

Cover Page

Order ID : Q1626

Project ID : Walsh CO-032 Sampling

Client : Walsh Construction Company II, LLC

Lab Sample Number

Q1626-01
Q1626-02
Q1626-03

Client Sample Number

CO-32-1
CO-32-1
CO-32-1

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____

Date: 3/27/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

DATA REPORTING QUALIFIERS- ORGANIC

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

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1626

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: PRADIP PRAJAPATI

Date: 03/27/2025

LAB CHRONICLE

OrderID:	Q1626	OrderDate:	3/21/2025 12:59:00 PM
Client:	Walsh Construction Company II, LLC	Project:	Walsh CO-032 Sampling
Contact:	Evelyne Benie Dion Gokan	Location:	F11,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1626-01	CO-32-1	Solid	EPH_NF	NJEPH	03/21/25	03/24/25	03/24/25	03/21/25



QC SUMMARY

SOIL EPH SURROGATE RECOVERY

Lab Name: CHEMTECH Contract: WALS01
Lab Code: CHEM CASE No.: Q1626 SAS No.: Q1626 SDG No.: Q1626
Run Number: FE032425AL

Client SAMPLE NO.	1-chlorooctadecane (SURR)	ortho-Terphenyl (SURR)		TOT OUT
PB167270BL	76	75		0
PB167270BS	75	72		0
PB167270BSD	80	76		0
OK-01-03212025MS	63	61		0
OK-01-03212025MSD	63	60		0
CO-32-1	60	54		0

QC LIMITS

1-chlorooctadecane (SURR)

(40-140)

ortho-Terphenyl (SURR)

(40-140)

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

SOIL EPH SURROGATE RECOVERY

QC LIMITS

1-chlorooctadecane (SURR)

(40-140)

ortho-Terphenyl (SURR)

(40-140)

Column to be used to flag recovery values

* Values outside of contract required QC Limits

D Surrogate diluted out

SOLID EPH_NF MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Walsh Construction Company II, LLC
Lab Code: CHEM **Cas No:** Q1626 **SAS No :** Q1626 **SDG No:** Q1626
Sample No : Q1624-01MS **Datafile:** FE052945.D
Client ID : OK-01-03212025MS

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aliphatic C28-C40	34.5	18.5	65.4	135		(40-140)
Aliphatic C9-C28	115.1	4.50	127	107		(40-140)

SOLID EPH_NF MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Walsh Construction Company II, LLC
Lab Code: CHEM **Cas No:** Q1626 **SAS No :** Q1626 **SDG No:** Q1626
Sample No : Q1624-01MSD **Datafile:** FE052946.D
Client ID : OK-01-03212025MSD

COMPOUND	SPIKE ADDED mg/kg	SAMPLE CONCENTRATION mg/kg	MS/MSD CONCENTRATION mg/kg	% REC	Qual	RPD QC LIMITS QC Limit Of RPD
Aliphatic C28-C40	34.5	18.5	67.3	141	*	4.35 (40-140) 25
Aliphatic C9-C28	115.1	4.50	127	106		0.5 (40-140) 25

SOLID EPH_NF LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Walsh Construction Company II, LLC
Lab Code: CHEM **Cas No:** Q1626 **SAS No :** Q1626 **SDG No:** Q1626
Sample No : PB167270BS **Datafile:** FE052941.D
Client ID : PB167270BS

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	QC LIMITS
Aliphatic C28-C40	30.0	38.4	128		(40-140)
Aliphatic C9-C28	99.9	105	106		(40-140)

SOLID EPH_NF LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Walsh Construction Company II, LLC
Lab Code: CHEM **Cas No:** Q1626 **SAS No :** Q1626 **SDG No:** Q1626
Sample No : PB167270BSD **Datafile:** FE052942.D
Client ID : PB167270BSD

COMPOUND	SPIKE ADDED mg/kg	LCS/LCSD CONCENTRATION mg/kg	% REC	Qual	RPD QC LIMITS	QC Limit Of RPD
Aliphatic C28-C40	30.0	41.0	136		6.6 (40-140)	50
Aliphatic C9-C28	100.1	111	112		6 (40-140)	50

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167270BL

Lab Name: CHEMTECH

Contract: WALS01

Lab Code: CHEM Case No.: Q1626

SAS No.: Q1626 SDG NO.: Q1626

Instrument ID: FID_E

Lab Sample ID: PB167270BL

Matrix: (soil/water) Solid

Date Extracted: 3/24/2025 8:18:00 A

Level: (low/med) low

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

EPA SAMPLE NO.	LAB SAMPLE ID
PB167270BS	PB167270BS
PB167270BSD	PB167270BSD
OK-01-03212025MS	Q1624-01MS
OK-01-03212025MSD	Q1624-01MSD
CO-32-1	Q1626-01

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	Walsh Construction Company II, LLC	Date Collected:	03/21/25
Project:	Walsh CO-032 Sampling	Date Received:	03/21/25
Client Sample ID:	CO-32-1	SDG No.:	Q1626
Lab Sample ID:	Q1626-01	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	94.8
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
03/24/25 08:18	03/24/25 18:40	PB167270

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS							
Aliphatic C28-C40	Aliphatic C28-C40	20.8		1	1.24	2.11	mg/kg FE052948.D
Aliphatic C9-C28	Aliphatic C9-C28	10.6		1	0.96	4.21	mg/kg FE052948.D
Total AliphaticEPH	Total AliphaticEPH	31.4			2.20	6.32	mg/kg
Total EPH	Total EPH	31.4			2.20	6.32	mg/kg

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Walsh Construction Company II, LLC	Date Collected:	03/21/25
Project:	Walsh CO-032 Sampling	Date Received:	03/21/25
Client Sample ID:	CO-32-1	SDG No.:	Q1626
Lab Sample ID:	Q1626-01	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	94.8
Sample Wt/Vol:	30.02 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE052948.D	1	03/24/25	03/24/25	PB167270

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	10.6		0.96	4.21	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	20.8		1.24	2.11	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	29.9		40 - 140	60%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	27.1		40 - 140	54%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1626-01	Acq On:	24 Mar 2025 18:40
Client Sample ID:	CO-32-1	Operator:	YP\AJ
Data file:	FE052948.D	Misc:	
Instrument:	FID_E	ALS Vial:	19
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.147	6.791	1743979	11.183	300	ug/ml
Aliphatic C12-C16	6.792	10.244	1462358	9.615	200	ug/ml
Aliphatic C16-C21	10.245	13.623	6290974	42.928	300	ug/ml
Aliphatic C21-C28	13.624	17.297	12474685	87.571	400	ug/ml
Aliphatic C28-C40	17.298	22.225	37674691	295.281	600	ug/ml
Aliphatic EPH	3.147	22.225	59646687	446.578		ug/ml
ortho-Terphenyl (SURR)	11.909	11.909	4564029	27.07		ug/ml
1-chlorooctadecane (SURR)	13.355	13.355	3629157	29.89		ug/ml
Aliphatic C9-C28	3.147	17.297	21971996	151.297	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052948.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 18:40
Operator : YP\AJ
Sample : Q1626-01
Misc :
ALS Vial : 19 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
CO-32-1

Integration File: autoint1.e
Quant Time: Mar 25 01:53:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.909	4564029	27.072 ug/ml
Spiked Amount	50.000	Recovery	= 54.14%
12) S 1-chlorooctadecane (S...	13.355	3629157	29.888 ug/ml
Spiked Amount	50.000	Recovery	= 59.78%

Target Compounds

(f)=RT Delta > 1/2 Window

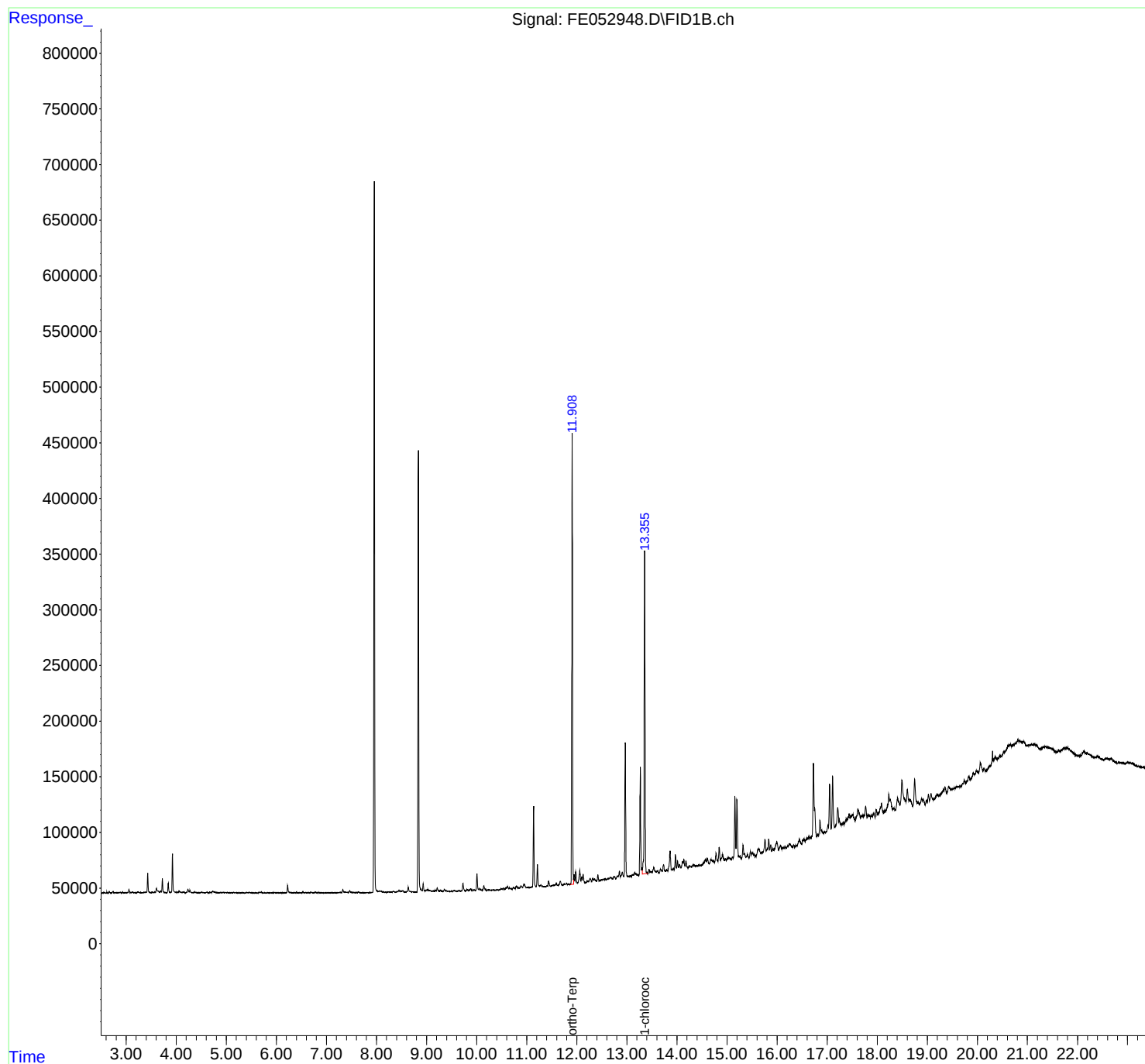
(m)=manual int.

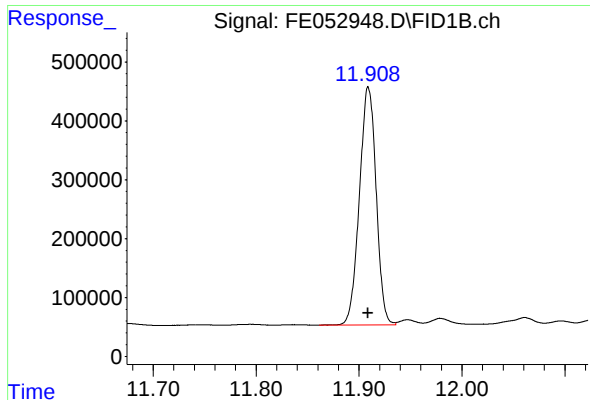
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052948.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 18:40
Operator : YP\AJ
Sample : Q1626-01
Misc :
ALS Vial : 19 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
CO-32-1

Integration File: autoint1.e
Quant Time: Mar 25 01:53:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

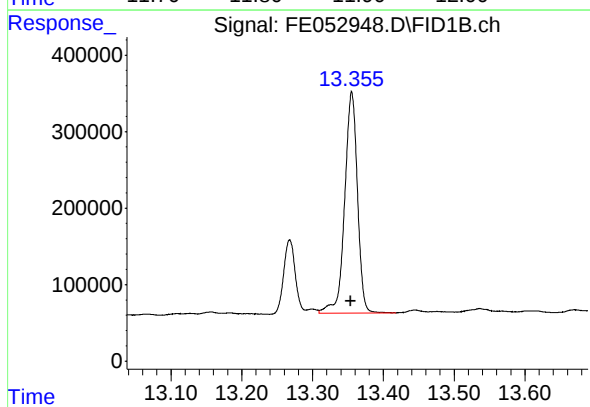




#9 ortho-Terphenyl (SURR)

R.T.: 11.909 min
Delta R.T.: 0.000 min
Response: 4564029
Conc: 27.07 ug/ml

Instrument :
FID_E
ClientSampleId :
CO-32-1



#12 1-chlorooctadecane (SURR)

R.T.: 13.355 min
Delta R.T.: 0.001 min
Response: 3629157
Conc: 29.89 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052948.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 18:40
Sample : Q1626-01
Misc :
ALS Vial : 19 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.853	2.804	2.863	BV	214	1651	0.04%	0.002%
2	2.877	2.863	2.905	VV	489	6639	0.15%	0.010%
3	2.934	2.905	2.957	VV	534	7027	0.15%	0.010%
4	2.974	2.957	2.994	VV	227	2943	0.06%	0.004%
5	3.018	2.994	3.032	PV	233	3021	0.07%	0.004%
6	3.055	3.032	3.102	VV	2996	39543	0.87%	0.058%
7	3.124	3.102	3.188	VV	475	15098	0.33%	0.022%
8	3.230	3.188	3.278	VV	787	21629	0.47%	0.032%
9	3.286	3.278	3.313	VV	203	3672	0.08%	0.005%
10	3.326	3.313	3.338	VV	230	2974	0.07%	0.004%
11	3.357	3.338	3.373	VV	683	10489	0.23%	0.015%
12	3.387	3.373	3.405	VV	648	10153	0.22%	0.015%
13	3.430	3.405	3.508	VV	17611	193240	4.23%	0.284%
14	3.529	3.508	3.548	VV	624	10894	0.24%	0.016%
15	3.561	3.548	3.581	VV	496	8980	0.20%	0.013%
16	3.604	3.581	3.663	VV	4079	90029	1.97%	0.132%
17	3.689	3.663	3.703	VV	1458	25044	0.55%	0.037%
18	3.723	3.703	3.771	VV	12665	141664	3.10%	0.208%
19	3.776	3.771	3.807	VV	474	7591	0.17%	0.011%
20	3.840	3.807	3.896	VV	8797	109467	2.40%	0.161%
21	3.925	3.896	4.008	VV	35096	382086	8.37%	0.562%
22	4.058	4.008	4.124	VV	1536	55968	1.23%	0.082%
23	4.145	4.124	4.185	VV	911	18571	0.41%	0.027%
24	4.234	4.185	4.256	VV	3204	54534	1.19%	0.080%
25	4.272	4.256	4.324	VV	2304	37531	0.82%	0.055%
26	4.337	4.324	4.352	VV	440	5677	0.12%	0.008%
27	4.371	4.352	4.388	VV	863	11314	0.25%	0.017%
28	4.400	4.388	4.425	VV	376	6124	0.13%	0.009%
29	4.440	4.425	4.473	VV	302	6176	0.14%	0.009%
30	4.508	4.473	4.530	VV	900	14421	0.32%	0.021%
31	4.544	4.530	4.568	VV	462	7659	0.17%	0.011%
32	4.612	4.568	4.648	VV	610	19098	0.42%	0.028%
33	4.676	4.648	4.695	VV	703	13619	0.30%	0.020%
34	4.728	4.695	4.779	VV	1513	44482	0.97%	0.065%
35	4.792	4.779	4.855	VV	743	19588	0.43%	0.029%
36	4.892	4.855	4.911	VV	528	13068	0.29%	0.019%

					rteres			
37	4.927	4.911	4.944	VV	557	8756	0.19%	0.013%
38	4.973	4.944	4.998	VV	515	12630	0.28%	0.019%
39	5.014	4.998	5.057	VV	485	12596	0.28%	0.019%
40	5.067	5.057	5.101	VV	361	7745	0.17%	0.011%
41	5.110	5.101	5.119	VV	304	2756	0.06%	0.004%
42	5.165	5.119	5.202	VV	542	18146	0.40%	0.027%
43	5.218	5.202	5.253	VV	294	5847	0.13%	0.009%
44	5.265	5.253	5.282	VV	318	3489	0.08%	0.005%
45	5.296	5.282	5.313	VV	307	4033	0.09%	0.006%
46	5.334	5.313	5.375	VV	358	7301	0.16%	0.011%
47	5.401	5.375	5.435	VV	462	12175	0.27%	0.018%
48	5.456	5.435	5.484	VV	1044	16735	0.37%	0.025%
49	5.494	5.484	5.570	VV	358	9735	0.21%	0.014%
50	5.587	5.570	5.618	PV	282	3771	0.08%	0.006%
51	5.621	5.618	5.629	VV	117	454	0.01%	0.001%
52	5.652	5.629	5.673	VV	905	11179	0.24%	0.016%
53	5.694	5.673	5.742	VV	1033	18421	0.40%	0.027%
54	5.766	5.742	5.797	VV	299	6091	0.13%	0.009%
55	5.810	5.797	5.831	VV	189	3103	0.07%	0.005%
56	5.846	5.831	5.869	VV	325	4591	0.10%	0.007%
57	5.944	5.869	5.954	VV	363	11585	0.25%	0.017%
58	5.967	5.954	5.984	VV	381	4717	0.10%	0.007%
59	5.999	5.984	6.018	VV	292	4195	0.09%	0.006%
60	6.040	6.018	6.058	VV	309	5399	0.12%	0.008%
61	6.091	6.058	6.115	VV	223	5041	0.11%	0.007%
62	6.132	6.115	6.158	VV	238	4172	0.09%	0.006%
63	6.172	6.158	6.200	VV	276	5636	0.12%	0.008%
64	6.226	6.200	6.261	VV	6715	82071	1.80%	0.121%
65	6.270	6.261	6.315	VV	562	12086	0.26%	0.018%
66	6.331	6.315	6.353	VV	285	5292	0.12%	0.008%
67	6.401	6.353	6.444	VV	577	16358	0.36%	0.024%
68	6.529	6.444	6.558	VV	812	20873	0.46%	0.031%
69	6.574	6.558	6.605	VV	331	7438	0.16%	0.011%
70	6.643	6.605	6.665	VV	348	8587	0.19%	0.013%
71	6.690	6.665	6.744	VV	894	15823	0.35%	0.023%
72	6.775	6.744	6.828	VV	851	19410	0.43%	0.029%
73	6.844	6.828	6.870	VV	467	6778	0.15%	0.010%
74	6.880	6.870	6.952	VV	232	5669	0.12%	0.008%
75	6.973	6.952	7.001	PV	236	3192	0.07%	0.005%
76	7.020	7.001	7.055	VV	309	5729	0.13%	0.008%
77	7.095	7.055	7.122	VV	243	6079	0.13%	0.009%
78	7.138	7.122	7.152	VV	127	1816	0.04%	0.003%
79	7.230	7.152	7.249	VV	484	13010	0.29%	0.019%
80	7.264	7.249	7.298	VV	539	11497	0.25%	0.017%
81	7.329	7.298	7.358	VV	3048	45396	0.99%	0.067%
82	7.365	7.358	7.397	VV	850	15879	0.35%	0.023%
83	7.413	7.397	7.444	VV	650	13332	0.29%	0.020%
84	7.466	7.444	7.494	VV	2230	29228	0.64%	0.043%
85	7.510	7.494	7.531	VV	567	8711	0.19%	0.013%
86	7.538	7.531	7.567	VV	343	6170	0.14%	0.009%
87	7.587	7.567	7.601	VV	292	5765	0.13%	0.008%
88	7.642	7.601	7.696	VV	1066	21844	0.48%	0.032%
89	7.707	7.696	7.743	VV	152	2357	0.05%	0.003%

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90	7.764	7.743	7.782	PV	162	2450	0.05%	0.004%
91	7.817	7.782	7.854	VV	261	6184	0.14%	0.009%
92	7.868	7.854	7.908	VV	159	4463	0.10%	0.007%
93	8.070	8.041	8.088	VV	1737	34450	0.75%	0.051%
94	8.097	8.088	8.121	VV	1121	16334	0.36%	0.024%
95	8.132	8.121	8.194	VV	684	18063	0.40%	0.027%
96	8.231	8.194	8.306	VV	728	26551	0.58%	0.039%
97	8.345	8.306	8.381	VV	1145	24747	0.54%	0.036%
98	8.422	8.381	8.430	VV	666	14203	0.31%	0.021%
99	8.449	8.430	8.465	VV	2092	27594	0.60%	0.041%
100	8.479	8.465	8.508	VV	1382	27268	0.60%	0.040%
101	8.527	8.508	8.578	VV	1623	28466	0.62%	0.042%
102	8.636	8.578	8.674	VV	4349	73286	1.61%	0.108%
103	8.684	8.674	8.704	VV	609	7129	0.16%	0.010%
104	8.726	8.704	8.751	VV	394	5836	0.13%	0.009%
105	8.782	8.751	8.804	VV	128	2491	0.05%	0.004%
106	8.934	8.911	8.967	VV	7556	103282	2.26%	0.152%
107	8.985	8.967	8.995	VV	1611	21838	0.48%	0.032%
108	9.018	8.995	9.038	VV	1647	38259	0.84%	0.056%
109	9.054	9.038	9.114	VV	1436	45050	0.99%	0.066%
110	9.178	9.114	9.193	VV	1473	38474	0.84%	0.057%
111	9.213	9.193	9.257	VV	3563	58257	1.28%	0.086%
112	9.276	9.257	9.328	VV	1080	27038	0.59%	0.040%
113	9.356	9.328	9.378	VV	2041	32152	0.70%	0.047%
114	9.391	9.378	9.434	VV	999	17773	0.39%	0.026%
115	9.447	9.434	9.478	VV	183	2912	0.06%	0.004%
116	9.507	9.478	9.524	PV	761	9255	0.20%	0.014%
117	9.558	9.524	9.578	VV	831	16948	0.37%	0.025%
118	9.592	9.578	9.613	VV	362	3754	0.08%	0.006%
119	9.645	9.613	9.673	VV	746	12255	0.27%	0.018%
120	9.687	9.673	9.701	VV	300	3692	0.08%	0.005%
121	9.728	9.701	9.784	VV	7062	101728	2.23%	0.150%
122	9.807	9.784	9.839	VV	1364	26815	0.59%	0.039%
123	9.849	9.839	9.861	VV	731	8355	0.18%	0.012%
124	9.880	9.861	9.921	VV	1937	36580	0.80%	0.054%
125	9.940	9.921	9.981	VV	991	20341	0.45%	0.030%
126	10.008	9.981	10.037	VV	15324	183147	4.01%	0.269%
127	10.053	10.037	10.094	VV	2099	40876	0.90%	0.060%
128	10.104	10.094	10.121	VV	565	6806	0.15%	0.010%
129	10.144	10.121	10.200	VV	4275	77261	1.69%	0.114%
130	10.219	10.200	10.234	VV	523	7543	0.17%	0.011%
131	10.248	10.234	10.281	VV	631	9041	0.20%	0.013%
132	10.319	10.281	10.381	VV	412	11804	0.26%	0.017%
133	10.416	10.381	10.434	PV	271	3000	0.07%	0.004%
134	10.485	10.434	10.508	VV	1018	17796	0.39%	0.026%
135	10.532	10.508	10.553	VV	1331	21532	0.47%	0.032%
136	10.618	10.553	10.641	VV	2509	69351	1.52%	0.102%
137	10.657	10.641	10.704	VV	1405	25055	0.55%	0.037%
138	10.734	10.704	10.770	PV	1569	28854	0.63%	0.042%
139	10.794	10.770	10.829	VV	2519	50601	1.11%	0.074%
140	10.845	10.829	10.858	VV	865	12998	0.28%	0.019%
141	10.885	10.858	10.918	VV	2543	53002	1.16%	0.078%

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142	10.945	10.918	11.000	VV	3787	96501	2.11%	0.142%
143	11.011	11.000	11.024	VV	625	7239	0.16%	0.011%
144	11.040	11.024	11.058	VV	889	11370	0.25%	0.017%
145	11.076	11.058	11.090	VV	534	8683	0.19%	0.013%
146	11.139	11.090	11.189	VV	72623	832388	18.24%	1.224%
147	11.216	11.189	11.262	VV	20573	266036	5.83%	0.391%
148	11.282	11.262	11.343	VV	2070	50767	1.11%	0.075%
149	11.357	11.343	11.376	VV	377	5359	0.12%	0.008%
150	11.400	11.376	11.413	PV	816	10561	0.23%	0.016%
151	11.437	11.413	11.473	VV	5029	74217	1.63%	0.109%
152	11.524	11.473	11.548	VV	1007	28429	0.62%	0.042%
153	11.591	11.548	11.614	VV	2615	45620	1.00%	0.067%
154	11.672	11.614	11.708	VV	3785	79517	1.74%	0.117%
155	11.745	11.708	11.767	VV	1084	18151	0.40%	0.027%
156	11.795	11.767	11.818	VV	1617	25603	0.56%	0.038%
157	11.838	11.818	11.860	VV	762	9558	0.21%	0.014%
158	11.909	11.860	11.936	PV	404196	4564537	100.00%	6.714%
159	11.947	11.936	11.962	VV	8642	95264	2.09%	0.140%
160	11.979	11.962	12.014	VV	10939	147035	3.22%	0.216%
161	12.061	12.014	12.081	VV	11894	198130	4.34%	0.291%
162	12.096	12.081	12.111	VV	5977	75280	1.65%	0.111%
163	12.128	12.111	12.171	VV	8041	111678	2.45%	0.164%
164	12.210	12.171	12.227	PV	1603	25401	0.56%	0.037%
165	12.268	12.227	12.297	VV	3444	74748	1.64%	0.110%
166	12.317	12.297	12.338	VV	3393	48031	1.05%	0.071%
167	12.355	12.338	12.389	VV	2589	43140	0.95%	0.063%
168	12.420	12.389	12.463	VV	5832	79486	1.74%	0.117%
169	12.486	12.463	12.501	VV	1080	14496	0.32%	0.021%
170	12.525	12.501	12.551	VV	1226	25588	0.56%	0.038%
171	12.569	12.551	12.587	VV	1704	21132	0.46%	0.031%
172	12.628	12.587	12.642	VV	1679	30090	0.66%	0.044%
173	12.670	12.642	12.711	VV	2024	53583	1.17%	0.079%
174	12.742	12.711	12.782	VV	2479	54274	1.19%	0.080%
175	12.809	12.782	12.823	PV	2603	37798	0.83%	0.056%
176	12.851	12.823	12.871	VV	6414	101936	2.23%	0.150%
177	12.910	12.871	12.938	VV	5383	116348	2.55%	0.171%
178	12.968	12.938	13.028	VV	121412	1394135	30.54%	2.051%
179	13.037	13.028	13.048	VV	824	7838	0.17%	0.012%
180	13.065	13.048	13.084	VV	1325	16990	0.37%	0.025%
181	13.127	13.084	13.137	VV	1945	40529	0.89%	0.060%
182	13.156	13.137	13.171	VV	3655	52503	1.15%	0.077%
183	13.183	13.171	13.237	VV	2397	49457	1.08%	0.073%
184	13.268	13.237	13.292	VV	97381	1119384	24.52%	1.646%
185	13.300	13.292	13.309	VV	6661	60482	1.33%	0.089%
186	13.355	13.309	13.418	VV	289015	3699308	81.04%	5.441%
187	13.445	13.418	13.464	VV	4579	73941	1.62%	0.109%
188	13.476	13.464	13.503	VV	2401	45162	0.99%	0.066%
189	13.537	13.503	13.588	VV	5809	155389	3.40%	0.229%
190	13.612	13.588	13.641	VV	2351	48693	1.07%	0.072%
191	13.670	13.641	13.706	PV	3358	68077	1.49%	0.100%
192	13.732	13.706	13.771	VV	6765	122082	2.67%	0.180%
193	13.795	13.771	13.813	VV	1800	32473	0.71%	0.048%
194	13.862	13.813	13.910	VV	18402	328052	7.19%	0.483%

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195	13.929	13.910	13.944	VV	2220	29934	0.66%	0.044%
196	13.969	13.944	13.991	VV	14055	187383	4.11%	0.276%
197	14.010	13.991	14.033	VV	8364	122617	2.69%	0.180%
198	14.050	14.033	14.081	VV	4493	84777	1.86%	0.125%
199	14.112	14.081	14.123	VV	6907	115323	2.53%	0.170%
200	14.138	14.123	14.161	VV	8629	127930	2.80%	0.188%
201	14.181	14.161	14.214	VV	6690	104190	2.28%	0.153%
202	14.257	14.214	14.290	VV	1938	45241	0.99%	0.067%
203	14.324	14.290	14.371	VV	2525	73676	1.61%	0.108%
204	14.383	14.371	14.418	VV	1136	22684	0.50%	0.033%
205	14.435	14.418	14.458	VV	1360	24117	0.53%	0.035%
206	14.472	14.458	14.487	VV	1007	12669	0.28%	0.019%
207	14.571	14.487	14.588	VV	4925	158557	3.47%	0.233%
208	14.606	14.588	14.641	VV	6410	121772	2.67%	0.179%
209	14.677	14.641	14.695	VV	4684	88959	1.95%	0.131%
210	14.705	14.695	14.750	VV	3583	89198	1.95%	0.131%
211	14.780	14.750	14.817	VV	9289	185587	4.07%	0.273%
212	14.843	14.817	14.870	VV	14114	221241	4.85%	0.325%
213	14.912	14.870	14.951	VV	7213	199574	4.37%	0.294%
214	14.965	14.951	14.983	VV	3184	45779	1.00%	0.067%
215	15.028	14.983	15.081	VV	3907	152893	3.35%	0.225%
216	15.114	15.081	15.124	VV	3368	62344	1.37%	0.092%
217	15.156	15.124	15.177	VV	57241	761766	16.69%	1.120%
218	15.197	15.177	15.234	VV	54352	776565	17.01%	1.142%
219	15.260	15.234	15.285	VV	3143	69981	1.53%	0.103%
220	15.319	15.285	15.375	VV	12597	269758	5.91%	0.397%
221	15.407	15.375	15.440	VV	3907	76799	1.68%	0.113%
222	15.465	15.440	15.483	VV	5732	86543	1.90%	0.127%
223	15.500	15.483	15.561	VV	4329	131682	2.88%	0.194%
224	15.620	15.561	15.634	PV	6099	140783	3.08%	0.207%
225	15.641	15.634	15.675	VV	6169	105237	2.31%	0.155%
226	15.699	15.675	15.714	VV	2919	61247	1.34%	0.090%
227	15.758	15.714	15.790	VV	13639	297366	6.51%	0.437%
228	15.832	15.790	15.853	VV	13147	248598	5.45%	0.366%
229	15.872	15.853	15.897	VV	7576	126092	2.76%	0.185%
230	15.918	15.897	15.937	VV	4105	66476	1.46%	0.098%
231	15.994	15.937	16.031	VV	9280	289407	6.34%	0.426%
232	16.067	16.031	16.094	VV	5026	119278	2.61%	0.175%
233	16.125	16.094	16.140	VV	2564	49540	1.09%	0.073%
234	16.157	16.140	16.179	VV	3468	48425	1.06%	0.071%
235	16.242	16.179	16.308	VV	4419	189925	4.16%	0.279%
236	16.335	16.308	16.354	VV	2067	30528	0.67%	0.045%
237	16.386	16.354	16.396	PV	1044	21161	0.46%	0.031%
238	16.449	16.396	16.491	VV	4928	160103	3.51%	0.235%
239	16.536	16.491	16.560	VV	4518	136196	2.98%	0.200%
240	16.588	16.560	16.614	VV	3984	115546	2.53%	0.170%
241	16.637	16.614	16.664	VV	5873	132611	2.91%	0.195%
242	16.726	16.664	16.790	VV	70254	1539658	33.73%	2.265%
243	16.808	16.790	16.828	VV	4972	96825	2.12%	0.142%
244	16.856	16.828	16.883	VV	16876	329138	7.21%	0.484%
245	16.890	16.883	16.930	VV	7671	167556	3.67%	0.246%
246	16.949	16.930	16.967	VV	5484	110549	2.42%	0.163%

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247	17.048	16.967	17.080	VV	46651	979529	21.46%	1.441%
248	17.108	17.080	17.157	VV	53267	947101	20.75%	1.393%
249	17.210	17.157	17.277	VV	23447	865757	18.97%	1.273%
250	17.287	17.277	17.301	VV	7248	99830	2.19%	0.147%
251	17.316	17.301	17.331	VV	8679	136640	2.99%	0.201%
252	17.387	17.331	17.395	VV	9887	325232	7.13%	0.478%
253	17.440	17.395	17.457	VV	14435	430337	9.43%	0.633%
254	17.514	17.457	17.554	VV	13344	634767	13.91%	0.934%
255	17.612	17.554	17.665	VV	16083	730962	16.01%	1.075%
256	17.697	17.665	17.716	VV	9596	268462	5.88%	0.395%
257	17.730	17.716	17.741	VV	9148	126109	2.76%	0.185%
258	17.768	17.741	17.796	VV	16575	380984	8.35%	0.560%
259	17.815	17.796	17.863	VV	7984	278293	6.10%	0.409%
260	17.882	17.863	17.901	VV	6818	137726	3.02%	0.203%
261	17.934	17.901	17.955	VV	7412	202622	4.44%	0.298%
262	17.981	17.955	18.007	VV	9923	224689	4.92%	0.330%
263	18.029	18.007	18.036	VV	7038	114132	2.50%	0.168%
264	18.085	18.036	18.124	VV	14170	513698	11.25%	0.756%
265	18.133	18.124	18.148	VV	7209	91733	2.01%	0.135%
266	18.231	18.148	18.249	VV	20514	673978	14.77%	0.991%
267	18.259	18.249	18.311	VV	15853	409770	8.98%	0.603%
268	18.336	18.311	18.363	VV	6772	182739	4.00%	0.269%
269	18.407	18.363	18.454	VV	13989	548595	12.02%	0.807%
270	18.493	18.454	18.574	VV	29581	1120133	24.54%	1.648%
271	18.600	18.574	18.634	VV	19834	483349	10.59%	0.711%
272	18.660	18.634	18.709	VV	9549	333309	7.30%	0.490%
273	18.747	18.709	18.798	VV	26987	627658	13.75%	0.923%
274	18.809	18.798	18.846	VV	5211	119522	2.62%	0.176%
275	18.884	18.846	18.900	VV	7441	163749	3.59%	0.241%
276	18.916	18.900	18.957	VV	6923	148570	3.25%	0.219%
277	18.980	18.957	18.992	VV	4171	61209	1.34%	0.090%
278	19.022	18.992	19.043	VV	9573	175078	3.84%	0.258%
279	19.074	19.043	19.136	VV	9066	289776	6.35%	0.426%
280	19.203	19.136	19.225	VV	6993	273628	5.99%	0.402%
281	19.321	19.225	19.335	VV	9723	445295	9.76%	0.655%
282	19.354	19.335	19.391	VV	11256	275910	6.04%	0.406%
283	19.425	19.391	19.464	VV	10497	366304	8.03%	0.539%
284	19.594	19.464	19.624	VV	8175	710677	15.57%	1.045%
285	19.639	19.624	19.654	VV	7822	131243	2.88%	0.193%
286	19.737	19.654	19.761	VV	11471	562898	12.33%	0.828%
287	19.828	19.761	19.865	VV	13676	684176	14.99%	1.006%
288	19.917	19.865	19.950	VV	15600	680305	14.90%	1.001%
289	19.988	19.950	20.031	VV	16697	740783	16.23%	1.090%
290	20.059	20.031	20.105	VV	22965	823157	18.03%	1.211%
291	20.137	20.105	20.154	VV	16306	465119	10.19%	0.684%
292	20.356	20.154	20.398	VV	23920	2729687	59.80%	4.015%
293	20.522	20.398	20.537	VV	26215	1934884	42.39%	2.846%
294	20.661	20.537	20.683	VV	30618	2490042	54.55%	3.663%
295	20.720	20.683	20.736	VV	29742	931468	20.41%	1.370%
296	20.811	20.736	20.834	VV	32548	1813288	39.73%	2.667%
297	20.847	20.834	20.889	VV	31392	1007049	22.06%	1.481%
298	20.926	20.889	21.003	VV	29332	1869849	40.96%	2.750%
299	21.032	21.003	21.044	VV	24978	603738	13.23%	0.888%

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300	21.082	21.044	21.108	VV	24856	930773	20.39%	1.369%
301	21.119	21.108	21.128	VV	24336	294165	6.44%	0.433%
302	21.144	21.128	21.244	VV	24134	1500683	32.88%	2.207%
303	21.350	21.244	21.381	VV	18824	1510678	33.10%	2.222%
304	21.414	21.381	21.449	VV	17649	700279	15.34%	1.030%
305	21.458	21.449	21.589	VV	15818	1115674	24.44%	1.641%
306	21.627	21.589	21.651	VV	11389	405734	8.89%	0.597%
307	21.737	21.651	21.758	VV	12156	717921	15.73%	1.056%
308	21.785	21.758	22.037	VV	11605	1018486	22.31%	1.498%
309	22.051	22.037	22.061	VV	547	6977	0.15%	0.010%
					Sum of corrected areas:		67986462	

Aliphatic EPH 030325.M Tue Mar 25 02:29:17 2025



CALIBRATION SUMMARY

Initial Calibration Report for SequenceID : FE030325AL

AreaCount

Parameter Range	FE052574.D	FE052575.D	FE052576.D	FE052577.D	FE052578.D	
Aliphatic C9-C12	42442133.000	21908913.000	9597805.000	4926333.000	2520517.000	
Aliphatic C12-C16	27580281.000	14251729.000	6250320.000	3204581.000	1635867.000	
Aliphatic C16-C21	39738338.000	20559097.000	9010211.000	4640638.000	2375408.000	
Aliphatic C21-C28	50608585.000	26547978.000	11639338.000	6148197.000	3076025.000	
Aliphatic C28-C40	66374736.000	34517397.000	15630021.000	8240673.000	4340048.000	
Aliphatic EPH	226744073.000	117785114.000	52127695.000	27160422.000	13947865.000	

AVG Response Factor

Parameter Range	AVG RF	% RSD				
Aliphatic C9-C12	155948.4359996	7.435				
Aliphatic C12-C16	152098.489	7.415				
Aliphatic C16-C21	146548.0846662	7.685				
Aliphatic C21-C28	142451.8505	8.689				
Aliphatic C28-C40	127589.1083332	11.35				
Aliphatic EPH	141501.5884438	8.903				

Concentration

Parameter Range	FE052574.D	FE052575.D	FE052576.D	FE052577.D	FE052578.D	
Aliphatic C9-C12	300.000	150.000	60.000	30.000	15.000	
Aliphatic C12-C16	200.000	100.000	40.000	20.000	10.000	
Aliphatic C16-C21	300.000	150.000	60.000	30.000	15.000	
Aliphatic C21-C28	400.000	200.000	80.000	40.000	20.000	
Aliphatic C28-C40	600.000	300.000	120.000	60.000	30.000	
Aliphatic EPH	1800.000	900.000	360.000	180.000	90.000	

Response Factor

Parameter Range	FE052574.D	FE052575.D	FE052576.D	FE052577.D	FE052578.D	
Aliphatic C9-C12	141473.776666	146059.420000	159963.416666	164211.100000	168034.466666	
Aliphatic C12-C16	137901.405000	142517.290000	156258.000000	160229.050000	163586.700000	
Aliphatic C16-C21	132461.126666	137060.646666	150170.183333	154687.933333	158360.533333	

Initial Calibration Report for SequenceID : FE030325AL

Aliphatic C21-C28	126521.462500	132739.890000	145491.725000	153704.925000	153801.250000	
Aliphatic C28-C40	110624.560000	115057.990000	130250.175000	137344.550000	144668.266666	
Aliphatic EPH	125968.929444	130872.348888	144799.152777	150891.233333	154976.277777	

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
 Data File : FE052574.D
 Signal(s) : FID1B.ch
 Acq On : 03 Mar 2025 11:03
 Operator : YP\AJ
 Sample : 100 PPM ALIPHATIC HC STD1
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
 Quant Time: Mar 03 12:35:11 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 12:32:42 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.921	15249190	93.747 ug/ml
Spiked Amount 50.000		Recovery =	187.49%
12) S 1-chlorooctadecane (S...	13.362	11123183	94.425 ug/ml
Spiked Amount 50.000		Recovery =	188.85%
Target Compounds			
1) T n-Nonane (C9)	3.257	14069581	93.932 ug/ml
2) T n-Decane (C10)	4.520	14244956	93.842 ug/ml
3) T A~Naphthalene (C11.7)	6.234	15515805	94.126 ug/ml
4) T n-Dodecane (C12)	6.701	14127596	93.824 ug/ml
5) T A~2-methylnaphthalene...	7.337	14872839	94.265 ug/ml
6) T n-Tetradecane (C14)	8.538	13725919	93.771 ug/ml
7) T n-Hexadecane (C16)	10.153	13854362	93.748 ug/ml
8) T n-Octadecane (C18)	11.603	13752507	93.737 ug/ml
10) T n-Eicosane (C20)	12.917	13115140	93.713 ug/ml
11) T n-Heneicosane (C21)	13.531	12870691	93.753 ug/ml
13) T n-Docosane (C22)	14.119	12800111	93.460 ug/ml
14) T n-Tetracosane (C24)	15.226	12766560	93.227 ug/ml
15) T n-Hexacosane (C26)	16.249	12617268	93.065 ug/ml
16) T n-Octacosane (C28)	17.201	12424646	92.341 ug/ml
17) T n-Tricontane (C30)	18.092	12609210	91.462 ug/ml
18) T n-Dotriacontane (C32)	18.928	12252844	90.798 ug/ml
19) T n-Tetratriacontane (C34)	19.714	11540152	91.301 ug/ml
20) T n-Hexatriacontane (C36)	20.455	10354123	91.810 ug/ml
21) T n-Octatriacontane (C38)	21.198	9888606	92.810 ug/ml
22) T n-Tetracontane (C40)	22.124	9729801	93.471 ug/ml

(f)=RT Delta > 1/2 Window

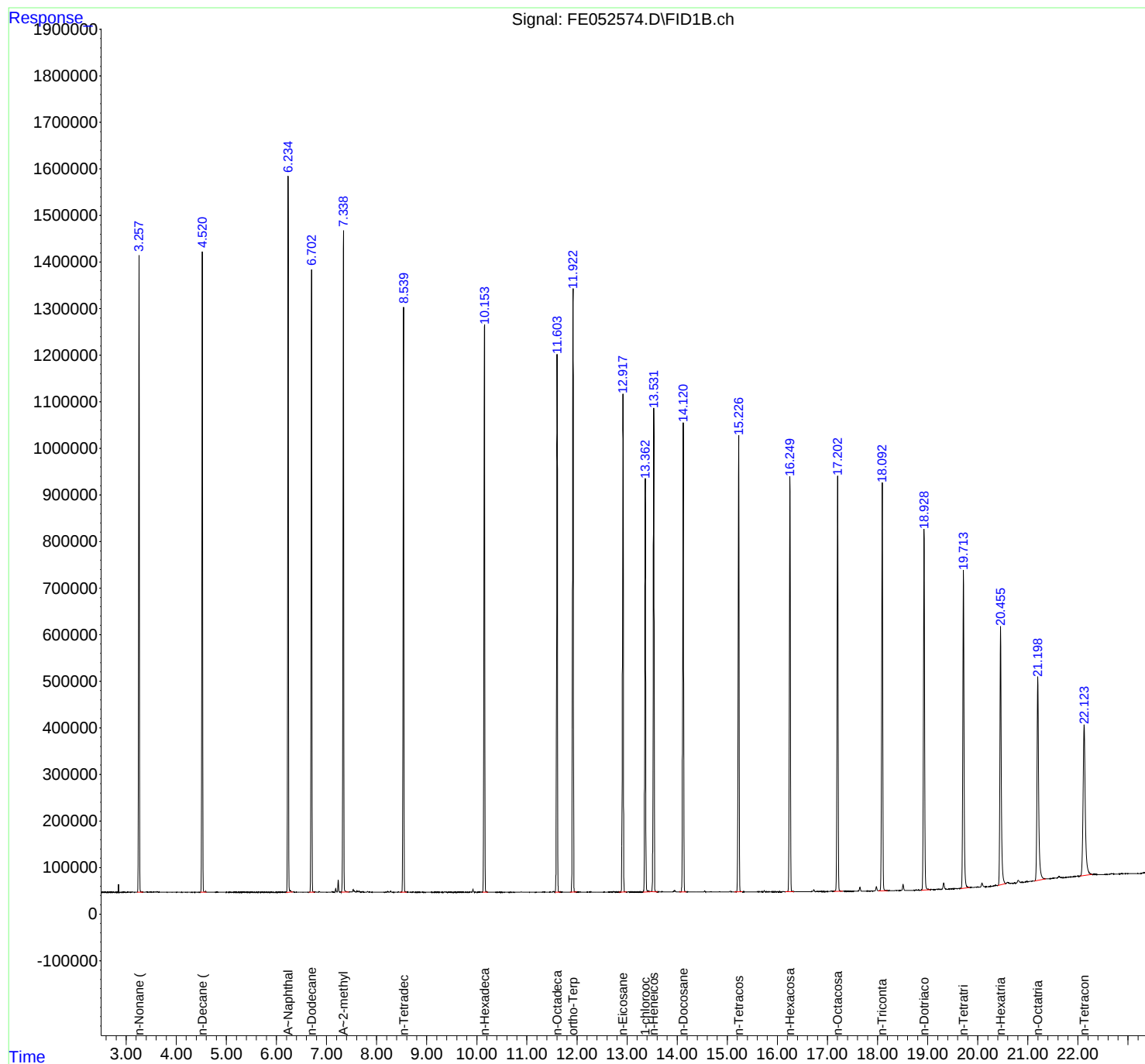
(m)=manual int.

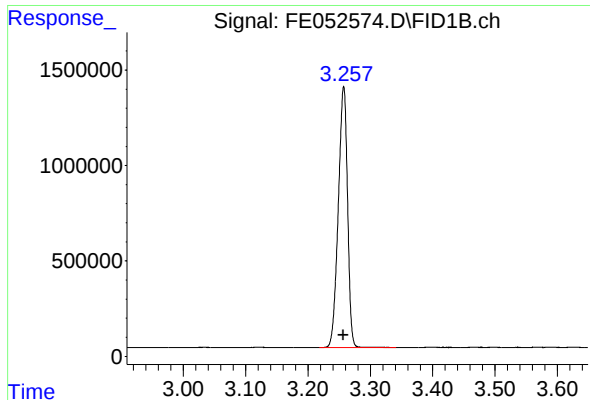
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052574.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 11:03
Operator : YP\AJ
Sample : 100 PPM ALIPHATIC HC STD1
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1

Integration File: autoint1.e
Quant Time: Mar 03 12:35:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 12:32:42 2025
Response via : Initial Calibration
Integrator: ChemStation

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

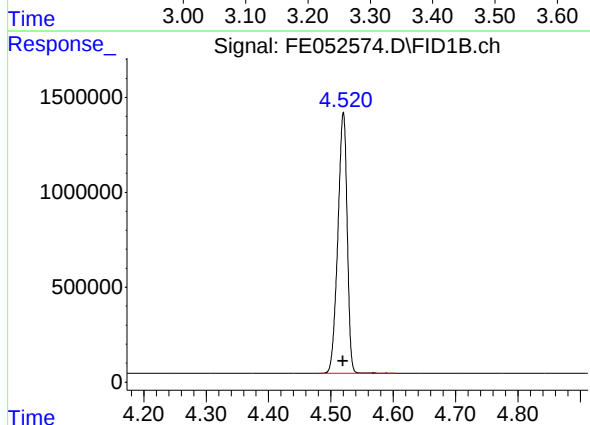




#1 n-Nonane (C9)

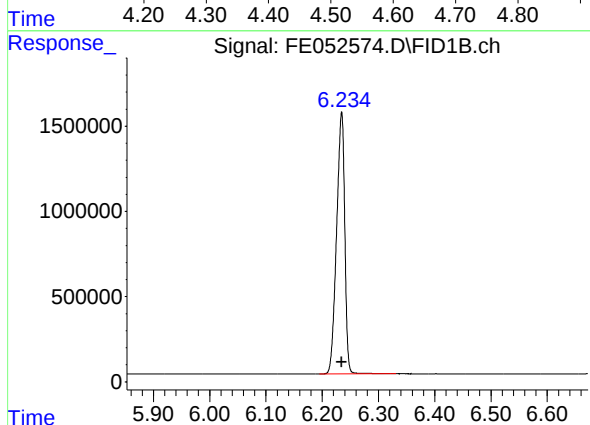
R.T.: 3.257 min
Delta R.T.: 0.000 min
Response: 14069581
Conc: 93.93 ug/ml

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1



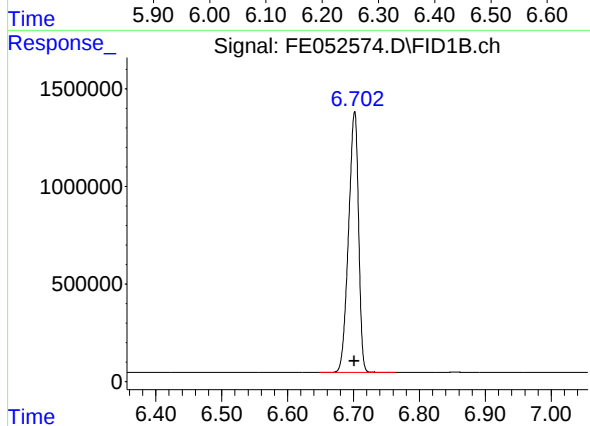
#2 n-Decane (C10)

R.T.: 4.520 min
Delta R.T.: 0.000 min
Response: 14244956
Conc: 93.84 ug/ml



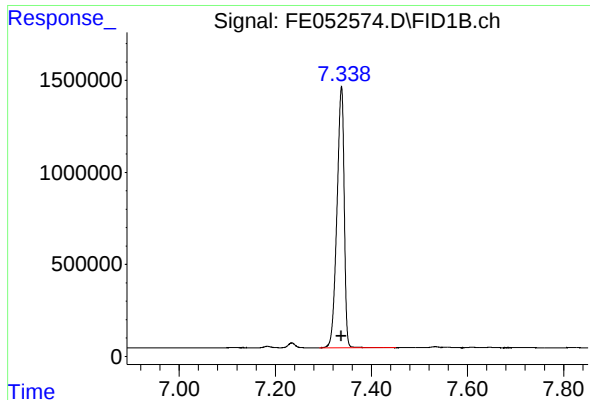
#3 A~Naphthalene (C11.7)

R.T.: 6.234 min
Delta R.T.: 0.000 min
Response: 15515805
Conc: 94.13 ug/ml



#4 n-Dodecane (C12)

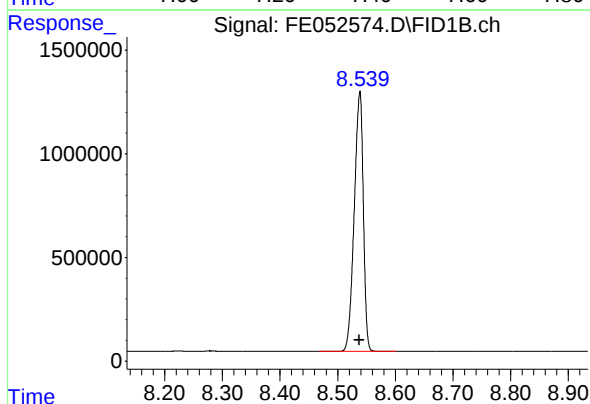
R.T.: 6.701 min
Delta R.T.: 0.000 min
Response: 14127596
Conc: 93.82 ug/ml



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

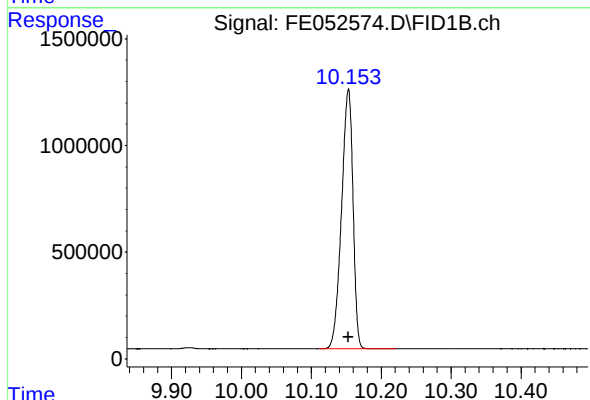
R.T.: 7.337 min
Delta R.T.: 0.000 min
Response: 14872839
Conc: 94.27 ug/ml

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1



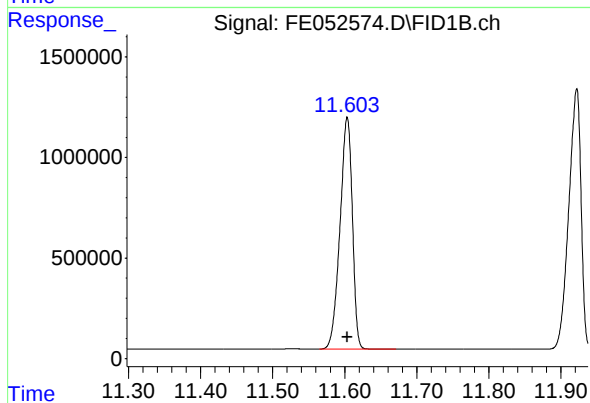
#6 n-Tetradecane (C14)

R.T.: 8.538 min
Delta R.T.: 0.000 min
Response: 13725919
Conc: 93.77 ug/ml



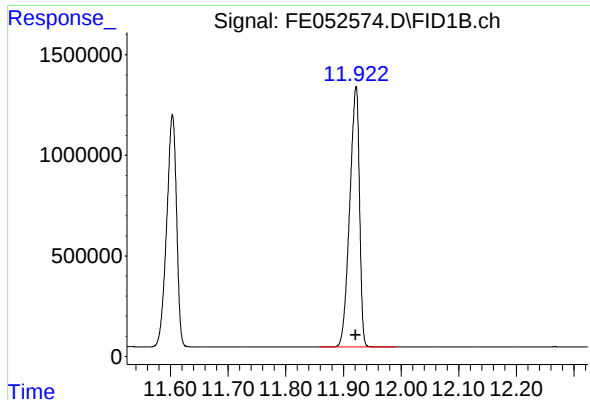
#7 n-Hexadecane (C16)

R.T.: 10.153 min
Delta R.T.: 0.000 min
Response: 13854362
Conc: 93.75 ug/ml



#8 n-Octadecane (C18)

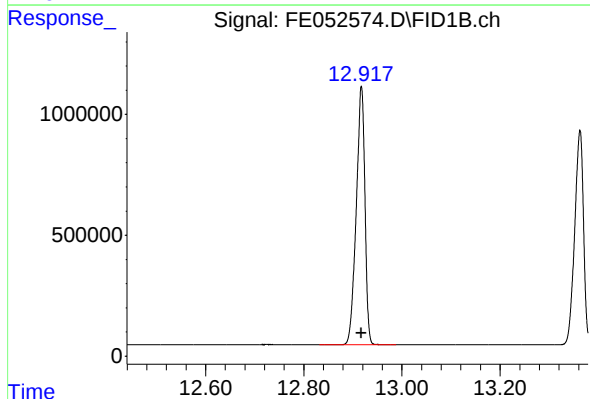
R.T.: 11.603 min
Delta R.T.: 0.000 min
Response: 13752507
Conc: 93.74 ug/ml



#9 ortho-Terphenyl (SURR)

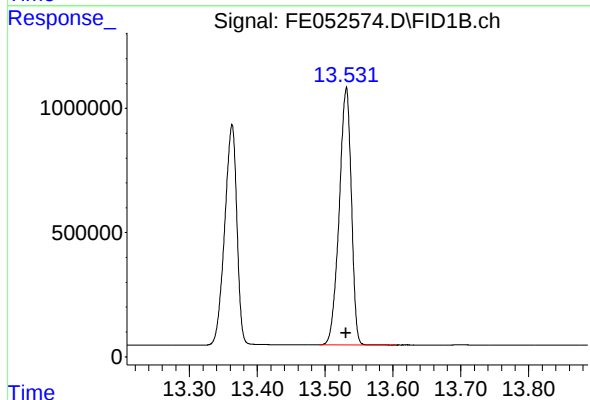
R.T.: 11.921 min
Delta R.T.: 0.000 min
Response: 15249190
Conc: 93.75 ug/ml

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1



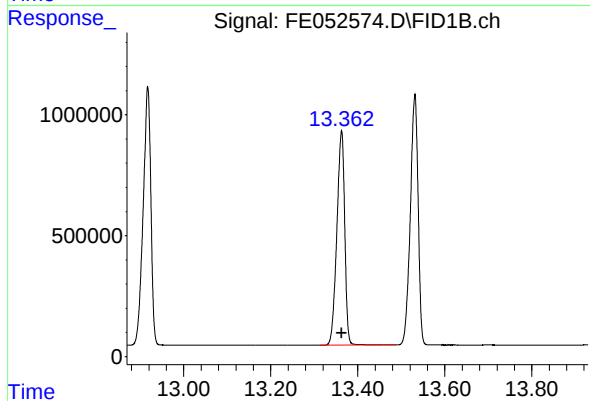
#10 n-Eicosane (C20)

R.T.: 12.917 min
Delta R.T.: 0.000 min
Response: 13115140
Conc: 93.71 ug/ml



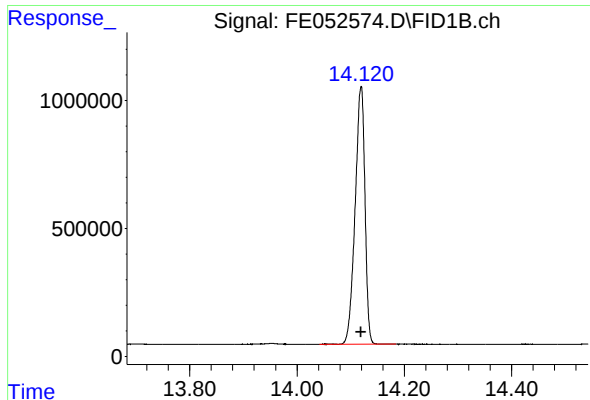
#11 n-Heneicosane (C21)

R.T.: 13.531 min
Delta R.T.: 0.000 min
Response: 12870691
Conc: 93.75 ug/ml



#12 1-chlorooctadecane (SURR)

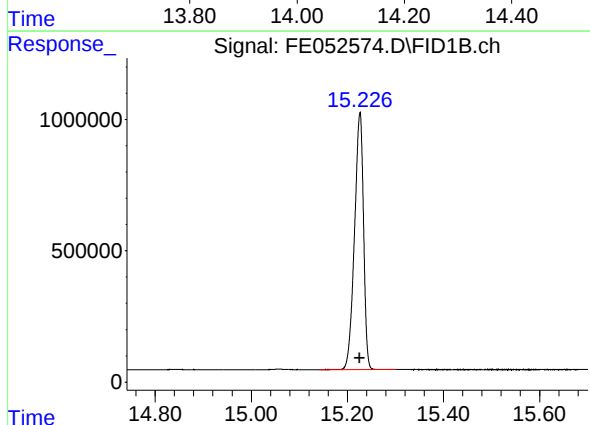
R.T.: 13.362 min
Delta R.T.: 0.000 min
Response: 11123183
Conc: 94.43 ug/ml



#13 n-Docosane (C22)

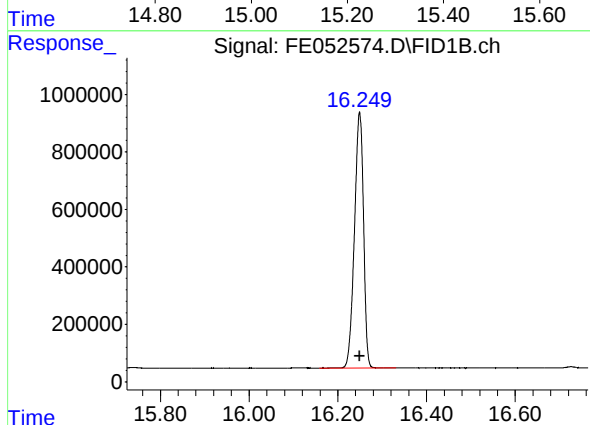
R.T.: 14.119 min
Delta R.T.: 0.000 min
Response: 12800111
Conc: 93.46 ug/ml

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1



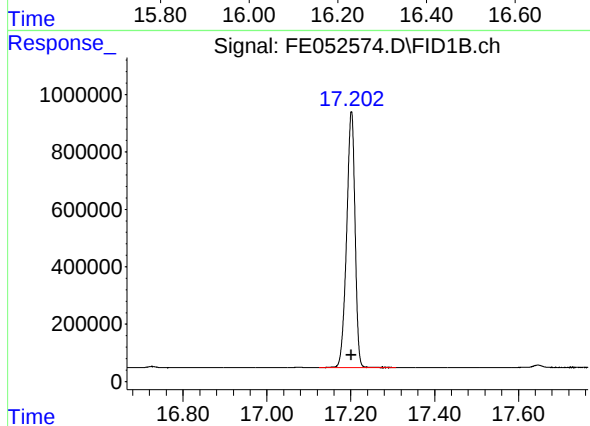
#14 n-Tetracosane (C24)

R.T.: 15.226 min
Delta R.T.: 0.000 min
Response: 12766560
Conc: 93.23 ug/ml



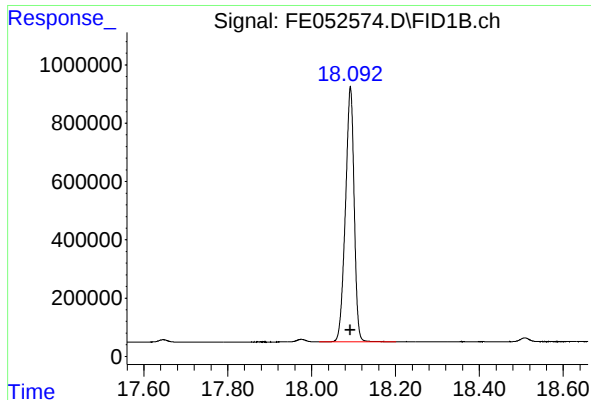
#15 n-Hexacosane (C26)

R.T.: 16.249 min
Delta R.T.: 0.000 min
Response: 12617268
Conc: 93.06 ug/ml



#16 n-Octacosane (C28)

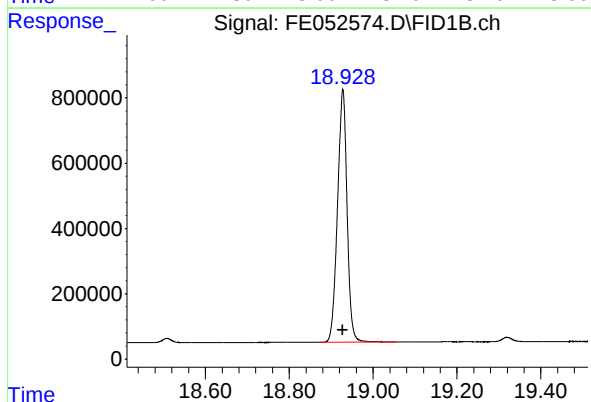
R.T.: 17.201 min
Delta R.T.: 0.000 min
Response: 12424646
Conc: 92.34 ug/ml



#17 n-Tricontane (C30)

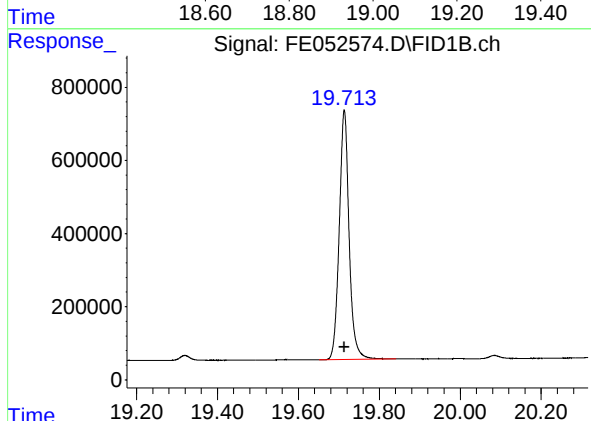
R.T.: 18.092 min
Delta R.T.: 0.000 min
Response: 12609210
Conc: 91.46 ug/ml

Instrument :
FID_E
ClientSampleId :
100 PPM ALIPHATIC HC STD1



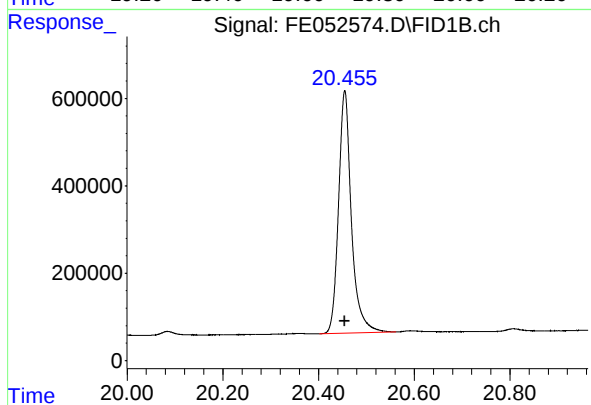
#18 n-Dotriacontane (C32)

R.T.: 18.928 min
Delta R.T.: 0.000 min
Response: 12252844
Conc: 90.80 ug/ml



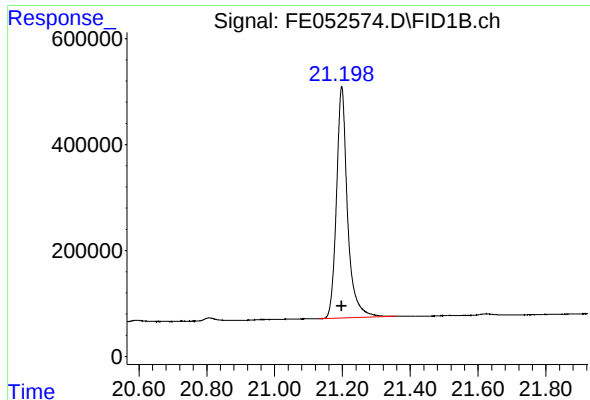
#19 n-Tetratriacontane (C34)

R.T.: 19.714 min
Delta R.T.: 0.000 min
Response: 11540152
Conc: 91.30 ug/ml



#20 n-Hexatriacontane (C36)

R.T.: 20.455 min
Delta R.T.: 0.000 min
Response: 10354123
Conc: 91.81 ug/ml



#21 n-Octatriacontane (C38)

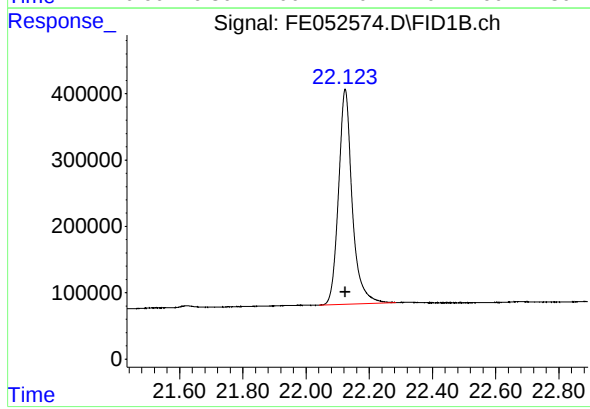
R.T.: 21.198 min
Delta R.T.: 0.000 min
Response: 9888606
Conc: 92.81 ug/ml

Instrument :

FID_E

ClientSampleId :

100 PPM ALIPHATIC HC STD1



#22 n-Tetracontane (C40)

R.T.: 22.124 min
Delta R.T.: 0.000 min
Response: 9729801
Conc: 93.47 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
 Data File : FE052574.D
 Signal(s) : FID1B.ch
 Acq On : 03 Mar 2025 11:03
 Sample : 100 PPM ALIPHATIC HC STD1
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.257	3.218	3.341	BB	1376737	14069581	90.68%	4.963%
2	4.520	4.481	4.604	BB	1385573	14244956	91.81%	5.025%
3	6.234	6.194	6.331	BB	1543497	15515805	100.00%	5.473%
4	6.701	6.648	6.764	BB	1337401	14127596	91.05%	4.983%
5	7.337	7.291	7.451	PB	1429684	14872839	95.86%	5.246%
6	8.538	8.468	8.601	BB	1246041	13725919	88.46%	4.842%
7	10.153	10.111	10.221	BB	1228361	13854362	89.29%	4.887%
8	11.603	11.564	11.671	BB	1158280	13752507	88.64%	4.851%
9	11.921	11.858	11.991	BB	1294746	15249190	98.28%	5.379%
10	12.917	12.831	12.988	BB	1073457	13115140	84.53%	4.626%
11	13.362	13.311	13.488	BB	878519	11123183	71.69%	3.923%
12	13.531	13.491	13.604	BB	1034118	12870691	82.95%	4.540%
13	14.119	14.041	14.184	BB	1007279	12800111	82.50%	4.515%
14	15.226	15.141	15.301	BB	971384	12766560	82.28%	4.503%
15	16.249	16.158	16.331	BB	889127	12617268	81.32%	4.450%
16	17.201	17.124	17.308	BB	895534	12424646	80.08%	4.383%
17	18.092	18.018	18.201	VB	871317	12609210	81.27%	4.448%
18	18.928	18.871	19.054	BB	775818	12252844	78.97%	4.322%
19	19.714	19.651	19.841	BV	682323	11540152	74.38%	4.071%
20	20.455	20.401	20.562	BV	555199	10354123	66.73%	3.652%
21	21.198	21.131	21.358	BB	437475	9888606	63.73%	3.488%
22	22.124	22.041	22.284	BV	324105	9729801	62.71%	3.432%
Sum of corrected areas:						283505085		

Aliphatic EPH 030325.M Tue Mar 04 04:13:47 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
 Data File : FE052575.D
 Signal(s) : FID1B.ch
 Acq On : 03 Mar 2025 11:34
 Operator : YP\AJ
 Sample : 50 PPM ALIPHATIC HC STD2
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 50 PPM ALIPHATIC HC STD2

Integration File: autoint1.e
 Quant Time: Mar 03 12:40:59 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 12:40:45 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.915	7890446	48.995 ug/ml
Spiked Amount 50.000		Recovery =	97.99%
12) S 1-chlorooctadecane (S...	13.358	5721300	49.036 ug/ml
Spiked Amount 50.000		Recovery =	98.07%
Target Compounds			
1) T n-Nonane (C9)	3.254	7262625	48.981 ug/ml
2) T n-Decane (C10)	4.517	7350604	48.938 ug/ml
3) T A~Naphthalene (C11.7)	6.230	8003588	49.026 ug/ml
4) T n-Dodecane (C12)	6.698	7295684	48.957 ug/ml
5) T A~2-methylnaphthalene...	7.333	7667442	49.056 ug/ml
6) T n-Tetradecane (C14)	8.535	7087970	48.937 ug/ml
7) T n-Hexadecane (C16)	10.150	7163759	48.973 ug/ml
8) T n-Octadecane (C18)	11.599	7114585	48.985 ug/ml
10) T n-Eicosane (C20)	12.913	6790047	49.002 ug/ml
11) T n-Heneicosane (C21)	13.527	6654465	48.971 ug/ml
13) T n-Docosane (C22)	14.115	6651959	49.037 ug/ml
14) T n-Tetracosane (C24)	15.221	6697431	49.266 ug/ml
15) T n-Hexacosane (C26)	16.246	6641490	49.320 ug/ml
16) T n-Octacosane (C28)	17.198	6557098	49.148 ug/ml
17) T n-Tricontane (C30)	18.088	6637939	48.751 ug/ml
18) T n-Dotriacontane (C32)	18.923	6417064	48.341 ug/ml
19) T n-Tetratriacontane (C34)	19.709	5988221	48.220 ug/ml
20) T n-Hexatriacontane (C36)	20.451	5353171	48.282 ug/ml
21) T n-Octatriacontane (C38)	21.193	5101404	48.566 ug/ml
22) T n-Tetracontane (C40)	22.116	5019598	48.800 ug/ml

(f)=RT Delta > 1/2 Window

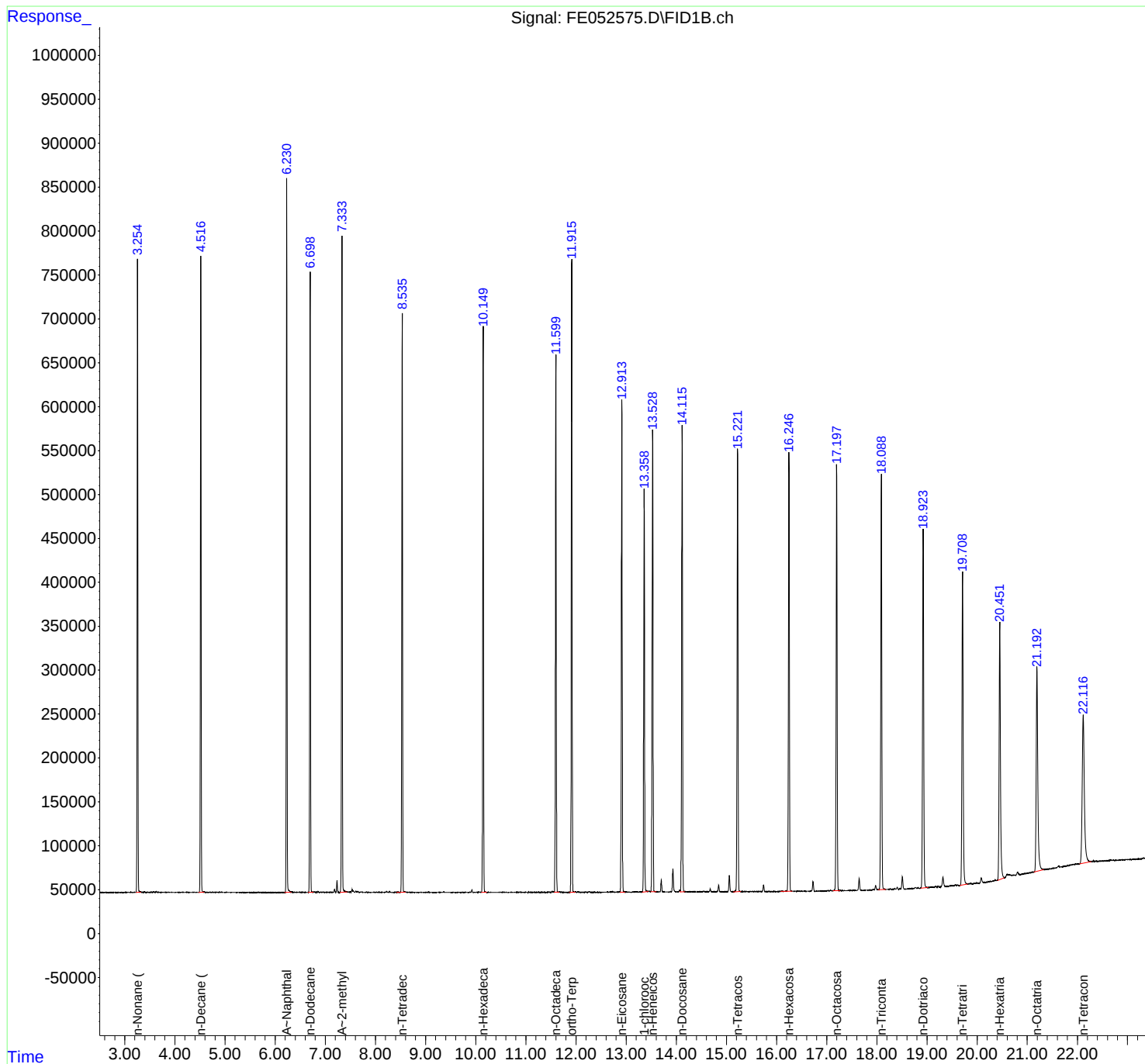
(m)=manual int.

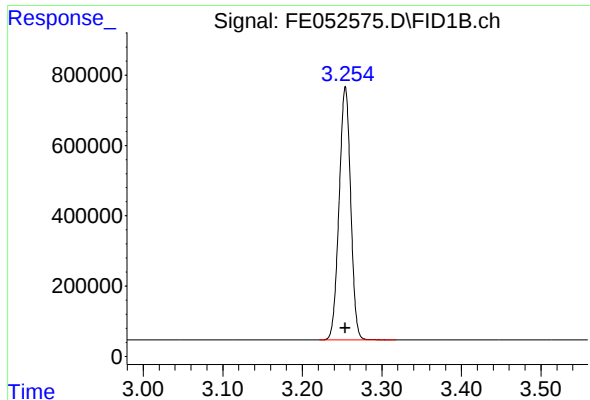
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052575.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 11:34
Operator : YP\AJ
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2

Integration File: autoint1.e
Quant Time: Mar 03 12:40:59 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 12:40:45 2025
Response via : Initial Calibration
Integrator: ChemStation

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

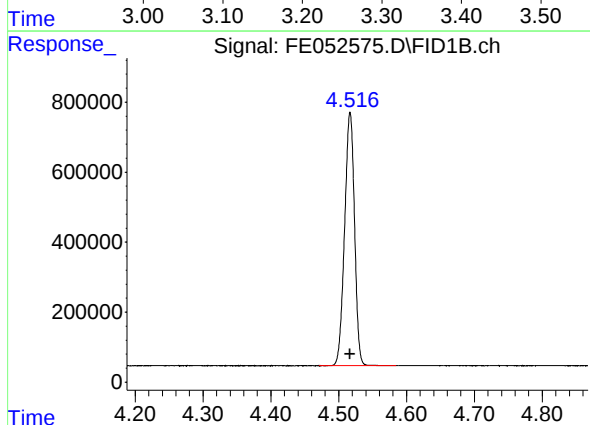




#1 n-Nonane (C9)

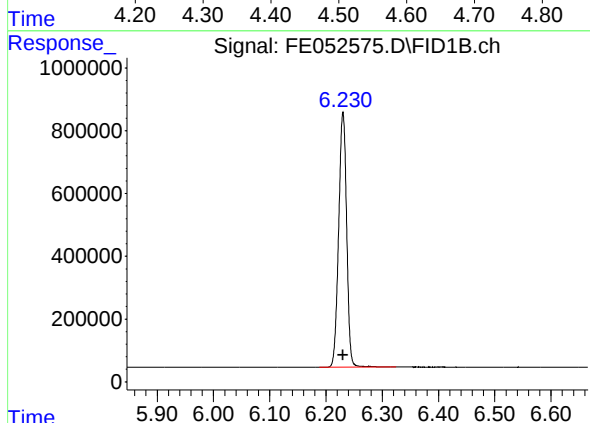
R.T.: 3.254 min
Delta R.T.: 0.000 min
Response: 7262625
Conc: 48.98 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



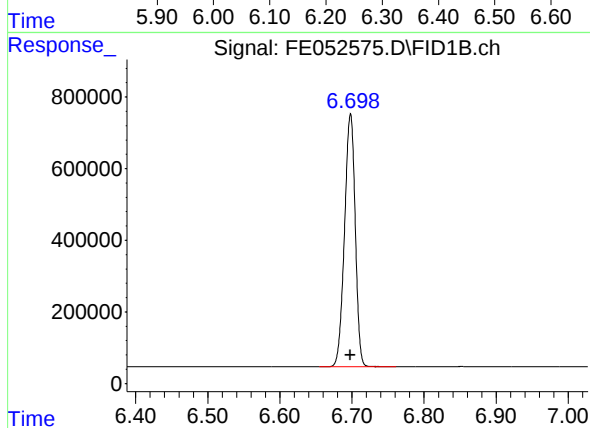
#2 n-Decane (C10)

R.T.: 4.517 min
Delta R.T.: 0.000 min
Response: 7350604
Conc: 48.94 ug/ml



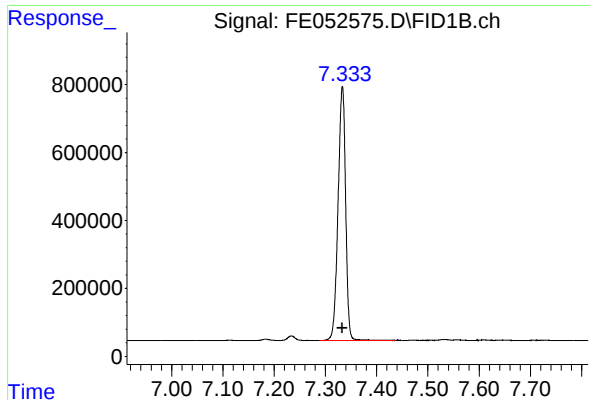
#3 A~Naphthalene (C11.7)

R.T.: 6.230 min
Delta R.T.: 0.000 min
Response: 8003588
Conc: 49.03 ug/ml



#4 n-Dodecane (C12)

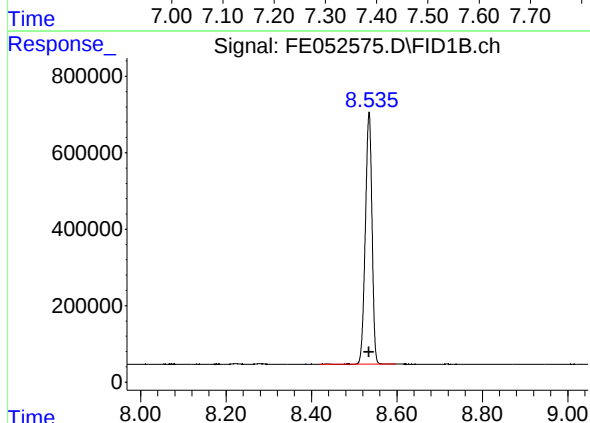
R.T.: 6.698 min
Delta R.T.: 0.000 min
Response: 7295684
Conc: 48.96 ug/ml



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

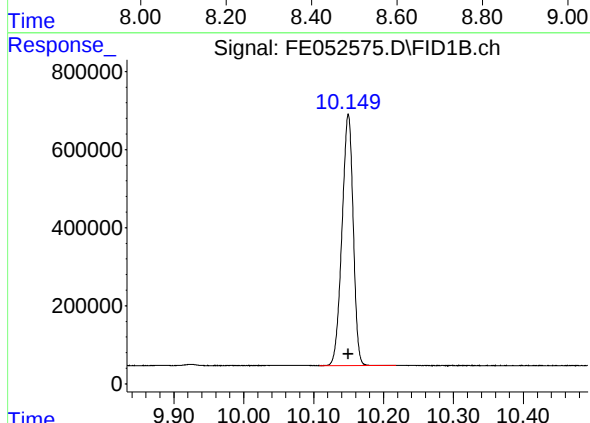
R.T.: 7.333 min
Delta R.T.: 0.000 min
Response: 7667442
Conc: 49.06 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



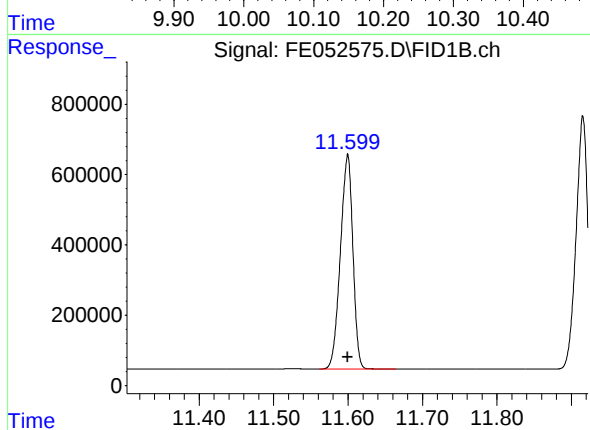
#6 n-Tetradecane (C14)

R.T.: 8.535 min
Delta R.T.: 0.000 min
Response: 7087970
Conc: 48.94 ug/ml



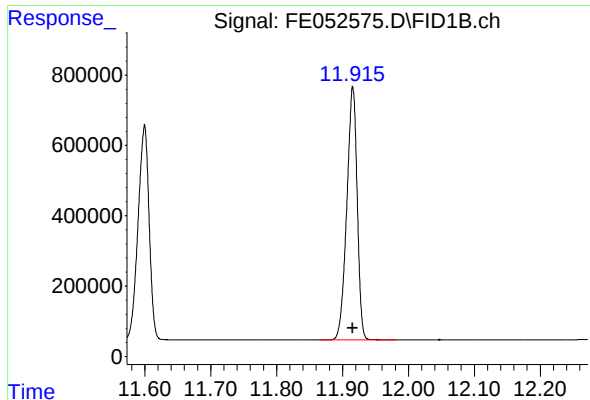
#7 n-Hexadecane (C16)

R.T.: 10.150 min
Delta R.T.: 0.000 min
Response: 7163759
Conc: 48.97 ug/ml



#8 n-Octadecane (C18)

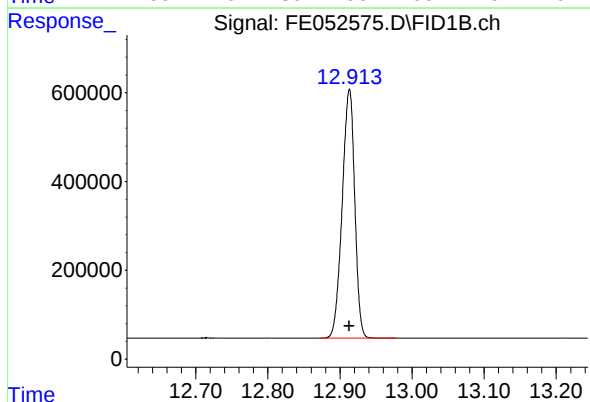
R.T.: 11.599 min
Delta R.T.: 0.000 min
Response: 7114585
Conc: 48.99 ug/ml



#9 ortho-Terphenyl (SURR)

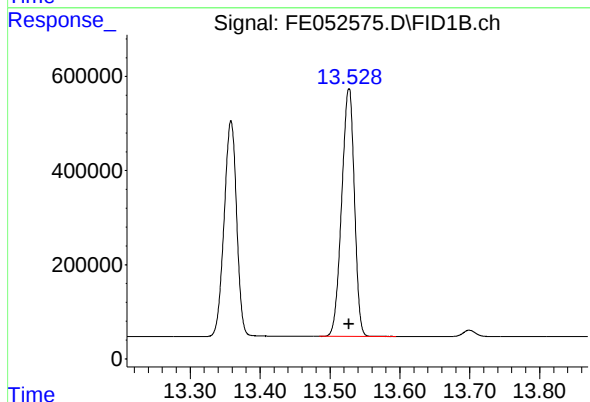
R.T.: 11.915 min
Delta R.T.: 0.000 min
Response: 7890446
Conc: 49.00 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



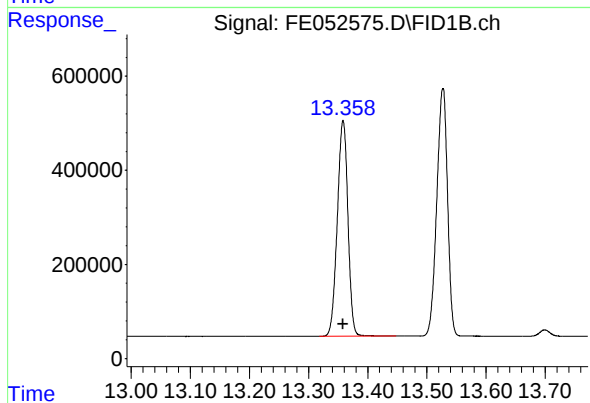
#10 n-Eicosane (C20)

R.T.: 12.913 min
Delta R.T.: 0.000 min
Response: 6790047
Conc: 49.00 ug/ml



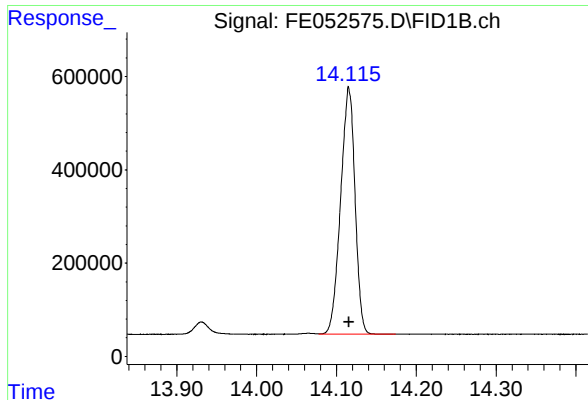
#11 n-Heneicosane (C21)

R.T.: 13.527 min
Delta R.T.: 0.000 min
Response: 6654465
Conc: 48.97 ug/ml



#12 1-chlorooctadecane (SURR)

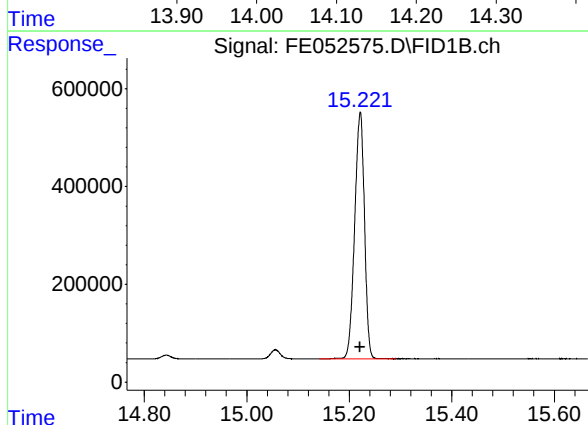
R.T.: 13.358 min
Delta R.T.: 0.000 min
Response: 5721300
Conc: 49.04 ug/ml



#13 n-Docosane (C22)

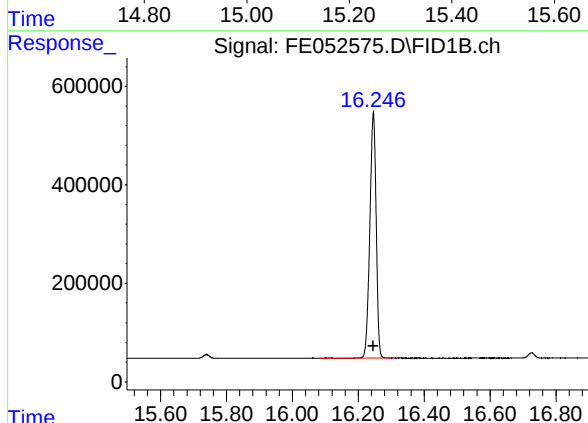
R.T.: 14.115 min
Delta R.T.: 0.000 min
Response: 6651959
Conc: 49.04 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



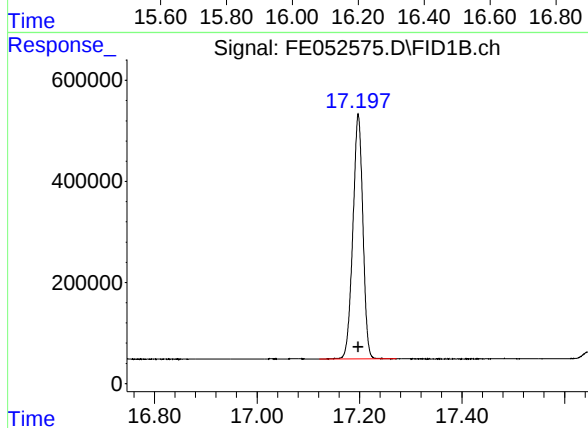
#14 n-Tetracosane (C24)

R.T.: 15.221 min
Delta R.T.: 0.000 min
Response: 6697431
Conc: 49.27 ug/ml



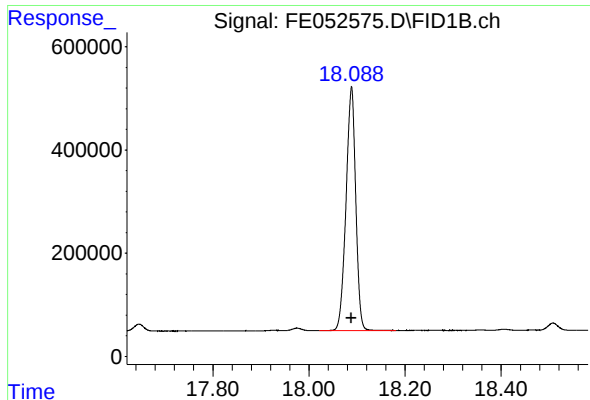
#15 n-Hexacosane (C26)

R.T.: 16.246 min
Delta R.T.: 0.000 min
Response: 6641490
Conc: 49.32 ug/ml



#16 n-Octacosane (C28)

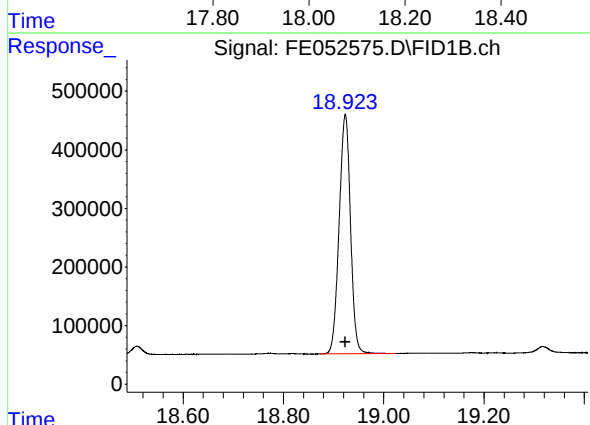
R.T.: 17.198 min
Delta R.T.: 0.000 min
Response: 6557098
Conc: 49.15 ug/ml



#17 n-Tricontane (C30)

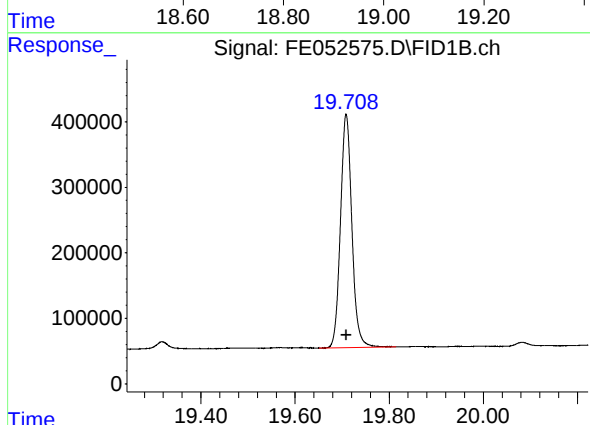
R.T.: 18.088 min
Delta R.T.: 0.000 min
Response: 6637939
Conc: 48.75 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



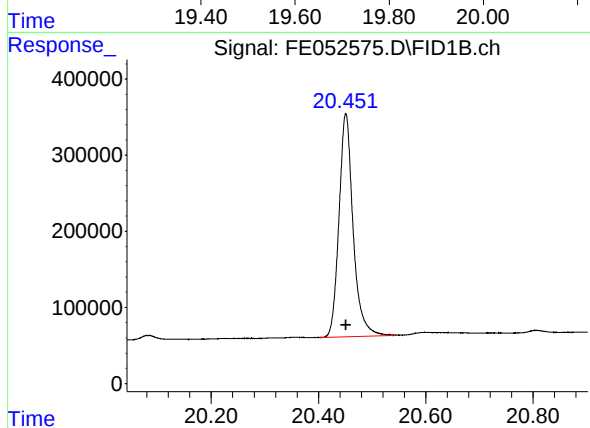
#18 n-Dotriacontane (C32)

R.T.: 18.923 min
Delta R.T.: 0.000 min
Response: 6417064
Conc: 48.34 ug/ml



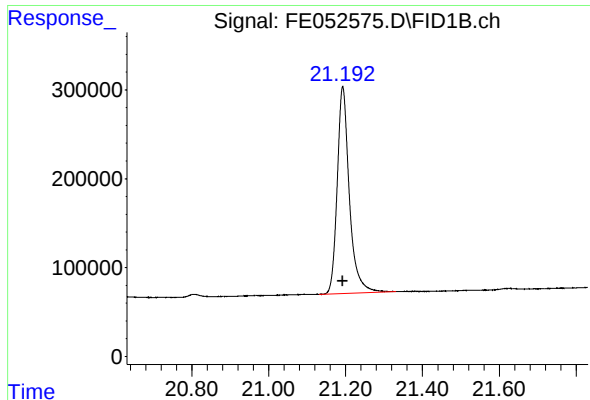
#19 n-Tetratriacontane (C34)

R.T.: 19.709 min
Delta R.T.: 0.000 min
Response: 5988221
Conc: 48.22 ug/ml



#20 n-Hexatriacontane (C36)

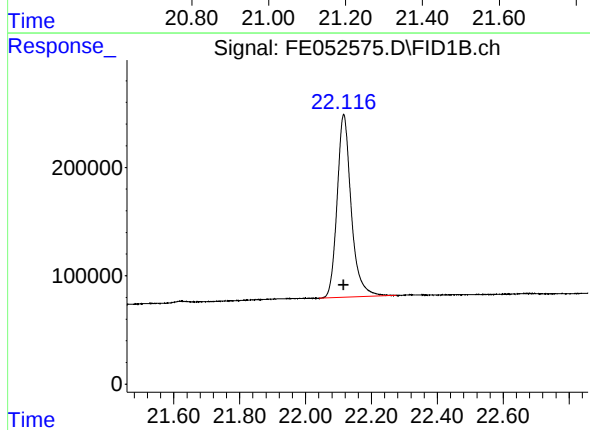
R.T.: 20.451 min
Delta R.T.: 0.000 min
Response: 5353171
Conc: 48.28 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.193 min
Delta R.T.: 0.000 min
Response: 5101404
Conc: 48.57 ug/ml

Instrument :
FID_E
ClientSampleId :
50 PPM ALIPHATIC HC STD2



#22 n-Tetracontane (C40)

R.T.: 22.116 min
Delta R.T.: 0.000 min
Response: 5019598
Conc: 48.80 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052575.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 11:34
Sample : 50 PPM ALIPHATIC HC STD2
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.254	3.221	3.318	BB	720805	7262625	90.74%	4.938%
2	4.517	4.471	4.584	BB	725655	7350604	91.84%	4.998%
3	6.230	6.188	6.324	BB	812229	8003588	100.00%	5.442%
4	6.698	6.654	6.761	BB	705384	7295684	91.16%	4.961%
5	7.333	7.288	7.438	PB	756176	7667442	95.80%	5.214%
6	8.535	8.418	8.598	BB	657816	7087970	88.56%	4.820%
7	10.150	10.108	10.218	BB	647411	7163759	89.51%	4.871%
8	11.599	11.561	11.664	BB	599043	7114585	88.89%	4.838%
9	11.915	11.864	11.981	BB	717321	7890446	98.59%	5.365%
10	12.913	12.871	12.978	BB	565753	6790047	84.84%	4.617%
11	13.358	13.318	13.448	BB	458678	5721300	71.48%	3.890%
12	13.527	13.484	13.594	BB	530789	6654465	83.14%	4.525%
13	14.115	14.078	14.174	VB	526625	6651959	83.11%	4.523%
14	15.221	15.141	15.291	BB	504373	6697431	83.68%	4.554%
15	16.246	16.081	16.314	BB	495717	6641490	82.98%	4.516%
16	17.198	17.121	17.271	BB	483594	6557098	81.93%	4.459%
17	18.088	18.021	18.181	BB	469897	6637939	82.94%	4.514%
18	18.923	18.871	19.024	BB	409189	6417064	80.18%	4.363%
19	19.709	19.651	19.814	BB	357009	5988221	74.82%	4.072%
20	20.451	20.401	20.544	BV	293191	5353171	66.88%	3.640%
21	21.193	21.131	21.331	BB	232996	5101404	63.74%	3.469%
22	22.116	22.041	22.274	BV	168917	5019598	62.72%	3.413%
Sum of corrected areas:						147067888		

Aliphatic EPH 030325.M Tue Mar 04 04:14:28 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
 Data File : FE052576.D
 Signal(s) : FID1B.ch
 Acq On : 03 Mar 2025 12:04
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD3
 Misc :
 ALS Vial : 13 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
 Quant Time: Mar 03 12:32:58 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 12:32:42 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.910	3456693	20.000 ug/ml
Spiked Amount 50.000		Recovery =	40.00%
12) S 1-chlorooctadecane (S...	13.355	2487317	20.000 ug/ml
Spiked Amount 50.000		Recovery =	40.00%
Target Compounds			
1) T n-Nonane (C9)	3.253	3177459	20.000 ug/ml
2) T n-Decane (C10)	4.514	3222867	20.000 ug/ml
3) T A~Naphthalene (C11.7)	6.228	3490467	20.000 ug/ml
4) T n-Dodecane (C12)	6.696	3197479	20.000 ug/ml
5) T A~2-methylnaphthalene...	7.330	3336499	20.000 ug/ml
6) T n-Tetradecane (C14)	8.531	3109866	20.000 ug/ml
7) T n-Hexadecane (C16)	10.146	3140454	20.000 ug/ml
8) T n-Octadecane (C18)	11.595	3118030	20.000 ug/ml
10) T n-Eicosane (C20)	12.909	2974997	20.000 ug/ml
11) T n-Heneicosane (C21)	13.523	2917184	20.000 ug/ml
13) T n-Docosane (C22)	14.111	2918322	20.000 ug/ml
14) T n-Tetracosane (C24)	15.217	2924292	20.000 ug/ml
15) T n-Hexacosane (C26)	16.242	2899563	20.000 ug/ml
16) T n-Octacosane (C28)	17.194	2897161	20.000 ug/ml
17) T n-Tricontane (C30)	18.085	2992644	20.000 ug/ml
18) T n-Dotriacontane (C32)	18.920	2947304	20.000 ug/ml
19) T n-Tetratriacontane (C34)	19.706	2747820	20.000 ug/ml
20) T n-Hexatriacontane (C36)	20.448	2440276	20.000 ug/ml
21) T n-Octatriacontane (C38)	21.189	2284145	20.000 ug/ml
22) T n-Tetracontane (C40)	22.109	2217832	20.000 ug/ml

(f)=RT Delta > 1/2 Window

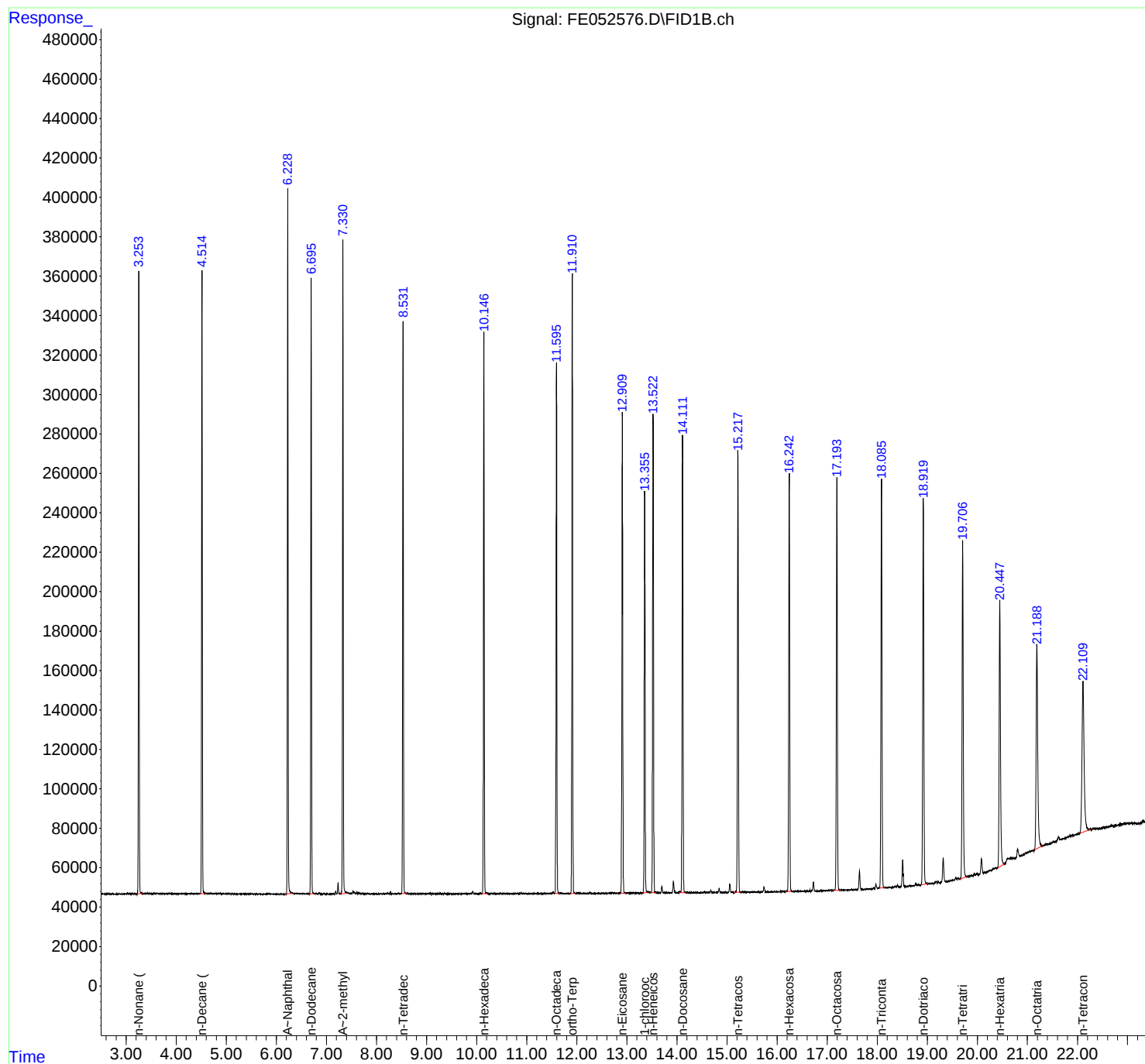
(m)=manual int.

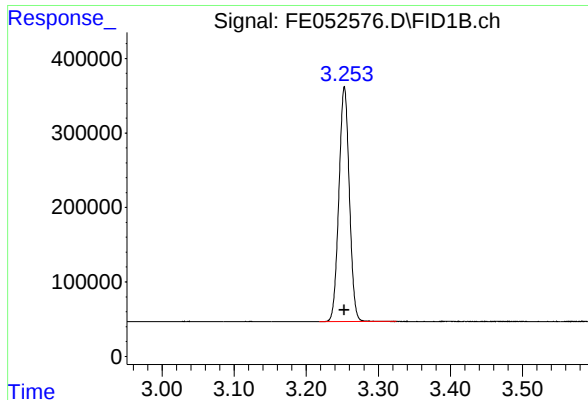
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052576.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 12:04
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3

Integration File: autoint1.e
Quant Time: Mar 03 12:32:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 12:32:42 2025
Response via : Initial Calibration
Integrator: ChemStation

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

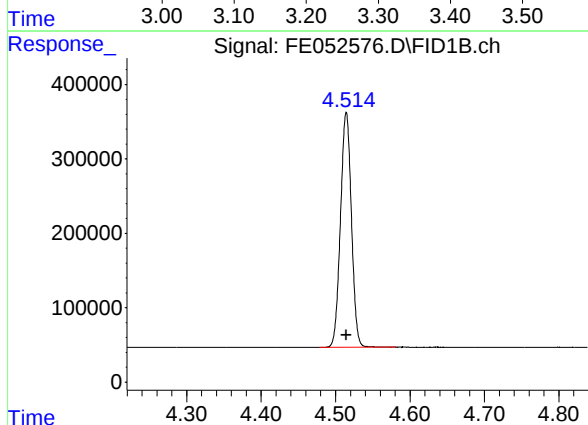




#1 n-Nonane (C9)

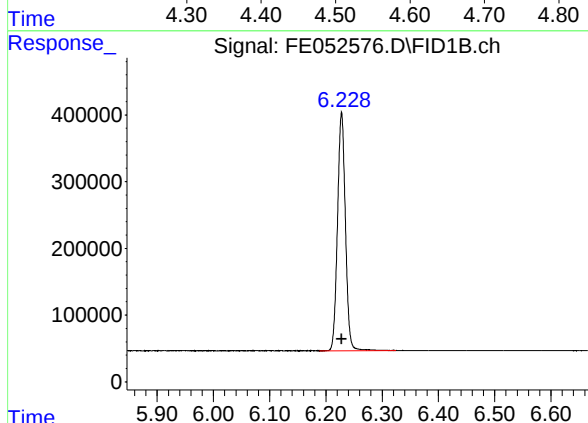
R.T.: 3.253 min
Delta R.T.: 0.000 min
Response: 3177459
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



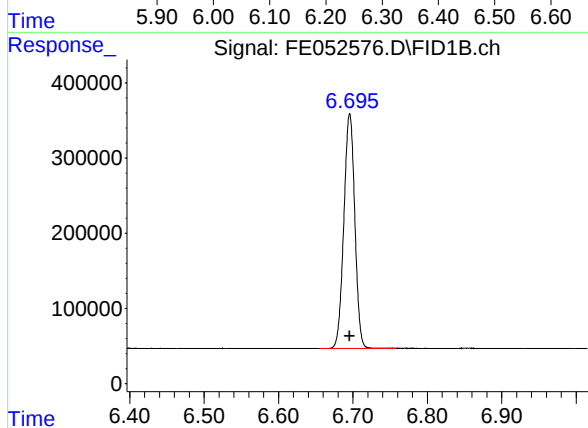
#2 n-Decane (C10)

R.T.: 4.514 min
Delta R.T.: 0.000 min
Response: 3222867
Conc: 20.00 ug/ml



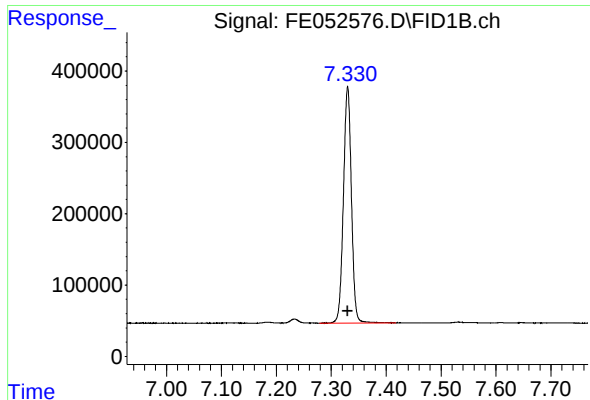
#3 A~Naphthalene (C11.7)

R.T.: 6.228 min
Delta R.T.: 0.000 min
Response: 3490467
Conc: 20.00 ug/ml



#4 n-Dodecane (C12)

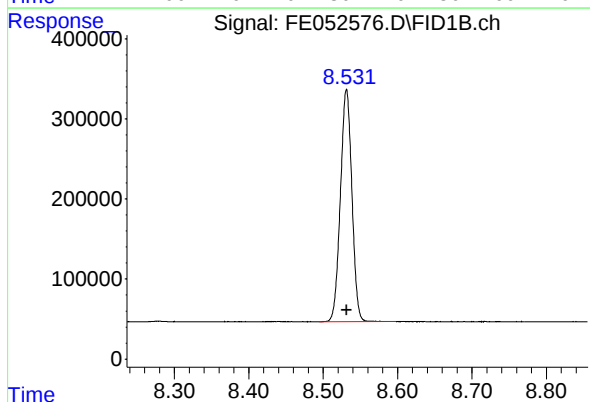
R.T.: 6.696 min
Delta R.T.: 0.000 min
Response: 3197479
Conc: 20.00 ug/ml



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

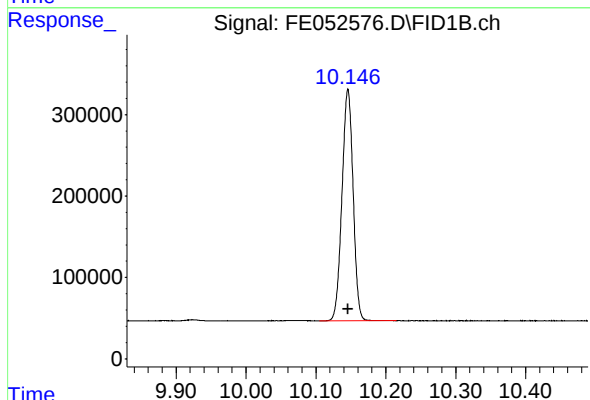
R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 3336499
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



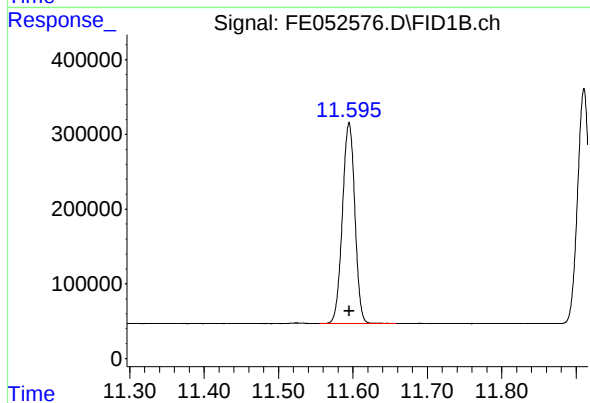
#6 n-Tetradecane (C14)

R.T.: 8.531 min
Delta R.T.: 0.000 min
Response: 3109866
Conc: 20.00 ug/ml



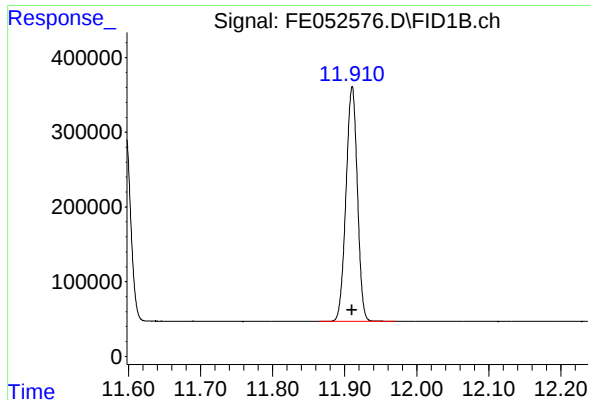
#7 n-Hexadecane (C16)

R.T.: 10.146 min
Delta R.T.: 0.000 min
Response: 3140454
Conc: 20.00 ug/ml



#8 n-Octadecane (C18)

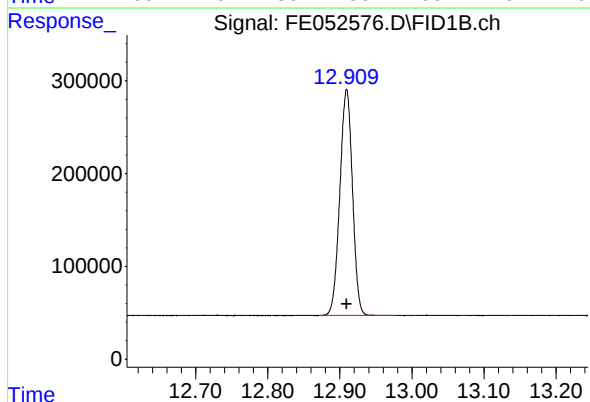
R.T.: 11.595 min
Delta R.T.: 0.000 min
Response: 3118030
Conc: 20.00 ug/ml



#9 ortho-Terphenyl (SURR)

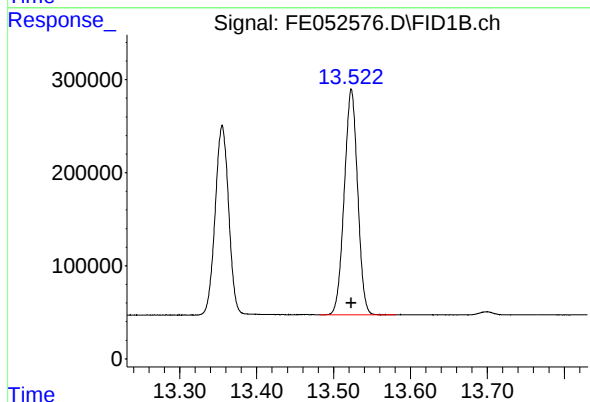
R.T.: 11.910 min
Delta R.T.: 0.000 min
Response: 3456693
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



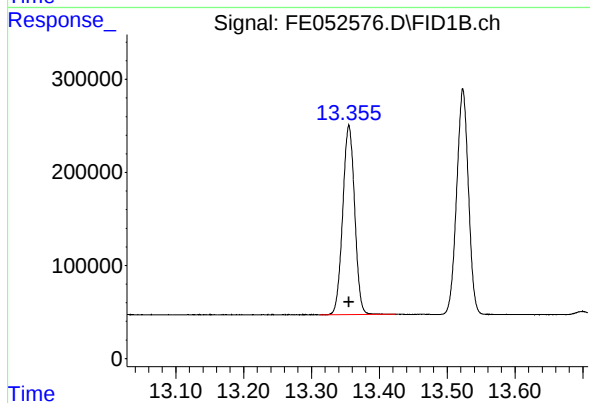
#10 n-Eicosane (C20)

R.T.: 12.909 min
Delta R.T.: 0.000 min
Response: 2974997
Conc: 20.00 ug/ml



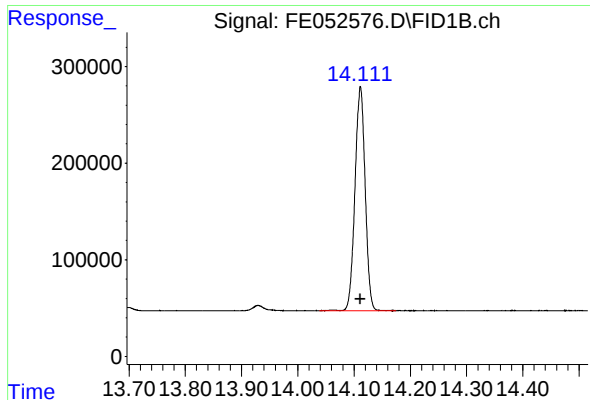
#11 n-Heneicosane (C21)

R.T.: 13.523 min
Delta R.T.: 0.000 min
Response: 2917184
Conc: 20.00 ug/ml



#12 1-chlorooctadecane (SURR)

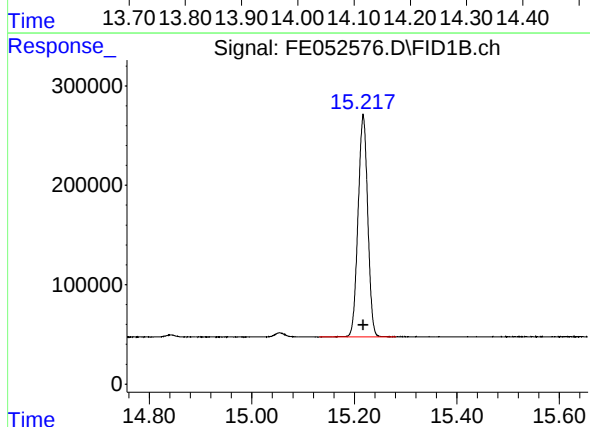
R.T.: 13.355 min
Delta R.T.: 0.000 min
Response: 2487317
Conc: 20.00 ug/ml



#13 n-Docosane (C22)

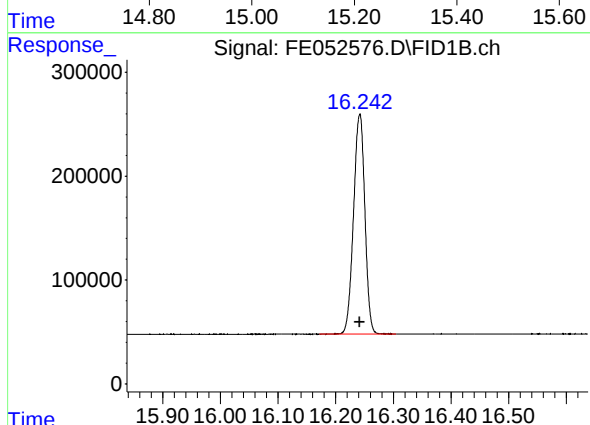
R.T.: 14.111 min
Delta R.T.: 0.000 min
Response: 2918322
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



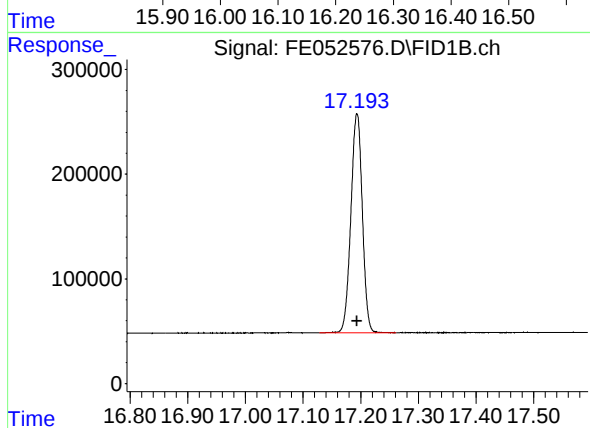
#14 n-Tetracosane (C24)

R.T.: 15.217 min
Delta R.T.: 0.000 min
Response: 2924292
Conc: 20.00 ug/ml



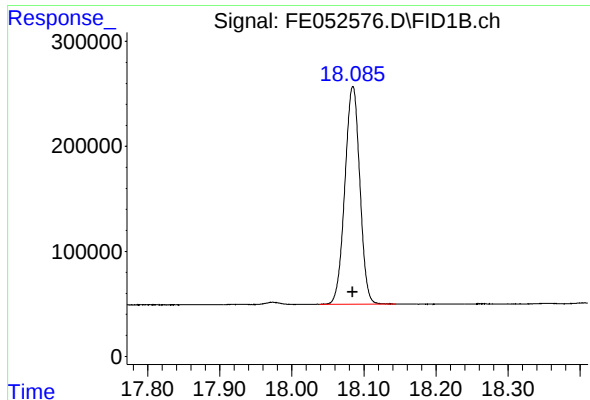
#15 n-Hexacosane (C26)

R.T.: 16.242 min
Delta R.T.: 0.000 min
Response: 2899563
Conc: 20.00 ug/ml



#16 n-Octacosane (C28)

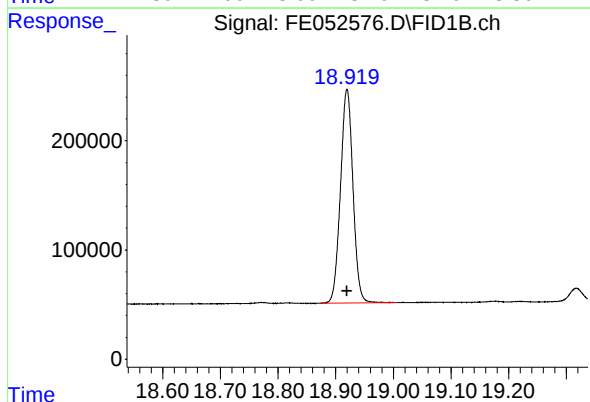
R.T.: 17.194 min
Delta R.T.: 0.000 min
Response: 2897161
Conc: 20.00 ug/ml



#17 n-Tricontane (C30)

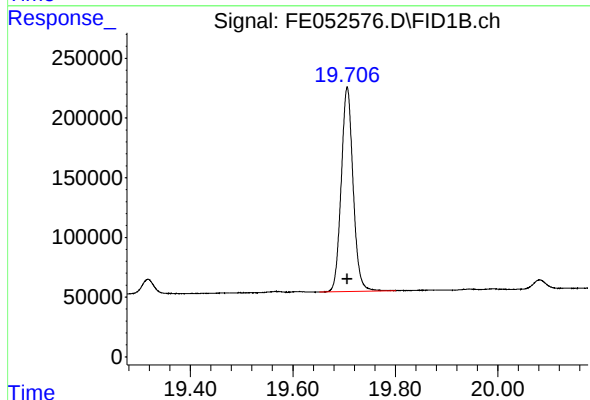
R.T.: 18.085 min
Delta R.T.: 0.000 min
Response: 2992644
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



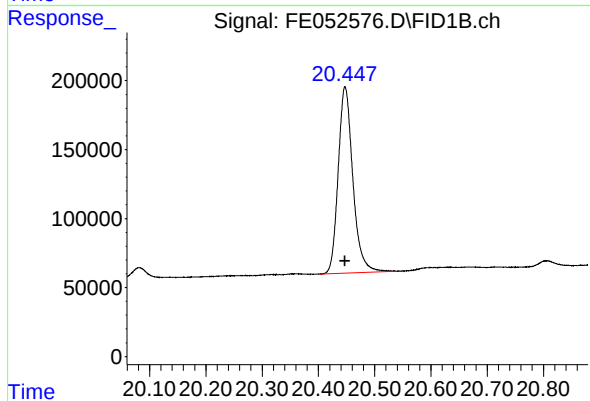
#18 n-Dotriacontane (C32)

R.T.: 18.920 min
Delta R.T.: 0.000 min
Response: 2947304
Conc: 20.00 ug/ml



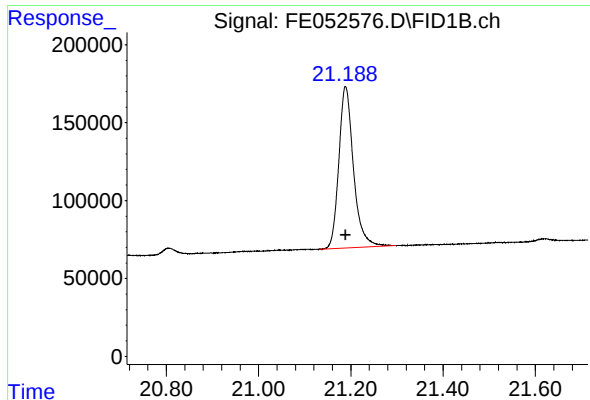
#19 n-Tetatriacontane (C34)

R.T.: 19.706 min
Delta R.T.: 0.000 min
Response: 2747820
Conc: 20.00 ug/ml



#20 n-Hexatriacontane (C36)

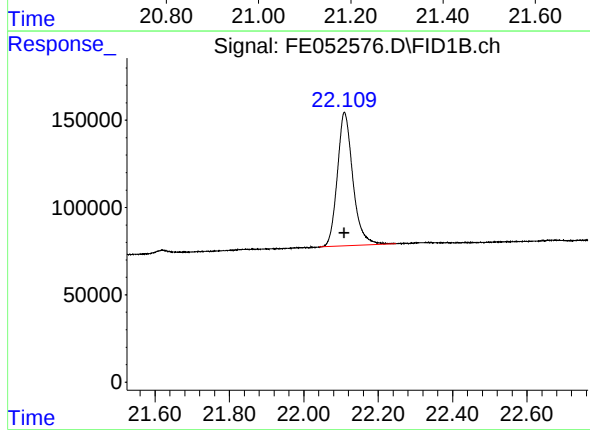
R.T.: 20.448 min
Delta R.T.: 0.000 min
Response: 2440276
Conc: 20.00 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.189 min
Delta R.T.: 0.000 min
Response: 2284145
Conc: 20.00 ug/ml

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD3



#22 n-Tetracontane (C40)

R.T.: 22.109 min
Delta R.T.: 0.000 min
Response: 2217832
Conc: 20.00 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052576.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 12:04
Sample : 20 PPM ALIPHATIC HC STD3
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.253	3.218	3.325	BB	314137	3177459	91.03%	4.896%
2	4.514	4.478	4.581	BB	315822	3222867	92.33%	4.966%
3	6.228	6.188	6.325	BB	355761	3490467	100.00%	5.378%
4	6.696	6.655	6.758	BB	311337	3197479	91.61%	4.927%
5	7.330	7.278	7.418	BB	331214	3336499	95.59%	5.141%
6	8.531	8.495	8.598	BB	289879	3109866	89.10%	4.792%
7	10.146	10.105	10.215	BB	282742	3140454	89.97%	4.839%
8	11.595	11.555	11.658	BB	268071	3118030	89.33%	4.804%
9	11.910	11.865	11.971	BB	315131	3456693	99.03%	5.326%
10	12.909	12.871	12.978	BB	241865	2974997	85.23%	4.584%
11	13.355	13.311	13.425	BB	202368	2487317	71.26%	3.833%
12	13.523	13.481	13.581	BB	241268	2917184	83.58%	4.495%
13	14.111	14.038	14.175	BB	232061	2918322	83.61%	4.497%
14	15.217	15.131	15.281	BB	222983	2924292	83.78%	4.506%
15	16.242	16.171	16.305	BB	211679	2899563	83.07%	4.468%
16	17.194	17.128	17.261	BB	210130	2897161	83.00%	4.464%
17	18.085	18.038	18.145	BB	207605	2992644	85.74%	4.611%
18	18.920	18.871	19.005	BB	195997	2947304	84.44%	4.541%
19	19.706	19.651	19.801	BB	170743	2747820	78.72%	4.234%
20	20.448	20.401	20.538	BV	134980	2440276	69.91%	3.760%
21	21.189	21.131	21.298	BB	103725	2284145	65.44%	3.520%
22	22.109	22.041	22.248	BB	76593	2217832	63.54%	3.417%
Sum of corrected areas:							64898671	

Aliphatic EPH 030325.M Tue Mar 04 04:15:00 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
 Data File : FE052577.D
 Signal(s) : FID1B.ch
 Acq On : 03 Mar 2025 12:34
 Operator : YP\AJ
 Sample : 10 PPM ALIPHATIC HC STD4
 Misc :
 ALS Vial : 14 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 10 PPM ALIPHATIC HC STD4

Integration File: autoint1.e
 Quant Time: Mar 03 12:57:53 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 12:57:44 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.909	1779109	10.765 ug/ml
Spiked Amount 50.000		Recovery =	21.53%
12) S 1-chlorooctadecane (S...	13.354	1275538	10.683 ug/ml
Spiked Amount 50.000		Recovery =	21.37%
Target Compounds			
1) T n-Nonane (C9)	3.253	1633896	10.746 ug/ml
2) T n-Decane (C10)	4.514	1652277	10.732 ug/ml
3) T A~Naphthalene (C11.7)	6.228	1784418	10.682 ug/ml
4) T n-Dodecane (C12)	6.695	1640160	10.736 ug/ml
5) T A~2-methylnaphthalene...	7.330	1702988	10.657 ug/ml
6) T n-Tetradecane (C14)	8.531	1594378	10.737 ug/ml
7) T n-Hexadecane (C16)	10.145	1610203	10.737 ug/ml
8) T n-Octadecane (C18)	11.594	1601994	10.753 ug/ml
10) T n-Eicosane (C20)	12.909	1536447	10.794 ug/ml
11) T n-Heneicosane (C21)	13.522	1502197	10.771 ug/ml
13) T n-Docosane (C22)	14.111	1511879	10.835 ug/ml
14) T n-Tetracosane (C24)	15.218	1545839	10.994 ug/ml
15) T n-Hexacosane (C26)	16.242	1542744	11.054 ug/ml
16) T n-Octacosane (C28)	17.194	1547735	11.154 ug/ml
17) T n-Tricontane (C30)	18.083	1607077	11.294 ug/ml
18) T n-Dotriacontane (C32)	18.918	1583504	11.380 ug/ml
19) T n-Tetratriacontane (C34)	19.705	1456233	11.241 ug/ml
20) T n-Hexatriacontane (C36)	20.447	1283640	11.138 ug/ml
21) T n-Octatriacontane (C38)	21.188	1168118	10.818 ug/ml
22) T n-Tetracontane (C40)	22.109	1142101	10.805 ug/ml

(f)=RT Delta > 1/2 Window

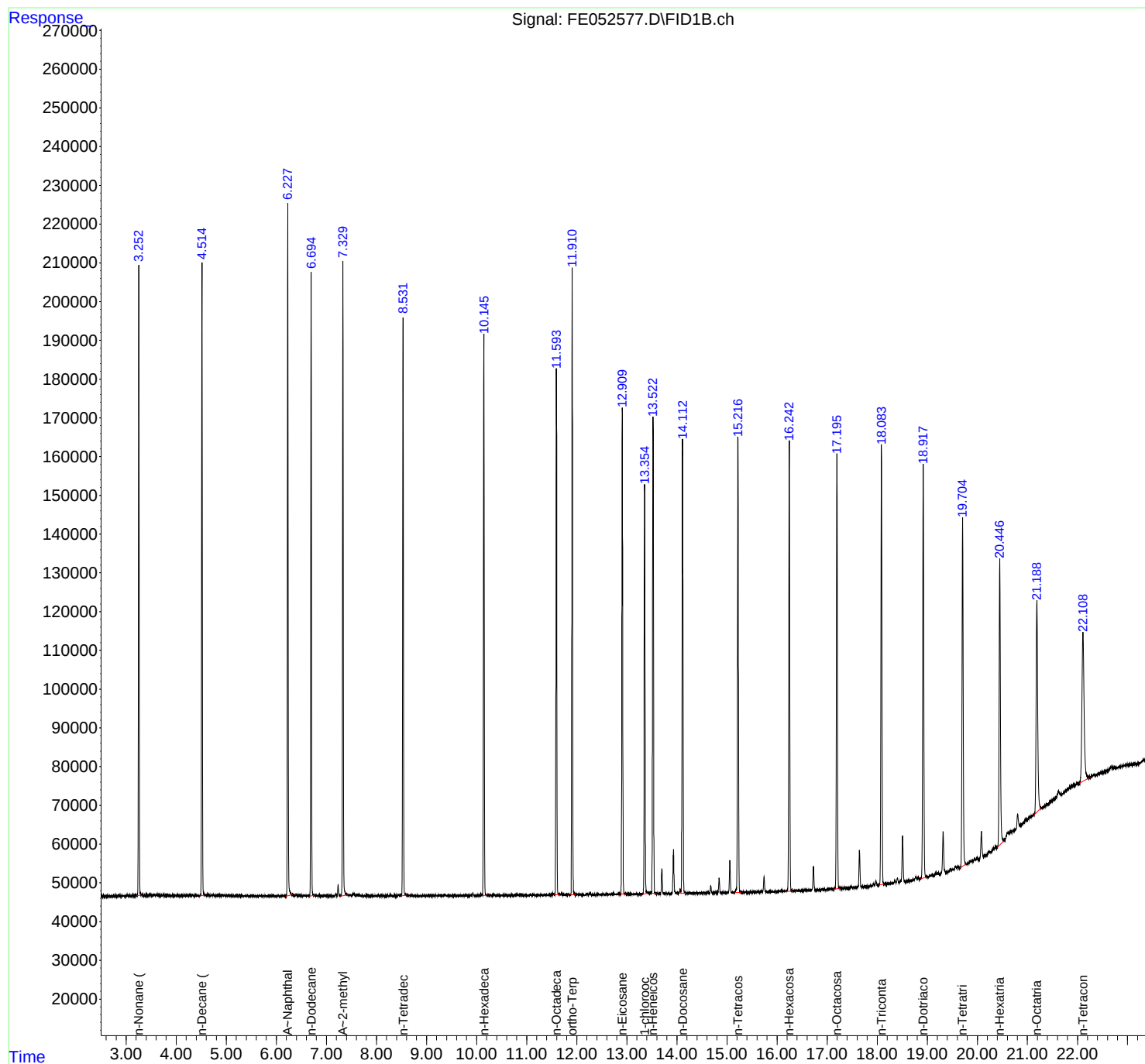
(m)=manual int.

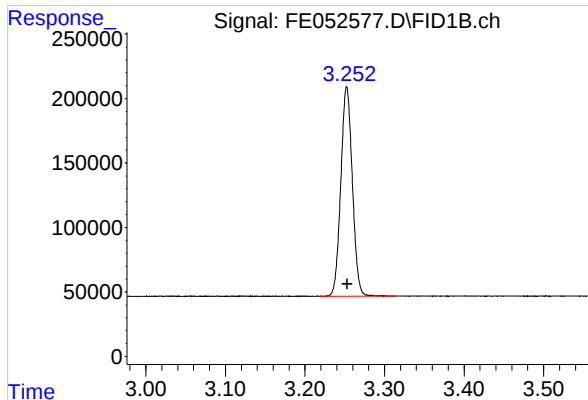
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052577.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 12:34
Operator : YP\AJ
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4

Integration File: autoint1.e
Quant Time: Mar 03 12:57:53 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 12:57:44 2025
Response via : Initial Calibration
Integrator: ChemStation

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

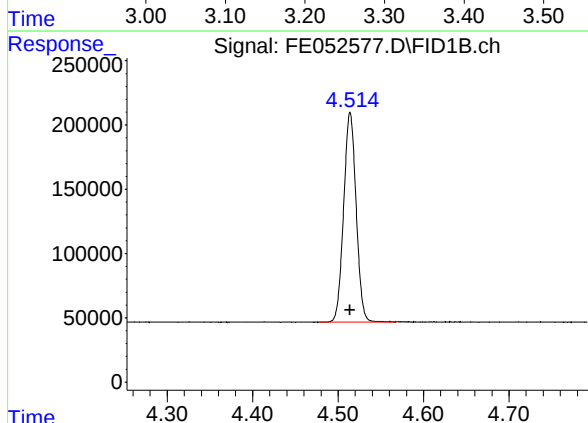




#1 n-Nonane (C9)

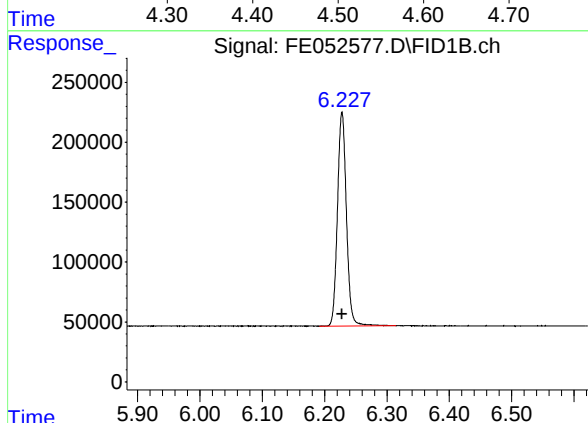
R.T.: 3.253 min
Delta R.T.: 0.000 min
Response: 1633896
Conc: 10.75 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4



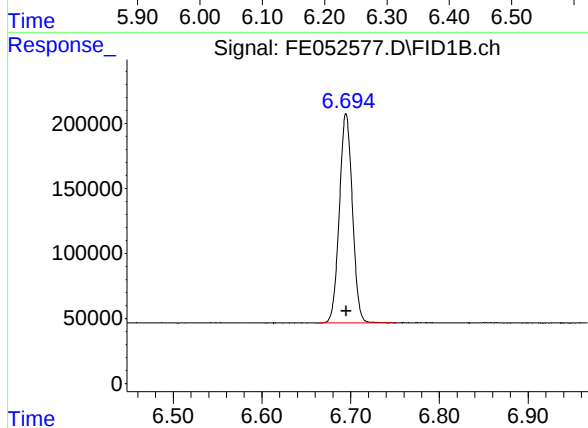
#2 n-Decane (C10)

R.T.: 4.514 min
Delta R.T.: 0.000 min
Response: 1652277
Conc: 10.73 ug/ml



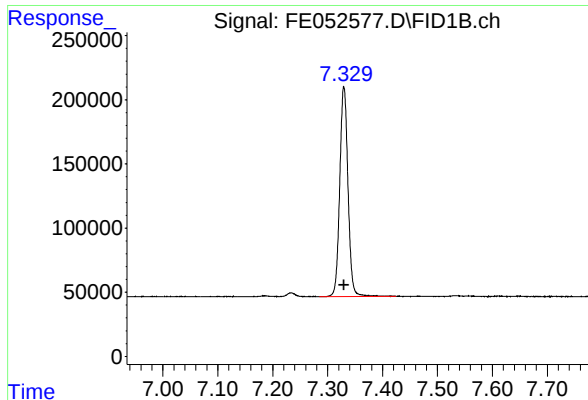
#3 A~Naphthalene (C11.7)

R.T.: 6.228 min
Delta R.T.: 0.000 min
Response: 1784418
Conc: 10.68 ug/ml



#4 n-Dodecane (C12)

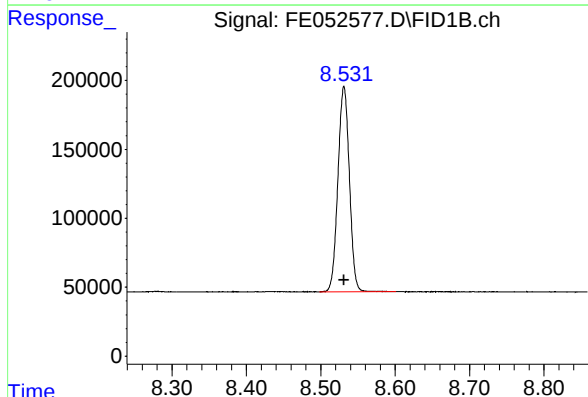
R.T.: 6.695 min
Delta R.T.: 0.000 min
Response: 1640160
Conc: 10.74 ug/ml



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

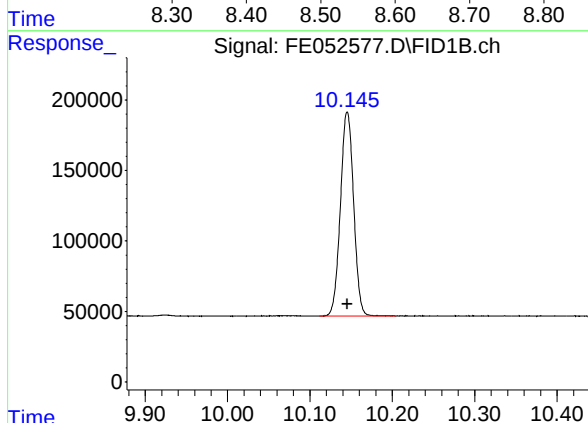
R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 1702988
Conc: 10.66 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4



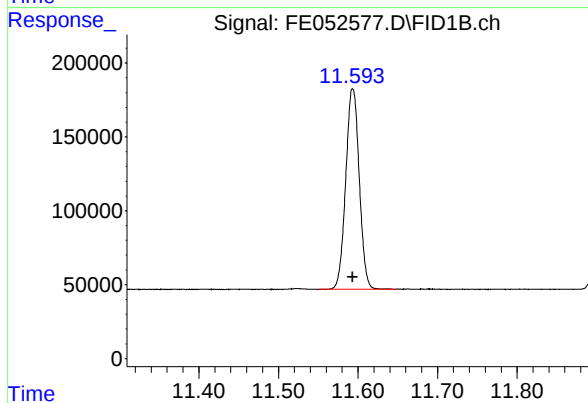
#6 n-Tetradecane (C14)

R.T.: 8.531 min
Delta R.T.: 0.000 min
Response: 1594378
Conc: 10.74 ug/ml



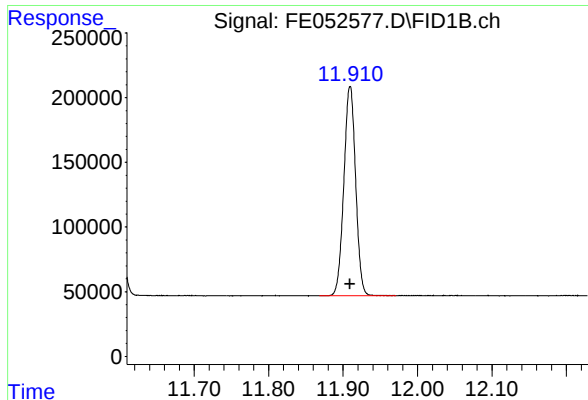
#7 n-Hexadecane (C16)

R.T.: 10.145 min
Delta R.T.: 0.000 min
Response: 1610203
Conc: 10.74 ug/ml



#8 n-Octadecane (C18)

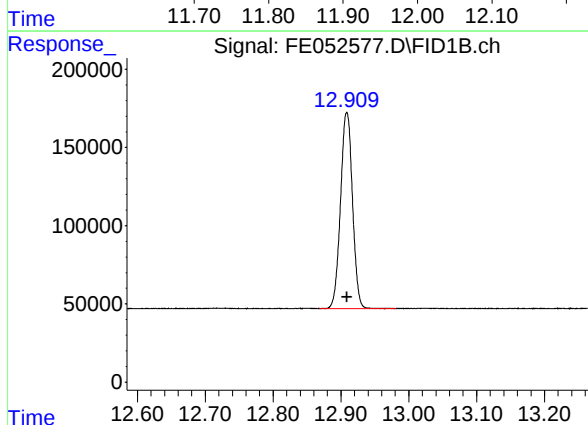
R.T.: 11.594 min
Delta R.T.: 0.000 min
Response: 1601994
Conc: 10.75 ug/ml



#9 ortho-Terphenyl (SURR)

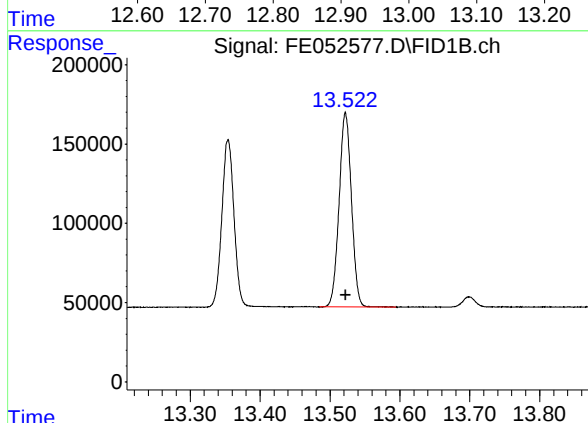
R.T.: 11.909 min
Delta R.T.: 0.000 min
Response: 1779109
Conc: 10.77 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4



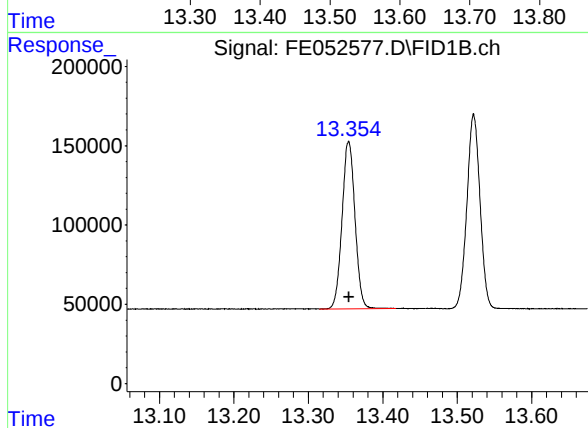
#10 n-Eicosane (C20)

R.T.: 12.909 min
Delta R.T.: 0.000 min
Response: 1536447
Conc: 10.79 ug/ml



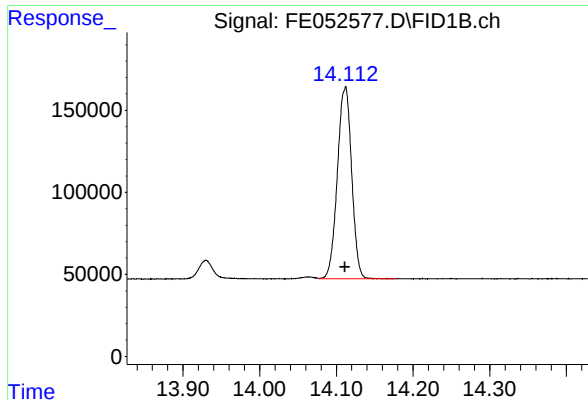
#11 n-Heneicosane (C21)

R.T.: 13.522 min
Delta R.T.: 0.000 min
Response: 1502197
Conc: 10.77 ug/ml



#12 1-chlorooctadecane (SURR)

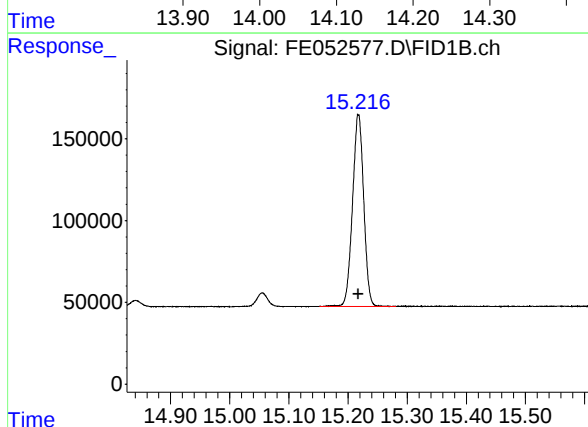
R.T.: 13.354 min
Delta R.T.: 0.000 min
Response: 1275538
Conc: 10.68 ug/ml



#13 n-Docosane (C22)

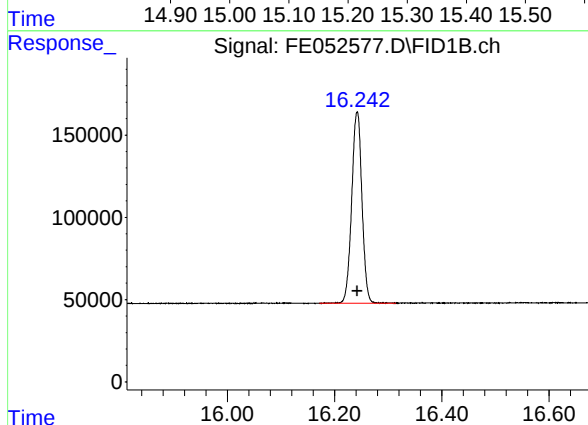
R.T.: 14.111 min
Delta R.T.: 0.000 min
Response: 1511879
Conc: 10.84 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4



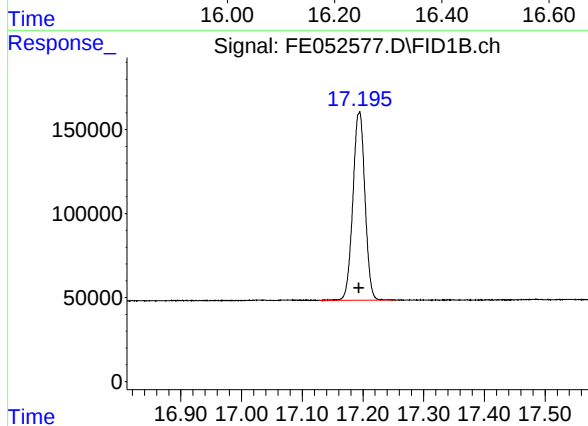
#14 n-Tetracosane (C24)

R.T.: 15.218 min
Delta R.T.: 0.000 min
Response: 1545839
Conc: 10.99 ug/ml



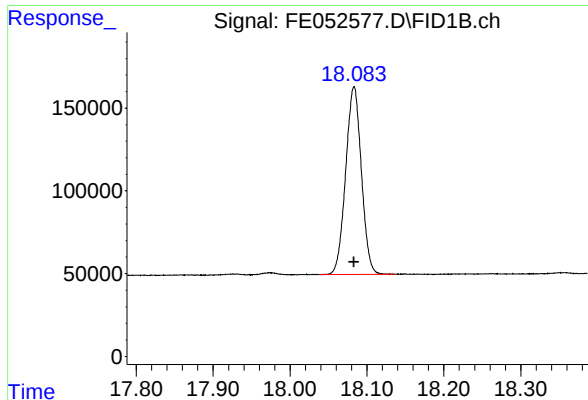
#15 n-Hexacosane (C26)

R.T.: 16.242 min
Delta R.T.: 0.000 min
Response: 1542744
Conc: 11.05 ug/ml



#16 n-Octacosane (C28)

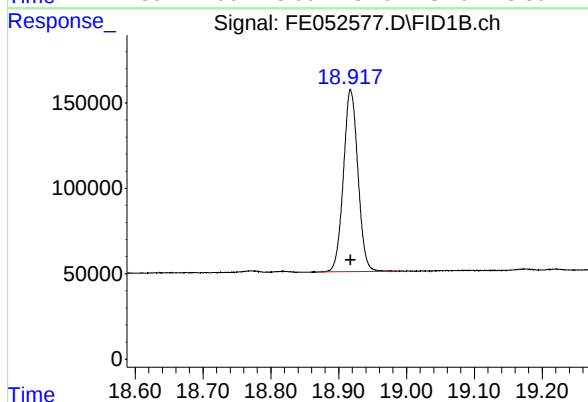
R.T.: 17.194 min
Delta R.T.: 0.000 min
Response: 1547735
Conc: 11.15 ug/ml



#17 n-Tricontane (C30)

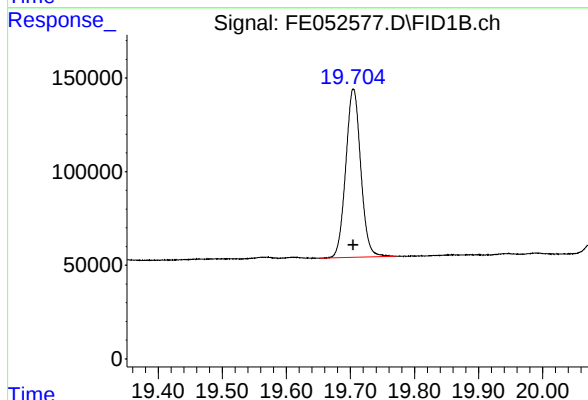
R.T.: 18.083 min
Delta R.T.: 0.000 min
Response: 1607077
Conc: 11.29 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4



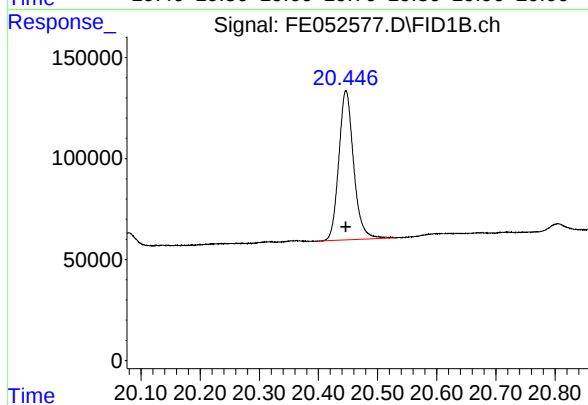
#18 n-Dotriacontane (C32)

R.T.: 18.918 min
Delta R.T.: 0.000 min
Response: 1583504
Conc: 11.38 ug/ml



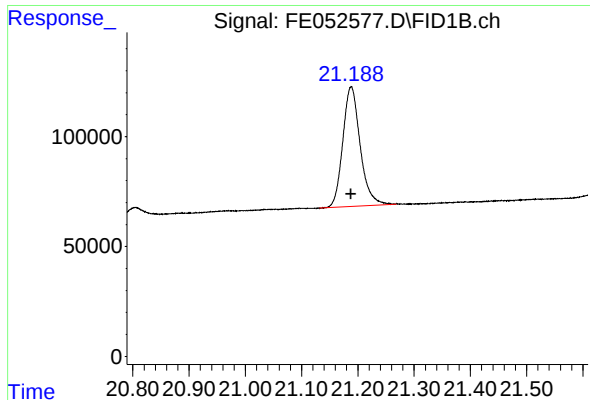
#19 n-Tetatriacontane (C34)

R.T.: 19.705 min
Delta R.T.: 0.000 min
Response: 1456233
Conc: 11.24 ug/ml



#20 n-Hexatriacontane (C36)

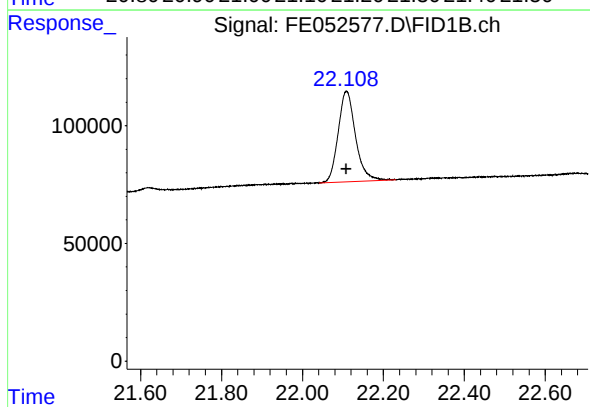
R.T.: 20.447 min
Delta R.T.: 0.000 min
Response: 1283640
Conc: 11.14 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.188 min
Delta R.T.: 0.000 min
Response: 1168118
Conc: 10.82 ug/ml

Instrument :
FID_E
ClientSampleId :
10 PPM ALIPHATIC HC STD4



#22 n-Tetracontane (C40)

R.T.: 22.109 min
Delta R.T.: 0.000 min
Response: 1142101
Conc: 10.81 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052577.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 12:34
Sample : 10 PPM ALIPHATIC HC STD4
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.253	3.218	3.314	BB	161729	1633896	91.56%	4.848%
2	4.514	4.478	4.568	BB	162683	1652277	92.59%	4.903%
3	6.228	6.191	6.314	BB	178423	1784418	100.00%	5.295%
4	6.695	6.664	6.751	BB	160841	1640160	91.92%	4.867%
5	7.330	7.284	7.424	BB	162983	1702988	95.44%	5.053%
6	8.531	8.498	8.601	BB	148819	1594378	89.35%	4.731%
7	10.145	10.111	10.204	BB	145207	1610203	90.24%	4.778%
8	11.594	11.551	11.648	BB	135761	1601994	89.78%	4.753%
9	11.909	11.868	11.971	BB	162025	1779109	99.70%	5.279%
10	12.909	12.868	12.981	BB	125833	1536447	86.10%	4.559%
11	13.354	13.314	13.418	BB	105376	1275538	71.48%	3.785%
12	13.522	13.484	13.594	BB	122287	1502197	84.18%	4.457%
13	14.111	14.078	14.178	VB	116146	1511879	84.73%	4.486%
14	15.218	15.151	15.281	BB	117810	1545839	86.63%	4.587%
15	16.242	16.171	16.314	BB	116219	1542744	86.46%	4.578%
16	17.194	17.128	17.254	BB	112172	1547735	86.74%	4.592%
17	18.083	18.038	18.138	BB	113962	1607077	90.06%	4.768%
18	18.918	18.871	18.984	BB	106365	1583504	88.74%	4.698%
19	19.705	19.651	19.771	BB	90061	1456233	81.61%	4.321%
20	20.447	20.401	20.531	BB	73836	1283640	71.94%	3.809%
21	21.188	21.131	21.268	BB	54530	1168118	65.46%	3.466%
22	22.109	22.041	22.231	BB	38465	1142101	64.00%	3.389%
Sum of corrected areas:							33702476	

Aliphatic EPH 030325.M Tue Mar 04 04:15:29 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
 Data File : FE052578.D
 Signal(s) : FID1B.ch
 Acq On : 03 Mar 2025 13:04
 Operator : YP\AJ
 Sample : 5 PPM ALIPHATIC HC STD5
 Misc :
 ALS Vial : 15 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 5 PPM ALIPHATIC HC STD5

Integration File: autoint1.e
 Quant Time: Mar 03 13:38:46 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 13:37:33 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.909	909430	5.394 ug/ml
Spiked Amount 50.000		Recovery =	10.79%
12) S 1-chlorooctadecane (S...	13.354	647768	5.335 ug/ml
Spiked Amount 50.000		Recovery =	10.67%
Target Compounds			
1) T n-Nonane (C9)	3.252	835200	5.387 ug/ml
2) T n-Decane (C10)	4.514	848233	5.399 ug/ml
3) T A~Naphthalene (C11.7)	6.228	898827	5.300 ug/ml
4) T n-Dodecane (C12)	6.695	837084	5.376 ug/ml
5) T A~2-methylnaphthalene...	7.330	855434	5.279 ug/ml
6) T n-Tetradecane (C14)	8.531	812990	5.373 ug/ml
7) T n-Hexadecane (C16)	10.145	822877	5.382 ug/ml
8) T n-Octadecane (C18)	11.593	823940	5.416 ug/ml
10) T n-Eicosane (C20)	12.908	782621	5.391 ug/ml
11) T n-Heneicosane (C21)	13.522	768847	5.402 ug/ml
13) T n-Docosane (C22)	14.110	767013	5.390 ug/ml
14) T n-Tetracosane (C24)	15.216	765651	5.350 ug/ml
15) T n-Hexacosane (C26)	16.241	763577	5.370 ug/ml
16) T n-Octacosane (C28)	17.192	779784	5.484 ug/ml
17) T n-Tricontane (C30)	18.083	846559	5.732 ug/ml
18) T n-Dotriacontane (C32)	18.917	846558	5.831 ug/ml
19) T n-Tetratriacontane (C34)	19.703	778580	5.777 ug/ml
20) T n-Hexatriacontane (C36)	20.445	665672	5.602 ug/ml
21) T n-Octatriacontane (C38)	21.185	613739	5.532 ug/ml
22) T n-Tetracontane (C40)	22.104	588940	5.447 ug/ml

(f)=RT Delta > 1/2 Window

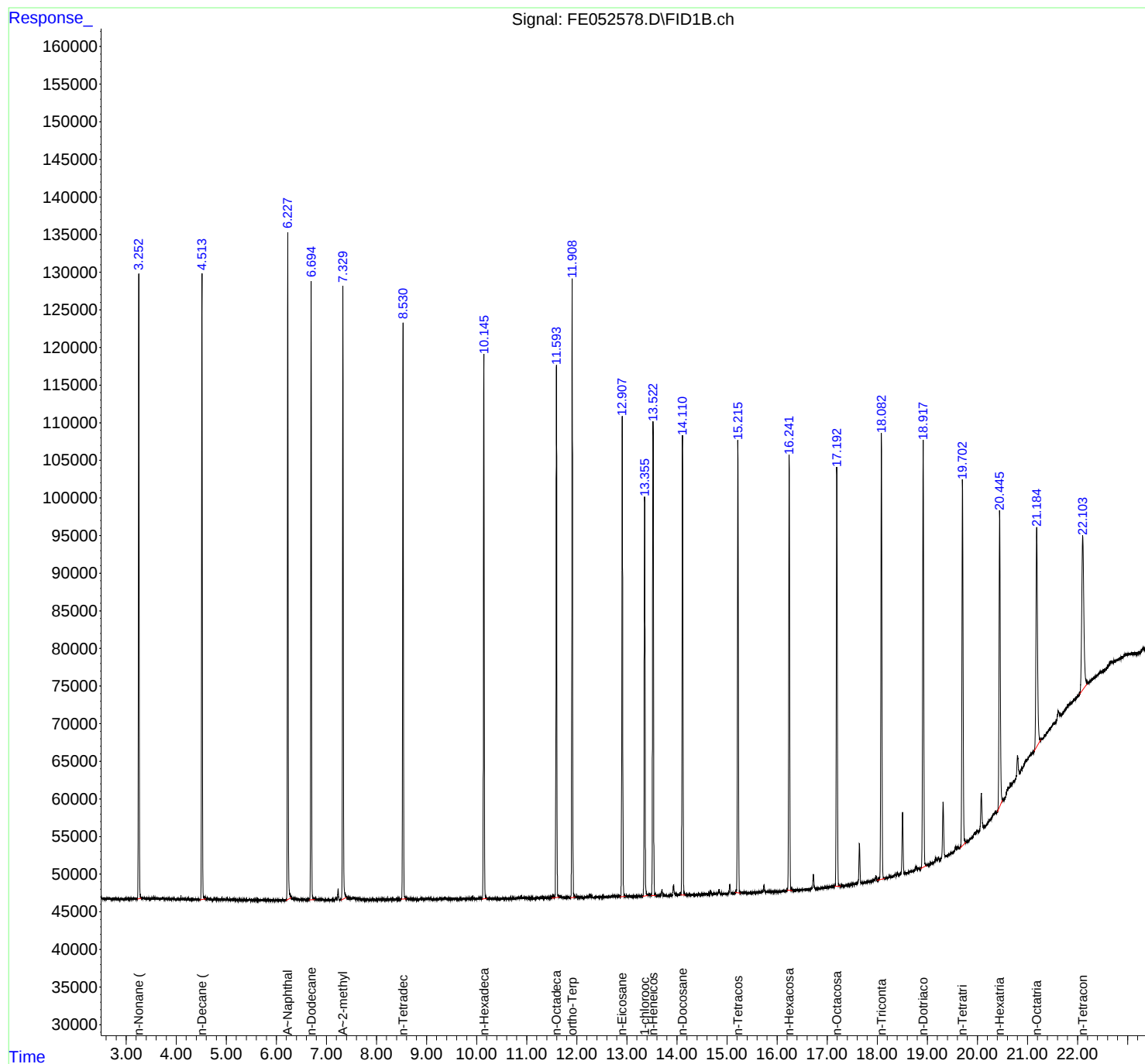
(m)=manual int.

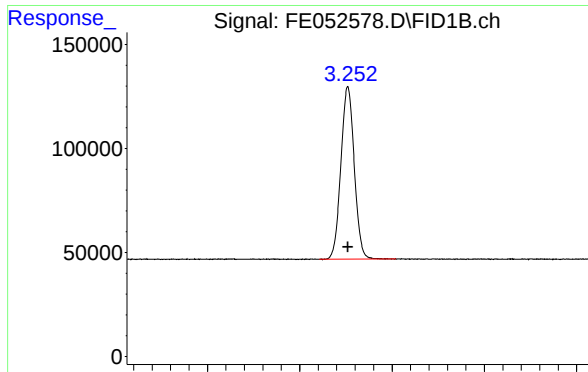
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052578.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 13:04
Operator : YP\AJ
Sample : 5 PPM ALIPHATIC HC STD5
Misc :
ALS Vial : 15 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5

Integration File: autoint1.e
Quant Time: Mar 03 13:38:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:37:33 2025
Response via : Initial Calibration
Integrator: ChemStation

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

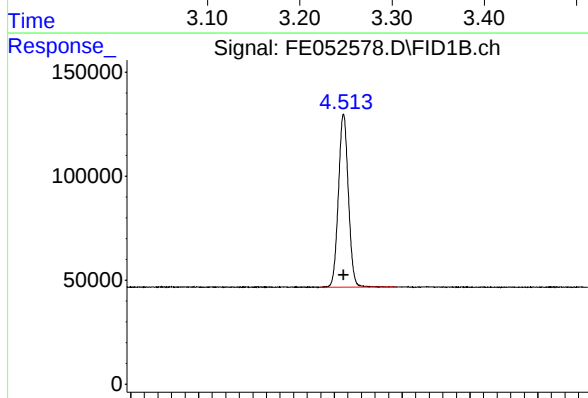




#1 n-Nonane (C9)

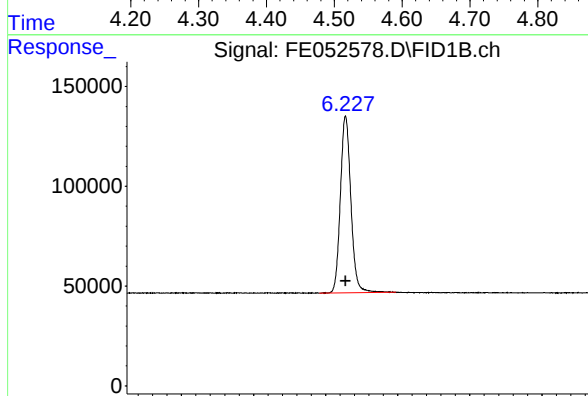
R.T.: 3.252 min
Delta R.T.: 0.000 min
Response: 835200
Conc: 5.39 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5



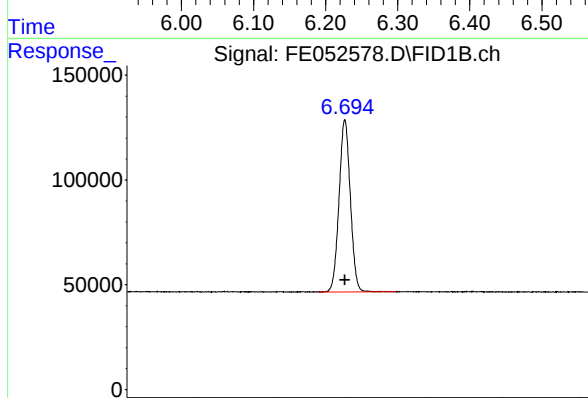
#2 n-Decane (C10)

R.T.: 4.514 min
Delta R.T.: 0.000 min
Response: 848233
Conc: 5.40 ug/ml



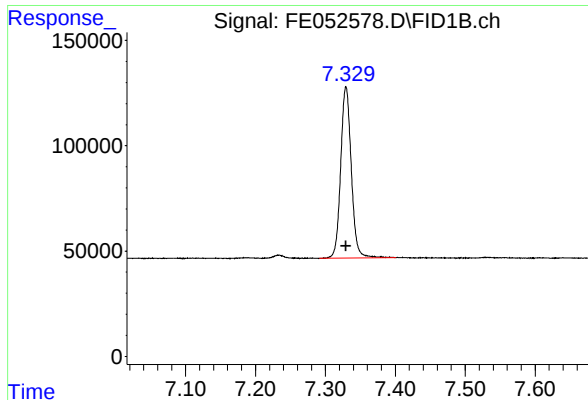
#3 A~Naphthalene (C11.7)

R.T.: 6.228 min
Delta R.T.: 0.000 min
Response: 898827
Conc: 5.30 ug/ml



#4 n-Dodecane (C12)

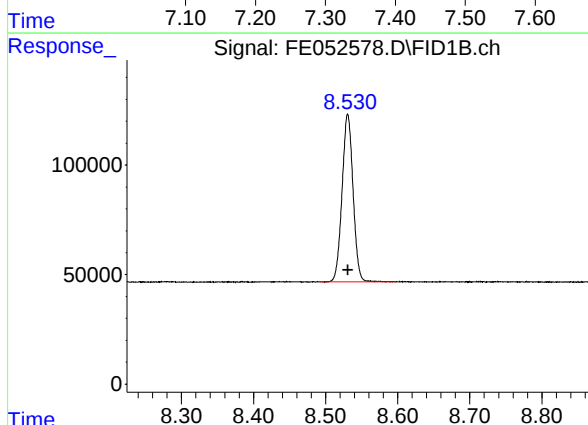
R.T.: 6.695 min
Delta R.T.: 0.000 min
Response: 837084
Conc: 5.38 ug/ml



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

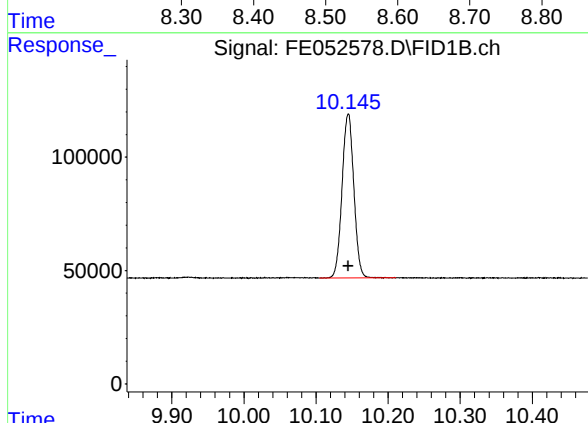
R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 855434
Conc: 5.28 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5



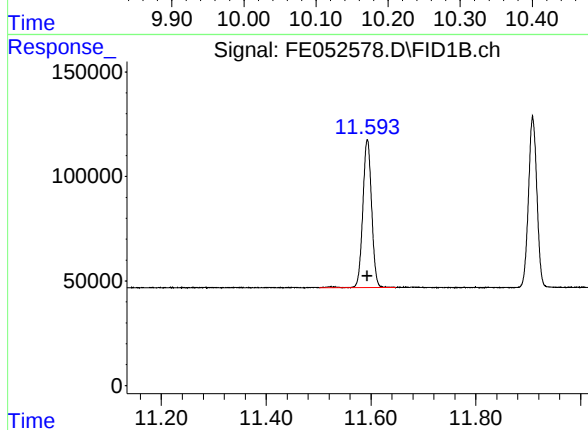
#6 n-Tetradecane (C14)

R.T.: 8.531 min
Delta R.T.: 0.000 min
Response: 812990
Conc: 5.37 ug/ml



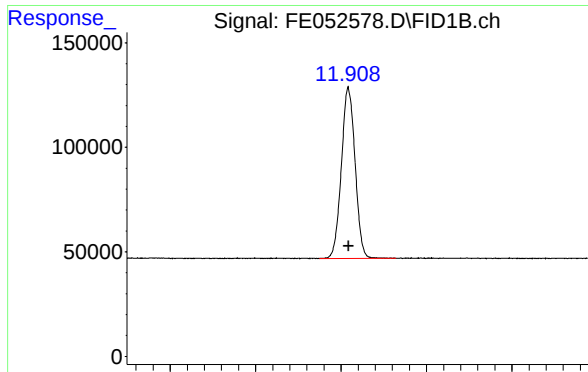
#7 n-Hexadecane (C16)

R.T.: 10.145 min
Delta R.T.: 0.000 min
Response: 822877
Conc: 5.38 ug/ml



#8 n-Octadecane (C18)

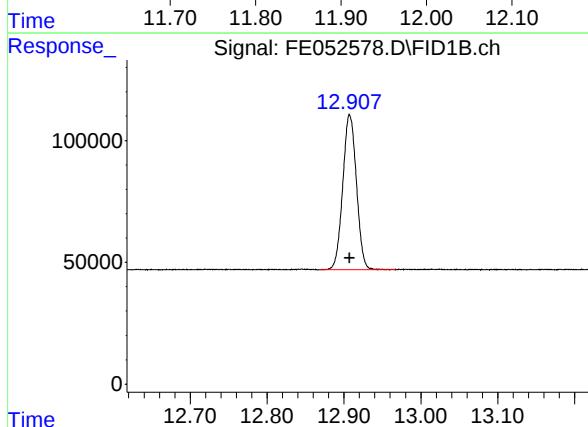
R.T.: 11.593 min
Delta R.T.: 0.000 min
Response: 823940
Conc: 5.42 ug/ml



#9 ortho-Terphenyl (SURR)

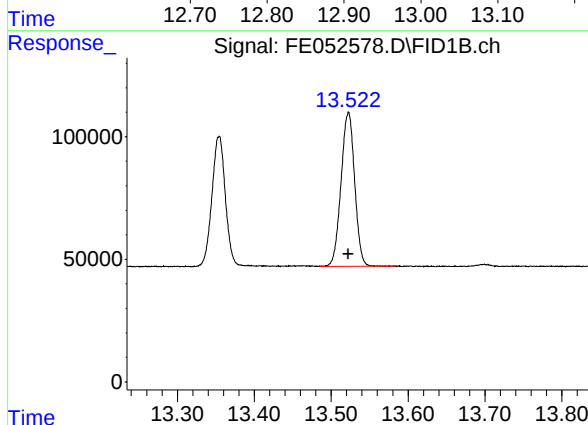
R.T.: 11.909 min
Delta R.T.: 0.000 min
Response: 909430
Conc: 5.39 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5



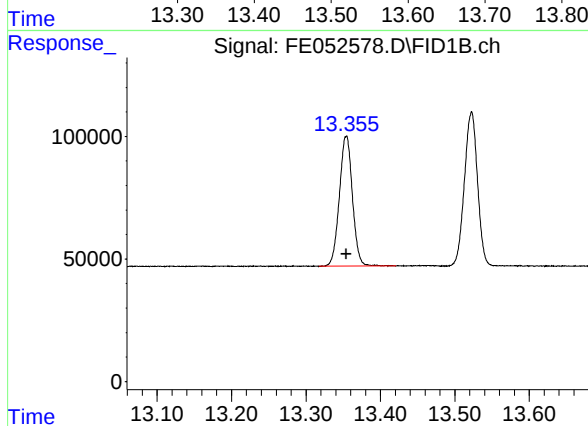
#10 n-Eicosane (C20)

R.T.: 12.908 min
Delta R.T.: 0.000 min
Response: 782621
Conc: 5.39 ug/ml



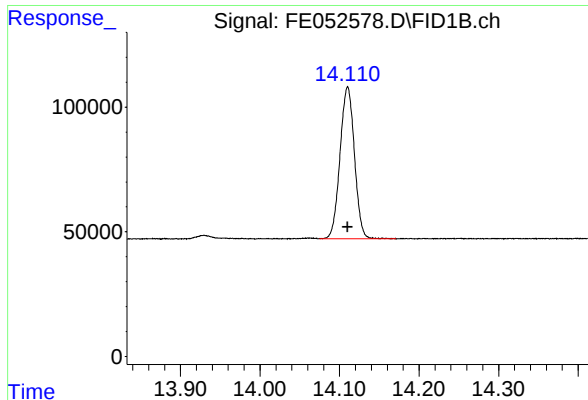
#11 n-Heneicosane (C21)

R.T.: 13.522 min
Delta R.T.: 0.000 min
Response: 768847
Conc: 5.40 ug/ml



#12 1-chlorooctadecane (SURR)

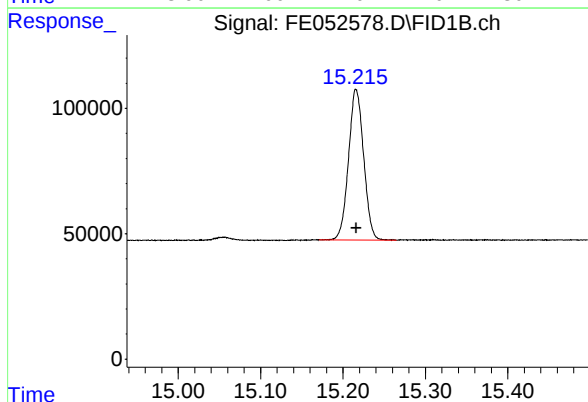
R.T.: 13.354 min
Delta R.T.: 0.000 min
Response: 647768
Conc: 5.33 ug/ml



#13 n-Docosane (C22)

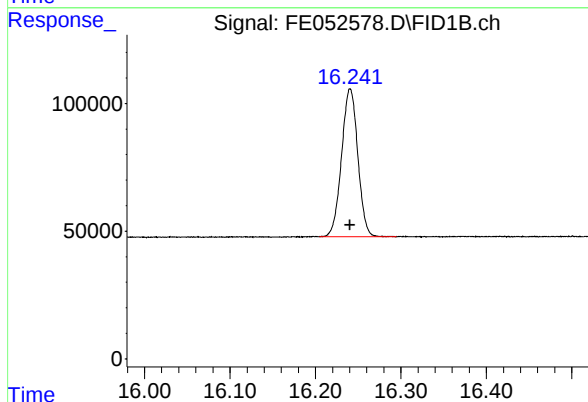
R.T.: 14.110 min
Delta R.T.: 0.000 min
Response: 767013
Conc: 5.39 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5



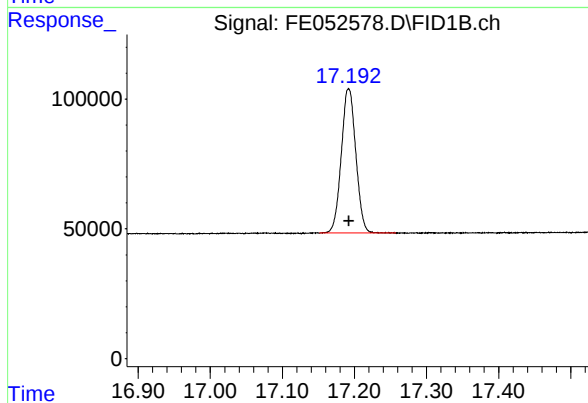
#14 n-Tetracosane (C24)

R.T.: 15.216 min
Delta R.T.: 0.000 min
Response: 765651
Conc: 5.35 ug/ml



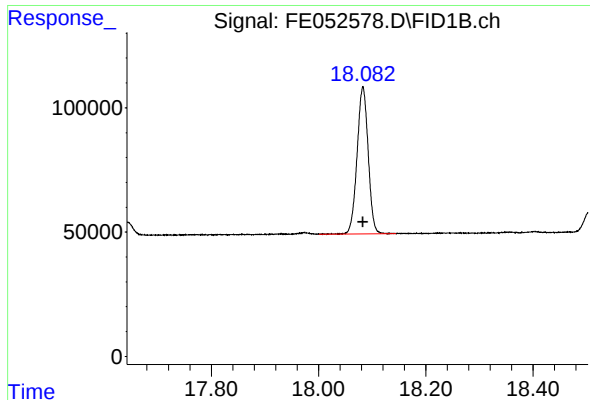
#15 n-Hexacosane (C26)

R.T.: 16.241 min
Delta R.T.: 0.000 min
Response: 763577
Conc: 5.37 ug/ml



#16 n-Octacosane (C28)

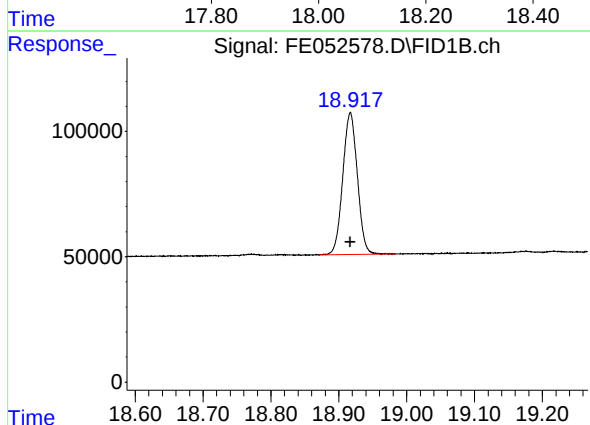
R.T.: 17.192 min
Delta R.T.: 0.000 min
Response: 779784
Conc: 5.48 ug/ml



#17 n-Tricontane (C30)

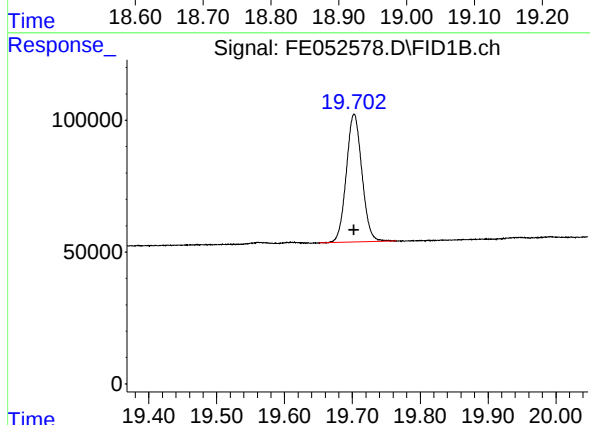
R.T.: 18.083 min
Delta R.T.: 0.000 min
Response: 846559
Conc: 5.73 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5



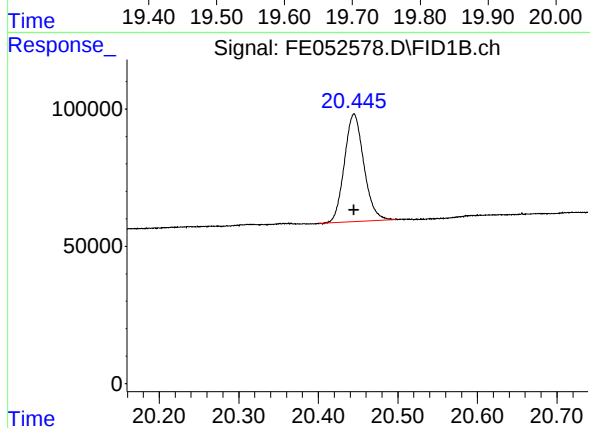
#18 n-Dotriacontane (C32)

R.T.: 18.917 min
Delta R.T.: 0.000 min
Response: 846558
Conc: 5.83 ug/ml



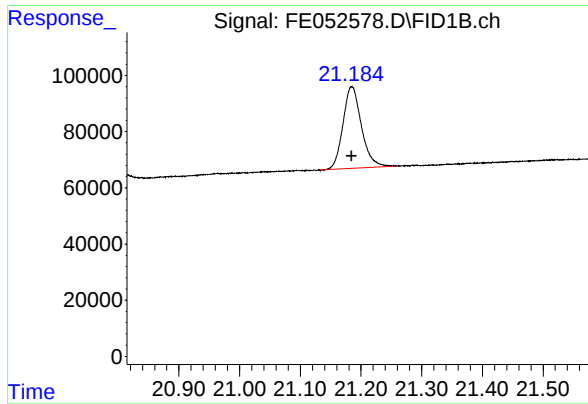
#19 n-Tetratriacontane (C34)

R.T.: 19.703 min
Delta R.T.: 0.000 min
Response: 778580
Conc: 5.78 ug/ml



#20 n-Hexatriacontane (C36)

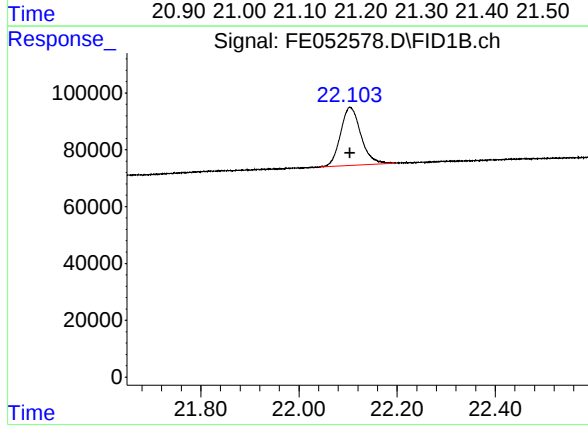
R.T.: 20.445 min
Delta R.T.: 0.000 min
Response: 665672
Conc: 5.60 ug/ml



#21 n-Octatriacontane (C38)

R.T.: 21.185 min
Delta R.T.: 0.000 min
Response: 613739
Conc: 5.53 ug/ml

Instrument :
FID_E
ClientSampleId :
5 PPM ALIPHATIC HC STD5



#22 n-Tetracontane (C40)

R.T.: 22.104 min
Delta R.T.: 0.000 min
Response: 588940
Conc: 5.45 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
 Data File : FE052578.D
 Signal(s) : FID1B.ch
 Acq On : 03 Mar 2025 13:04
 Sample : 5 PPM ALIPHATIC HC STD5
 Misc :
 ALS Vial : 15 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.252	3.221	3.304	BB	82567	835200	91.84%	4.839%
2	4.514	4.478	4.591	BB	83234	848233	93.27%	4.915%
3	6.228	6.191	6.298	BB	88505	898827	98.83%	5.208%
4	6.695	6.661	6.761	BB	82093	837084	92.04%	4.850%
5	7.330	7.291	7.401	BB	81098	855434	94.06%	4.956%
6	8.531	8.491	8.598	BB	76461	812990	89.40%	4.710%
7	10.145	10.104	10.211	BB	72313	822877	90.48%	4.768%
8	11.593	11.501	11.648	BB	70861	823940	90.60%	4.774%
9	11.909	11.874	11.964	BB	81463	909430	100.00%	5.269%
10	12.908	12.868	12.968	BB	63441	782621	86.06%	4.534%
11	13.354	13.318	13.421	BB	53208	647768	71.23%	3.753%
12	13.522	13.484	13.584	BB	62420	768847	84.54%	4.455%
13	14.110	14.074	14.171	BB	61042	767013	84.34%	4.444%
14	15.216	15.171	15.264	BB	59393	765651	84.19%	4.436%
15	16.241	16.204	16.294	BB	57980	763577	83.96%	4.424%
16	17.192	17.151	17.258	BB	55884	779784	85.74%	4.518%
17	18.083	18.001	18.144	BB	58718	846559	93.09%	4.905%
18	18.917	18.871	18.984	BB	56748	846558	93.09%	4.905%
19	19.703	19.651	19.764	BB	48522	778580	85.61%	4.511%
20	20.445	20.401	20.498	BB	39239	665672	73.20%	3.857%
21	21.185	21.131	21.258	BB	29081	613739	67.49%	3.556%
22	22.104	22.041	22.198	BB	20470	588940	64.76%	3.412%
Sum of corrected areas:							17259325	

Aliphatic EPH 030325.M Tue Mar 04 04:15:51 2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
 Data File : FE052579.D
 Signal(s) : FID1B.ch
 Acq On : 03 Mar 2025 13:35
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD ICV
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
 Quant Time: Mar 03 14:00:02 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 13:39:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.911	3455691	20.498 ug/ml
Spiked Amount 50.000		Recovery =	41.00%
12) S 1-chlorooctadecane (S...	13.356	2497681	20.570 ug/ml
Spiked Amount 50.000		Recovery =	41.14%
Target Compounds			
1) T n-Nonane (C9)	3.252	3187537	20.558 ug/ml
2) T n-Decane (C10)	4.514	3233718	20.584 ug/ml
3) T A~Naphthalene (C11.7)	6.228	3492595	20.594 ug/ml
4) T n-Dodecane (C12)	6.696	3203904	20.578 ug/ml
5) T A~2-methylnaphthalene...	7.330	3339319	20.606 ug/ml
6) T n-Tetradecane (C14)	8.532	3105696	20.525 ug/ml
7) T n-Hexadecane (C16)	10.147	3133929	20.498 ug/ml
8) T n-Octadecane (C18)	11.595	3112121	20.455 ug/ml
10) T n-Eicosane (C20)	12.910	2971006	20.465 ug/ml
11) T n-Heneicosane (C21)	13.524	2915343	20.483 ug/ml
13) T n-Docosane (C22)	14.111	2909985	20.448 ug/ml
14) T n-Tetracosane (C24)	15.219	2928929	20.466 ug/ml
15) T n-Hexacosane (C26)	16.241	2909458	20.461 ug/ml
16) T n-Octacosane (C28)	17.194	2913880	20.492 ug/ml
17) T n-Tricontane (C30)	18.084	3032387	20.531 ug/ml
18) T n-Dotriacontane (C32)	18.919	2988204	20.583 ug/ml
19) T n-Tetratriacontane (C34)	19.705	2786554	20.675 ug/ml
20) T n-Hexatriacontane (C36)	20.448	2490703	20.961 ug/ml
21) T n-Octatriacontane (C38)	21.189	2317135	20.887 ug/ml
22) T n-Tetracontane (C40)	22.111	2256635	20.872 ug/ml

(f)=RT Delta > 1/2 Window

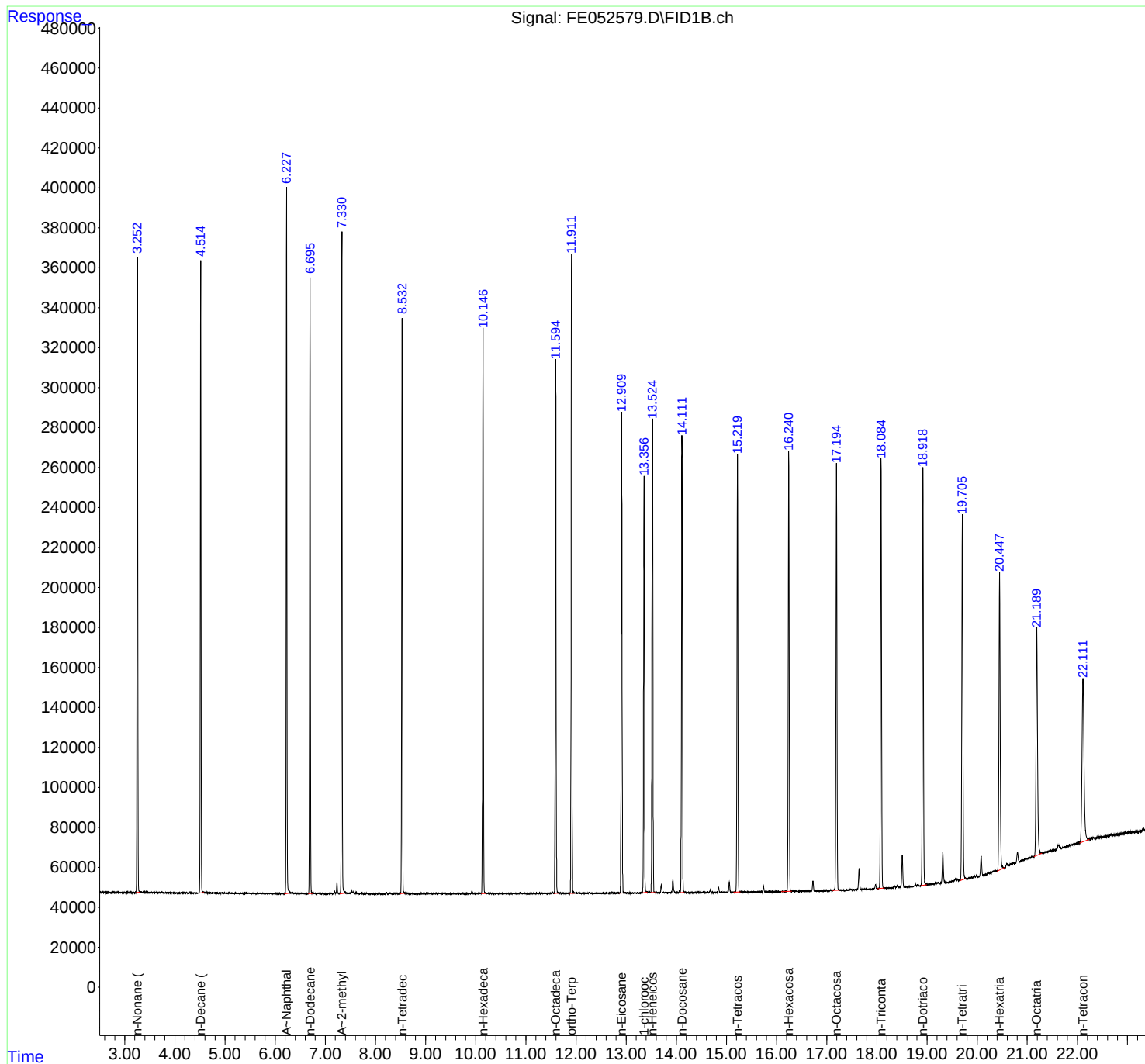
(m)=manual int.

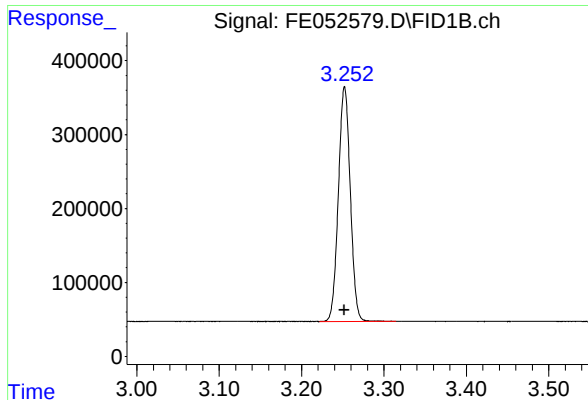
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052579.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 13:35
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD ICV

Integration File: autoint1.e
Quant Time: Mar 03 14:00:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#1 n-Nonane (C9)

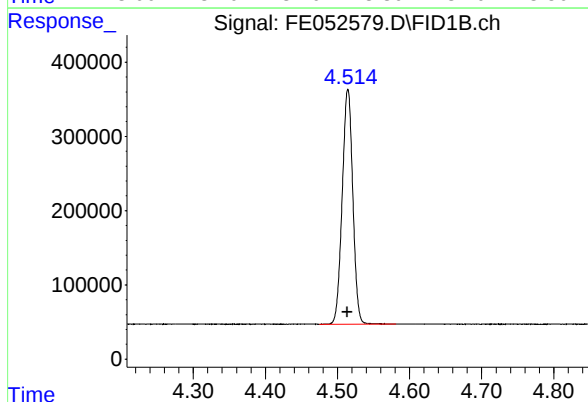
R.T.: 3.252 min
Delta R.T.: 0.000 min
Response: 3187537
Conc: 20.56 ug/ml

Instrument :

FID_E

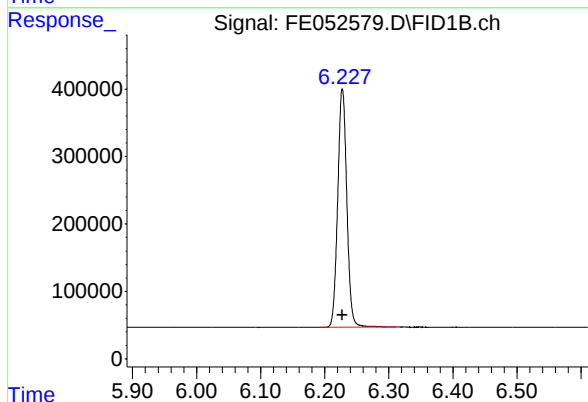
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



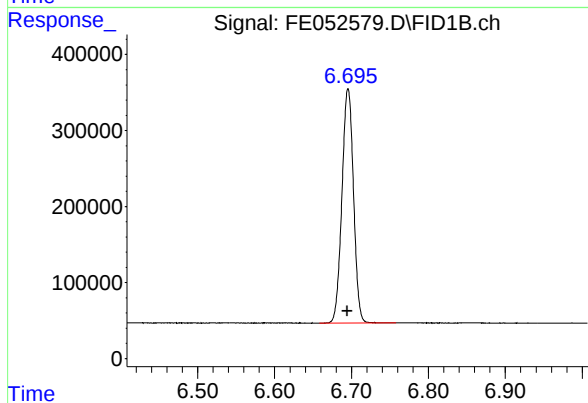
#2 n-Decane (C10)

R.T.: 4.514 min
Delta R.T.: 0.000 min
Response: 3233718
Conc: 20.58 ug/ml



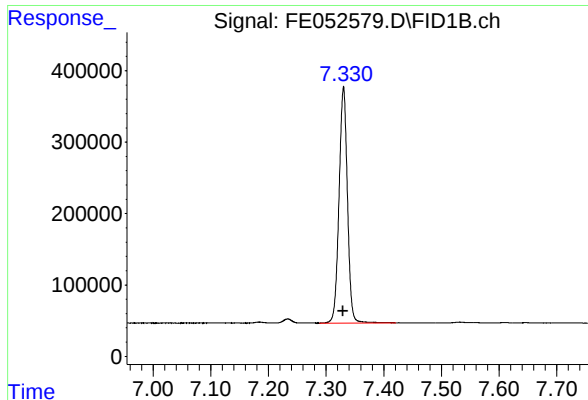
#3 A~Naphthalene (C11.7)

R.T.: 6.228 min
Delta R.T.: 0.000 min
Response: 3492595
Conc: 20.59 ug/ml



#4 n-Dodecane (C12)

R.T.: 6.696 min
Delta R.T.: 0.000 min
Response: 3203904
Conc: 20.58 ug/ml



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

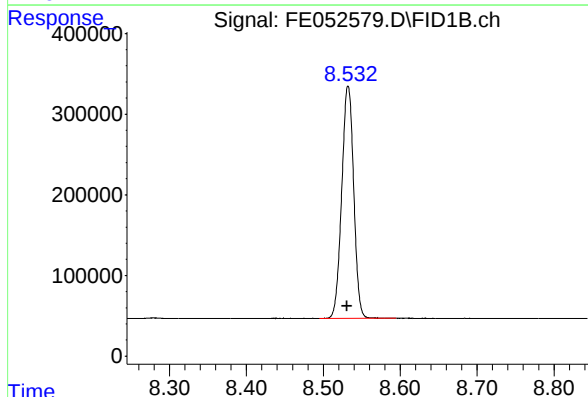
R.T.: 7.330 min
Delta R.T.: 0.000 min
Response: 3339319
Conc: 20.61 ug/ml

Instrument :

FID_E

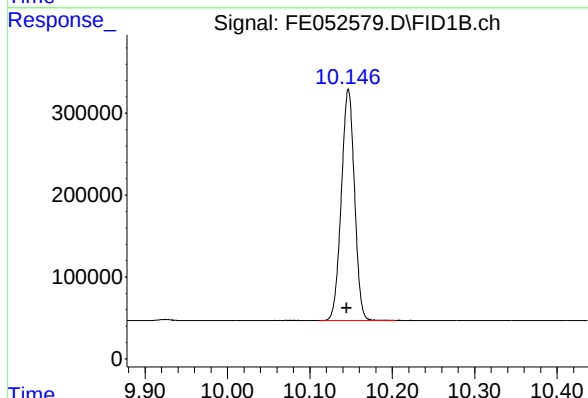
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



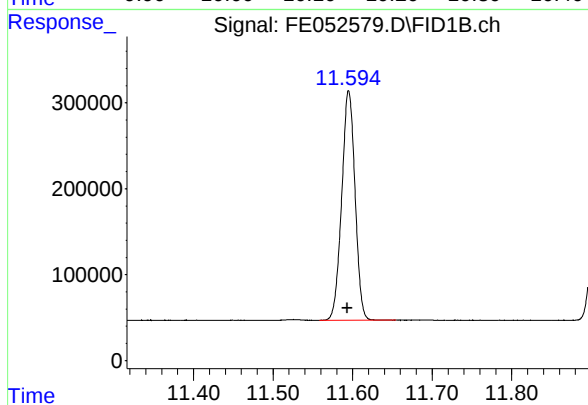
#6 n-Tetradecane (C14)

R.T.: 8.532 min
Delta R.T.: 0.001 min
Response: 3105696
Conc: 20.53 ug/ml



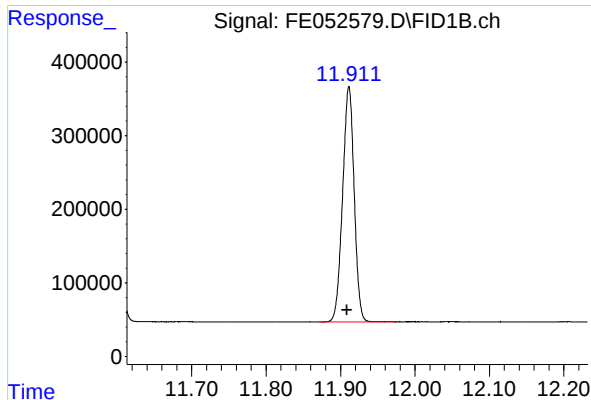
#7 n-Hexadecane (C16)

R.T.: 10.147 min
Delta R.T.: 0.002 min
Response: 3133929
Conc: 20.50 ug/ml



#8 n-Octadecane (C18)

R.T.: 11.595 min
Delta R.T.: 0.002 min
Response: 3112121
Conc: 20.46 ug/ml



#9 ortho-Terphenyl (SURR)

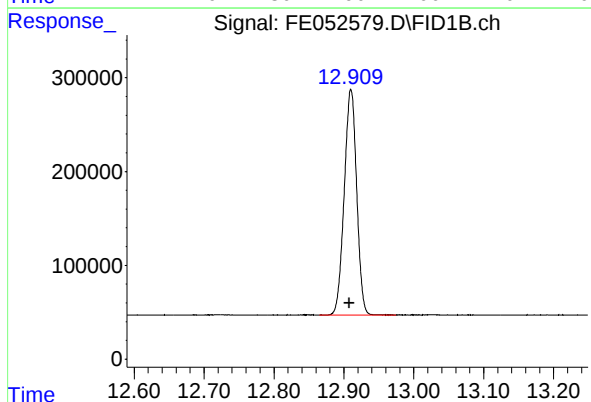
R.T.: 11.911 min
Delta R.T.: 0.003 min
Response: 3455691
Conc: 20.50 ug/ml

Instrument :

FID_E

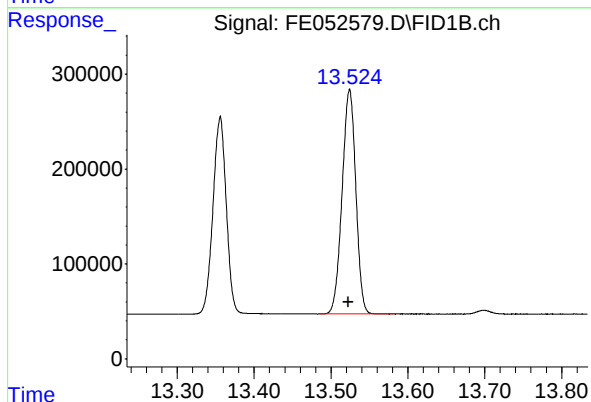
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



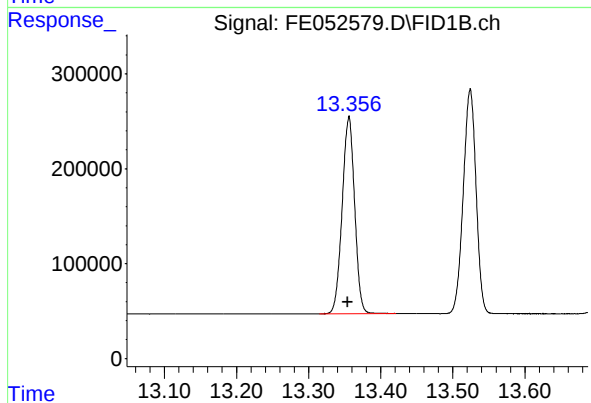
#10 n-Eicosane (C20)

R.T.: 12.910 min
Delta R.T.: 0.002 min
Response: 2971006
Conc: 20.47 ug/ml



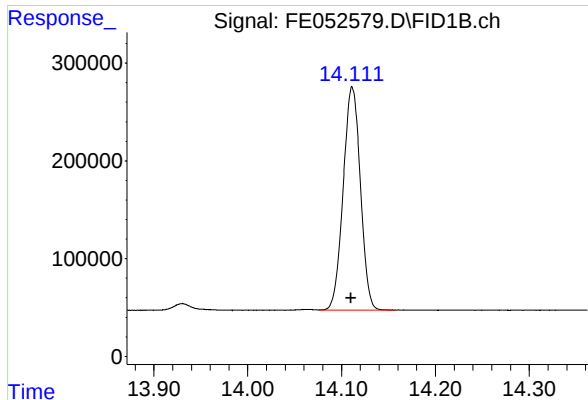
#11 n-Heneicosane (C21)

R.T.: 13.524 min
Delta R.T.: 0.002 min
Response: 2915343
Conc: 20.48 ug/ml



#12 1-chlorooctadecane (SURR)

R.T.: 13.356 min
Delta R.T.: 0.002 min
Response: 2497681
Conc: 20.57 ug/ml



#13 n-Docosane (C22)

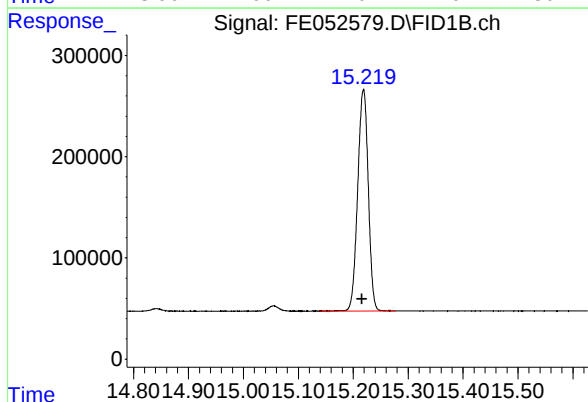
R.T.: 14.111 min
Delta R.T.: 0.001 min
Response: 2909985
Conc: 20.45 ug/ml

Instrument :

FID_E

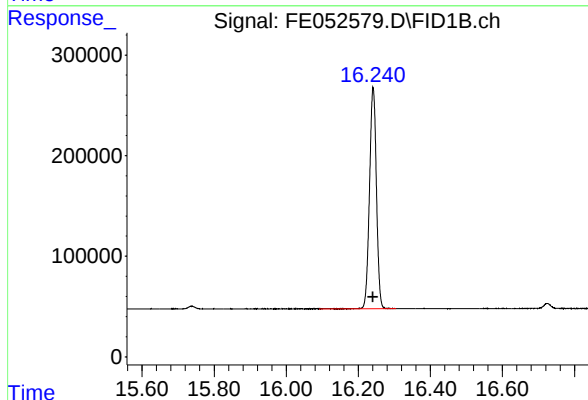
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



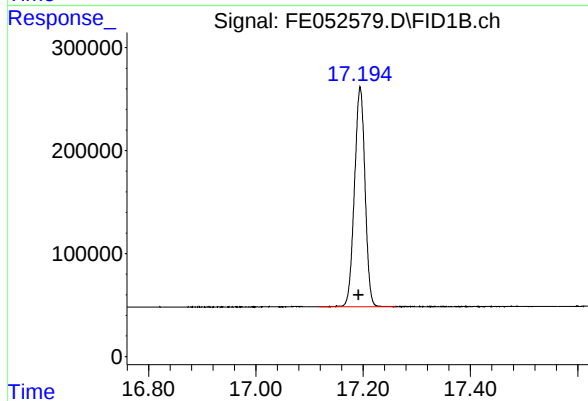
#14 n-Tetracosane (C24)

R.T.: 15.219 min
Delta R.T.: 0.003 min
Response: 2928929
Conc: 20.47 ug/ml



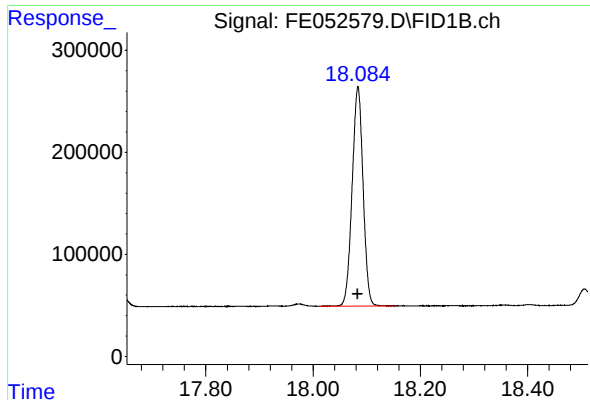
#15 n-Hexacosane (C26)

R.T.: 16.241 min
Delta R.T.: 0.000 min
Response: 2909458
Conc: 20.46 ug/ml



#16 n-Octacosane (C28)

R.T.: 17.194 min
Delta R.T.: 0.002 min
Response: 2913880
Conc: 20.49 ug/ml



#17 n-Tricontane (C30)

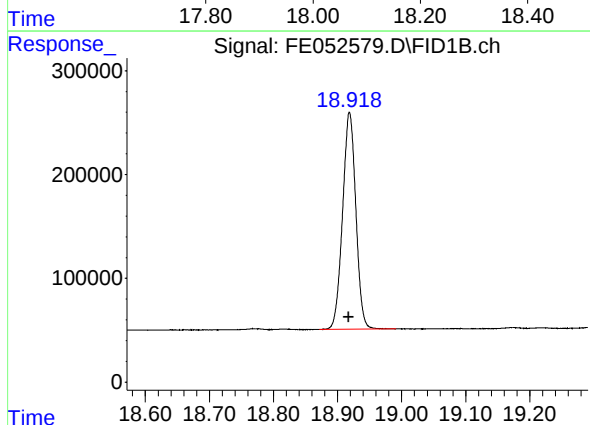
R.T.: 18.084 min
Delta R.T.: 0.001 min
Response: 3032387
Conc: 20.53 ug/ml

Instrument :

FID_E

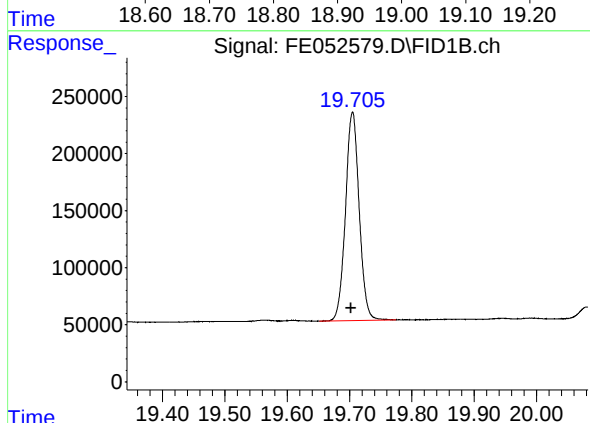
ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



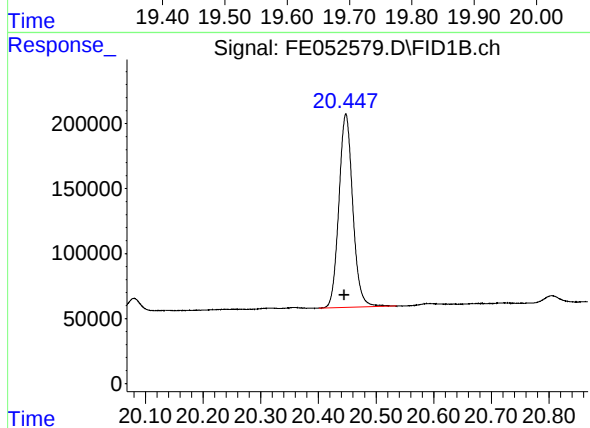
#18 n-Dotriacontane (C32)

R.T.: 18.919 min
Delta R.T.: 0.002 min
Response: 2988204
Conc: 20.58 ug/ml



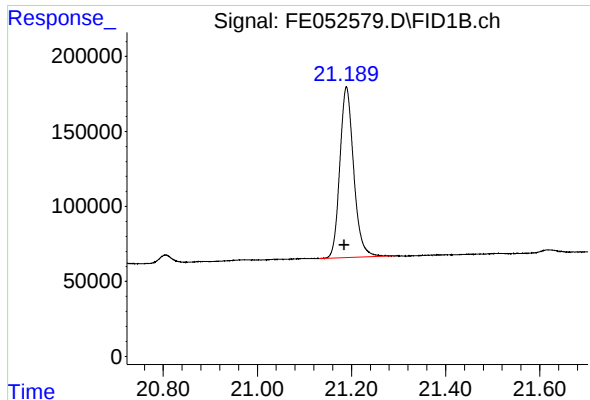
#19 n-Tetatriacontane (C34)

R.T.: 19.705 min
Delta R.T.: 0.002 min
Response: 2786554
Conc: 20.67 ug/ml



#20 n-Hexatriacontane (C36)

R.T.: 20.448 min
Delta R.T.: 0.003 min
Response: 2490703
Conc: 20.96 ug/ml



#21 n-Octatriacontane (C38)

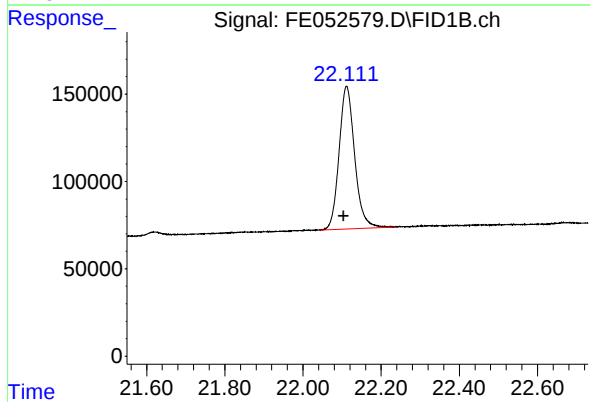
R.T.: 21.189 min
Delta R.T.: 0.005 min
Response: 2317135
Conc: 20.89 ug/ml

Instrument :

FID_E

ClientSampleId :

20 PPM ALIPHATIC HC STD ICV



#22 n-Tetracontane (C40)

R.T.: 22.111 min
Delta R.T.: 0.007 min
Response: 2256635
Conc: 20.87 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE030325AL\
Data File : FE052579.D
Signal(s) : FID1B.ch
Acq On : 03 Mar 2025 13:35
Sample : 20 PPM ALIPHATIC HC STD ICV
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.252	3.221	3.315	BB	316370	3187537	91.27%	4.890%
2	4.514	4.475	4.581	BB	317352	3233718	92.59%	4.961%
3	6.228	6.191	6.311	BB	353933	3492595	100.00%	5.358%
4	6.696	6.658	6.758	BB	308321	3203904	91.73%	4.915%
5	7.330	7.288	7.421	BB	330915	3339319	95.61%	5.123%
6	8.532	8.495	8.595	BB	289204	3105696	88.92%	4.765%
7	10.147	10.111	10.205	BB	283052	3133929	89.73%	4.808%
8	11.595	11.558	11.655	BB	267693	3112121	89.11%	4.774%
9	11.911	11.871	11.975	BB	320258	3455691	98.94%	5.302%
10	12.910	12.865	12.975	BB	241076	2971006	85.07%	4.558%
11	13.356	13.315	13.421	BB	205009	2497681	71.51%	3.832%
12	13.524	13.485	13.585	BB	236434	2915343	83.47%	4.473%
13	14.111	14.076	14.158	VB	228081	2909985	83.32%	4.464%
14	15.219	15.138	15.278	BB	218919	2928929	83.86%	4.493%
15	16.241	16.091	16.305	BB	220045	2909458	83.30%	4.464%
16	17.194	17.118	17.261	BB	212865	2913880	83.43%	4.470%
17	18.084	18.011	18.155	BB	215009	3032387	86.82%	4.652%
18	18.919	18.871	18.991	BB	209239	2988204	85.56%	4.584%
19	19.705	19.651	19.775	BB	182519	2786554	79.78%	4.275%
20	20.448	20.401	20.535	BB	148923	2490703	71.31%	3.821%
21	21.189	21.131	21.295	BB	113912	2317135	66.34%	3.555%
22	22.111	22.041	22.238	BB	81783	2256635	64.61%	3.462%
Sum of corrected areas:							65182406	

Aliphatic EPH 030325.M Tue Mar 04 04:16:17 2025

Continuing Calibration Report for SequenceID : FE032425AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FE052939.D

Aliphatic C9-C12	9562712.000	60.000	3.147	6.791	159378.533	155948.436	-2.200
Aliphatic C12-C16	6277985.000	40.000	6.792	10.244	156949.625	152098.489	-3.189
Aliphatic C16-C21	8955302.000	60.000	10.245	13.623	149255.033	146548.085	-1.847
Aliphatic C21-C28	11091377.000	80.000	13.624	17.297	138642.213	142451.851	2.674
Aliphatic C28-C40	14513964.000	120.000	17.298	22.225	120949.700	127589.108	5.204
Aliphatic EPH	50401340.000	360.000	3.147	22.225	140003.722	141501.588	1.059

Lab Sample ID:	20 PPM ALIPHATIC HC 9	Acq On:	24 Mar 2025 12:43
Client Sample ID:		Operator:	YP\AJ
Data file:	FE052939.D	Misc:	
Instrument:	FID_E	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.147	6.791	9562712.000	60.000	ug/ml
Aliphatic C12-C16	6.792	10.244	6277985.000	40.000	ug/ml
Aliphatic C16-C21	10.245	13.623	8955302.000	60.000	ug/ml
Aliphatic C21-C28	13.624	17.297	11091377.000	80.000	ug/ml
Aliphatic C28-C40	17.298	22.225	14513964.000	120.000	ug/ml
Aliphatic EPH	3.147	22.225	50401340.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052939.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 12:43
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD

Integration File: autoint1.e
 Quant Time: Mar 25 01:42:00 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 13:39:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.909	3317283	19.677 ug/ml
Spiked Amount 50.000		Recovery =	39.35%
12) S 1-chlorooctadecane (S...	13.354	2375190	19.561 ug/ml
Spiked Amount 50.000		Recovery =	39.12%
Target Compounds			
1) T n-Nonane (C9)	3.246	3161172	20.388 ug/ml
2) T n-Decane (C10)	4.508	3209893	20.433 ug/ml
3) T A~Naphthalene (C11.7)	6.223	3447400	20.328 ug/ml
4) T n-Dodecane (C12)	6.690	3191647	20.499 ug/ml
5) T A~2-methylnaphthalene...	7.326	3278478	20.230 ug/ml
6) T n-Tetradecane (C14)	8.528	3109352	20.550 ug/ml
7) T n-Hexadecane (C16)	10.143	3168633	20.725 ug/ml
8) T n-Octadecane (C18)	11.593	3131388	20.582 ug/ml
10) T n-Eicosane (C20)	12.908	2949811	20.319 ug/ml
11) T n-Heneicosane (C21)	13.522	2874103	20.193 ug/ml
13) T n-Docosane (C22)	14.111	2838182	19.944 ug/ml
14) T n-Tetracosane (C24)	15.218	2808242	19.623 ug/ml
15) T n-Hexacosane (C26)	16.243	2747658	19.323 ug/ml
16) T n-Octacosane (C28)	17.196	2697295	18.969 ug/ml
17) T n-Tricontane (C30)	18.087	2744762	18.583 ug/ml
18) T n-Dotriacontane (C32)	18.923	2697287	18.579 ug/ml
19) T n-Tetratriacontane (C34)	19.709	2471207	18.335 ug/ml
20) T n-Hexatriacontane (C36)	20.452	2226024	18.734 ug/ml
21) T n-Octatriacontane (C38)	21.196	2169025	19.552 ug/ml
22) T n-Tetracontane (C40)	22.120	2205659	20.401 ug/ml

(f)=RT Delta > 1/2 Window

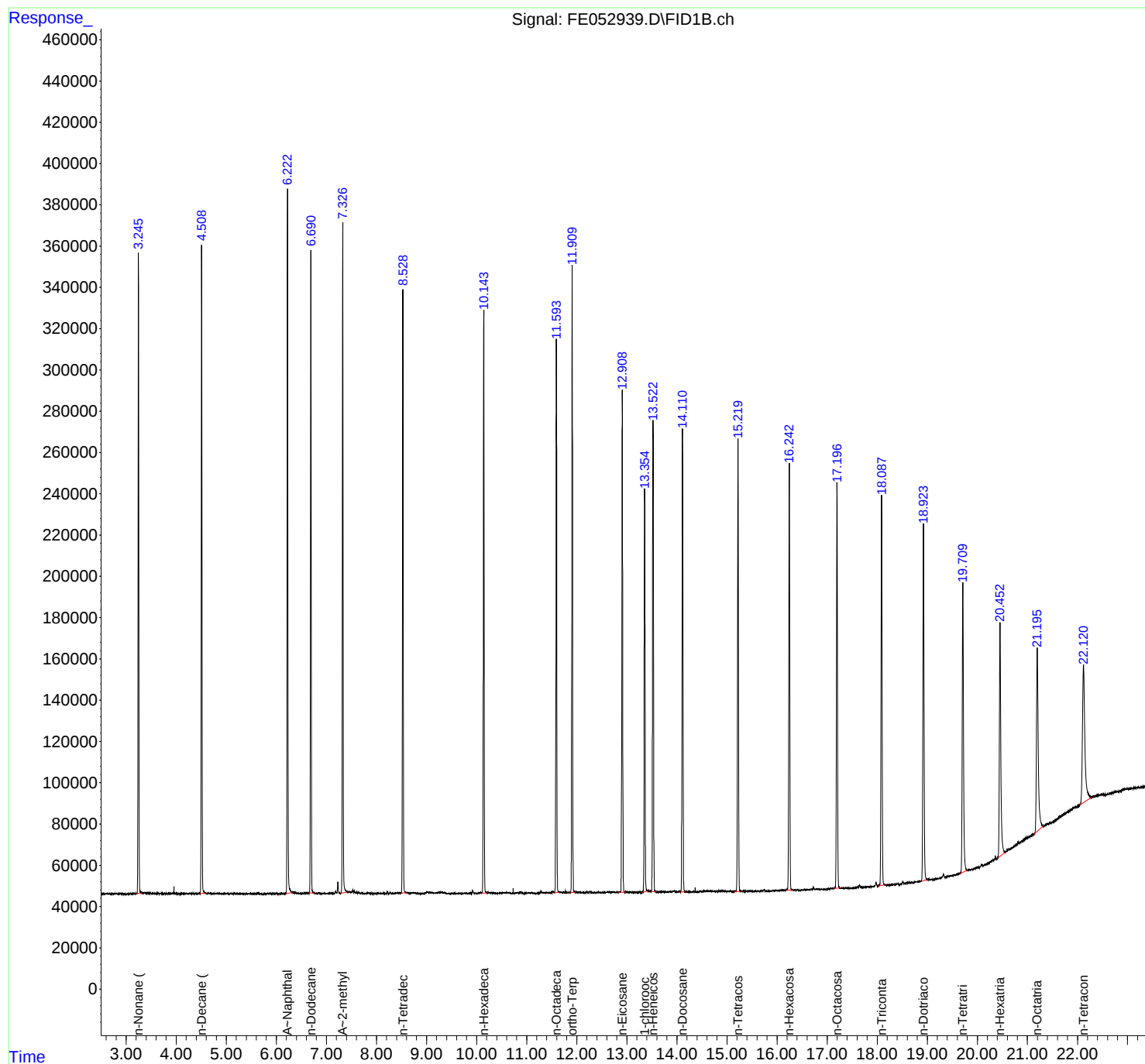
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052939.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 12:43
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD

Integration File: autoint1.e
Quant Time: Mar 25 01:42:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052939.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 12:43
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.246	3.205	3.311	BB	310453	3161172	91.70%	5.032%
2	4.508	4.475	4.581	BB	313455	3209893	93.11%	5.110%
3	6.223	6.188	6.328	BB	336876	3447400	100.00%	5.488%
4	6.690	6.638	6.761	BB	310952	3191647	92.58%	5.081%
5	7.326	7.285	7.428	BB	321853	3278478	95.10%	5.219%
6	8.528	8.491	8.598	BB	291548	3109352	90.19%	4.950%
7	10.143	10.105	10.211	BB	282209	3168633	91.91%	5.044%
8	11.593	11.551	11.658	BB	268207	3131388	90.83%	4.985%
9	11.909	11.861	11.978	BB	299638	3317283	96.23%	5.281%
10	12.908	12.821	12.975	BB	242737	2949811	85.57%	4.696%
11	13.354	13.295	13.428	BB	195712	2375190	68.90%	3.781%
12	13.522	13.485	13.591	BB	225415	2874103	83.37%	4.575%
13	14.111	14.071	14.178	BB	223757	2838182	82.33%	4.518%
14	15.218	15.138	15.288	BB	218278	2808242	81.46%	4.470%
15	16.243	16.178	16.311	BB	205829	2747658	79.70%	4.374%
16	17.196	17.128	17.271	BB	197315	2697295	78.24%	4.294%
17	18.087	18.015	18.165	BB	189767	2744762	79.62%	4.369%
18	18.923	18.871	19.008	BB	173312	2697287	78.24%	4.294%
19	19.709	19.651	19.808	BB	140349	2471207	71.68%	3.934%
20	20.452	20.401	20.558	BV	113165	2226024	64.57%	3.544%
21	21.196	21.131	21.315	BB	89083	2169025	62.92%	3.453%
22	22.120	22.041	22.281	BB	66858	2205659	63.98%	3.511%
Sum of corrected areas:							62819690	

Aliphatic EPH 030325.M Tue Mar 25 02:18:48 2025

Continuing Calibration Report for SequenceID : FE032425AL

Parameter	AreaCount	Conc.	RT_Min	RT_Max	Response Factor	AVGRF	%DEV
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File ID : FE052950.D

Aliphatic C9-C12	9782151.000	60.000	3.147	6.791	163035.850	155948.436	-4.545
Aliphatic C12-C16	6351173.000	40.000	6.792	10.244	158779.325	152098.489	-4.392
Aliphatic C16-C21	8991010.000	60.000	10.245	13.623	149850.167	146548.085	-2.253
Aliphatic C21-C28	11184998.000	80.000	13.624	17.297	139812.475	142451.851	1.853
Aliphatic C28-C40	15005050.000	120.000	17.298	22.225	125042.083	127589.108	1.996
Aliphatic EPH	51314382.000	360.000	3.147	22.225	142539.950	141501.588	-0.734

Lab Sample ID:	20 PPM ALIPHATIC HC 9	Acq On:	24 Mar 2025 20:10
Client Sample ID:		Operator:	YP\AJ
Data file:	FE052950.D	Misc:	
Instrument:	FID_E	ALS Vial:	2
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	Units
Aliphatic C9-C12	3.147	6.791	9782151.000	60.000	ug/ml
Aliphatic C12-C16	6.792	10.244	6351173.000	40.000	ug/ml
Aliphatic C16-C21	10.245	13.623	8991010.000	60.000	ug/ml
Aliphatic C21-C28	13.624	17.297	11184998.000	80.000	ug/ml
Aliphatic C28-C40	17.298	22.225	15005050.000	120.000	ug/ml
Aliphatic EPH	3.147	22.225	51314382.000	360.000	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052950.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 20:10
 Operator : YP\AJ
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 20 PPM ALIPHATIC HC STD

Integration File: autoint1.e
 Quant Time: Mar 25 01:42:27 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 13:39:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.907	3322860	19.710 ug/ml
Spiked Amount 50.000		Recovery =	39.42%
12) S 1-chlorooctadecane (S...	13.352	2455981	20.226 ug/ml
Spiked Amount 50.000		Recovery =	40.45%
Target Compounds			
1) T n-Nonane (C9)	3.246	3242513	20.913 ug/ml
2) T n-Decane (C10)	4.507	3286487	20.920 ug/ml
3) T A~Naphthalene (C11.7)	6.222	3508751	20.689 ug/ml
4) T n-Dodecane (C12)	6.689	3253151	20.894 ug/ml
5) T A~2-methylnaphthalene...	7.325	3326259	20.525 ug/ml
6) T n-Tetradecane (C14)	8.526	3156990	20.864 ug/ml
7) T n-Hexadecane (C16)	10.142	3194183	20.892 ug/ml
8) T n-Octadecane (C18)	11.592	3146680	20.683 ug/ml
10) T n-Eicosane (C20)	12.906	2959436	20.385 ug/ml
11) T n-Heneicosane (C21)	13.521	2884894	20.269 ug/ml
13) T n-Docosane (C22)	14.109	2848594	20.017 ug/ml
14) T n-Tetracosane (C24)	15.216	2827200	19.756 ug/ml
15) T n-Hexacosane (C26)	16.241	2771093	19.488 ug/ml
16) T n-Octacosane (C28)	17.193	2738111	19.256 ug/ml
17) T n-Tricontane (C30)	18.083	2801579	18.968 ug/ml
18) T n-Dotriacontane (C32)	18.918	2757462	18.993 ug/ml
19) T n-Tetratriacontane (C34)	19.704	2523729	18.725 ug/ml
20) T n-Hexatriacontane (C36)	20.447	2297538	19.336 ug/ml
21) T n-Octatriacontane (C38)	21.189	2292189	20.662 ug/ml
22) T n-Tetracontane (C40)	22.111	2332553	21.575 ug/ml

(f)=RT Delta > 1/2 Window

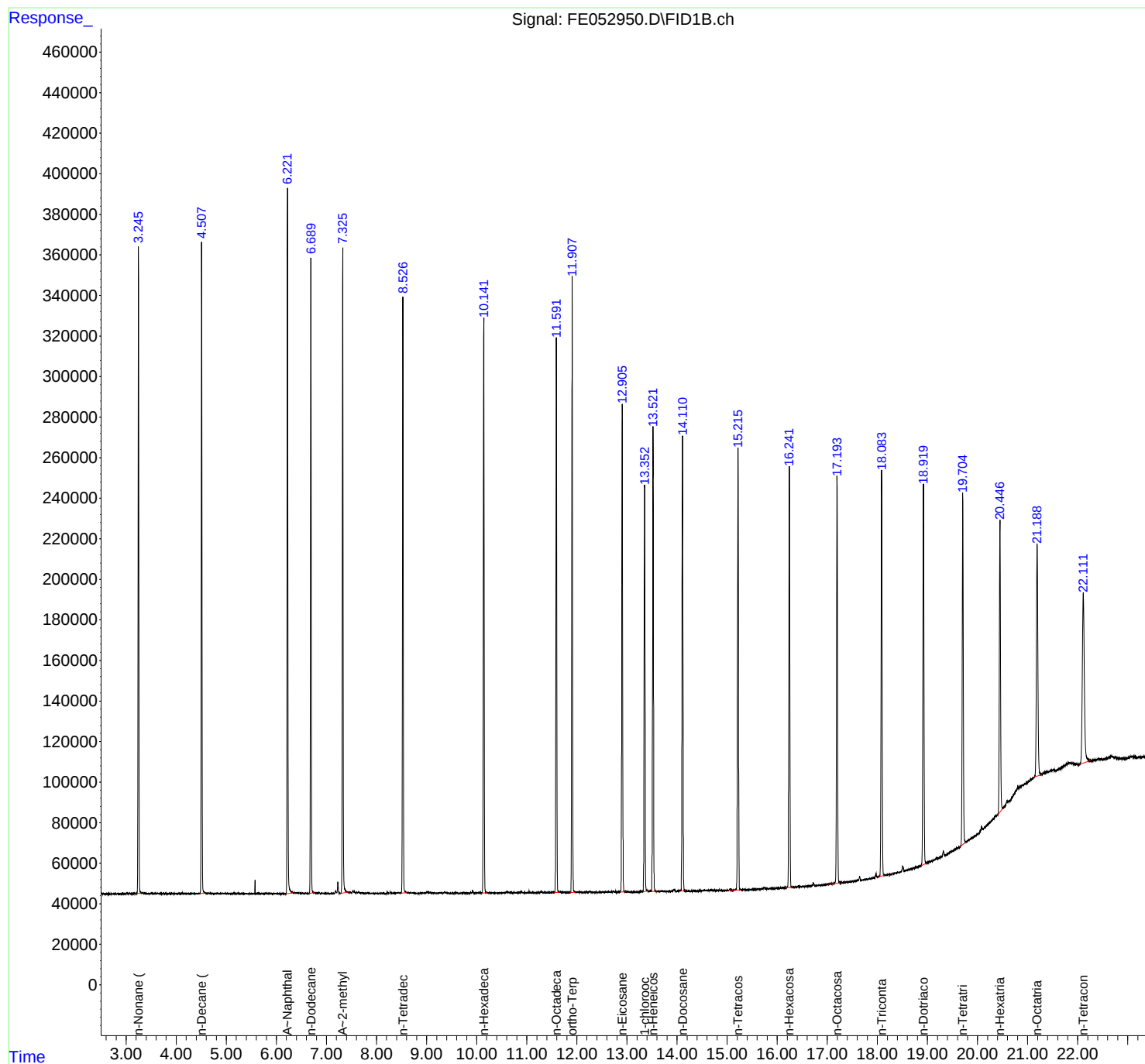
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052950.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 20:10
Operator : YP\AJ
Sample : 20 PPM ALIPHATIC HC STD
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
20 PPM ALIPHATIC HC STD

Integration File: autoint1.e
Quant Time: Mar 25 01:42:27 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052950.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 20:10
 Sample : 20 PPM ALIPHATIC HC STD
 Misc :
 ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.246	3.211	3.314	BB	317812	3242513	92.41%	5.072%
2	4.507	4.471	4.588	BB	321655	3286487	93.67%	5.141%
3	6.222	6.188	6.338	BB	346425	3508751	100.00%	5.489%
4	6.689	6.651	6.758	BB	312202	3253151	92.72%	5.089%
5	7.325	7.281	7.424	BB	316754	3326259	94.80%	5.203%
6	8.526	8.484	8.604	BB	292829	3156990	89.97%	4.938%
7	10.142	10.104	10.208	BB	282715	3194183	91.03%	4.997%
8	11.592	11.551	11.658	BB	273162	3146680	89.68%	4.922%
9	11.907	11.861	11.968	BB	304551	3322860	94.70%	5.198%
10	12.906	12.868	12.974	BB	241731	2959436	84.34%	4.629%
11	13.352	13.314	13.421	BB	200217	2455981	70.00%	3.842%
12	13.521	13.484	13.588	BB	228959	2884894	82.22%	4.513%
13	14.109	14.071	14.178	BB	224400	2848594	81.19%	4.456%
14	15.216	15.031	15.278	BB	217539	2827200	80.58%	4.422%
15	16.241	16.168	16.304	BB	207785	2771093	78.98%	4.335%
16	17.193	17.018	17.261	BB	201265	2738111	78.04%	4.283%
17	18.083	18.011	18.141	BB	200446	2801579	79.85%	4.382%
18	18.918	18.871	18.978	BB	187468	2757462	78.59%	4.313%
19	19.704	19.651	19.761	BV	173082	2523729	71.93%	3.948%
20	20.447	20.401	20.504	BV	144361	2297538	65.48%	3.594%
21	21.189	21.131	21.281	BB	114683	2292189	65.33%	3.586%
22	22.111	22.041	22.254	BB	84099	2332553	66.48%	3.649%
Sum of corrected areas:							63928231	

Aliphatic EPH 030325.M Tue Mar 25 02:21:29 2025



QC SAMPLE DATA

Report of Analysis

Client:	Walsh Construction Company II, LLC		Date Collected:		
Project:	Walsh CO-032 Sampling		Date Received:		
Client Sample ID:	PB167270BL		SDG No.:	Q1626	
Lab Sample ID:	PB167270BL		Matrix:	Solid	
Analytical Method:	NJEPH		% Solid:	100	
Sample Wt/Vol:	30.02	Units: g	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH_NF	
Prep Method :					

Prep Date :	Date Analyzed :	Prep Batch ID
03/24/25 08:18	03/24/25 14:39	PB167270

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	1.18	U	1	1.18	2.00	mg/kg	FE052940.D
Aliphatic C9-C28	Aliphatic C9-C28	0.91	U	1	0.91	3.99	mg/kg	FE052940.D
Total AliphaticEPH	Total AliphaticEPH	2.09	U		2.09	5.99	mg/kg	
Total EPH	Total EPH	2.09	U		2.09	5.99	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Walsh Construction Company II, LLC		Date Collected:	
Project:	Walsh CO-032 Sampling		Date Received:	
Client Sample ID:	PB167270BL		SDG No.:	Q1626
Lab Sample ID:	PB167270BL		Matrix:	Solid
Analytical Method:	NJEPH		% Solid:	100
Sample Wt/Vol:	30.02	Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:		uL	Test:	EPH_NF
Prep Method :				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE052940.D	1	03/24/25	03/24/25	PB167270

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	0.91	U	0.91	3.99	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	1.18	U	1.18	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	37.8		40 - 140	76%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	37.6		40 - 140	75%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB167270BL	Acq On:	24 Mar 2025 14:39
Client Sample ID:	PB167270BL	Operator:	YP\AJ
Data file:	FE052940.D	Misc:	
Instrument:	FID_E	ALS Vial:	11
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.147	6.791	0	0	300	ug/ml
Aliphatic C12-C16	6.792	10.244	0	0	200	ug/ml
Aliphatic C16-C21	10.245	13.623	0	0	300	ug/ml
Aliphatic C21-C28	13.624	17.297	0	0	400	ug/ml
Aliphatic C28-C40	17.298	22.225	0	0	600	ug/ml
Aliphatic EPH	3.147	22.225	0	0		ug/ml
ortho-Terphenyl (SURR)	11.914	11.914	6331950	37.56		ug/ml
1-chlorooctadecane (SURR)	13.359	13.359	4587997	37.78		ug/ml
Aliphatic C9-C28	3.147	17.297	0	0	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052940.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 14:39
 Operator : YP\AJ
 Sample : PB167270BL
 Misc :
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 PB167270BL

Integration File: autoint1.e
 Quant Time: Mar 25 01:51:11 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 13:39:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.914	6331950	37.559 ug/ml
Spiked Amount	50.000	Recovery	= 75.12%
12) S 1-chlorooctadecane (S...	13.359	4587997	37.784 ug/ml
Spiked Amount	50.000	Recovery	= 75.57%

Target Compounds

(f)=RT Delta > 1/2 Window

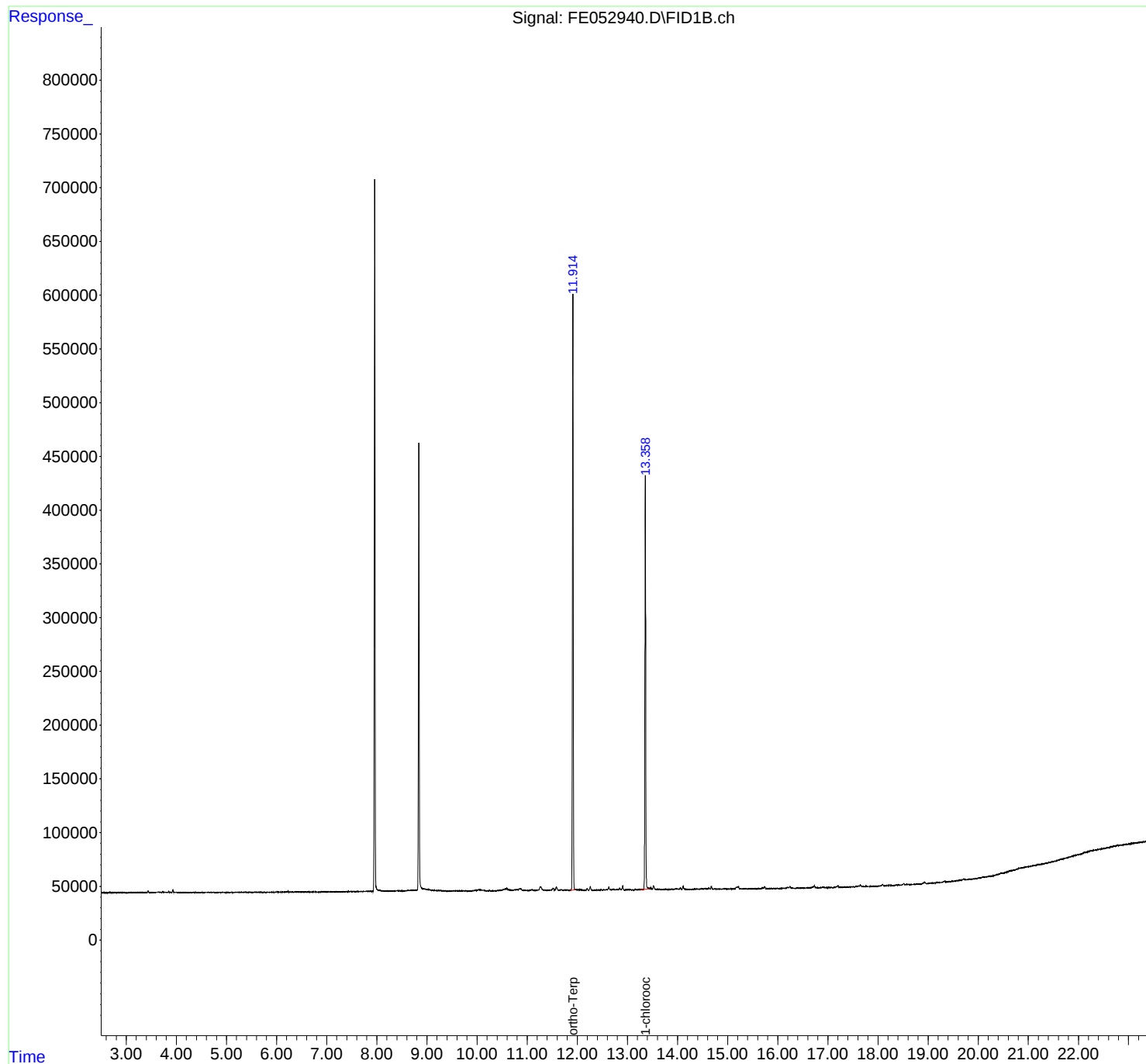
(m)=manual int.

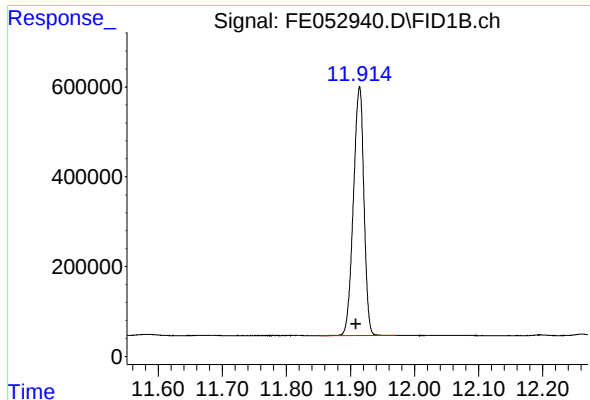
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052940.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 14:39
Operator : YP\AJ
Sample : PB167270BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB167270BL

Integration File: autoint1.e
Quant Time: Mar 25 01:51:11 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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

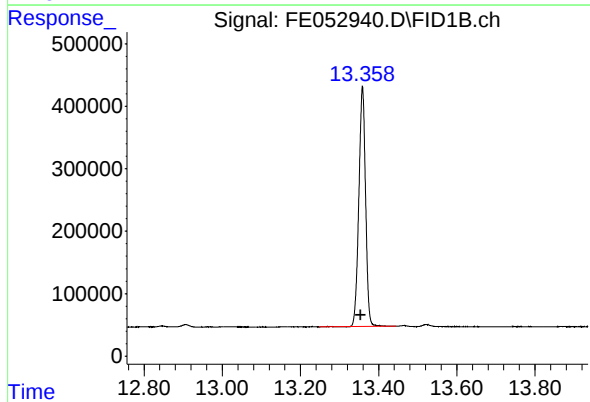




#9 ortho-Terphenyl (SURR)

R.T.: 11.914 min
Delta R.T.: 0.005 min
Response: 6331950
Conc: 37.56 ug/ml

Instrument :
FID_E
ClientSampleId :
PB167270BL



#12 1-chlorooctadecane (SURR)

R.T.: 13.359 min
Delta R.T.: 0.005 min
Response: 4587997
Conc: 37.78 ug/ml

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052940.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 14:39
Sample : PB167270BL
Misc :
ALS Vial : 11 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	11.914	11.851	11.971	BB	556530	6331950	100.00%	57.985%
2	13.359	13.248	13.444	BB	382391	4587997	72.46%	42.015%
Sum of corrected areas:							10919947	

Aliphatic EPH 030325.M Tue Mar 25 02:19:08 2025

Report of Analysis

Client:	Walsh Construction Company II, LLC	Date Collected:	
Project:	Walsh CO-032 Sampling	Date Received:	
Client Sample ID:	PB167270BS	SDG No.:	Q1626
Lab Sample ID:	PB167270BS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.03 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
03/24/25 08:18	03/24/25 15:09	PB167270

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	38.4		1	1.18	2.00	mg/kg	FE052941.D
Aliphatic C9-C28	Aliphatic C9-C28	106	E	1	0.91	3.99	mg/kg	FE052941.D
Total AliphaticEPH	Total AliphaticEPH	144			2.09	5.99	mg/kg	
Total EPH	Total EPH	144			2.09	5.99	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Walsh Construction Company II, LLC		Date Collected:	
Project:	Walsh CO-032 Sampling		Date Received:	
Client Sample ID:	PB167270BS		SDG No.:	Q1626
Lab Sample ID:	PB167270BS		Matrix:	Solid
Analytical Method:	NJEPH		% Solid:	100
Sample Wt/Vol:	30.03	Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:		uL	Test:	EPH_NF
Prep Method :				

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE052941.D	1	03/24/25	03/24/25	PB167270

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	106	E	0.91	3.99	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	38.4		1.18	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	37.4		40 - 140	75%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	36.0		40 - 140	72%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB167270BS	Acq On:	24 Mar 2025 15:09
Client Sample ID:	PB167270BS	Operator:	YP\AJ
Data file:	FE052941.D	Misc:	
Instrument:	FID_E	ALS Vial:	12
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.147	6.791	45561016	292.154	300	ug/ml
Aliphatic C12-C16	6.792	10.244	54772363	360.111	200	ug/ml
Aliphatic C16-C21	10.245	13.623	59246836	404.283	300	ug/ml
Aliphatic C21-C28	13.624	17.297	75193453	527.852	400	ug/ml
Aliphatic C28-C40	17.298	22.225	73477336	575.89	600	ug/ml
Aliphatic EPH	3.147	22.225	308251004	2160		ug/ml
ortho-Terphenyl (SURR)	11.912	11.912	6064108	35.97		ug/ml
1-chlorooctadecane (SURR)	13.356	13.356	4545093	37.43		ug/ml
Aliphatic C9-C28	3.147	17.297	234773668	1580	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052941.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 15:09
 Operator : YP\AJ
 Sample : PB167270BS
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 PB167270BS

Integration File: autoint1.e
 Quant Time: Mar 25 01:51:28 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 13:39:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.912	6064108	35.970 ug/ml
Spiked Amount 50.000		Recovery =	71.94%
12) S 1-chlorooctadecane (S...	13.356	4545093	37.431 ug/ml
Spiked Amount 50.000		Recovery =	74.86%
Target Compounds			
1) T n-Nonane (C9)	3.264	8475790	54.665 ug/ml
2) T n-Decane (C10)	4.518	8893698	56.613 ug/ml
3) T A~Naphthalene (C11.7)	6.227	9741013	57.438 ug/ml
4) T n-Dodecane (C12)	6.694	9022035	57.945 ug/ml
5) T A~2-methylnaphthalene...	7.330	8832923	54.505 ug/ml
6) T n-Tetradecane (C14)	8.533	8980702	59.353 ug/ml
7) T n-Hexadecane (C16)	10.147	8746051	57.206 ug/ml
8) T n-Octadecane (C18)	11.596	8603999	56.553 ug/ml
10) T n-Eicosane (C20)	12.913	8559779	58.962 ug/ml
11) T n-Heneicosane (C21)	13.526	8156319	57.306 ug/ml
13) T n-Docosane (C22)	14.115	8056129	56.610 ug/ml
14) T n-Tetracosane (C24)	15.217	16400271	114.600 ug/ml
15) T n-Hexacosane (C26)	16.248	7750148	54.504 ug/ml
16) T n-Octacosane (C28)	17.200	7968178	56.037 ug/ml
17) T n-Tricontane (C30)	18.094	7789783	52.740 ug/ml
18) T n-Dotriacontane (C32)	18.927	7655669	52.732 ug/ml
19) T n-Tetratriacontane (C34)	19.713	8000844	59.363 ug/ml
20) T n-Hexatriacontane (C36)	20.455	7775348	65.436 ug/ml
21) T n-Octatriacontane (C38)	21.200	7879537	71.028 ug/ml
22) T n-Tetracontane (C40)	22.125	7816109	72.294 ug/ml

(f)=RT Delta > 1/2 Window

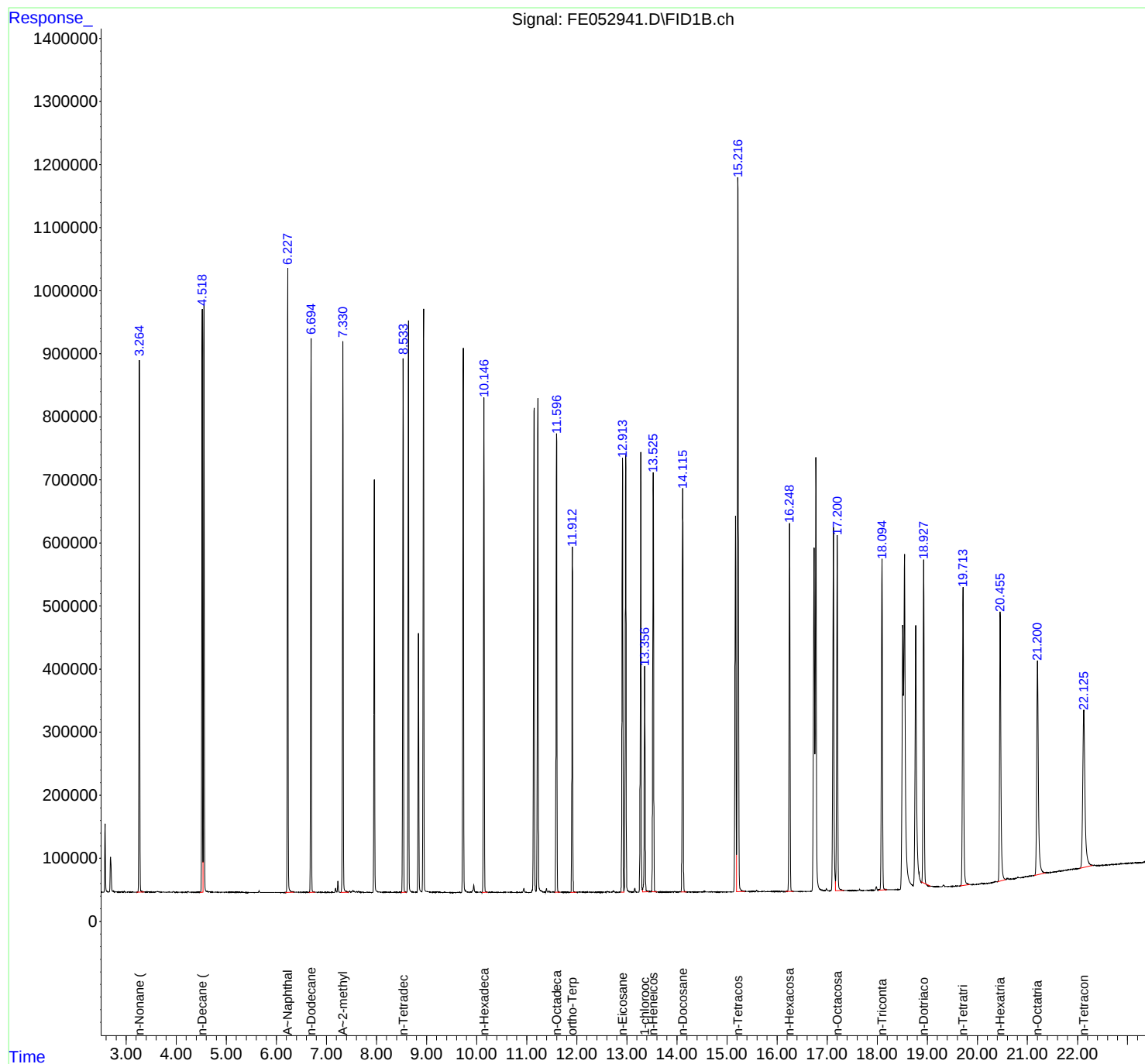
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052941.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 15:09
Operator : YP\AJ
Sample : PB167270BS
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
PB167270BS

Integration File: autoint1.e
Quant Time: Mar 25 01:51:28 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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



Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052941.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 15:09
 Sample : PB167270BS
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.264	3.214	3.361	BB	846254	8475790	51.68%	2.658%
2	4.518	4.471	4.535	BV	919478	8893698	54.23%	2.789%
3	4.553	4.535	4.651	VB	934942	9428480	57.49%	2.957%
4	6.227	6.178	6.354	BB	993158	9741013	59.40%	3.055%
5	6.694	6.651	6.771	BB	881346	9022035	55.01%	2.829%
6	7.330	7.284	7.444	PV	881193	8832923	53.86%	2.770%
7	8.533	8.491	8.601	BV	853583	8980702	54.76%	2.817%
8	8.639	8.601	8.738	PB	895067	9314274	56.79%	2.921%
9	8.940	8.904	9.048	VB	935105	9695014	59.11%	3.041%
10	9.733	9.641	9.848	BB	871515	9203399	56.12%	2.886%
11	10.147	10.104	10.221	BB	783266	8746051	53.33%	2.743%
12	11.147	11.084	11.188	BV	773692	8615700	52.53%	2.702%
13	11.224	11.188	11.348	VB	787078	8613853	52.52%	2.701%
14	11.596	11.554	11.668	BB	728691	8603999	52.46%	2.698%
15	11.912	11.871	11.994	BB	544115	6064108	36.98%	1.902%
16	12.913	12.878	12.942	BV	687721	8559779	52.19%	2.684%
17	12.977	12.942	13.081	VB	693443	8349097	50.91%	2.618%
18	13.278	13.228	13.311	BV	687304	8348089	50.90%	2.618%
19	13.356	13.311	13.444	VB	357982	4545093	27.71%	1.425%
20	13.526	13.484	13.604	BB	659103	8156319	49.73%	2.558%
21	14.115	14.074	14.194	BB	638958	8056129	49.12%	2.527%
22	15.169	15.118	15.189	BV	590324	8193093	49.96%	2.569%
23	15.217	15.189	15.364	VB	1123434	16400271	100.00%	5.143%
24	16.248	16.174	16.328	BB	576502	7750148	47.26%	2.431%
25	16.737	16.671	16.754	BV	545241	8601326	52.45%	2.698%
26	16.774	16.754	16.958	VB	689471	9452570	57.64%	2.964%
27	17.124	17.051	17.165	BV	577729	8771738	53.49%	2.751%
28	17.200	17.165	17.338	VB	565334	7968178	48.59%	2.499%
29	18.094	18.028	18.194	BB	525809	7789783	47.50%	2.443%
30	18.510	18.404	18.524	BV	415251	7152193	43.61%	2.243%
31	18.544	18.524	18.718	VV	529197	11078427	67.55%	3.474%
32	18.768	18.718	18.871	PBA	409930	8329426	50.79%	2.612%
33	18.927	18.871	19.068	BB	513005	7655669	46.68%	2.401%
34	19.713	19.651	19.848	BB	472450	8000844	48.78%	2.509%
35	20.455	20.401	20.568	BV	426791	7775348	47.41%	2.438%
36	21.200	21.131	21.364	BB	339265	7879537	48.05%	2.471%

rters
37 22.125 22.041 22.301 BB 249783 7816109 47.66% 2.451%
Sum of corrected areas: 318860202

Aliphatic EPH 030325.M Tue Mar 25 02:19:32 2025

Report of Analysis

Client:	Walsh Construction Company II, LLC	Date Collected:	
Project:	Walsh CO-032 Sampling	Date Received:	
Client Sample ID:	PB167270BSD	SDG No.:	Q1626
Lab Sample ID:	PB167270BSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
03/24/25 08:18	03/24/25 15:39	PB167270

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	41.0	E	1	1.18	2.00	mg/kg	FE052942.D
Aliphatic C9-C28	Aliphatic C9-C28	112	E	1	0.91	4.00	mg/kg	FE052942.D
Total AliphaticEPH	Total AliphaticEPH	153			2.09	6.00	mg/kg	
Total EPH	Total EPH	153			2.09	6.00	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Walsh Construction Company II, LLC	Date Collected:	
Project:	Walsh CO-032 Sampling	Date Received:	
Client Sample ID:	PB167270BSD	SDG No.:	Q1626
Lab Sample ID:	PB167270BSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	100
Sample Wt/Vol:	30.01 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE052942.D	1	03/24/25	03/24/25	PB167270

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	112	E	0.91	4.00	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	41.0	E	1.18	2.00	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	39.8		40 - 140	80%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	38.1		40 - 140	76%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	PB167270BSD	Acq On:	24 Mar 2025 15:39
Client Sample ID:	PB167270BSD	Operator:	YP\AJ
Data file:	FE052942.D	Misc:	
Instrument:	FID_E	ALS Vial:	13
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.147	6.791	48313321	309.803	300	ug/ml
Aliphatic C12-C16	6.792	10.244	58064498	381.756	200	ug/ml
Aliphatic C16-C21	10.245	13.623	62867169	428.987	300	ug/ml
Aliphatic C21-C28	13.624	17.297	79578487	558.634	400	ug/ml
Aliphatic C28-C40	17.298	22.225	78486772	615.153	600	ug/ml
Aliphatic EPH	3.147	22.225	327310247	2290		ug/ml
ortho-Terphenyl (SURR)	11.911	11.911	6427762	38.13		ug/ml
1-chlorooctadecane (SURR)	13.356	13.356	4830119	39.78		ug/ml
Aliphatic C9-C28	3.147	17.297	248823475	1680	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052942.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 15:39
 Operator : YP\AJ
 Sample : PB167270BSD
 Misc :
 ALS Vial : 13 Sample Multiplier: 1

Instrument :

FID_E

ClientSampleId :

PB167270BSD

Manual Integrations**APPROVED**

Reviewed By :Yogesh Patel 03/25/2025

Supervised By :mohammad ahmed 03/26/2025

Integration File: autoint1.e

Quant Time: Mar 25 01:51:49 2025

Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M

Quant Title : GC Extractables

QLast Update : Mon Mar 03 13:39:39 2025

Response via : Initial Calibration

Integrator: ChemStation

Volume Inj. : 1 ul

Signal Phase : Rxi-1ms

Signal Info : 20M x 0.18mm x 0.18um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.911	6427762	38.127 ug/ml
Spiked Amount 50.000		Recovery =	76.25%
12) S 1-chlorooctadecane (S...	13.356	4830119	39.778 ug/ml
Spiked Amount 50.000		Recovery =	79.56%
Target Compounds			
1) T n-Nonane (C9)	3.266	8980252	57.918 ug/ml
2) T n-Decane (C10)	4.520	9434389	60.055 ug/ml
3) T A~Naphthalene (C11.7)	6.227	10333121	60.929 ug/ml
4) T n-Dodecane (C12)	6.694	9573106	61.485 ug/ml
5) T A~2-methylnaphthalene...	7.329	9367680	57.805 ug/ml
6) T n-Tetradecane (C14)	8.533	9511497	62.861 ug/ml
7) T n-Hexadecane (C16)	10.146	9268209	60.621 ug/ml
8) T n-Octadecane (C18)	11.596	9127503	59.994 ug/ml
10) T n-Eicosane (C20)	12.912	9092691	62.633 ug/ml
11) T n-Heneicosane (C21)	13.525	8651426	60.785 ug/ml
13) T n-Docosane (C22)	14.114	8548322	60.069 ug/ml
14) T n-Tetracosane (C24)	15.216	17372766	121.396 ug/ml
15) T n-Hexacosane (C26)	16.249	8220021	57.808 ug/ml
16) T n-Octacosane (C28)	17.199	8406907	59.122 ug/ml
17) T n-Tricontane (C30)	18.092	8250231	55.858 ug/ml
18) T n-Dotriacontane (C32)	18.926	8247244	56.807 ug/mlm
19) T n-Tetratriacontane (C34)	19.713	8518086	63.200 ug/ml
20) T n-Hexatriacontane (C36)	20.456	8241619	69.360 ug/ml
21) T n-Octatriacontane (C38)	21.200	8342089	75.197 ug/ml
22) T n-Tetracontane (C40)	22.125	8302472	76.792 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052942.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 15:39
Operator : YP\AJ
Sample : PB167270BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

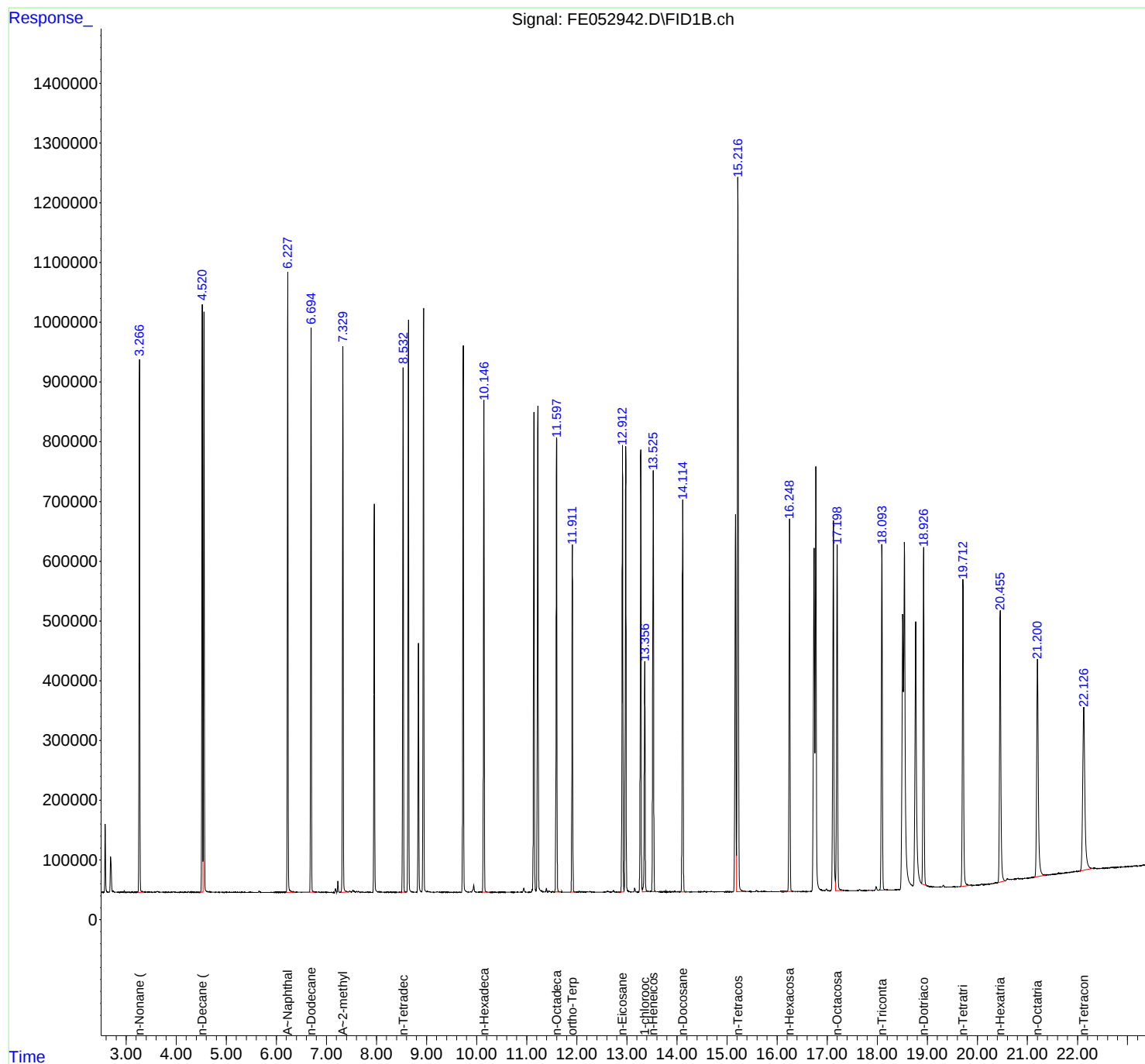
Instrument :
FID_E
ClientSampleId :
PB167270BSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 03/25/2025
Supervised By :mohammad ahmed 03/26/2025

Integration File: autoint1.e
Quant Time: Mar 25 01:51:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Instrument :

FID_E

ClientSampleId :

PB167270BSD

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 03/25/2025

Supervised By :mohammad ahmed 03/26/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE03242
Data File : FE052942.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 15:39
Sample : PB167270BSD
Misc :
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	3.266	3.221	3.355	BB	884863	8980252	51.69%	2.652%
2	4.520	4.478	4.536	BV	989689	9434389	54.31%	2.787%
3	4.554	4.536	4.655	VB	972875	9992453	57.52%	2.951%
4	6.227	6.188	6.361	BB	1040108	10333121	59.48%	3.052%
5	6.694	6.651	6.781	BB	947829	9573106	55.10%	2.828%
6	7.329	7.285	7.445	PV	904568	9367680	53.92%	2.767%
7	8.533	8.471	8.595	BV	872247	9511497	54.75%	2.809%
8	8.638	8.595	8.741	VB	950763	9876699	56.85%	2.917%
9	8.940	8.903	9.048	VB	982659	10269229	59.11%	3.033%
10	9.733	9.638	9.855	BB	922180	9771184	56.24%	2.886%
11	10.146	10.105	10.218	BB	826474	9268209	53.35%	2.737%
12	11.147	11.061	11.187	BV	813855	9148271	52.66%	2.702%
13	11.223	11.187	11.345	VB	822113	9149693	52.67%	2.702%
14	11.596	11.551	11.671	BB	769666	9127503	52.54%	2.696%
15	11.911	11.865	11.981	BB	580144	6427762	37.00%	1.899%
16	12.912	12.828	12.941	BV	742180	9092691	52.34%	2.686%
17	12.978	12.941	13.081	VB	745091	8855016	50.97%	2.615%
18	13.277	13.231	13.310	BV	741609	8842569	50.90%	2.612%
19	13.356	13.310	13.448	VB	383069	4830119	27.80%	1.427%
20	13.525	13.485	13.598	BB	702325	8651426	49.80%	2.555%
21	14.114	14.075	14.188	BB	656821	8548322	49.21%	2.525%
22	15.168	15.121	15.188	BV	632106	8710046	50.14%	2.573%
23	15.216	15.188	15.368	VB	1182777	17372766	100.00%	5.131%
24	16.249	16.045	16.321	BB	622730	8220021	47.32%	2.428%
25	16.738	16.658	16.754	BV	575088	9109844	52.44%	2.691%
26	16.774	16.754	16.925	VB	715676	9925478	57.13%	2.932%
27	17.123	17.051	17.164	BV	624412	9285103	53.45%	2.742%
28	17.199	17.164	17.321	VB	578800	8406907	48.39%	2.483%
29	18.092	18.028	18.191	BB	575741	8250231	47.49%	2.437%
30	18.509	18.411	18.523	BV	458717	7897900	45.46%	2.333%
31	18.543	18.523	18.715	VV	581727	11685852	67.27%	3.452%
32	18.768	18.715	18.871	PBA	440577	9118061	52.48%	2.693%
33	18.926	18.871	19.068	BB	559661	8130462	46.80%	2.401%
34	19.713	19.651	19.878	BB	512116	8518086	49.03%	2.516%
35	20.456	20.401	20.555	BV	454317	8241619	47.44%	2.434%
36	21.200	21.131	21.361	BB	364320	8342089	48.02%	2.464%

37 22.125 22.041 22.301 BB 272973 8302472 47.79% 2.452%
rteres
Sum of corrected areas: 3385

Aliphatic EPH 030325.M Tue Mar 25 02:20:02 2025

Instrument :

FID_E

ClientSampleId :

PB167270BSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 03/25/2025

Supervised By :mohammad ahmed 03/26/2025

Report of Analysis

Client:	Walsh Construction Company II, LLC	Date Collected:	
Project:	Walsh CO-032 Sampling	Date Received:	
Client Sample ID:	OK-01-03212025MS	SDG No.:	Q1626
Lab Sample ID:	Q1624-01MS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	86.8
Sample Wt/Vol:	30.05 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
03/24/25 08:18	03/24/25 17:10	PB167270

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	65.4	E	1	1.36	2.30	mg/kg	FE052945.D
Aliphatic C9-C28	Aliphatic C9-C28	128	E	1	1.05	4.60	mg/kg	FE052945.D
Total AliphaticEPH	Total AliphaticEPH	193			2.41	6.90	mg/kg	
Total EPH	Total EPH	193			2.41	6.90	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Walsh Construction Company II, LLC	Date Collected:	
Project:	Walsh CO-032 Sampling	Date Received:	
Client Sample ID:	OK-01-03212025MS	SDG No.:	Q1626
Lab Sample ID:	Q1624-01MS	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	86.8
Sample Wt/Vol:	30.05 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE052945.D	1	03/24/25	03/24/25	PB167270

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	128	E	1.05	4.60	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	65.4	E	1.36	2.30	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	31.5		40 - 140	63%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	30.4		40 - 140	61%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1624-01MS	Acq On:	24 Mar 2025 17:10
Client Sample ID:	OK-01-03212025MS	Operator:	YP\AJ
Data file:	FE052945.D	Misc:	
Instrument:	FID_E	ALS Vial:	16
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.147	6.791	41433179	265.685	300	ug/ml
Aliphatic C12-C16	6.792	10.244	57609087	378.762	200	ug/ml
Aliphatic C16-C21	10.245	13.623	64328168	438.956	300	ug/ml
Aliphatic C21-C28	13.624	17.297	82469834	578.931	400	ug/ml
Aliphatic C28-C40	17.298	22.225	108794246	852.692	600	ug/ml
Aliphatic EPH	3.147	22.225	354634514	2520		ug/ml
ortho-Terphenyl (SURR)	11.910	11.910	5126760	30.41		ug/ml
1-chlorooctadecane (SURR)	13.355	13.355	3828994	31.53		ug/ml
Aliphatic C9-C28	3.147	17.297	245840268	1660	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052945.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 17:10
 Operator : YP\AJ
 Sample : Q1624-01MS
 Misc :
 ALS Vial : 16 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 OK-01-03212025MS

Integration File: autoint1.e
 Quant Time: Mar 25 01:52:50 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 13:39:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.910	5126760	30.410 ug/ml
Spiked Amount 50.000		Recovery =	60.82%
12) S 1-chlorooctadecane (S...	13.355	3828994	31.534 ug/ml
Spiked Amount 50.000		Recovery =	63.07%
Target Compounds			
1) T n-Nonane (C9)	3.252	6752854	43.553 ug/ml
2) T n-Decane (C10)	4.514	7606956	48.422 ug/ml
3) T A~Naphthalene (C11.7)	6.225	8935577	52.689 ug/ml
4) T n-Dodecane (C12)	6.693	8511451	54.666 ug/ml
5) T A~2-methylnaphthalene...	7.329	8572310	52.897 ug/ml
6) T n-Tetradecane (C14)	8.533	9149271	60.467 ug/ml
7) T n-Hexadecane (C16)	10.147	9217398	60.289 ug/ml
8) T n-Octadecane (C18)	11.596	9126936	59.990 ug/ml
10) T n-Eicosane (C20)	12.912	9135115	62.925 ug/ml
11) T n-Heneicosane (C21)	13.525	8704828	61.160 ug/ml
13) T n-Docosane (C22)	14.115	8644634	60.745 ug/ml
14) T n-Tetracosane (C24)	15.216	17299268	120.882 ug/ml
15) T n-Hexacosane (C26)	16.249	8362807	58.813 ug/ml
16) T n-Octacosane (C28)	17.200	8581041	60.347 ug/ml
17) T n-Tricontane (C30)	18.094	8618975	58.354 ug/ml
18) T n-Dotriacontane (C32)	18.927	8435141	58.102 ug/ml
19) T n-Tetratriacontane (C34)	19.714	8760475	64.999 ug/ml
20) T n-Hexatriacontane (C36)	20.457	8443833	71.062 ug/ml
21) T n-Octatriacontane (C38)	21.203	8370594	75.454 ug/ml
22) T n-Tetracontane (C40)	22.129	8751194	80.943 ug/ml

(f)=RT Delta > 1/2 Window

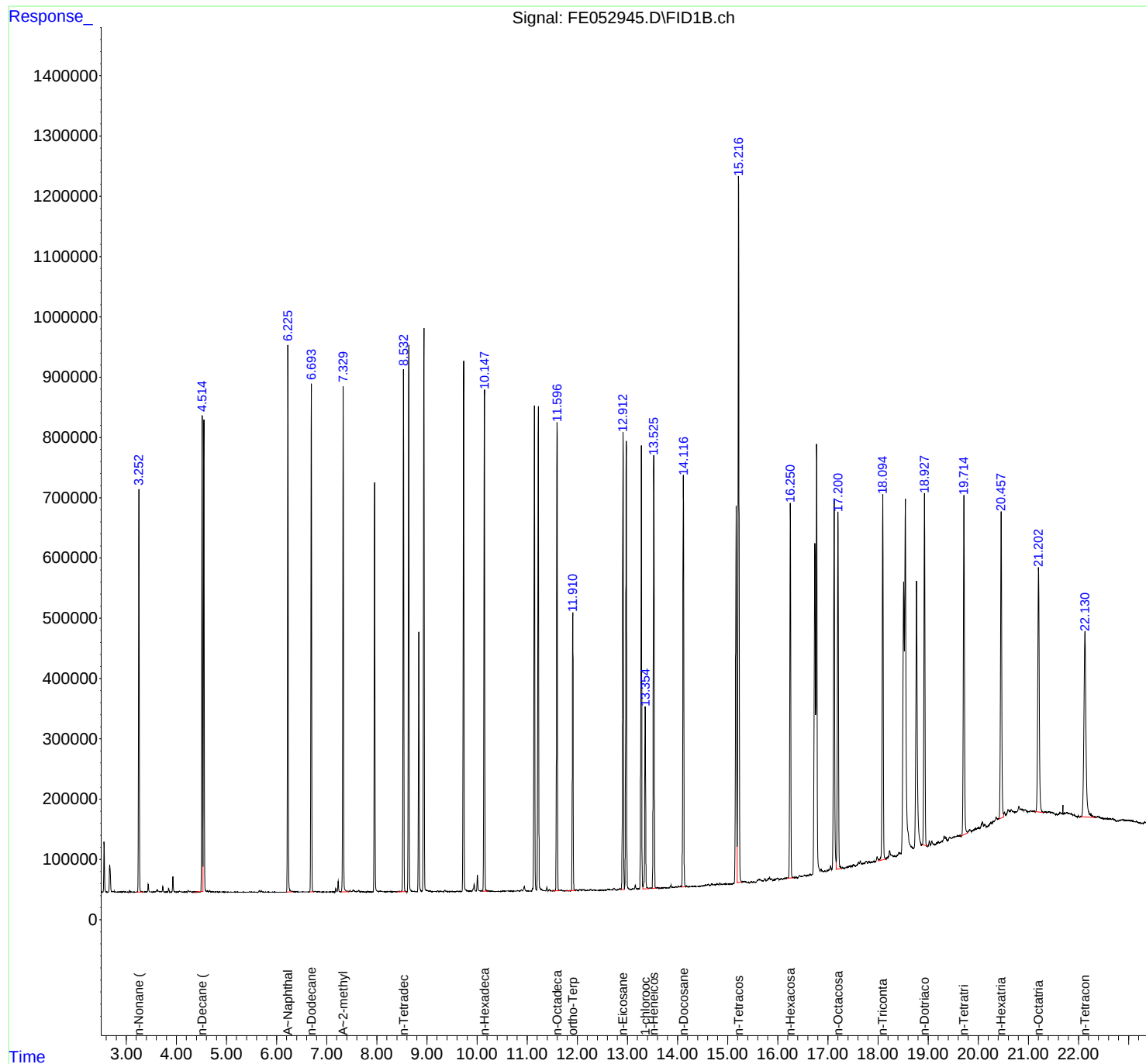
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052945.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 17:10
Operator : YP\AJ
Sample : Q1624-01MS
Misc :
ALS Vial : 16 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
OK-01-03212025MS

Integration File: autoint1.e
Quant Time: Mar 25 01:52:50 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052945.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 17:10
Sample : Q1624-01MS
Misc :
ALS Vial : 16 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.828	2.804	2.850	BV	116	529	0.00%	0.000%
2	2.889	2.850	2.913	PV	431	6905	0.04%	0.002%
3	2.945	2.913	2.975	VV	1568	17824	0.10%	0.005%
4	2.983	2.975	3.004	VV	247	2378	0.01%	0.001%
5	3.033	3.004	3.045	PV	379	5080	0.03%	0.001%
6	3.068	3.045	3.093	VV	2048	24855	0.14%	0.007%
7	3.122	3.093	3.205	VV	509	19448	0.11%	0.005%
8	3.252	3.205	3.348	VV	666294	6774931	38.91%	1.863%
9	3.367	3.348	3.380	VV	722	11026	0.06%	0.003%
10	3.395	3.380	3.418	VV	827	13487	0.08%	0.004%
11	3.438	3.418	3.516	VV	13224	148929	0.86%	0.041%
12	3.535	3.516	3.550	VV	575	7623	0.04%	0.002%
13	3.565	3.550	3.576	VV	559	7013	0.04%	0.002%
14	3.616	3.576	3.671	VV	3409	94491	0.54%	0.026%
15	3.694	3.671	3.708	VV	1123	19670	0.11%	0.005%
16	3.729	3.708	3.820	VV	9391	115777	0.66%	0.032%
17	3.846	3.820	3.902	VV	6428	79144	0.45%	0.022%
18	3.930	3.902	4.008	VV	25419	278772	1.60%	0.077%
19	4.061	4.008	4.134	VV	2106	54327	0.31%	0.015%
20	4.155	4.134	4.192	VV	414	11026	0.06%	0.003%
21	4.237	4.192	4.261	VV	2730	44660	0.26%	0.012%
22	4.276	4.261	4.356	VV	1763	32022	0.18%	0.009%
23	4.375	4.356	4.395	VV	641	9694	0.06%	0.003%
24	4.404	4.395	4.424	VV	383	4835	0.03%	0.001%
25	4.444	4.424	4.472	VV	248	5609	0.03%	0.002%
26	4.514	4.472	4.530	VV	792568	7657512	43.97%	2.105%
27	4.548	4.530	4.605	VV	781766	8027082	46.10%	2.207%
28	4.620	4.605	4.647	VV	2069	38644	0.22%	0.011%
29	4.665	4.647	4.720	VV	2213	48645	0.28%	0.013%
30	4.737	4.720	4.775	VV	718	17577	0.10%	0.005%
31	4.795	4.775	4.809	VV	886	12008	0.07%	0.003%
32	4.818	4.809	4.841	VV	631	9075	0.05%	0.002%
33	4.851	4.841	4.864	VV	428	5234	0.03%	0.001%
34	4.875	4.864	4.884	VV	448	5008	0.03%	0.001%
35	4.899	4.884	4.914	VV	502	8077	0.05%	0.002%
36	4.930	4.914	4.942	VV	546	6813	0.04%	0.002%

					rteres			
37	4.952	4.942	4.962	VV	379	4272	0.02%	0.001%
38	4.974	4.962	5.001	VV	414	7169	0.04%	0.002%
39	5.019	5.001	5.071	VV	499	10585	0.06%	0.003%
40	5.090	5.071	5.111	VV	252	3465	0.02%	0.001%
41	5.123	5.111	5.141	VV	128	1709	0.01%	0.000%
42	5.170	5.141	5.205	VV	422	8686	0.05%	0.002%
43	5.218	5.205	5.251	VV	320	5491	0.03%	0.002%
44	5.266	5.251	5.288	VV	268	3806	0.02%	0.001%
45	5.300	5.288	5.317	VV	250	3497	0.02%	0.001%
46	5.334	5.317	5.372	VV	300	5546	0.03%	0.002%
47	5.402	5.372	5.418	PV	157	2468	0.01%	0.001%
48	5.458	5.418	5.481	VV	947	15236	0.09%	0.004%
49	5.492	5.481	5.508	VV	330	4348	0.02%	0.001%
50	5.527	5.508	5.551	VV	263	4589	0.03%	0.001%
51	5.567	5.551	5.580	VV	259	2289	0.01%	0.001%
52	5.588	5.580	5.626	VV	199	2431	0.01%	0.001%
53	5.654	5.626	5.676	VV	2956	33900	0.19%	0.009%
54	5.693	5.676	5.757	VV	2380	37809	0.22%	0.010%
55	5.771	5.757	5.792	VV	283	4018	0.02%	0.001%
56	5.805	5.792	5.816	VV	198	1854	0.01%	0.001%
57	5.836	5.816	5.897	VV	374	9562	0.05%	0.003%
58	5.918	5.897	5.934	VV	247	3383	0.02%	0.001%
59	5.963	5.934	6.011	VV	393	10420	0.06%	0.003%
60	6.041	6.011	6.078	VV	263	6730	0.04%	0.002%
61	6.088	6.078	6.105	VV	157	2062	0.01%	0.001%
62	6.133	6.105	6.152	VV	299	3895	0.02%	0.001%
63	6.225	6.152	6.321	PV	901556	8981196	51.58%	2.469%
64	6.331	6.321	6.361	VV	1189	21834	0.13%	0.006%
65	6.398	6.361	6.441	VV	1210	35411	0.20%	0.010%
66	6.457	6.441	6.495	VV	536	14512	0.08%	0.004%
67	6.528	6.495	6.567	VV	945	25344	0.15%	0.007%
68	6.578	6.567	6.593	VV	564	8207	0.05%	0.002%
69	6.610	6.593	6.644	VV	525	13764	0.08%	0.004%
70	6.693	6.644	6.754	VV	846587	8547829	49.09%	2.350%
71	6.772	6.754	6.824	VV	1601	37151	0.21%	0.010%
72	6.843	6.824	6.871	VV	1141	19619	0.11%	0.005%
73	6.883	6.871	6.906	VV	425	7517	0.04%	0.002%
74	6.918	6.906	6.940	VV	343	5212	0.03%	0.001%
75	6.952	6.940	6.958	VV	318	2797	0.02%	0.001%
76	6.975	6.958	6.999	VV	475	7772	0.04%	0.002%
77	7.018	6.999	7.071	VV	447	12099	0.07%	0.003%
78	7.098	7.071	7.156	VV	642	16147	0.09%	0.004%
79	7.182	7.156	7.206	VV	5921	72090	0.41%	0.020%
80	7.229	7.206	7.285	VV	17988	204267	1.17%	0.056%
81	7.329	7.285	7.401	VV	831127	8591642	49.34%	2.362%
82	7.411	7.401	7.446	VV	1716	34034	0.20%	0.009%
83	7.466	7.446	7.485	VV	2533	35566	0.20%	0.010%
84	7.528	7.485	7.584	VV	3545	93494	0.54%	0.026%
85	7.606	7.584	7.623	VV	1944	27198	0.16%	0.007%
86	7.642	7.623	7.668	VV	3181	39145	0.22%	0.011%
87	7.699	7.668	7.748	VV	901	23451	0.13%	0.006%
88	7.764	7.748	7.793	VV	188	2763	0.02%	0.001%
89	7.815	7.793	7.844	PV	1291	16833	0.10%	0.005%

					rteres			
90	7.864	7.844	7.901	VV	374	6259	0.04%	0.002%
91	8.070	8.041	8.085	VV	1194	25944	0.15%	0.007%
92	8.098	8.085	8.155	VV	1208	28091	0.16%	0.008%
93	8.171	8.155	8.194	VV	466	7266	0.04%	0.002%
94	8.218	8.194	8.240	VV	1361	17833	0.10%	0.005%
95	8.276	8.240	8.308	VV	1196	23041	0.13%	0.006%
96	8.346	8.308	8.374	VV	726	15042	0.09%	0.004%
97	8.430	8.374	8.463	VV	888	27446	0.16%	0.008%
98	8.533	8.463	8.594	VV	872513	9170805	52.67%	2.521%
99	8.638	8.594	8.741	VV	910149	9460322	54.33%	2.601%
100	8.751	8.741	8.794	VV	600	12643	0.07%	0.003%
101	8.940	8.903	9.047	VV	943514	9928668	57.02%	2.730%
102	9.067	9.047	9.104	VV	1461	31698	0.18%	0.009%
103	9.130	9.104	9.168	VV	620	18753	0.11%	0.005%
104	9.176	9.168	9.193	VV	518	7025	0.04%	0.002%
105	9.215	9.193	9.241	VV	1582	24004	0.14%	0.007%
106	9.273	9.241	9.317	VV	899	24164	0.14%	0.007%
107	9.359	9.317	9.430	VV	2568	45623	0.26%	0.013%
108	9.447	9.430	9.471	VV	274	4230	0.02%	0.001%
109	9.506	9.471	9.525	VV	304	5469	0.03%	0.002%
110	9.561	9.525	9.573	VV	281	5936	0.03%	0.002%
111	9.596	9.573	9.632	VV	623	13451	0.08%	0.004%
112	9.657	9.632	9.676	VV	618	9760	0.06%	0.003%
113	9.733	9.676	9.848	VV	886113	9604929	55.16%	2.641%
114	9.878	9.848	9.898	VV	1600	28288	0.16%	0.008%
115	9.943	9.898	9.984	VV	12527	210755	1.21%	0.058%
116	10.008	9.984	10.059	VV	27237	348421	2.00%	0.096%
117	10.077	10.059	10.106	VV	1900	34607	0.20%	0.010%
118	10.147	10.106	10.221	VV	836977	9256968	53.16%	2.545%
119	10.245	10.221	10.288	VV	863	21490	0.12%	0.006%
120	10.314	10.288	10.368	VV	329	8544	0.05%	0.002%
121	10.378	10.368	10.389	PV	99	920	0.01%	0.000%
122	10.420	10.389	10.447	VV	289	4337	0.02%	0.001%
123	10.482	10.447	10.507	PV	398	7703	0.04%	0.002%
124	10.532	10.507	10.558	VV	1111	17895	0.10%	0.005%
125	10.589	10.558	10.643	VV	910	32551	0.19%	0.009%
126	10.660	10.643	10.704	VV	604	15592	0.09%	0.004%
127	10.734	10.704	10.751	VV	435	7015	0.04%	0.002%
128	10.812	10.751	10.829	VV	805	25549	0.15%	0.007%
129	10.839	10.829	10.857	VV	634	9338	0.05%	0.003%
130	10.886	10.857	10.910	VV	2624	41163	0.24%	0.011%
131	10.944	10.910	11.056	VV	8227	157398	0.90%	0.043%
132	11.146	11.056	11.187	VV	809709	9101684	52.27%	2.502%
133	11.223	11.187	11.328	VV	813178	9125799	52.41%	2.509%
134	11.341	11.328	11.368	VV	799	15869	0.09%	0.004%
135	11.394	11.368	11.420	VV	5865	72348	0.42%	0.020%
136	11.442	11.420	11.481	VV	2475	40111	0.23%	0.011%
137	11.524	11.481	11.548	VV	803	18081	0.10%	0.005%
138	11.596	11.548	11.648	VV	770734	9138001	52.48%	2.512%
139	11.677	11.648	11.716	VV	1703	34752	0.20%	0.010%
140	11.746	11.716	11.768	VV	506	7452	0.04%	0.002%
141	11.789	11.768	11.815	VV	543	9391	0.05%	0.003%

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142	11.835	11.815	11.860	VV	329	5869	0.03%	0.002%
143	11.910	11.860	11.965	PV	461441	5162536	29.65%	1.419%
144	11.982	11.965	12.011	VV	1867	28796	0.17%	0.008%
145	12.051	12.011	12.079	VV	2140	47844	0.27%	0.013%
146	12.098	12.079	12.113	VV	2085	27407	0.16%	0.008%
147	12.128	12.113	12.176	VV	1831	28132	0.16%	0.008%
148	12.203	12.176	12.228	PV	885	13383	0.08%	0.004%
149	12.265	12.228	12.296	VV	2406	42595	0.24%	0.012%
150	12.319	12.296	12.335	VV	1068	15787	0.09%	0.004%
151	12.352	12.335	12.384	VV	859	12552	0.07%	0.003%
152	12.422	12.384	12.438	VV	425	5547	0.03%	0.002%
153	12.452	12.438	12.465	PV	196	2163	0.01%	0.001%
154	12.486	12.465	12.520	VV	780	10747	0.06%	0.003%
155	12.563	12.520	12.582	VV	389	9106	0.05%	0.003%
156	12.607	12.582	12.669	VV	2025	57050	0.33%	0.016%
157	12.734	12.669	12.788	VV	3352	75116	0.43%	0.021%
158	12.810	12.788	12.828	PV	889	13331	0.08%	0.004%
159	12.852	12.828	12.872	VV	2634	39769	0.23%	0.011%
160	12.912	12.872	12.941	VV	756180	9155167	52.58%	2.517%
161	12.977	12.941	13.057	VV	747957	8956365	51.43%	2.462%
162	13.068	13.057	13.084	VV	495	6538	0.04%	0.002%
163	13.108	13.084	13.131	VV	1563	24011	0.14%	0.007%
164	13.157	13.131	13.195	VV	7085	90289	0.52%	0.025%
165	13.215	13.195	13.237	VV	890	14539	0.08%	0.004%
166	13.278	13.237	13.310	VV	733044	8916323	51.20%	2.451%
167	13.355	13.310	13.428	VV	301450	3849292	22.11%	1.058%
168	13.456	13.428	13.488	VV	1407	40371	0.23%	0.011%
169	13.525	13.488	13.585	VV	711583	8745292	50.22%	2.404%
170	13.604	13.585	13.650	VV	1674	31096	0.18%	0.009%
171	13.667	13.650	13.679	PV	747	7725	0.04%	0.002%
172	13.694	13.679	13.710	VV	797	9786	0.06%	0.003%
173	13.734	13.710	13.762	VV	1296	22457	0.13%	0.006%
174	13.790	13.762	13.808	VV	372	5307	0.03%	0.001%
175	13.867	13.808	13.887	VV	2572	51133	0.29%	0.014%
176	13.902	13.887	13.928	VV	1155	16116	0.09%	0.004%
177	13.962	13.928	13.991	VV	1288	31057	0.18%	0.009%
178	14.012	13.991	14.031	VV	2369	31472	0.18%	0.009%
179	14.061	14.031	14.076	VV	2040	32876	0.19%	0.009%
180	14.115	14.076	14.164	VV	675285	8673757	49.81%	2.385%
181	14.182	14.164	14.211	VV	2030	26716	0.15%	0.007%
182	14.241	14.211	14.261	VV	493	9621	0.06%	0.003%
183	14.287	14.261	14.304	VV	808	11551	0.07%	0.003%
184	14.323	14.304	14.333	VV	505	7212	0.04%	0.002%
185	14.344	14.333	14.364	VV	590	6842	0.04%	0.002%
186	14.420	14.364	14.431	VV	233	5585	0.03%	0.002%
187	14.453	14.431	14.460	PV	302	2929	0.02%	0.001%
188	14.480	14.460	14.496	VV	823	10315	0.06%	0.003%
189	14.556	14.496	14.574	VV	1571	44515	0.26%	0.012%
190	14.615	14.574	14.650	VV	2357	64065	0.37%	0.018%
191	14.677	14.650	14.695	VV	3126	45179	0.26%	0.012%
192	14.705	14.695	14.724	VV	1489	23402	0.13%	0.006%
193	14.737	14.724	14.756	VV	1527	21242	0.12%	0.006%
194	14.784	14.756	14.823	VV	2335	57295	0.33%	0.016%

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195	14.844	14.823	14.865	VV	3488	45670	0.26%	0.013%
196	14.882	14.865	14.893	VV	870	13475	0.08%	0.004%
197	14.921	14.893	14.944	VV	1371	31940	0.18%	0.009%
198	14.966	14.944	14.988	VV	1755	27053	0.16%	0.007%
199	15.005	14.988	15.017	VV	976	13113	0.08%	0.004%
200	15.031	15.017	15.061	VV	858	13208	0.08%	0.004%
201	15.077	15.061	15.087	VV	347	3090	0.02%	0.001%
202	15.113	15.087	15.124	PV	1273	15355	0.09%	0.004%
203	15.169	15.124	15.188	VV	617381	8759581	50.30%	2.408%
204	15.216	15.188	15.285	VV	1172915	17413393	100.00%	4.788%
205	15.320	15.285	15.335	VV	2905	81990	0.47%	0.023%
206	15.344	15.335	15.398	VV	2572	64987	0.37%	0.018%
207	15.412	15.398	15.434	VV	935	14720	0.08%	0.004%
208	15.470	15.434	15.491	VV	2291	36288	0.21%	0.010%
209	15.532	15.491	15.561	VV	764	25819	0.15%	0.007%
210	15.625	15.561	15.714	PV	4497	222296	1.28%	0.061%
211	15.741	15.714	15.773	VV	4815	90732	0.52%	0.025%
212	15.810	15.773	15.820	VV	4272	71943	0.41%	0.020%
213	15.836	15.820	15.856	VV	5840	84402	0.48%	0.023%
214	15.873	15.856	15.905	VV	3723	55912	0.32%	0.015%
215	15.998	15.905	16.040	VV	3214	122535	0.70%	0.034%
216	16.070	16.040	16.101	VV	1785	41182	0.24%	0.011%
217	16.164	16.101	16.176	VV	1832	56515	0.32%	0.016%
218	16.249	16.176	16.319	VV	626249	8461876	48.59%	2.326%
219	16.338	16.319	16.361	VV	1485	29267	0.17%	0.008%
220	16.373	16.361	16.393	VV	1190	13883	0.08%	0.004%
221	16.433	16.393	16.461	PV	3373	73085	0.42%	0.020%
222	16.539	16.461	16.567	VV	2138	80837	0.46%	0.022%
223	16.644	16.567	16.670	VV	1944	56556	0.32%	0.016%
224	16.739	16.670	16.755	PV	551912	9331400	53.59%	2.566%
225	16.775	16.755	16.842	VV	709647	9583510	55.04%	2.635%
226	16.861	16.842	16.908	VV	6676	166116	0.95%	0.046%
227	16.939	16.908	16.963	VV	2427	61112	0.35%	0.017%
228	16.986	16.963	17.003	VV	3554	54057	0.31%	0.015%
229	17.023	17.003	17.033	VV	3601	46425	0.27%	0.013%
230	17.053	17.033	17.079	VV	8665	139241	0.80%	0.038%
231	17.124	17.079	17.164	VV	614729	9159309	52.60%	2.518%
232	17.200	17.164	17.281	VV	591839	8668888	49.78%	2.383%
233	17.288	17.281	17.310	VV	1920	20918	0.12%	0.006%
234	17.320	17.310	17.334	VV	582	6302	0.04%	0.002%
235	17.361	17.334	17.378	PV	1660	23091	0.13%	0.006%
236	17.441	17.378	17.460	VV	2486	59715	0.34%	0.016%
237	17.512	17.460	17.549	VV	3109	76568	0.44%	0.021%
238	17.611	17.549	17.626	VV	5341	95141	0.55%	0.026%
239	17.647	17.626	17.674	VV	6865	111082	0.64%	0.031%
240	17.690	17.674	17.701	VV	2203	25389	0.15%	0.007%
241	17.720	17.701	17.737	VV	2590	34835	0.20%	0.010%
242	17.764	17.737	17.798	VV	4288	86974	0.50%	0.024%
243	17.821	17.798	17.871	VV	3152	57758	0.33%	0.016%
244	17.915	17.871	17.938	PV	1691	28606	0.16%	0.008%
245	17.982	17.938	18.011	VV	7593	137642	0.79%	0.038%
246	18.094	18.011	18.161	VV	605244	8661257	49.74%	2.381%

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247	18.232	18.161	18.310	VV	12802	427640	2.46%	0.118%
248	18.332	18.310	18.351	VV	2579	53171	0.31%	0.015%
249	18.420	18.351	18.434	VV	5828	159702	0.92%	0.044%
250	18.448	18.434	18.457	VV	5022	65609	0.38%	0.018%
251	18.511	18.457	18.525	VV	454246	8074383	46.37%	2.220%
252	18.544	18.525	18.701	VV	590944	11961031	68.69%	3.288%
253	18.769	18.701	18.880	VV	452894	9634856	55.33%	2.649%
254	18.927	18.880	18.971	VV	594103	8970564	51.52%	2.466%
255	18.988	18.971	18.998	VV	7871	124802	0.72%	0.034%
256	19.024	18.998	19.049	VV	15211	329307	1.89%	0.091%
257	19.074	19.049	19.144	VV	13907	522829	3.00%	0.144%
258	19.203	19.144	19.229	VV	10005	435293	2.50%	0.120%
259	19.242	19.229	19.247	VV	8680	88375	0.51%	0.024%
260	19.321	19.247	19.340	VV	17742	658966	3.78%	0.181%
261	19.356	19.340	19.386	VV	15056	338115	1.94%	0.093%
262	19.430	19.386	19.473	VV	14038	610387	3.51%	0.168%
263	19.544	19.473	19.553	VV	12758	584609	3.36%	0.161%
264	19.632	19.553	19.656	VV	12879	784979	4.51%	0.216%
265	19.714	19.656	19.784	VV	575773	9758043	56.04%	2.683%
266	19.833	19.784	19.868	VV	19603	857881	4.93%	0.236%
267	19.947	19.868	19.970	VV	18707	1051036	6.04%	0.289%
268	19.997	19.970	20.038	VV	18874	740670	4.25%	0.204%
269	20.085	20.038	20.111	VV	26701	998825	5.74%	0.275%
270	20.134	20.111	20.164	VV	22651	660185	3.79%	0.182%
271	20.179	20.164	20.186	VV	18485	242887	1.39%	0.067%
272	20.250	20.186	20.260	VV	22715	908010	5.21%	0.250%
273	20.358	20.260	20.381	VV	30579	1823427	10.47%	0.501%
274	20.457	20.381	20.505	VV	536848	10455444	60.04%	2.875%
275	20.523	20.505	20.544	VV	34775	769619	4.42%	0.212%
276	20.595	20.544	20.638	VV	38355	1946273	11.18%	0.535%
277	20.659	20.638	20.751	VV	37176	2303293	13.23%	0.633%
278	20.811	20.751	20.843	VV	39916	1905625	10.94%	0.524%
279	20.855	20.843	20.922	VV	34939	1573530	9.04%	0.433%
280	20.932	20.922	20.985	VV	32045	1146716	6.59%	0.315%
281	21.048	20.985	21.074	VV	28297	1465545	8.42%	0.403%
282	21.093	21.074	21.113	VV	27122	636787	3.66%	0.175%
283	21.123	21.113	21.136	VV	26158	346314	1.99%	0.095%
284	21.203	21.136	21.298	VV	429013	10625119	61.02%	2.921%
285	21.332	21.298	21.341	VV	21304	549059	3.15%	0.151%
286	21.347	21.341	21.370	VV	21084	361295	2.07%	0.099%
287	21.423	21.370	21.462	VV	19722	1064618	6.11%	0.293%
288	21.471	21.462	21.547	VV	18129	810855	4.66%	0.223%
289	21.558	21.547	21.573	VV	13129	195749	1.12%	0.054%
290	21.630	21.573	21.681	VV	15009	827888	4.75%	0.228%
291	21.689	21.681	21.731	VV	14199	360383	2.07%	0.099%
292	21.761	21.731	21.814	VV	12205	563292	3.23%	0.155%
293	21.824	21.814	21.893	VV	9510	378880	2.18%	0.104%
294	21.907	21.893	21.979	VV	6162	192876	1.11%	0.053%
295	22.004	21.979	22.031	VV	2408	45144	0.26%	0.012%

Sum of corrected areas: 363723364

Report of Analysis

Client:	Walsh Construction Company II, LLC	Date Collected:	
Project:	Walsh CO-032 Sampling	Date Received:	
Client Sample ID:	OK-01-03212025MSD	SDG No.:	Q1626
Lab Sample ID:	Q1624-01MSD	Matrix:	Solid
Analytical Method:	NJEPH	% Solid:	86.8
Sample Wt/Vol:	30.07 Units: g	Final Vol:	2000 uL
Soil Aliquot Vol:	uL	Test:	EPH_NF
Prep Method :			

Prep Date :	Date Analyzed :	Prep Batch ID
03/24/25 08:18	03/24/25 17:40	PB167270

Datafile

CAS Number	Parameter	Conc.	Qualifier	Dilution	MDL	LOQ / CRQL	Units(Dry Weight)	
TARGETS								
Aliphatic C28-C40	Aliphatic C28-C40	67.3	E	1	1.36	2.30	mg/kg	FE052946.D
Aliphatic C9-C28	Aliphatic C9-C28	127	E	1	1.04	4.60	mg/kg	FE052946.D
Total AliphaticEPH	Total AliphaticEPH	194			2.40	6.90	mg/kg	
Total EPH	Total EPH	194			2.40	6.90	mg/kg	

* As samples are not fractionated, all aliphatic and aromatic carbon compounds in the C9-C40 carbon range are calculated against the aliphatic calibration curve, and reported as Aliphatic EPH. Therefore, the aliphatic C9-C40 concentration for the sample is reported as the Total EPH.

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

Q = indicates LCS control criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

Report of Analysis

Client:	Walsh Construction Company II, LLC		Date Collected:		
Project:	Walsh CO-032 Sampling		Date Received:		
Client Sample ID:	OK-01-03212025MSD		SDG No.:	Q1626	
Lab Sample ID:	Q1624-01MSD		Matrix:	Solid	
Analytical Method:	NJEPH		% Solid:	86.8	
Sample Wt/Vol:	30.07	Units: g	Final Vol:	2000	uL
Soil Aliquot Vol:		uL	Test:	EPH_NF	
Prep Method :					

File ID :	Dilution:	Prep Date :	Date Analyzed :	Prep Batch ID
FE052946.D	1	03/24/25	03/24/25	PB167270

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
Aliphatic C9-C28	Aliphatic C9-C28	127	E	1.04	4.60	mg/kg
Aliphatic C28-C40	Aliphatic C28-C40	67.3	E	1.36	2.30	mg/kg
SURROGATES						
3383-33-2	1-chlorooctadecane (SURR)	31.3		40 - 140	63%	SPK: 50
84-15-1	ortho-Terphenyl (SURR)	30.2		40 - 140	60%	SPK: 50

Quantitation Report For Aliphatic EPH Range.

Lab Sample ID:	Q1624-01MSD	Acq On:	24 Mar 2025 17:40
Client Sample ID:	OK-01-03212025MSD	Operator:	YP\AJ
Data file:	FE052946.D	Misc:	
Instrument:	FID_E	ALS Vial:	17
Dilution Factor:	1	Sample Multiplier:	1.00

Compound	R.T.		Response	Conc	highest_standard	Units
Aliphatic C9-C12	3.147	6.791	41670820	267.209	300	ug/ml
Aliphatic C12-C16	6.792	10.244	57374078	377.217	200	ug/ml
Aliphatic C16-C21	10.245	13.623	63847550	435.676	300	ug/ml
Aliphatic C21-C28	13.624	17.297	82172464	576.844	400	ug/ml
Aliphatic C28-C40	17.298	22.225	112090329	878.526	600	ug/ml
Aliphatic EPH	3.147	22.225	357155241	2540		ug/ml
ortho-Terphenyl (SURR)	11.911	11.911	5088616	30.18		ug/ml
1-chlorooctadecane (SURR)	13.355	13.355	3801366	31.31		ug/ml
Aliphatic C9-C28	3.147	17.297	245064912	1660	1200	ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
 Data File : FE052946.D
 Signal(s) : FID1B.ch
 Acq On : 24 Mar 2025 17:40
 Operator : YP\AJ
 Sample : Q1624-01MSD
 Misc :
 ALS Vial : 17 Sample Multiplier: 1

Instrument :
 FID_E
 ClientSampleId :
 OK-01-03212025MSD

Integration File: autoint1.e
 Quant Time: Mar 25 01:53:15 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
 Quant Title : GC Extractables
 QLast Update : Mon Mar 03 13:39:39 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S ortho-Terphenyl (SURR)	11.911	5088616	30.184 ug/ml
Spiked Amount 50.000		Recovery =	60.37%
12) S 1-chlorooctadecane (S...	13.355	3801366	31.306 ug/ml
Spiked Amount 50.000		Recovery =	62.61%
Target Compounds			
1) T n-Nonane (C9)	3.253	6825104	44.019 ug/ml
2) T n-Decane (C10)	4.514	7684980	48.919 ug/ml
3) T A~Naphthalene (C11.7)	6.226	8970139	52.892 ug/ml
4) T n-Dodecane (C12)	6.693	8567236	55.024 ug/ml
5) T A~2-methylnaphthalene...	7.329	8558866	52.814 ug/ml
6) T n-Tetradecane (C14)	8.533	9182975	60.690 ug/ml
7) T n-Hexadecane (C16)	10.147	9219188	60.300 ug/ml
8) T n-Octadecane (C18)	11.596	9076845	59.661 ug/ml
10) T n-Eicosane (C20)	12.912	9066340	62.451 ug/ml
11) T n-Heneicosane (C21)	13.526	8627530	60.617 ug/ml
13) T n-Docosane (C22)	14.115	8563608	60.176 ug/ml
14) T n-Tetracosane (C24)	15.216	17211825	120.271 ug/ml
15) T n-Hexacosane (C26)	16.248	8312556	58.459 ug/ml
16) T n-Octacosane (C28)	17.199	8518333	59.906 ug/ml
17) T n-Tricontane (C30)	18.093	8558080	57.942 ug/ml
18) T n-Dotriacontane (C32)	18.926	8422587	58.015 ug/ml
19) T n-Tetratriacontane (C34)	19.714	8723286	64.723 ug/ml
20) T n-Hexatriacontane (C36)	20.457	8500547	71.539 ug/ml
21) T n-Octatriacontane (C38)	21.203	8374547	75.490 ug/ml
22) T n-Tetracontane (C40)	22.130	8798444	81.380 ug/ml

(f)=RT Delta > 1/2 Window

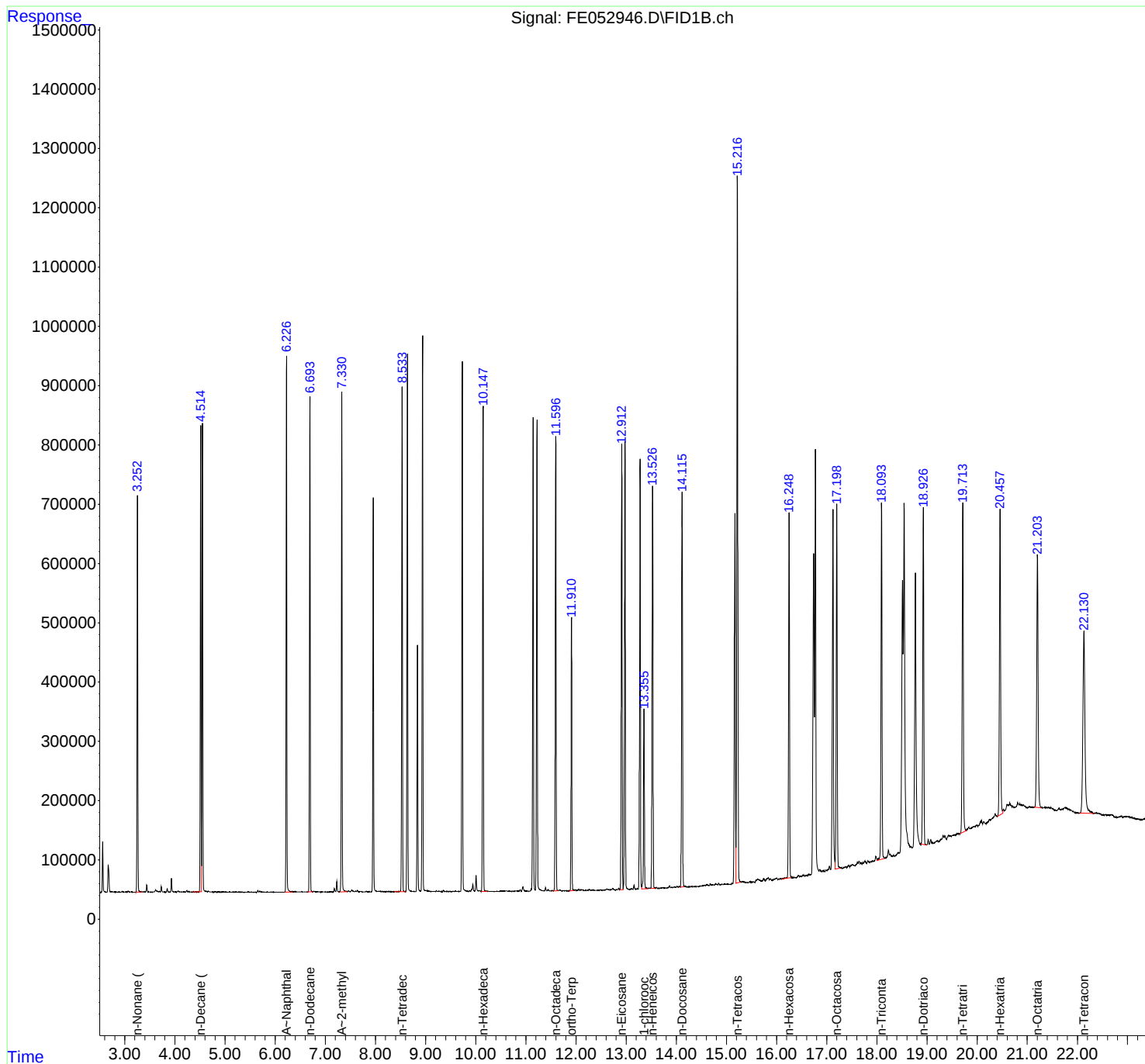
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052946.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 17:40
Operator : YP\AJ
Sample : Q1624-01MSD
Misc :
ALS Vial : 17 Sample Multiplier: 1

Instrument :
FID_E
ClientSampleId :
OK-01-03212025MSD

Integration File: autoint1.e
Quant Time: Mar 25 01:53:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Quant Title : GC Extractables
QLast Update : Mon Mar 03 13:39:39 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_E\Data\FE032425AL\
Data File : FE052946.D
Signal(s) : FID1B.ch
Acq On : 24 Mar 2025 17:40
Sample : Q1624-01MSD
Misc :
ALS Vial : 17 Sample Multiplier: 1

Integration File: sample.E

Method : Z:\pestpcbsrv\HPCHEM1\FID_E\methods\Aliphatic EPH 030325.M
Title : GC Extractables

Signal : FID1B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.890	2.821	2.914	BV	389	3722	0.02%	0.001%
2	2.946	2.914	2.966	PV	1492	15796	0.09%	0.004%
3	2.985	2.966	3.011	VV	219	3102	0.02%	0.001%
4	3.033	3.011	3.046	PV	347	4163	0.02%	0.001%
5	3.069	3.046	3.094	VV	1982	23165	0.13%	0.006%
6	3.120	3.094	3.181	VV	517	14596	0.08%	0.004%
7	3.253	3.181	3.347	VV	666313	6845894	39.51%	1.870%
8	3.365	3.347	3.381	VV	770	11840	0.07%	0.003%
9	3.396	3.381	3.413	VV	826	12610	0.07%	0.003%
10	3.438	3.413	3.515	VV	12340	142850	0.82%	0.039%
11	3.536	3.515	3.551	VV	558	7877	0.05%	0.002%
12	3.566	3.551	3.578	VV	547	7660	0.04%	0.002%
13	3.615	3.578	3.671	VV	3641	97196	0.56%	0.027%
14	3.695	3.671	3.708	VV	1133	20866	0.12%	0.006%
15	3.730	3.708	3.816	VV	9155	113661	0.66%	0.031%
16	3.846	3.816	3.905	VV	6061	77466	0.45%	0.021%
17	3.930	3.905	4.007	VV	23140	257161	1.48%	0.070%
18	4.061	4.007	4.138	VV	2032	58883	0.34%	0.016%
19	4.158	4.138	4.190	VV	491	11639	0.07%	0.003%
20	4.237	4.190	4.261	VV	2762	48362	0.28%	0.013%
21	4.277	4.261	4.348	VV	1810	37313	0.22%	0.010%
22	4.374	4.348	4.392	VV	805	13975	0.08%	0.004%
23	4.404	4.392	4.437	VV	539	11601	0.07%	0.003%
24	4.446	4.437	4.474	VV	451	8886	0.05%	0.002%
25	4.514	4.474	4.531	VV	788178	7730397	44.61%	2.111%
26	4.549	4.531	4.606	VV	787698	8080186	46.63%	2.207%
27	4.620	4.606	4.647	VV	1986	35071	0.20%	0.010%
28	4.665	4.647	4.717	VV	2050	42460	0.25%	0.012%
29	4.739	4.717	4.781	VV	627	17634	0.10%	0.005%
30	4.795	4.781	4.809	VV	811	10149	0.06%	0.003%
31	4.817	4.809	4.837	VV	586	6773	0.04%	0.002%
32	4.853	4.837	4.888	VV	317	9519	0.05%	0.003%
33	4.896	4.888	4.914	VV	388	5506	0.03%	0.002%
34	4.923	4.914	4.947	VV	358	6375	0.04%	0.002%
35	4.965	4.947	4.993	VV	370	7990	0.05%	0.002%
36	5.020	4.993	5.070	VV	566	13961	0.08%	0.004%

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37	5.091	5.070	5.117	VV	281	6080	0.04%	0.002%
38	5.169	5.117	5.203	VV	496	15405	0.09%	0.004%
39	5.220	5.203	5.251	VV	476	9428	0.05%	0.003%
40	5.267	5.251	5.285	VV	460	6004	0.03%	0.002%
41	5.296	5.285	5.318	VV	385	5701	0.03%	0.002%
42	5.332	5.318	5.381	VV	357	6320	0.04%	0.002%
43	5.458	5.381	5.512	VV	949	22640	0.13%	0.006%
44	5.527	5.512	5.581	VV	298	6275	0.04%	0.002%
45	5.591	5.581	5.631	VV	122	1891	0.01%	0.001%
46	5.654	5.631	5.676	PV	2943	34741	0.20%	0.009%
47	5.693	5.676	5.756	VV	2436	38582	0.22%	0.011%
48	5.771	5.756	5.821	VV	262	6710	0.04%	0.002%
49	5.838	5.821	5.908	VV	379	9229	0.05%	0.003%
50	5.917	5.908	5.934	VV	189	2621	0.02%	0.001%
51	5.966	5.934	5.997	VV	395	8288	0.05%	0.002%
52	6.016	5.997	6.083	VV	151	5823	0.03%	0.002%
53	6.093	6.083	6.108	VV	122	1096	0.01%	0.000%
54	6.136	6.108	6.149	VV	197	2615	0.02%	0.001%
55	6.226	6.149	6.316	PV	898696	8985643	51.85%	2.454%
56	6.331	6.316	6.365	VV	1205	25062	0.14%	0.007%
57	6.398	6.365	6.445	VV	1150	31849	0.18%	0.009%
58	6.453	6.445	6.491	VV	467	11649	0.07%	0.003%
59	6.528	6.491	6.564	VV	868	23314	0.13%	0.006%
60	6.578	6.564	6.598	VV	524	9320	0.05%	0.003%
61	6.611	6.598	6.651	VV	545	12083	0.07%	0.003%
62	6.693	6.651	6.753	VV	843688	8596079	49.61%	2.348%
63	6.772	6.753	6.824	VV	1570	34611	0.20%	0.009%
64	6.844	6.824	6.871	VV	1097	17667	0.10%	0.005%
65	6.881	6.871	6.930	VV	358	7988	0.05%	0.002%
66	6.974	6.930	7.006	VV	403	9954	0.06%	0.003%
67	7.021	7.006	7.048	VV	335	5382	0.03%	0.001%
68	7.054	7.048	7.078	VV	228	2610	0.02%	0.001%
69	7.100	7.078	7.141	VV	528	10995	0.06%	0.003%
70	7.182	7.141	7.207	VV	5916	70971	0.41%	0.019%
71	7.230	7.207	7.288	VV	17724	200202	1.16%	0.055%
72	7.329	7.288	7.400	VV	825093	8569847	49.45%	2.340%
73	7.411	7.400	7.446	VV	1560	30872	0.18%	0.008%
74	7.466	7.446	7.485	VV	2475	33743	0.19%	0.009%
75	7.528	7.485	7.587	VV	3473	93175	0.54%	0.025%
76	7.606	7.587	7.624	VV	1944	26072	0.15%	0.007%
77	7.642	7.624	7.675	VV	3222	40613	0.23%	0.011%
78	7.700	7.675	7.749	VV	927	23233	0.13%	0.006%
79	7.765	7.749	7.793	VV	204	2835	0.02%	0.001%
80	7.816	7.793	7.844	VV	1333	17122	0.10%	0.005%
81	7.870	7.844	7.899	VV	326	5762	0.03%	0.002%
82	8.069	8.045	8.085	VV	1184	23607	0.14%	0.006%
83	8.098	8.085	8.157	VV	1192	29246	0.17%	0.008%
84	8.172	8.157	8.195	VV	508	7814	0.05%	0.002%
85	8.219	8.195	8.245	VV	1313	17921	0.10%	0.005%
86	8.276	8.245	8.301	VV	1142	19567	0.11%	0.005%
87	8.347	8.301	8.378	VV	610	13341	0.08%	0.004%
88	8.432	8.378	8.465	VV	728	23549	0.14%	0.006%
89	8.533	8.465	8.597	VV	854786	9202425	53.10%	2.513%

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90	8.638	8.597	8.736	VV	907364	9404113	54.27%	2.568%
91	8.751	8.736	8.801	VV	755	16295	0.09%	0.004%
92	8.940	8.903	9.044	VV	945292	9863707	56.92%	2.694%
93	9.069	9.044	9.105	VV	1501	34792	0.20%	0.010%
94	9.125	9.105	9.135	VV	663	9237	0.05%	0.003%
95	9.145	9.135	9.171	VV	591	11421	0.07%	0.003%
96	9.180	9.171	9.191	VV	581	5976	0.03%	0.002%
97	9.215	9.191	9.241	VV	1624	25283	0.15%	0.007%
98	9.274	9.241	9.321	VV	945	26451	0.15%	0.007%
99	9.359	9.321	9.425	VV	2725	47770	0.28%	0.013%
100	9.450	9.425	9.468	VV	342	6365	0.04%	0.002%
101	9.508	9.468	9.528	VV	341	7288	0.04%	0.002%
102	9.543	9.528	9.572	VV	396	7170	0.04%	0.002%
103	9.596	9.572	9.632	VV	659	15443	0.09%	0.004%
104	9.656	9.632	9.676	VV	643	11248	0.06%	0.003%
105	9.689	9.676	9.698	VV	409	4412	0.03%	0.001%
106	9.733	9.698	9.848	VV	905566	9519405	54.93%	2.600%
107	9.878	9.848	9.897	VV	1546	27262	0.16%	0.007%
108	9.944	9.897	9.983	VV	12474	205203	1.18%	0.056%
109	10.008	9.983	10.061	VV	27327	341602	1.97%	0.093%
110	10.077	10.061	10.107	VV	1671	28343	0.16%	0.008%
111	10.147	10.107	10.228	VV	821162	9248779	53.37%	2.526%
112	10.245	10.228	10.288	VV	644	13108	0.08%	0.004%
113	10.318	10.288	10.360	VV	258	5180	0.03%	0.001%
114	10.372	10.360	10.379	PV	122	807	0.00%	0.000%
115	10.385	10.379	10.400	VV	125	836	0.00%	0.000%
116	10.421	10.400	10.447	VV	307	4185	0.02%	0.001%
117	10.484	10.447	10.505	PV	415	7875	0.05%	0.002%
118	10.533	10.505	10.558	VV	1178	18983	0.11%	0.005%
119	10.589	10.558	10.604	VV	1032	18354	0.11%	0.005%
120	10.619	10.604	10.641	VV	887	14817	0.09%	0.004%
121	10.659	10.641	10.667	VV	651	7572	0.04%	0.002%
122	10.676	10.667	10.705	VV	633	7795	0.04%	0.002%
123	10.736	10.705	10.765	VV	371	8484	0.05%	0.002%
124	10.810	10.765	10.831	VV	780	23214	0.13%	0.006%
125	10.838	10.831	10.857	VV	597	8031	0.05%	0.002%
126	10.885	10.857	10.911	VV	2597	40001	0.23%	0.011%
127	10.943	10.911	11.055	VV	7983	151132	0.87%	0.041%
128	11.147	11.055	11.187	PV	808426	9007671	51.98%	2.460%
129	11.223	11.187	11.331	VV	805232	9046987	52.21%	2.471%
130	11.339	11.331	11.371	VV	790	15999	0.09%	0.004%
131	11.394	11.371	11.420	VV	5855	72752	0.42%	0.020%
132	11.442	11.420	11.498	VV	2564	44756	0.26%	0.012%
133	11.522	11.498	11.546	VV	836	15794	0.09%	0.004%
134	11.596	11.546	11.650	VV	768032	9101427	52.52%	2.486%
135	11.678	11.650	11.720	VV	1774	35732	0.21%	0.010%
136	11.746	11.720	11.767	VV	488	7710	0.04%	0.002%
137	11.789	11.767	11.818	PV	454	8584	0.05%	0.002%
138	11.838	11.818	11.856	VV	283	4241	0.02%	0.001%
139	11.911	11.856	11.966	VV	462912	5113382	29.51%	1.397%
140	11.982	11.966	12.009	VV	1842	27767	0.16%	0.008%
141	12.051	12.009	12.080	VV	2134	49695	0.29%	0.014%

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142	12.098	12.080	12.115	VV	2089	28226	0.16%	0.008%
143	12.129	12.115	12.176	VV	1832	29330	0.17%	0.008%
144	12.202	12.176	12.225	PV	1067	14982	0.09%	0.004%
145	12.265	12.225	12.297	VV	2468	45404	0.26%	0.012%
146	12.319	12.297	12.336	VV	1133	16719	0.10%	0.005%
147	12.352	12.336	12.381	VV	925	14504	0.08%	0.004%
148	12.423	12.381	12.440	VV	558	8037	0.05%	0.002%
149	12.455	12.440	12.467	VV	329	3670	0.02%	0.001%
150	12.489	12.467	12.517	VV	897	13864	0.08%	0.004%
151	12.564	12.517	12.581	VV	508	11452	0.07%	0.003%
152	12.608	12.581	12.666	VV	2196	59966	0.35%	0.016%
153	12.698	12.666	12.708	VV	865	17007	0.10%	0.005%
154	12.734	12.708	12.783	VV	3564	62129	0.36%	0.017%
155	12.808	12.783	12.828	PV	801	12916	0.07%	0.004%
156	12.853	12.828	12.875	VV	2701	39645	0.23%	0.011%
157	12.912	12.875	12.941	VV	744145	9083279	52.42%	2.481%
158	12.977	12.941	13.085	VV	759593	8896579	51.34%	2.430%
159	13.108	13.085	13.133	VV	1721	24488	0.14%	0.007%
160	13.157	13.133	13.197	VV	7154	91283	0.53%	0.025%
161	13.215	13.197	13.237	VV	840	13678	0.08%	0.004%
162	13.278	13.237	13.310	PV	728247	8856560	51.11%	2.419%
163	13.355	13.310	13.435	VV	303572	3821577	22.05%	1.044%
164	13.456	13.435	13.486	VV	1542	35396	0.20%	0.010%
165	13.526	13.486	13.588	VV	683441	8669731	50.03%	2.368%
166	13.604	13.588	13.649	VV	1716	29216	0.17%	0.008%
167	13.668	13.649	13.679	PV	762	7621	0.04%	0.002%
168	13.695	13.679	13.711	VV	832	11023	0.06%	0.003%
169	13.736	13.711	13.768	VV	1450	25966	0.15%	0.007%
170	13.794	13.768	13.805	VV	443	7179	0.04%	0.002%
171	13.863	13.805	13.886	VV	2883	53099	0.31%	0.015%
172	13.903	13.886	13.922	VV	1102	16729	0.10%	0.005%
173	13.967	13.922	13.991	VV	1555	37181	0.21%	0.010%
174	14.012	13.991	14.037	VV	2462	36959	0.21%	0.010%
175	14.060	14.037	14.076	VV	2111	32414	0.19%	0.009%
176	14.115	14.076	14.163	VV	664211	8600386	49.63%	2.349%
177	14.181	14.163	14.208	VV	2139	27907	0.16%	0.008%
178	14.244	14.208	14.259	VV	522	11250	0.06%	0.003%
179	14.285	14.259	14.303	VV	937	13616	0.08%	0.004%
180	14.344	14.303	14.365	VV	671	15620	0.09%	0.004%
181	14.412	14.365	14.437	VV	321	7518	0.04%	0.002%
182	14.479	14.437	14.495	PV	754	12119	0.07%	0.003%
183	14.556	14.495	14.578	VV	1566	49054	0.28%	0.013%
184	14.611	14.578	14.650	VV	2389	62639	0.36%	0.017%
185	14.677	14.650	14.695	VV	3304	45168	0.26%	0.012%
186	14.705	14.695	14.722	VV	1661	23964	0.14%	0.007%
187	14.738	14.722	14.756	VV	1382	23144	0.13%	0.006%
188	14.783	14.756	14.822	VV	2414	58881	0.34%	0.016%
189	14.845	14.822	14.865	VV	3434	46253	0.27%	0.013%
190	14.879	14.865	14.898	VV	929	13815	0.08%	0.004%
191	14.915	14.898	14.948	VV	1334	28468	0.16%	0.008%
192	14.965	14.948	14.987	VV	1858	25721	0.15%	0.007%
193	15.004	14.987	15.020	VV	977	13350	0.08%	0.004%
194	15.036	15.020	15.060	VV	808	11577	0.07%	0.003%

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195	15.114	15.060	15.124	PV	1195	19459	0.11%	0.005%
196	15.168	15.124	15.188	VV	624145	8744561	50.46%	2.388%
197	15.216	15.188	15.288	VV	1192494	17328889	100.00%	4.733%
198	15.299	15.288	15.310	VV	3050	37165	0.21%	0.010%
199	15.322	15.310	15.341	VV	3046	51229	0.30%	0.014%
200	15.350	15.341	15.393	VV	2494	54499	0.31%	0.015%
201	15.410	15.393	15.431	VV	1117	20106	0.12%	0.005%
202	15.469	15.431	15.494	VV	2422	45911	0.26%	0.013%
203	15.543	15.494	15.563	VV	1091	34954	0.20%	0.010%
204	15.622	15.563	15.691	PV	5091	230052	1.33%	0.063%
205	15.739	15.691	15.772	VV	4980	116487	0.67%	0.032%
206	15.834	15.772	15.856	VV	5700	165641	0.96%	0.045%
207	15.874	15.856	15.903	VV	3759	58853	0.34%	0.016%
208	15.999	15.903	16.032	VV	3095	125774	0.73%	0.034%
209	16.042	16.032	16.050	VV	990	9297	0.05%	0.003%
210	16.072	16.050	16.098	VV	1776	36575	0.21%	0.010%
211	16.168	16.098	16.181	VV	1755	62850	0.36%	0.017%
212	16.248	16.181	16.295	VV	615265	8366325	48.28%	2.285%
213	16.306	16.295	16.331	VV	1926	28794	0.17%	0.008%
214	16.341	16.331	16.356	VV	1237	14139	0.08%	0.004%
215	16.371	16.356	16.397	VV	695	11596	0.07%	0.003%
216	16.438	16.397	16.461	PV	2931	66609	0.38%	0.018%
217	16.540	16.461	16.571	VV	2016	77902	0.45%	0.021%
218	16.582	16.571	16.615	VV	1104	15870	0.09%	0.004%
219	16.641	16.615	16.667	VV	1908	32269	0.19%	0.009%
220	16.738	16.667	16.754	PV	541658	9276007	53.53%	2.533%
221	16.774	16.754	16.841	VV	722495	9601950	55.41%	2.622%
222	16.861	16.841	16.908	VV	6336	154286	0.89%	0.042%
223	16.915	16.908	16.923	VV	2111	17668	0.10%	0.005%
224	16.940	16.923	16.960	VV	2582	37167	0.21%	0.010%
225	16.985	16.960	17.001	VV	3198	47756	0.28%	0.013%
226	17.023	17.001	17.035	VV	3261	50665	0.29%	0.014%
227	17.053	17.035	17.077	VV	8247	130023	0.75%	0.036%
228	17.124	17.077	17.163	VV	613715	9162116	52.87%	2.502%
229	17.199	17.163	17.273	VV	612135	8596591	49.61%	2.348%
230	17.290	17.273	17.306	VV	1694	23808	0.14%	0.007%
231	17.316	17.306	17.322	VV	441	2503	0.01%	0.001%
232	17.365	17.322	17.398	VV	1584	39627	0.23%	0.011%
233	17.437	17.398	17.459	VV	2555	47392	0.27%	0.013%
234	17.509	17.459	17.556	PV	3200	88065	0.51%	0.024%
235	17.611	17.556	17.626	PV	5294	90745	0.52%	0.025%
236	17.646	17.626	17.667	VV	5984	96398	0.56%	0.026%
237	17.682	17.667	17.700	VV	2489	34025	0.20%	0.009%
238	17.721	17.700	17.731	VV	1937	26776	0.15%	0.007%
239	17.759	17.731	17.796	VV	4361	87626	0.51%	0.024%
240	17.821	17.796	17.855	VV	3534	55147	0.32%	0.015%
241	17.915	17.855	17.933	PV	1427	28284	0.16%	0.008%
242	17.980	17.933	18.020	VV	7932	161605	0.93%	0.044%
243	18.093	18.020	18.154	VV	602744	8596622	49.61%	2.348%
244	18.231	18.154	18.311	VV	13725	414191	2.39%	0.113%
245	18.332	18.311	18.353	VV	2606	44492	0.26%	0.012%
246	18.424	18.353	18.436	VV	5180	150204	0.87%	0.041%

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247	18.442	18.436	18.452	VV	4758	41721	0.24%	0.011%
248	18.510	18.452	18.525	VV	462828	8303110	47.91%	2.268%
249	18.544	18.525	18.707	VV	594159	11837451	68.31%	3.233%
250	18.768	18.707	18.876	VV	469032	9720253	56.09%	2.655%
251	18.926	18.876	18.996	VV	575101	9055589	52.26%	2.473%
252	19.023	18.996	19.044	VV	15423	308025	1.78%	0.084%
253	19.075	19.044	19.140	VV	14127	542759	3.13%	0.148%
254	19.202	19.140	19.228	VV	10155	462432	2.67%	0.126%
255	19.321	19.228	19.339	VV	16644	746828	4.31%	0.204%
256	19.357	19.339	19.391	VV	15304	387957	2.24%	0.106%
257	19.428	19.391	19.481	VV	14795	685212	3.95%	0.187%
258	19.509	19.481	19.519	VV	13010	281514	1.62%	0.077%
259	19.545	19.519	19.560	VV	12901	310772	1.79%	0.085%
260	19.606	19.560	19.621	VV	13976	487210	2.81%	0.133%
261	19.636	19.621	19.655	VV	13901	268172	1.55%	0.073%
262	19.714	19.655	19.786	VV	570183	9827435	56.71%	2.684%
263	19.833	19.786	19.854	VV	19961	739434	4.27%	0.202%
264	19.949	19.854	19.965	VV	19266	1225628	7.07%	0.335%
265	19.986	19.965	20.020	VV	20646	653879	3.77%	0.179%
266	20.083	20.020	20.110	VV	26379	1221412	7.05%	0.334%
267	20.132	20.110	20.170	VV	23728	771270	4.45%	0.211%
268	20.250	20.170	20.266	VV	24774	1281857	7.40%	0.350%
269	20.359	20.266	20.401	VV	32571	2225036	12.84%	0.608%
270	20.457	20.401	20.511	VV	545974	10395213	59.99%	2.839%
271	20.523	20.511	20.548	VV	36225	774032	4.47%	0.211%
272	20.596	20.548	20.614	VV	43720	1531799	8.84%	0.418%
273	20.654	20.614	20.696	VV	43469	2035355	11.75%	0.556%
274	20.706	20.696	20.741	VV	38321	1002324	5.78%	0.274%
275	20.750	20.741	20.758	VV	35591	367409	2.12%	0.100%
276	20.810	20.758	20.836	VV	41803	1791225	10.34%	0.489%
277	20.850	20.836	20.983	VV	39033	3118372	18.00%	0.852%
278	20.990	20.983	21.009	VV	30861	473055	2.73%	0.129%
279	21.057	21.009	21.088	VV	30415	1418177	8.18%	0.387%
280	21.096	21.088	21.128	VV	29000	686314	3.96%	0.187%
281	21.203	21.128	21.279	VV	453122	10758617	62.08%	2.938%
282	21.292	21.279	21.319	VV	24639	589737	3.40%	0.161%
283	21.348	21.319	21.373	VV	23788	745800	4.30%	0.204%
284	21.382	21.373	21.405	VV	22785	426185	2.46%	0.116%
285	21.433	21.405	21.452	VV	21598	613024	3.54%	0.167%
286	21.461	21.452	21.588	VV	21149	1405014	8.11%	0.384%
287	21.634	21.588	21.667	VV	16582	700043	4.04%	0.191%
288	21.695	21.667	21.710	VV	13961	349667	2.02%	0.095%
289	21.752	21.710	21.851	VV	15187	1096249	6.33%	0.299%
290	21.863	21.851	21.996	VV	9315	437527	2.52%	0.119%
291	22.005	21.996	22.050	VV	1531	26533	0.15%	0.007%
Sum of corrected areas:					366154751			

Aliphatic EPH 030325.M Tue Mar 25 02:24:46 2025



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

Manual Integration Report

Sequence:

FE030325AL

Instrument

FID_e

Sample ID

File ID

Parameter

Review By

Review On

Supervised
By

Supervised On

Reason

Manual Integration Report

Sequence:

FE032425AL

Instrument

FID_e

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
Q1619-13DL	FE052937.D	1-chlorooctadecane (SURR)	yogesh	3/25/2025 7:42:15 AM	 	 	Peak Integrated by Software
PB167270BSD	FE052942.D	n-Dotriacontane (C32)	yogesh	3/25/2025 7:42:17 AM	 	 	Peak Integrated by Software

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE030325AL

Review By	yogesh	Review On	3/3/2025 1:02:44 PM
Supervise By	mohammad	Supervise On	3/7/2025 1:35:41 AM
SubDirectory	FE030325AL	HP Acquire Method	HP Processing Method FE030325AL
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178		
CCC Internal Standard/PEM	PP24176		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24174,PP24179		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FE052572.D	03 Mar 2025 08:32	YP\AJ	Ok
2	I.BLK	FE052573.D	03 Mar 2025 09:02	YP\AJ	Ok
3	100 PPM ALIPHATIC HC STD1	FE052574.D	03 Mar 2025 11:03	YP\AJ	Ok
4	50 PPM ALIPHATIC HC STD2	FE052575.D	03 Mar 2025 11:34	YP\AJ	Ok
5	20 PPM ALIPHATIC HC STD3	FE052576.D	03 Mar 2025 12:04	YP\AJ	Ok
6	10 PPM ALIPHATIC HC STD4	FE052577.D	03 Mar 2025 12:34	YP\AJ	Ok
7	5 PPM ALIPHATIC HC STD5	FE052578.D	03 Mar 2025 13:04	YP\AJ	Ok
8	20 PPM ALIPHATIC HC STD ICV	FE052579.D	03 Mar 2025 13:35	YP\AJ	Ok
9	I.BLK	FE052580.D	03 Mar 2025 14:05	YP\AJ	Ok
10	20 PPM ALIPHATIC HC STD	FE052581.D	03 Mar 2025 14:35	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE032425AL

Review By	yogesh	Review On	3/24/2025 12:14:47 PM
Supervise By		Supervise On	
SubDirectory	FE032425AL	HP Acquire Method	HP Processing Method FE030325AL
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24176 PP24174,PP24179		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FE052934.D	24 Mar 2025 08:59	YP\AJ	Ok
2	I.BLK	FE052935.D	24 Mar 2025 09:29	YP\AJ	Ok
3	20 PPM ALIPHATIC HC STD	FE052936.D	24 Mar 2025 10:40	YP\AJ	Ok
4	Q1619-13DL	FE052937.D	24 Mar 2025 11:13	YP\AJ	Ok,NS
5	I.BLK	FE052938.D	24 Mar 2025 12:13	YP\AJ	Ok
6	20 PPM ALIPHATIC HC STD	FE052939.D	24 Mar 2025 12:43	YP\AJ	Ok
7	PB167270BL	FE052940.D	24 Mar 2025 14:39	YP\AJ	Ok
8	PB167270BS	FE052941.D	24 Mar 2025 15:09	YP\AJ	Ok
9	PB167270BSD	FE052942.D	24 Mar 2025 15:39	YP\AJ	Ok,NS
10	Q1624-01	FE052943.D	24 Mar 2025 16:09	YP\AJ	Ok
11	Q1624-01D	FE052944.D	24 Mar 2025 16:39	YP\AJ	Ok
12	Q1624-01MS	FE052945.D	24 Mar 2025 17:10	YP\AJ	Ok
13	Q1624-01MSD	FE052946.D	24 Mar 2025 17:40	YP\AJ	Ok
14	Q1624-02	FE052947.D	24 Mar 2025 18:10	YP\AJ	Ok
15	Q1626-01	FE052948.D	24 Mar 2025 18:40	YP\AJ	Ok
16	I.BLK	FE052949.D	24 Mar 2025 19:40	YP\AJ	Ok
17	20 PPM ALIPHATIC HC STD	FE052950.D	24 Mar 2025 20:10	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE030325AL

Review By	yogesh	Review On	3/3/2025 1:02:44 PM
Supervise By	mohammad	Supervise On	3/7/2025 1:35:41 AM
SubDirectory	FE030325AL	HP Acquire Method	HP Processing Method FE030325AL
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178		
CCC	PP24176		
Internal Standard/PEM	PP24174,PP24179		
ICV/I.BLK			
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FE052572.D	03 Mar 2025 08:32		YP\AJ	Ok
2	I.BLK	I.BLK	FE052573.D	03 Mar 2025 09:02		YP\AJ	Ok
3	100 PPM ALIPHATIC HC	100 PPM ALIPHATIC HC	FE052574.D	03 Mar 2025 11:03		YP\AJ	Ok
4	50 PPM ALIPHATIC HC	50 PPM ALIPHATIC HC	FE052575.D	03 Mar 2025 11:34		YP\AJ	Ok
5	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE052576.D	03 Mar 2025 12:04		YP\AJ	Ok
6	10 PPM ALIPHATIC HC	10 PPM ALIPHATIC HC	FE052577.D	03 Mar 2025 12:34		YP\AJ	Ok
7	5 PPM ALIPHATIC HC	5 PPM ALIPHATIC HC	FE052578.D	03 Mar 2025 13:04		YP\AJ	Ok
8	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE052579.D	03 Mar 2025 13:35		YP\AJ	Ok
9	I.BLK	I.BLK	FE052580.D	03 Mar 2025 14:05		YP\AJ	Ok
10	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE052581.D	03 Mar 2025 14:35		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_E

Daily Analysis Runlog For Sequence/QC Batch ID # FE032425AL

Review By	yogesh	Review On	3/24/2025 12:14:47 PM
Supervise By		Supervise On	
SubDirectory	FE032425AL	HP Acquire Method	HP Processing Method FE030325AL

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP24170,PP24175,PP24176,PP24177,PP24178
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24176 PP24174,PP24179

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2	MECL2	FE052934.D	24 Mar 2025 08:59		YP\AJ	Ok
2	I.BLK	I.BLK	FE052935.D	24 Mar 2025 09:29		YP\AJ	Ok
3	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE052936.D	24 Mar 2025 10:40		YP\AJ	Ok
4	Q1619-13DL	TP-5DL	FE052937.D	24 Mar 2025 11:13		YP\AJ	Ok,NS
5	I.BLK	I.BLK	FE052938.D	24 Mar 2025 12:13		YP\AJ	Ok
6	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE052939.D	24 Mar 2025 12:43		YP\AJ	Ok
7	PB167270BL	PB167270BL	FE052940.D	24 Mar 2025 14:39		YP\AJ	Ok
8	PB167270BS	PB167270BS	FE052941.D	24 Mar 2025 15:09		YP\AJ	Ok
9	PB167270BSD	PB167270BSD	FE052942.D	24 Mar 2025 15:39		YP\AJ	Ok,NS
10	Q1624-01	OK-01-03212025	FE052943.D	24 Mar 2025 16:09		YP\AJ	Ok
11	Q1624-01D	Q1624-01D	FE052944.D	24 Mar 2025 16:39		YP\AJ	Ok
12	Q1624-01MS	OK-01-03212025MS	FE052945.D	24 Mar 2025 17:10	FE052943.D	YP\AJ	Ok
13	Q1624-01MSD	OK-01-03212025MSD	FE052946.D	24 Mar 2025 17:40	FE052943.D!FE052945.D	YP\AJ	Ok
14	Q1624-02	OK-01-03212025-E2	FE052947.D	24 Mar 2025 18:10		YP\AJ	Ok
15	Q1626-01	CO-32-1	FE052948.D	24 Mar 2025 18:40		YP\AJ	Ok
16	I.BLK	I.BLK	FE052949.D	24 Mar 2025 19:40		YP\AJ	Ok
17	20 PPM ALIPHATIC HC	20 PPM ALIPHATIC HC	FE052950.D	24 Mar 2025 20:10		YP\AJ	Ok

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 3/25/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 03/24/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:11
Out Date: 03/25/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135155

Lab ID	Client SampleID	Dish #	Dish Wt (g) (A)	Sample Wt (g)	Dish + Sample Wt (g) (B)	Dish+Dry Sample Wt (g) (C)	% Solid	Comments
Q1623-05	SVOC-GPC-BLANK	1	1.00	1.00	2.00	2.00	100.0	
Q1623-06	PEST-GPC-BLANK	2	1.00	1.00	2.00	2.00	100.0	
Q1623-07	PEST-GPC-BLANK-SPIKE	3	1.00	1.00	2.00	2.00	100.0	
Q1623-08	PCB-GPC-BLANK	4	1.00	1.00	2.00	2.00	100.0	
Q1623-09	PCB-GPC-BLANK-SPIKE	5	1.00	1.00	2.00	2.00	100.0	
Q1623-10	SVOC-GPC2-BLANK	6	1.00	1.00	2.00	2.00	100.0	
Q1623-11	PEST-GPC2-BLANK	7	1.00	1.00	2.00	2.00	100.0	
Q1623-12	PEST-GPC2-BLANK-SPIKE	8	1.00	1.00	2.00	2.00	100.0	
Q1623-13	PCB-GPC2-BLANK	9	1.00	1.00	2.00	2.00	100.0	
Q1623-14	PCB-GPC2-BLANK-SPIKE	10	1.00	1.00	2.00	2.00	100.0	
Q1626-01	CO-32-1	11	1.14	10.23	11.37	10.84	94.8	
Q1630-01	VNJ-206	12	1.15	10.39	11.54	10.26	87.7	
Q1631-01	364	13	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1631-04	359	14	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1632-01	PIER-1-2	15	1.17	10.40	11.57	11.09	95.4	
Q1633-01	SLG	16	1.15	10.50	11.65	4.7	33.8	sludge sample
Q1634-01	HR-01-032425	17	1.16	9.45	10.61	9.77	91.1	
Q1634-02	HR-01-032425-E2	18	1.13	10.66	11.79	10.75	90.2	
Q1634-03	HR-04-032425	19	1.13	10.84	11.97	11.04	91.4	
Q1634-04	HR-04-032425-E2	20	1.12	10.69	11.81	10.82	90.7	
Q1635-01	TP-2	21	1.19	10.15	11.34	10.26	89.4	
Q1635-02	TP-2-EPH	22	1.17	10.23	11.4	10.29	89.1	
Q1635-03	TP-2-VOC	23	1.15	12.12	13.27	11.88	88.5	

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

WORKLIST(Hardcopy Internal Chain)

13355

WorkList Name : %1-032425

WorkList ID : 188470

Department : Wet-Chemistry

Date : 03-24-2025 08:43:57

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1623-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1623-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1623-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1623-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1623-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1623-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1623-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1623-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1623-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1623-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1626-01	CO-32-1	Solid	Percent Solids	Cool 4 deg C	CHEM02	F11	03/21/2025	Chemtech -SO
Q1630-01	VNJ-206	Solid	Percent Solids	Cool 4 deg C	WALS01	F11	03/21/2025	Chemtech -SO
Q1631-01	364	Solid	Percent Solids	Cool 4 deg C	PSEG03	H31	03/21/2025	Chemtech -SO
Q1631-04	359	Solid	Percent Solids	Cool 4 deg C	PSEG03	I41	03/24/2025	Chemtech -SO
Q1632-01	PIER-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	I41	03/24/2025	Chemtech -SO
Q1633-01	SLG	Solid	Percent Solids	Cool 4 deg C	PSEG03	I41	03/24/2025	Chemtech -SO
Q1634-01	HR-01-032425	Solid	Percent Solids	Cool 4 deg C	PSEG03	I31	03/24/2025	Chemtech -SO
Q1634-02	HR-01-032425-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	I31	03/24/2025	Chemtech -SO
Q1634-03	HR-04-032425	Solid	Percent Solids	Cool 4 deg C	PSEG05	I31	03/24/2025	Chemtech -SO
Q1634-04	HR-04-032425-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	I31	03/24/2025	Chemtech -SO
Q1635-01	TP-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	I41	03/24/2025	Chemtech -SO

Date/Time 03/24/25 13130

Raw Sample Received by: yd w/cj

Raw Sample Relinquished by: CP Sn

Date/Time 03/24/25

Raw Sample Received by: CP Sn

Raw Sample Relinquished by: yd w/cj

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-032425

WorkList ID : 188470

Department : Wet-Chemistry

Date : 03-24-2025 08:43:57

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1635-02	TP-2-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	I41	03/24/2025	Chemtech -SO
Q1635-03	TP-2-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	I41	03/24/2025	Chemtech -SO

Date/Time 03/24/25 15:30
 Raw Sample Received by: sd woc
 Raw Sample Relinquished by: sd sm

Date/Time 03/24/25 17:10
 Raw Sample Received by: sd sm
 Raw Sample Relinquished by: sd alc

SOP ID: MNJDEP-EPH-7

Clean Up SOP #: N/A

Matrix : Solid

Weigh By: EH **Extraction By:** RJ

Balance check: RJ **Filter By:** RJ

Balance ID: EX-SC-2 **pH Meter ID:** N/A

pH Strip Lot#: N/A **Hood ID:** 3,7

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

Extraction Start Date : 03/24/2025

Extraction Start Time : 08:18

Extraction End Date : 03/24/2025

Extraction End Time : 14:25

Concentration By: EH

Supervisor By : rajesh

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	100 PPM	PP24207
Surrogate	1.0ML	100 PPM	PP24210
Fractionation Surrogate	1.0ML	100 PPM	PP24216
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
MeCl2/Acetone/1:1	N/A	EP2591
Baked Na2SO4	N/A	EP2595
Sand	N/A	E2865
Hexane	N/A	E3914
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:

Q1626-01 Added in batch at 10:51.

KD Bath ID: N/A **Envap ID:** NEVAP-02

KD Bath Temperature: N/A **Envap Temperature:** 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
03/24/25	RJ (Ext. Lab)	RJ - PEST-PCB Lab
14:30	Preparation Group	Analysis Group

Analytical Method: MNJDEP-EPH-7

Concentration Date: 03/24/2025

Sample ID	Client Sample ID	Test	g/mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167270BL	PB167270BL	EPH_NF	30.02	N/A	ritesh	Evelyn	2			U3-1
PB167270BS	PB167270BS	EPH_NF	30.03	N/A	ritesh	Evelyn	2			2
PB167270BSD	PB167270BSD	EPH_NF	30.01	N/A	ritesh	Evelyn	2			3
Q1624-01	OK-01-03212025	EPH_NF	30.03	N/A	ritesh	Evelyn	2	E		4
Q1624-01DUP	OK-01-03212025DUP	EPH_NF	30.08	N/A	ritesh	Evelyn	2	E		5
Q1624-01MS	OK-01-03212025MS	EPH_NF	30.05	N/A	ritesh	Evelyn	2	E		6
Q1624-01MSD	OK-01-03212025MSD	EPH_NF	30.07	N/A	ritesh	Evelyn	2	E		U6-1
Q1624-02	OK-01-03212025-E2	EPH_NF	30.06	N/A	ritesh	Evelyn	2			2
Q1626-01	CO-32-1	EPH_NF	30.02	N/A	ritesh	Evelyn	2	E		3

* Extracts relinquished on the same date as received.

3/24/25

10-10-2025

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1624 WorkList ID : 188464 Department : Extraction Date : 03-24-2025 08:13:26

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1624-01	OK-01-03212025	Solid	EPH_NF	Cool 4 deg C	PSEG05	I11	03/21/2025	NJEPH
Q1624-01	OK-01-03212025	Solid	PCB	Cool 4 deg C	PSEG05	I11	03/21/2025	8082A
Q1624-01	OK-01-03212025	Solid	Pesticide-TCL	Cool 4 deg C	PSEG05	I11	03/21/2025	8081B
Q1624-01	OK-01-03212025	Solid	SVOC-TCL BNA -20	Cool 4 deg C	PSEG05	I11	03/21/2025	8270E
Q1624-02	OK-01-03212025-E2	Solid	EPH_NF	Cool 4 deg C	PSEG05		03/21/2025	NJEPH

Date/Time 03/24/24 8:15
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

Date/Time 03/24/24 8:35
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1626

WorkList ID : 188486

Department : Extraction

Date : 03-24-2025 10:55:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1626-01	CO-32-1	Solid	EPH_NF	Cool 4 deg C	WALS01	F11	03/21/2025	NJEPH
Q1626-01	CO-32-1	Solid	PCB	Cool 4 deg C	WALS01	F11	03/21/2025	8082A
Q1626-01	CO-32-1	Solid	Pesticide-TCL	Cool 4 deg C	WALS01	F11	03/21/2025	8081B
Q1626-01	CO-32-1	Solid	SVOC-TCL BNA -20	Cool 4 deg C	WALS01	F11	03/21/2025	8270E

Date/Time 03/26/24

Raw Sample Received by: RJ (Ext Lab)

Raw Sample Relinquished by: [Signature]

Date/Time 03/24/24

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Prep Standard - Chemical Standard Summary

Order ID : Q1626

Test : EPH_NF

Prepbatch ID : PB167270,

Sequence ID/Qc Batch ID: FE032425AL,

Standard ID :

EP2591,EP2595,PP24170,PP24174,PP24175,PP24176,PP24177,PP24178,PP24179,PP24207,PP24210,PP24216,

Chemical ID :

E2865,E3551,E3876,E3877,E3878,E3914,P12363,P12981,P12983,P12984,P13279,P13602,P13614,P13615,P13638,P
13639,P13640,P13641,P13642,P13644,P13650,P13651,P13663,P13671,P13680,P13685,P13715,P13717,P13743,P13
745,P13750,P13751,P13802,P13803,P13809,P13828,P13836,P13840,P13842,P13846,P13855,P13858,P13859,P1386
0,W3177,

Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2017	1:1 ACETONE/METHYLENE CHLORIDE	EP2591	02/26/2025	08/14/2025	RUPESEKUMAR SHAH	None	None	Riteshkumar Patel
02/26/2025								

FROM 8000.00000ml of E3876 + 8000.00000ml of E3878 = Final Quantity: 16000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2595	03/17/2025	07/01/2025	RUPESEKUMAR SHAH	Extraction_SC ALE_2	None	Riteshkumar Patel
(EX-SC-2)								

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
781	100 PPM Aliphatic HC Working STD (Restek)	PP24170	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/03/2025

FROM 0.25000ml of P12981 + 0.25000ml of P13671 + 1.25000ml of P12363 + 23.25000ml of W3177 = Final Quantity: 25.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2900	100 PPM Aliphatic HC STD (Absolute)	PP24174	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/03/2025

FROM 0.25000ml of P12983 + 0.25000ml of P13650 + 2.50000ml of P13279 + 22.00000ml of W3177 = Final Quantity: 25.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
783	50 PPM Aliphatic HC STD	PP24175	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/03/2025

FROM 0.50000ml of W3177 + 0.50000ml of PP24170 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
784	20 PPM Aliphatic HC STD	PP24176	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/03/2025

FROM 0.80000ml of W3177 + 0.20000ml of PP24170 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
785	10 PPM Aliphatic HC STD	PP24177	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/03/2025

FROM 0.90000ml of W3177 + 0.10000ml of PP24170 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
786	5 PPM Aliphatic HC STD	PP24178	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/03/2025

FROM 0.90000ml of W3177 + 0.10000ml of PP24175 = Final Quantity: 1.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2901	20 PPM Aliphatic HC STD ICV (Absolute)	PP24179	02/03/2025	08/03/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/03/2025

FROM 0.80000ml of W3177 + 0.20000ml of PP24174 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1330	100 PPM NJEPH Spike Solution	PP24207	02/26/2025	08/26/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/27/2025

FROM 5.00000ml of P13638 + 5.00000ml of P13639 + 5.00000ml of P13640 + 5.00000ml of P13641 + 5.00000ml of P13642 + 5.00000ml of P13644 + 5.00000ml of P13715 + 5.00000ml of P13717 + 5.00000ml of P13802 + 5.00000ml of P13803 + 5.00000ml of P13809 + 5.00000ml of P13828 + 5.00000ml of P13836 + 5.00000ml of P13840 + 5.00000ml of P13842 + 5.00000ml of P13846 + 5.00000ml of P13855 + 5.00000ml of P13858 + 5.00000ml of P13859 + 5.00000ml of P13860 = Final Quantity: 100.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1339	100 PPM NJEPH Surrogate Spike	PP24210	02/27/2025	08/27/2025	Yogesh Patel	None	None	Abdul Mirza
								03/06/2025

FROM 1.25000ml of P12984 + 1.25000ml of P13602 + 1.25000ml of P13614 + 1.25000ml of P13615 + 1.25000ml of P13651 + 1.25000ml of P13663 + 1.25000ml of P13680 + 1.25000ml of P13685 + 490.00000ml of E3876 = Final Quantity: 500.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1331	100 PPM NJEPH Fractionating Surrogate	PP24216	03/04/2025	08/12/2025	Abdul Mirza	None	None	Yogesh Patel
								03/06/2025

FROM 1.25000ml of P13743 + 1.25000ml of P13745 + 1.25000ml of P13750 + 1.25000ml of P13751 + 195.00000ml of E3877 = Final Quantity: 200.000 ml

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3382-05 / Sand, Purified (cs/4x2.5kg)	0000243821	06/30/2025	04/30/2020 / RAJESH	04/28/2020 / RAJESH	E2865

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	07/01/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	08/25/2025	02/25/2025 /	02/12/2025 / Rajesh	E3876

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	243570	08/12/2025	02/12/2025 / Rajesh	02/12/2025 / Rajesh	E3877

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	24K1762005	08/14/2025	02/14/2025 / Rajesh	12/27/2024 / Rajesh	E3878

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	243570	09/19/2025	03/19/2025 / RUPESH	03/13/2025 / RUPESH	E3914

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30540 / Custom NJEPH Aliphatics Calibration Standard	A0190424	08/03/2025	02/03/2025 / yogesh	03/16/2023 / Yogesh	P12363

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0204989	08/03/2025	02/03/2025 / yogesh	12/20/2023 / Yogesh	P12981

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0204989	08/03/2025	02/03/2025 / yogesh	12/20/2023 / Yogesh	P12983

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0204989	08/27/2025	02/27/2025 / yogesh	12/20/2023 / Yogesh	P12984

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95899 / NJ EPH Aliphatic n-Hydrocarbons-Revised, 1000 PPM	040524	08/03/2025	02/03/2025 / yogesh	04/11/2024 / yogesh	P13279

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0213283	08/27/2025	02/27/2025 / yogesh	10/16/2024 / yogesh	P13602

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0213283	08/27/2025	02/27/2025 / yogesh	10/16/2024 / yogesh	P13614

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31098 / 1-Chlorooctadecane Standard	A0213283	08/27/2025	02/27/2025 / yogesh	10/16/2024 / yogesh	P13615

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0211112	08/26/2025	02/26/2025 / yogesh	10/16/2024 / yogesh	P13638

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0211112	08/26/2025	02/26/2025 / yogesh	10/16/2024 / yogesh	P13639

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0211112	08/26/2025	02/26/2025 / yogesh	10/16/2024 / yogesh	P13640

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0211112	08/26/2025	02/26/2025 / yogesh	10/16/2024 / yogesh	P13641

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0211112	08/26/2025	02/26/2025 / yogesh	10/16/2024 / yogesh	P13642

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0211112	08/26/2025	02/26/2025 / yogesh	10/16/2024 / yogesh	P13644

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	08/03/2025	02/03/2025 / yogesh	10/16/2024 / yogesh	P13650

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	08/27/2025	02/27/2025 / yogesh	10/16/2024 / yogesh	P13651

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	08/27/2025	02/27/2025 / yogesh	10/16/2024 / yogesh	P13663

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	08/03/2025	02/03/2025 / yogesh	10/16/2024 / yogesh	P13671

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	08/27/2025	02/27/2025 / yogesh	10/16/2024 / yogesh	P13680

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31097 / o-Terphenyl Standard	A0216631	01/16/2026	01/16/2025 / yogesh	10/16/2024 / yogesh	P13685

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0211254	08/26/2025	02/26/2025 / yogesh	10/24/2024 / yogesh	P13715

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	08/26/2025	02/26/2025 / yogesh	10/24/2024 / yogesh	P13717

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0214879	09/04/2025	03/04/2025 / Abdul	11/01/2024 / yogesh	P13743

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0214879	09/04/2025	03/04/2025 / Abdul	11/01/2024 / yogesh	P13745

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0214879	09/04/2025	03/04/2025 / Abdul	11/01/2024 / yogesh	P13750

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31480 / MA Fractionation Surrogate Spike Mix	A0214879	09/04/2025	03/04/2025 / Abdul	11/01/2024 / yogesh	P13751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13802

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13803

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13809

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30542 / Custom NJEPH Aliphatics Matrix Spike Mix	A0217408	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13828

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13836

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13840

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13842

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13846

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13855

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13858

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13859

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30543 / Custom NJEPH Aromatics Matrix Spike Mix	A0217838	08/26/2025	02/26/2025 / yogesh	12/09/2024 / yogesh	P13860

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9262-03 / Hexane, Ultra-Resi (cs/4x4L)	24G1962003	08/22/2025	02/03/2025 / jignesh	01/31/2025 / jignesh	W3177

Sand
Purified
Washed and Ignited



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

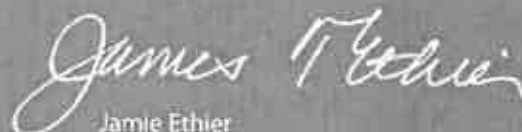
Certificate of Analysis

Test	Specification	Result
Substances Soluble in HCl	$\leq 0.16\%$	0.01

For Laboratory, Research or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs

Country of Origin: US
Packaging Site: Paris Mfg Ctr & DC

E 2865


Jamie Ethier
Vice President Global Quality

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

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



**PRODUCTOS
QUÍMICOS
MONTERREY, S.A. DE C.V.**

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MEXICO
CP 64070
TEL +52 81 13 52 57 57
www.pqm.com.mx

CERTIFICATE OF ANALYSIS

PRODUCT :	SODIUM SULFATE CRYSTALS ANHYDROUS		
QUALITY :	ACS (CODE RMB3375)	FORMULA :	Na ₂ SO ₄
SPECIFICATION NUMBER :	6399	RELEASE DATE:	ABR/21/2023
LOT NUMBER :	313201		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.7 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.1
Insoluble matter	Max. 0.01%	0.005 %
Loss on ignition	Max. 0.5%	0.1 %
Chloride (Cl)	Max. 0.001%	<0.001 %
Nitrogen compounds (as N)	Max. 5 ppm	<5 ppm
Phosphate (PO ₄)	Max. 0.001%	<0.001 %
Heavy metals (as Pb)	Max. 5 ppm	<5 ppm
Iron (Fe)	Max. 0.001%	<0.001 %
Calcium (Ca)	Max. 0.01%	0.002 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.003 %
Extraction-concentration suitability	Passes test	Passes test
Appearance	Passes test	Passes test
Identification	Passes test	Passes test
Solubility and foreign matter	Passes test	Passes test
Retained on US Standard No. 10 sieve	Max. 1%	0.1 %
Retained on US Standard No. 60 sieve	Min. 94%	97.3 %
Through US Standard No. 60 sieve	Max. 5%	2.5 %
Through US Standard No. 100 sieve	Max. 10%	0.1 %

COMMENTS

QC: PhC Irma Belmares

If you need further details, please call our factory or contact our local distributor.

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

RC-02-01, Ed. 3

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

 **avantors**™



Material No.: 9254-03

Batch No.: 24H2762008

Manufactured Date: 2024-04-18

Expiration Date: 2027-04-18

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	100.0 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.0 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (μeq/g)	<= 0.3	0.2
Titration Base (μeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	<0.1 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

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

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

Recd. by RP on 2/12/25

E 3876



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

Certificate of Analysis

1 Reagent Lane
 Fair Lawn, NJ 07410
 201.796.7100 tel
 201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System
 Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	H303	Quality Test / Release Date	11/07/2024
Lot Number	243570		
Description	HEXANES - OPTIMA		
Country of Origin	United States	Suggested Retest Date	Nov/2029
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ASSAY (N-HEXANE)	%	>= 60	69
ASSAY (SUM C6 HYDROCARBONS)	%	>= 99.9	>99.9
COLOR	APHA	<= 5	<5
DENSITY AT 25 DEGREES C	GM/ML	Inclusive Between 0.653 - 0.673	0.669
EVAPORATION RESIDUE	ppm	<= 1	<1
FLUORESCENCE BACKGROUND	ppb	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 195 NM	ABS. UNITS	<= 1	0.74
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.25	0.17
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.07	0.05
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.005	0.001
PESTICIDE RESIDUE ANALYSIS	NG/L	<= 10	<10
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.375 - 1.385	1.379
SUITABILITY FOR GC/MS		= PASS TEST	PASS TEST
SULFUR COMPOUNDS	%	<= 0.005	<0.005
THIOPHENE	PASS/FAIL	= PASS TEST	PASS TEST
WATER (H2O)	%	<= 0.01	<0.01
WATER-SOLUBLE TITRABLE ACID	MEQ/G	<= 0.0003	0.0001

Recd. by RP on 2/12/25

 E3877

Harout Sahagian - Quality Control Manager - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.

If there are any questions with this certificate, please call at (800) 227-6701.

*Based on suggested storage condition.

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



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)	$\geq 99.8 \%$	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.5 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	0.0
Chloride (Cl)	$\leq 10 \text{ ppm}$	$< 5 \text{ ppm}$
Water (by KF, coulometric)	$\leq 0.02 \%$	0.01 %

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

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

E 3878

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

Certificate of Analysis

1 Reagent Lane
 Fair Lawn, NJ 07410
 201.796.7100 tel
 201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System
 Standard ISO9001:2015 by SAI Global Certificate Number CERT - 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	H303	Quality Test / Release Date	11/07/2024
Lot Number	243570		
Description	HEXANES - OPTIMA		
Country of Origin	United States	Suggested Retest Date	Nov/2029
Chemical Origin	Organic - non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear, colorless liquid
ASSAY (N-HEXANE)	%	>= 60	69
ASSAY (SUM C6 HYDROCARBONS)	%	>= 99.9	>99.9
COLOR	APHA	<= 5	<5
DENSITY AT 25 DEGREES C	GM/ML	Inclusive Between 0.653 - 0.673	0.669
EVAPORATION RESIDUE	ppm	<= 1	<1
FLUORESCENCE BACKGROUND	ppb	<= 1	<1
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
OPTICAL ABS AT 195 NM	ABS. UNITS	<= 1	0.74
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.25	0.17
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.07	0.05
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.005	0.001
PESTICIDE RESIDUE ANALYSIS	NG/L	<= 10	<10
REFRACTIVE INDEX @ 25 DEG C		Inclusive Between 1.375 - 1.385	1.379
SUITABILITY FOR GC/MS		= PASS TEST	PASS TEST
SULFUR COMPOUNDS	%	<= 0.005	<0.005
THIOPHENE	PASS/FAIL	= PASS TEST	PASS TEST
WATER (H2O)	%	<= 0.01	<0.01
WATER-SOLUBLE TITRABLE ACID	MEQ/G	<= 0.0003	0.0001

Recd by RS on 3/14/25



E3914

Harout Sahagian - Quality Control Manager - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
 If there are any questions with this certificate, please call at (800) 227-6701.

*Based on suggested storage condition.



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30540 **Lot No.:** A0190424

Description : NJEPH Aliphatics Calibration Standard

Aliphatics Calibration Standard 2000µg/mL, Hexane/Carbon Disulfide (80:20), 1mL/ampul

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

Expiration Date : November 30, 2029 **Storage:** 25°C nominal

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

P12361
↓
P12370 } Y.P.
031/6/23

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Nonane (C9) CAS # 111-84-2 Purity 99% (Lot SHBN5361)	2,014.0 µg/mL	+/- 11.8193 +/- 50.0027 +/- 59.9491	µg/mL Gravimetric Unstressed Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99% (Lot SHBN8619)	2,014.7 µg/mL	+/- 11.8232 +/- 50.0193 +/- 59.9689	µg/mL Gravimetric Unstressed Stressed
3	Naphthalene CAS # 91-20-3 Purity 99% (Lot MKCH0219)	2,015.3 µg/mL	+/- 11.8271 +/- 50.0358 +/- 59.9888	µg/mL Gravimetric Unstressed Stressed
4	n-Dodecane (C12) CAS # 112-40-3 Purity 99% (Lot SHBN7174)	2,008.0 µg/mL	+/- 11.7841 +/- 49.8538 +/- 59.7705	µg/mL Gravimetric Unstressed Stressed
5	2-Methylnaphthalene CAS # 91-57-6 Purity 96% (Lot STBK0259)	2,007.0 µg/mL	+/- 11.7784 +/- 49.8299 +/- 59.7419	µg/mL Gravimetric Unstressed Stressed
6	n-Tetradecane (C14) CAS # 629-59-4 Purity 99% (Lot STBK2282)	2,016.7 µg/mL	+/- 11.8349 +/- 50.0689 +/- 60.0284	µg/mL Gravimetric Unstressed Stressed
7	n-Hexadecane (C16) CAS # 544-76-3 Purity 98% (Lot SHBM4146)	2,014.9 µg/mL	+/- 11.8244 +/- 50.0246 +/- 59.9753	µg/mL Gravimetric Unstressed Stressed

8	n-Octadecane (C18) CAS # 593-45-3 Purity 97%	(Lot VZKOJ)	2,004.7 µg/mL	+/-	11.7645	µg/mL	Gravimetric
				+/-	49.7710	µg/mL	Unstressed
				+/-	59.6712	µg/mL	Stressed
9	n-Eicosane (C20) CAS # 112-95-8 Purity 99%	(Lot MKCF7888)	2,018.0 µg/mL	+/-	11.8428	µg/mL	Gravimetric
				+/-	50.1020	µg/mL	Unstressed
				+/-	60.0681	µg/mL	Stressed
10	n-Heneicosane (C21) CAS # 629-94-7 Purity 99%	(Lot MKCL3226)	2,000.7 µg/mL	+/-	11.7410	µg/mL	Gravimetric
				+/-	49.6717	µg/mL	Unstressed
				+/-	59.5522	µg/mL	Stressed
11	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	2,005.3 µg/mL	+/-	11.7684	µg/mL	Gravimetric
				+/-	49.7876	µg/mL	Unstressed
				+/-	59.6911	µg/mL	Stressed
12	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	2,018.0 µg/mL	+/-	11.8428	µg/mL	Gravimetric
				+/-	50.1020	µg/mL	Unstressed
				+/-	60.0681	µg/mL	Stressed
13	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	2,014.0 µg/mL	+/-	11.8193	µg/mL	Gravimetric
				+/-	50.0027	µg/mL	Unstressed
				+/-	59.9491	µg/mL	Stressed
14	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	2,002.0 µg/mL	+/-	11.7489	µg/mL	Gravimetric
				+/-	49.7048	µg/mL	Unstressed
				+/-	59.5919	µg/mL	Stressed
15	n-Triacontane (C30) CAS # 638-68-6 Purity 97%	(Lot MKCQ9436)	2,011.1 µg/mL	+/-	11.8025	µg/mL	Gravimetric
				+/-	49.9316	µg/mL	Unstressed
				+/-	59.8637	µg/mL	Stressed
16	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	2,012.0 µg/mL	+/-	11.8075	µg/mL	Gravimetric
				+/-	49.9531	µg/mL	Unstressed
				+/-	59.8895	µg/mL	Stressed
17	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	2,006.7 µg/mL	+/-	11.7762	µg/mL	Gravimetric
				+/-	49.8207	µg/mL	Unstressed
				+/-	59.7308	µg/mL	Stressed
18	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot Z27H018)	2,017.3 µg/mL	+/-	11.8388	µg/mL	Gravimetric
				+/-	50.0855	µg/mL	Unstressed
				+/-	60.0483	µg/mL	Stressed
19	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 96%	(Lot 0000145137)	2,017.3 µg/mL	+/-	11.8385	µg/mL	Gravimetric
				+/-	50.0842	µg/mL	Unstressed
				+/-	60.0467	µg/mL	Stressed
20	n-Tetracontane (C40) CAS # 4181-95-7 Purity 99%	(Lot BSBME)	2,008.7 µg/mL	+/-	11.7880	µg/mL	Gravimetric
				+/-	49.8703	µg/mL	Unstressed
				+/-	59.7903	µg/mL	Stressed
Solvent: Hexane/Carbon disulfide (80:20)							
	CAS # 110-54-3/75-15-0						
	Purity 99%						

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

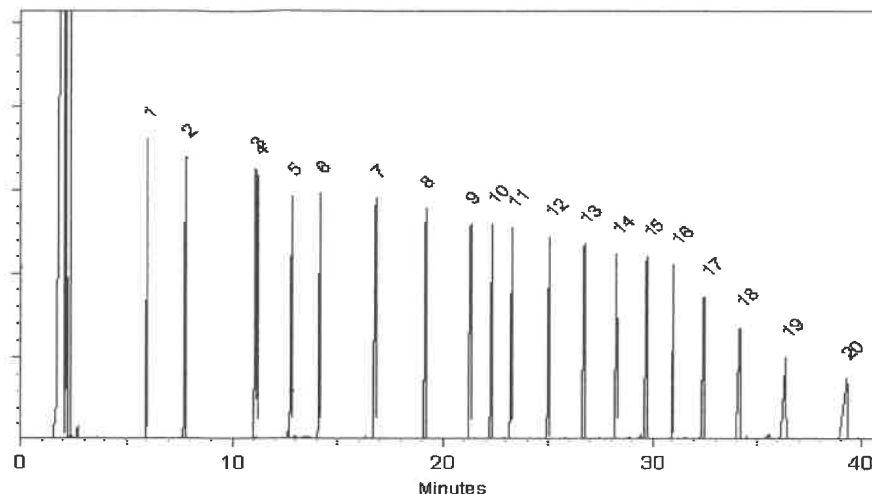
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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


Morgan Craighead - Mix Technician

Date Mixed: 10-Oct-2022 Balance: 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 20-Oct-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

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

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

Manufacturing Notes:

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

Handling Notes:

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



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Fax: 1-814-353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No.: 31098 **Lot No.:** A0204989

Description: 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date: January 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

P12960
↓
P12991 } Y.P.
12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	14738400	99%	10,097.3 µg/mL	+/- 567.2675

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

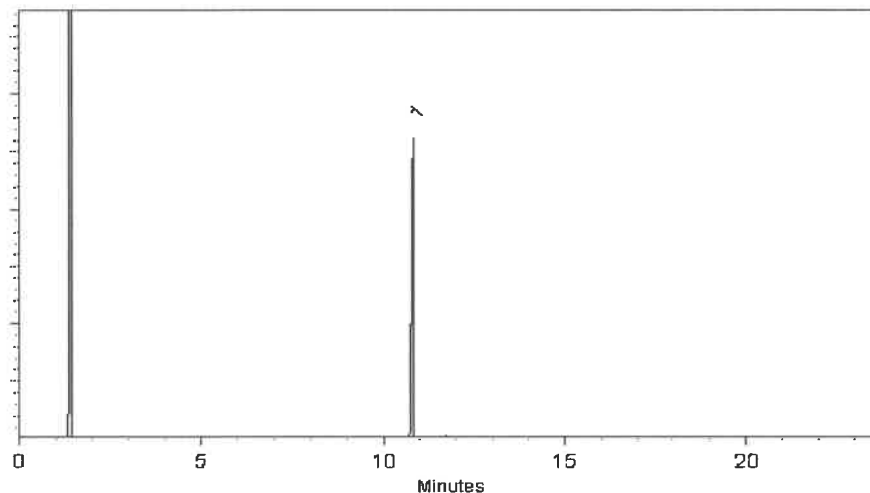
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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

Peter Robbins - Operations Technician I

Date Mixed: 02-Dec-2023

Balance Serial # B345965662

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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Catalog No.: 31098 **Lot No.:** A0204989
Description: 1-Chlorooctadecane Standard
1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul
Container Size: 2 mL **Pkg Amt:** > 1 mL
Expiration Date: January 31, 2031 **Storage:** 10°C or colder
Ship: Ambient

P12960
↓
P12991 } Y.P.
12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	14738400	99%	10,097.3 µg/mL	+/- 567.2675

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

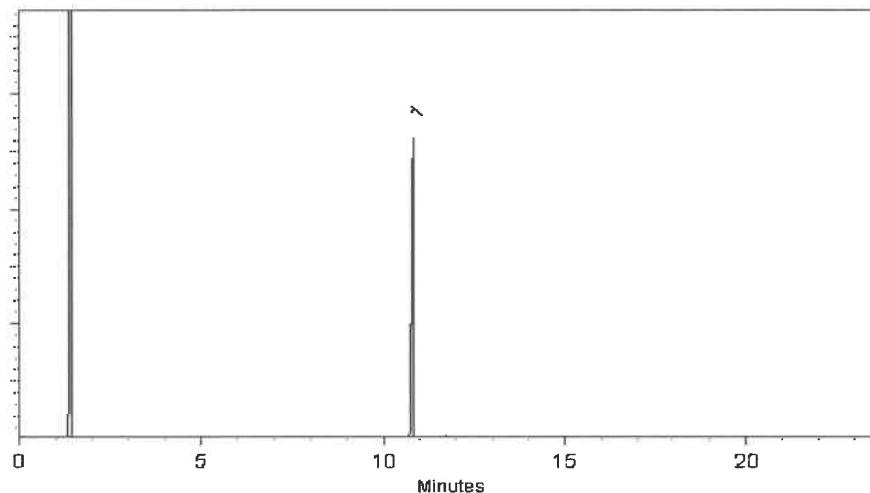
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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Peter Robbins - Operations Technician I

Date Mixed: 02-Dec-2023

Balance Serial # B345965662

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

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- 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:

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Catalog No.: 31098 **Lot No.:** A0204989

Description: 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date: January 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

P12960
↓
P12991 } Y.P.
12/21/2023

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	14738400	99%	10,097.3 µg/mL	+/- 567.2675

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

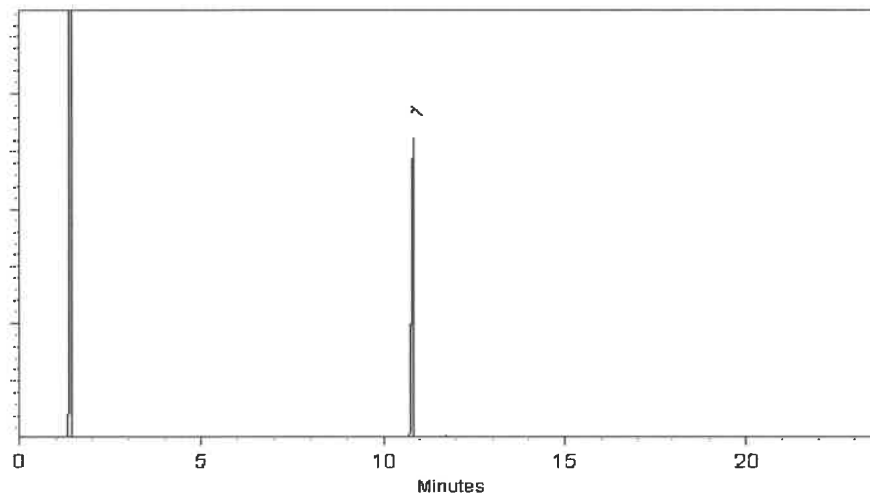
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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

Peter Robbins - Operations Technician I

Date Mixed: 02-Dec-2023

Balance Serial # B345965662

Christie Mills - Operations Lead Tech - ARM QC

Date Passed: 08-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

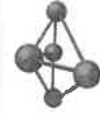
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- 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:

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CERTIFIED WEIGHT REPORT

Part Number: 95999

Lot Number: 040524

Description: NJ EPH Aliphatic n-Hydrocarbons - Revised
20 components

Expiration Date: 040534

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test ID#: 6UTB

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

CAUTION: Sonicate Before Use

Solvent(s):
Cyclohexane

Lot#
28930

P13278
2
P13287
Y.P.
04/11/24

5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By:	Anthony Mahoney	040524	DATE
Reviewed By:	Pedro L. Rentas	040524	DATE

Compound		Part Number	(RM#)	Lot Number	DIL Factor	Initial Vol. (mL)	Initial Conc (µg/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Pipette	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
																CAS#	OSHA PEL (TWA)	LD50
1.	2-Methylnaphthalene	(0214)	MKBF3783V	NA	NA	NA	NA	1000	97	0.2	NA	0.02579	0.02594	1005.7	5.7	91-57-6	N/A	or-rat 1630mg/kg
2.	Naphthalene	(0222)	MKB28680V	NA	NA	NA	NA	1000	100	0.2	NA	0.02502	0.02511	1003.7	5.7	91-20-3	10 ppm (50mg/m ³ /8H)	or-rat 490mg/kg
3.	n-Nonane	95708	120222	1.00	25.00	1000.7	1000	1000	NA	0.013	NA	NA	NA	1000.0	4.2	111-84-2	200 ppm (1050mg/m ³ /8H)	ivn-mus 218mg/kg
4.	n-Decane	95708	120222	1.00	25.00	1000.9	1000	1000	NA	0.013	NA	NA	NA	1000.2	4.2	124-18-5	N/A	N/A
5.	n-Dodecane	95708	120222	1.00	25.00	1000.7	1000	1000	NA	0.013	NA	NA	NA	1000.0	4.2	112-40-3	N/A	ivn-mus 3494mg/kg
6.	n-Tetradecane	95708	120222	1.00	25.00	1002.1	1000	1000	NA	0.013	NA	NA	NA	1001.3	4.2	629-59-4	N/A	N/A
7.	n-Hexadecane	95708	120222	1.00	25.00	1000.5	1000	1000	NA	0.013	NA	NA	NA	999.7	4.2	544-76-3	N/A	N/A
8.	n-Octadecane	95708	120222	1.00	25.00	1001.0	1000	1000	NA	0.013	NA	NA	NA	1000.3	4.1	583-45-3	N/A	N/A
9.	n-Eicosane	95708	120222	1.00	25.00	1001.0	1000	1000	NA	0.013	NA	NA	NA	1000.3	4.2	112-95-8	N/A	N/A
10.	n-Henicosane	95708	120222	1.00	25.00	1002.4	1000	1000	NA	0.013	NA	NA	NA	1001.6	4.2	629-94-7	N/A	N/A
11.	n-Docosane	95708	120222	1.00	25.00	1001.9	1000	1000	NA	0.013	NA	NA	NA	1001.2	4.2	629-97-0	N/A	N/A
12.	n-Tetracosane	95708	120222	1.00	25.00	1000.8	1000	1000	NA	0.013	NA	NA	NA	1000.1	4.2	646-31-1	N/A	N/A
13.	n-Hexacosane	95708	120222	1.00	25.00	1001.2	1000	1000	NA	0.013	NA	NA	NA	1000.4	4.2	630-01-3	N/A	N/A
14.	n-Octacosane	95708	120222	1.00	25.00	1000.5	1000	1000	NA	0.013	NA	NA	NA	999.8	4.2	630-02-4	N/A	N/A
15.	n-Triacontane	95708	120222	1.00	25.00	1000.5	1000	1000	NA	0.013	NA	NA	NA	999.8	4.2	638-68-6	N/A	N/A
16.	n-Dotriacontane	95708	120222	1.00	25.00	1000.5	1000	1000	NA	0.013	NA	NA	NA	999.8	4.3	544-85-4	N/A	ivn-mus 100mg/kg
17.	n-Tetracontane	95708	120222	1.00	25.00	1000.4	1000	1000	NA	0.013	NA	NA	NA	999.7	4.2	14167-59-0	N/A	N/A
18.	n-Hexatriacontane	95708	120222	1.00	25.00	1001.5	1000	1000	NA	0.013	NA	NA	NA	1000.8	4.2	630-08-8	N/A	N/A
19.	n-Octatriacontane	95708	120222	1.00	25.00	1000.3	1000	1000	NA	0.013	NA	NA	NA	999.6	4.3	7184-86-6	N/A	N/A
20.	n-Tetracontane	95708	120222	1.00	25.00	1000.6	1000	1000	NA	0.013	NA	NA	NA	999.9	4.3	4181-95-7	N/A	N/A

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



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

Catalog No. : 31098 **Lot No.:** A0213283

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

P13595
↓
P13624 } Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	15018900	99%	10,058.0 µg/mL	+/- 565.0578

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

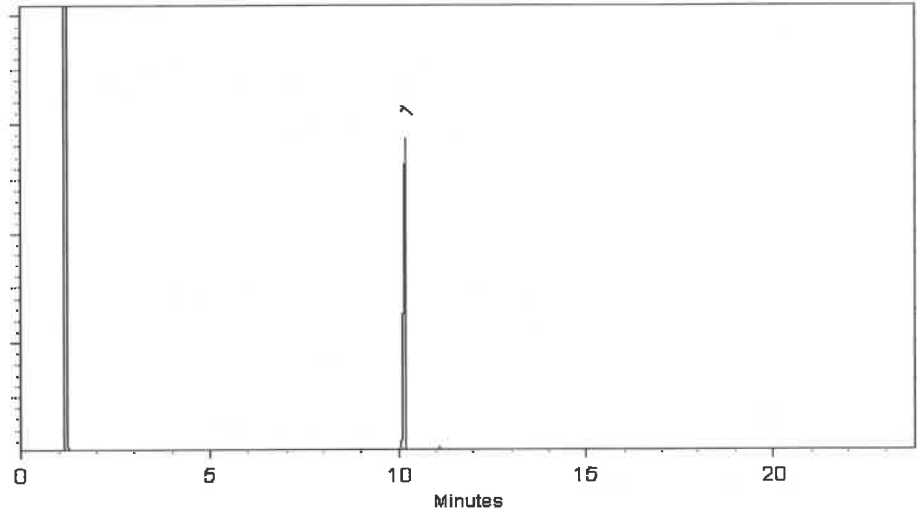
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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Stacey Wanner - Operations Technician I

Date Mixed: 28-Jun-2024

Balance Serial # B345965662

Dillan Murphy - Operations Technician I

Date Passed: 01-Jul-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

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



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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. : 31098 **Lot No.:** A0213283

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

P13595
↓
P13624 } Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	15018900	99%	10,058.0 µg/mL	+/- 565.0578

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

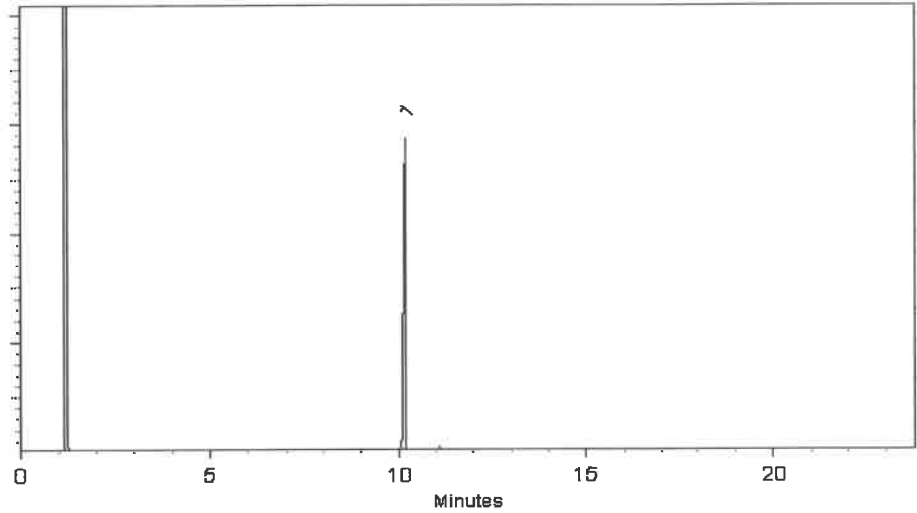
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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

Stacey Wanner - Operations Technician I

Date Mixed: 28-Jun-2024

Balance Serial # B345965662

Dillan Murphy - Operations Technician I

Date Passed: 01-Jul-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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

Catalog No. : 31098 **Lot No.:** A0213283

Description : 1-Chlorooctadecane Standard

1-Chlorooctadecane Standard 10,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : July 31, 2031 **Storage:** 10°C or colder

Ship: Ambient

P13595
↓
P13624 } Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1-Chlorooctadecane	3386-33-2	15018900	99%	10,058.0 µg/mL	+/- 565.0578

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

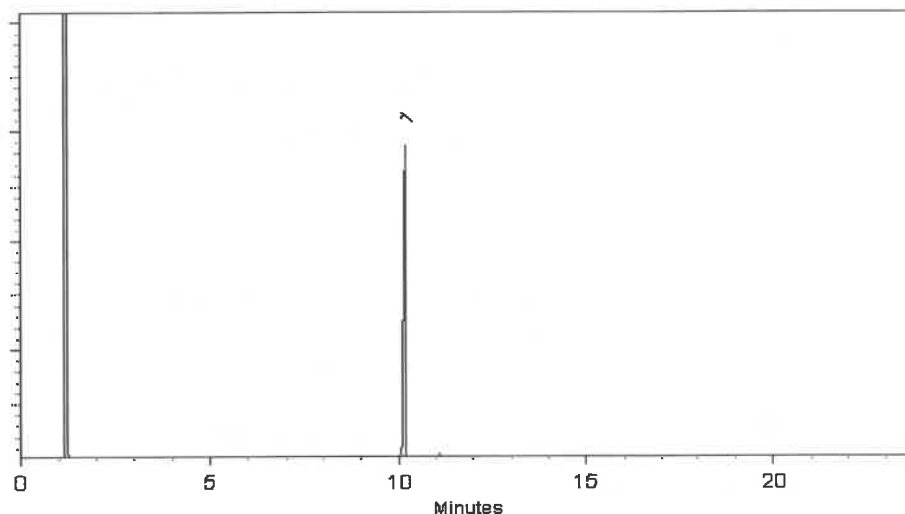
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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

Stacey Wanner - Operations Technician I

Date Mixed: 28-Jun-2024

Balance Serial # B345965662

Dillan Murphy - Operations Technician I

Date Passed: 01-Jul-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

Catalog No. : 30542 **Lot No.:** A0211112

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2031 **Storage:** 10°C or colder

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

P13625
↓
P13644 } Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.9 µg/mL	+/- 5.1891
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1857
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.4 µg/mL	+/- 5.1771
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.6 µg/mL	+/- 5.1822
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.4 µg/mL	+/- 5.1782
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.4 µg/mL	+/- 5.1771
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	200.5 µg/mL	+/- 5.1796
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.6 µg/mL	+/- 5.1814
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.5 µg/mL	+/- 5.1805
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.5 µg/mL	+/- 5.1796
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.4 µg/mL	+/- 5.1763
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.4 µg/mL	+/- 5.1779
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.5 µg/mL	+/- 5.1805
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.5 µg/mL	+/- 5.1808

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

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

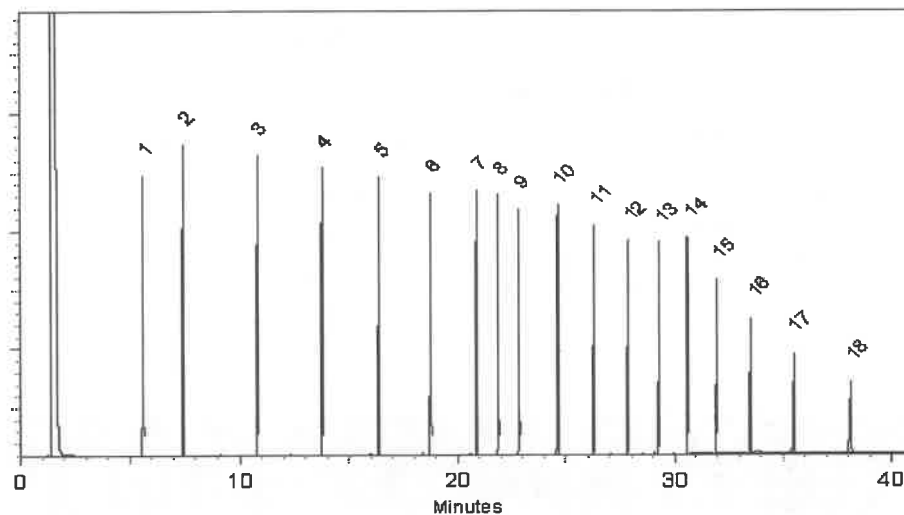
FID

Split Vent:

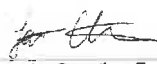
2 ml/min.

Inj. Vol

1µl

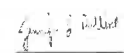


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 07-May-2024

Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

Catalog No. : 30542 **Lot No.:** A0211112

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2031 **Storage:** 10°C or colder

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

P13625
↓
P13644 } Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.9 µg/mL	+/- 5.1891
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1857
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.4 µg/mL	+/- 5.1771
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.6 µg/mL	+/- 5.1822
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.4 µg/mL	+/- 5.1782
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.4 µg/mL	+/- 5.1771
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	200.5 µg/mL	+/- 5.1796
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.6 µg/mL	+/- 5.1814
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.5 µg/mL	+/- 5.1805
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.5 µg/mL	+/- 5.1796
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.4 µg/mL	+/- 5.1763
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.4 µg/mL	+/- 5.1779
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.5 µg/mL	+/- 5.1805
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.5 µg/mL	+/- 5.1808

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

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

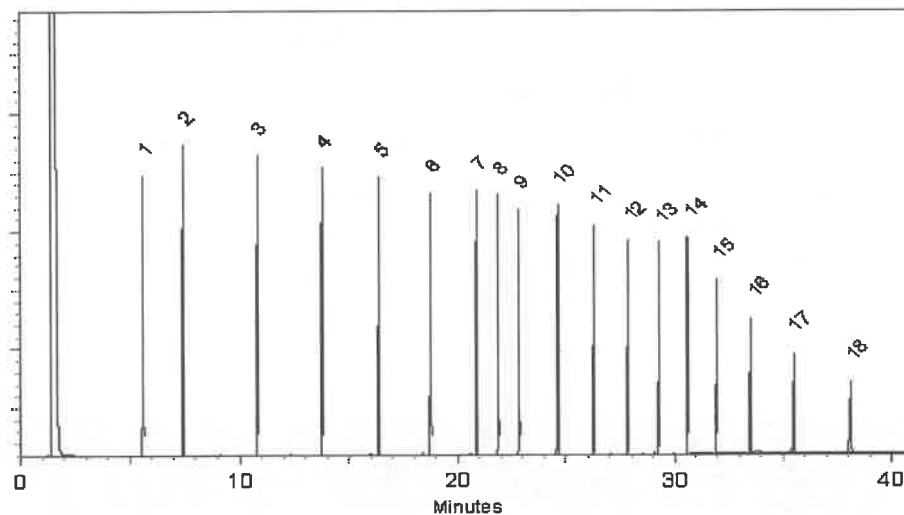
FID

Split Vent:

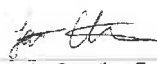
2 ml/min.

Inj. Vol

1µl

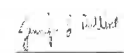


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 07-May-2024

Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

Catalog No. : 30542 **Lot No.:** A0211112

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2031 **Storage:** 10°C or colder

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

P13625
↓
P13644 } Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.9 µg/mL	+/- 5.1891
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1857
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.4 µg/mL	+/- 5.1771
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.6 µg/mL	+/- 5.1822
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.4 µg/mL	+/- 5.1782
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.4 µg/mL	+/- 5.1771
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	200.5 µg/mL	+/- 5.1796
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.6 µg/mL	+/- 5.1814
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.5 µg/mL	+/- 5.1805
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.5 µg/mL	+/- 5.1796
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.4 µg/mL	+/- 5.1763
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.4 µg/mL	+/- 5.1779
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.5 µg/mL	+/- 5.1805
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.5 µg/mL	+/- 5.1808

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

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

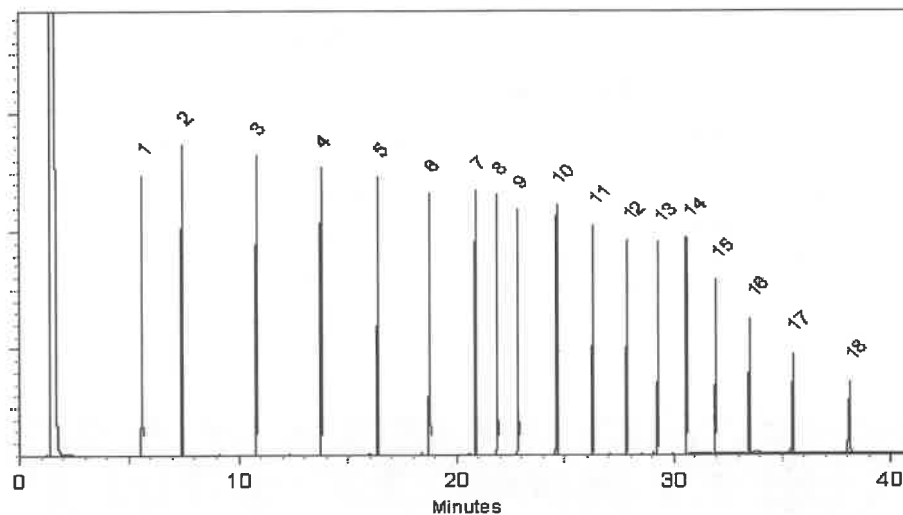
FID

Split Vent:

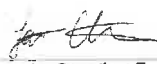
2 ml/min.

Inj. Vol

1µl

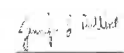


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 07-May-2024

Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30542 **Lot No.:** A0211112

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2031 **Storage:** 10°C or colder

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

P13625
↓
P13644 } Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.9 µg/mL	+/- 5.1891
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1857
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.4 µg/mL	+/- 5.1771
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.6 µg/mL	+/- 5.1822
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.4 µg/mL	+/- 5.1782
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.4 µg/mL	+/- 5.1771
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	200.5 µg/mL	+/- 5.1796
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.6 µg/mL	+/- 5.1814
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.5 µg/mL	+/- 5.1805
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.5 µg/mL	+/- 5.1796
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.4 µg/mL	+/- 5.1763
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.4 µg/mL	+/- 5.1779
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.5 µg/mL	+/- 5.1805
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.5 µg/mL	+/- 5.1808

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

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

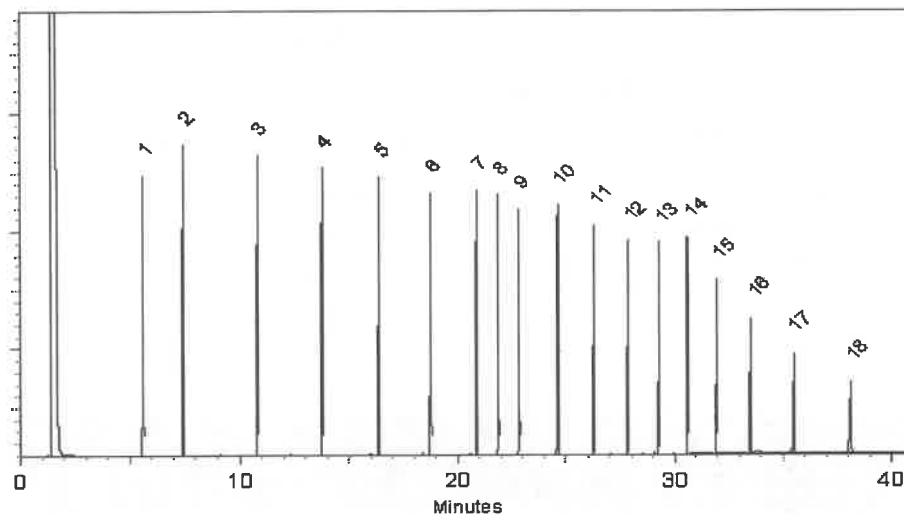
FID

Split Vent:

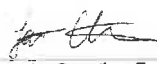
2 ml/min.

Inj. Vol

1µl

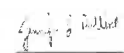


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 07-May-2024

Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30542 **Lot No.:** A0211112

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2031 **Storage:** 10°C or colder

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

P13625
↓
P13644 } Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.9 µg/mL	+/- 5.1891
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1857
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.4 µg/mL	+/- 5.1771
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.6 µg/mL	+/- 5.1822
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.4 µg/mL	+/- 5.1782
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.4 µg/mL	+/- 5.1771
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	200.5 µg/mL	+/- 5.1796
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.6 µg/mL	+/- 5.1814
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.5 µg/mL	+/- 5.1805
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.5 µg/mL	+/- 5.1796
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.4 µg/mL	+/- 5.1763
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.4 µg/mL	+/- 5.1779
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.5 µg/mL	+/- 5.1805
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.5 µg/mL	+/- 5.1808

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

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

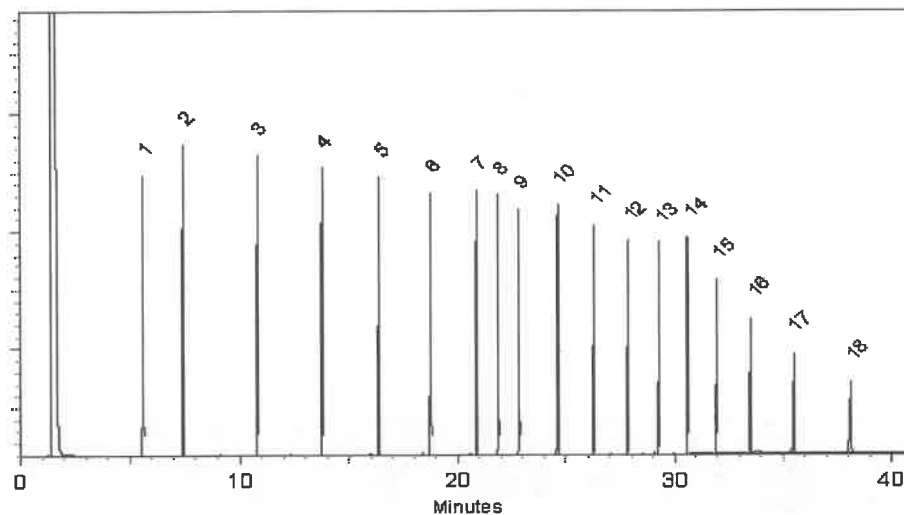
FID

Split Vent:

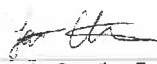
2 ml/min.

Inj. Vol

1µl

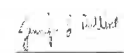


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Laith Clemente - Operations Technician I

Date Mixed: 07-May-2024

Balance Serial # 1128360905


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 09-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30542 **Lot No.:** A0211112

Description : NJEPH Aliphatics Matrix Spike Mix
NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : June 30, 2031 **Storage:** 10°C or colder

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

P13625
↓
P13644 } Y.P.
10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.9 µg/mL	+/- 5.1891
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	200.7 µg/mL	+/- 5.1857
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.4 µg/mL	+/- 5.1771
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	200.7 µg/mL	+/- 5.1839
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.6 µg/mL	+/- 5.1822
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	200.4 µg/mL	+/- 5.1782
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.4 µg/mL	+/- 5.1771
8	n-Heneicosane (C21)	629-94-7	MKCL3226	99%	200.5 µg/mL	+/- 5.1796
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.6 µg/mL	+/- 5.1814
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.5 µg/mL	+/- 5.1805
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCG0084	99%	200.5 µg/mL	+/- 5.1796
13	n-Triacontane (C30)	638-68-6	MKCQ9436	97%	200.4 µg/mL	+/- 5.1763
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.4 µg/mL	+/- 5.1779
15	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	200.5 µg/mL	+/- 5.1805
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	200.5 µg/mL	+/- 5.1808

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

Solvent: n-Pentane**CAS #** 109-66-0**Purity** 99%

Quality Confirmation Test

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

hydrogen-constant pressure 10 psi.

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

250°C

Det. Temp:

330°C

Det. Type:

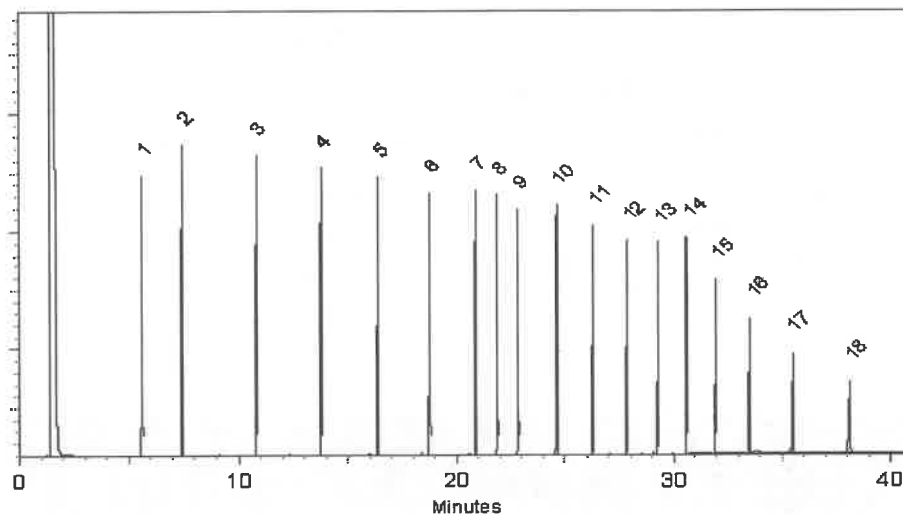
FID

Split Vent:

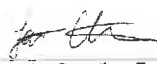
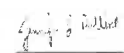
2 ml/min.

Inj. Vol

1µl



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


Laith Clemente - Operations Technician I**Date Mixed:** 07-May-2024**Balance Serial #** 1128360905
Jennifer Pollino - Operations Tech III - ARM QC**Date Passed:** 09-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31097 **Lot No.:** A0216631
Description : o-Terphenyl Standard
o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2028 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

P13645 } Y.P.
↓
P13694 } 10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

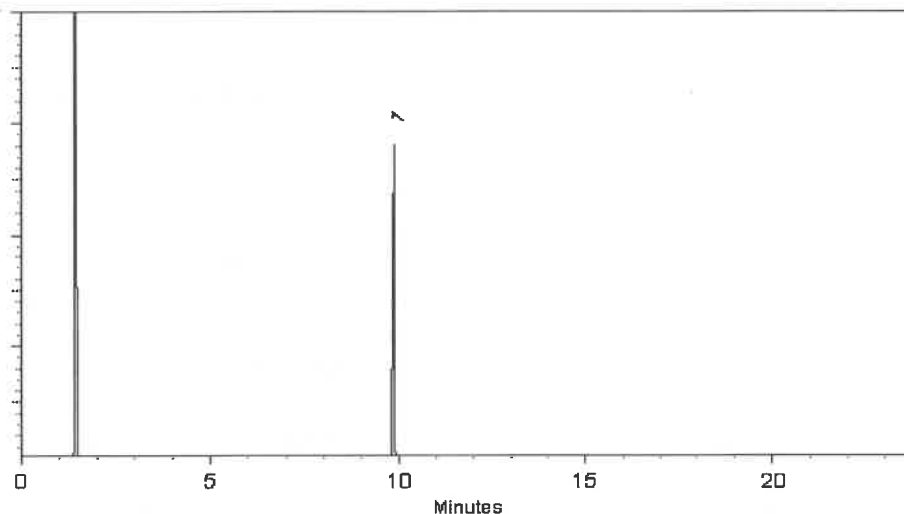
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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

Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024

Balance Serial # 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31097 **Lot No.:** A0216631
Description : o-Terphenyl Standard
o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2028 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

P13645 } Y.P.
↓
P13694 } 10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

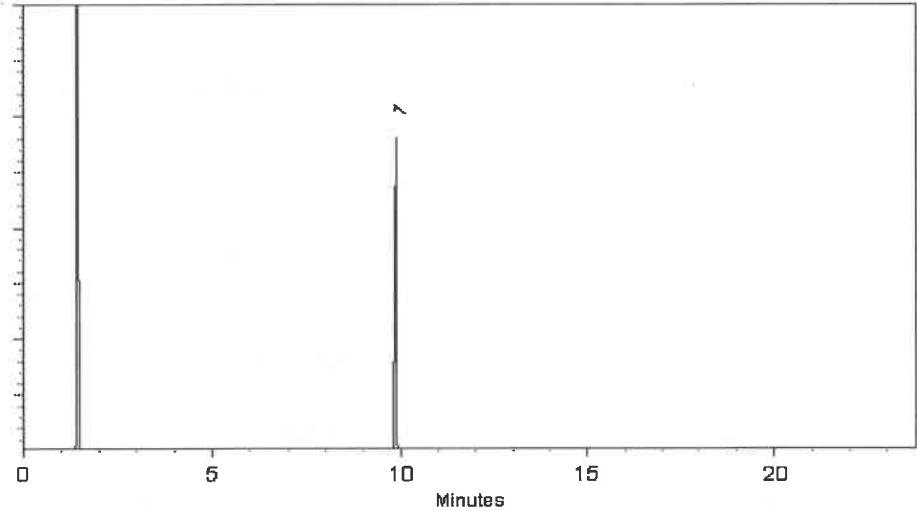
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024

Balance Serial # 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

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Manufacturing Notes:

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Handling Notes:

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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Catalog No. : 31097 **Lot No.:** A0216631
Description : o-Terphenyl Standard
o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2028 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

P13645 } Y.P.
↓
P13694 } 10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

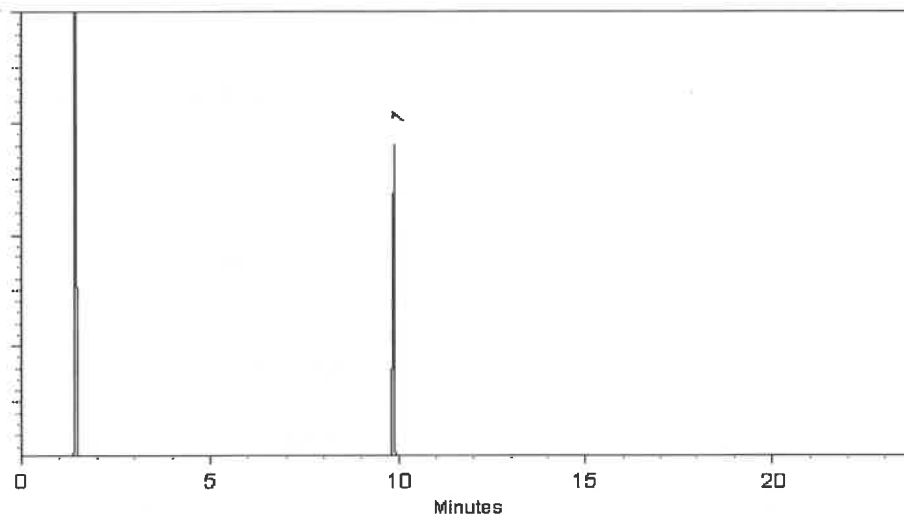
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024

Balance Serial # 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

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Manufacturing Notes:

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Catalog No. : 31097 **Lot No.:** A0216631
Description : o-Terphenyl Standard
o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2028 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

P13645 } Y.P.
↓
P13694 } 10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

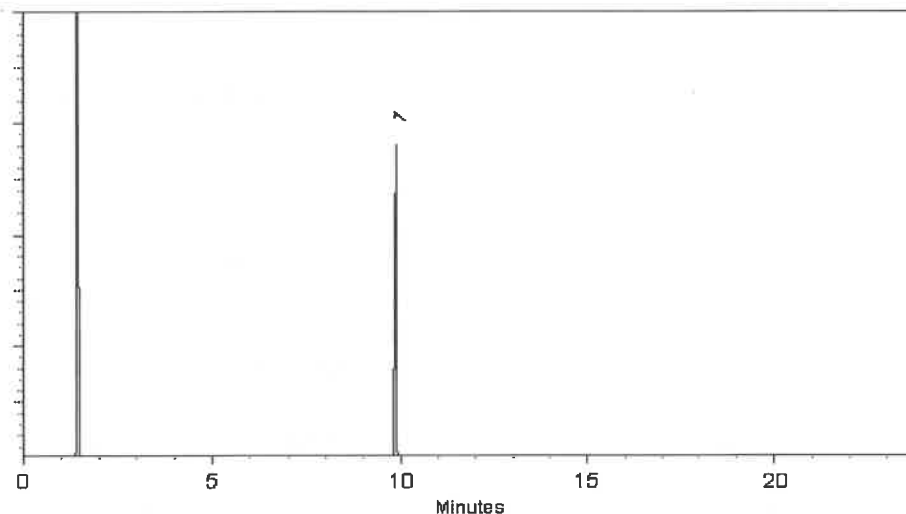
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024

Balance Serial # 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

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CERTIFIED REFERENCE MATERIAL

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Catalog No. : 31097 **Lot No.:** A0216631
Description : o-Terphenyl Standard
o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : April 30, 2028 **Storage:** 10°C or colder
Handling: Sonicate prior to use. **Ship:** Ambient

P13645 } Y.P.
↓
P13694 } 10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	o-Terphenyl	84-15-1	GKSSA	99%	10,065.0 µg/mL	+/- 453.3336

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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@ 20°C/min. (hold 10 min.)

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Det. Temp:

330°C

Det. Type:

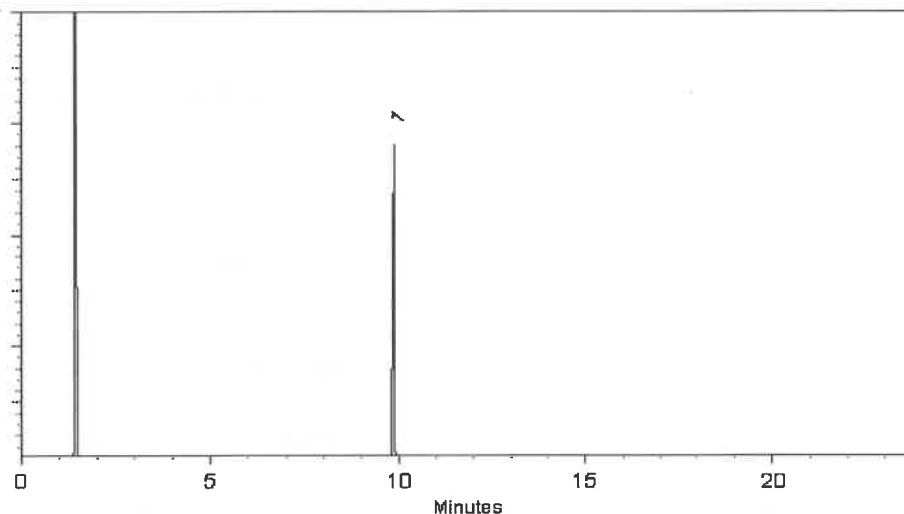
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024

Balance Serial # 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

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o-Terphenyl Standard 10,000 µg/mL, Methylene Chloride, 1mL/ampul
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Expiration Date : April 30, 2028 **Storage:** 10°C or colder
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P13645 } Y.P.
↓
P13694 } 10/16/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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Solvent: Methylene chloride
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Purity 99%

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Rtx-5 (cat.#10223)

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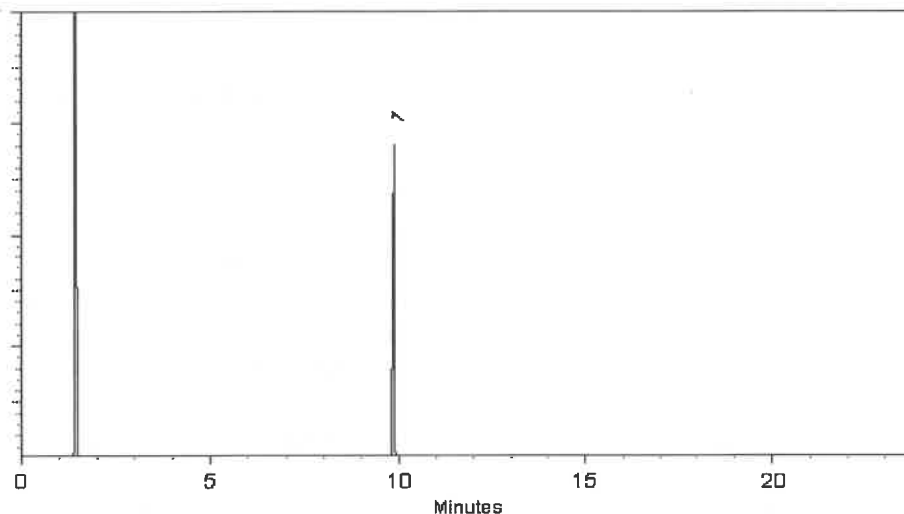
FID

Split Vent:

10 ml/min.

Inj. Vol

1µl



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Ven Kelley - Operations Tech I

Date Mixed: 17-Sep-2024

Balance Serial # 1128353505

Dillan Murphy - Operations Technician I

Date Passed: 23-Sep-2024

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

General Certified Reference Material Notes

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Certificate of Analysis

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Catalog No. : 30543

Lot No.: A0211254

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL

Pkg Amt: > 5 mL

Expiration Date : April 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

P13408
↓
P13716 } Y.P.
10/26/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-38	99%	200.0 µg/mL	+/- 9.0114
2	Naphthalene	91-20-3	STBL1057	99%	200.8 µg/mL	+/- 9.0474
3	2-Methylnaphthalene	91-57-6	STBK0259	96%	200.4 µg/mL	+/- 9.0316
4	Acenaphthylene	208-96-8	214935L31M	98%	200.3 µg/mL	+/- 9.0255
5	Acenaphthene	83-32-9	MKCR7169	99%	202.0 µg/mL	+/- 9.1015
6	Fluorene	86-73-7	10241100	99%	201.2 µg/mL	+/- 9.0655
7	Phenanthrene	85-01-8	MKCS5188	99%	200.4 µg/mL	+/- 9.0294
8	Anthracene	120-12-7	MKCR0570	99%	200.4 µg/mL	+/- 9.0294
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.8 µg/mL	+/- 9.0474
10	Pyrene	129-00-0	BCCK2592	99%	201.2 µg/mL	+/- 9.0655
11	Benz(a)anthracene	56-55-3	I30012022BAA	99%	200.8 µg/mL	+/- 9.0474
12	Chrysene	218-01-9	RP231206RSR	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	012013B	99%	200.4 µg/mL	+/- 9.0294
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	200.0 µg/mL	+/- 9.0114
15	Benzo(a)pyrene	50-32-8	O45GL	98%	200.7 µg/mL	+/- 9.0431
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.8 µg/mL	+/- 9.0033

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0	µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240105ECS	99%	200.8	µg/mL	+/- 9.0474

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

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

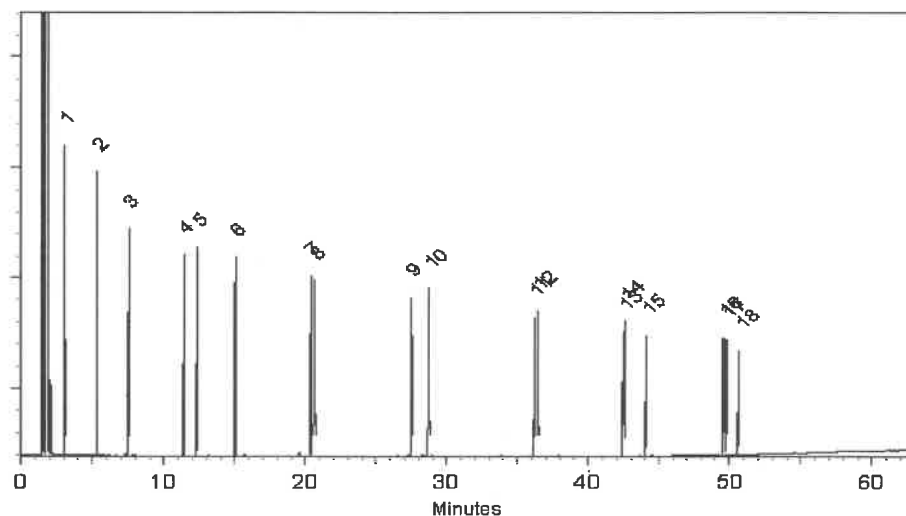
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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

Michael Maye
Michael Maye - Operations Tech I

Date Mixed: 09-May-2024 **Balance Serial #** 1128353505

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 13-May-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30543

Lot No.: A0217838

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL

Pkg Amt: > 5 mL

Expiration Date : September 30, 2030

Storage: 10°C or colder

Handling: Sonication required. Mix is photosensitive.

Ship: Ambient

p137A } 7.P
↓
p13727 } 10/24/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKQC4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

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

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

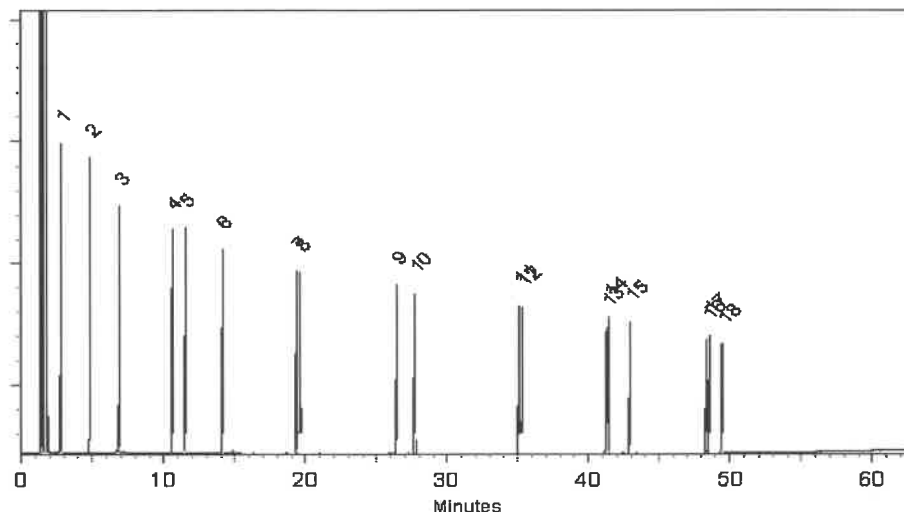
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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

Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31480 **Lot No.:** A0214879
Description : MA Fractionation Surrogate Spike Mix
MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : July 31, 2030 **Storage:** 10°C or colder
Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13743
↓
P13772 } Y.P.
11/01/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,009.0 µg/mL	+/- 180.5961
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,008.5 µg/mL	+/- 180.5736

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

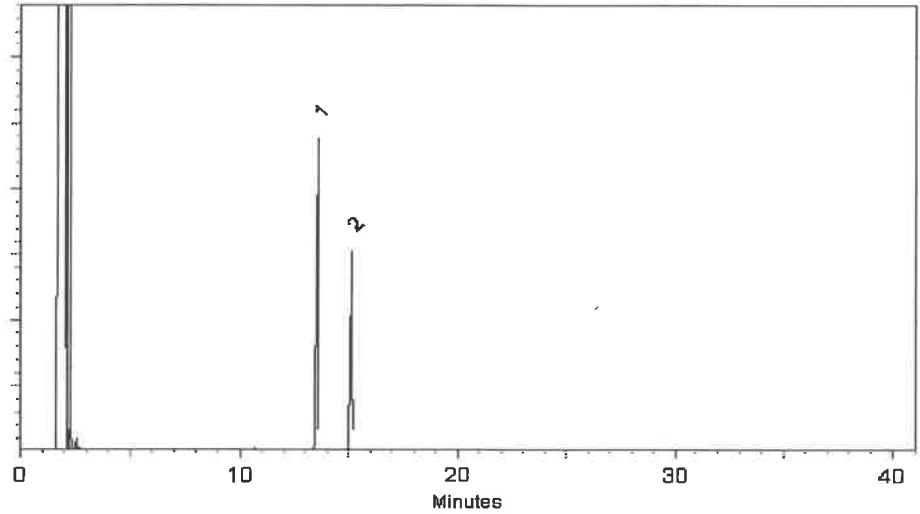
FID

Split Vent:

2 ml/min.

Inj. Vol

1µl



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Scott McNeil - Operations Tech I

Date Mixed: 06-Aug-2024

Balance Serial # 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31480 **Lot No.:** A0214879
Description : MA Fractionation Surrogate Spike Mix
MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : July 31, 2030 **Storage:** 10°C or colder
Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13743
↓
P13772 } Y.P.
11/01/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,009.0 µg/mL	+/- 180.5961
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,008.5 µg/mL	+/- 180.5736

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

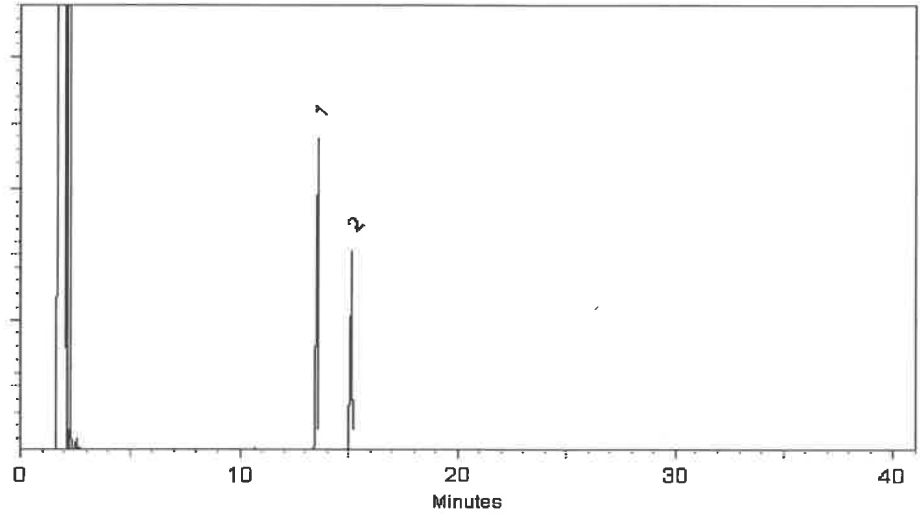
FID

Split Vent:

2 ml/min.

Inj. Vol

1µl



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Scott McNeil - Operations Tech I

Date Mixed: 06-Aug-2024

Balance Serial # 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31480 **Lot No.:** A0214879
Description : MA Fractionation Surrogate Spike Mix
MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : July 31, 2030 **Storage:** 10°C or colder
Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13743
↓
P13772 } Y.P.
11/01/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,009.0 µg/mL	+/- 180.5961
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,008.5 µg/mL	+/- 180.5736

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

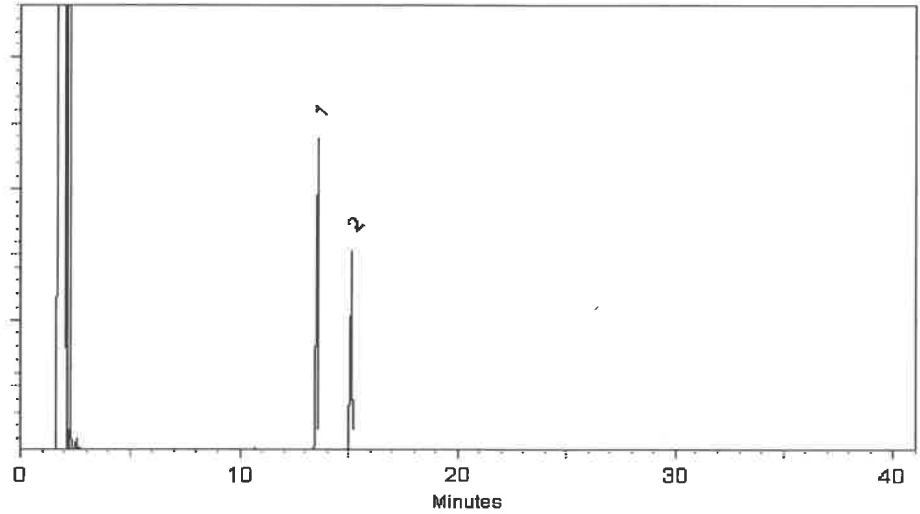
FID

Split Vent:

2 ml/min.

Inj. Vol

1µl



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

Scott McNeil - Operations Tech I

Date Mixed: 06-Aug-2024

Balance Serial #

1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31480 **Lot No.:** A0214879
Description : MA Fractionation Surrogate Spike Mix
MA Fractionation Surrogate Spike Mix 4000µg/mL, Hexane, 1mL/ampul
Container Size : 2 mL **Pkg Amt:** > 1 mL
Expiration Date : July 31, 2030 **Storage:** 10°C or colder
Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13743
↓
P13772 } Y.P.
11/01/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	2-Fluorobiphenyl	321-60-8	00021384	99%	4,009.0 µg/mL	+/- 180.5961
2	2-Bromonaphthalene	580-13-2	STBC5362V	99%	4,008.5 µg/mL	+/- 180.5736

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

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

Quality Confirmation Test

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

250°C

Det. Temp:

330°C

Det. Type:

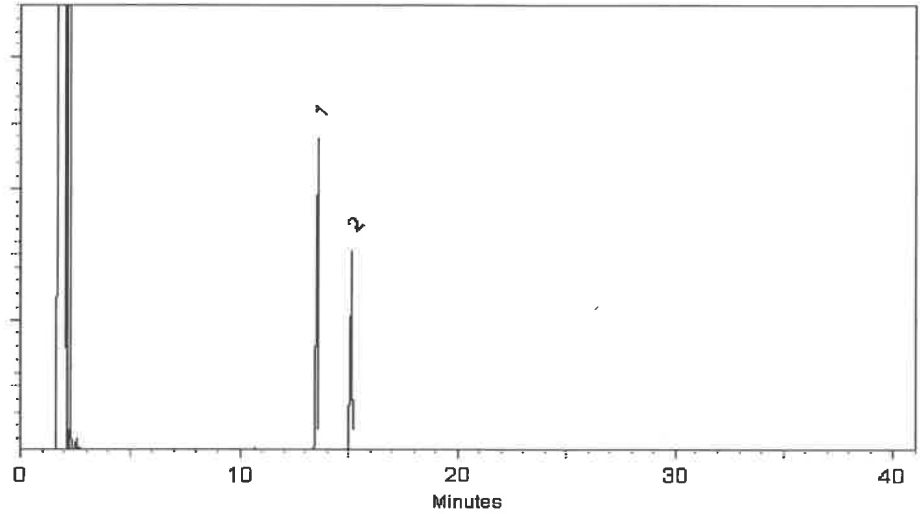
FID

Split Vent:

2 ml/min.

Inj. Vol

1µl



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

Scott McNeil - Operations Tech I

Date Mixed: 06-Aug-2024

Balance Serial # 1128360905

Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 14-Aug-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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Fax: 1-814-353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

P13800
↓
P13829 } YIP
12/09/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

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

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)
Carrier Gas:
 hydrogen-constant pressure 10 psi.

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

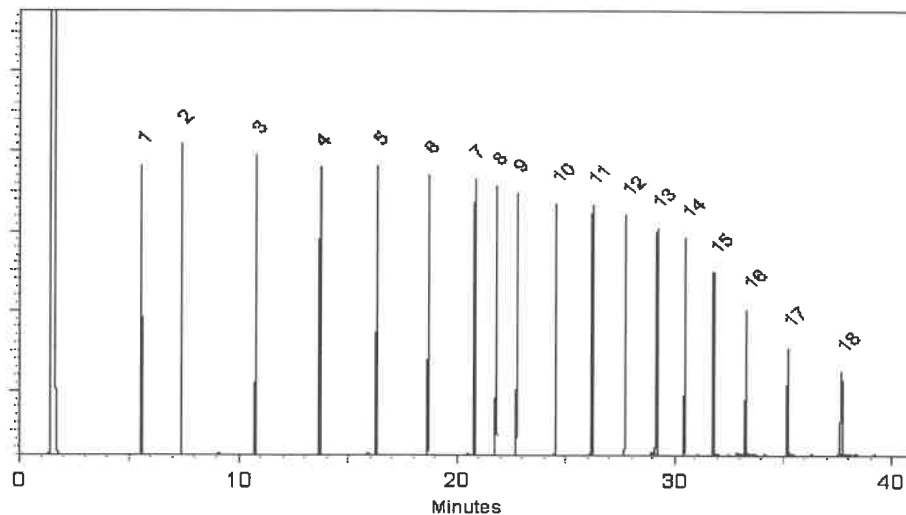
Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID

Split Vent:
 2 ml/min.

Inj. Vol
 1µl



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

Penelope S. Riglin
 Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino
 Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

P13800
↓
P13829 } YIP
12/09/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

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

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

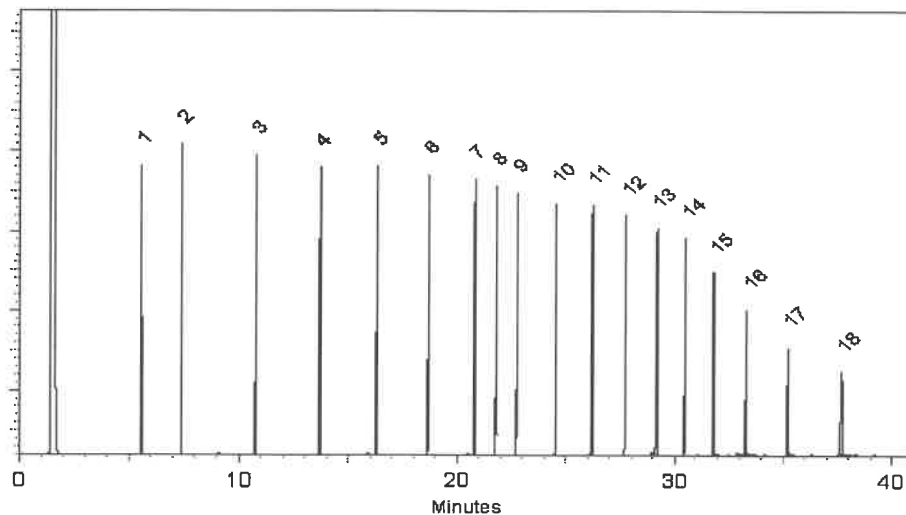
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl



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

Penelope S. Riglin
Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino
Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ μ ECD, GC/MS, LC/MS, RI, and/or melting point.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

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

Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

P13800
↓
P13829 } YIP
12/09/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	201.0 µg/mL	+/- 5.1917
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

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

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)
Carrier Gas:
 hydrogen-constant pressure 10 psi.

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

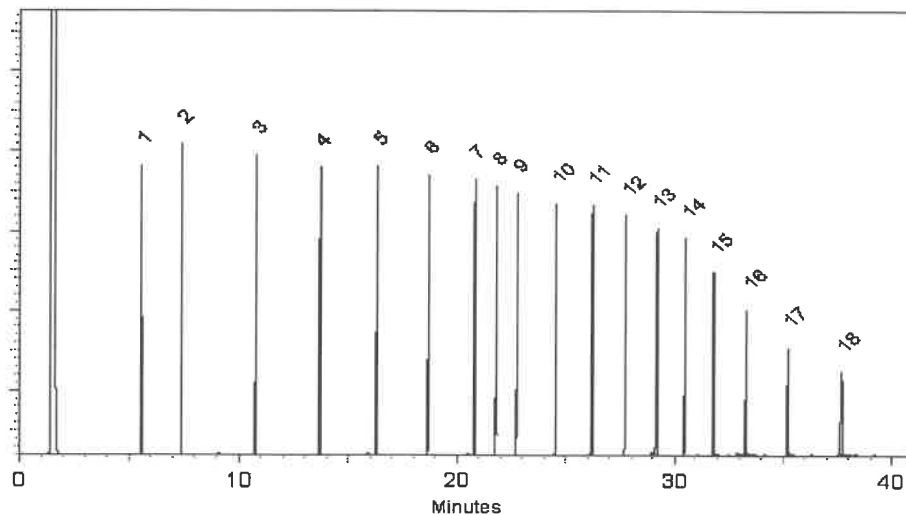
Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID

Split Vent:
 2 ml/min.

Inj. Vol
 1µl



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

Penelope S. Riglin
 Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino
 Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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Purity Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- 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:

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Manufacturing Notes:

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Handling Notes:

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CERTIFIED REFERENCE MATERIAL

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Catalog No. : 30542 **Lot No.:** A0217408

Description : NJEPH Aliphatics Matrix Spike Mix

NJEPH Aliphatics Matrix Spike Mix 200 µg/mL, n-Pentane, 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : November 30, 2031 **Storage:** 10°C or colder

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

P13800
↓
P13829 } YIP
12/09/24

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Nonane (C9)	111-84-2	SHBP9752	99%	200.7 µg/mL	+/- 5.1839
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3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	200.5 µg/mL	+/- 5.1805
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	200.5 µg/mL	+/- 5.1805
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	200.7 µg/mL	+/- 5.1857
6	n-Octadecane (C18)	593-45-3	UE5NG	99%	200.7 µg/mL	+/- 5.1857
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	200.9 µg/mL	+/- 5.1888
8	n-Heneicosane (C21)	629-94-7	MKCP1960	99%	200.5 µg/mL	+/- 5.1805
9	n-Docosane (C22)	629-97-0	MKCQ3882	99%	200.5 µg/mL	+/- 5.1788
10	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	200.6 µg/mL	+/- 5.1822
11	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	200.5 µg/mL	+/- 5.1796
12	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	200.6 µg/mL	+/- 5.1822
13	n-Triacontane (C30)	638-68-6	MKCV7007	98%	201.1 µg/mL	+/- 5.1942
14	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	200.9 µg/mL	+/- 5.1891
15	n-Tetratriacontane (C34)	14167-59-0	6JNHB	99%	200.8 µg/mL	+/- 5.1865
16	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	200.6 µg/mL	+/- 5.1814
17	n-Octatriacontane (C38)	7194-85-6	0000207852	96%	199.3 µg/mL	+/- 5.1477

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

Solvent: n-Pentane
CAS # 109-66-0
Purity 99%

Quality Confirmation Test

Column:
 30m x 0.25mm x 0.25µm
 Rtx-5 (cat.#10223)
Carrier Gas:
 hydrogen-constant pressure 10 psi.

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

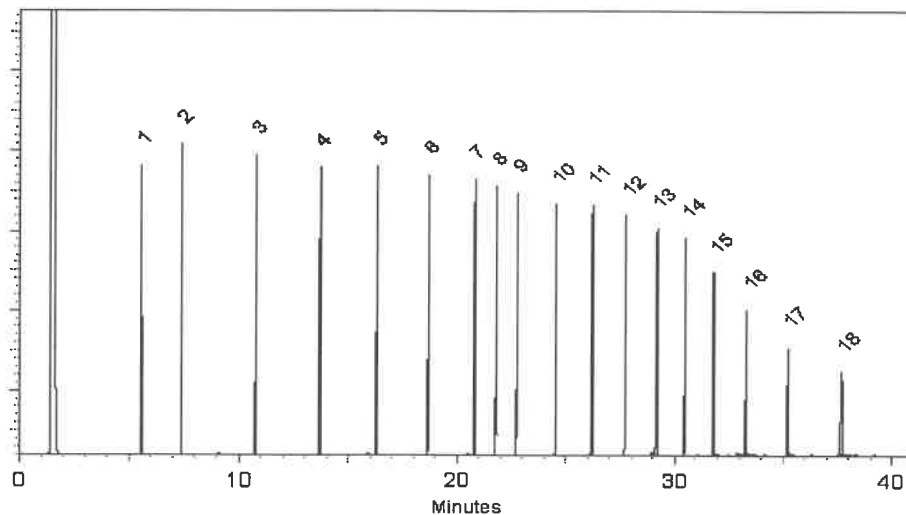
Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID

Split Vent:
 2 ml/min.

Inj. Vol
 1µl



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

Penelope S. Riglin
 Penelope Riglin - Operations Tech I

Date Mixed: 03-Oct-2024 **Balance Serial #** 1128353505

Jennifer Pollino
 Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 07-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30543 **Lot No.:** A0217838

Description : NJEPH Aromatics Matrix Spike Mix
NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13835
2
P13860 } Y-P.
12/09/12

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

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

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

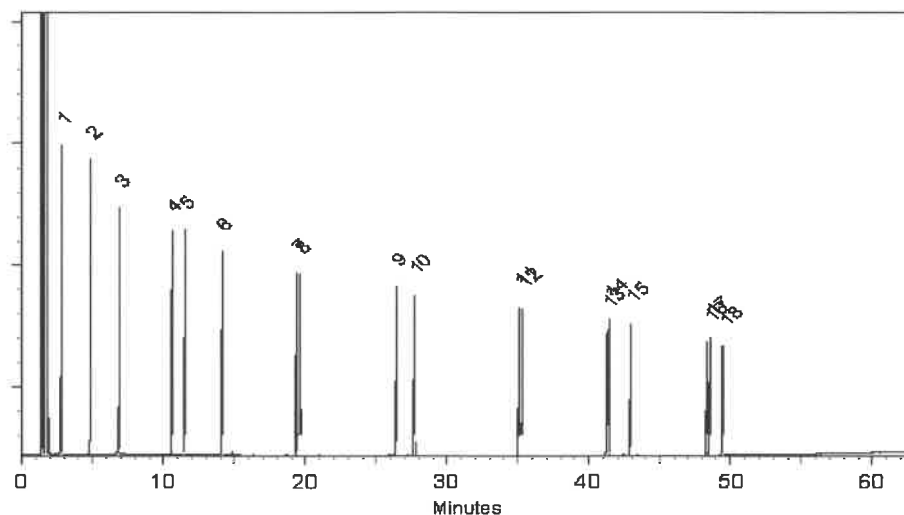
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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Catalog No. : 30543 **Lot No.:** A0217838

Description : NJEPH Aromatics Matrix Spike Mix
NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13835
2
P13860 } Y-P.
12/09/12

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

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

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

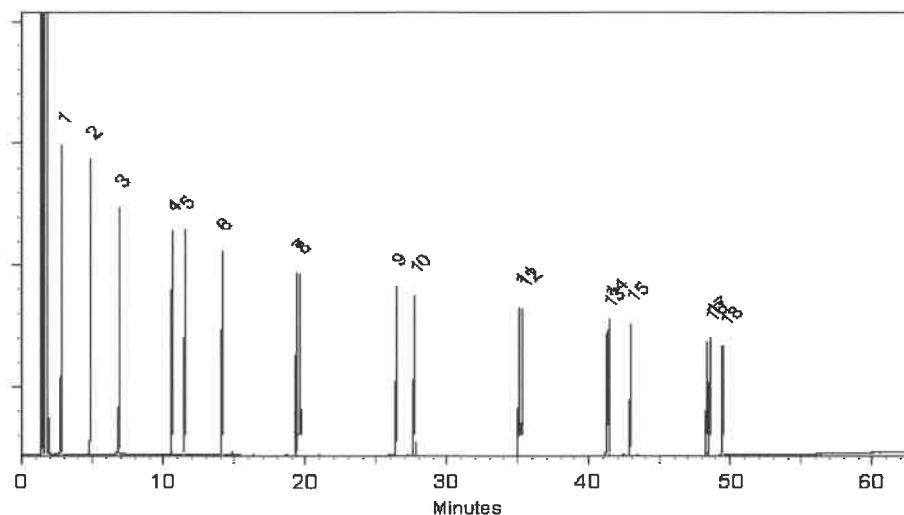
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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chromatographic plus



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Catalog No. : 30543 **Lot No.:** A0217838

Description : NJEPH Aromatics Matrix Spike Mix
NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13835
2
P13860 } Y-P.
12/09/12

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
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4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
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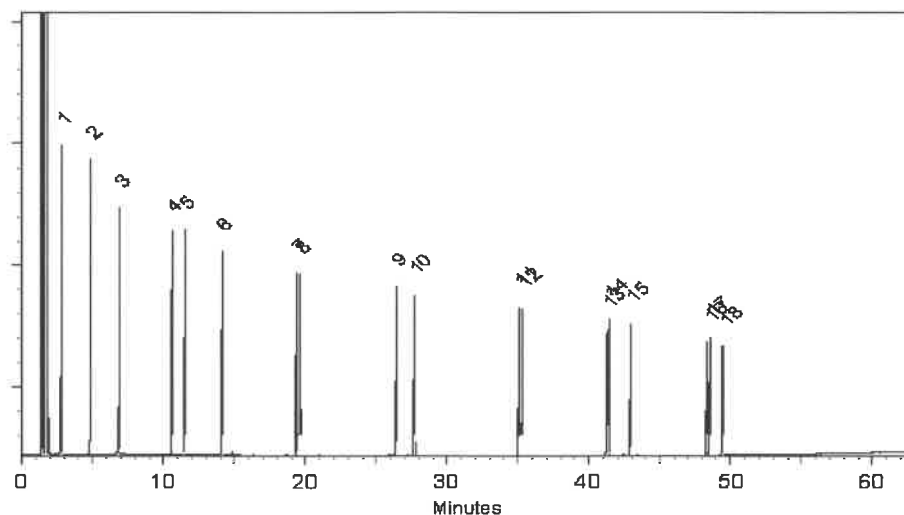
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* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)
Carrier Gas:
hydrogen-constant pressure 10 psi.
Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)
Inj. Temp:
250°C
Det. Temp:
330°C
Det. Type:
FID
Split Vent:
20 ml/min.
Inj. Vol
1µl



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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

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P13835
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12/09/12

CERTIFIED VALUES

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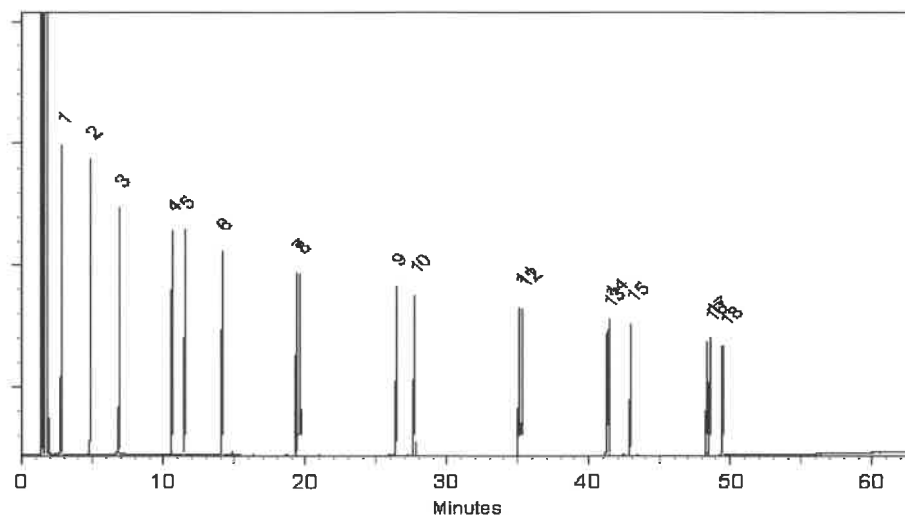
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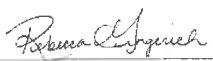
Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)
Carrier Gas:
hydrogen-constant pressure 10 psi.
Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)
Inj. Temp:
250°C
Det. Temp:
330°C
Det. Type:
FID
Split Vent:
20 ml/min.
Inj. Vol
1µl



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


Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905


Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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



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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 30543 **Lot No.:** A0217838

Description : NJEPH Aromatics Matrix Spike Mix
NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13835
2
P13860 } Y-P.
12/09/12

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

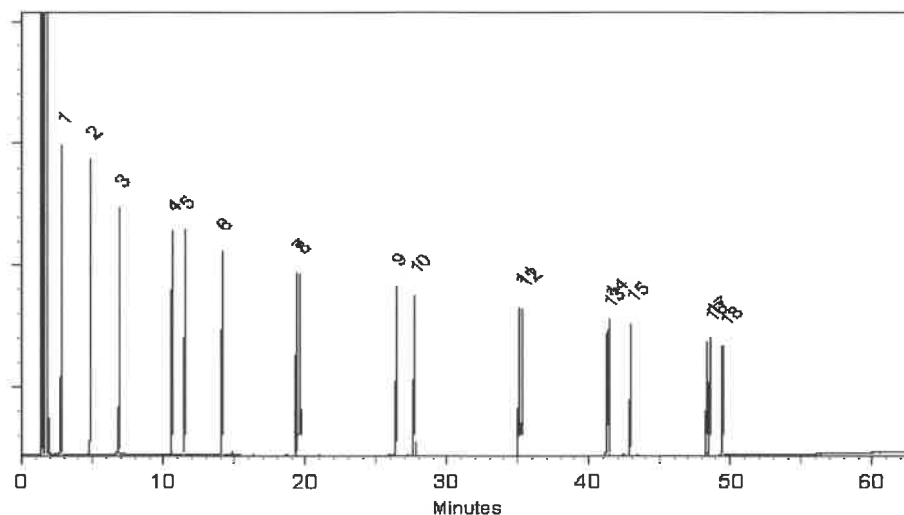
17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

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

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)
Carrier Gas:
hydrogen-constant pressure 10 psi.
Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)
Inj. Temp:
250°C
Det. Temp:
330°C
Det. Type:
FID
Split Vent:
20 ml/min.
Inj. Vol
1µl



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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- 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:

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chromatographic plus



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

Catalog No. : 30543 **Lot No.:** A0217838

Description : NJEPH Aromatics Matrix Spike Mix
NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13835
2
P13860 } Y-P.
12/09/12

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
11	Benz(a)anthracene	56-55-3	I60012022BAA	99%	200.0 µg/mL	+/- 9.0114
12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
18	Benzo(g,h,i)perylene	191-24-2	RP240625RSR	97%	199.0 µg/mL	+/- 8.9683

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

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

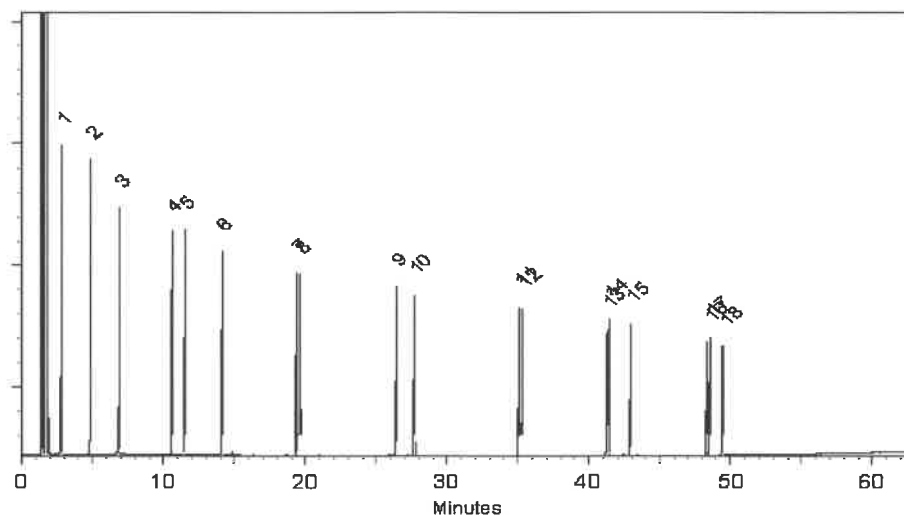
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
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Purity Notes:

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Handling Notes:

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chromatographic plus



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Catalog No. : 30543 **Lot No.:** A0217838

Description : NJEPH Aromatics Matrix Spike Mix

NJEPH Aromatics Matrix Spike Mix 200µg/mL, Acetone/Toluene (50:50), 5mL/ampul

Container Size : 5 mL **Pkg Amt:** > 5 mL

Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13835
2
P13860 } Y-P.
12/09/12

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	1,2,3-Trimethylbenzene	526-73-8	8776.10-38	99%	201.6 µg/mL	+/- 9.0835
2	Naphthalene	91-20-3	STBL1057	99%	200.0 µg/mL	+/- 9.0114
3	2-Methylnaphthalene	91-57-6	STBL3028	99%	200.4 µg/mL	+/- 9.0294
4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
5	Acenaphthene	83-32-9	MKCR7169	99%	200.4 µg/mL	+/- 9.0294
6	Fluorene	86-73-7	10246250	98%	201.5 µg/mL	+/- 9.0784
7	Phenanthrene	85-01-8	MKCT3391	99%	201.2 µg/mL	+/- 9.0655
8	Anthracene	120-12-7	101492T18R	99%	200.0 µg/mL	+/- 9.0114
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12	Chrysene	218-01-9	RP240627ECS	99%	200.4 µg/mL	+/- 9.0294
13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
16	Indeno(1,2,3-cd)pyrene	193-39-5	12-JKL-118-9	97%	199.0 µg/mL	+/- 8.9683

17	Dibenz(a,h)anthracene	53-70-3	2-ASA-59-1	99%	200.0 µg/mL	+/- 9.0114
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* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

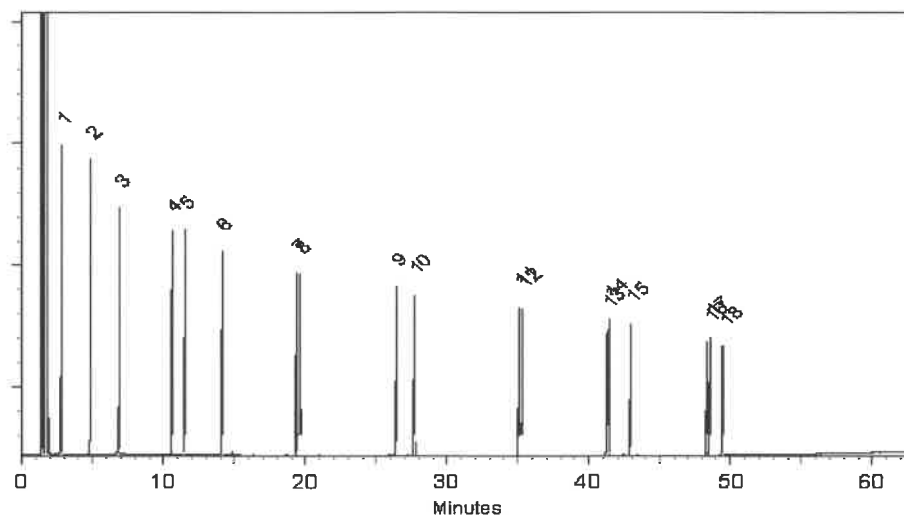
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

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Expiration Date : September 30, 2030 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive. **Ship:** Ambient

P13835
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P13860 } Y-P.
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CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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4	Acenaphthylene	208-96-8	214935V18H	95%	199.1 µg/mL	+/- 8.9717
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9	Fluoranthene	206-44-0	MKCQ4728	99%	200.4 µg/mL	+/- 9.0294
10	Pyrene	129-00-0	BCCK2592	99%	200.0 µg/mL	+/- 9.0114
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13	Benzo(b)fluoranthene	205-99-2	052013B	99%	201.2 µg/mL	+/- 9.0655
14	Benzo(k)fluoranthene	207-08-9	012022K	99%	201.6 µg/mL	+/- 9.0835
15	Benzo(a)pyrene	50-32-8	NQLXA	98%	199.9 µg/mL	+/- 9.0078
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* Expanded Uncertainty displayed in same units as Grav. Conc.

Solvent: Acetone/Toluene (50:50)
CAS # 67-64-1/108-88-3
Purity 99%

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
100°C (hold 1 min.) to 330°C
@ 4°C/min. (hold 5 min.)

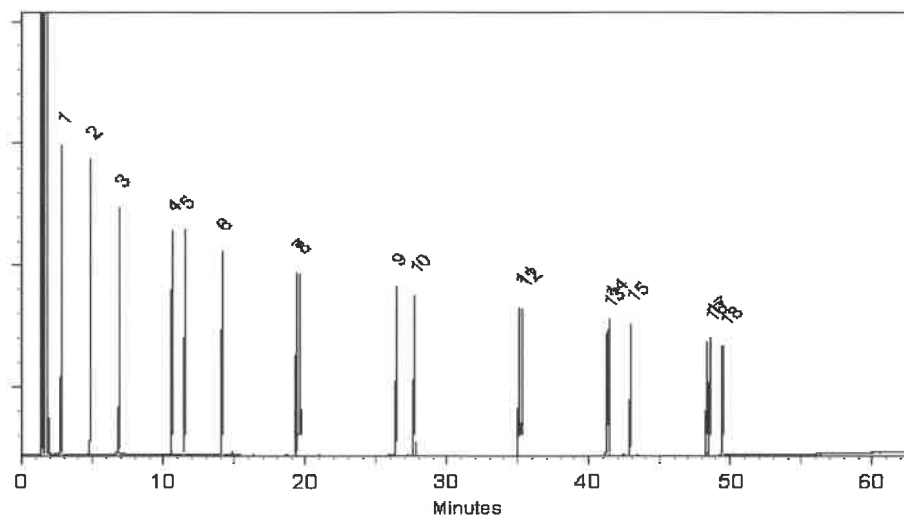
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
20 ml/min.

Inj. Vol
1µl



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Rebecca Gingerich
Rebecca Gingerich - Operations Tech II

Date Mixed: 14-Oct-2024 **Balance Serial #** 1128360905

Brittany Federinko
Brittany Federinko - Operations Tech I

Date Passed: 21-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

- The packaged amount is the minimum sample size for which uncertainty is valid. The ampuls are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

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

Handling Notes:

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

n-Hexane 95%
ULTRA RESI-ANALYZED
For Organic Residue Analysis

 **avantor™**



Material No.: 9262-03
Batch No.: 24G1962003
Manufactured Date: 2024-05-23
Expiration Date: 2025-08-22
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	3
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
ECD-Sensitive Impurities (as Ethylene Dibromide) - Single Impurity Peak (ng/mL)	≤ 5	1
Assay (Total Saturated C ₆ Isomers) (by GC, corrected for water)	≥ 99.5 %	99.7 %
Assay (as n-Hexane) (by GC, corrected for water)	≥ 95 %	98 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Substances Darkened by H ₂ SO ₄	Passes Test	Passes Test
Water (by KF, coulometric)	≤ 0.05 %	< 0.01 %

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

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Walsh Construction Comp.
ADDRESS: 150 Clouet rd 11th Floor
CITY: Little Falls STATE: NJ ZIP: 07424
ATTENTION: Benie Dion Goken
PHONE: 646-285-7234 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Construction of shafts
PROJECT NO.: 220084 LOCATION: Queens NY
PROJECT MANAGER: Jesse Sylvestri
e-mail: jsylvestri@walshgroup.com
PHONE: 201-681-9740 FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#: ADDRESS: CITY STATE: ZIP: ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): 18 DAYS*
EDD: 3 day DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

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

1. TEL 506 2660
2. TEL 506 2660
3. TEL 506 2660
4. TEL 506 2660
5. TEL 506 2660
6. TEL 506 2660
7. TEL 506 2660
8. TEL 506 2660
9. TEL 506 2660
10. TEL 506 2660

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9		
1.	CO_32-1	S	✓	✓	3/21/25	1120	20	X	X	X	X	X	X	X	X	X	15-80-3, 1 liter each, 1 liter each	
2.																		
3.																		
4.																		
5.																		
6.																		
7.																		
8.																		
9.																		
10.																		

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

RELINQUISHED BY SAMPLER: 1. <u>[Signature]</u>	DATE/TIME: <u>1200 3/21/25</u>	RECEIVED BY: 1. <u>[Signature]</u>	DATE/TIME: <u>1200 3-21-25</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP: <u>2.1</u> °C
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME:	RECEIVED BY: 2. <u>[Signature]</u>	DATE/TIME:	Comments: <u>ACRA Characteristics - Ignitability, Corrosivity, Reactivity - Sulfide & Cyanide</u>
RELINQUISHED BY SAMPLER: 3. <u>[Signature]</u>	DATE/TIME: <u>1715 3-21-25</u>	RECEIVED BY: 3. <u>[Signature]</u>	DATE/TIME:	Full analyte list in S.N.G e-mail dated 3/18/25

#3-day TAT requested

Page 1 of 1

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

Laboratory Certification

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1626	WALS01	Order Date : 3/21/2025 12:59:00 PM	Project Mgr :
Client Name : Walsh Construction Compai		Project Name : Walsh CO-032 Sampling	Report Type : Level 2
Client Contact : Evelyne Benie Dion Gokan		Receive DateTime : 3/21/2025 12:00:00 AM	EDD Type : Excel NY
Invoice Name : Walsh Construction Compai		Purchase Order : 5:15 pm	Hard Copy Date :
Invoice Contact : Evelyne Benie Dion Gokan			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1626-01	CO-32-1	Solid	03/21/2025	11:20	VOC-TCLVOA-10		8260D		3 Bus. Days

Relinquished By : CS

Date / Time : 3-24-25 10:10

Received By : Sally

Date / Time : 03/24/25 10:10

Storage Area : VOA Refridgerator Room

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1626	WALS01	Order Date : 3/21/2025 12:59:00 PM	Project Mgr :
Client Name : Walsh Construction Compai		Project Name : Walsh CO-032 Sampling	Report Type : Level 2
Client Contact : Evelyne Benie Dion Gokan		Receive DateTime : 3/21/2025 12:00:00 AM	EDD Type : Excel NY
Invoice Name : Walsh Construction Compai		Purchase Order : 5:15 pm	Hard Copy Date :
Invoice Contact : Evelyne Benie Dion Gokan			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1626-01	CO-32-1	Solid	03/21/2025	11:20	Gasoline Range Organics		8015D		3 Bus. Days

Relinquished By :

Date / Time : 3-24-25 1010

Received By :

Date / Time : 03/24/25 10:10

Storage Area : VOA Refridgerator Room

Page # 6
1322