%	4.484%
17	21.445	21.381	21.532	BB	186220	3442776	65.62%	4.143%
18	22.447	22.367	22.544	BB	138429	3364772	64.13%	4.050%
			Sum of corrected areas:			83089819		

FE012325.M Fri Jan 24 03:18:33 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052029.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:36
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.254	1967122	21.128 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	1671507	20.686 ug/ml
2)	N-DECANE	4.906	1790386	20.682 ug/ml
3)	N-DODECANE	7.034	1959669	20.789 ug/ml
4)	N-TETRADECANE	8.840	1996208	20.902 ug/ml
5)	N-HEXADECANE	10.433	2090226	20.949 ug/ml
6)	N-OCTADECANE	11.866	2202071	20.985 ug/ml
7)	N-EICOSANE	13.168	2188908	21.062 ug/ml
8)	N-DOCOSANE	14.360	2186141	21.134 ug/ml
10)	N-TETRACOSANE	15.457	2185765	21.158 ug/ml
11)	N-HEXACOSANE	16.475	2160412	21.224 ug/ml
12)	N-OCTACOSANE	17.421	2147225	21.322 ug/ml
13)	N-TRIACONTANE	18.305	2136983	21.478 ug/ml
14)	N-DOTRIACONTANE	19.136	2078753	21.508 ug/ml
15)	N-TETRATRIACONTANE	19.918	1833911	21.113 ug/ml
16)	N-HEXATRIACONTANE	20.657	1534108	20.590 ug/ml
17)	N-OCTATRIACONTANE	21.439	1367415	19.859 ug/ml
18)	N-TETRACONTANE	22.440	1309204	19.455 ug/ml

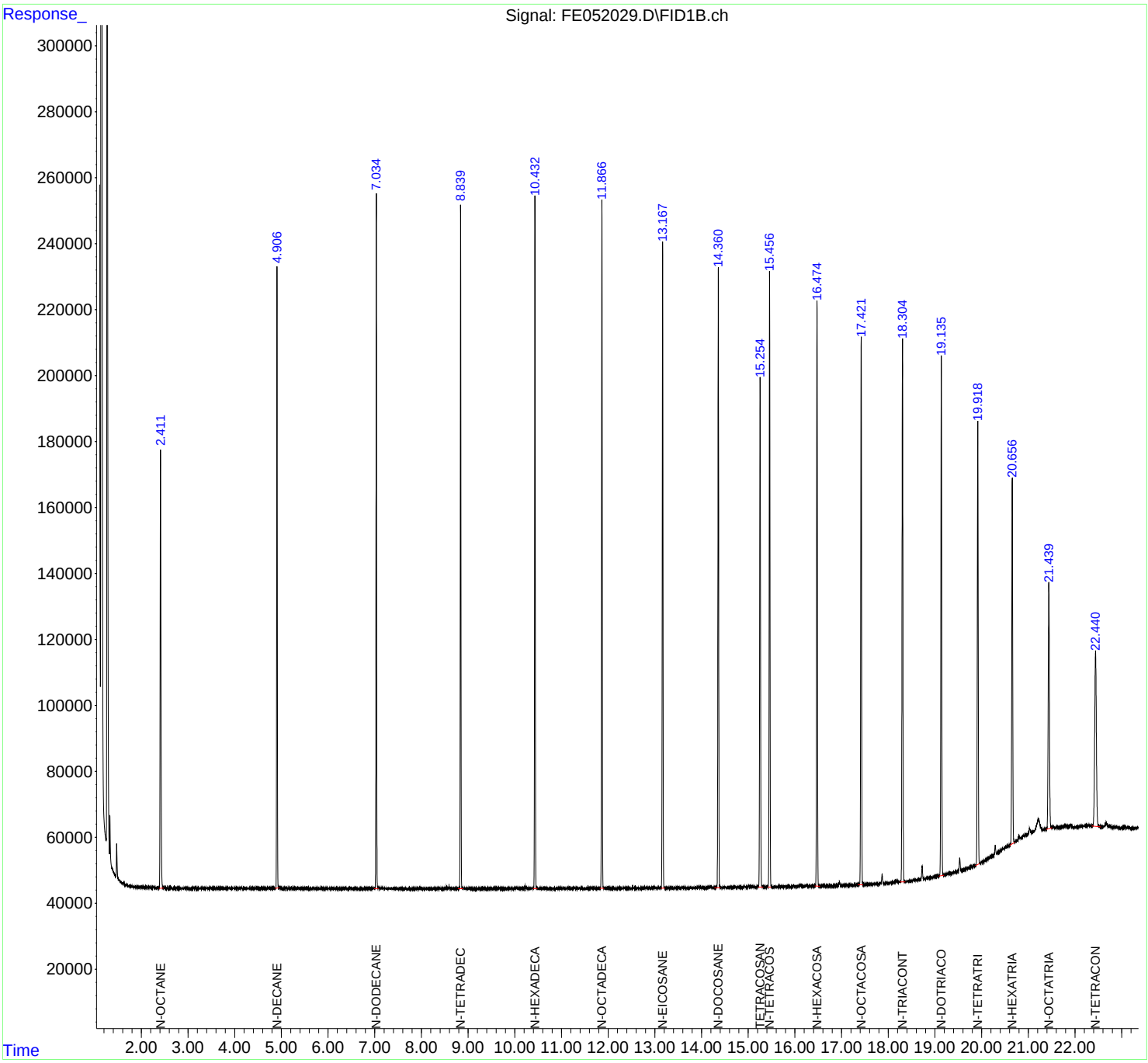
(f)=RT Delta > 1/2 Window (m)=manual int.

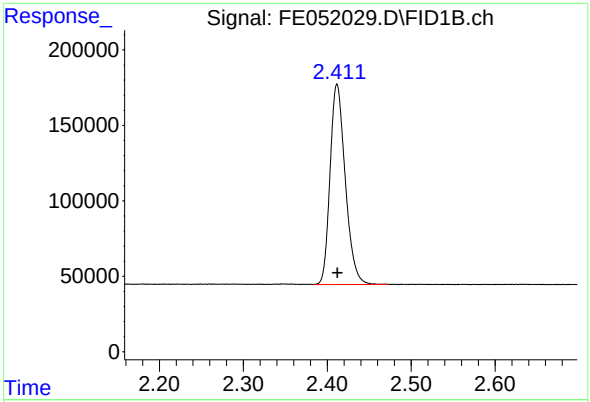
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052029.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:36
Operator : YP\AJ
Sample : 20 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:01:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

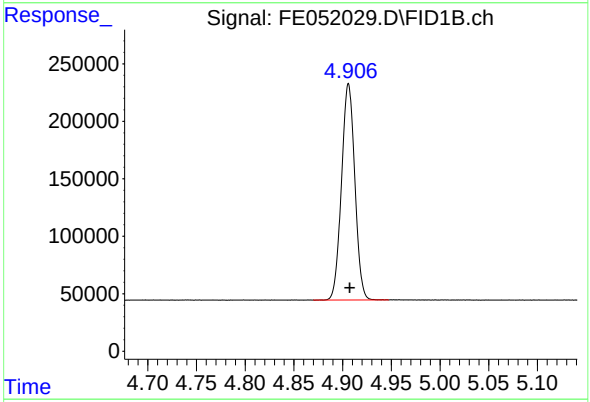




#1 N-OCTANE

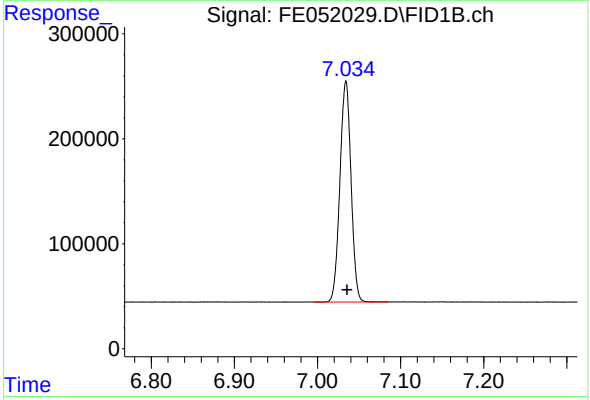
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 1671507
Conc: 20.69 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



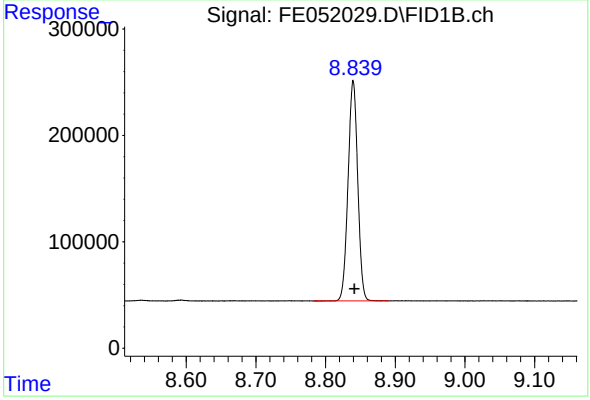
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: -0.001 min
Response: 1790386
Conc: 20.68 ug/ml



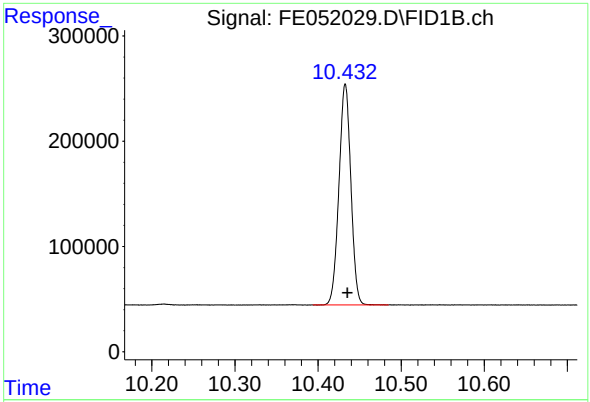
#3 N-DODECANE

R.T.: 7.034 min
Delta R.T.: -0.001 min
Response: 1959669
Conc: 20.79 ug/ml



#4 N-TETRADECANE

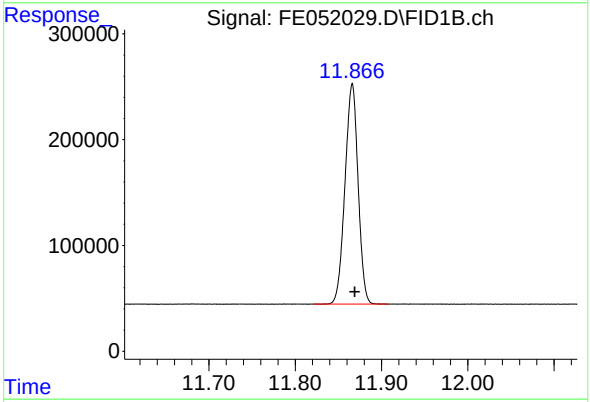
R.T.: 8.840 min
Delta R.T.: -0.002 min
Response: 1996208
Conc: 20.90 ug/ml



#5 N-HEXADECANE

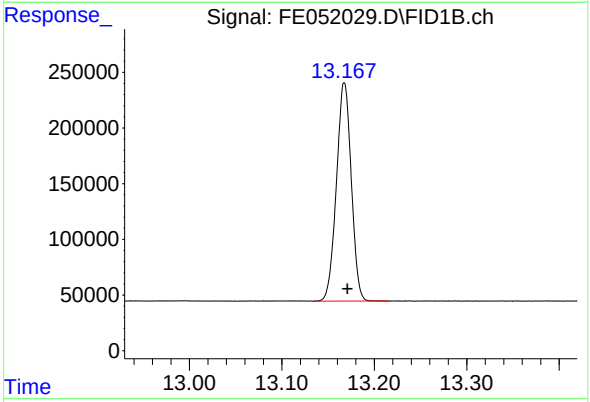
R.T.: 10.433 min
Delta R.T.: -0.003 min
Response: 2090226
Conc: 20.95 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



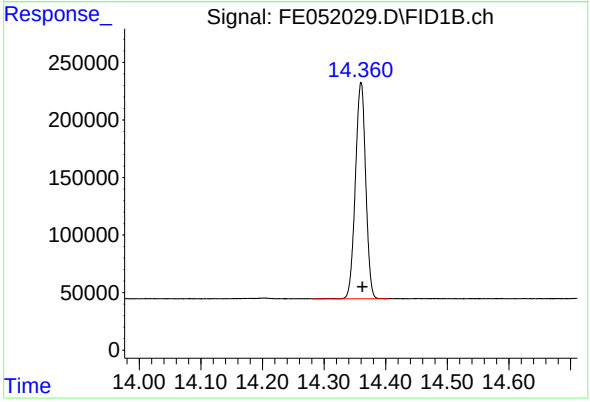
#6 N-OCTADECANE

R.T.: 11.866 min
Delta R.T.: -0.003 min
Response: 2202071
Conc: 20.98 ug/ml



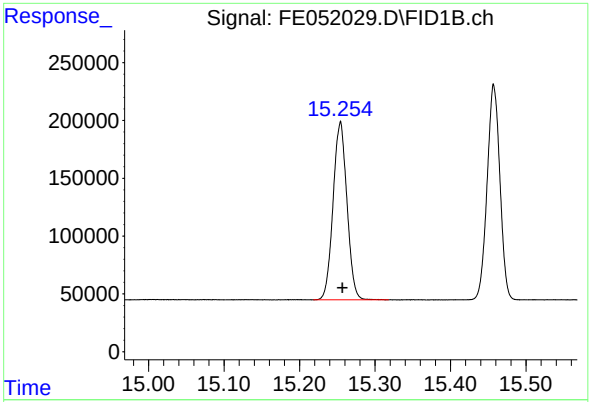
#7 N-EICOSANE

R.T.: 13.168 min
Delta R.T.: -0.003 min
Response: 2188908
Conc: 21.06 ug/ml



#8 N-DOCOSANE

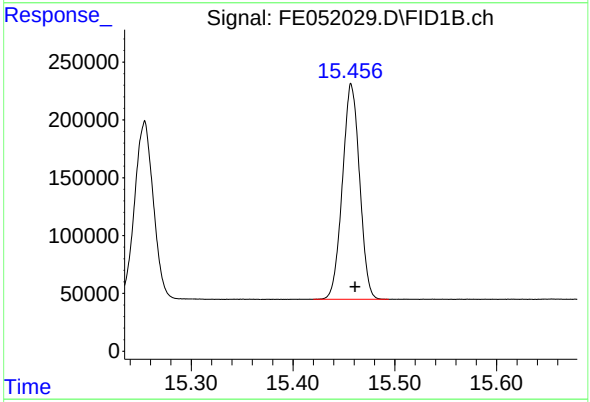
R.T.: 14.360 min
Delta R.T.: -0.002 min
Response: 2186141
Conc: 21.13 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

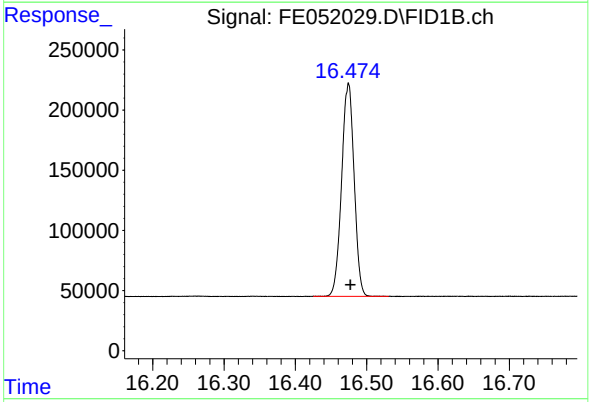
R.T.: 15.254 min
Delta R.T.: -0.003 min
Response: 1967122
Conc: 21.13 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



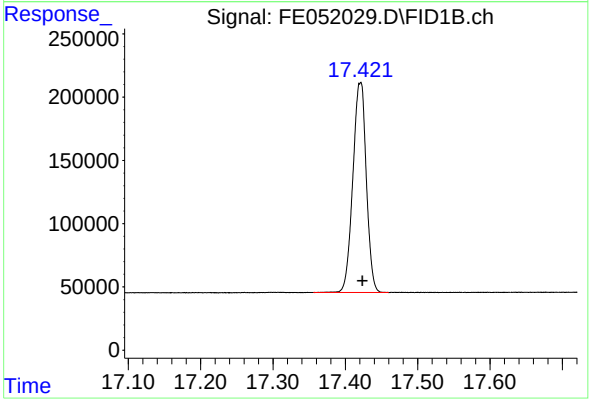
#10 N-TETRACOSANE

R.T.: 15.457 min
Delta R.T.: -0.004 min
Response: 2185765
Conc: 21.16 ug/ml



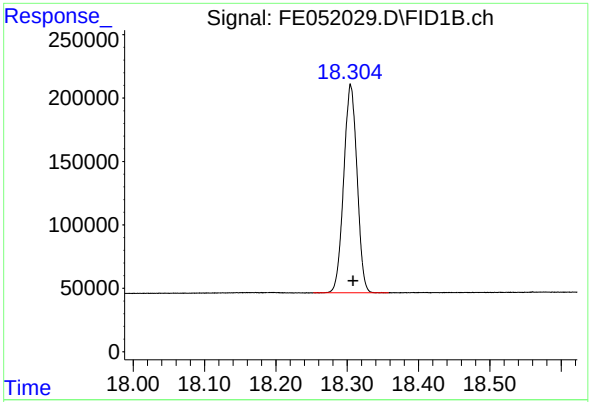
#11 N-HEXACOSANE

R.T.: 16.475 min
Delta R.T.: -0.002 min
Response: 2160412
Conc: 21.22 ug/ml



#12 N-OCTACOSANE

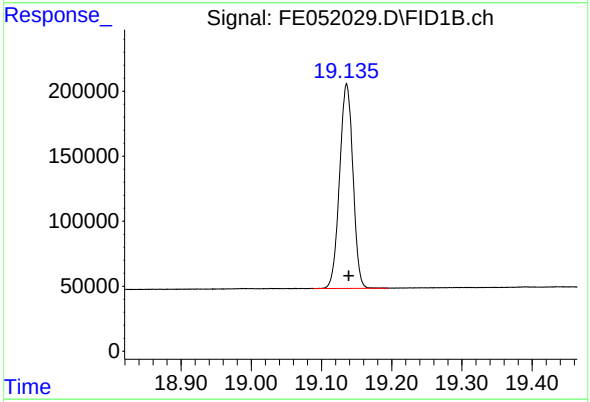
R.T.: 17.421 min
Delta R.T.: -0.003 min
Response: 2147225
Conc: 21.32 ug/ml



#13 N-TRIACONTANE

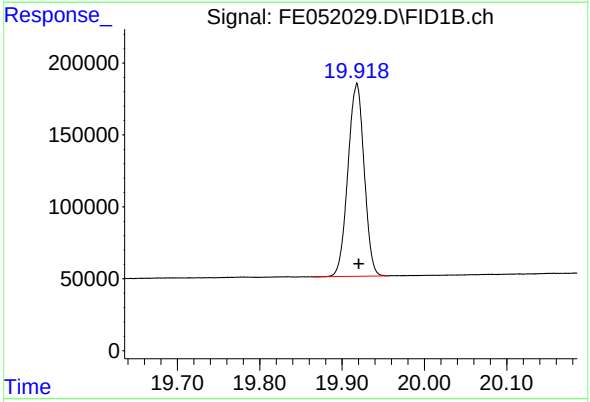
R.T.: 18.305 min
Delta R.T.: -0.003 min
Response: 2136983
Conc: 21.48 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



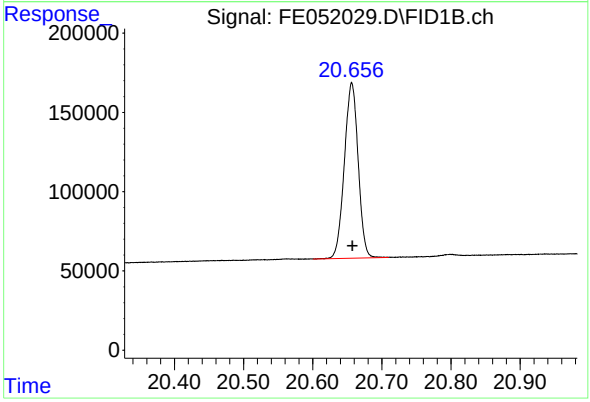
#14 N-DOTRIACONTANE

R.T.: 19.136 min
Delta R.T.: -0.003 min
Response: 2078753
Conc: 21.51 ug/ml



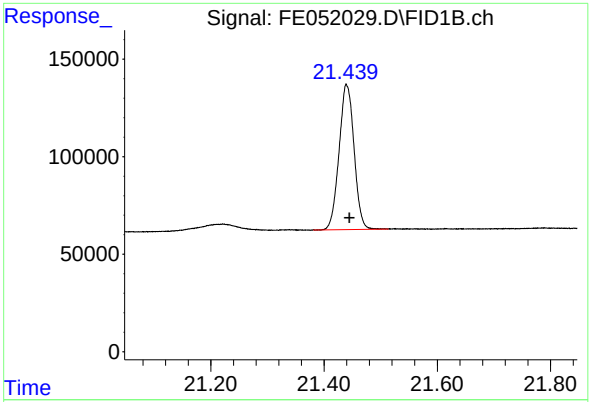
#15 N-TETRATRIACONTANE

R.T.: 19.918 min
Delta R.T.: -0.002 min
Response: 1833911
Conc: 21.11 ug/ml



#16 N-HEXATRIACONTANE

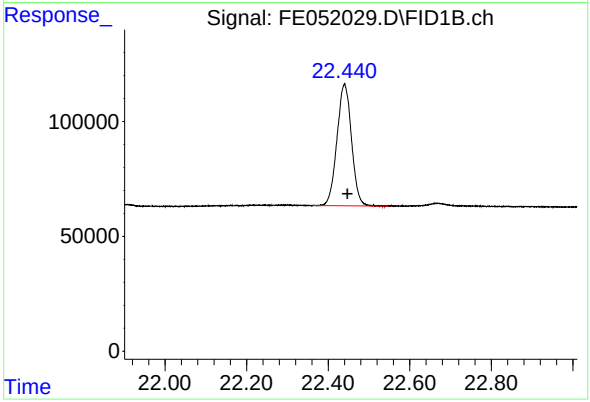
R.T.: 20.657 min
Delta R.T.: 0.000 min
Response: 1534108
Conc: 20.59 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.439 min
Delta R.T.: -0.005 min
Response: 1367415
Conc: 19.86 ug/ml

Instrument :
FID_E
ClientSampleId :
20 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.440 min
Delta R.T.: -0.007 min
Response: 1309204
Conc: 19.45 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052029.D
Signal(s) : FID1B.ch
Acq On : 23 Jan 2025 23:36
Sample : 20 TRPH STD
Misc :
ALS Vial : 24 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.383	2.473	BB	132906	1671507	75.91%	4.802%
2	4.906	4.870	4.947	BB	188470	1790386	81.30%	5.144%
3	7.034	6.995	7.086	BB	210395	1959669	88.99%	5.630%
4	8.840	8.782	8.891	BB	206958	1996208	90.65%	5.735%
5	10.433	10.394	10.485	BB	210083	2090226	94.92%	6.005%
6	11.866	11.821	11.908	BB	209078	2202071	100.00%	6.327%
7	13.168	13.134	13.216	BB	196057	2188908	99.40%	6.289%
8	14.360	14.282	14.405	BB	188088	2186141	99.28%	6.281%
9	15.254	15.218	15.318	BB	154122	1967122	89.33%	5.652%
10	15.457	15.420	15.494	BB	185791	2185765	99.26%	6.280%
11	16.475	16.425	16.531	BB	177131	2160412	98.11%	6.207%
12	17.421	17.356	17.460	BB	165726	2147225	97.51%	6.169%
13	18.305	18.252	18.358	BB	163835	2136983	97.04%	6.140%
14	19.136	19.088	19.196	BB	157435	2078753	94.40%	5.972%
15	19.918	19.865	19.957	BB	134470	1833911	83.28%	5.269%
16	20.657	20.601	20.710	BB	110823	1534108	69.67%	4.408%
17	21.439	21.381	21.514	BB	74580	1367415	62.10%	3.929%
18	22.440	22.363	22.548	BB	53116	1309204	59.45%	3.761%
			Sum of corrected areas:			34806015		

FE012325.M Fri Jan 24 03:19:04 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052030.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:06
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.253	1061033	11.396 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	889828	11.012 ug/ml
2)	N-DECANE	4.906	959030	11.079 ug/ml
3)	N-DODECANE	7.033	1052037	11.161 ug/ml
4)	N-TETRADECANE	8.839	1077547	11.283 ug/ml
5)	N-HEXADECANE	10.432	1131977	11.345 ug/ml
6)	N-OCTADECANE	11.865	1193205	11.371 ug/ml
7)	N-EICOSANE	13.167	1184917	11.402 ug/ml
8)	N-DOCOSANE	14.358	1182709	11.434 ug/ml
10)	N-TETRACOSANE	15.456	1180708	11.429 ug/ml
11)	N-HEXACOSANE	16.473	1163260	11.428 ug/ml
12)	N-OCTACOSANE	17.419	1147105	11.391 ug/ml
13)	N-TRIACONTANE	18.304	1137270	11.430 ug/ml
14)	N-DOTRIACONTANE	19.134	1110748	11.493 ug/ml
15)	N-TETRATRIACONTANE	19.915	1019077	11.732 ug/ml
16)	N-HEXATRIACONTANE	20.653	911856	12.238 ug/ml
17)	N-OCTATRIACONTANE	21.439	859350	12.480 ug/ml
18)	N-TETRACONTANE	22.441	882539	13.114 ug/ml

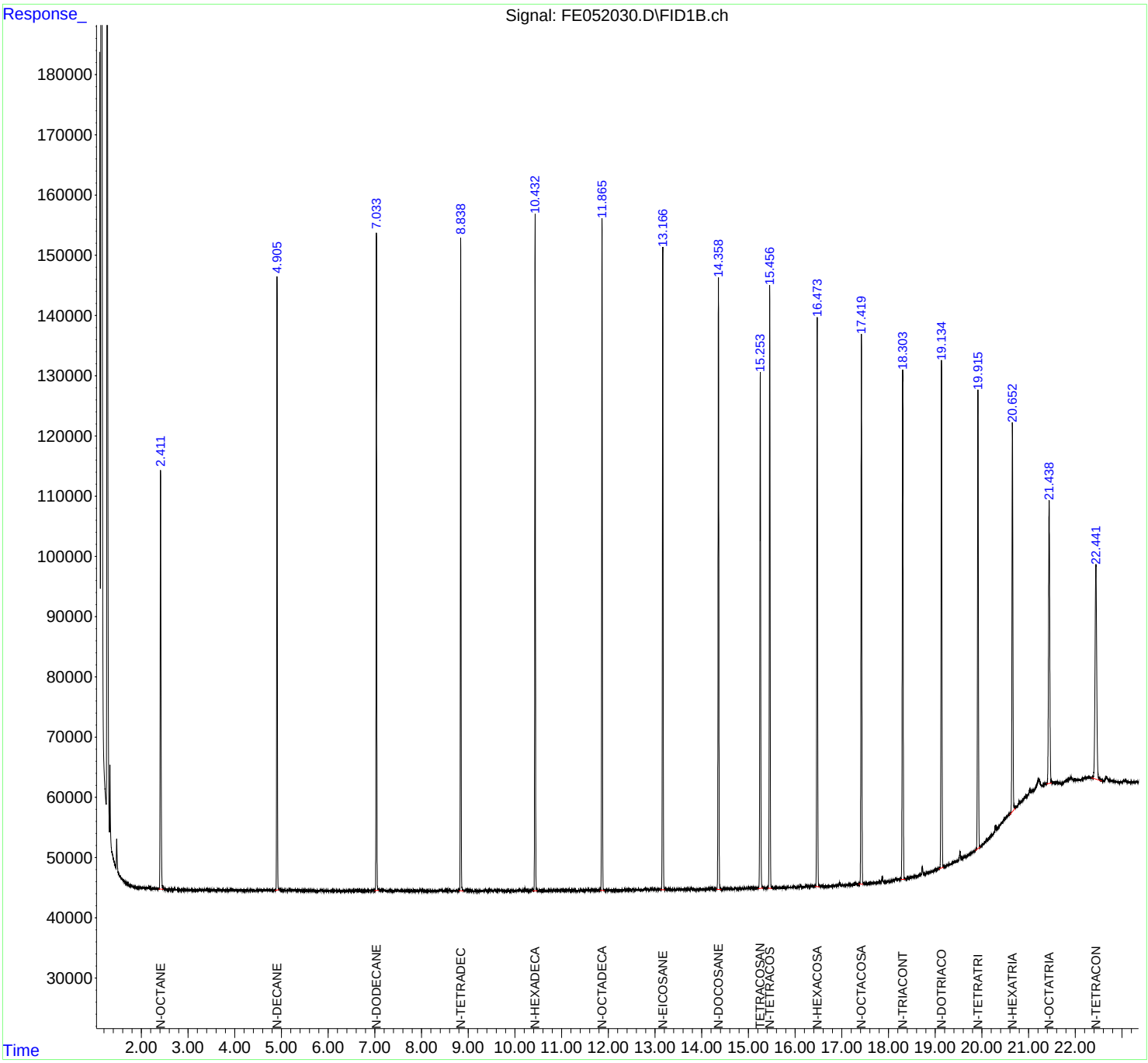
(f)=RT Delta > 1/2 Window (m)=manual int.

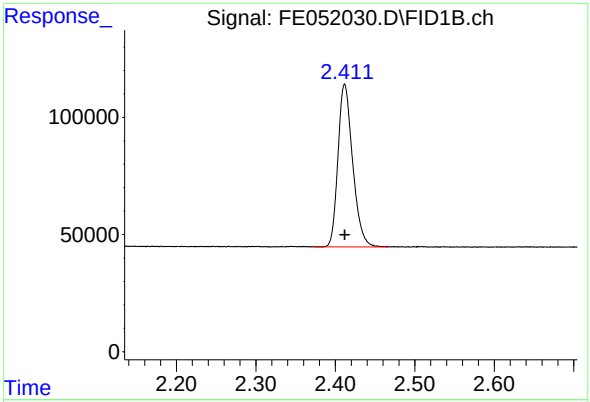
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052030.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:06
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

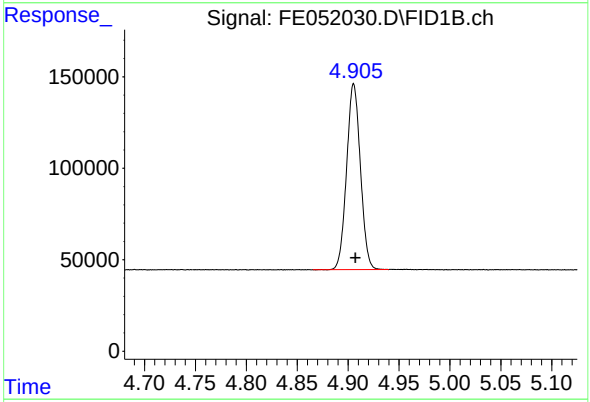




#1 N-OCTANE

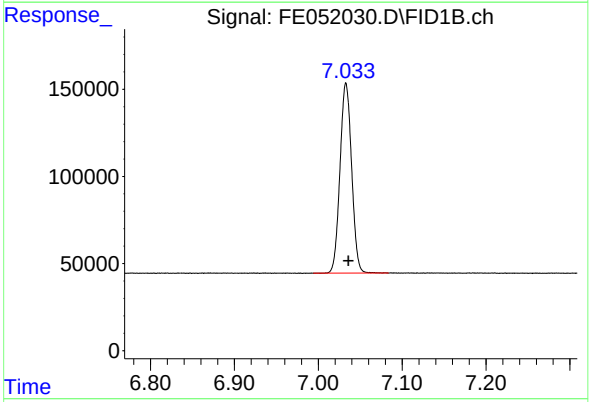
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 889828
Conc: 11.01 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



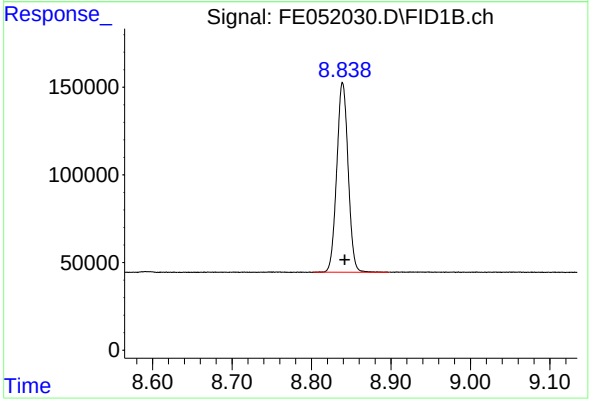
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: -0.002 min
Response: 959030
Conc: 11.08 ug/ml



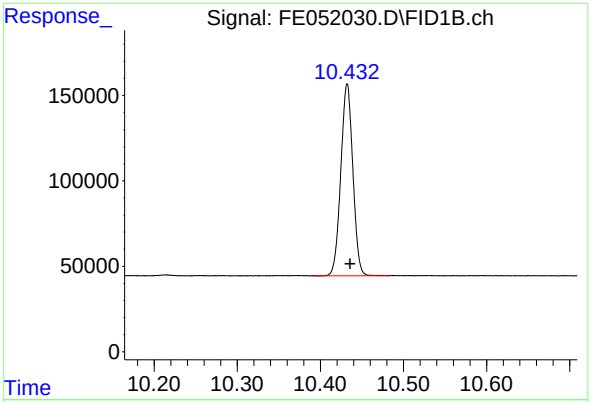
#3 N-DODECANE

R.T.: 7.033 min
Delta R.T.: -0.003 min
Response: 1052037
Conc: 11.16 ug/ml



#4 N-TETRADECANE

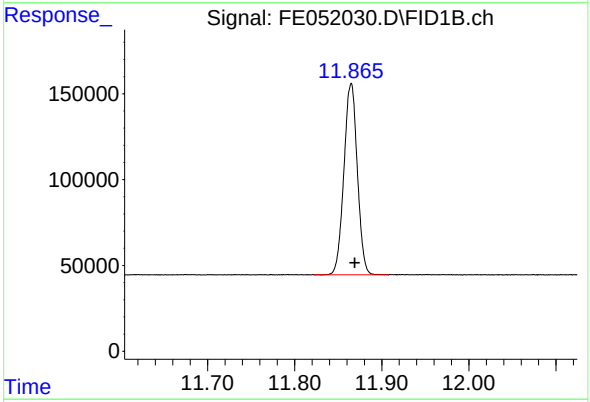
R.T.: 8.839 min
Delta R.T.: -0.003 min
Response: 1077547
Conc: 11.28 ug/ml



#5 N-HEXADECANE

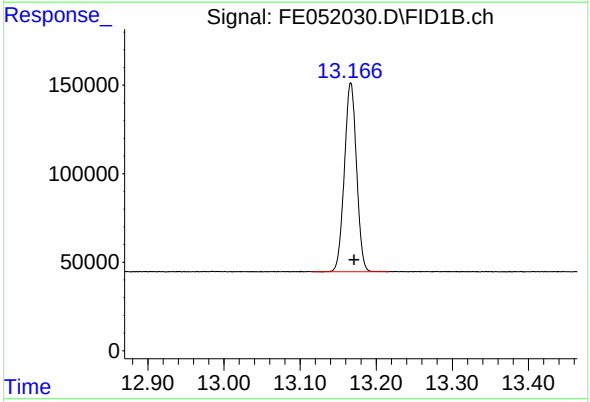
R.T.: 10.432 min
Delta R.T.: -0.003 min
Response: 1131977
Conc: 11.34 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



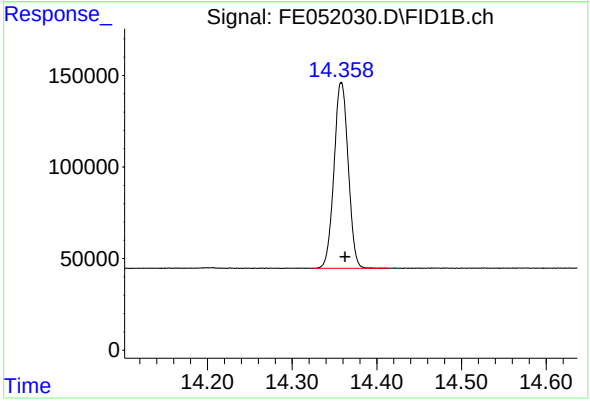
#6 N-OCTADECANE

R.T.: 11.865 min
Delta R.T.: -0.004 min
Response: 1193205
Conc: 11.37 ug/ml



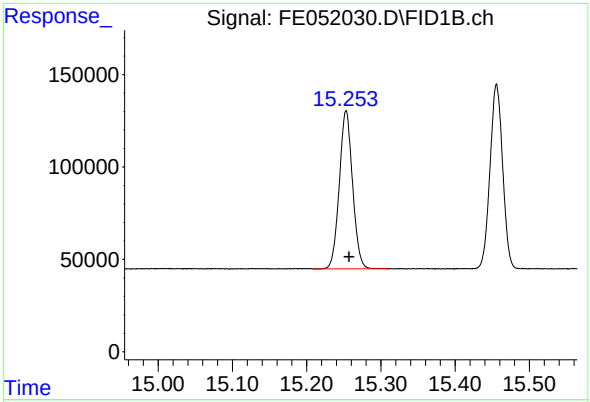
#7 N-EICOSANE

R.T.: 13.167 min
Delta R.T.: -0.004 min
Response: 1184917
Conc: 11.40 ug/ml



#8 N-DOCOSANE

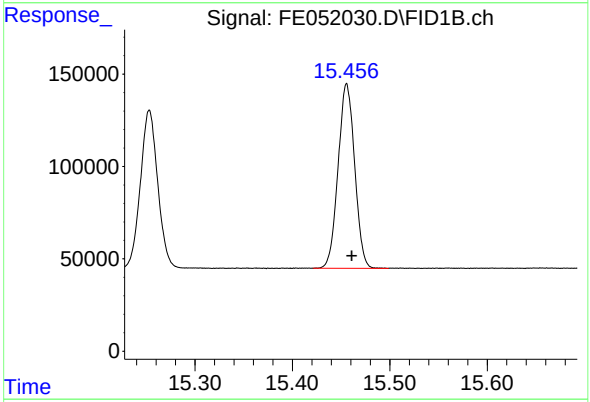
R.T.: 14.358 min
Delta R.T.: -0.004 min
Response: 1182709
Conc: 11.43 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

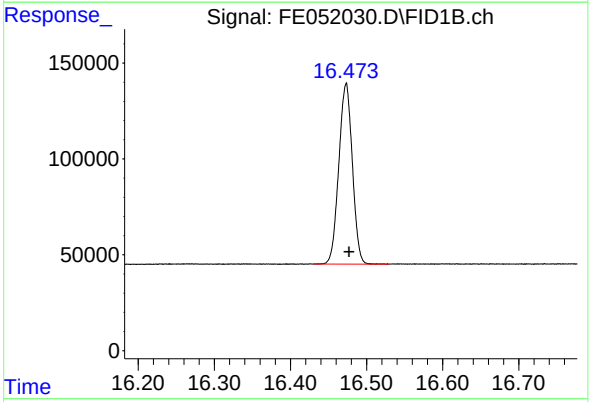
R.T.: 15.253 min
Delta R.T.: -0.004 min
Response: 1061033
Conc: 11.40 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



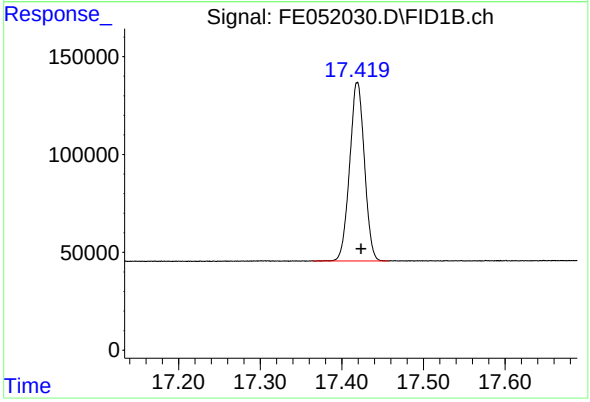
#10 N-TETRACOSANE

R.T.: 15.456 min
Delta R.T.: -0.005 min
Response: 1180708
Conc: 11.43 ug/ml



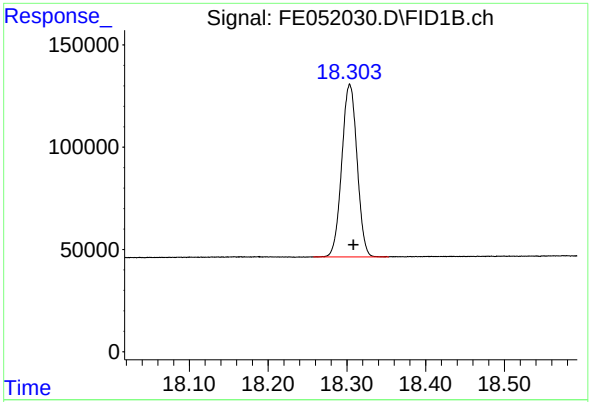
#11 N-HEXACOSANE

R.T.: 16.473 min
Delta R.T.: -0.004 min
Response: 1163260
Conc: 11.43 ug/ml



#12 N-OCTACOSANE

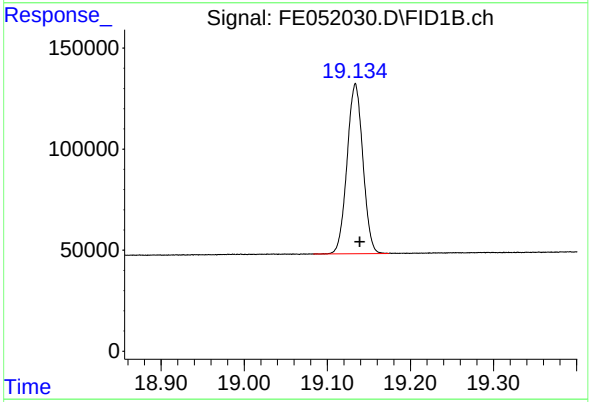
R.T.: 17.419 min
Delta R.T.: -0.005 min
Response: 1147105
Conc: 11.39 ug/ml



#13 N-TRIACONTANE

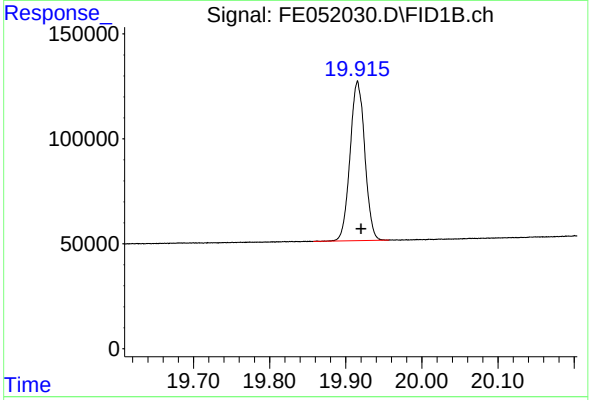
R.T.: 18.304 min
Delta R.T.: -0.004 min
Response: 1137270
Conc: 11.43 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



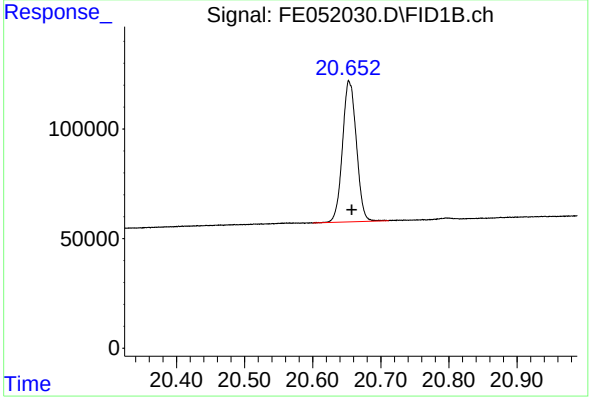
#14 N-DOTRIACONTANE

R.T.: 19.134 min
Delta R.T.: -0.005 min
Response: 1110748
Conc: 11.49 ug/ml



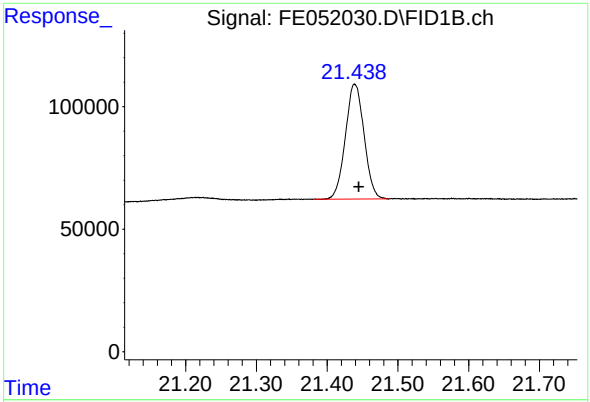
#15 N-TETRATRIACONTANE

R.T.: 19.915 min
Delta R.T.: -0.005 min
Response: 1019077
Conc: 11.73 ug/ml



#16 N-HEXATRIACONTANE

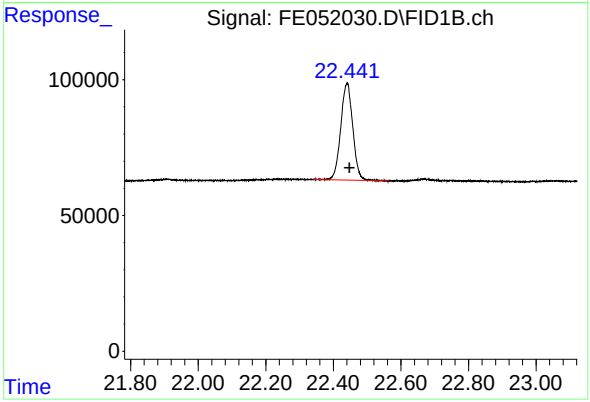
R.T.: 20.653 min
Delta R.T.: -0.004 min
Response: 911856
Conc: 12.24 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.439 min
Delta R.T.: -0.006 min
Response: 859350
Conc: 12.48 ug/ml

Instrument :
FID_E
ClientSampleId :
10 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.441 min
Delta R.T.: -0.006 min
Response: 882539
Conc: 13.11 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052030.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:06
Sample : 10 TRPH STD
Misc :
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.372	2.467	BB	69493	889828	74.57%	4.648%
2	4.906	4.866	4.940	BB	101609	959030	80.37%	5.010%
3	7.033	6.994	7.084	BB	109120	1052037	88.17%	5.495%
4	8.839	8.802	8.897	BB	108235	1077547	90.31%	5.629%
5	10.432	10.391	10.482	BB	112372	1131977	94.87%	5.913%
6	11.865	11.821	11.908	BB	111538	1193205	100.00%	6.233%
7	13.167	13.117	13.216	BB	106724	1184917	99.31%	6.189%
8	14.358	14.325	14.414	BB	101224	1182709	99.12%	6.178%
9	15.253	15.209	15.311	BB	85655	1061033	88.92%	5.542%
10	15.456	15.421	15.499	BB	100063	1180708	98.95%	6.167%
11	16.473	16.430	16.529	BB	94113	1163260	97.49%	6.076%
12	17.419	17.365	17.457	BB	91106	1147105	96.14%	5.992%
13	18.304	18.257	18.353	BB	84490	1137270	95.31%	5.941%
14	19.134	19.083	19.174	BB	84307	1110748	93.09%	5.802%
15	19.915	19.857	19.956	BB	76197	1019077	85.41%	5.323%
16	20.653	20.601	20.711	BB	64297	911856	76.42%	4.763%
17	21.439	21.380	21.487	BV	46908	859350	72.02%	4.489%
18	22.441	22.340	22.563	BV	35571	882539	73.96%	4.610%
			Sum of corrected areas:			19144194		

FE012325.M Fri Jan 24 03:19:32 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052031.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:36
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:23 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 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...	15.253	535796	5.755 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	447517	5.538 ug/ml
2)	N-DECANE	4.906	479458	5.539 ug/ml
3)	N-DODECANE	7.033	524622	5.565 ug/ml
4)	N-TETRADECANE	8.839	538294	5.636 ug/ml
5)	N-HEXADECANE	10.432	566935	5.682 ug/ml
6)	N-OCTADECANE	11.864	597723	5.696 ug/ml
7)	N-EICOSANE	13.166	599565	5.769 ug/ml
8)	N-DOCOSANE	14.358	599958	5.800 ug/ml
10)	N-TETRACOSANE	15.456	594003	5.750 ug/ml
11)	N-HEXACOSANE	16.473	585191	5.749 ug/ml
12)	N-OCTACOSANE	17.418	583549	5.795 ug/ml
13)	N-TRIACONTANE	18.303	588228	5.912 ug/ml
14)	N-DOTRIACONTANE	19.133	573000	5.929 ug/ml
15)	N-TETRATRIACONTANE	19.915	509659	5.868 ug/ml
16)	N-HEXATRIACONTANE	20.654	427588	5.739 ug/ml
17)	N-OCTATRIACONTANE	21.439	394101	5.724 ug/ml
18)	N-TETRACONTANE	22.438	382667	5.686 ug/ml

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

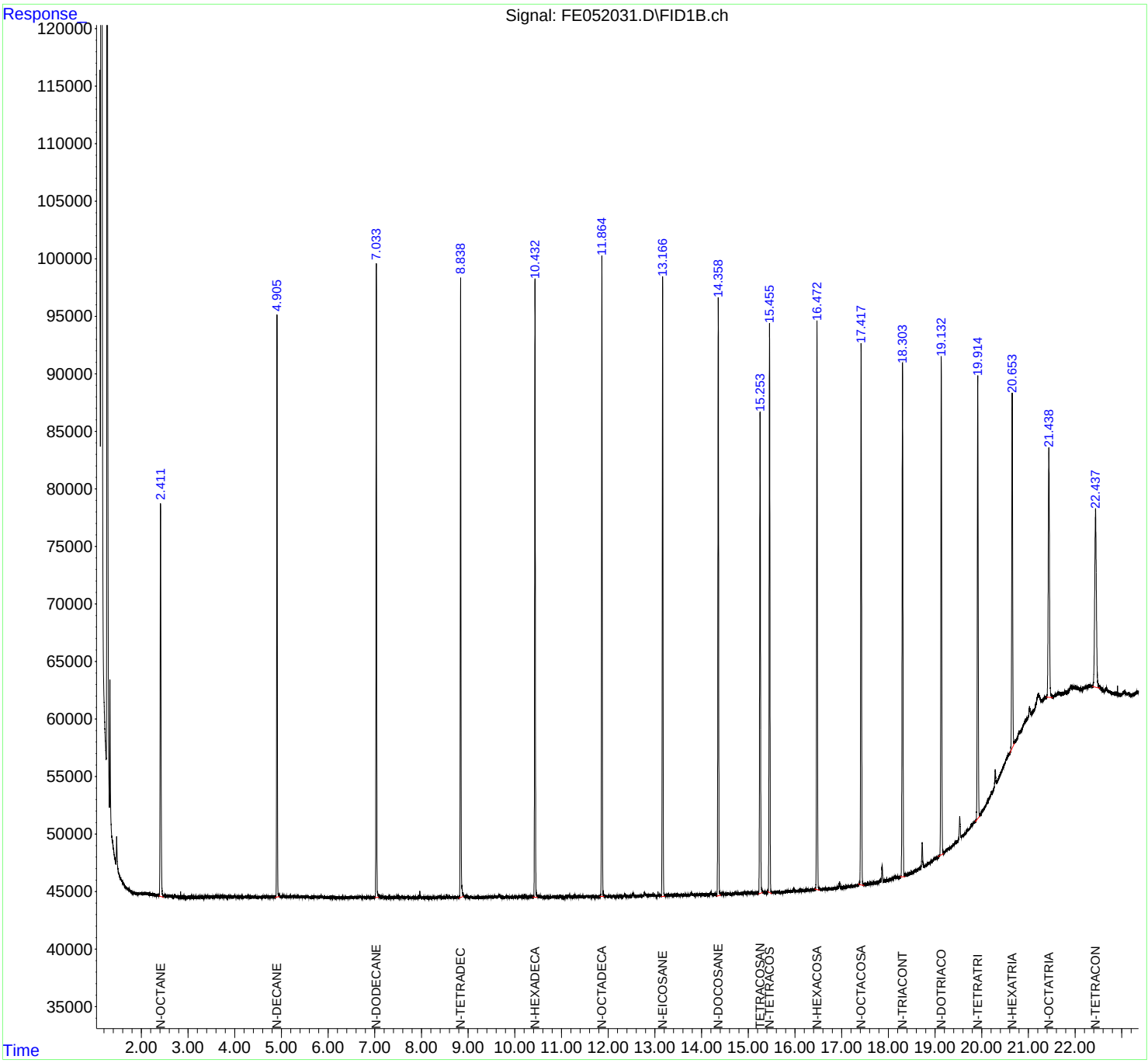
Quantitation Report (QT Reviewed)

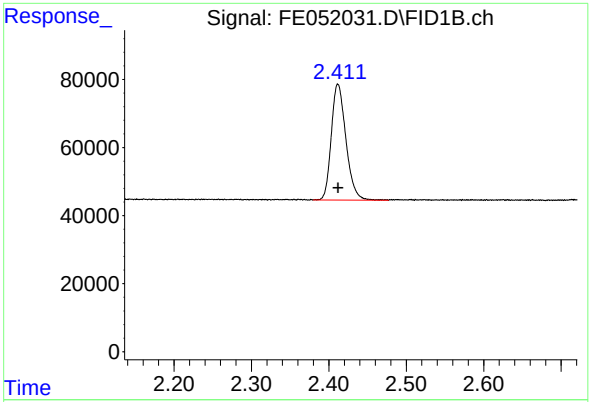
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052031.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:36
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Jan 24 03:02:23 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:00:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

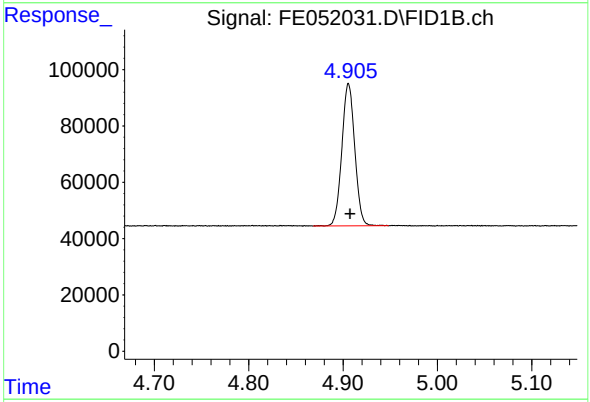




#1 N-OCTANE

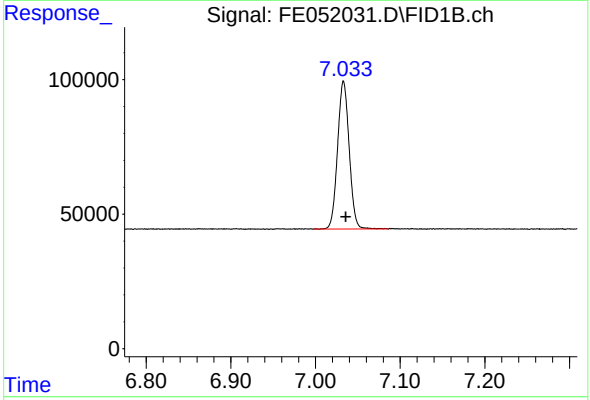
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 447517
Conc: 5.54 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



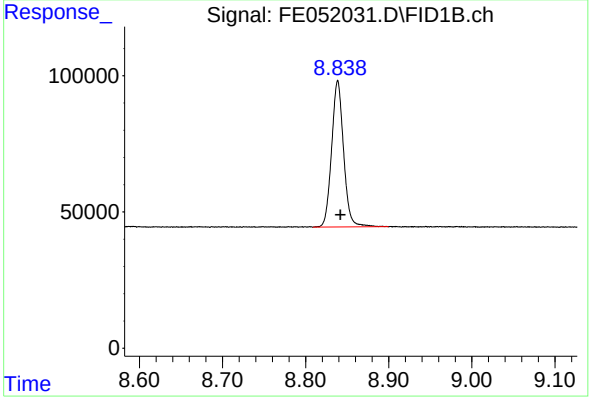
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: -0.001 min
Response: 479458
Conc: 5.54 ug/ml



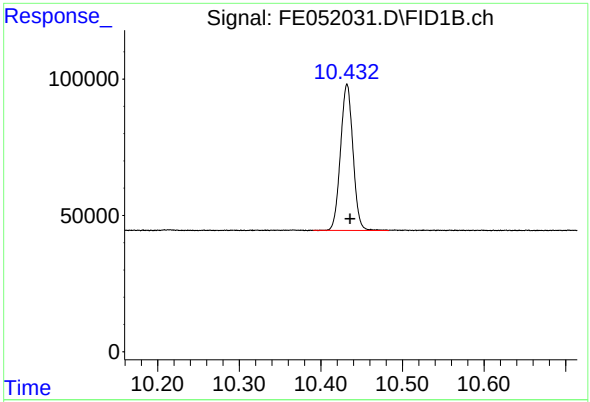
#3 N-DODECANE

R.T.: 7.033 min
Delta R.T.: -0.003 min
Response: 524622
Conc: 5.57 ug/ml



#4 N-TETRADECANE

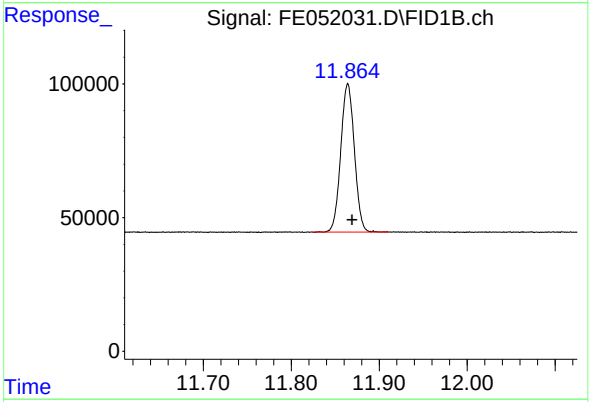
R.T.: 8.839 min
Delta R.T.: -0.003 min
Response: 538294
Conc: 5.64 ug/ml



#5 N-HEXADECANE

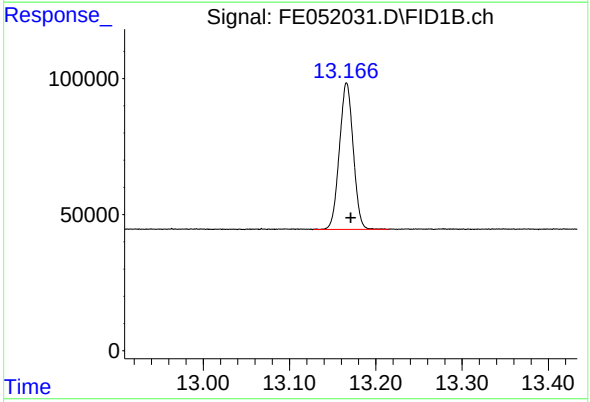
R.T.: 10.432 min
Delta R.T.: -0.003 min
Response: 566935
Conc: 5.68 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



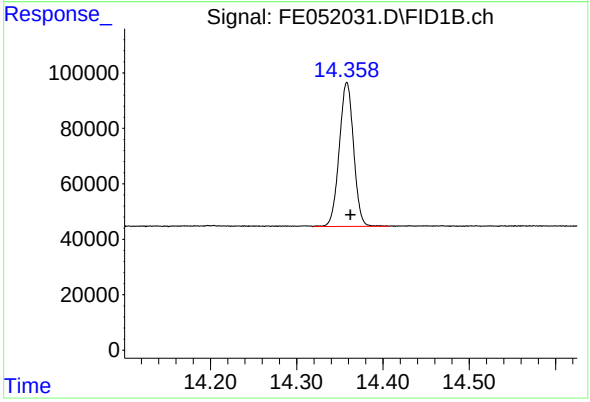
#6 N-OCTADECANE

R.T.: 11.864 min
Delta R.T.: -0.005 min
Response: 597723
Conc: 5.70 ug/ml



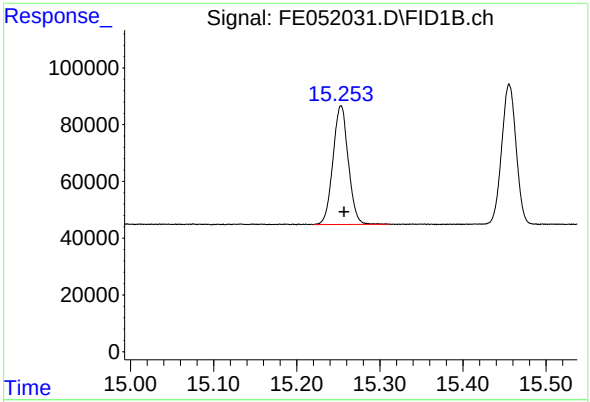
#7 N-EICOSANE

R.T.: 13.166 min
Delta R.T.: -0.005 min
Response: 599565
Conc: 5.77 ug/ml



#8 N-DOCOSANE

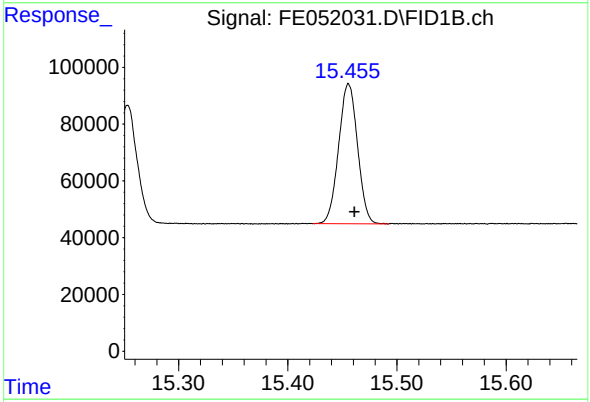
R.T.: 14.358 min
Delta R.T.: -0.004 min
Response: 599958
Conc: 5.80 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

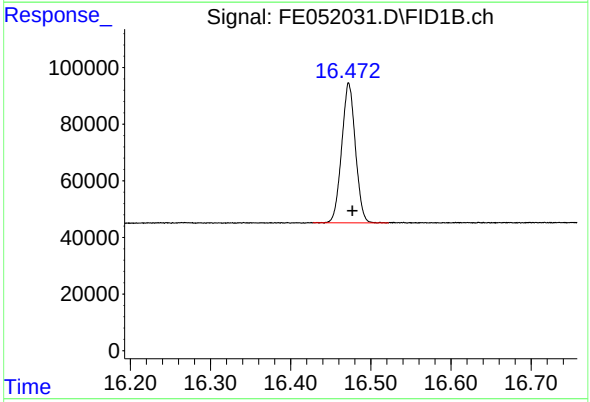
R.T.: 15.253 min
Delta R.T.: -0.004 min
Response: 535796
Conc: 5.75 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



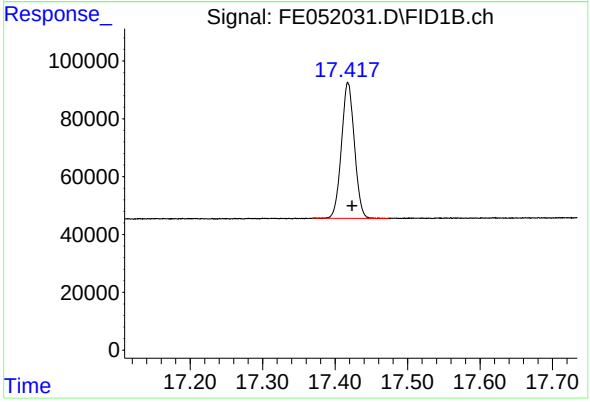
#10 N-TETRACOSANE

R.T.: 15.456 min
Delta R.T.: -0.005 min
Response: 594003
Conc: 5.75 ug/ml



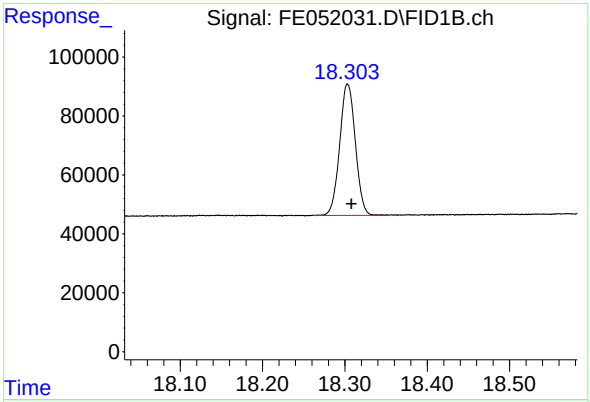
#11 N-HEXACOSANE

R.T.: 16.473 min
Delta R.T.: -0.004 min
Response: 585191
Conc: 5.75 ug/ml



#12 N-OCTACOSANE

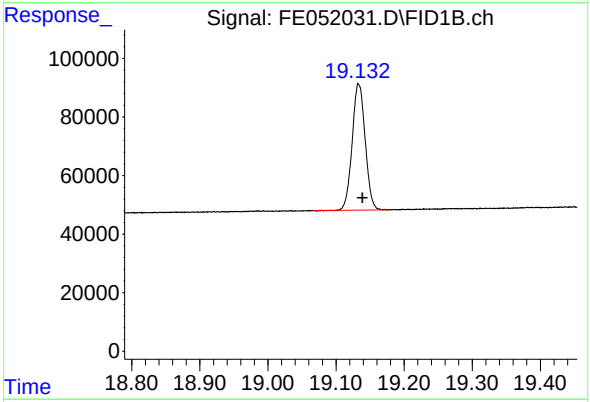
R.T.: 17.418 min
Delta R.T.: -0.006 min
Response: 583549
Conc: 5.79 ug/ml



#13 N-TRIACONTANE

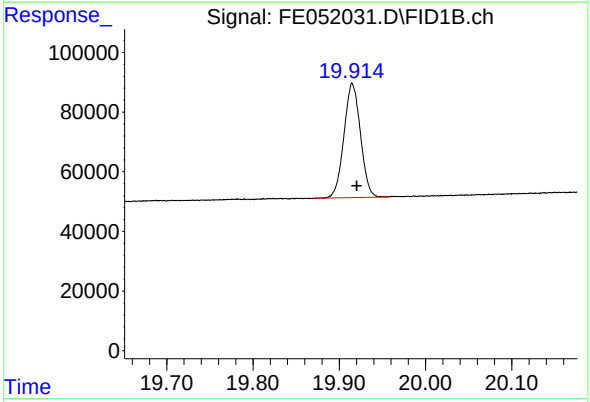
R.T.: 18.303 min
Delta R.T.: -0.005 min
Response: 588228
Conc: 5.91 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



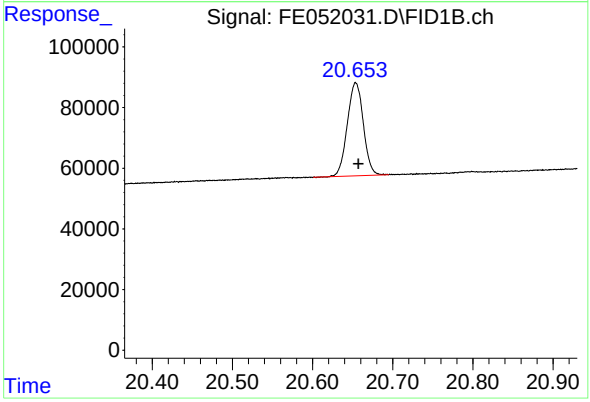
#14 N-DOTRIACONTANE

R.T.: 19.133 min
Delta R.T.: -0.006 min
Response: 573000
Conc: 5.93 ug/ml



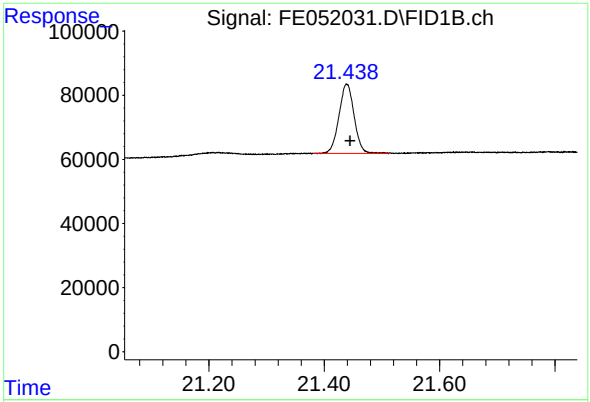
#15 N-TETRATRIACONTANE

R.T.: 19.915 min
Delta R.T.: -0.005 min
Response: 509659
Conc: 5.87 ug/ml



#16 N-HEXATRIACONTANE

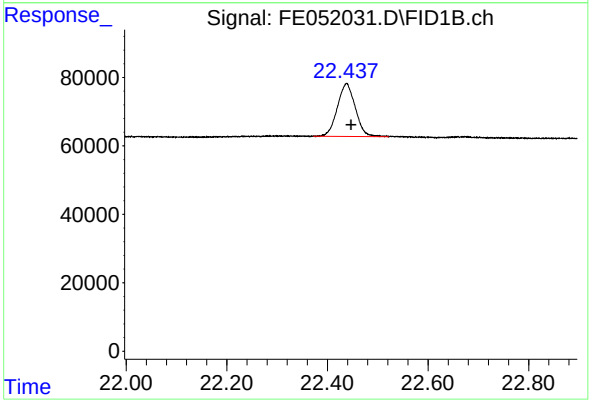
R.T.: 20.654 min
Delta R.T.: -0.004 min
Response: 427588
Conc: 5.74 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.439 min
Delta R.T.: -0.006 min
Response: 394101
Conc: 5.72 ug/ml

Instrument :
FID_E
ClientSampleId :
5 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.438 min
Delta R.T.: -0.009 min
Response: 382667
Conc: 5.69 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052031.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 00:36
Sample : 5 TRPH STD
Misc :
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.380	2.477	BB	34060	447517	74.59%	4.697%
2	4.906	4.868	4.948	BB	50588	479458	79.92%	5.032%
3	7.033	6.997	7.086	BB	55038	524622	87.44%	5.506%
4	8.839	8.809	8.900	BB	53958	538294	89.72%	5.650%
5	10.432	10.391	10.483	BB	53629	566935	94.50%	5.950%
6	11.864	11.825	11.911	BB	55566	597723	99.63%	6.273%
7	13.166	13.127	13.215	BB	53796	599565	99.93%	6.293%
8	14.358	14.319	14.406	BB	51982	599958	100.00%	6.297%
9	15.253	15.220	15.311	BB	41765	535796	89.31%	5.623%
10	15.456	15.423	15.492	BB	49424	594003	99.01%	6.234%
11	16.473	16.428	16.522	BB	49428	585191	97.54%	6.142%
12	17.418	17.370	17.474	BB	46813	583549	97.26%	6.125%
13	18.303	18.261	18.353	BB	44585	588228	98.04%	6.174%
14	19.133	19.066	19.177	BB	42966	573000	95.51%	6.014%
15	19.915	19.870	19.957	BB	38416	509659	84.95%	5.349%
16	20.654	20.601	20.695	BB	30739	427588	71.27%	4.488%
17	21.439	21.381	21.511	BB	21574	394101	65.69%	4.136%
18	22.438	22.371	22.521	BB	15521	382667	63.78%	4.016%
			Sum of corrected areas:			9527854		

FE012325.M Fri Jan 24 03:20:00 2025

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052032.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 01:06
Operator : YP\AJ
Sample : FE012325ICV
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
FE012325ICV

Integration File: autoint1.e
Quant Time: Jan 24 03:09:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.256	4666211	46.850 ug/ml
	Target Compounds			
1)	N-OCTANE	2.412	3991003	46.799 ug/ml
2)	N-DECANE	4.906	4296957	46.959 ug/ml
3)	N-DODECANE	7.035	4687706	46.917 ug/ml
4)	N-TETRADECANE	8.841	4758083	46.764 ug/ml
5)	N-HEXADECANE	10.434	4984676	46.779 ug/ml
6)	N-OCTADECANE	11.868	5255597	46.874 ug/ml
7)	N-EICOSANE	13.169	5213798	46.811 ug/ml
8)	N-DOCOSANE	14.361	5190938	46.752 ug/ml
10)	N-TETRACOSANE	15.459	5183378	46.861 ug/ml
11)	N-HEXACOSANE	16.476	5097911	46.766 ug/ml
12)	N-OCTACOSANE	17.423	5031236	46.612 ug/ml
13)	N-TRIACONTANE	18.307	4962414	46.248 ug/ml
14)	N-DOTRIACONTANE	19.138	4809025	46.056 ug/ml
15)	N-TETRATRIACONTANE	19.918	4322160	46.027 ug/ml
16)	N-HEXATRIACONTANE	20.656	3695277	45.760 ug/ml
17)	N-OCTATRIACONTANE	21.442	3418238	45.815 ug/ml
18)	N-TETRACONTANE	22.445	3353522	45.536 ug/ml

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

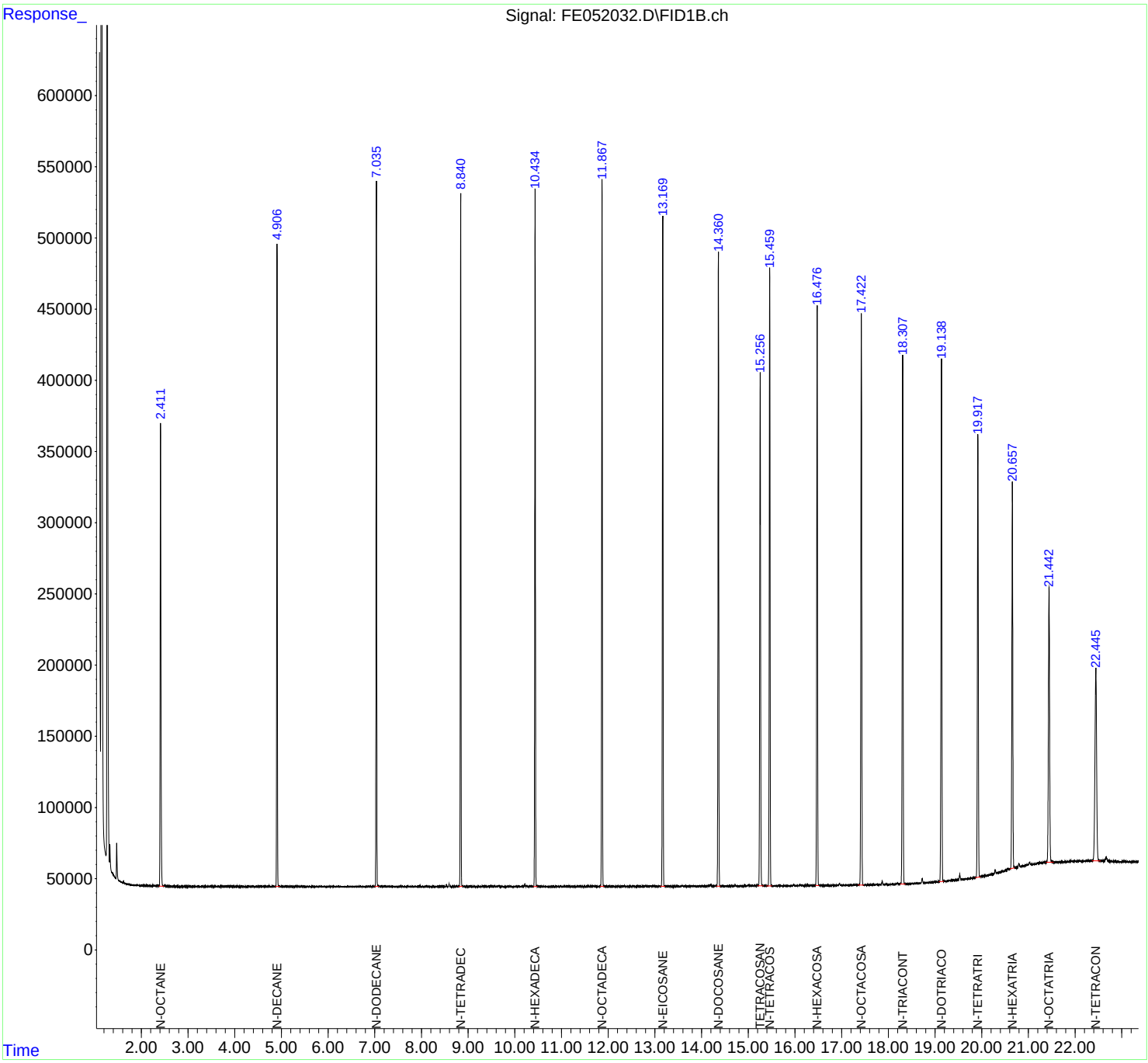
Quantitation Report (QT Reviewed)

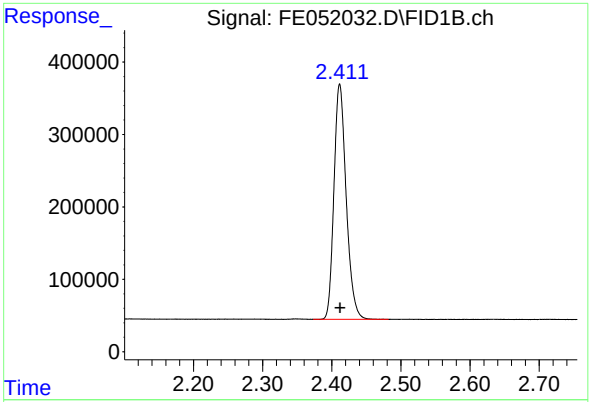
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052032.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 01:06
Operator : YP\AJ
Sample : FE012325ICV
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
FE012325ICV

Integration File: autoint1.e
Quant Time: Jan 24 03:09:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

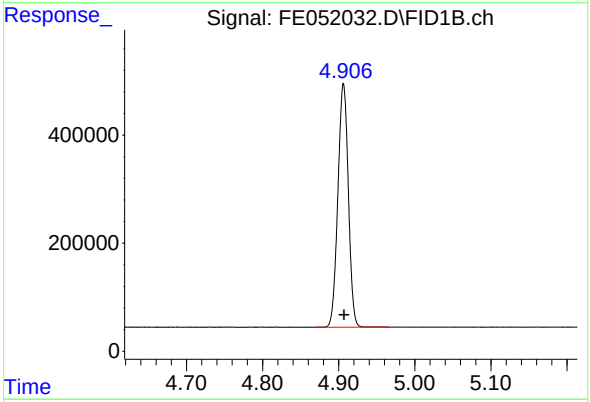




#1 N-OCTANE

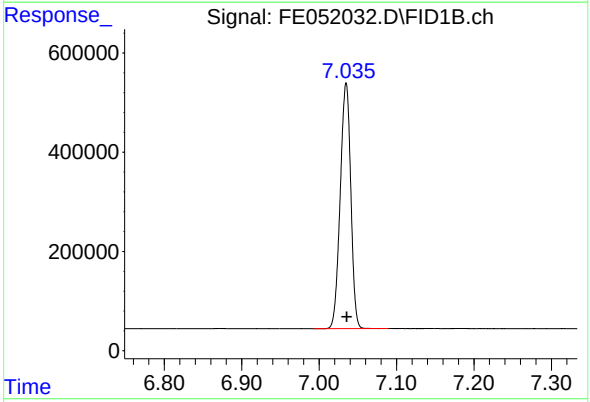
R.T.: 2.412 min
Delta R.T.: 0.000 min
Response: 3991003
Conc: 46.80 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



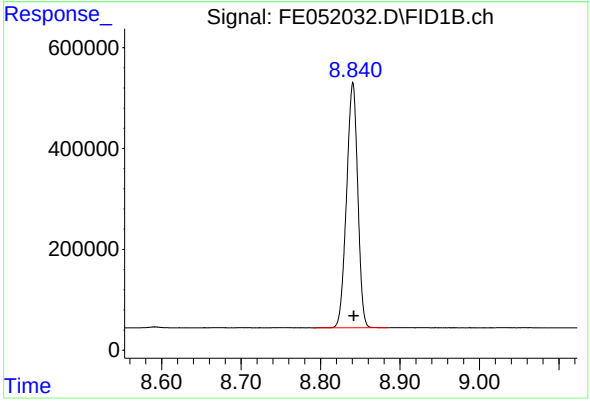
#2 N-DECANE

R.T.: 4.906 min
Delta R.T.: 0.000 min
Response: 4296957
Conc: 46.96 ug/ml



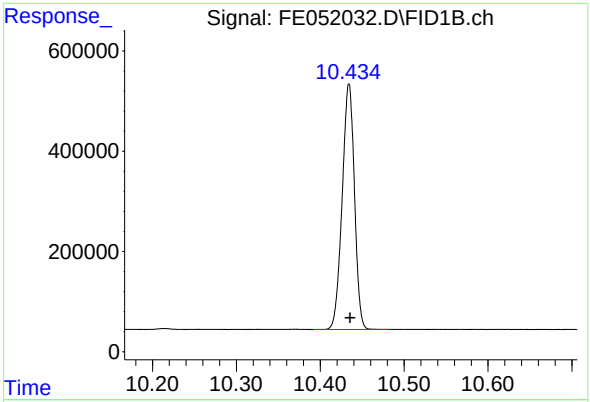
#3 N-DODECANE

R.T.: 7.035 min
Delta R.T.: 0.000 min
Response: 4687706
Conc: 46.92 ug/ml



#4 N-TETRADECANE

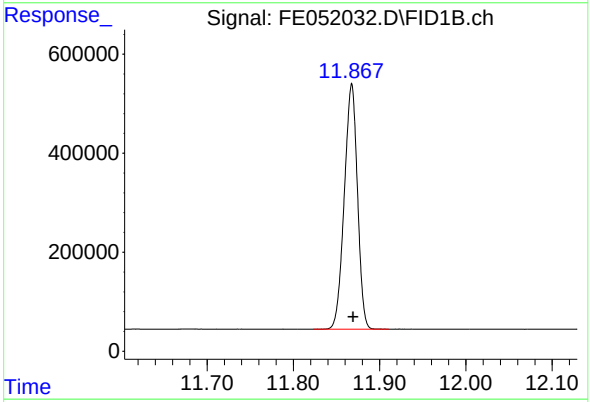
R.T.: 8.841 min
Delta R.T.: -0.001 min
Response: 4758083
Conc: 46.76 ug/ml



#5 N-HEXADECANE

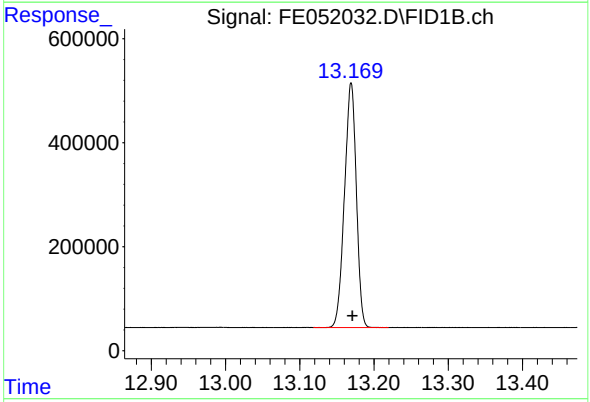
R.T.: 10.434 min
Delta R.T.: -0.001 min
Response: 4984676
Conc: 46.78 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



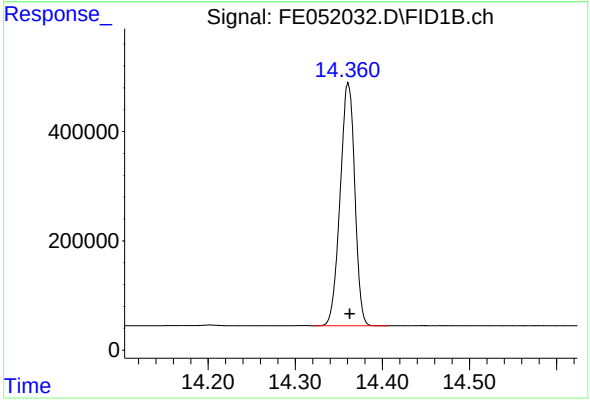
#6 N-OCTADECANE

R.T.: 11.868 min
Delta R.T.: -0.001 min
Response: 5255597
Conc: 46.87 ug/ml



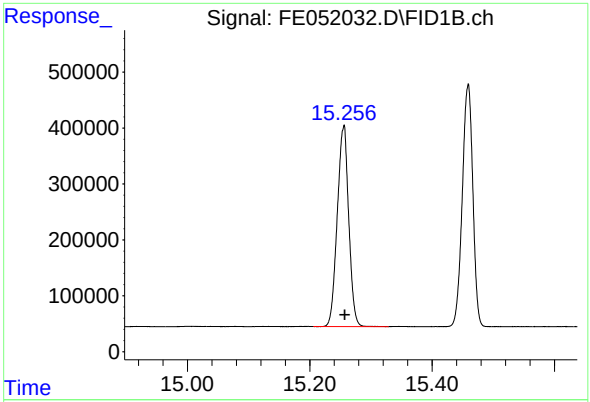
#7 N-EICOSANE

R.T.: 13.169 min
Delta R.T.: -0.002 min
Response: 5213798
Conc: 46.81 ug/ml



#8 N-DOCOSANE

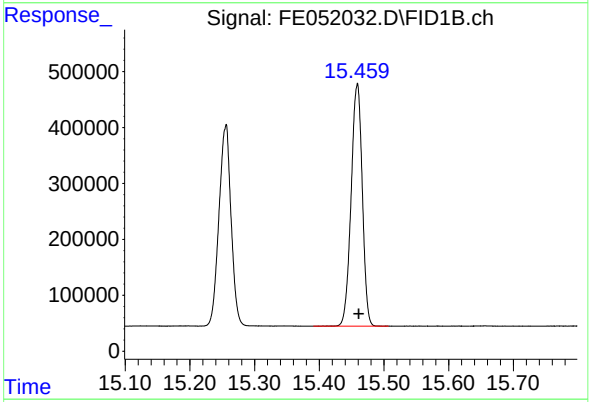
R.T.: 14.361 min
Delta R.T.: -0.002 min
Response: 5190938
Conc: 46.75 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

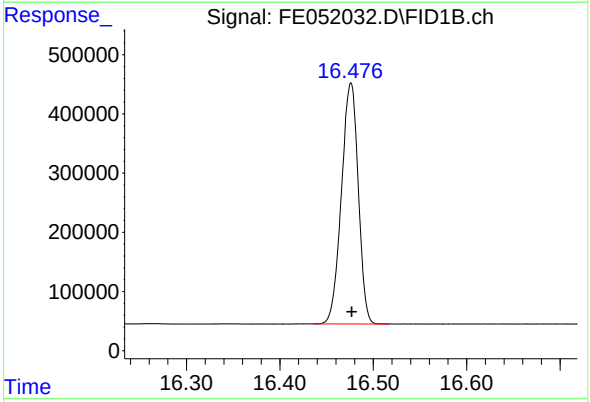
R.T.: 15.256 min
Delta R.T.: -0.001 min
Response: 4666211
Conc: 46.85 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



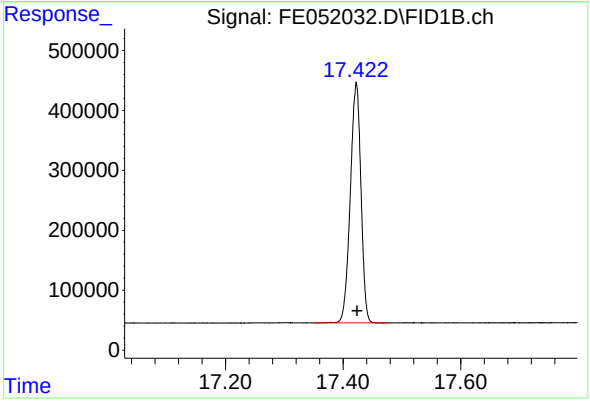
#10 N-TETRACOSANE

R.T.: 15.459 min
Delta R.T.: -0.002 min
Response: 5183378
Conc: 46.86 ug/ml



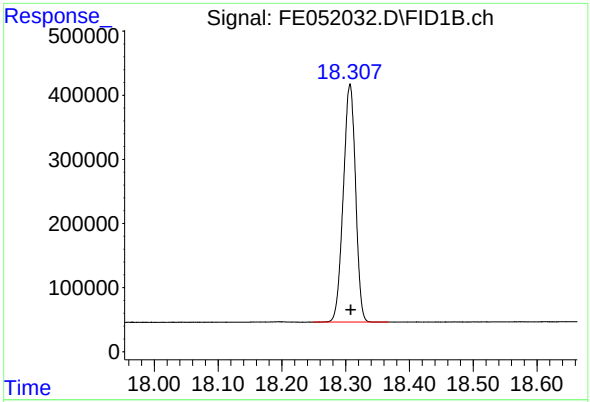
#11 N-HEXACOSANE

R.T.: 16.476 min
Delta R.T.: 0.000 min
Response: 5097911
Conc: 46.77 ug/ml



#12 N-OCTACOSANE

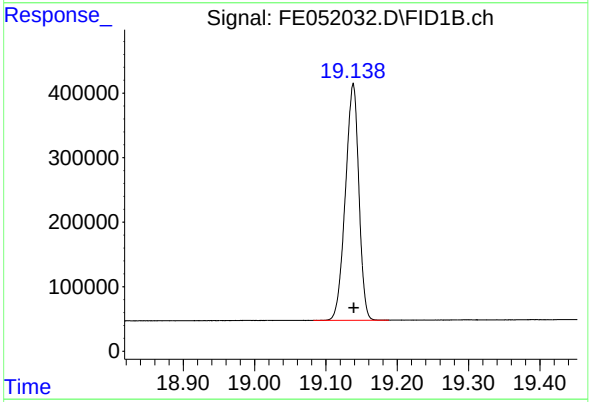
R.T.: 17.423 min
Delta R.T.: -0.001 min
Response: 5031236
Conc: 46.61 ug/ml



#13 N-TRIACONTANE

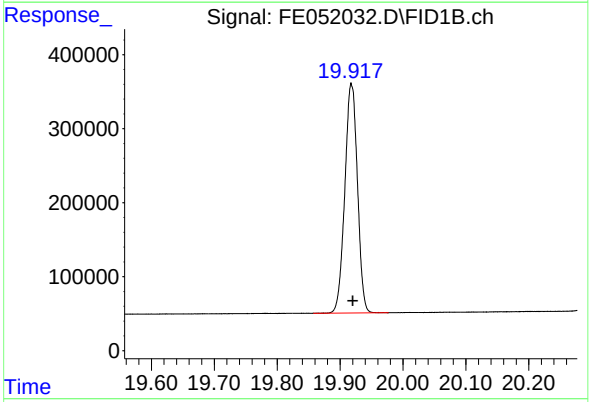
R.T.: 18.307 min
Delta R.T.: -0.001 min
Response: 4962414
Conc: 46.25 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



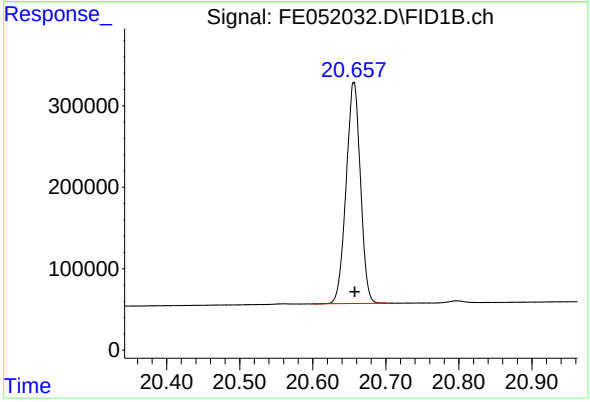
#14 N-DOTRIACONTANE

R.T.: 19.138 min
Delta R.T.: 0.000 min
Response: 4809025
Conc: 46.06 ug/ml



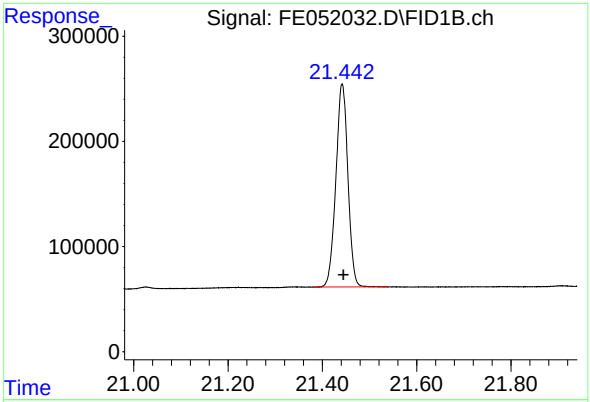
#15 N-TETRATRIACONTANE

R.T.: 19.918 min
Delta R.T.: -0.002 min
Response: 4322160
Conc: 46.03 ug/ml



#16 N-HEXATRIACONTANE

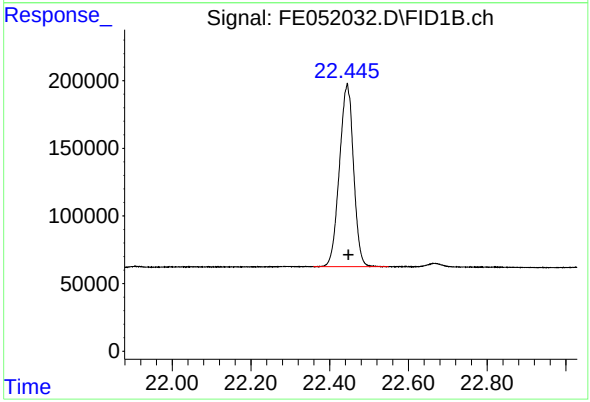
R.T.: 20.656 min
Delta R.T.: -0.001 min
Response: 3695277
Conc: 45.76 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.442 min
Delta R.T.: -0.003 min
Response: 3418238
Conc: 45.81 ug/ml

Instrument :
FID_E
ClientSampleId :
FE012325ICV



#18 N-TETRACONTANE

R.T.: 22.445 min
Delta R.T.: -0.003 min
Response: 3353522
Conc: 45.54 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012325\
Data File : FE052032.D
Signal(s) : FID1B.ch
Acq On : 24 Jan 2025 01:06
Sample : FE012325ICV
Misc :
ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.412	2.373	2.482	BB	325149	3991003	75.94%	4.813%
2	4.906	4.866	4.966	BB	450862	4296957	81.76%	5.182%
3	7.035	6.992	7.090	BB	495564	4687706	89.19%	5.653%
4	8.841	8.791	8.886	BB	486321	4758083	90.53%	5.738%
5	10.434	10.391	10.481	BB	490371	4984676	94.85%	6.012%
6	11.868	11.823	11.911	BB	496666	5255597	100.00%	6.338%
7	13.169	13.118	13.220	BB	470899	5213798	99.20%	6.288%
8	14.361	14.321	14.407	BB	444530	5190938	98.77%	6.260%
9	15.256	15.206	15.329	BB	358694	4666211	88.79%	5.627%
10	15.459	15.391	15.507	BB	433536	5183378	98.63%	6.251%
11	16.476	16.436	16.516	BB	407354	5097911	97.00%	6.148%
12	17.423	17.349	17.477	BB	400863	5031236	95.73%	6.068%
13	18.307	18.249	18.367	BB	371955	4962414	94.42%	5.985%
14	19.138	19.082	19.188	BB	366172	4809025	91.50%	5.800%
15	19.918	19.857	19.977	BB	309597	4322160	82.24%	5.213%
16	20.656	20.601	20.704	BB	270798	3695277	70.31%	4.457%
17	21.442	21.381	21.541	BB	193087	3418238	65.04%	4.122%
18	22.445	22.358	22.550	BB	135556	3353522	63.81%	4.044%
			Sum of corrected areas:			82918129		

FE012325.M Fri Jan 24 03:20:42 2025

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

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: WEST04

ProjectID: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Lab Code: CHEM Case No.: Q1211 SAS No.: Q1211 SDG No.: Q1211

DataFile: FE052158.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	47611916	95224	106182	10.32

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052158.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 14:06
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jan 31 02:03:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.273	4444458	44.624 ug/ml
	Target Compounds			
2)	N-DECANE	4.935	4184814	45.734 ug/ml
3)	N-DODECANE	7.061	4518215	45.220 ug/ml
4)	N-TETRADECANE	8.865	4562084	44.837 ug/ml
5)	N-HEXADECANE	10.457	4774409	44.805 ug/ml
6)	N-OCTADECANE	11.888	5025212	44.819 ug/ml
7)	N-EICOSANE	13.189	4974420	44.662 ug/ml
8)	N-DOCOSANE	14.380	4939892	44.491 ug/ml
10)	N-TETRACOSANE	15.478	4940481	44.665 ug/ml
11)	N-HEXACOSANE	16.492	4867856	44.655 ug/ml
12)	N-OCTACOSANE	17.438	4824533	44.697 ug/ml

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

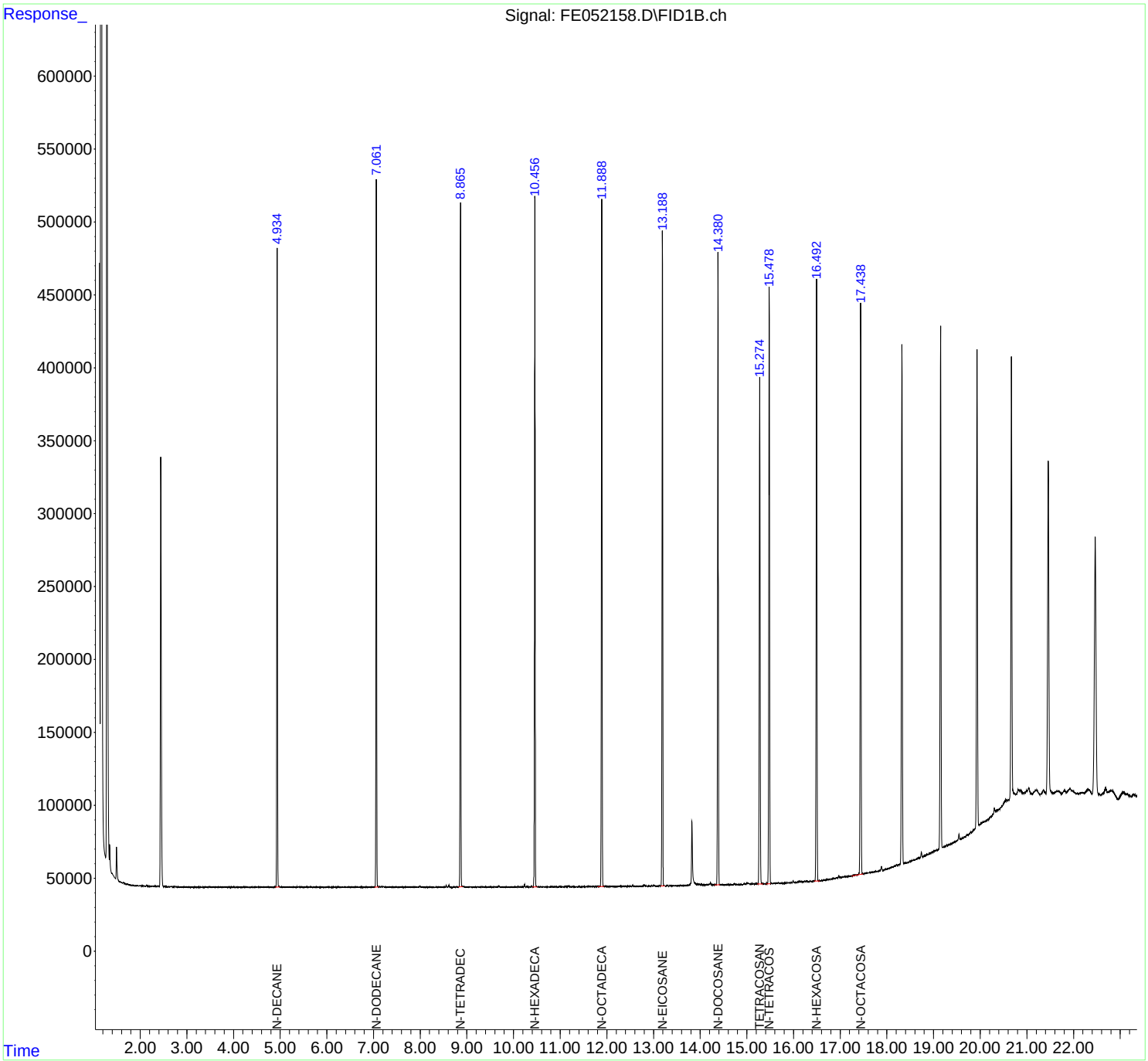
Quantitation Report (QT Reviewed)

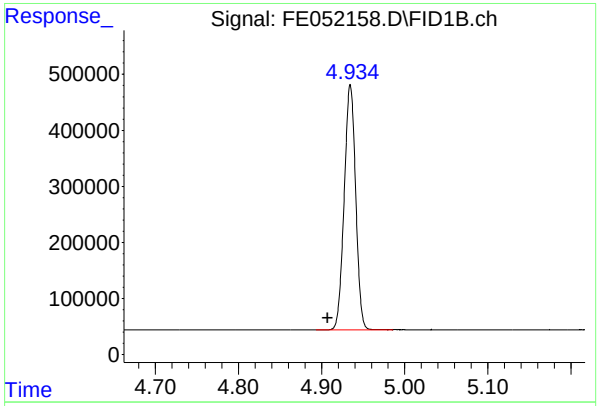
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052158.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 14:06
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jan 31 02:03:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

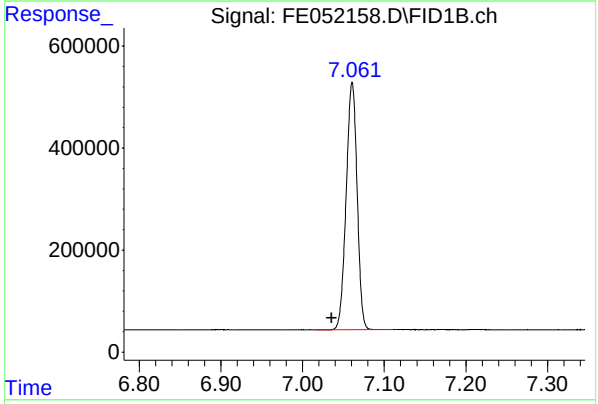




#2 N-DECANE

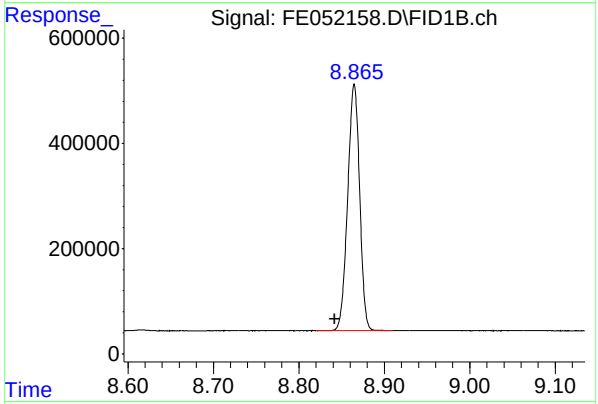
R.T.: 4.935 min
Delta R.T.: 0.027 min
Response: 4184814
Conc: 45.73 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD



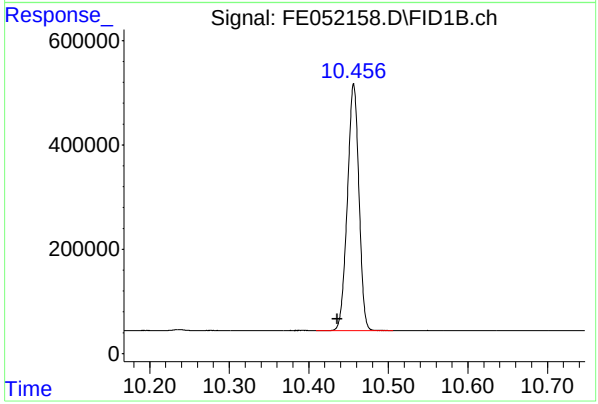
#3 N-DODECANE

R.T.: 7.061 min
Delta R.T.: 0.025 min
Response: 4518215
Conc: 45.22 ug/ml



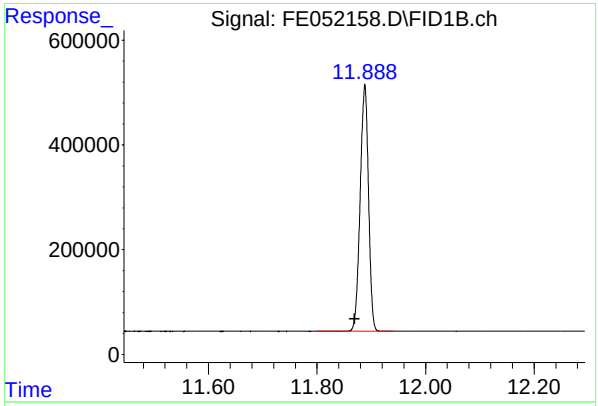
#4 N-TETRADECANE

R.T.: 8.865 min
Delta R.T.: 0.023 min
Response: 4562084
Conc: 44.84 ug/ml



#5 N-HEXADECANE

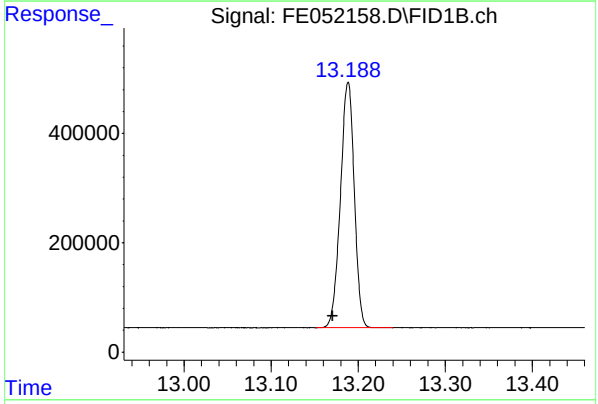
R.T.: 10.457 min
Delta R.T.: 0.021 min
Response: 4774409
Conc: 44.81 ug/ml



#6 N-OCTADECANE

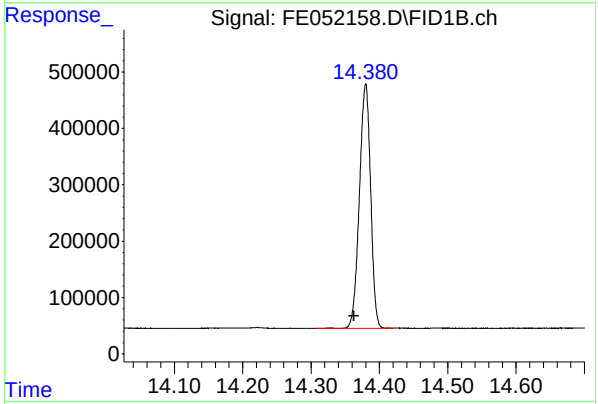
R.T.: 11.888 min
Delta R.T.: 0.019 min
Response: 5025212
Conc: 44.82 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD



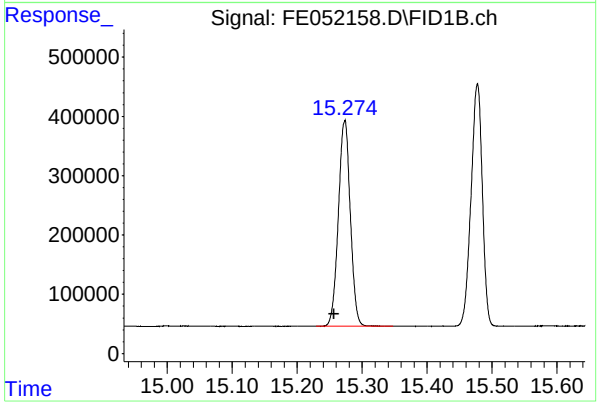
#7 N-EICOSANE

R.T.: 13.189 min
Delta R.T.: 0.018 min
Response: 4974420
Conc: 44.66 ug/ml



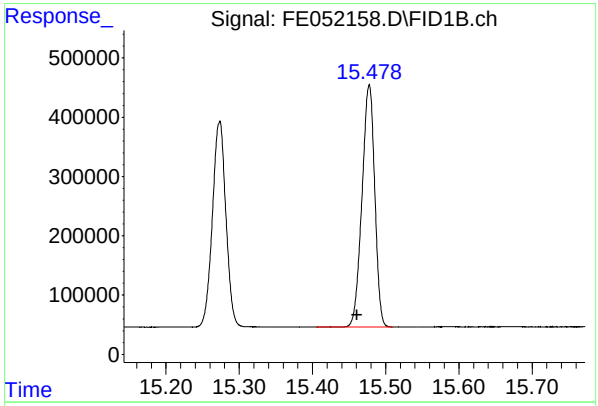
#8 N-DOCOSANE

R.T.: 14.380 min
Delta R.T.: 0.018 min
Response: 4939892
Conc: 44.49 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

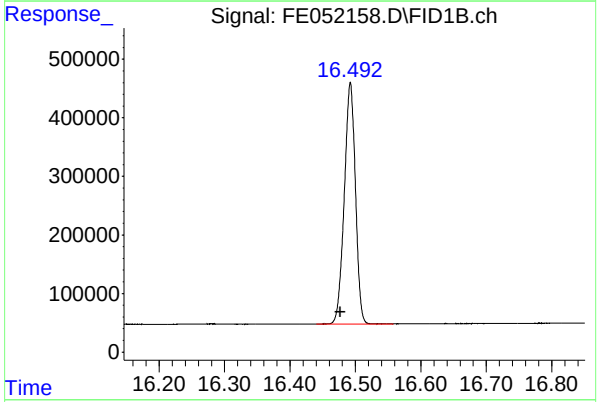
R.T.: 15.273 min
Delta R.T.: 0.016 min
Response: 4444458
Conc: 44.62 ug/ml



#10 N-TETRACOSANE

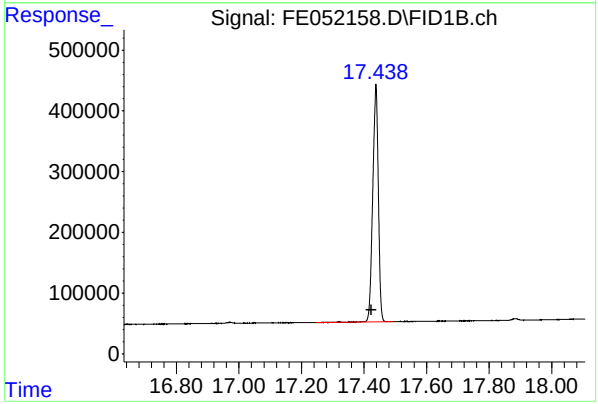
R.T.: 15.478 min
Delta R.T.: 0.017 min
Response: 4940481
Conc: 44.67 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.492 min
Delta R.T.: 0.015 min
Response: 4867856
Conc: 44.66 ug/ml



#12 N-OCTACOSANE

R.T.: 17.438 min
Delta R.T.: 0.015 min
Response: 4824533
Conc: 44.70 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052158.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 14:06
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.935	4.893	4.986	BB	436879	4184814	83.28%	8.039%
2	7.061	7.017	7.111	BB	484960	4518215	89.91%	8.679%
3	8.865	8.820	8.910	BB	469021	4562084	90.78%	8.764%
4	10.457	10.409	10.506	BB	473367	4774409	95.01%	9.172%
5	11.888	11.798	11.940	BB	471165	5025212	100.00%	9.653%
6	13.189	13.152	13.240	BB	448747	4974420	98.99%	9.556%
7	14.380	14.307	14.420	BB	433685	4939892	98.30%	9.490%
8	15.273	15.229	15.347	BV	346368	4444458	88.44%	8.538%
9	15.478	15.405	15.510	BB	408621	4940481	98.31%	9.491%
10	16.492	16.440	16.557	BB	412501	4867856	96.87%	9.351%
11	17.438	17.247	17.492	BB	390955	4824533	96.01%	9.268%
			Sum of corrected areas:			52056373		

FE012325.M Fri Jan 31 02:30:59 2025

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

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: WEST04

ProjectID: Ft Meade Tipton Airfield Parcel RI - PO 0111169

Lab Code: CHEM Case No.: Q1211 SAS No.: Q1211 SDG No.: Q1211

DataFile: FE052165.D Analyst Name: YP\AJ Analyst Date: 01-30-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	47877285	95755	106182	9.82

Quantitation Report (QT Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052165.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 17:37
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jan 31 02:05:25 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.270	4469288	44.873 ug/ml
	Target Compounds			
2)	N-DECANE	4.931	4216284	46.077 ug/ml
3)	N-DODECANE	7.057	4551437	45.553 ug/ml
4)	N-TETRADECANE	8.861	4594304	45.154 ug/ml
5)	N-HEXADECANE	10.453	4794000	44.989 ug/ml
6)	N-OCTADECANE	11.885	5043328	44.981 ug/ml
7)	N-EICOSANE	13.186	5002019	44.910 ug/ml
8)	N-DOCOSANE	14.377	4968274	44.747 ug/ml
10)	N-TETRACOSANE	15.474	4967443	44.909 ug/ml
11)	N-HEXACOSANE	16.489	4896154	44.915 ug/ml
12)	N-OCTACOSANE	17.434	4844042	44.877 ug/ml

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

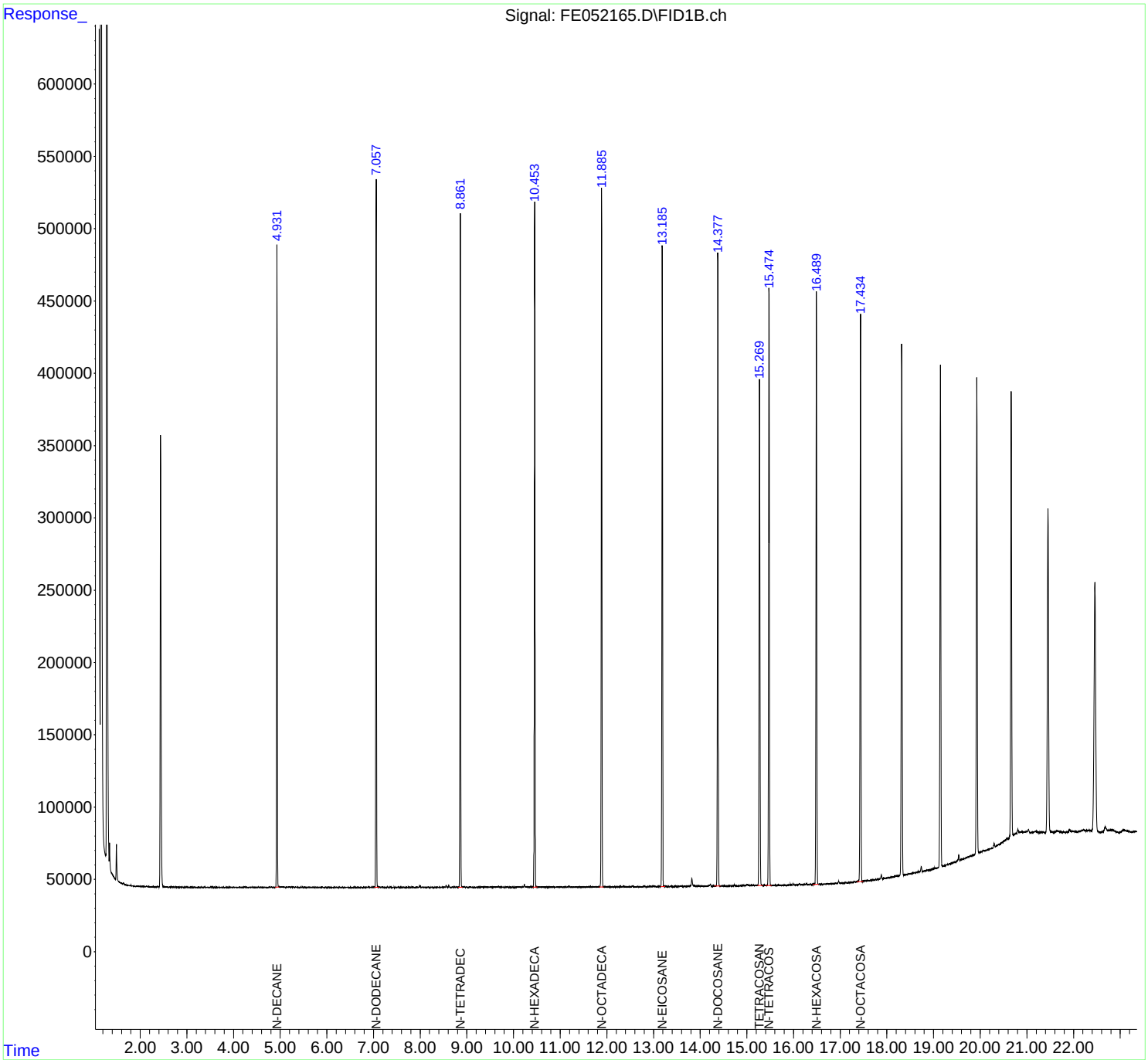
Quantitation Report (QT Reviewed)

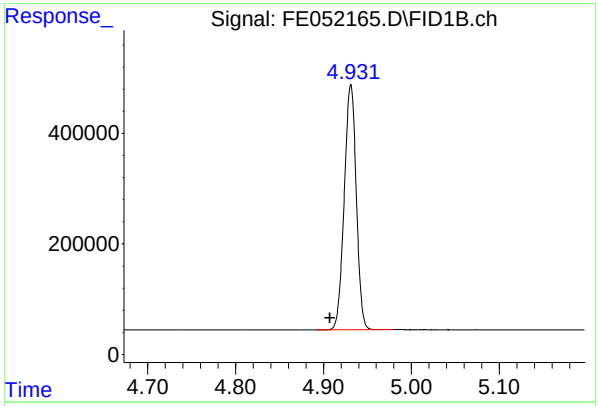
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052165.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 17:37
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jan 31 02:05:25 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

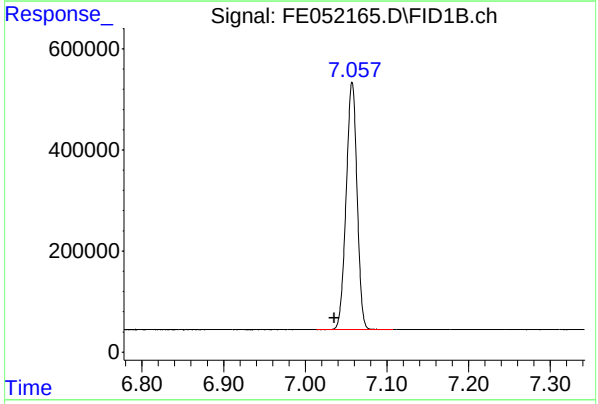




#2 N-DECANE

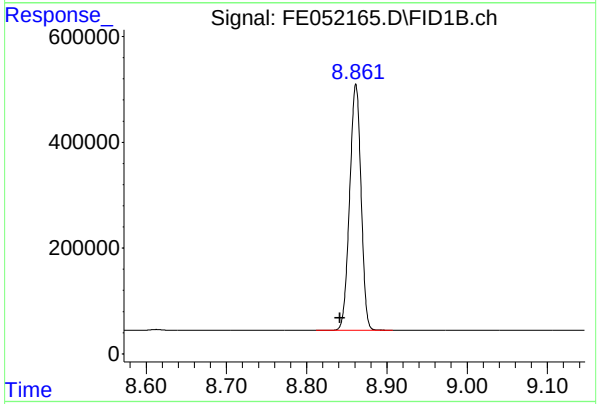
R.T.: 4.931 min
Delta R.T.: 0.024 min
Response: 4216284
Conc: 46.08 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD



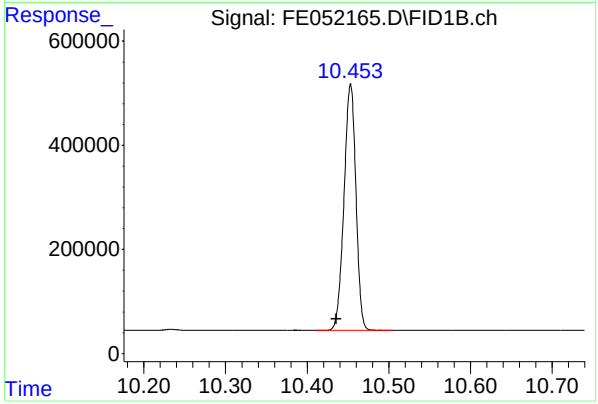
#3 N-DODECANE

R.T.: 7.057 min
Delta R.T.: 0.022 min
Response: 4551437
Conc: 45.55 ug/ml



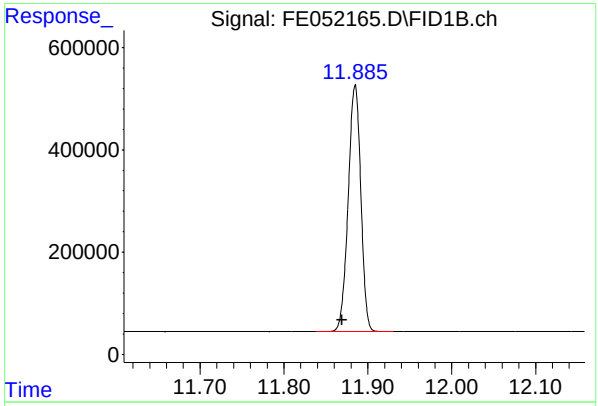
#4 N-TETRADECANE

R.T.: 8.861 min
Delta R.T.: 0.020 min
Response: 4594304
Conc: 45.15 ug/ml



#5 N-HEXADECANE

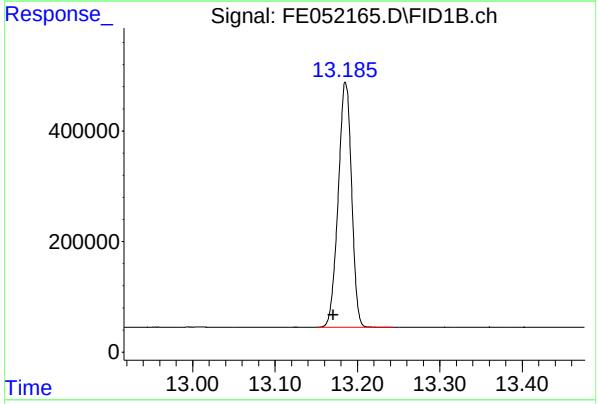
R.T.: 10.453 min
Delta R.T.: 0.018 min
Response: 4794000
Conc: 44.99 ug/ml



#6 N-OCTADECANE

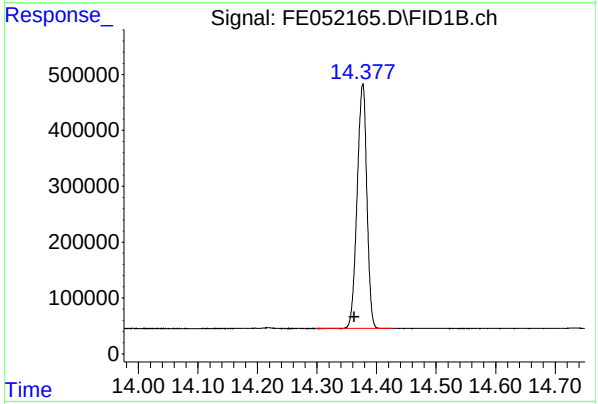
R.T.: 11.885 min
Delta R.T.: 0.016 min
Response: 5043328
Conc: 44.98 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD



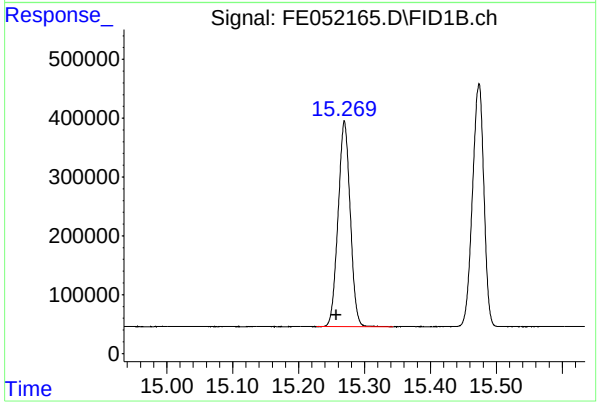
#7 N-EICOSANE

R.T.: 13.186 min
Delta R.T.: 0.015 min
Response: 5002019
Conc: 44.91 ug/ml



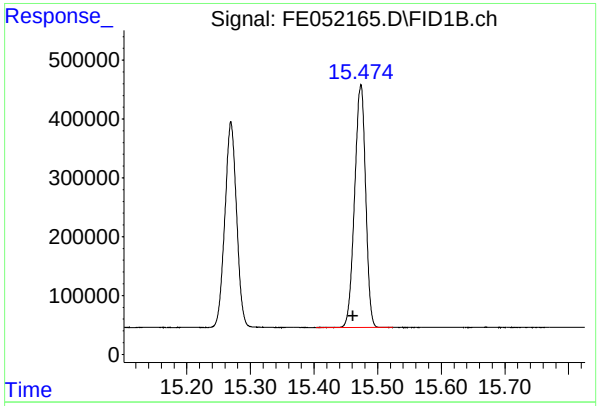
#8 N-DOCOSANE

R.T.: 14.377 min
Delta R.T.: 0.014 min
Response: 4968274
Conc: 44.75 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

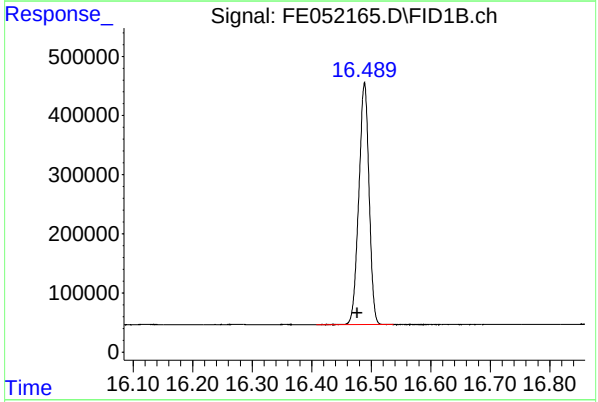
R.T.: 15.270 min
Delta R.T.: 0.013 min
Response: 4469288
Conc: 44.87 ug/ml



#10 N-TETRACOSANE

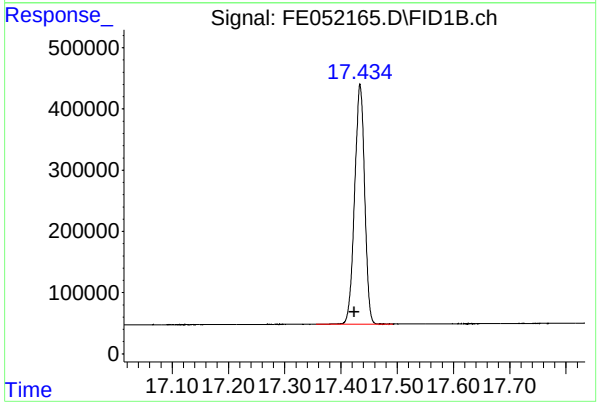
R.T.: 15.474 min
Delta R.T.: 0.013 min
Response: 4967443
Conc: 44.91 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.489 min
Delta R.T.: 0.012 min
Response: 4896154
Conc: 44.91 ug/ml



#12 N-OCTACOSANE

R.T.: 17.434 min
Delta R.T.: 0.010 min
Response: 4844042
Conc: 44.88 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052165.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 17:37
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 99 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.931	4.892	4.979	BB	444464	4216284	83.60%	8.055%
2	7.057	7.013	7.107	BB	489124	4551437	90.25%	8.695%
3	8.861	8.812	8.907	BB	465468	4594304	91.10%	8.777%
4	10.453	10.411	10.505	BB	473614	4794000	95.06%	9.158%
5	11.885	11.838	11.930	BB	482314	5043328	100.00%	9.634%
6	13.186	13.150	13.243	BB	441982	5002019	99.18%	9.556%
7	14.377	14.298	14.427	BB	436853	4968274	98.51%	9.491%
8	15.270	15.227	15.343	BV	349940	4469288	88.62%	8.538%
9	15.474	15.403	15.524	BB	413136	4967443	98.50%	9.490%
10	16.489	16.407	16.537	BB	409919	4896154	97.08%	9.353%
11	17.434	17.356	17.492	BB	392089	4844042	96.05%	9.254%
			Sum of corrected areas:			52346574		

FE012325.M Fri Jan 31 02:36:08 2025

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

Analytical Sequence

Client: Weston Solutions **SDG No.:** Q1211

Project: Ft Meade Tipton Airfield Parcel RI - PO 0111169 **Instrument ID:** FID_E

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 **15.2554**

EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	I.BLK01	30 Jan 2025 13:36	FE052157.D	15.272	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 14:06	FE052158.D	15.273	
PB166364BL	PB166364BL	30 Jan 2025 14:37	FE052159.D	15.270	
PB166364BS	PB166364BS	30 Jan 2025 15:07	FE052160.D	15.269	
PB166364BSD	PB166364BSD	30 Jan 2025 15:37	FE052161.D	15.268	
TAPHHA-MW01-012825-00-T4	Q1211-01	30 Jan 2025 16:07	FE052162.D	15.205	
TAPIAL2-MW03-012825-00-T3	Q1211-02	30 Jan 2025 16:37	FE052163.D	15.210	
PIBLK02	I.BLK02	30 Jan 2025 17:08	FE052164.D	15.267	
50 PPM TRPH STD	50 PPM TRPH STD	30 Jan 2025 17:37	FE052165.D	15.270	

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

QC Limits	Lower Limit	Upper Limits
(± 0.10 minutes)	15.1554	15.3554

QC SAMPLE DATA

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

Report of Analysis

Client:	Weston Solutions	Date Collected:	
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	
Client Sample ID:	PB166364BL	SDG No.:	Q1211
Lab Sample ID:	PB166364BL	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052159.D	1	01/30/25 08:33	01/30/25 14:37	PB166364

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	25.0	U	10.0	25.0	50.0	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	16.4		29 - 130		82%	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_E\Data\FE012925\
Data File : FE052159.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 14:37
Operator : YP\AJ
Sample : PB166364BL
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166364BL

Integration File: autoint1.e
Quant Time: Jan 31 02:03:24 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.270	1637867	16.445 ug/ml
Target Compounds			

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

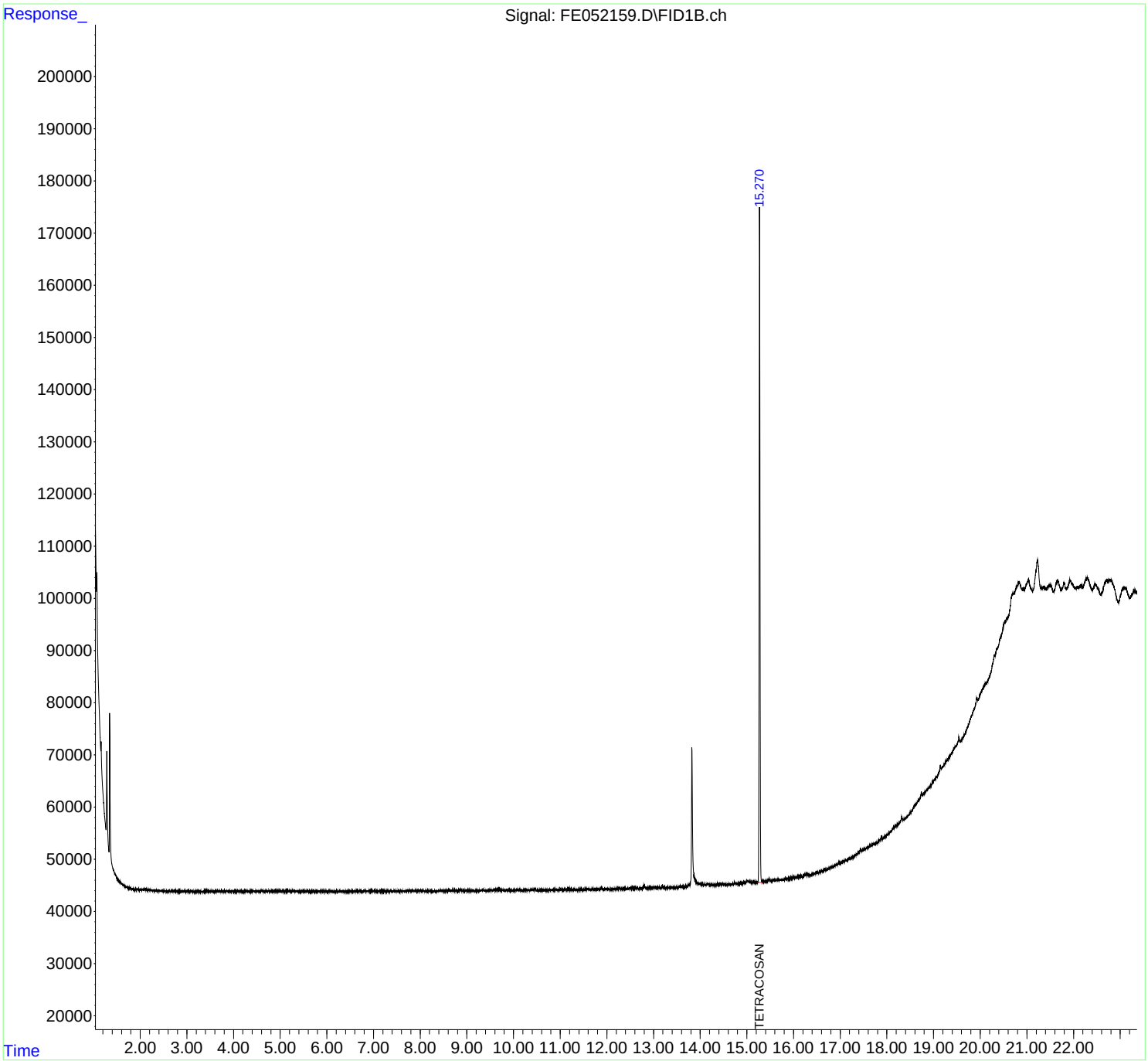
Quantitation Report (QT Reviewed)

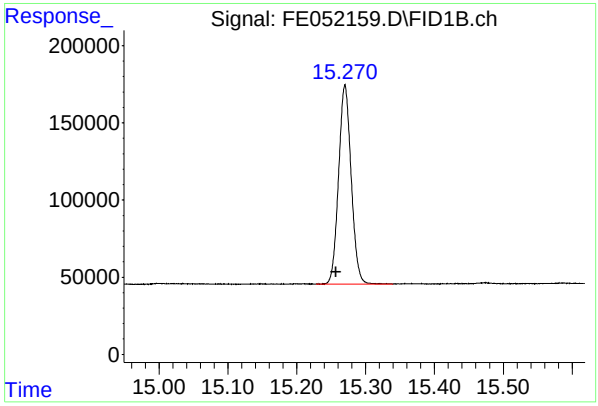
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052159.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 14:37
Operator : YP\AJ
Sample : PB166364BL
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166364BL

Integration File: autoint1.e
Quant Time: Jan 31 02:03:24 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.270 min
Delta R.T.: 0.013 mi
Response: 1637867
Conc: 16.44 ug/m

Instrument :
FID_E
ClientSampleId :
PB166364BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052159.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 14:37
Sample : PB166364BL
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.270	15.228	15.340	BB	129082	1637867	100.00%	100.000%
			Sum of corrected areas:			1637867		

FE012325.M Fri Jan 31 02:31:22 2025

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

Report of Analysis

Client:	Weston Solutions	Date Collected:	01/30/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	01/30/25
Client Sample ID:	PIBLK-FE052157.D	SDG No.:	Q1211
Lab Sample ID:	I.BLK-FE052157.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052157.D	1		01/30/25	FE012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	25.0	U	10.0	25.0	50.0	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	17.5		29 - 130		87%	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_E\Data\FE012925\
Data File : FE052157.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 13:36
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 31 02:02:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.272	1738849	17.459 ug/ml
Target Compounds			

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

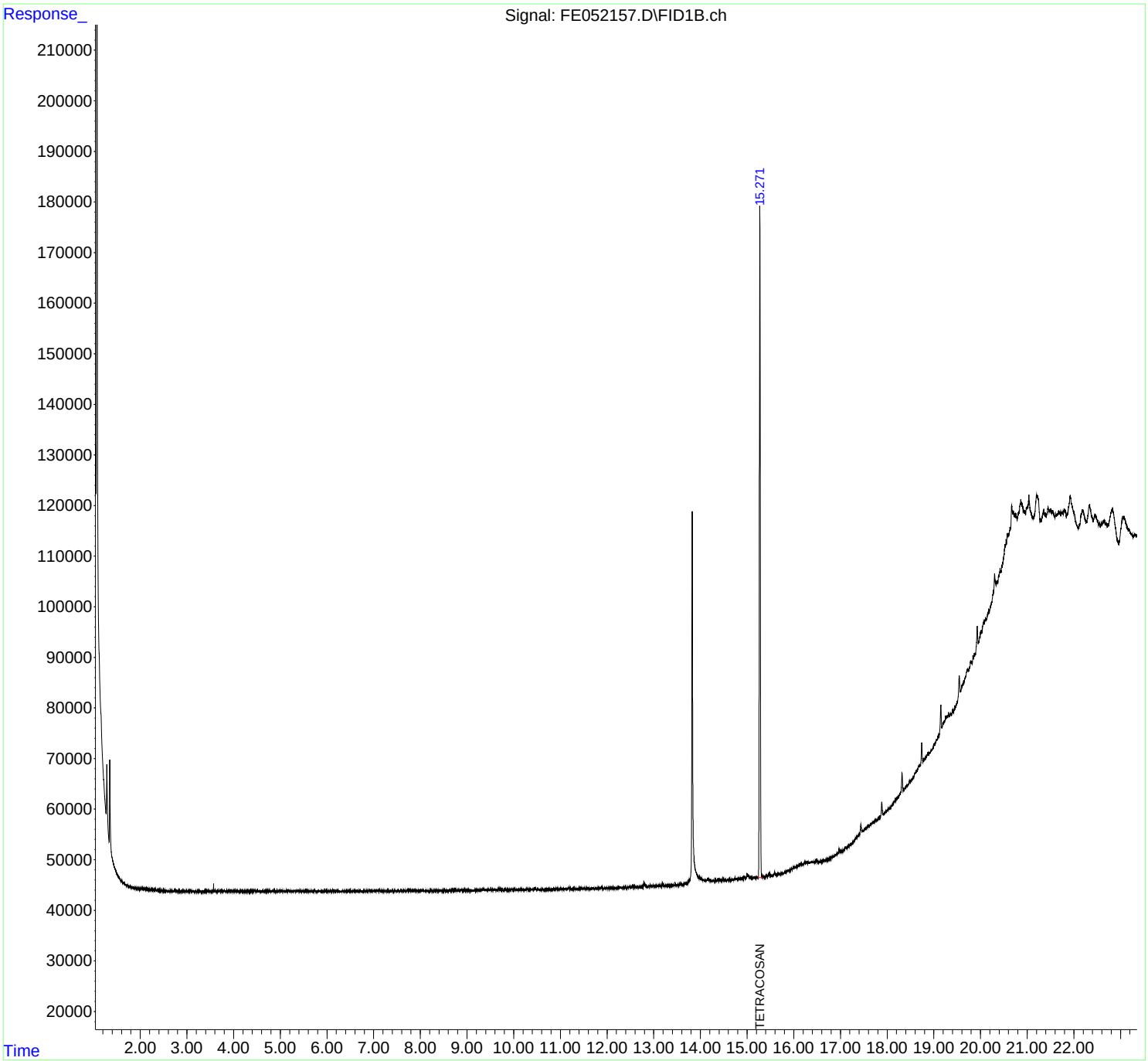
Quantitation Report (QT Reviewed)

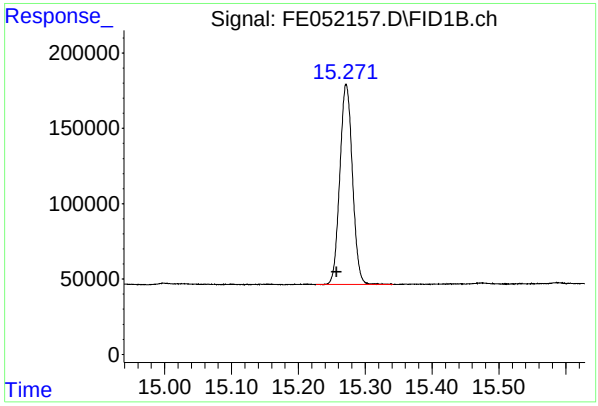
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052157.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 13:36
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 31 02:02:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.272 min
Delta R.T.: 0.015 mi
Response: 1738849
Conc: 17.46 ug/m

Instrument :
FID_E
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052157.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 13:36
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.272	15.226	15.341	BB	132629	1738849	100.00%	100.000%

Sum of corrected areas: 1738849

FE012325.M Fri Jan 31 02:30:26 2025

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

Report of Analysis

Client:	Weston Solutions	Date Collected:	01/30/25
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	01/30/25
Client Sample ID:	PIBLK-FE052164.D	SDG No.:	Q1211
Lab Sample ID:	I.BLK-FE052164.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052164.D	1		01/30/25	FE012925

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	25.0	U	10.0	25.0	50.0	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	17.6		29 - 130		88%	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_E\Data\FE012925\
Data File : FE052164.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 17:08
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 31 02:05:08 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.267	1752199	17.593 ug/ml
Target Compounds			

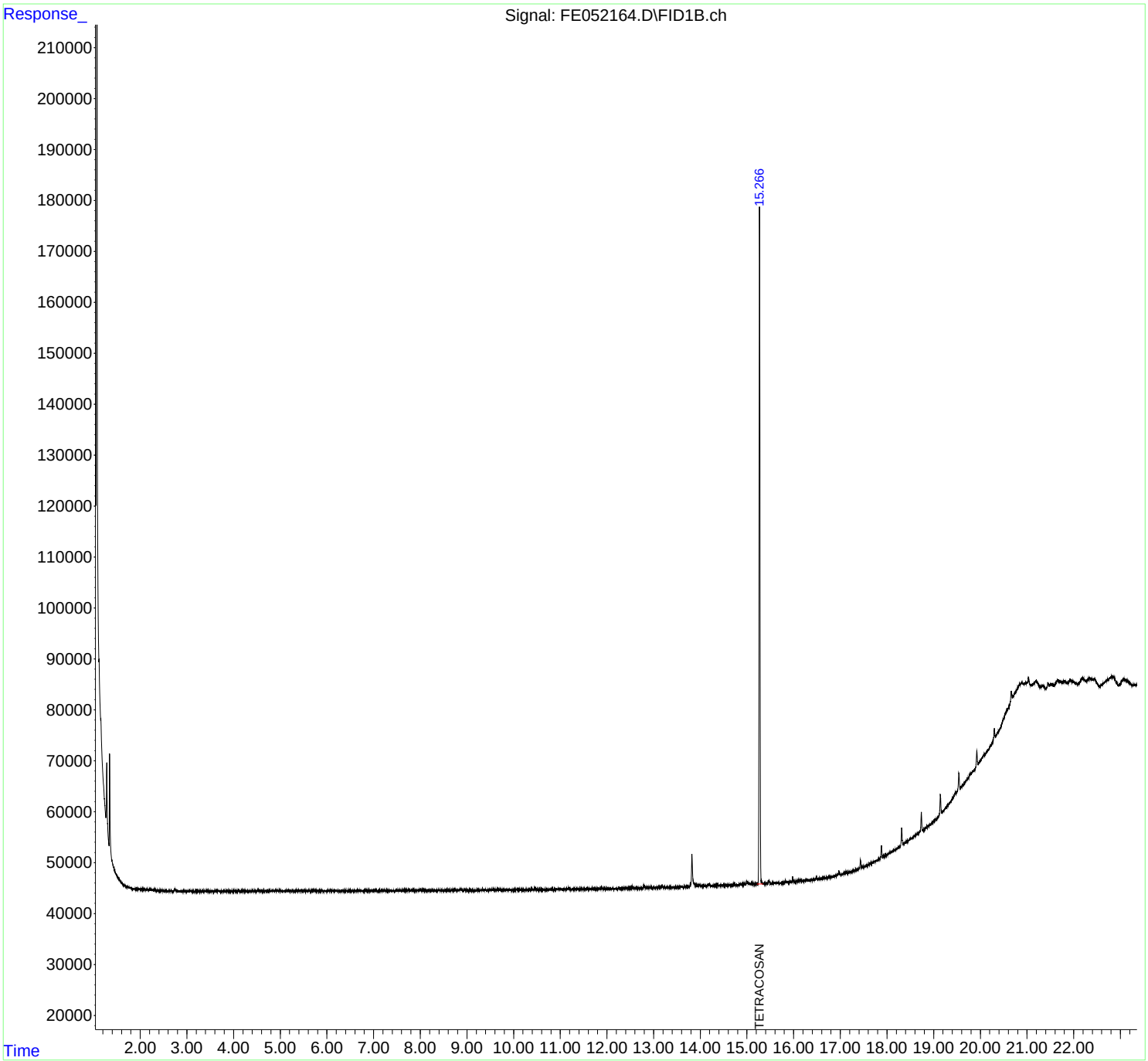
(f)=RT Delta > 1/2 Window (m)=manual int.

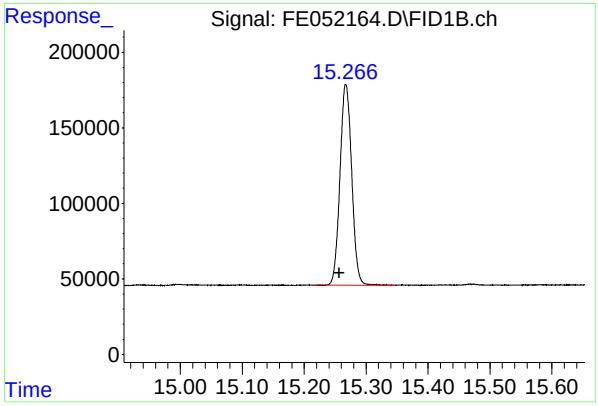
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052164.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 17:08
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jan 31 02:05:08 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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.: 15.267 min
Delta R.T.: 0.010 mi
Response: 1752199
Conc: 17.59 ug/m

Instrument :
FID_E
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052164.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 17:08
Sample : I.BLK
Misc :
ALS Vial : 98 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.267	15.219	15.343	BB	132699	1752199	100.00%	100.000%

Sum of corrected areas: 1752199

FE012325.M Fri Jan 31 02:35:36 2025

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

Report of Analysis

Client:	Weston Solutions	Date Collected:	
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	
Client Sample ID:	PB166364BS	SDG No.:	Q1211
Lab Sample ID:	PB166364BS	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052160.D	1	01/30/25 08:33	01/30/25 15:07	PB166364

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	182		10.0	25.0	50.0	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	17.6		29 - 130		88%	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_E\Data\FE012925\
Data File : FE052160.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 15:07
Operator : YP\AJ
Sample : PB166364BS
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166364BS

Integration File: autoint1.e
Quant Time: Jan 31 04:49:32 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.269	1748241	17.553 ug/ml
	Target Compounds			
2)	N-DECANE	4.933	1648344	18.014 ug/ml
3)	N-DODECANE	7.058	1794695	17.962 ug/ml
4)	N-TETRADECANE	8.862	1884012	18.517 ug/ml
5)	N-HEXADECANE	10.454	1946181	18.264 ug/ml
6)	N-OCTADECANE	11.885	2016412	17.984 ug/ml
7)	N-EICOSANE	13.186	2057477	18.473 ug/ml
8)	N-DOCOSANE	14.376	1995727	17.975 ug/ml
10)	N-TETRACOSANE	15.472	1996994	18.054 ug/ml
11)	N-HEXACOSANE	16.487	1980831	18.171 ug/ml
12)	N-OCTACOSANE	17.434	1952547	18.089 ug/ml

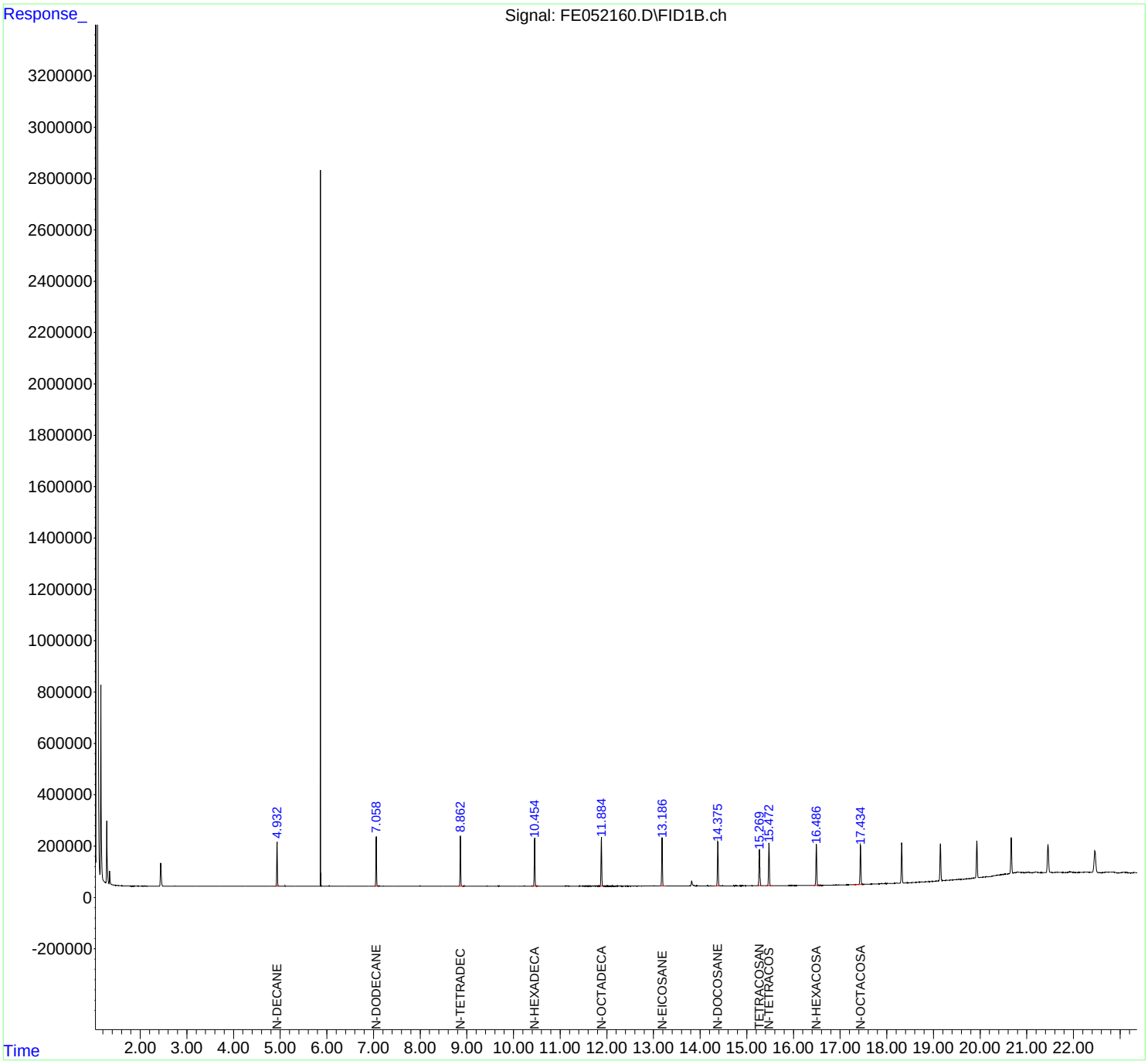
(f)=RT Delta > 1/2 Window (m)=manual int.

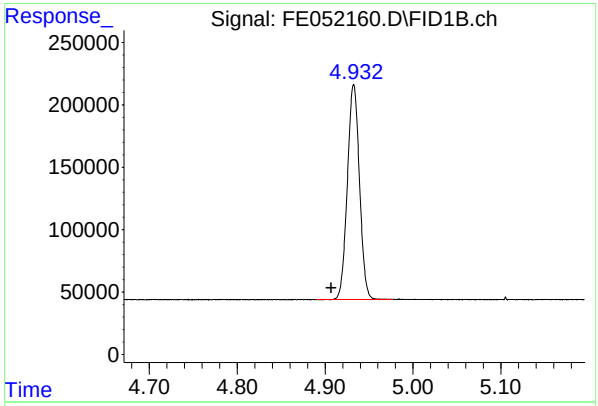
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052160.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 15:07
Operator : YP\AJ
Sample : PB166364BS
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166364BS

Integration File: autoint1.e
Quant Time: Jan 31 04:49:32 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

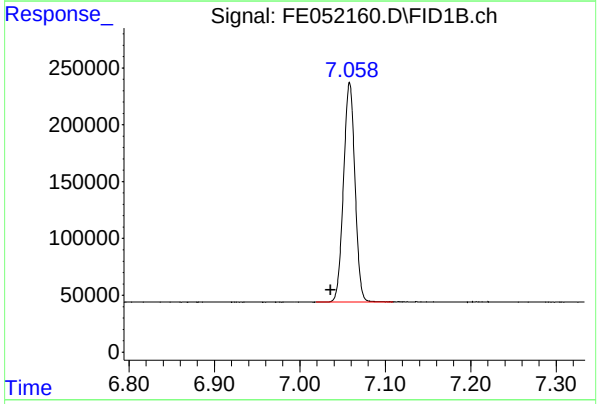




#2 N-DECANE

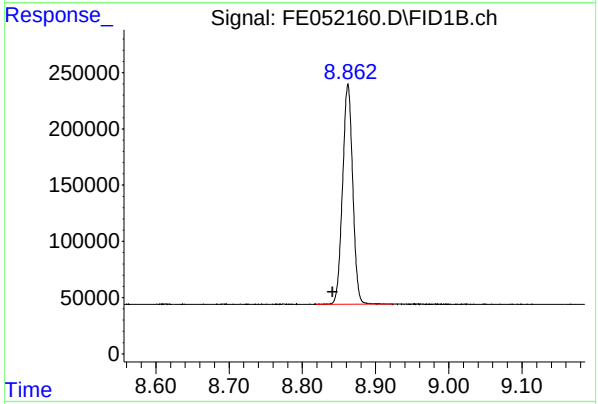
R.T.: 4.933 min
Delta R.T.: 0.025 min
Response: 1648344
Conc: 18.01 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BS



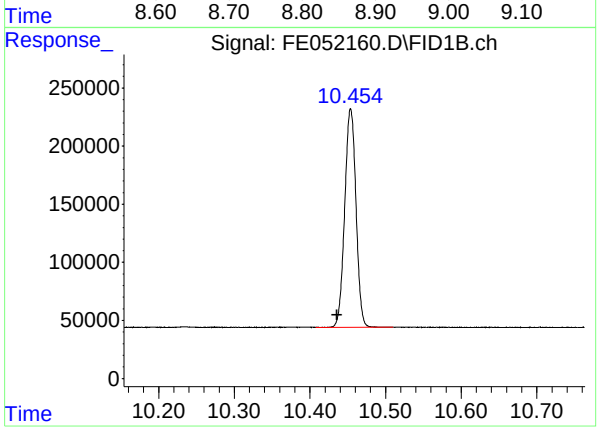
#3 N-DODECANE

R.T.: 7.058 min
Delta R.T.: 0.023 min
Response: 1794695
Conc: 17.96 ug/ml



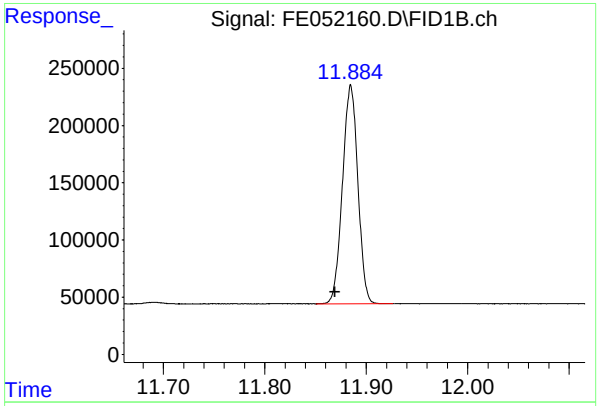
#4 N-TETRADECANE

R.T.: 8.862 min
Delta R.T.: 0.021 min
Response: 1884012
Conc: 18.52 ug/ml



#5 N-HEXADECANE

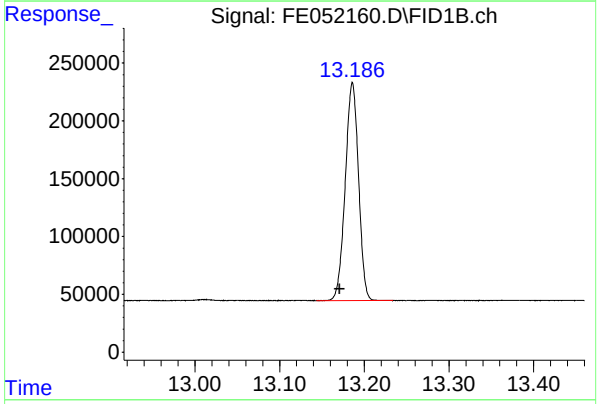
R.T.: 10.454 min
Delta R.T.: 0.018 min
Response: 1946181
Conc: 18.26 ug/ml



#6 N-OCTADECANE

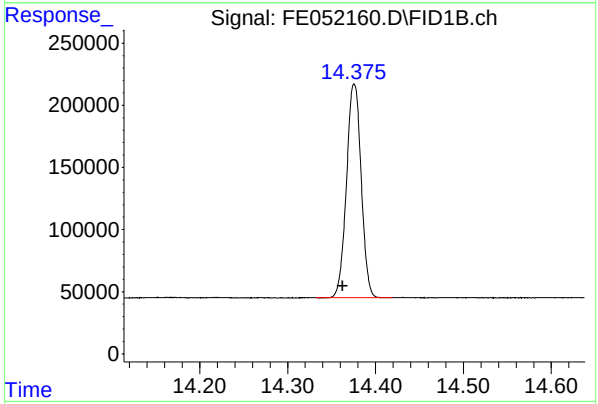
R.T.: 11.885 min
Delta R.T.: 0.016 min
Response: 2016412
Conc: 17.98 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BS



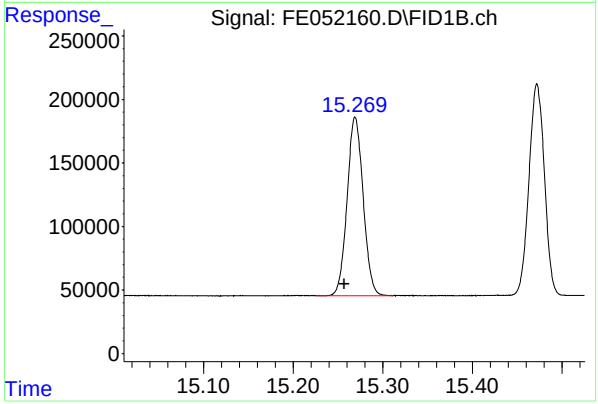
#7 N-EICOSANE

R.T.: 13.186 min
Delta R.T.: 0.015 min
Response: 2057477
Conc: 18.47 ug/ml



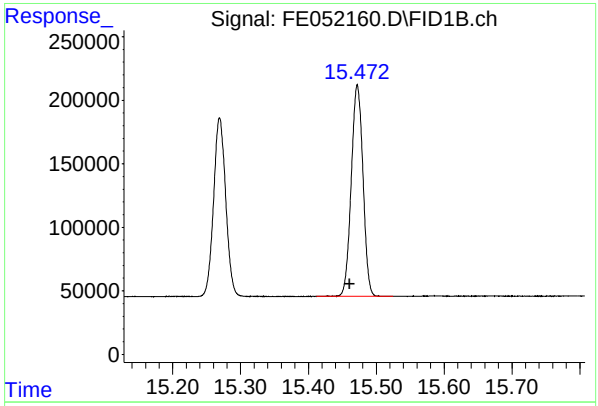
#8 N-DOCOSANE

R.T.: 14.376 min
Delta R.T.: 0.013 min
Response: 1995727
Conc: 17.97 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

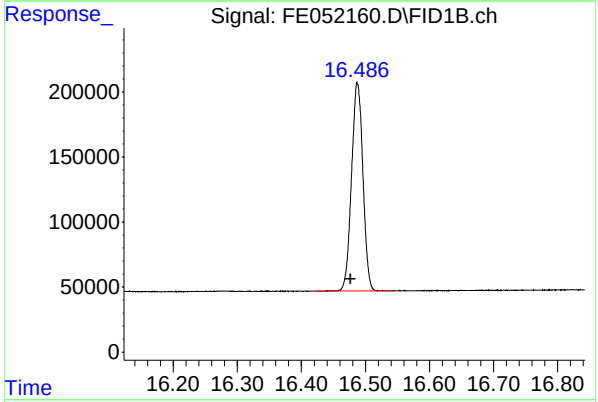
R.T.: 15.269 min
Delta R.T.: 0.012 min
Response: 1748241
Conc: 17.55 ug/ml



#10 N-TETRACOSANE

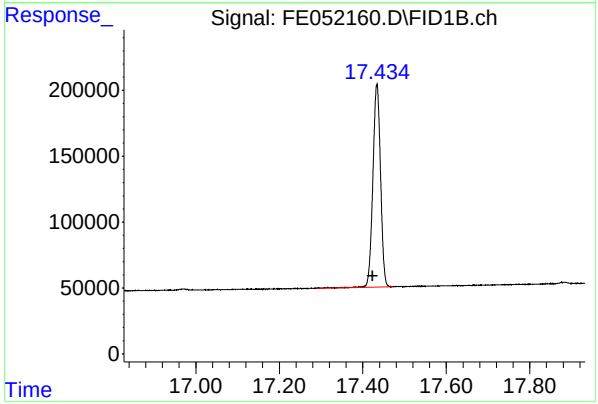
R.T.: 15.472 min
Delta R.T.: 0.011 min
Response: 1996994
Conc: 18.05 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BS



#11 N-HEXACOSANE

R.T.: 16.487 min
Delta R.T.: 0.011 min
Response: 1980831
Conc: 18.17 ug/ml



#12 N-OCTACOSANE

R.T.: 17.434 min
Delta R.T.: 0.010 min
Response: 1952547
Conc: 18.09 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052160.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 15:07
Sample : PB166364BS
Misc :
ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.933	4.890	4.977	BB	172230	1648344	80.11%	7.841%
2	7.058	7.019	7.109	BB	193168	1794695	87.23%	8.537%
3	8.862	8.819	8.924	BB	195686	1884012	91.57%	8.962%
4	10.454	10.408	10.510	BB	188112	1946181	94.59%	9.258%
5	11.885	11.851	11.926	BB	191293	2016412	98.00%	9.592%
6	13.186	13.143	13.234	BB	189046	2057477	100.00%	9.788%
7	14.376	14.332	14.420	BB	171939	1995727	97.00%	9.494%
8	15.269	15.226	15.311	BB	140683	1748241	84.97%	8.316%
9	15.472	15.411	15.525	BB	166489	1996994	97.06%	9.500%
10	16.487	16.423	16.543	BB	159618	1980831	96.27%	9.423%
11	17.434	17.288	17.472	BV	153166	1952547	94.90%	9.288%
			Sum of corrected areas:			21021461		

FE012325.M Fri Jan 31 04:50:54 2025

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

Report of Analysis

Client:	Weston Solutions	Date Collected:	
Project:	Ft Meade Tipton Airfield Parcel RI - PO 0111169	Date Received:	
Client Sample ID:	PB166364BSD	SDG No.:	Q1211
Lab Sample ID:	PB166364BSD	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0 Decanted:
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	Diesel Range Organics
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FE052161.D	1	01/30/25 08:33	01/30/25 15:37	PB166364

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
DRO	DRO	162		10.0	25.0	50.0	ug/L
SURROGATES							
16416-32-3	Tetracosane-d50	15.6		29 - 130		78%	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_E\Data\FE012925\
Data File : FE052161.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 15:37
Operator : YP\AJ
Sample : PB166364BSD
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Jan 31 02:04:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Instrument :
FID_E
ClientSampleId :
PB166364BSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

	Compound	R.T.	Response	Conc Units
	System Monitoring Compounds			
9)	S TETRACOSANE-d50 (SURR...	15.268	1557185	15.635 ug/ml
	Target Compounds			
2)	N-DECANE	4.932	1456693	15.919 ug/ml
3)	N-DODECANE	7.058	1594552	15.959 ug/ml
4)	N-TETRADECANE	8.862	1684615	16.557 ug/ml
5)	N-HEXADECANE	10.453	1749559	16.419 ug/ml
6)	N-OCTADECANE	11.884	1814781	16.186 ug/ml
7)	N-EICOSANE	13.185	1847472	16.587 ug/ml
8)	N-DOCOSANE	14.375	1785058	16.077 ug/ml
10)	N-TETRACOSANE	15.471	1777753	16.072 ug/ml
11)	N-HEXACOSANE	16.487	1756304	16.111 ug/ml
12)	N-OCTACOSANE	17.433	1729373	16.022 ug/mlm

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052161.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 15:37
Operator : YP\AJ
Sample : PB166364BSD
Misc :
ALS Vial : 16 Sample Multiplier: 1

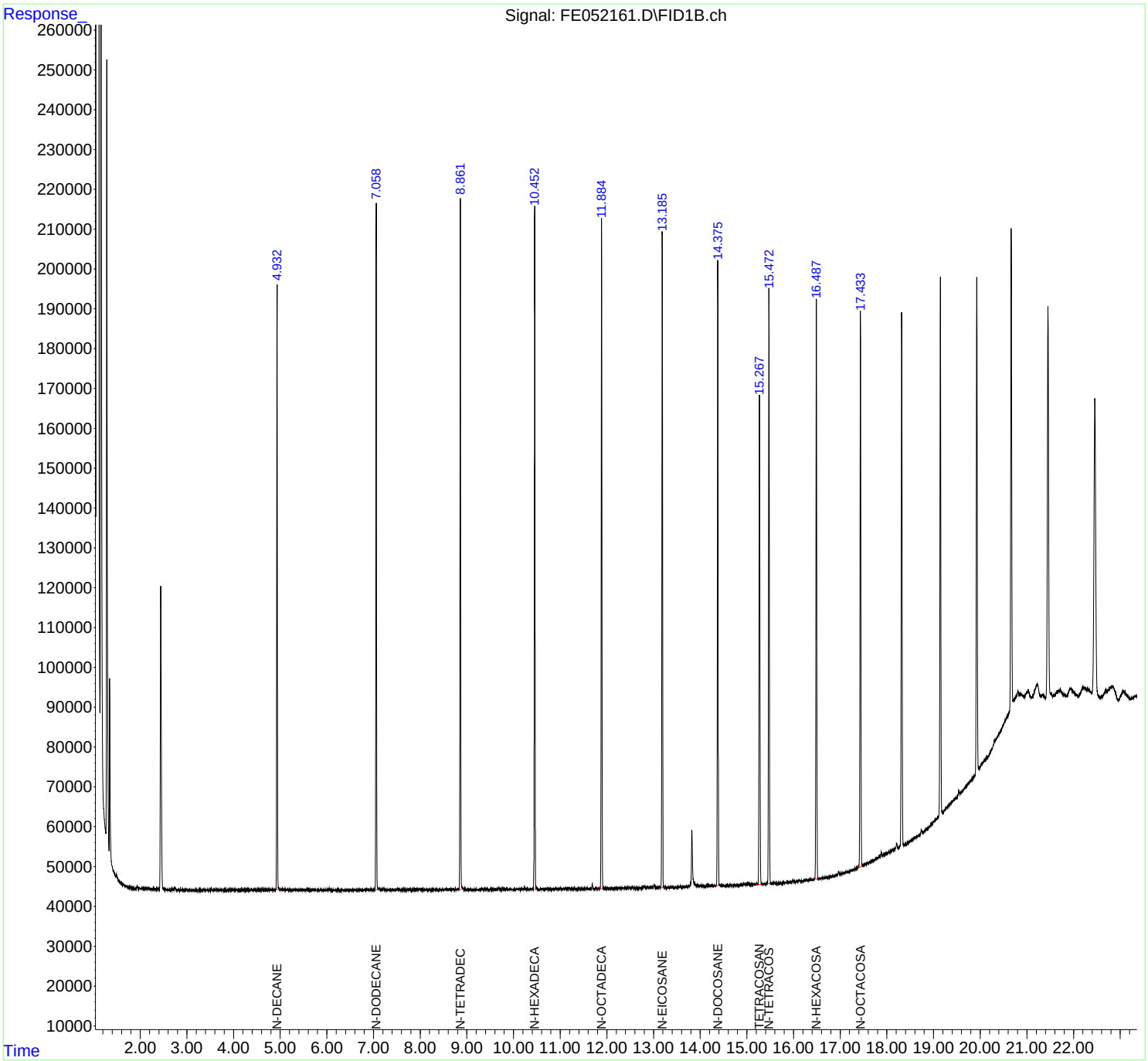
Integration File: autoint1.e
Quant Time: Jan 31 02:04:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

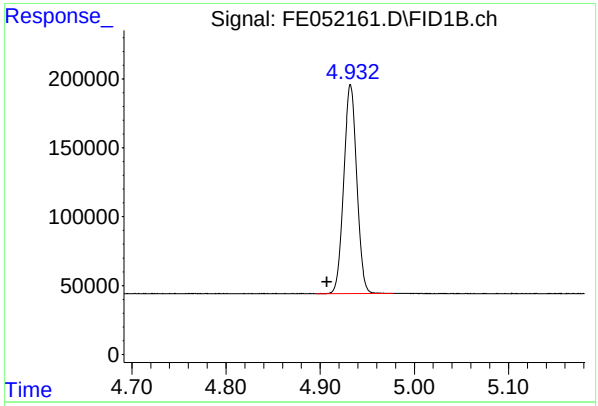
Volume Inj. : 1uL
Signal Phase : Rxi-1ms
Signal Info : 20mx0.18mmx0.18um

Instrument :
FID_E
ClientSampleId :
PB166364BSD

Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025





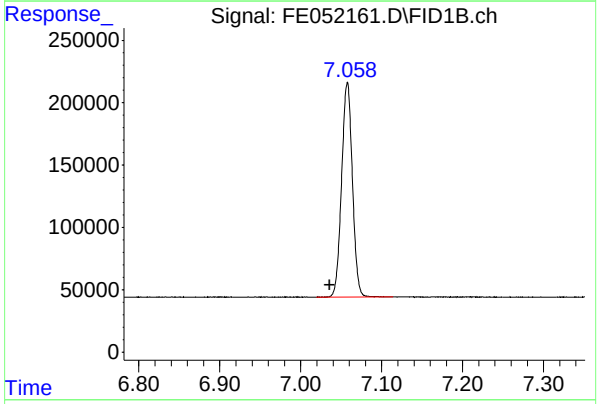
#2 N-DECANE

R.T.: 4.932 min
Delta R.T.: 0.025 min
Response: 1456693
Conc: 15.92 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BSD

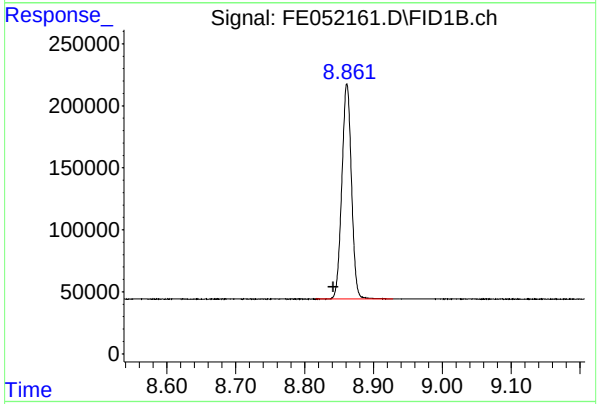
Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025



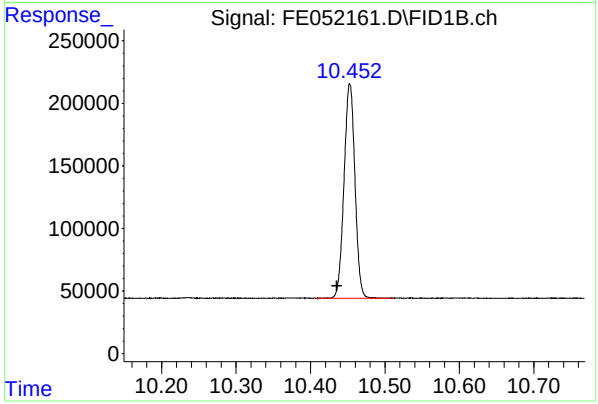
#3 N-DODECANE

R.T.: 7.058 min
Delta R.T.: 0.022 min
Response: 1594552
Conc: 15.96 ug/ml



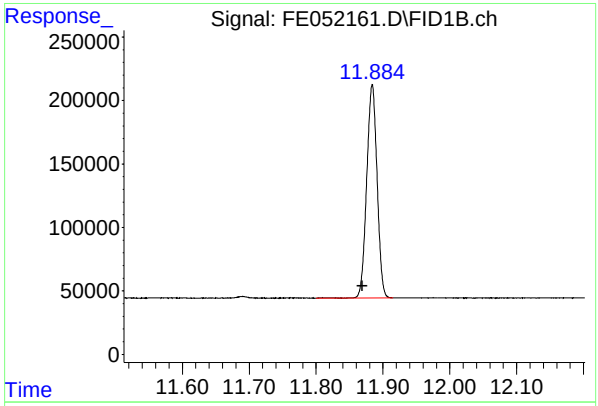
#4 N-TETRADECANE

R.T.: 8.862 min
Delta R.T.: 0.020 min
Response: 1684615
Conc: 16.56 ug/ml



#5 N-HEXADECANE

R.T.: 10.453 min
Delta R.T.: 0.017 min
Response: 1749559
Conc: 16.42 ug/ml



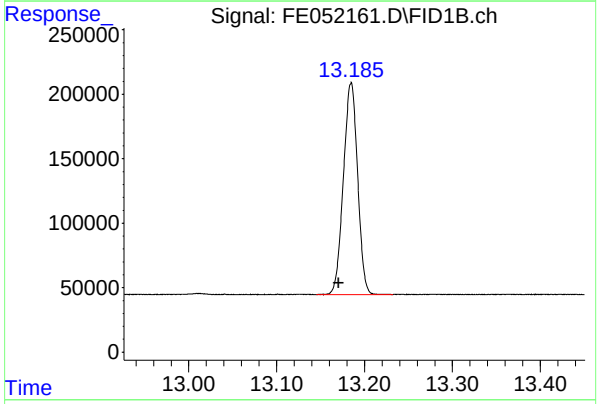
#6 N-OCTADECANE

R.T.: 11.884 min
Delta R.T.: 0.015 min
Response: 1814781
Conc: 16.19 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BSD

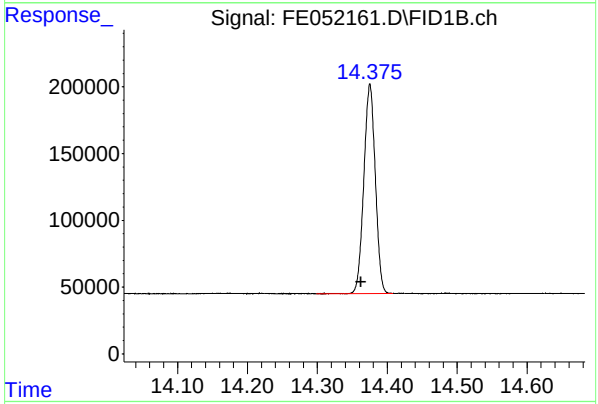
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025



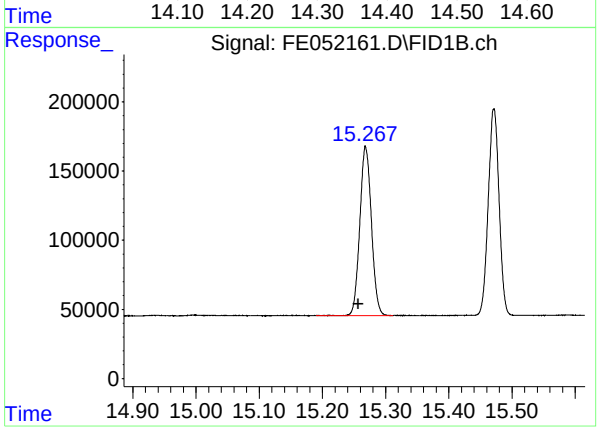
#7 N-EICOSANE

R.T.: 13.185 min
Delta R.T.: 0.014 min
Response: 1847472
Conc: 16.59 ug/ml



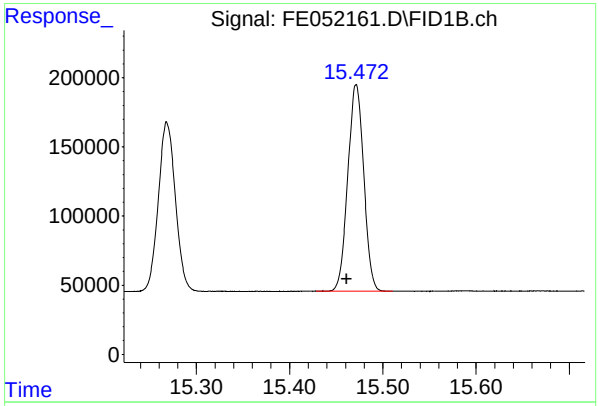
#8 N-DOCOSANE

R.T.: 14.375 min
Delta R.T.: 0.013 min
Response: 1785058
Conc: 16.08 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.268 min
Delta R.T.: 0.011 min
Response: 1557185
Conc: 15.63 ug/ml



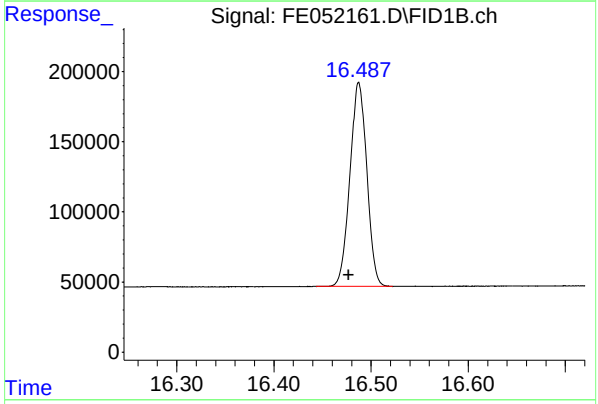
#10 N-TETRACOSANE

R.T.: 15.471 min
Delta R.T.: 0.010 min
Response: 1777753
Conc: 16.07 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BSD

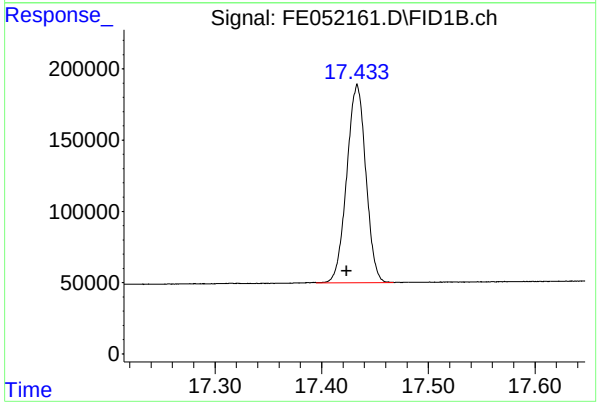
Manual Integrations APPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025



#11 N-HEXACOSANE

R.T.: 16.487 min
Delta R.T.: 0.010 min
Response: 1756304
Conc: 16.11 ug/ml



#12 N-OCTACOSANE

R.T.: 17.433 min
Delta R.T.: 0.009 min
Response: 1729373
Conc: 16.02 ug/ml m

Instrument :
FID_E
ClientSampleId :
PB166364BSD

rteres

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 01/31/2025
Supervised By :Ankita Jodhani 01/31/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE01292
Data File : FE052161.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 15:37
Sample : PB166364BSD
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Title :

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.932	4.896	4.977	BB	151696	1456693	78.85%	7.766%
2	7.058	7.019	7.114	BB	171821	1594552	86.31%	8.501%
3	8.862	8.817	8.928	BB	173410	1684615	91.18%	8.982%
4	10.453	10.407	10.511	BB	171047	1749559	94.70%	9.328%
5	11.884	11.800	11.915	BB	168178	1814781	98.23%	9.676%
6	13.185	13.145	13.232	BB	164406	1847472	100.00%	9.850%
7	14.375	14.298	14.408	BB	157099	1785058	96.62%	9.517%
8	15.268	15.190	15.312	BB	122377	1557185	84.29%	8.302%
9	15.471	15.428	15.511	BB	149413	1777753	96.23%	9.478%
10	16.487	16.443	16.522	BB	145718	1756304	95.07%	9.364%
11	17.433	17.285	17.475	BB	139485	1732290	93.77%	9.236%
			Sum of corrected areas:			18756262		

FE012325.M Fri Jan 31 02:35:13 2025

Page 1

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
50 PPM TRPH STD		FE052140.D	FE012925	TETRACOSANE-d50 (SURROGA	Ankita	1/30/2025 9:29:46 AM	Peak Integrated by Software incorrectly
Q1207-09		FE052149.D	FE012925	TETRACOSANE-d50 (SURROGA	Ankita	1/31/2025 1:17:52 PM	Peak Integrated by Software incorrectly
50 PPM TRPH STD		FE052152.D	FE012925	N-OCTACOSANE	Ankita	1/31/2025 1:17:53 PM	Peak Integrated by Software incorrectly
Q1207-13		FE052153.D	FE012925	TETRACOSANE-d50 (SURROGA	Ankita	1/31/2025 1:17:54 PM	Peak Integrated by Software incorrectly
Q1207-09		FE052154.D	FE012925	TETRACOSANE-d50 (SURROGA	Ankita	1/31/2025 1:17:56 PM	Peak Integrated by Software incorrectly
PB166364BSD		FE052161.D	FE012925	N-OCTACOSANE	Ankita	1/31/2025 1:17:57 PM	Peak Integrated by Software incorrectly

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012325

Review By	yogesh	Review On	1/23/2025 3:09:47 PM		
Supervise By	sohil	Supervise On	1/24/2025 2:02:13 PM		
SubDirectory	FE012325	HP Acquire Method		HP Processing Method	FE012325

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	FE052025.D	23 Jan 2025 21:06	YP\AJ	Ok
2	I.BLK	FE052026.D	23 Jan 2025 21:35	YP\AJ	Ok
3	100 TRPH STD	FE052027.D	23 Jan 2025 22:06	YP\AJ	Ok
4	50 TRPH STD	FE052028.D	23 Jan 2025 23:06	YP\AJ	Ok
5	20 TRPH STD	FE052029.D	23 Jan 2025 23:36	YP\AJ	Ok
6	10 TRPH STD	FE052030.D	24 Jan 2025 00:06	YP\AJ	Ok
7	5 TRPH STD	FE052031.D	24 Jan 2025 00:36	YP\AJ	Ok
8	FE012325ICV	FE052032.D	24 Jan 2025 01:06	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012925

Review By	yogesh	Review On	1/29/2025 3:46:27 PM		
Supervise By	Ankita	Supervise On	1/30/2025 9:29:51 AM		
SubDirectory	FE012925	HP Acquire Method		HP Processing Method	FE012325

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	FE052138.D	30 Jan 2025 02:58	YP\AJ	Ok
2	I.BLK	FE052139.D	30 Jan 2025 03:28	YP\AJ	Ok
3	50 PPM TRPH STD	FE052140.D	30 Jan 2025 03:58	YP\AJ	Ok,M
4	RT MARKER	FE052141.D	30 Jan 2025 04:28	YP\AJ	Ok
5	PB166348BL	FE052142.D	30 Jan 2025 04:58	YP\AJ	Ok
6	PB166348BS	FE052143.D	30 Jan 2025 05:28	YP\AJ	Ok
7	Q1206-01	FE052144.D	30 Jan 2025 05:58	YP\AJ	Ok
8	Q1206-05	FE052145.D	30 Jan 2025 06:28	YP\AJ	Ok
9	Q1207-01	FE052146.D	30 Jan 2025 06:59	YP\AJ	Ok
10	Q1207-05	FE052147.D	30 Jan 2025 07:29	YP\AJ	Ok
11	Q1207-13	FE052148.D	30 Jan 2025 08:29	YP\AJ	Ok
12	Q1207-09	FE052149.D	30 Jan 2025 09:00	YP\AJ	Dilution
13	Q1207-17	FE052150.D	30 Jan 2025 09:29	YP\AJ	Ok
14	I.BLK	FE052151.D	30 Jan 2025 10:30	YP\AJ	Ok
15	50 PPM TRPH STD	FE052152.D	30 Jan 2025 11:00	YP\AJ	Ok,M
16	Q1207-13	FE052153.D	30 Jan 2025 11:30	YP\AJ	Not Ok
17	Q1207-09	FE052154.D	30 Jan 2025 11:59	YP\AJ	Ok,M
18	Q1207-09RE	FE052155.D	30 Jan 2025 12:30	YP\AJ	Not Ok
19	Q1207-17	FE052156.D	30 Jan 2025 13:06	YP\AJ	Not Ok
20	I.BLK	FE052157.D	30 Jan 2025 13:36	YP\AJ	Ok
21	50 PPM TRPH STD	FE052158.D	30 Jan 2025 14:06	YP\AJ	Ok

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012925

Review By	yogesh	Review On	1/29/2025 3:46:27 PM		
Supervise By	Ankita	Supervise On	1/30/2025 9:29:51 AM		
SubDirectory	FE012925	HP Acquire Method		HP Processing Method	FE012325

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	

22	PB166364BL	FE052159.D	30 Jan 2025 14:37	YP\AJ	Ok
23	PB166364BS	FE052160.D	30 Jan 2025 15:07	YP\AJ	Ok
24	PB166364BSD	FE052161.D	30 Jan 2025 15:37	YP\AJ	Ok,M
25	Q1211-01	FE052162.D	30 Jan 2025 16:07	YP\AJ	Ok
26	Q1211-02	FE052163.D	30 Jan 2025 16:37	YP\AJ	Ok
27	I.BLK	FE052164.D	30 Jan 2025 17:08	YP\AJ	Ok
28	50 PPM TRPH STD	FE052165.D	30 Jan 2025 17:37	YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012325

Review By	yogesh	Review On	1/23/2025 3:09:47 PM		
Supervise By	sohil	Supervise On	1/24/2025 2:02:13 PM		
SubDirectory	FE012325	HP Acquire Method		HP Processing Method	FE012325

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		FE052025.D	23 Jan 2025 21:06		YP\AJ	Ok
2	I.BLK		FE052026.D	23 Jan 2025 21:35		YP\AJ	Ok
3	100 TRPH STD		FE052027.D	23 Jan 2025 22:06		YP\AJ	Ok
4	50 TRPH STD		FE052028.D	23 Jan 2025 23:06		YP\AJ	Ok
5	20 TRPH STD		FE052029.D	23 Jan 2025 23:36		YP\AJ	Ok
6	10 TRPH STD		FE052030.D	24 Jan 2025 00:06		YP\AJ	Ok
7	5 TRPH STD		FE052031.D	24 Jan 2025 00:36		YP\AJ	Ok
8	FE012325ICV		FE052032.D	24 Jan 2025 01:06		YP\AJ	Ok

M : Manual Integration

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012925

Review By	yogesh	Review On	1/29/2025 3:46:27 PM		
Supervise By	Ankita	Supervise On	1/30/2025 9:29:51 AM		
SubDirectory	FE012925	HP Acquire Method		HP Processing Method	FE012325

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		FE052138.D	30 Jan 2025 02:58		YP\AJ	Ok
2	I.BLK		FE052139.D	30 Jan 2025 03:28		YP\AJ	Ok
3	50 PPM TRPH STD		FE052140.D	30 Jan 2025 03:58		YP\AJ	Ok,M
4	RT MARKER		FE052141.D	30 Jan 2025 04:28		YP\AJ	Ok
5	PB166348BL		FE052142.D	30 Jan 2025 04:58		YP\AJ	Ok
6	PB166348BS		FE052143.D	30 Jan 2025 05:28		YP\AJ	Ok
7	Q1206-01		FE052144.D	30 Jan 2025 05:58		YP\AJ	Ok
8	Q1206-05		FE052145.D	30 Jan 2025 06:28		YP\AJ	Ok
9	Q1207-01		FE052146.D	30 Jan 2025 06:59		YP\AJ	Ok
10	Q1207-05		FE052147.D	30 Jan 2025 07:29		YP\AJ	Ok
11	Q1207-13		FE052148.D	30 Jan 2025 08:29		YP\AJ	Ok
12	Q1207-09		FE052149.D	30 Jan 2025 09:00	need 10x dilution	YP\AJ	Dilution
13	Q1207-17		FE052150.D	30 Jan 2025 09:29		YP\AJ	Ok
14	I.BLK		FE052151.D	30 Jan 2025 10:30		YP\AJ	Ok
15	50 PPM TRPH STD		FE052152.D	30 Jan 2025 11:00		YP\AJ	Ok,M
16	Q1207-13		FE052153.D	30 Jan 2025 11:30	Not required	YP\AJ	Not Ok
17	Q1207-09		FE052154.D	30 Jan 2025 11:59		YP\AJ	Ok,M
18	Q1207-09RE		FE052155.D	30 Jan 2025 12:30	Not required	YP\AJ	Not Ok

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

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QCBatch ID # FE012925

Review By	yogesh	Review On	1/29/2025 3:46:27 PM		
Supervise By	Ankita	Supervise On	1/30/2025 9:29:51 AM		
SubDirectory	FE012925	HP Acquire Method		HP Processing Method	FE012325

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	

19	Q1207-17		FE052156.D	30 Jan 2025 13:06	Not required	YP\AJ	Not Ok
20	I.BLK		FE052157.D	30 Jan 2025 13:36		YP\AJ	Ok
21	50 PPM TRPH STD		FE052158.D	30 Jan 2025 14:06		YP\AJ	Ok
22	PB166364BL		FE052159.D	30 Jan 2025 14:37		YP\AJ	Ok
23	PB166364BS		FE052160.D	30 Jan 2025 15:07		YP\AJ	Ok
24	PB166364BSD		FE052161.D	30 Jan 2025 15:37		YP\AJ	Ok,M
25	Q1211-01		FE052162.D	30 Jan 2025 16:07		YP\AJ	Ok
26	Q1211-02		FE052163.D	30 Jan 2025 16:37		YP\AJ	Ok
27	I.BLK		FE052164.D	30 Jan 2025 17:08		YP\AJ	Ok
28	50 PPM TRPH STD		FE052165.D	30 Jan 2025 17:37		YP\AJ	Ok

M : Manual Integration

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PB166364

SOP ID:	M3510C,3580A-Extraction DRO-12
Clean Up SOP #:	N/A
Matrix :	Water
Weigh By:	N/A
Balance check:	N/A
Balance ID:	N/A
pH Strip Lot#:	E3574
Extraction By:	RS
Filter By:	RS
pH Meter ID:	N/A
Hood ID:	4,6,7
Extraction Start Date :	01/30/2025
Extraction Start Time :	08:33
Extraction End Date :	01/30/2025
Extraction End Time :	13:30
Concentration By:	EH
Supervisor By :	rajesh

Extraction Method: ☑ Seperatory Funnel ☐ Continious Liquid/Liquid ☐ Sonication ☐ Waste Dilution ☐ Soxhlet

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Surrogate	1.0ML	20 PPM	PP23935
Spike Sol 1	1.0ML	20 PPM	PP23913
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	E3871
Baked Na2SO4	N/A	EP2580
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 -01
KD Bath Temperature:	60 °C
Envap ID:	NEVAP-02
Envap Temperature:	40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
01/30/25	RP (Ext. lab)	T.P [illegible]
13:35	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

EXTRACTION LOGPAGE

PrepBatch ID : PB166364

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

Concentration Date: 01/30/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB166364BL	PB166364BL	Diesel Range Organics	1000	6	RUPESH	rajesh	1			SEP-07
PB166364BS	PB166364BS	Diesel Range Organics	1000	6	RUPESH	rajesh	1			8
PB166364BSD	PB166364BSD TAPHHA	Diesel Range Organics	1000	6	RUPESH	rajesh	1			9
Q1211-01	~~TPHHA~~-MW01-012825-00-T4	Diesel Range Organics	1000	6	RUPESH	rajesh	1	R		10
Q1211-02	TAPIAL2-MW03-012825-00-T3	Diesel Range Organics	1000	6	RUPESH	rajesh	1	Q		11

RO 2/4/25

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

1/30/25 1/30/25

166364
D20

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1211D **WorkList ID :** 187279 **Department :** Extraction **Date :** 01-30-2025 08:12:23

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1194-08	EB	Water	PCB	Cool 4 deg C	PORT06	N41	01/25/2025	8082A
Q1211-01	TPHHA-MW01-012825-00-T4	Water	Diesel Range Organics	Cool 4 deg C	WEST04	N31	01/28/2025	8015D
Q1211-01	TPHHA-MW01-012825-00-T4	Water	PESTICIDE Group1	Cool 4 deg C	WEST04	N31	01/28/2025	8081B
Q1211-02	TAPIAL2-MW03-012825-00-T3	Water	Diesel Range Organics	Cool 4 deg C	WEST04	N31	01/28/2025	8015D
Q1211-02	TAPIAL2-MW03-012825-00-T3	Water	PESTICIDE Group1	Cool 4 deg C	WEST04	N31	01/28/2025	8081B

RS 2/4/25

Date/Time 01/30/25 8:30
Raw Sample Received by: RS (Ecol Labs)
Raw Sample Relinquished by: JD (CSM)

Date/Time 01/30/25 8:50
Raw Sample Received by: JD CSM
Raw Sample Relinquished by: RS (Ecol Labs)

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

Prep Standard - Chemical Standard Summary

Order ID : Q1211

Test : Diesel Range Organics

Prepbatch ID : PB166364,

Sequence ID/Qc Batch ID: FE012925,

Standard ID :
EP2580,PP23913,PP23935,PP23961,PP23962,PP23963,PP23964,PP23965,PP23966,PP23967,

Chemical ID :
E3551,E3822,E3828,E3871,P11958,P11959,P13104,P13109,P13213,P13218,P13219,P13492,P13493,P13494,P13495
,

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

Extractions STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3923	Baked Sodium Sulfate	EP2580	01/17/2025	07/01/2025	Rajesh Parikh	Extraction_SCALE_2 (EX-SC-2)	None	RUPESHKUMAR SHAH 01/17/2025

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3609	20 PPM DRO SPIKE SOLUTION (RESTEK)	PP23913	10/25/2024	04/23/2025	Yogesh Patel	None	None	Ankita Jodhani 10/25/2024

FROM 1.00000ml of P13104 + 1.00000ml of P13109 + 48.00000ml of E3822 = Final Quantity: 50.000 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
147	20 PPM DRO Surrogate Spike Solution	PP23935	11/01/2024	04/23/2025	Yogesh Patel	None	None	Ankita Jodhani 11/04/2024

FROM 1.00000ml of P13492 + 1.00000ml of P13493 + 1.00000ml of P13494 + 1.00000ml of P13495 + 196.00000ml of E3822 = Final Quantity: 200.000 ml

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

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
3796	100/100 PPM DRO STD (CPI)	PP23962	11/13/2024	02/14/2025	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	02/14/2025	Yogesh Patel	None	None	Ankita Jodhani 11/13/2024

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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)	24I2662006	04/23/2025	10/24/2024 / Rajesh	10/24/2024 / Rajesh	E3822

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)	24K1762005	07/14/2025	01/14/2025 / Rajesh	12/27/2024 / Rajesh	E3871

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	04/25/2025	10/25/2024 / yogesh	01/12/2024 / Yogesh	P13104

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	04/25/2025	10/25/2024 / yogesh	01/12/2024 / Yogesh	P13109

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	05/01/2025	11/01/2024 / yogesh	07/24/2024 / yogesh	P13492

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	05/01/2025	11/01/2024 / yogesh	07/24/2024 / yogesh	P13493

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	05/01/2025	11/01/2024 / yogesh	07/24/2024 / yogesh	P13494

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	05/01/2025	11/01/2024 / yogesh	07/24/2024 / yogesh	P13495

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.: 24I2662006
Manufactured Date: 2024-08-29
Expiration Date:2025-11-28
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	3
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	>= 99.8 %	99.9 %
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 3822

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

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

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

12197124

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 3871

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials,LLC
100 Matsonford Rd, Suite 200,Radnor,PA,19087.U.S.A.Phone 610.386.1700

Page 1 of 1

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)

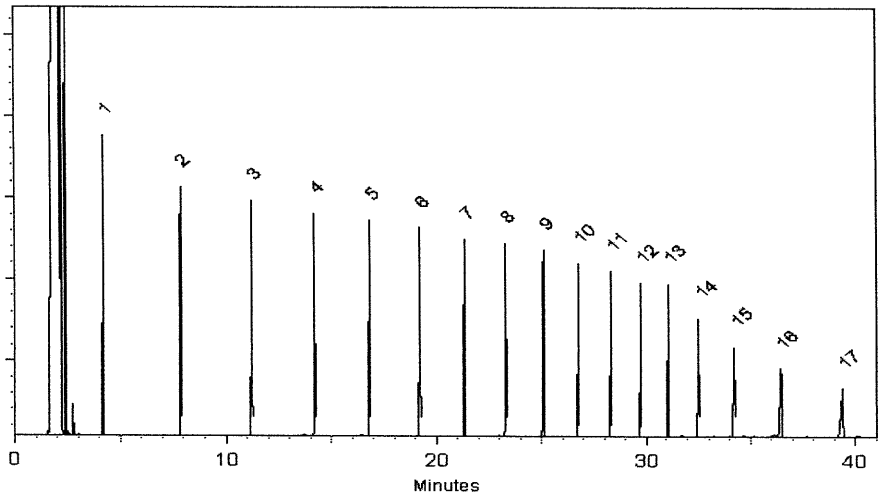
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

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)

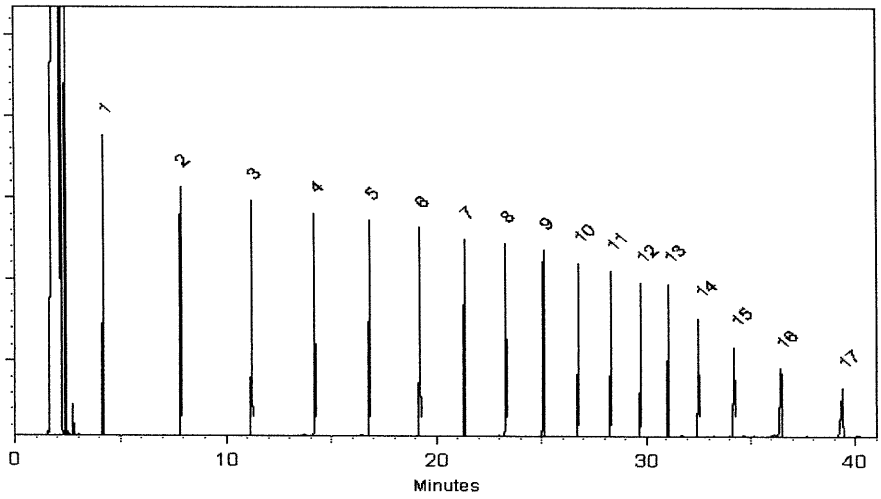
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31266 **Lot No.:** A0204859

Description : Florida TRPH Standard

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

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

Expiration Date : December 31, 2030 **Storage:** 25°C nominal

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

P13103 → P13112 Y.P. 01/12/2024

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Octane (C8)	111-65-9	SHBP9758	99%	504.4 µg/mL	+/- 13.0305
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	503.6 µg/mL	+/- 13.0098
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	503.6 µg/mL	+/- 13.0098
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	504.0 µg/mL	+/- 13.0201
5	n-Hexadecane (C16)	544-76-3	SHBP8192	99%	504.0 µg/mL	+/- 13.0201
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	504.1 µg/mL	+/- 13.0230
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	504.0 µg/mL	+/- 13.0204
8	n-Docosane (C22)	629-97-0	MKCQ3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKCQ8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	504.0 µg/mL	+/- 13.0201
11	n-Octacosane (C28)	630-02-4	BCCG0084	99%	504.0 µg/mL	+/- 13.0201
12	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	504.0 µg/mL	+/- 13.0204
13	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	504.0 µg/mL	+/- 13.0201
14	n-Tetratriacontane (C34)	14167-59-0	OML4N	99%	504.4 µg/mL	+/- 13.0305
15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	504.0 µg/mL	+/- 13.0201
16	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	503.8 µg/mL	+/- 13.0152
17	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	503.6 µg/mL	+/- 13.0098

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

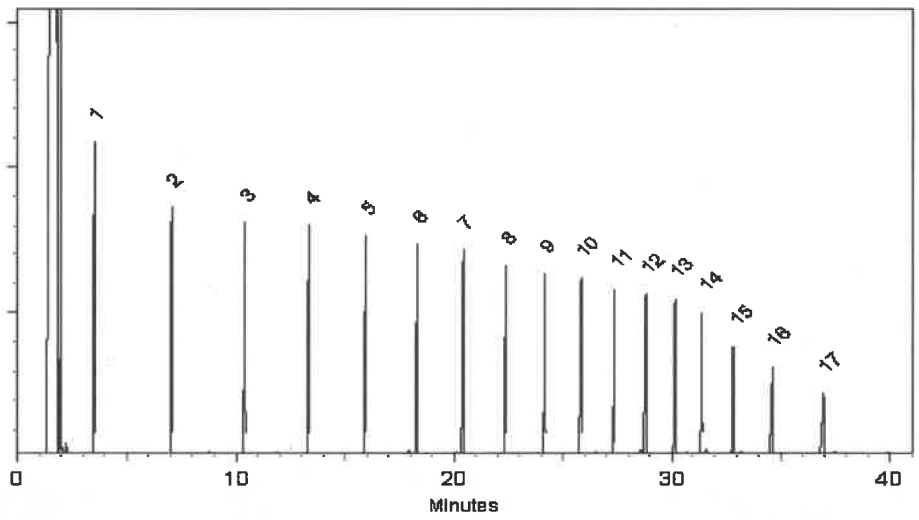
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

ilac-MRA A2LA ACCREDITED ISO 17034 Accredited Reference Material Producer Certificate #3222.01

ilac-MRA A2LA ACCREDITED ISO/IEC 17025 Accredited Testing Laboratory Certificate #3222.02

Certificate of Analysis

chromatographic plus

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31266 **Lot No.:** A0204859

Description : Florida TRPH Standard

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

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

Expiration Date : December 31, 2030 **Storage:** 25°C nominal

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

P13103 → P13112 Y.P. 01/12/2024

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Octane (C8)	111-65-9	SHBP9758	99%	504.4 µg/mL	+/- 13.0305
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	503.6 µg/mL	+/- 13.0098
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	503.6 µg/mL	+/- 13.0098
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	504.0 µg/mL	+/- 13.0201
5	n-Hexadecane (C16)	544-76-3	SHBP8192	99%	504.0 µg/mL	+/- 13.0201
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	504.1 µg/mL	+/- 13.0230
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	504.0 µg/mL	+/- 13.0204
8	n-Docosane (C22)	629-97-0	MKCQ3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKCQ8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	504.0 µg/mL	+/- 13.0201
11	n-Octacosane (C28)	630-02-4	BCCG0084	99%	504.0 µg/mL	+/- 13.0201
12	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	504.0 µg/mL	+/- 13.0204
13	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	504.0 µg/mL	+/- 13.0201
14	n-Tetratriacontane (C34)	14167-59-0	OML4N	99%	504.4 µg/mL	+/- 13.0305
15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	504.0 µg/mL	+/- 13.0201
16	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	503.8 µg/mL	+/- 13.0152
17	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	503.6 µg/mL	+/- 13.0098

* Expanded Uncertainty displayed in same units as Grav. Conc.

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

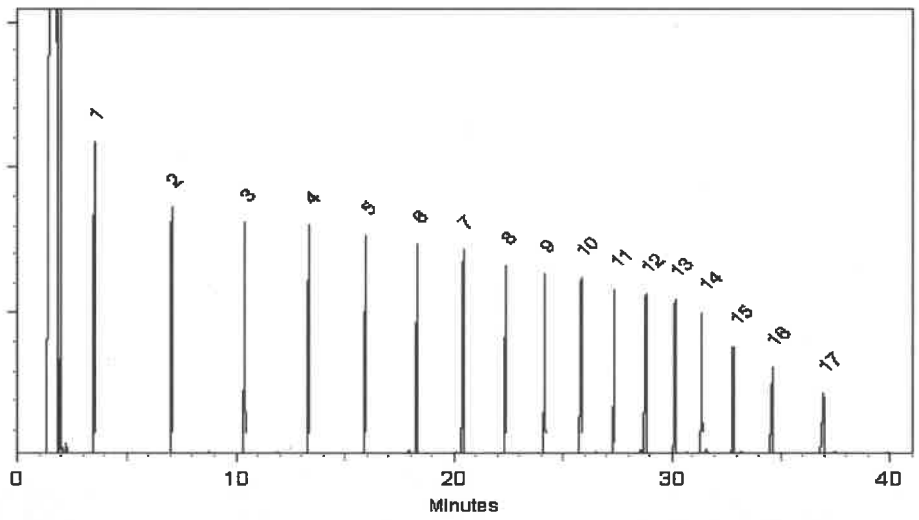
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023 **Balance Serial #** B442140311

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified expanded uncertainty value includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

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

  k is a coverage factor of 2, which gives a level of confidence of approximately 95%.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

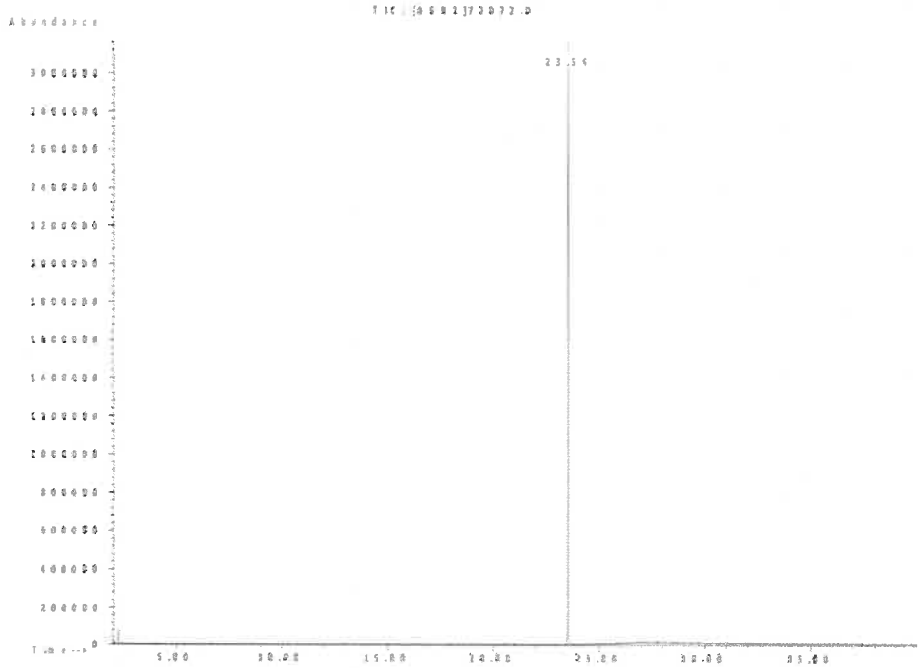
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

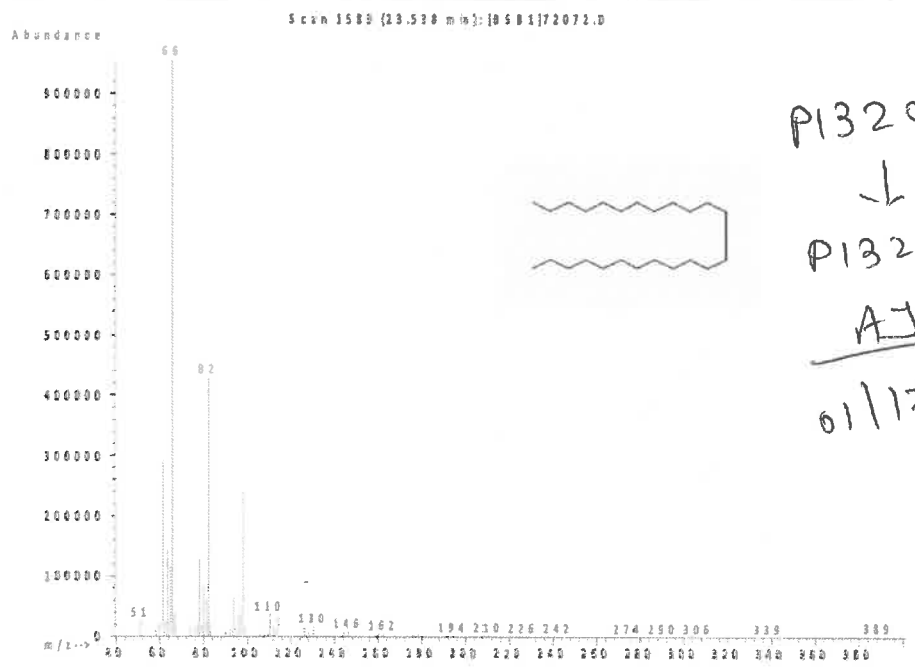
Weight(s) shown below were combined and diluted to (mL): 200.0

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
↓
P13214
AJ
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
↓
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

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
↓
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

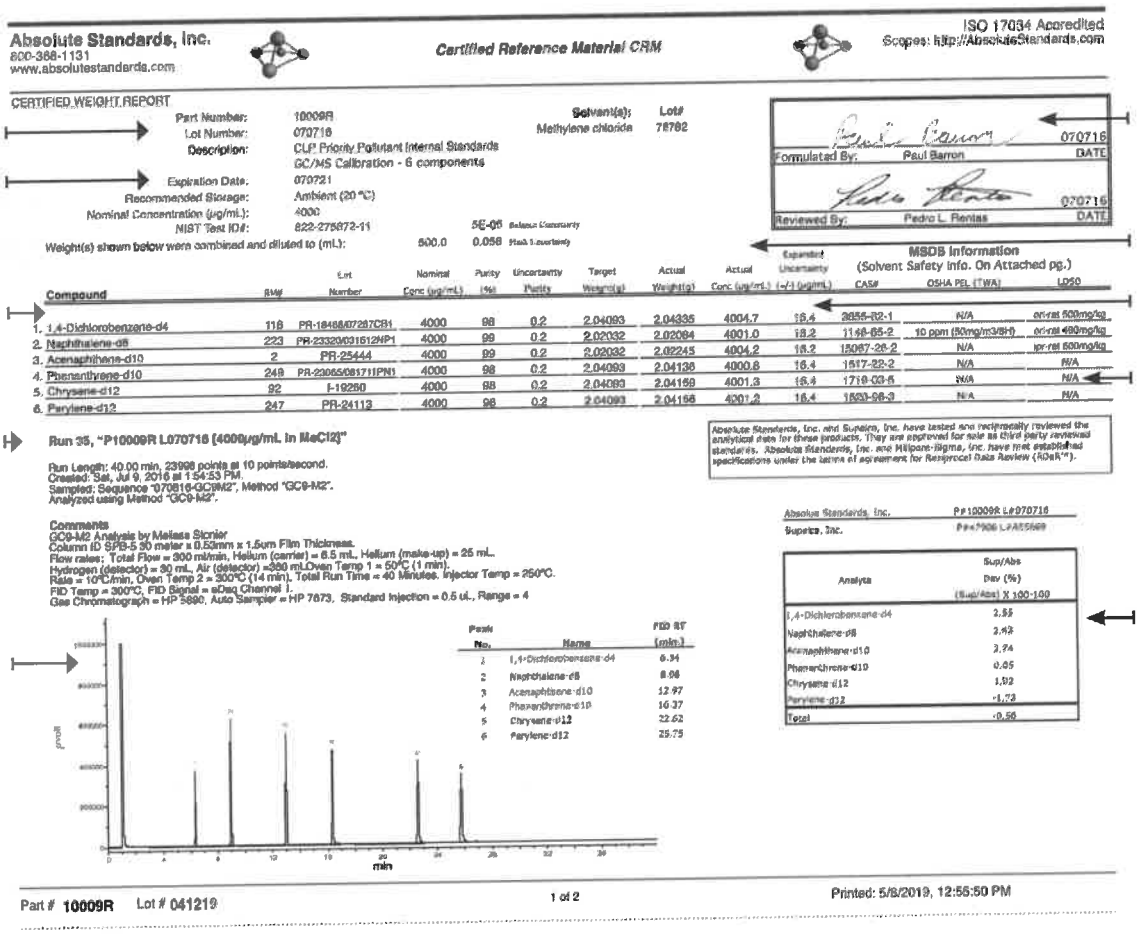
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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

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

5E-05 Balance Uncertainty
0.056 Flask Uncertainty

Formulated By: Paul Barron 070716 DATE
Reviewed By: Pedro L. Reinlas 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	orl-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)	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-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 MeCl2)"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070819-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

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

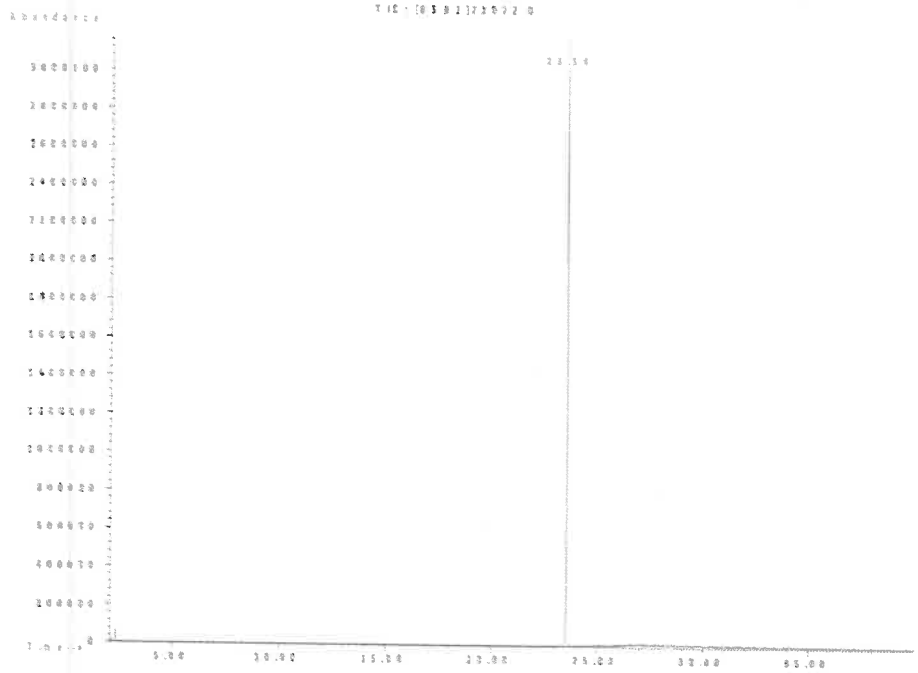
P13477 → P13496 } X.P. 07/24/24

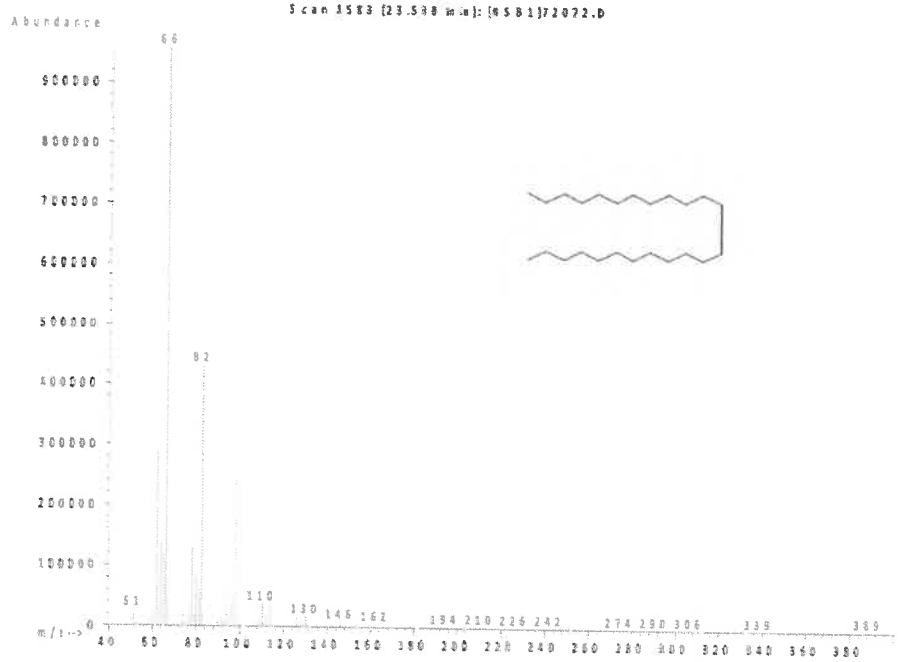
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

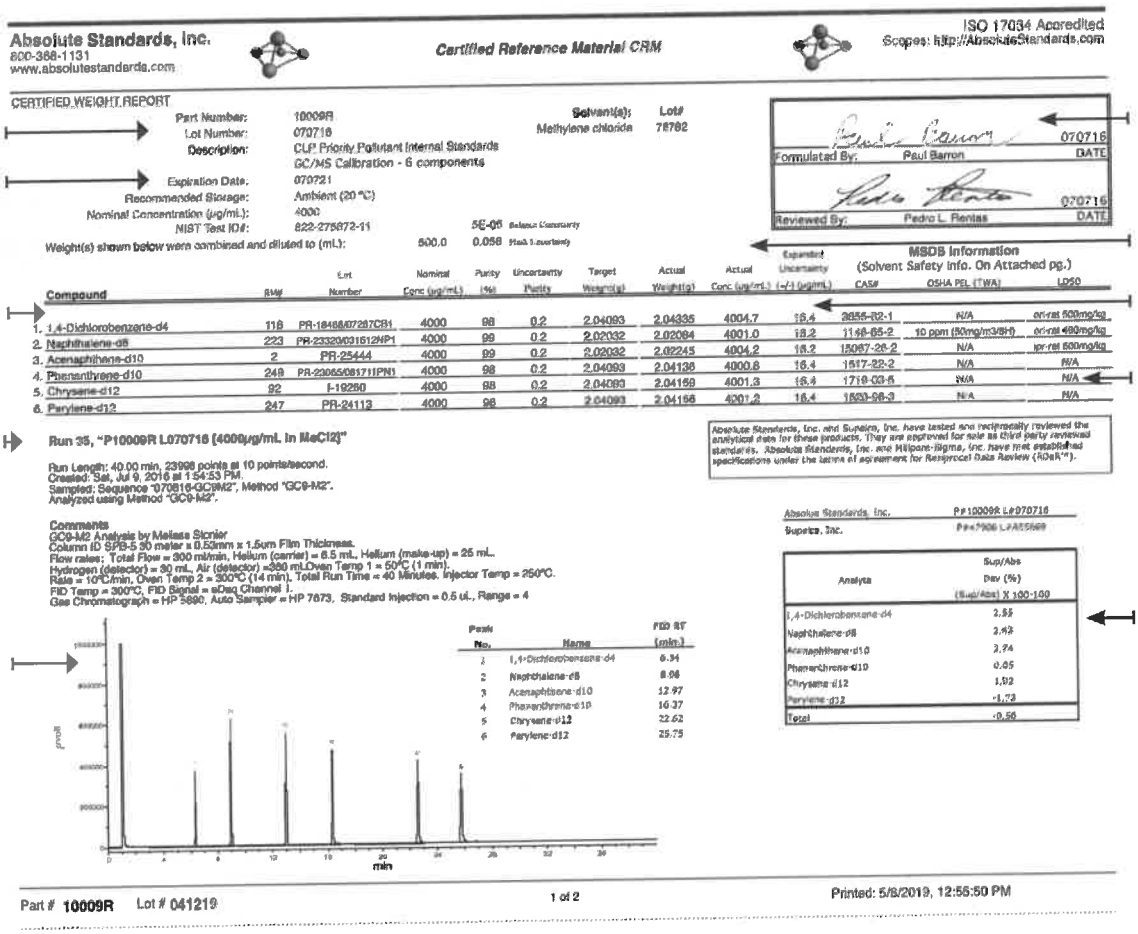
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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

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

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™).

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

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

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

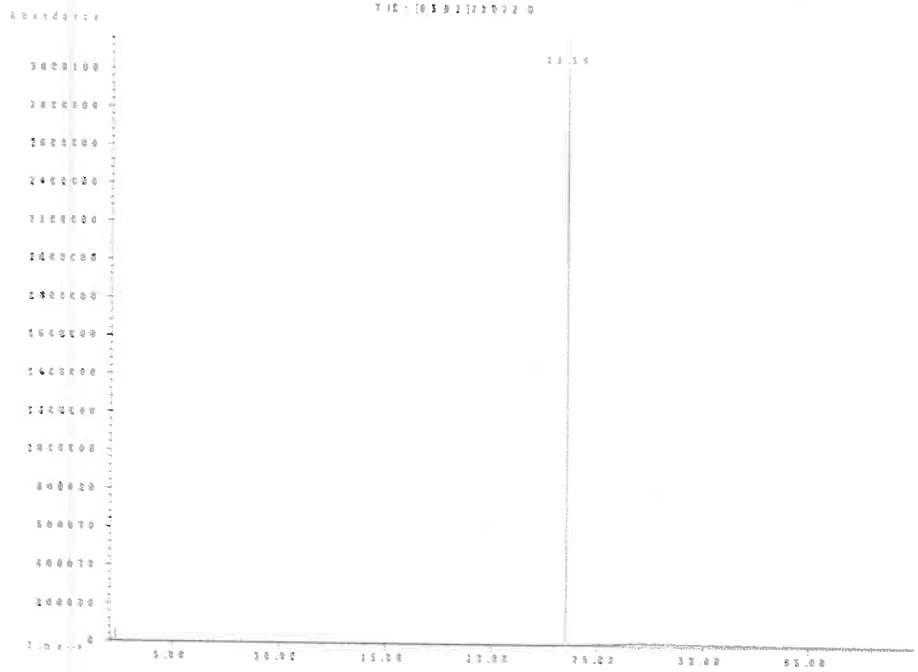
P13477 → P13496 } X.P. 07/24/24

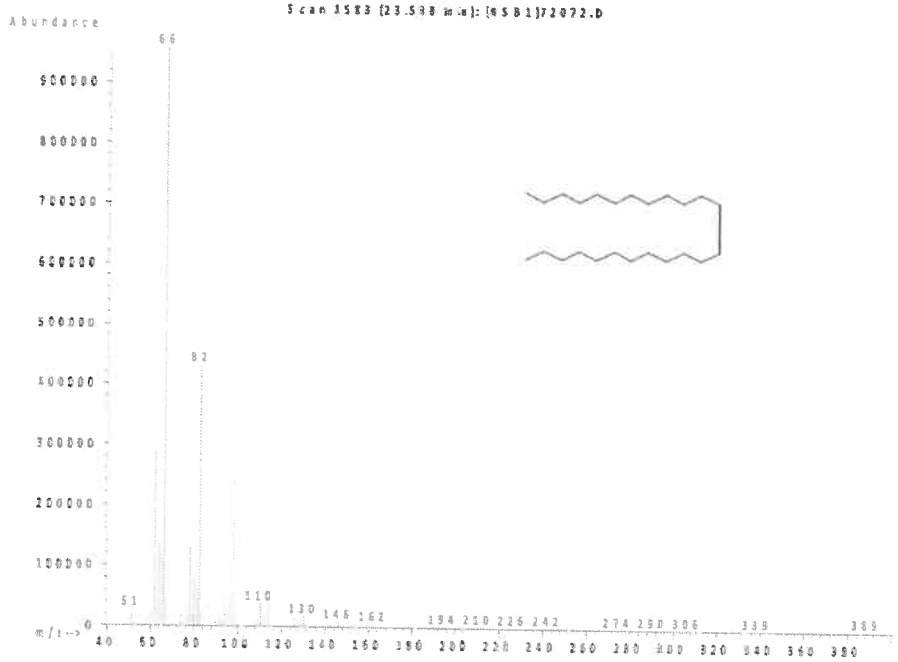
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

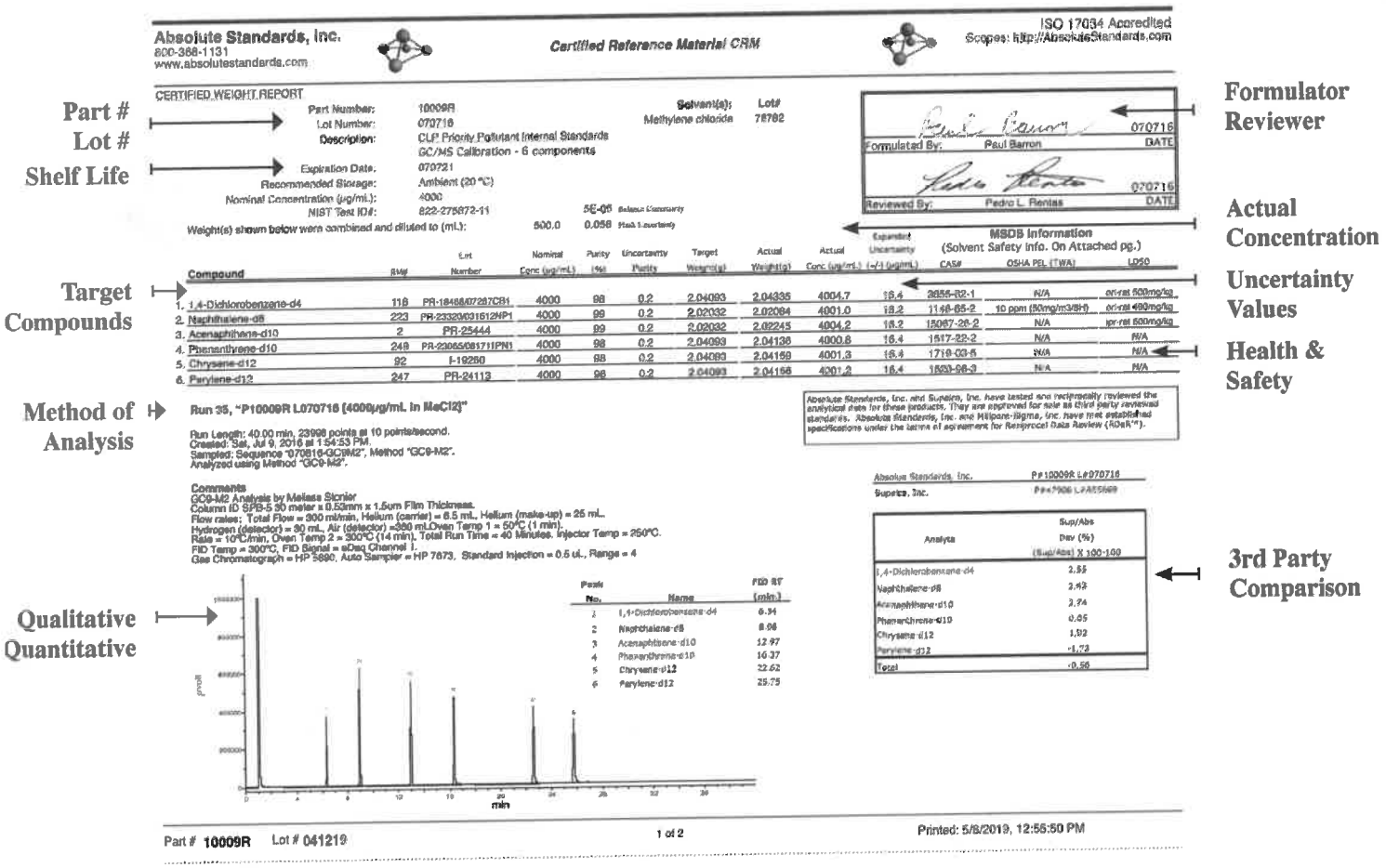
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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.



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

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

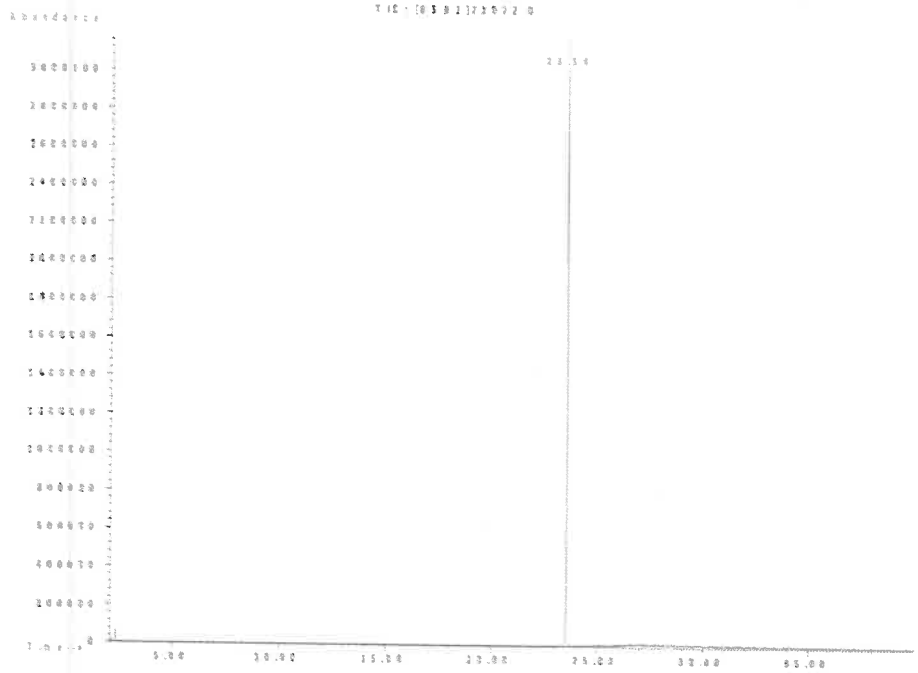
P13477 → P13496 } X.P. 07/24/24

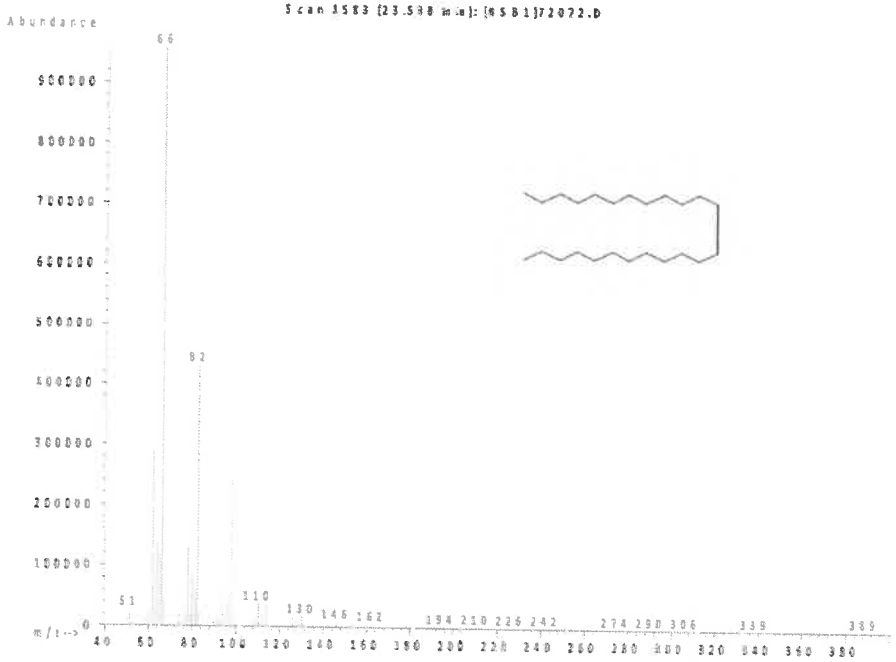
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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

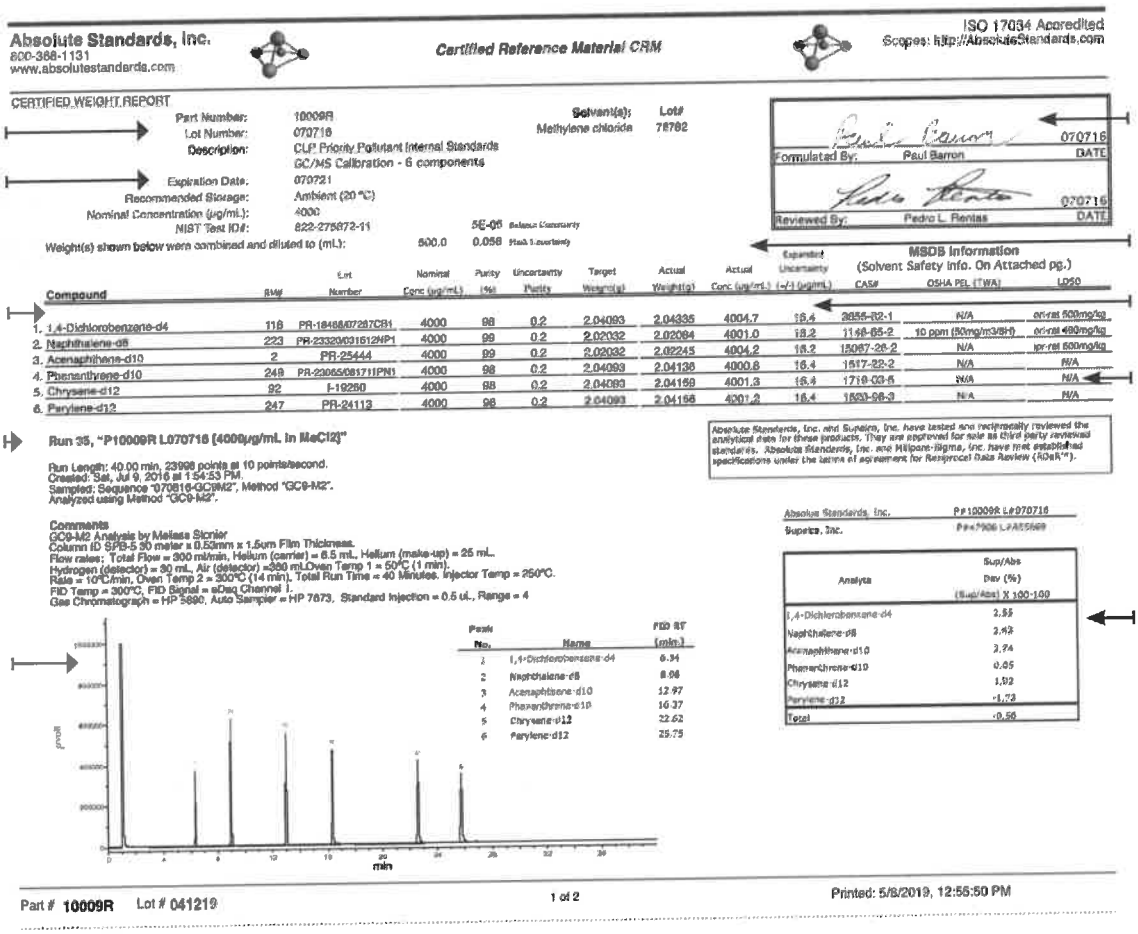
Absolute Standards, Inc. • 44 Rossotto Drive • Hamden, CT 06514
Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019

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

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)	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-23065/081711PN1	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

MSDS Information (Solvent Safety Info. On Attached pg.)

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

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

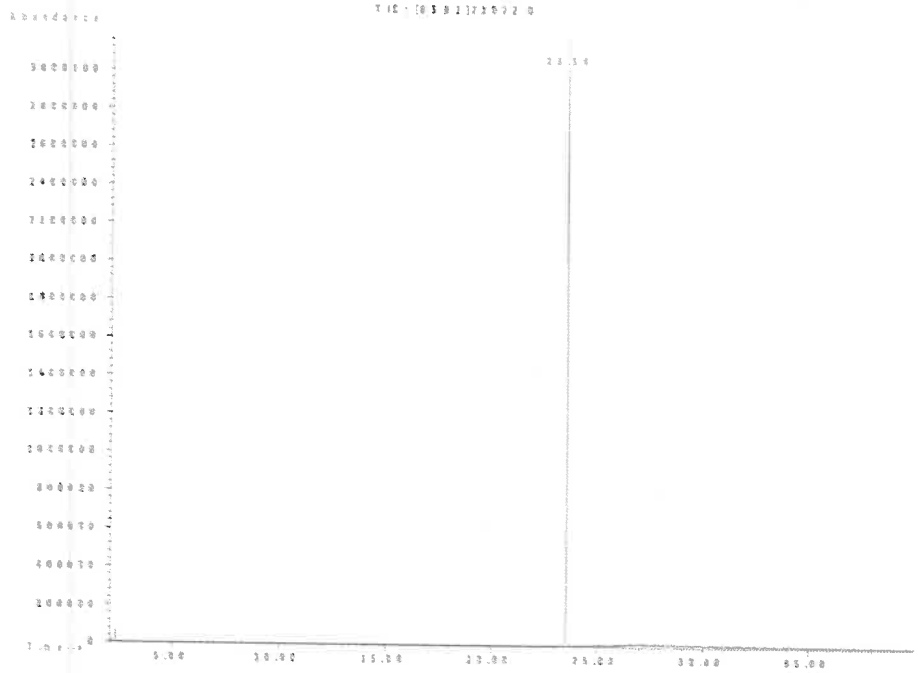
P13477 → P13496 } X.P. 07/24/24

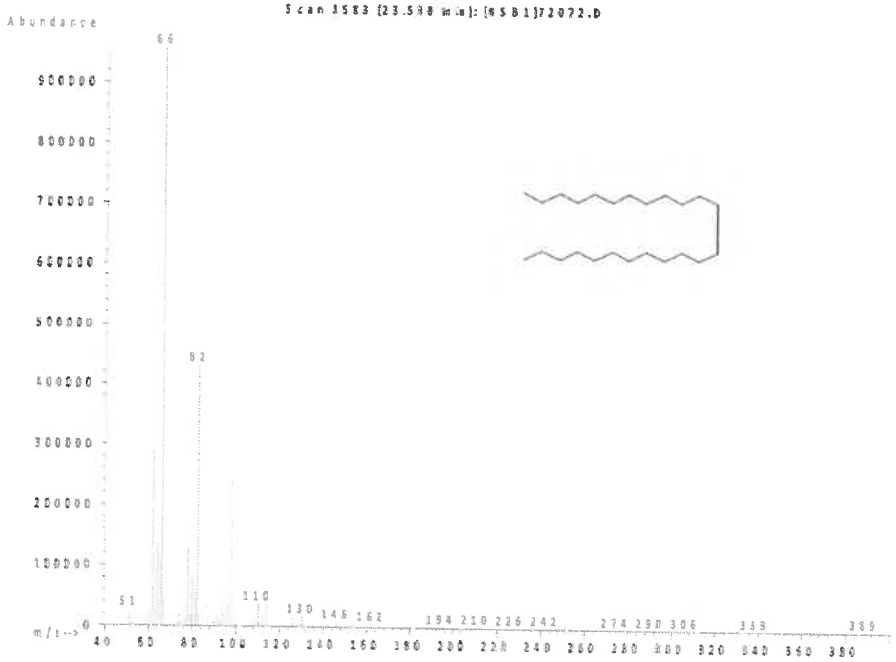
Formulated By:	Prashant Chauhan	101122 DATE
Reviewed By:	Pedro L. Rentas	101122 DATE

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).

SHIPPING DOCUMENTS

Q1211

Weston COC ID
Weston_20250128_1605

Chain of Custody Record/Lab Work Request

Page 1 of 1

Client:	Weston Solutions, Inc.		
Project Manager:	David Sembrot		
Street Address:	1400 Weston Way	City:	West Chester
Phone:	610-314-5456	ST, ZIP:	PA, 19038
e-mail:	david.sembrot@westonsolutions.com		
Sampled By:	Cheyenne Harrington		

Project Name:	Fort Meade RI	Project POC:	Nathan Fretz
PO Number	0111169	Phone:	484-524-5665
W.O. #:		POC e-mail:	nathan.fretz@westonsolutions.com
Lab:	CHEMTECH	Lab POC:	Yazmeen Gomez
TAT (days):	21	Lab Phone:	908-728-3144
Lab Address:	284 Sheffield Street Mountainside, NJ 07092		

Matrix Codes	
SS -	Soil
SE -	Sediment
SO -	Solid
SL -	Sludge
GW -	Groundwater
W -	Water
SB -	Soil Boring
A -	Air
DS -	Drum Solids
DL -	Drum Liquids
L -	EP/TCLP Leachate
WI -	Wipe
X -	Other
F -	Fish

Lab Use Only		
Temperature of cooler when received (°C)		
COC Tape was present and unbroken on outer package?	Y	N
Samples received in good condition?	Y	N
Labels indicate properly preserved?	Y	N
Received within holding times?	Y	N
Discrepancies between sample labels and COC record?	Y	N

#	Sample ID	G/C	Matrix	# Cont	MS/MSD	Date Collected	Time Collected	DRO by EPA 8015D	Pesticides by EPA 8081B	SVOCs by EPA 8270E	O&G by EPA 1664A	Hardness by EPA 200	Anions by EPA 9056A	TOC by EPA 9060A/Lloyd Kahn	GRO by EPA 8015D	VOCs by EPA 8260D	Hex Cr by EPA	Ammonia by SM4500-NH3 B P	Metals w Hg by EPA 6020B/7470A	Special Instructions/Comments
	Container Type:							Amber	Amber	Amber	Glass	Plastic	Plastic	Vial	Vial	Vial	Plastic	Plastic	Plastic	
	Container Size:							1 L	1 L	1 L	1 L	1 L	1 L	40 mL	40 mL	40 mL	500 mL	500 mL	500 mL	
	Preservative:							Ice to 0-6	Ice to 0-6	Ice to 0-6	H2SO4 to <	HNO3 to pH	Ice to 0-6	H2SO4 to <	HCL to PH	HCL to Ph	Ammonium	H2SO4; Ice	HNO3 to pH	
1	TAPHHA-MW01-012825-00-T4	g	GW	19	no	1/28/2025	12:00	X	X	X	X	X	X	X	X	X	X	X	X	
2	TAPIAL2-MW03-012825-00-T3	g	GW	19	no	1/28/2025	14:55	X	X	X	X	X	X	X	X	X	X	X	X	
3	TAP-TB-02-012825-T4	g	W	2	no	1/28/2025	12:05									X				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Shipping Airbill Number: 771732954230, 771732954240

Cooler Number: 1/2 of 2

	Relinquished By	Date	Time	Received By	Date	Time	Additional Comments
1.)		1/28/25	1710		1-29-25	10:00	QSM 6.0 Compliant
2.)							Deliverable Requirements: DoD Level IV report, EnviroData EDD, and ERIS-compatible EDD
3.)							

2.1°C, 2.8°C

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1211 WEST04
Client Name : Weston Solutions
Client Contact : Nathan Fretz
Invoice Name : Weston Solutions
Invoice Contact : Nathan Fretz

Order Date : 1/29/2025 10:10:00 AM
Project Name : Ft Meade Tipton Airfield Pa
Receive DateTime : 1/29/2025 10:00:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : SEDD 2A
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1211-01	~~TPHHA~~-MW01-012825-00-T4 TAPHHA YG 02/04/25	Water	01/28/2025	12:00	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1211-02	TAPIAL2-MW03-012825-00-T3	Water	01/28/2025	14:55	VOC-TCLVOA-10		8260D		10 Bus. Days
Q1211-03	TAP-TB-02-012825-T4	Water	01/28/2025	12:05	VOC-TCLVOA-10		8260D		10 Bus. Days

Relinguished By : CR
Date / Time : 1-29-25 1126

Received By : Sam
Date / Time : 1/29/25 11:25 Light 5

Storage Area : VOA Refridgerator Room

Quantitation Report (Not Reviewed)

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052161.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 15:37
Operator : YP\AJ
Sample : PB166364BSD
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166364BSD

Integration File: autoint1.e
Quant Time: Jan 31 02:04:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 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...	15.268	1557185	15.635 ug/ml
	Target Compounds			
1)	N-OCTANE	2.440	1095106	12.841 ug/ml
2)	N-DECANE	4.932	1456693	15.919 ug/ml
3)	N-DODECANE	7.058	1594552	15.959 ug/ml
4)	N-TETRADECANE	8.862	1684615	16.557 ug/ml
5)	N-HEXADECANE	10.453	1749559	16.419 ug/ml
6)	N-OCTADECANE	11.884	1814781	16.186 ug/ml
7)	N-EICOSANE	13.185	1847472	16.587 ug/ml
8)	N-DOCOSANE	14.375	1785058	16.077 ug/ml
10)	N-TETRACOSANE	15.471	1777753	16.072 ug/ml
11)	N-HEXACOSANE	16.487	1756304	16.111 ug/ml
12)	N-OCTACOSANE	17.433	1732290	16.049 ug/ml
13)	N-TRIACONTANE	18.317	1747657	16.288 ug/ml
14)	N-DOTRIACONTANE	19.146	1703677	16.316 ug/ml
15)	N-TETRATRIACONTANE	19.926	1707737	18.186 ug/ml
16)	N-HEXATRIACONTANE	20.665	1712733	21.210 ug/ml
17)	N-OCTATRIACONTANE	21.452	1754858	23.520 ug/ml
18)	N-TETRACONTANE	22.458	1891365	25.682 ug/ml

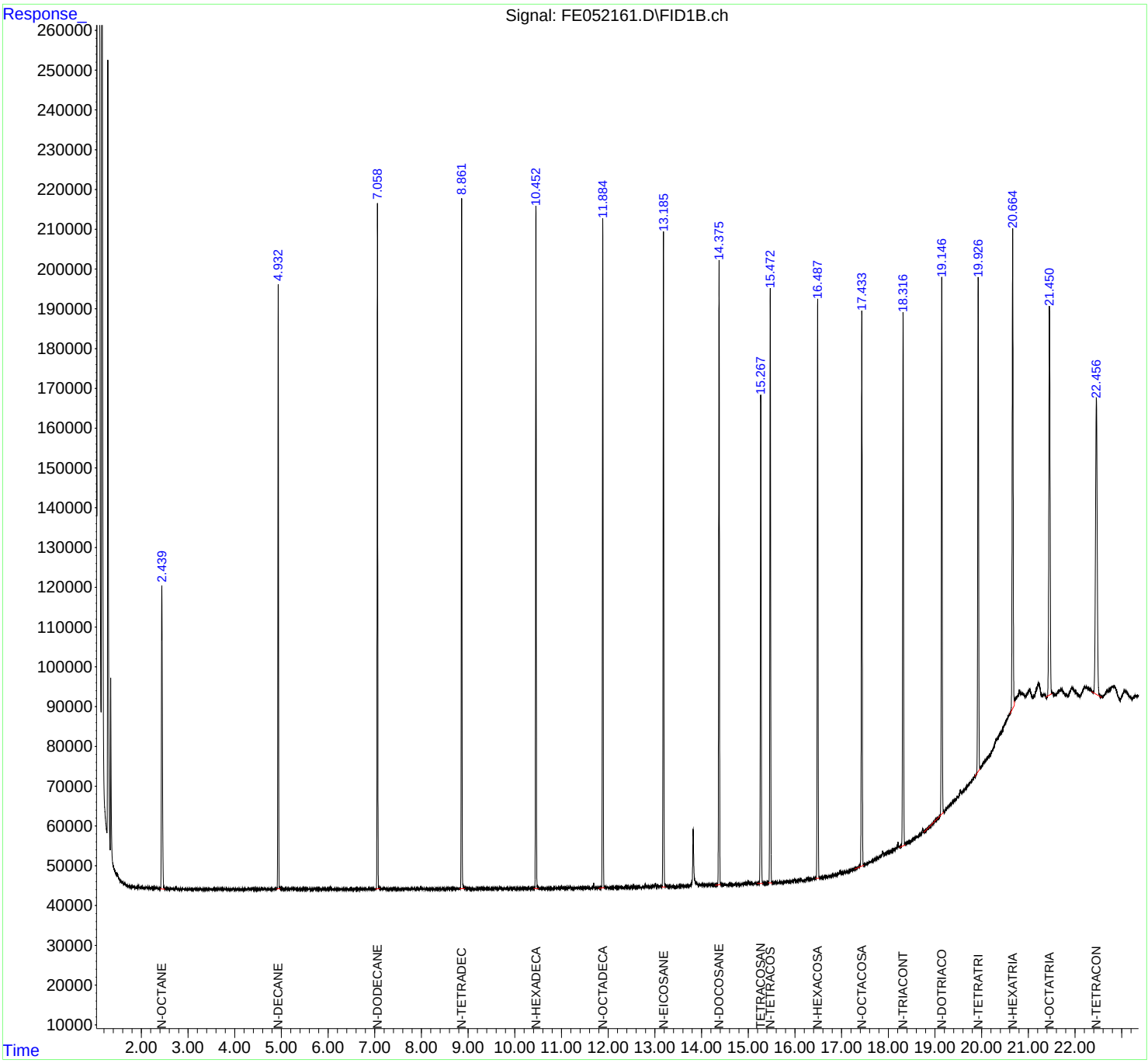
(f)=RT Delta > 1/2 Window (m)=manual int.

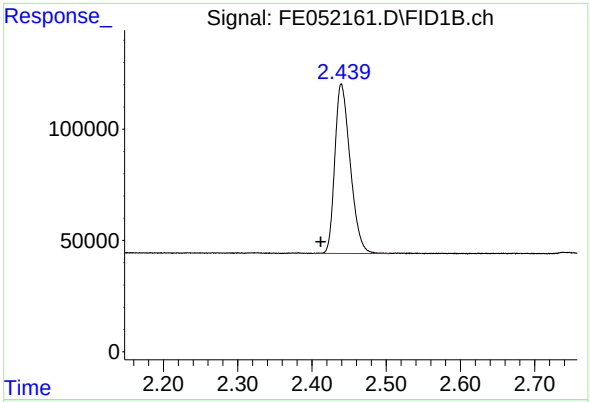
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE012925\
Data File : FE052161.D
Signal(s) : FID1B.ch
Acq On : 30 Jan 2025 15:37
Operator : YP\AJ
Sample : PB166364BSD
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB166364BSD

Integration File: autoint1.e
Quant Time: Jan 31 02:04:05 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\FE012325.M
Quant Title :
QLast Update : Fri Jan 24 03:06:38 2025
Response via : Initial Calibration
Integrator: ChemStation

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

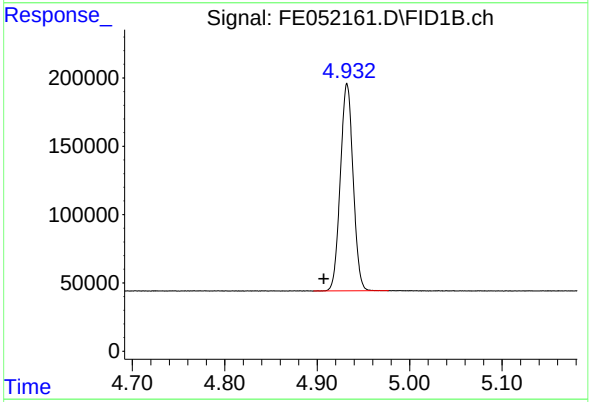




#1 N-OCTANE

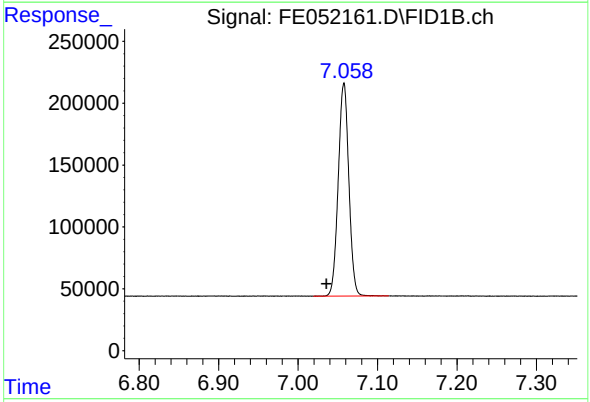
R.T.: 2.440 min
Delta R.T.: 0.028 min
Response: 1095106
Conc: 12.84 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BSD



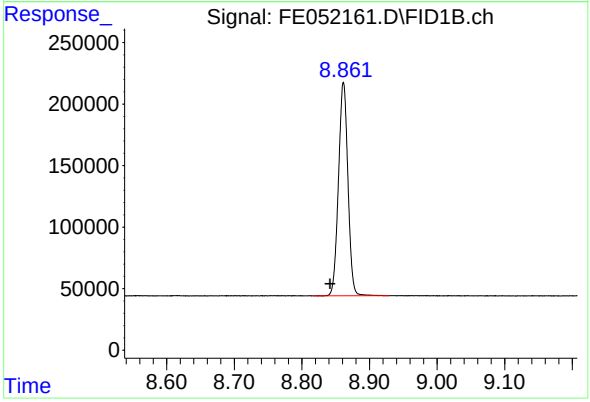
#2 N-DECANE

R.T.: 4.932 min
Delta R.T.: 0.025 min
Response: 1456693
Conc: 15.92 ug/ml



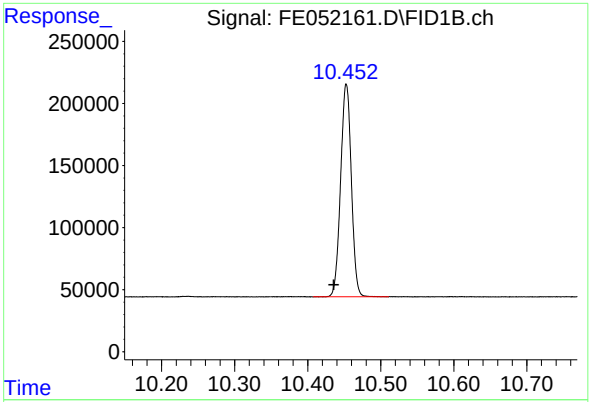
#3 N-DODECANE

R.T.: 7.058 min
Delta R.T.: 0.022 min
Response: 1594552
Conc: 15.96 ug/ml



#4 N-TETRADECANE

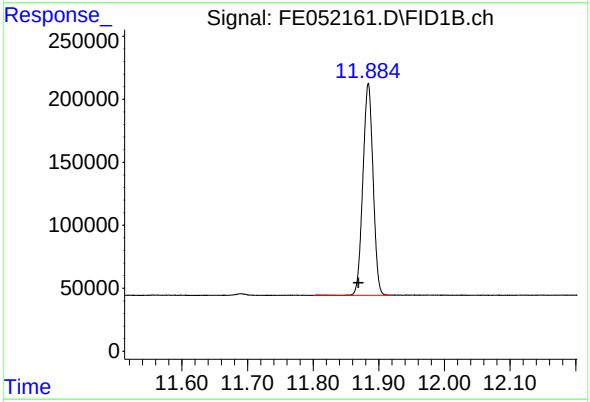
R.T.: 8.862 min
Delta R.T.: 0.020 min
Response: 1684615
Conc: 16.56 ug/ml



#5 N-HEXADECANE

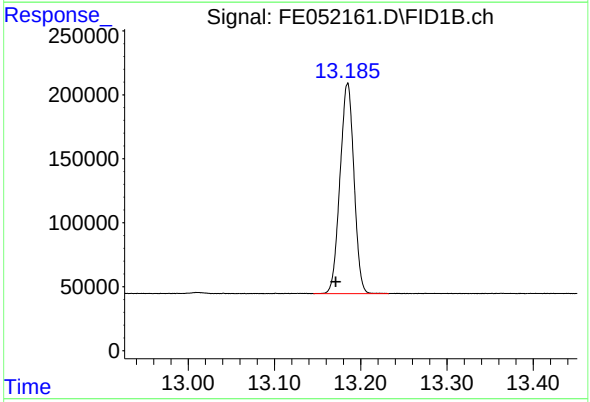
R.T.: 10.453 min
Delta R.T.: 0.017 min
Response: 1749559
Conc: 16.42 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BSD



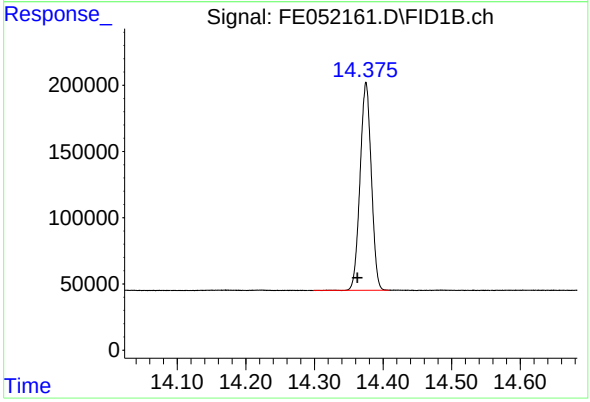
#6 N-OCTADECANE

R.T.: 11.884 min
Delta R.T.: 0.015 min
Response: 1814781
Conc: 16.19 ug/ml



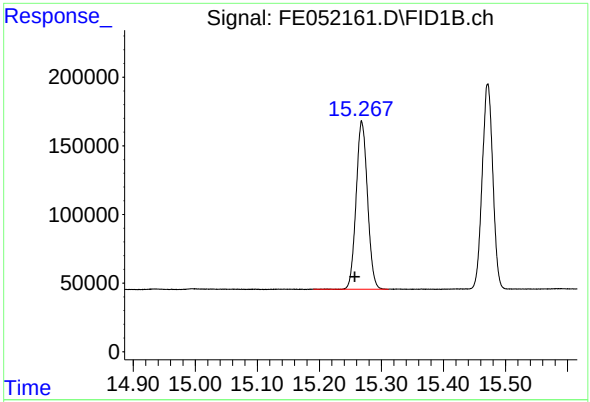
#7 N-EICOSANE

R.T.: 13.185 min
Delta R.T.: 0.014 min
Response: 1847472
Conc: 16.59 ug/ml



#8 N-DOCOSANE

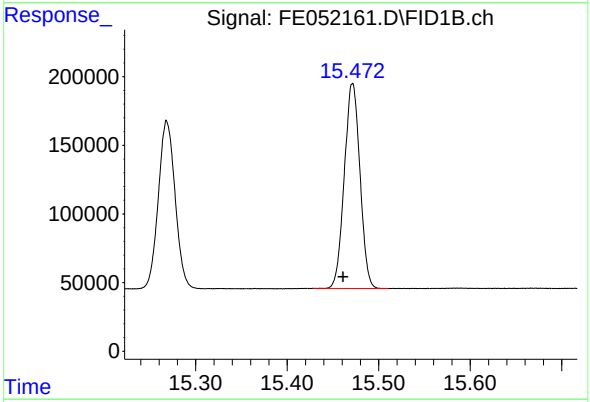
R.T.: 14.375 min
Delta R.T.: 0.013 min
Response: 1785058
Conc: 16.08 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

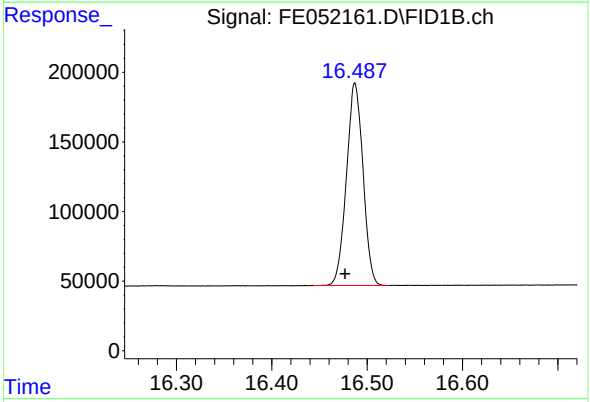
R.T.: 15.268 min
Delta R.T.: 0.011 min
Response: 1557185
Conc: 15.63 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BSD



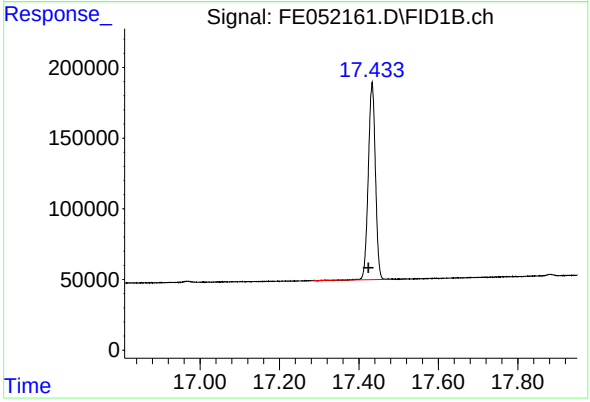
#10 N-TETRACOSANE

R.T.: 15.471 min
Delta R.T.: 0.010 min
Response: 1777753
Conc: 16.07 ug/ml



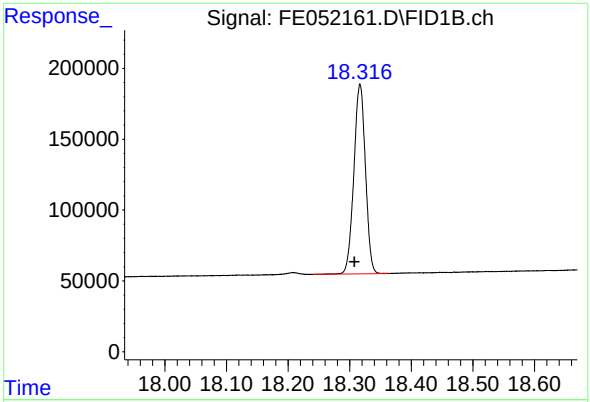
#11 N-HEXACOSANE

R.T.: 16.487 min
Delta R.T.: 0.010 min
Response: 1756304
Conc: 16.11 ug/ml



#12 N-OCTACOSANE

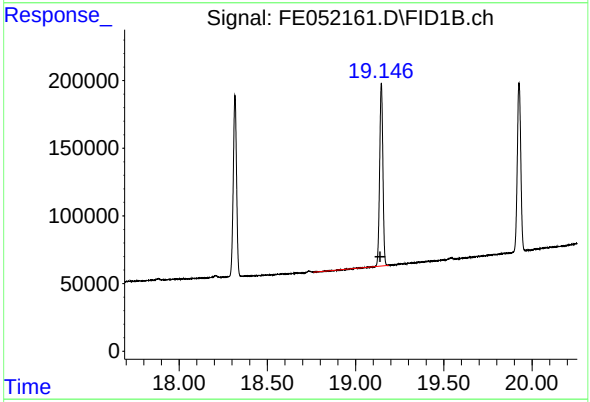
R.T.: 17.433 min
Delta R.T.: 0.010 min
Response: 1732290
Conc: 16.05 ug/ml



#13 N-TRIACONTANE

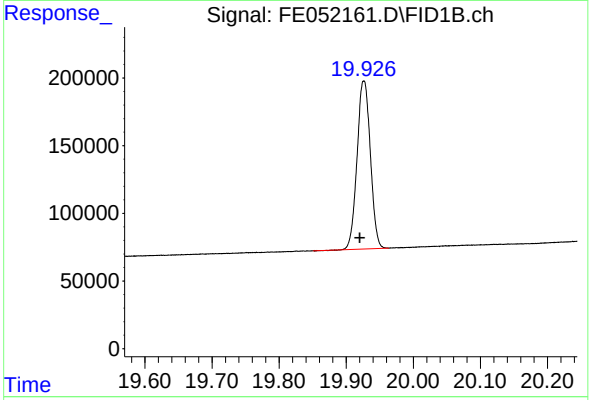
R.T.: 18.317 min
Delta R.T.: 0.009 min
Response: 1747657
Conc: 16.29 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BSD



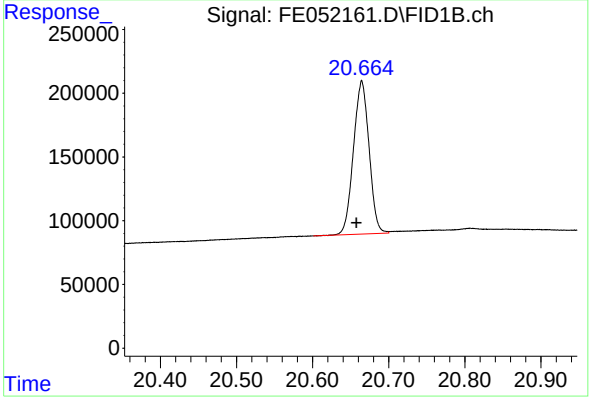
#14 N-DOTRIACONTANE

R.T.: 19.146 min
Delta R.T.: 0.007 min
Response: 1703677
Conc: 16.32 ug/ml



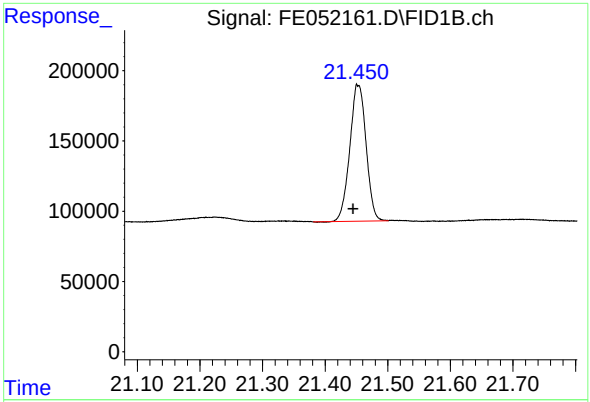
#15 N-TETRATRIACONTANE

R.T.: 19.926 min
Delta R.T.: 0.006 min
Response: 1707737
Conc: 18.19 ug/ml



#16 N-HEXATRIACONTANE

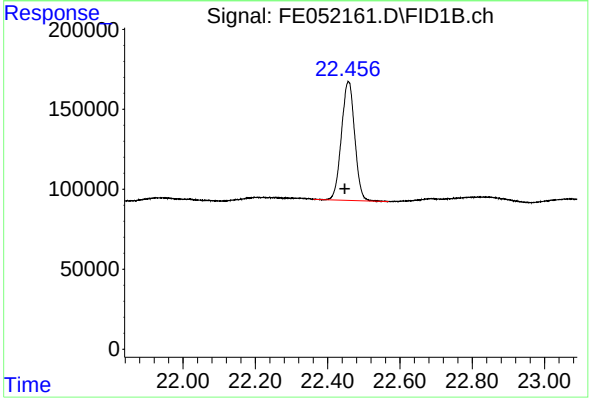
R.T.: 20.665 min
Delta R.T.: 0.007 min
Response: 1712733
Conc: 21.21 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.452 min
Delta R.T.: 0.007 min
Response: 1754858
Conc: 23.52 ug/ml

Instrument :
FID_E
ClientSampleId :
PB166364BSD



#18 N-TETRACONTANE

R.T.: 22.458 min
Delta R.T.: 0.010 min
Response: 1891365
Conc: 25.68 ug/ml