

DATA PACKAGE

GC SEMI-VOLATILES

PROJECT NAME : NWIRP NORTHRUP GRUMMAN SITE – BETHPAGE, NY

ICE SERVICE GROUP, INC.
191 Central Avenue Suite 200C

Newark, NJ - 07103
Phone No: 4129165710

ORDER ID : Q3399
ATTENTION : Dennis D. Morgan, II



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q3399

Project ID : NWIRP Northrup Grumman Site – Bethpage, NY

Client : ICE Service Group, Inc.

Lab Sample Number

Q3399-01
Q3399-02
Q3399-03
Q3399-04

Client Sample Number

COMP-ROLLOFF
COMP-ROLLOFF
COMP-ROLLOFF
COMP-ROLLOFF

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: 12/17/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CASE NARRATIVE

ICE Service Group, Inc.

Project Name: NWIRP Northrup Grumman Site – Bethpage, NY

Project # N/A

Order ID # Q3399

Test Name: Diesel Range Organics

A. Number of Samples and Date of Receipt:

1 Solid sample was received on 10/20/2025.

B. Parameters

According to the Chain of Custody document, the following analyses were requested: Diesel Range Organics. This data package contains results for Diesel Range Organics.

C. Analytical Techniques:

The analysis were performed on instrument FID_F. The column is RXI-1MS which is 20 meters, 0.18mm ID, 0.18 um df, catalog 13302. The analysis of Diesel Range Organics was based on method 8015D and extraction was done based on method 3541.

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Surrogate recoveries were met for all analysis.

The Retention Times were met for all analysis.

The MS recoveries met the requirements for all compounds.

The MSD recoveries met the requirements for all compounds.

The RPD were met for all analysis.

The Blank Spike met requirements for all compounds.

The Blank analysis did not indicate the presence of lab contamination.

The Initial Calibration met the requirements.

The Continuous Calibration met the requirements.

E. Additional Comments:

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

F. Manual Integration Comments:

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

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed



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Phone: 908 789 8900 Fax: 908 789 8922

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

Signature_____

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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



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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

ORDER ID: Q3399

MATRIX: Solid

METHOD: 8015D/3541

	NA	NO	YES
1. Chromatograms Labeled/Compounds Identified.			✓
2. Standard Summary Submitted.			✓
3. Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis, 12 HOURS IF 8000 SERIES METHOD.			✓
4. Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
5. Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓
6. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range. The MS recoveries met the requirements for all compounds. The MSD recoveries met the requirements for all compounds. The Blank Spike met requirements for all compounds. The RPD were met for all analysis.			✓
7. Retention Time Shift Meet Criteria (if applicable) Comments:			✓
8. Extraction Holding Time Met If not met, list number of days exceeded for each sample:			✓
9. Analysis Holding Time Met If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓

ADDITIONAL COMMENTS:

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

QA REVIEW

Date



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GC ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q3399

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 12/17/2025

LAB CHRONICLE

OrderID:	Q3399	OrderDate:	10/20/2025 1:23:08 PM
Client:	ICE Service Group, Inc.	Project:	NWIRP Northrup Grumman Site – Bethpage, NY
Contact:	Dennis D. Morgan, II	Location:	D41,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3399-01	COMP-ROLLOFF	SOIL			10/20/25			10/20/25
			Diesel Range Organics	8015D		10/22/25	10/22/25	
			Gasoline Range Organics	8015D			10/21/25	
			Herbicide	8151A		10/22/25	10/23/25	
			PCB	8082A		10/22/25	10/22/25	
			Pesticide-TCL	8081B		10/22/25	10/22/25	
Q3399-02	COMP-ROLLOFF	TCLP			10/20/25			10/20/25
			TCLP Herbicide	8151A		10/22/25	10/23/25	
			TCLP Pesticide	8081B		10/22/25	10/22/25	

QC SUMMARY

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SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Alliance

Client: ICE Service Group, Inc.

Lab Code: ACE

SDG No.: Q3399

CLIENT ID	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF016591.D	72				0
PIBLK-FF016599.D	74				0
PB170209BL	57				0
PB170209BS	77				0
COMP-ROLLOFF	52				0
COMP-ROLLOFFMS	52				0
COMP-ROLLOFFMSD	54				0

QC LIMITS

TETRACOSANE-d50

For Water : 29-130

For Soil : 37-130

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate Diluted Out

SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	<u>Alliance</u>	Client:	<u>ICE Service Group, Inc.</u>
Lab Code:	<u>ACE</u>	SDG No:	<u>Q3399</u>
Client Sample ID :	<u>COMP-ROLLOFFMS</u>	Datafile:	<u>FF016597.D</u>

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS(%)
DRO	7401	1310	6573	71%		68-131

SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:	<u>Alliance</u>	Client:	<u>ICE Service Group, Inc.</u>
Lab Code:	<u>ACE</u>	SDG No:	<u>Q3399</u>
Client Sample ID :	<u>COMP-ROLLOFFMSD</u>	Datafile:	<u>FF016598.D</u>

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS(%)
DRO	7398	1310	6818	74%		68-131

MS/MSD % Recovery RPD : 4.7

SOIL DIESEL RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RI

Lab Name:	<u>Alliance</u>	Client:	<u>ICE Service Group, Inc.</u>
Lab Code:	<u>ACE</u>	SDG No:	<u>Q3399</u>
Client Sample ID :	<u>PB170209BS</u>	Datafile:	<u>FF016595.D</u>

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS (%)
DRO	6660	0	5070	76	68-131

4B
METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PB170209BL

Lab Name: Alliance

Contract: ICES02

Lab Code: ACE

SDG NO.: Q3399

Lab File ID: FF016594.D

Lab Sample ID: PB170209BL

Instrument ID: FF

Date Extracted: 10/22/2025

Matrix: (soil/water) Soil

Date Analyzed: 10/22/25

Level: (low/med) low

Time Analyzed: 13:33

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

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB170209BS	PB170209BS	FF016595.D	10/22/25
COMP-ROLLOFF	Q3399-01	FF016596.D	10/22/25
COMP-ROLLOFFMS	Q3399-01MS	FF016597.D	10/22/25
COMP-ROLLOFFMSD	Q3399-01MSD	FF016598.D	10/22/25

COMMENTS: _____



SAMPLE DATA

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Report of Analysis

Client:	ICE Service Group, Inc.		Date Collected:	10/20/25
Project:	NWIRP Northrup Grumman Site – Bethpage, NY		Date Received:	10/20/25
Client Sample ID:	COMP-ROLLOFF		SDG No.:	Q3399
Lab Sample ID:	Q3399-01		Matrix:	SOIL
Analytical Method:	8015D DRO		% Solid:	89.9
Sample Wt/Vol:	30.04 g	Final Vol:	1 mL	Test:
Prep Method:	SW3541	Prep Date	10/22/25 Diesel Range Organics	

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS										
DRO	DRO	1310	J	1	188	926	1850	ug/kg	10/22/25 14:43	PB170209
SURROGATES										
16416-32-3	Tetracosane-d50	10.5			37 - 130		52%	SPK: 20		

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

Q3399-Diesel Range Organics

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016596.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 14:43
Operator : YP\AJ
Sample : Q3399-01
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFF

Integration File: autoint1.e
Quant Time: Oct 22 14:53:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.062	1231356	10.470 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

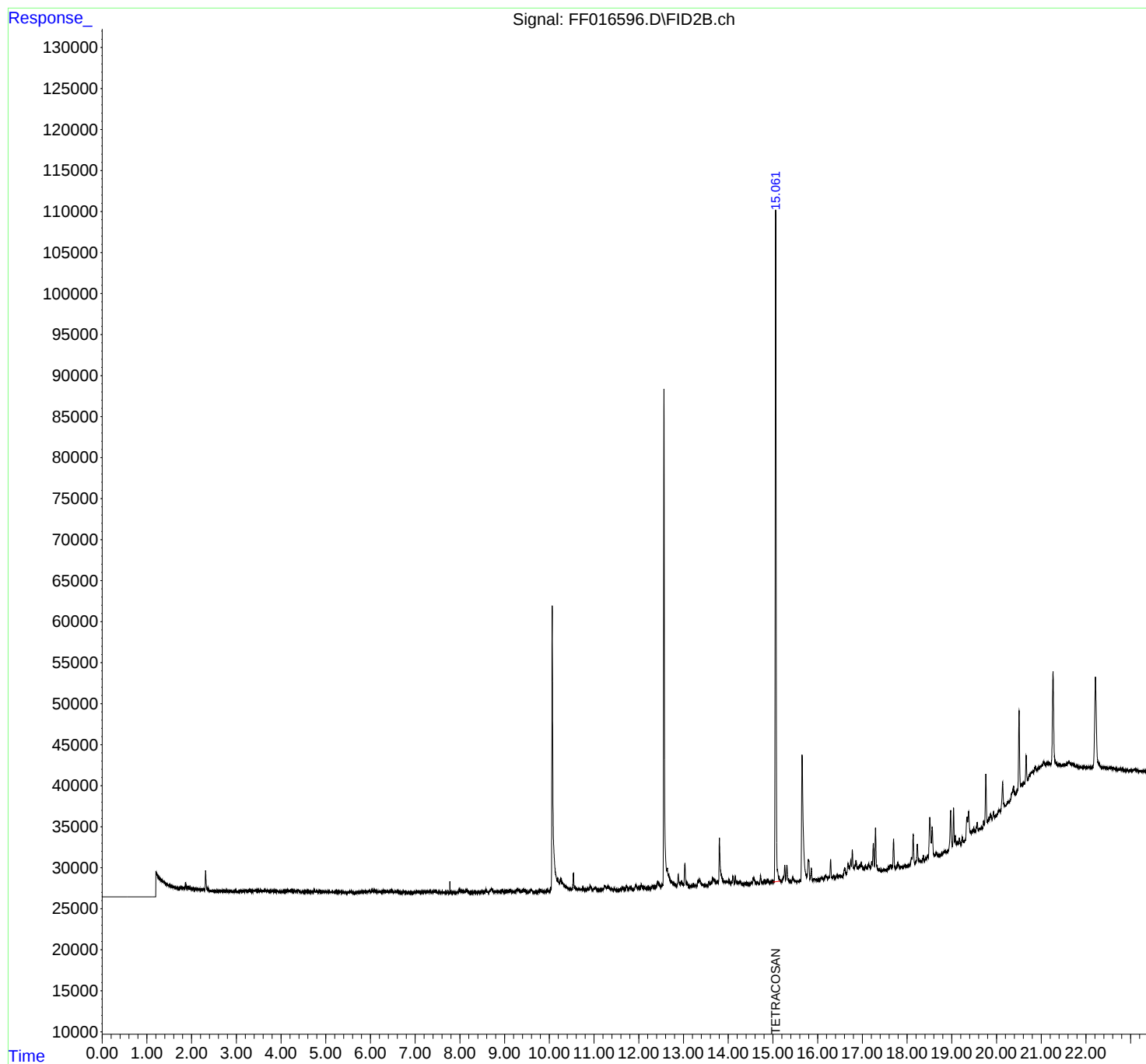
(m)=manual int.

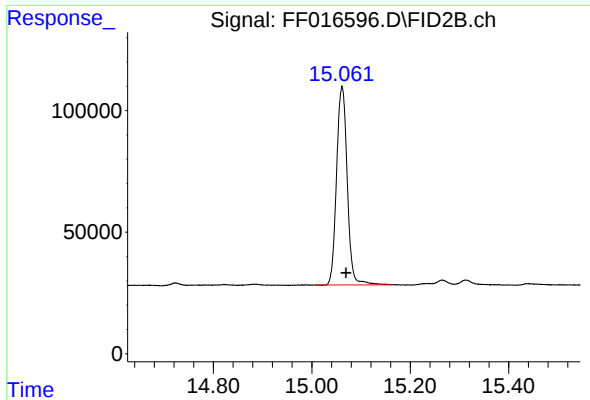
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016596.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 14:43
Operator : YP\AJ
Sample : Q3399-01
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFF

Integration File: autoint1.e
Quant Time: Oct 22 14:53:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.062 min
Delta R.T.: -0.008 min
Response: 1231356
Conc: 10.47 ug/ml

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFF

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Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016596.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 14:43
Sample : Q3399-01
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.439	4.418	4.450	BV	97	807	0.06%	0.014%
2	4.476	4.450	4.485	PV	146	1721	0.14%	0.030%
3	4.512	4.485	4.516	VV	155	1906	0.15%	0.033%
4	4.521	4.516	4.533	VV	135	987	0.08%	0.017%
5	4.572	4.533	4.603	VV	259	5616	0.45%	0.098%
6	4.607	4.603	4.612	VV	115	515	0.04%	0.009%
7	4.648	4.612	4.657	VV	159	2739	0.22%	0.048%
8	4.659	4.657	4.682	VV	124	1175	0.09%	0.020%
9	4.694	4.682	4.699	VV	144	1126	0.09%	0.020%
10	4.704	4.699	4.712	VV	129	754	0.06%	0.013%
11	4.737	4.712	4.772	VV	520	7851	0.63%	0.136%
12	4.785	4.772	4.806	VV	212	2762	0.22%	0.048%
13	4.814	4.806	4.820	VV	193	1181	0.09%	0.021%
14	4.827	4.820	4.835	VV	128	924	0.07%	0.016%
15	4.854	4.835	4.861	VV	205	1896	0.15%	0.033%
16	4.864	4.861	4.870	VV	127	742	0.06%	0.013%
17	4.887	4.870	4.895	VV	154	1868	0.15%	0.032%
18	4.902	4.895	4.905	VV	156	856	0.07%	0.015%
19	4.911	4.905	4.918	VV	170	1098	0.09%	0.019%
20	4.922	4.918	4.928	VV	170	794	0.06%	0.014%
21	4.941	4.928	4.947	VV	163	1427	0.11%	0.025%
22	4.950	4.947	4.959	VV	171	1036	0.08%	0.018%
23	4.971	4.959	4.977	VV	210	1741	0.14%	0.030%
24	4.981	4.977	4.997	VV	178	1610	0.13%	0.028%
25	5.002	4.997	5.008	VV	120	881	0.07%	0.015%
26	5.022	5.008	5.032	VV	211	2096	0.17%	0.036%
27	5.047	5.032	5.053	VV	221	1890	0.15%	0.033%
28	5.066	5.053	5.074	VV	247	2002	0.16%	0.035%
29	5.086	5.074	5.095	VV	195	1827	0.15%	0.032%
30	5.110	5.095	5.138	VV	191	3398	0.27%	0.059%
31	5.142	5.138	5.163	VV	178	1970	0.16%	0.034%
32	5.167	5.163	5.173	VV	132	570	0.05%	0.010%
33	5.180	5.173	5.209	VV	128	2030	0.16%	0.035%
34	5.232	5.209	5.253	VV	354	5065	0.40%	0.088%
35	5.262	5.253	5.267	VV	161	972	0.08%	0.017%
36	5.273	5.267	5.290	PV	129	1263	0.10%	0.022%

					riteres				
37	5.301	5.290	5.308	VV	150	1114	0.09%	0.019%	
38	5.316	5.308	5.323	VV	154	824	0.07%	0.014%	
39	5.333	5.323	5.353	VV	147	1957	0.16%	0.034%	
40	5.359	5.353	5.375	VV	165	1640	0.13%	0.029%	
41	5.377	5.375	5.395	VV	174	1500	0.12%	0.026%	
42	5.402	5.395	5.440	VV	152	2781	0.22%	0.048%	
43	5.450	5.440	5.456	VV	120	872	0.07%	0.015%	
44	5.461	5.456	5.465	VV	114	444	0.04%	0.008%	
45	5.474	5.465	5.484	VV	126	1056	0.08%	0.018%	
46	5.491	5.484	5.498	VV	125	765	0.06%	0.013%	
47	5.503	5.498	5.508	VV	113	479	0.04%	0.008%	
48	5.531	5.508	5.538	VV	245	2764	0.22%	0.048%	
49	5.551	5.538	5.561	VV	239	2284	0.18%	0.040%	
50	5.566	5.561	5.580	VV	192	1544	0.12%	0.027%	
51	5.584	5.580	5.590	VV	129	679	0.05%	0.012%	
52	5.594	5.590	5.602	VV	143	820	0.07%	0.014%	
53	5.606	5.602	5.612	VV	165	786	0.06%	0.014%	
54	5.620	5.612	5.644	VV	153	1828	0.15%	0.032%	
55	5.650	5.644	5.675	VV	126	1423	0.11%	0.025%	
56	5.678	5.675	5.686	VV	112	495	0.04%	0.009%	
57	5.691	5.686	5.695	VV	97	447	0.04%	0.008%	
58	5.702	5.695	5.707	VV	143	704	0.06%	0.012%	
59	5.716	5.707	5.727	VV	139	1259	0.10%	0.022%	
60	5.729	5.727	5.741	VV	193	1111	0.09%	0.019%	
61	5.743	5.741	5.749	VV	140	611	0.05%	0.011%	
62	5.753	5.749	5.767	VV	164	1258	0.10%	0.022%	
63	5.772	5.767	5.777	VV	179	755	0.06%	0.013%	
64	5.785	5.777	5.799	VV	177	1897	0.15%	0.033%	
65	5.813	5.799	5.823	VV	182	1741	0.14%	0.030%	
66	5.836	5.823	5.842	VV	221	1611	0.13%	0.028%	
67	5.848	5.842	5.856	VV	196	1319	0.11%	0.023%	
68	5.865	5.856	5.877	VV	203	1933	0.15%	0.034%	
69	5.879	5.877	5.895	VV	238	1768	0.14%	0.031%	
70	5.905	5.895	5.925	VV	256	3301	0.26%	0.057%	
71	5.935	5.925	5.943	VV	232	1870	0.15%	0.032%	
72	5.946	5.943	5.954	VV	199	1211	0.10%	0.021%	
73	5.966	5.954	5.977	VV	309	3514	0.28%	0.061%	
74	5.979	5.977	5.993	VV	293	2386	0.19%	0.041%	
75	5.995	5.993	6.000	VV	251	803	0.06%	0.014%	
76	6.007	6.000	6.017	VV	230	2129	0.17%	0.037%	
77	6.021	6.017	6.025	VV	257	1200	0.10%	0.021%	
78	6.037	6.025	6.066	VV	439	7364	0.59%	0.128%	
79	6.089	6.066	6.138	VV	432	11554	0.92%	0.201%	
80	6.145	6.138	6.166	VV	248	2521	0.20%	0.044%	
81	6.193	6.166	6.200	VV	235	3150	0.25%	0.055%	
82	6.235	6.200	6.268	VV	218	5823	0.46%	0.101%	
83	6.281	6.268	6.299	VV	358	4246	0.34%	0.074%	
84	6.323	6.299	6.330	VV	246	3264	0.26%	0.057%	
85	6.372	6.330	6.387	VV	307	6868	0.55%	0.119%	
86	6.393	6.387	6.405	VV	220	1813	0.14%	0.032%	
87	6.409	6.405	6.426	VV	186	1891	0.15%	0.033%	
88	6.440	6.426	6.453	VV	288	3903	0.31%	0.068%	
89	6.465	6.453	6.499	VV	450	7270	0.58%	0.126%	

					rters			
90	6.541	6.499	6.580	VV	236	8318	0.66%	0.145%
91	6.593	6.580	6.597	VV	253	1830	0.15%	0.032%
92	6.605	6.597	6.615	VV	211	2153	0.17%	0.037%
93	6.631	6.615	6.672	VV	254	5171	0.41%	0.090%
94	6.682	6.672	6.688	VV	135	940	0.07%	0.016%
95	6.747	6.688	6.791	VV	180	7625	0.61%	0.133%
96	6.797	6.791	6.829	VV	129	1908	0.15%	0.033%
97	6.834	6.829	6.847	VV	74	739	0.06%	0.013%
98	6.852	6.847	6.889	VV	139	1894	0.15%	0.033%
99	6.898	6.889	6.907	VV	105	784	0.06%	0.014%
100	6.926	6.907	6.942	VV	106	1550	0.12%	0.027%
101	6.950	6.942	6.957	VV	125	809	0.06%	0.014%
102	6.997	6.957	7.017	VV	178	4051	0.32%	0.070%
103	7.028	7.017	7.036	VV	229	2206	0.18%	0.038%
104	7.039	7.036	7.062	VV	219	2391	0.19%	0.042%
105	7.067	7.062	7.081	VV	183	1671	0.13%	0.029%
106	7.086	7.081	7.124	VV	183	3526	0.28%	0.061%
107	7.148	7.124	7.162	VV	183	3861	0.31%	0.067%
108	7.164	7.162	7.194	VV	220	3024	0.24%	0.053%
109	7.207	7.194	7.242	VV	224	5086	0.40%	0.088%
110	7.249	7.242	7.255	VV	206	1465	0.12%	0.025%
111	7.257	7.255	7.264	VV	242	954	0.08%	0.017%
112	7.280	7.264	7.319	VV	236	5954	0.47%	0.103%
113	7.324	7.319	7.328	VV	249	1049	0.08%	0.018%
114	7.331	7.328	7.352	VV	196	2694	0.21%	0.047%
115	7.358	7.352	7.376	VV	243	2402	0.19%	0.042%
116	7.381	7.376	7.391	VV	225	1490	0.12%	0.026%
117	7.397	7.391	7.404	VV	213	1368	0.11%	0.024%
118	7.436	7.404	7.454	VV	289	6093	0.49%	0.106%
119	7.467	7.454	7.520	VV	289	7220	0.57%	0.125%
120	7.537	7.520	7.550	VV	217	2744	0.22%	0.048%
121	7.557	7.550	7.572	VV	147	1332	0.11%	0.023%
122	7.591	7.572	7.595	VV	161	1720	0.14%	0.030%
123	7.601	7.595	7.630	VV	210	2300	0.18%	0.040%
124	7.641	7.630	7.664	VV	162	2393	0.19%	0.042%
125	7.667	7.664	7.680	VV	126	963	0.08%	0.017%
126	7.684	7.680	7.690	VV	131	634	0.05%	0.011%
127	7.695	7.690	7.699	VV	118	572	0.05%	0.010%
128	7.706	7.699	7.719	VV	151	1197	0.10%	0.021%
129	7.725	7.719	7.734	VV	121	599	0.05%	0.010%
130	7.738	7.734	7.743	VV	106	354	0.03%	0.006%
131	7.748	7.743	7.753	VV	100	369	0.03%	0.006%
132	7.759	7.753	7.765	VV	157	551	0.04%	0.010%
133	7.777	7.765	7.809	VV	1008	3214	0.26%	0.056%
134	7.830	7.809	7.848	PV	113	1803	0.14%	0.031%
135	7.865	7.848	7.900	VB	88	1406	0.11%	0.024%
136	7.918	7.902	7.959	BV	81	1510	0.12%	0.026%
137	7.988	7.959	8.026	VV	447	9266	0.74%	0.161%
138	8.035	8.026	8.044	VV	213	1678	0.13%	0.029%
139	8.057	8.044	8.104	VV	196	5407	0.43%	0.094%
140	8.129	8.104	8.145	VV	280	4970	0.40%	0.086%
141	8.157	8.145	8.197	VV	459	6261	0.50%	0.109%

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142	8.202	8.197	8.212	VV	52	121	0.01%	0.002%
143	8.216	8.212	8.220	PV	34	63	0.01%	0.001%
144	8.226	8.220	8.229	VV	61	152	0.01%	0.003%
145	8.234	8.229	8.282	VV	98	1541	0.12%	0.027%
146	8.285	8.282	8.297	VV	121	432	0.03%	0.008%
147	8.324	8.297	8.370	VV	160	3097	0.25%	0.054%
148	8.404	8.370	8.452	VV	133	2971	0.24%	0.052%
149	8.527	8.452	8.549	PV	195	5988	0.48%	0.104%
150	8.587	8.549	8.639	VV	523	10357	0.82%	0.180%
151	8.705	8.639	8.752	VV	500	18758	1.49%	0.326%
152	8.762	8.752	8.772	VV	141	1525	0.12%	0.027%
153	8.779	8.772	8.815	VV	205	3306	0.26%	0.057%
154	8.825	8.815	8.874	VV	170	3940	0.31%	0.068%
155	8.916	8.874	8.928	VV	262	5659	0.45%	0.098%
156	8.948	8.928	8.977	VV	366	5839	0.46%	0.101%
157	9.017	8.977	9.057	VV	243	7177	0.57%	0.125%
158	9.085	9.057	9.100	VV	306	5674	0.45%	0.099%
159	9.125	9.100	9.162	VV	409	9090	0.72%	0.158%
160	9.179	9.162	9.195	VV	172	2578	0.21%	0.045%
161	9.209	9.195	9.234	VV	161	2934	0.23%	0.051%
162	9.276	9.234	9.375	VV	421	21206	1.69%	0.369%
163	9.380	9.375	9.390	VV	143	1106	0.09%	0.019%
164	9.414	9.390	9.432	VV	480	7328	0.58%	0.127%
165	9.452	9.432	9.487	VV	450	8713	0.69%	0.151%
166	9.500	9.487	9.512	VV	103	1235	0.10%	0.021%
167	9.528	9.512	9.555	VV	137	2089	0.17%	0.036%
168	9.593	9.555	9.691	VV	472	15158	1.21%	0.263%
169	9.703	9.691	9.742	PV	75	2129	0.17%	0.037%
170	9.798	9.742	9.862	VV	373	13691	1.09%	0.238%
171	9.876	9.862	9.906	VV	181	3578	0.28%	0.062%
172	9.946	9.906	10.006	VV	216	8084	0.64%	0.141%
173	10.029	10.006	10.039	VV	608	6762	0.54%	0.118%
174	10.064	10.039	10.177	VV	34860	630496	50.20%	10.958%
175	10.192	10.177	10.227	VV	1751	40420	3.22%	0.703%
176	10.249	10.227	10.340	VV	1638	79086	6.30%	1.375%
177	10.345	10.340	10.449	VV	761	35032	2.79%	0.609%
178	10.460	10.449	10.510	VV	406	11880	0.95%	0.206%
179	10.538	10.510	10.608	VV	2223	45430	3.62%	0.790%
180	10.617	10.608	10.640	VV	414	5945	0.47%	0.103%
181	10.647	10.640	10.657	VV	282	2730	0.22%	0.047%
182	10.674	10.657	10.704	VV	332	7338	0.58%	0.128%
183	10.722	10.704	10.740	VV	320	5308	0.42%	0.092%
184	10.755	10.740	10.790	VV	491	9004	0.72%	0.156%
185	10.823	10.790	10.840	VV	284	5851	0.47%	0.102%
186	10.861	10.840	10.879	VV	346	5892	0.47%	0.102%
187	10.916	10.879	10.968	VV	686	21175	1.69%	0.368%
188	11.011	10.968	11.024	VV	370	9378	0.75%	0.163%
189	11.037	11.024	11.101	VV	479	12271	0.98%	0.213%
190	11.124	11.101	11.142	VV	164	2960	0.24%	0.051%
191	11.155	11.142	11.185	VV	196	3149	0.25%	0.055%
192	11.232	11.185	11.297	VV	610	24979	1.99%	0.434%
193	11.314	11.297	11.344	VV	661	12440	0.99%	0.216%
194	11.354	11.344	11.382	VV	302	5419	0.43%	0.094%

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195	11.386	11.382	11.430	VV	256	4974	0.40%	0.086%
196	11.459	11.430	11.492	VV	234	5276	0.42%	0.092%
197	11.498	11.492	11.522	VV	111	1260	0.10%	0.022%
198	11.528	11.522	11.539	VV	54	547	0.04%	0.010%
199	11.571	11.539	11.599	VV	222	4140	0.33%	0.072%
200	11.643	11.599	11.679	VV	430	10035	0.80%	0.174%
201	11.724	11.679	11.772	VV	523	13372	1.06%	0.232%
202	11.802	11.772	11.822	VV	393	7303	0.58%	0.127%
203	11.837	11.822	11.863	VV	326	4060	0.32%	0.071%
204	11.880	11.863	11.899	PV	136	1343	0.11%	0.023%
205	11.928	11.899	11.985	VV	658	18738	1.49%	0.326%
206	11.993	11.985	12.019	VV	338	4209	0.34%	0.073%
207	12.057	12.019	12.109	VV	739	19020	1.51%	0.331%
208	12.127	12.109	12.175	VV	425	8461	0.67%	0.147%
209	12.199	12.175	12.270	VV	233	8632	0.69%	0.150%
210	12.309	12.270	12.333	VV	429	9892	0.79%	0.172%
211	12.352	12.333	12.385	VV	322	7724	0.61%	0.134%
212	12.420	12.385	12.499	VV	979	37361	2.97%	0.649%
213	12.522	12.499	12.539	VV	606	10918	0.87%	0.190%
214	12.564	12.539	12.626	VV	60843	816291	64.99%	14.187%
215	12.640	12.626	12.727	VV	2514	92068	7.33%	1.600%
216	12.735	12.727	12.770	VV	860	18384	1.46%	0.320%
217	12.780	12.770	12.825	VV	668	17171	1.37%	0.298%
218	12.831	12.825	12.853	VV	474	5794	0.46%	0.101%
219	12.884	12.853	12.923	VV	1706	34881	2.78%	0.606%
220	12.951	12.923	13.003	VV	841	24788	1.97%	0.431%
221	13.032	13.003	13.061	VV	2989	51376	4.09%	0.893%
222	13.079	13.061	13.131	VV	633	15248	1.21%	0.265%
223	13.161	13.131	13.175	VV	231	4404	0.35%	0.077%
224	13.218	13.175	13.271	VV	387	13406	1.07%	0.233%
225	13.295	13.271	13.303	VV	258	3642	0.29%	0.063%
226	13.325	13.303	13.345	VV	796	13920	1.11%	0.242%
227	13.366	13.345	13.432	VV	942	28212	2.25%	0.490%
228	13.439	13.432	13.503	VV	302	8822	0.70%	0.153%
229	13.516	13.503	13.552	VV	229	3776	0.30%	0.066%
230	13.570	13.552	13.595	VV	628	10240	0.82%	0.178%
231	13.655	13.595	13.684	VV	1042	34760	2.77%	0.604%
232	13.692	13.684	13.730	VV	777	16918	1.35%	0.294%
233	13.748	13.730	13.772	VV	596	12691	1.01%	0.221%
234	13.804	13.772	13.942	VV	5856	145891	11.62%	2.536%
235	13.964	13.942	14.002	VV	545	17331	1.38%	0.301%
236	14.022	14.002	14.050	VV	710	14448	1.15%	0.251%
237	14.108	14.050	14.135	VV	1199	27666	2.20%	0.481%
238	14.158	14.135	14.230	VV	1085	27700	2.21%	0.481%
239	14.241	14.230	14.249	VV	298	3048	0.24%	0.053%
240	14.274	14.249	14.323	VV	469	11677	0.93%	0.203%
241	14.333	14.323	14.345	VV	112	1080	0.09%	0.019%
242	14.395	14.345	14.449	VV	291	10473	0.83%	0.182%
243	14.457	14.449	14.479	VV	84	1492	0.12%	0.026%
244	14.524	14.479	14.535	VV	318	6306	0.50%	0.110%
245	14.562	14.535	14.622	VV	851	25464	2.03%	0.443%
246	14.649	14.622	14.697	VV	242	7820	0.62%	0.136%

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247	14.723	14.697	14.750	PV	1137	16392	1.31%	0.285%
248	14.789	14.750	14.797	VV	292	6822	0.54%	0.119%
249	14.823	14.797	14.849	VV	470	9020	0.72%	0.157%
250	14.884	14.849	14.955	VV	551	16919	1.35%	0.294%
251	14.989	14.955	15.000	VV	252	5202	0.41%	0.090%
252	15.008	15.000	15.020	VV	233	2335	0.19%	0.041%
253	15.061	15.020	15.204	VV	81945	1256025	100.00%	21.830%
254	15.265	15.204	15.290	VV	2168	47583	3.79%	0.827%
255	15.313	15.290	15.391	VV	2112	43274	3.45%	0.752%
256	15.403	15.391	15.415	VV	112	1090	0.09%	0.019%
257	15.439	15.415	15.500	PV	613	15588	1.24%	0.271%
258	15.505	15.500	15.542	VV	91	2143	0.17%	0.037%
259	15.607	15.542	15.617	PV	156	4447	0.35%	0.077%
260	15.653	15.617	15.760	VV	15330	395923	31.52%	6.881%
261	15.792	15.760	15.831	VV	2689	65517	5.22%	1.139%
262	15.858	15.831	15.892	VV	1605	24573	1.96%	0.427%
263	15.923	15.892	15.943	VV	303	5704	0.45%	0.099%
264	15.960	15.943	15.968	VV	150	2126	0.17%	0.037%
265	15.978	15.968	16.009	VV	172	2069	0.16%	0.036%
266	16.079	16.009	16.100	PV	319	9807	0.78%	0.170%
267	16.109	16.100	16.139	VV	294	3332	0.27%	0.058%
268	16.183	16.139	16.225	VV	540	15011	1.20%	0.261%
269	16.253	16.225	16.267	VV	300	5168	0.41%	0.090%
270	16.291	16.267	16.337	VV	2389	35662	2.84%	0.620%
271	16.357	16.337	16.400	VV	379	6609	0.53%	0.115%
272	16.431	16.400	16.465	PV	424	8663	0.69%	0.151%
273	16.510	16.465	16.565	VV	324	11607	0.92%	0.202%
274	16.604	16.565	16.647	VV	1147	30337	2.42%	0.527%
275	16.683	16.647	16.702	VV	1546	34906	2.78%	0.607%
276	16.741	16.702	16.757	VV	1913	44370	3.53%	0.771%
277	16.777	16.757	16.822	VV	3131	62817	5.00%	1.092%
278	16.857	16.822	16.888	VV	1713	47934	3.82%	0.833%
279	16.897	16.888	16.909	VV	823	9692	0.77%	0.168%
280	16.951	16.909	16.960	VV	1128	29164	2.32%	0.507%
281	16.977	16.960	17.045	VV	1337	44858	3.57%	0.780%
282	17.066	17.045	17.112	VV	992	28783	2.29%	0.500%
283	17.142	17.112	17.186	VV	1128	35547	2.83%	0.618%
284	17.211	17.186	17.224	VV	1308	22183	1.77%	0.386%
285	17.245	17.224	17.270	VV	3474	58179	4.63%	1.011%
286	17.294	17.270	17.360	VV	5334	91495	7.28%	1.590%
287	17.374	17.360	17.400	VBA	234	4862	0.39%	0.085%
Sum of corrected areas:					5753770			

FF100225.M Thu Oct 23 01:29:54 2025



CALIBRATION SUMMARY

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DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Alliance Contract: ICES02
 ProjectID: NWIRP Northrup Grumman Site – Bethpage, NY
 Lab Code: ACE SDG No.: Q3399

Calibration Sequence : FF100225		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	112385153	112385	FF016509.D
500	63771192	127542	FF016510.D
200	27823338	139117	FF016511.D
100	13388592	133886	FF016512.D
50	6367675	127354	FF016513.D
AVG RF : 128057		% RSD : 7.835	AVG RT : 15.0682

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: ICES02
 ProjectID: NWIRP Northrup Grumman Site – Bethp
 Lab Code: ACE SDG No.: Q3399
 DataFile: FF016592.D Analyst Name: YP\AJ Analyst Date: 10-22-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	64931765	129864	128057	1.411

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
 Data File : FF016592.D
 Signal(s) : FID2B.ch
 Acq On : 22 Oct 2025 12:00
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Oct 22 12:07:56 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
 Quant Title :
 QLast Update : Fri Oct 03 03:40:27 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.066	5765187	49.018 ug/ml
Target Compounds			
2) N-DECANE	4.579	6335579	52.700 ug/ml
3) N-DODECANE	6.758	6461603	53.013 ug/ml
4) N-TETRADECANE	8.591	6515118	52.932 ug/ml
5) N-HEXADECANE	10.201	6591893	52.672 ug/ml
6) N-OCTADECANE	11.648	6730992	51.799 ug/ml
7) N-EICOSANE	12.962	6755805	50.664 ug/ml
8) N-DOCOSANE	14.163	6535302	49.859 ug/ml
10) N-TETRACOSANE	15.271	6470038	48.845 ug/ml
11) N-HEXACOSANE	16.296	6341964	48.022 ug/ml
12) N-OCTACOSANE	17.250	6193471	47.158 ug/ml

(f)=RT Delta > 1/2 Window

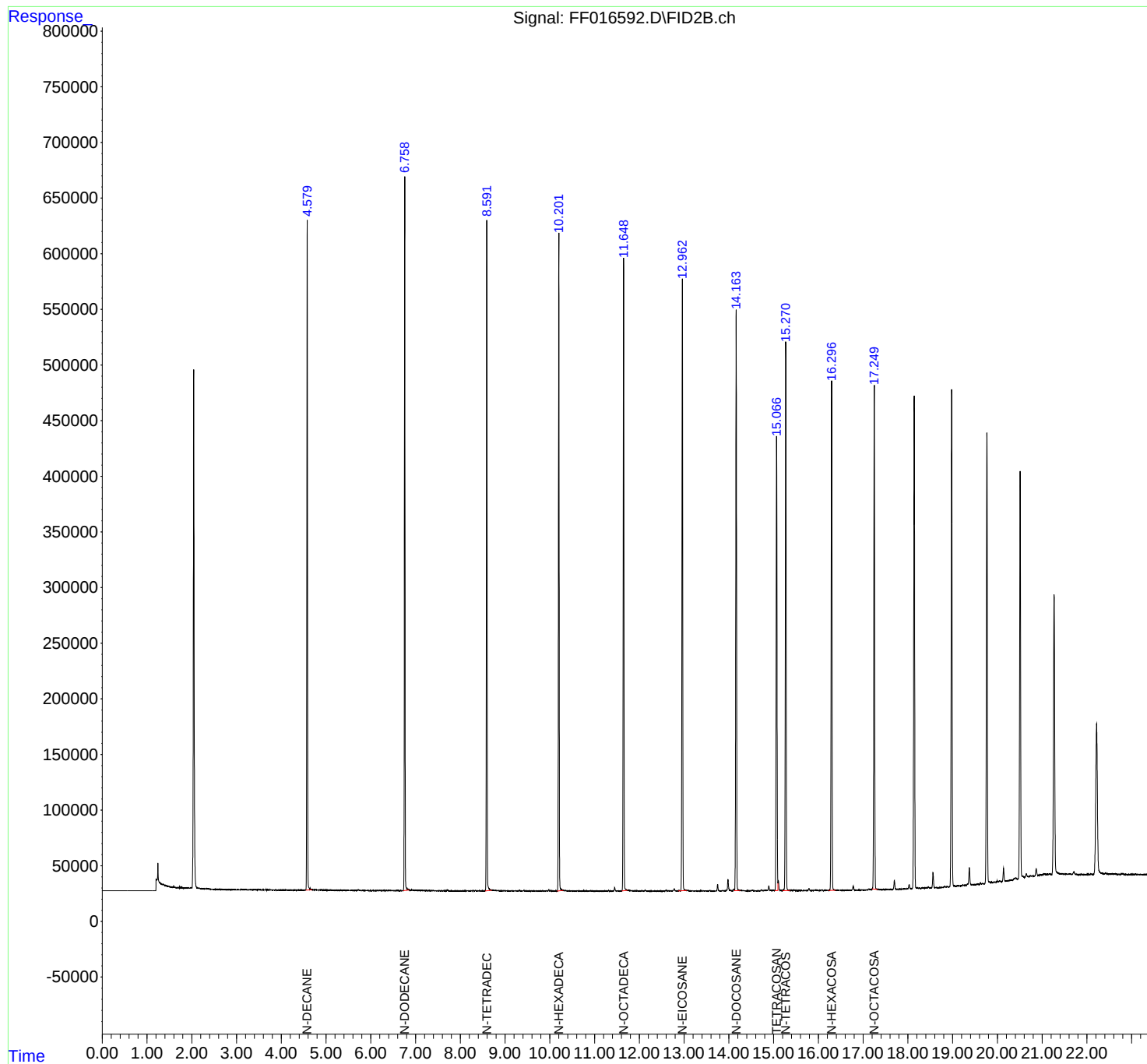
(m)=manual int.

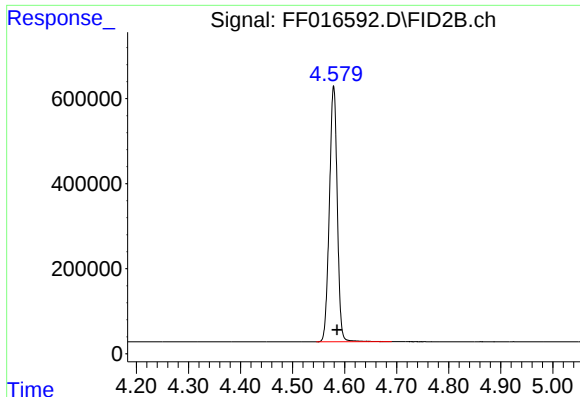
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016592.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 12:00
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Oct 22 12:07:56 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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

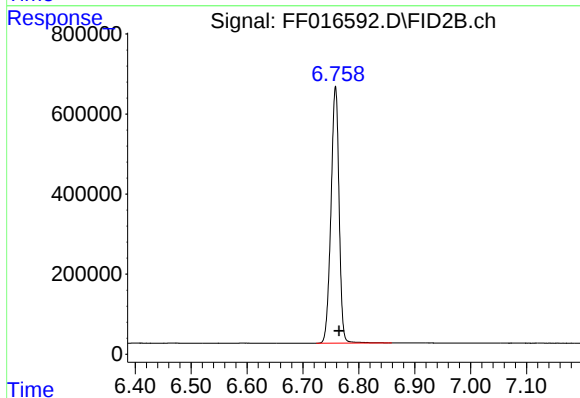




#2 N-DECANE

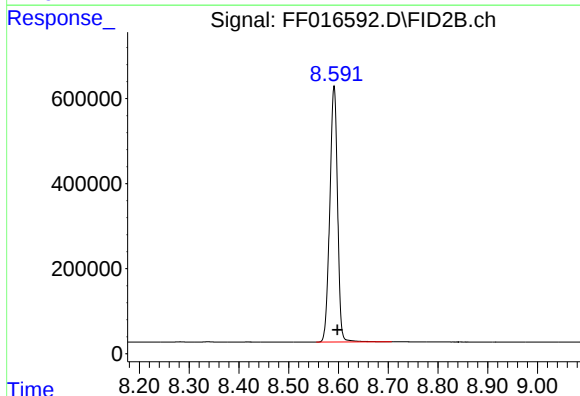
R.T.: 4.579 min
Delta R.T.: -0.007 min
Response: 6335579
Conc: 52.70 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



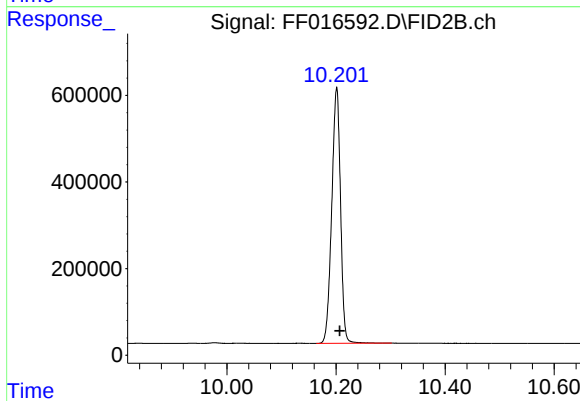
#3 N-DODECANE

R.T.: 6.758 min
Delta R.T.: -0.007 min
Response: 6461603
Conc: 53.01 ug/ml



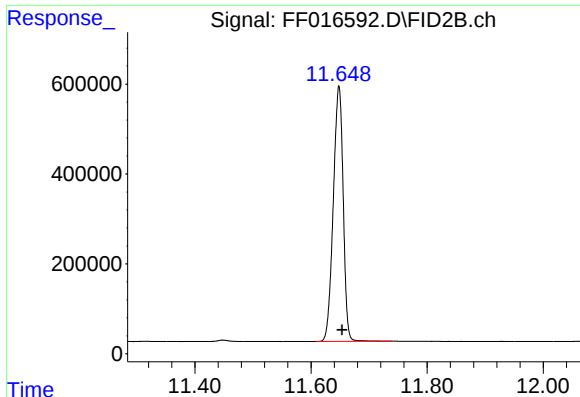
#4 N-TETRADECANE

R.T.: 8.591 min
Delta R.T.: -0.007 min
Response: 6515118
Conc: 52.93 ug/ml



#5 N-HEXADECANE

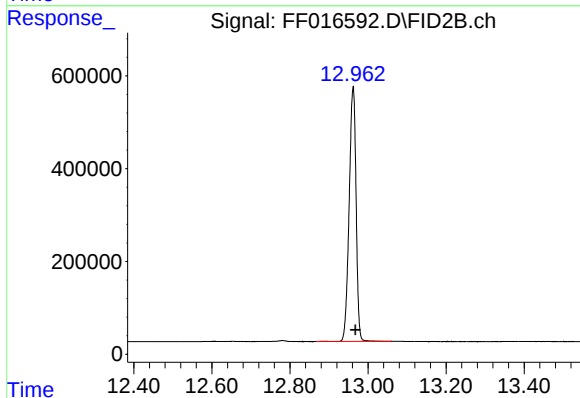
R.T.: 10.201 min
Delta R.T.: -0.006 min
Response: 6591893
Conc: 52.67 ug/ml



#6 N-OCTADECANE

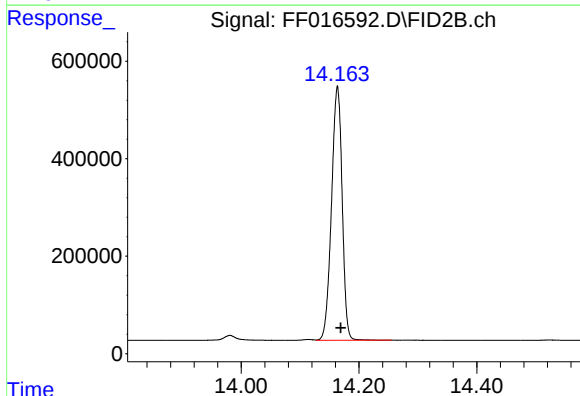
R.T.: 11.648 min
Delta R.T.: -0.005 min
Response: 6730992
Conc: 51.80 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



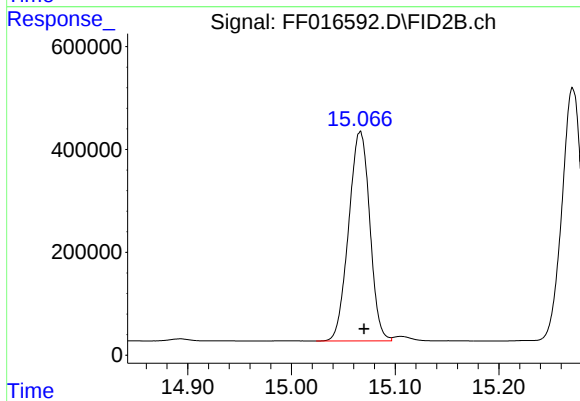
#7 N-EICOSANE

R.T.: 12.962 min
Delta R.T.: -0.006 min
Response: 6755805
Conc: 50.66 ug/ml



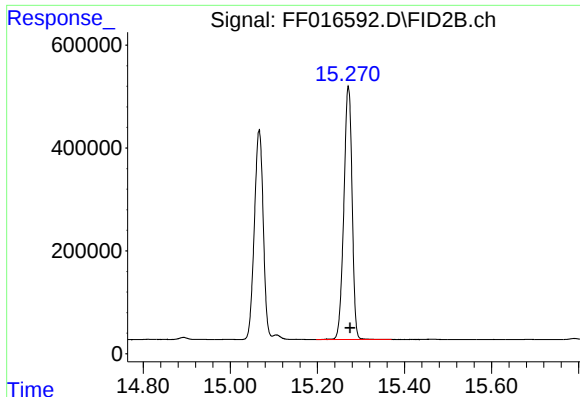
#8 N-DOCOSANE

R.T.: 14.163 min
Delta R.T.: -0.006 min
Response: 6535302
Conc: 49.86 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

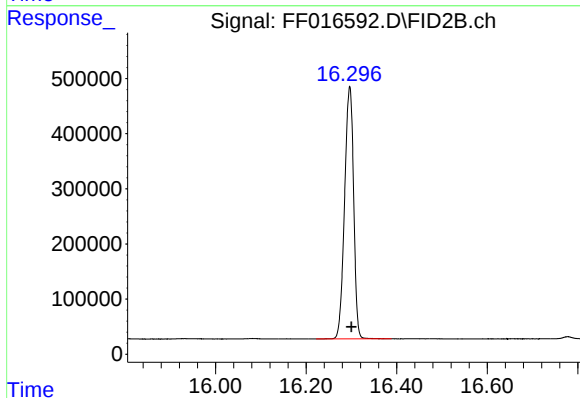
R.T.: 15.066 min
Delta R.T.: -0.004 min
Response: 5765187
Conc: 49.02 ug/ml



#10 N-TETRACOSANE

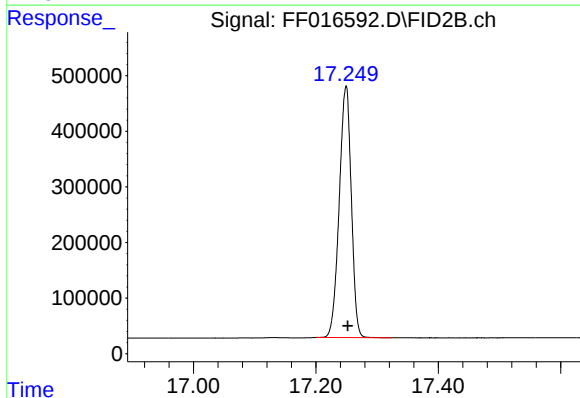
R.T.: 15.271 min
Delta R.T.: -0.004 min
Response: 6470038
Conc: 48.84 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.296 min
Delta R.T.: -0.003 min
Response: 6341964
Conc: 48.02 ug/ml



#12 N-OCTACOSANE

R.T.: 17.250 min
Delta R.T.: -0.003 min
Response: 6193471
Conc: 47.16 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016592.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 12:00
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.579	4.545	4.690	BB	601985	6335579	93.78%	8.962%
2	6.758	6.724	6.859	BB	641576	6461603	95.65%	9.140%
3	8.591	8.555	8.707	BB	601934	6515118	96.44%	9.216%
4	10.201	10.164	10.302	BB	592441	6591893	97.57%	9.324%
5	11.648	11.609	11.739	BB	568442	6730992	99.63%	9.521%
6	12.962	12.867	13.060	BB	549681	6755805	100.00%	9.556%
7	14.163	14.127	14.255	VB	522081	6535302	96.74%	9.244%
8	15.066	15.024	15.097	BV	408359	5765187	85.34%	8.155%
9	15.271	15.197	15.370	BB	492256	6470038	95.77%	9.152%
10	16.296	16.222	16.389	BB	458262	6341964	93.87%	8.971%
11	17.250	17.200	17.324	BB	451876	6193471	91.68%	8.761%
Sum of corrected areas:						70696951		

FF100225.M Thu Oct 23 01:26:30 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: ICES02
 ProjectID: NWIRP Northrup Grumman Site – Bethp
 Lab Code: ACE SDG No.: Q3399
 DataFile: FF016600.D Analyst Name: YP\AJ Analyst Date: 10-22-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	64210589	128421	128057	0.284

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
 Data File : FF016600.D
 Signal(s) : FID2B.ch
 Acq On : 22 Oct 2025 16:41
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Oct 23 01:21:29 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
 Quant Title :
 QLast Update : Fri Oct 03 03:40:27 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.064	5717004	48.609 ug/ml
Target Compounds			
2) N-DECANE	4.578	6191868	51.505 ug/ml
3) N-DODECANE	6.757	6311518	51.782 ug/ml
4) N-TETRADECANE	8.591	6437318	52.300 ug/ml
5) N-HEXADECANE	10.201	6513409	52.045 ug/ml
6) N-OCTADECANE	11.647	6669071	51.323 ug/ml
7) N-EICOSANE	12.961	6696017	50.216 ug/ml
8) N-DOCOSANE	14.163	6486531	49.487 ug/ml
10) N-TETRACOSANE	15.270	6426211	48.514 ug/ml
11) N-HEXACOSANE	16.293	6308368	47.767 ug/ml
12) N-OCTACOSANE	17.249	6170278	46.981 ug/ml

(f)=RT Delta > 1/2 Window

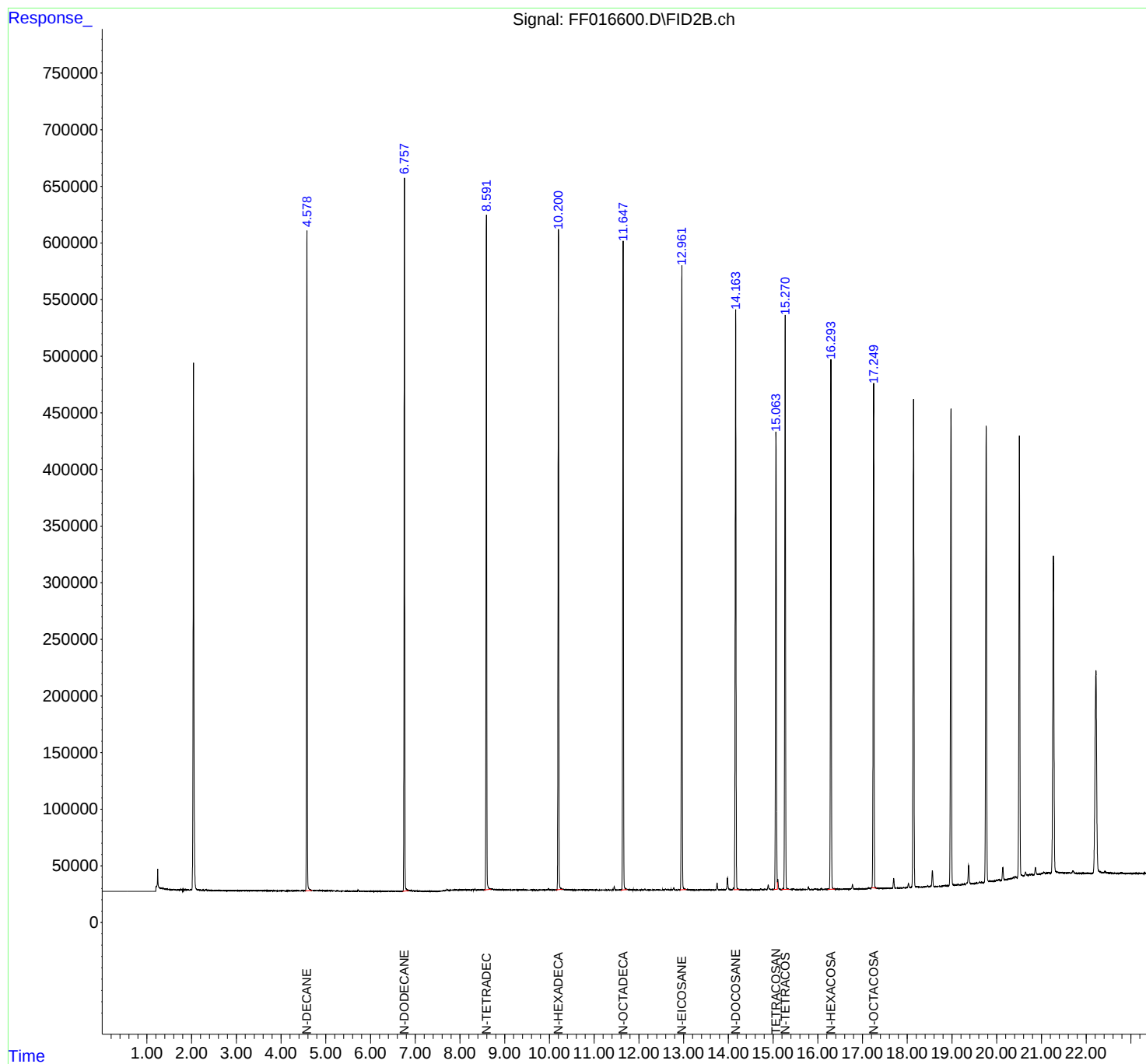
(m)=manual int.

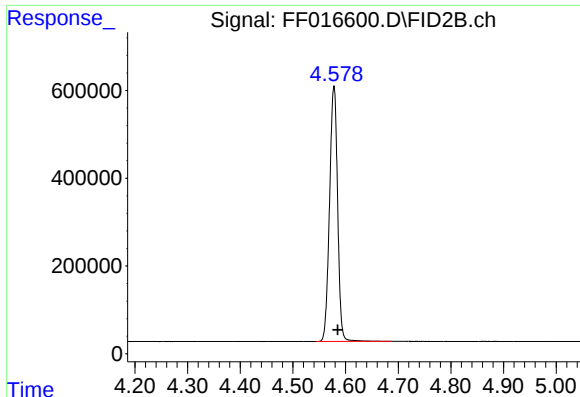
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016600.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 16:41
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Oct 23 01:21:29 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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

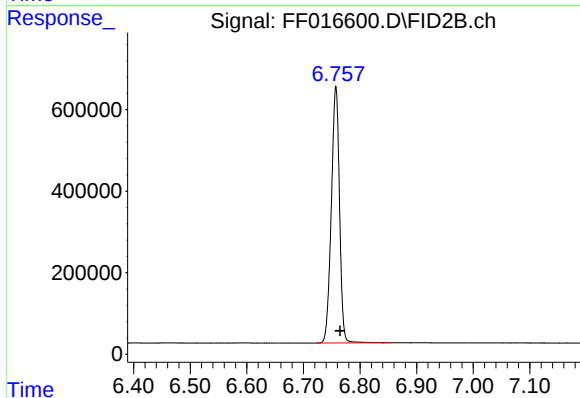




#2 N-DECANE

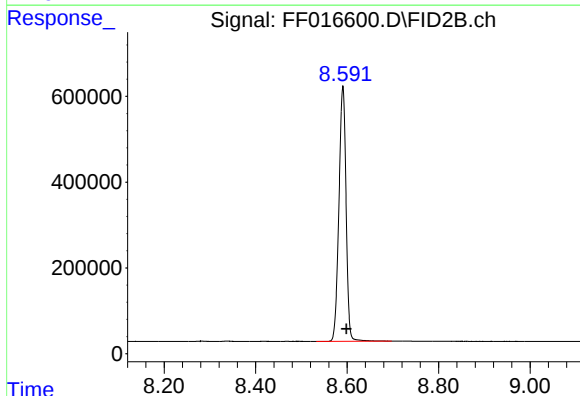
R.T.: 4.578 min
Delta R.T.: -0.007 min
Response: 6191868
Conc: 51.50 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



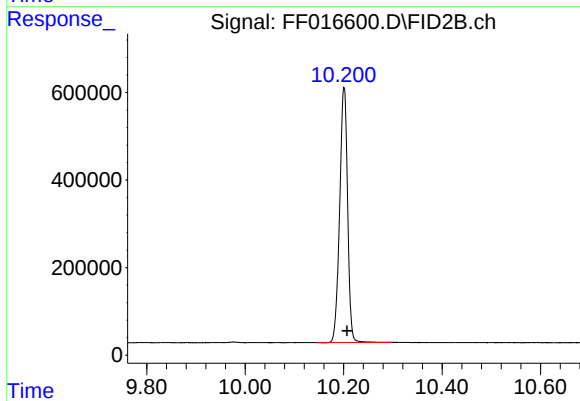
#3 N-DODECANE

R.T.: 6.757 min
Delta R.T.: -0.007 min
Response: 6311518
Conc: 51.78 ug/ml



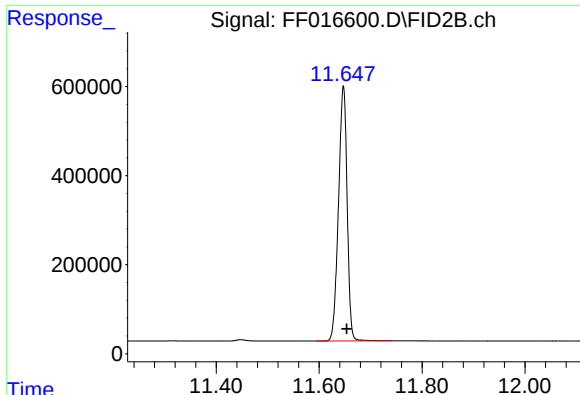
#4 N-TETRADECANE

R.T.: 8.591 min
Delta R.T.: -0.007 min
Response: 6437318
Conc: 52.30 ug/ml



#5 N-HEXADECANE

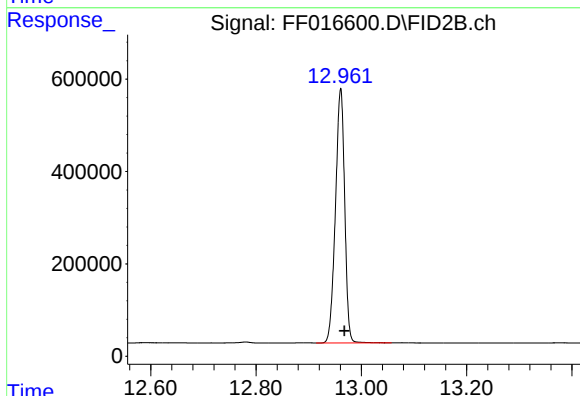
R.T.: 10.201 min
Delta R.T.: -0.006 min
Response: 6513409
Conc: 52.04 ug/ml



#6 N-OCTADECANE

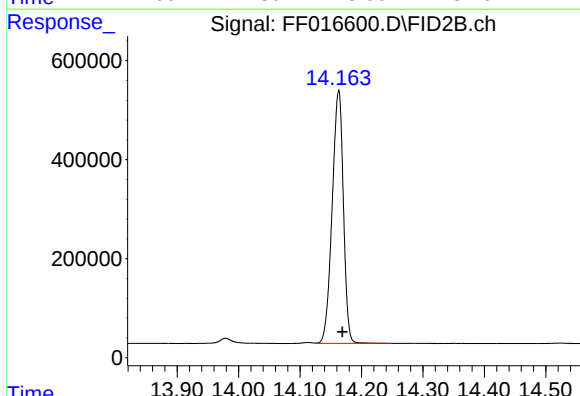
R.T.: 11.647 min
Delta R.T.: -0.006 min
Response: 6669071
Conc: 51.32 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



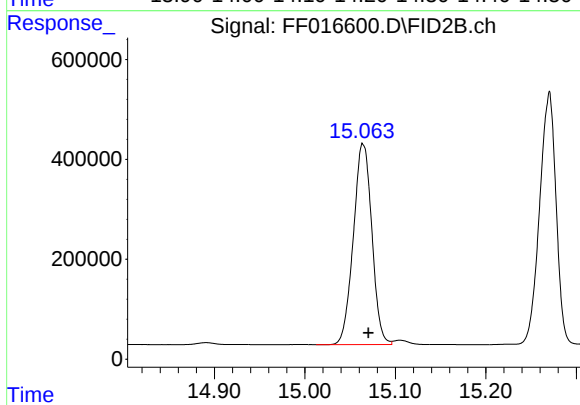
#7 N-EICOSANE

R.T.: 12.961 min
Delta R.T.: -0.007 min
Response: 6696017
Conc: 50.22 ug/ml



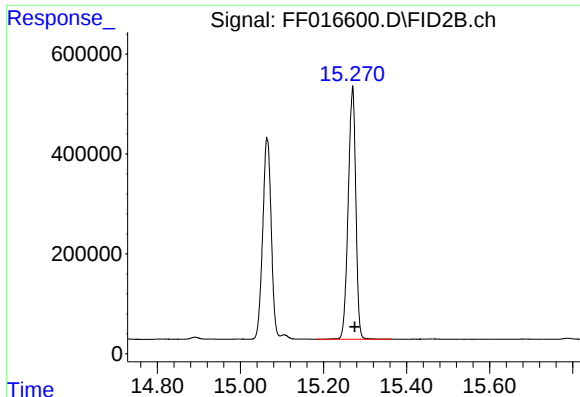
#8 N-DOCOSANE

R.T.: 14.163 min
Delta R.T.: -0.006 min
Response: 6486531
Conc: 49.49 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

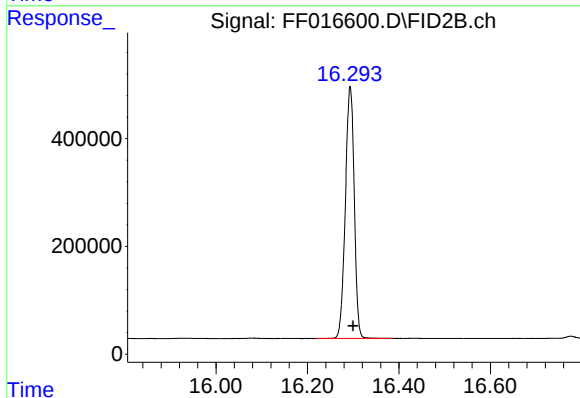
R.T.: 15.064 min
Delta R.T.: -0.006 min
Response: 5717004
Conc: 48.61 ug/ml



#10 N-TETRACOSANE

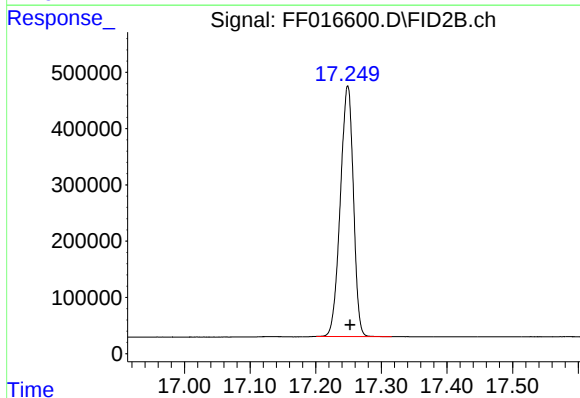
R.T.: 15.270 min
Delta R.T.: -0.005 min
Response: 6426211
Conc: 48.51 ug/ml

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.293 min
Delta R.T.: -0.006 min
Response: 6308368
Conc: 47.77 ug/ml



#12 N-OCTACOSANE

R.T.: 17.249 min
Delta R.T.: -0.003 min
Response: 6170278
Conc: 46.98 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016600.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 16:41
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.578	4.544	4.687	BB	581966	6191868	92.47%	8.855%
2	6.757	6.722	6.856	BB	629361	6311518	94.26%	9.026%
3	8.591	8.532	8.697	BB	595060	6437318	96.14%	9.206%
4	10.201	10.144	10.297	BB	583287	6513409	97.27%	9.315%
5	11.647	11.594	11.741	BB	572515	6669071	99.60%	9.537%
6	12.961	12.914	13.057	BB	551305	6696017	100.00%	9.576%
7	14.163	14.126	14.249	VB	510316	6486531	96.87%	9.276%
8	15.064	15.012	15.096	BV	402065	5717004	85.38%	8.176%
9	15.270	15.182	15.364	BB	508462	6426211	95.97%	9.190%
10	16.293	16.219	16.384	BB	467354	6308368	94.21%	9.021%
11	17.249	17.201	17.316	BB	445384	6170278	92.15%	8.824%
Sum of corrected areas:						69927591		

FF100225.M Thu Oct 23 01:28:50 2025

Analytical Sequence

Client: ICE Service Group, Inc.

SDG No.: Q3399

Project: NWIRP Northrup Grumman Site – Bethpage, NY

Instrument ID: FID_F

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

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

MEAN SUROGATE RT FROM INITIAL CALIBRATION 15.0682					
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	22 Oct 2025 11:30	FF016591.D	15.063	
50 PPM TRPH STD	50 PPM TRPH STD	22 Oct 2025 12:00	FF016592.D	15.066	
PB170209BL	PB170209BL	22 Oct 2025 13:33	FF016594.D	15.062	
PB170209BS	PB170209BS	22 Oct 2025 14:03	FF016595.D	15.062	
COMP-ROLLOFF	Q3399-01	22 Oct 2025 14:43	FF016596.D	15.008	
COMP-ROLLOFFMS	Q3399-01MS	22 Oct 2025 15:13	FF016597.D	15.062	
COMP-ROLLOFFMSD	Q3399-01MSD	22 Oct 2025 15:42	FF016598.D	15.061	
PIBLK02	LBLK02	22 Oct 2025 16:12	FF016599.D	15.062	
50 PPM TRPH STD	50 PPM TRPH STD	22 Oct 2025 16:41	FF016600.D	15.064	

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

QC Limits
(± 0.10 minutes)

Lower Limit
14.9682

Upper Limits
15.1682



QC SAMPLE DATA

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

Report of Analysis

Client:	ICE Service Group, Inc.		Date Collected:	
Project:	NWIRP Northrup Grumman Site – Bethpage, NY		Date Received:	
Client Sample ID:	PB170209BL		SDG No.:	Q3399
Lab Sample ID:	PB170209BL		Matrix:	SOIL
Analytical Method:	8015D DRO		% Solid:	100
Sample Wt/Vol:	30.01 g	Final Vol: 1 mL	Test:	Diesel Range Organics
Prep Method:	SW3541	Prep Date 10/22/25		

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS										
DRO	DRO	833	U	1	169	833	1670	ug/kg	10/22/25 13:33	PB170209
SURROGATES										
16416-32-3	Tetracosane-d50	11.4			37 - 130		57%	SPK: 20		

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

Q3399-Diesel Range Organics

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016594.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 13:33
Operator : YP\AJ
Sample : PB170209BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB170209BL

Integration File: autoint1.e
Quant Time: Oct 22 13:41:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.062	1339249	11.387 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

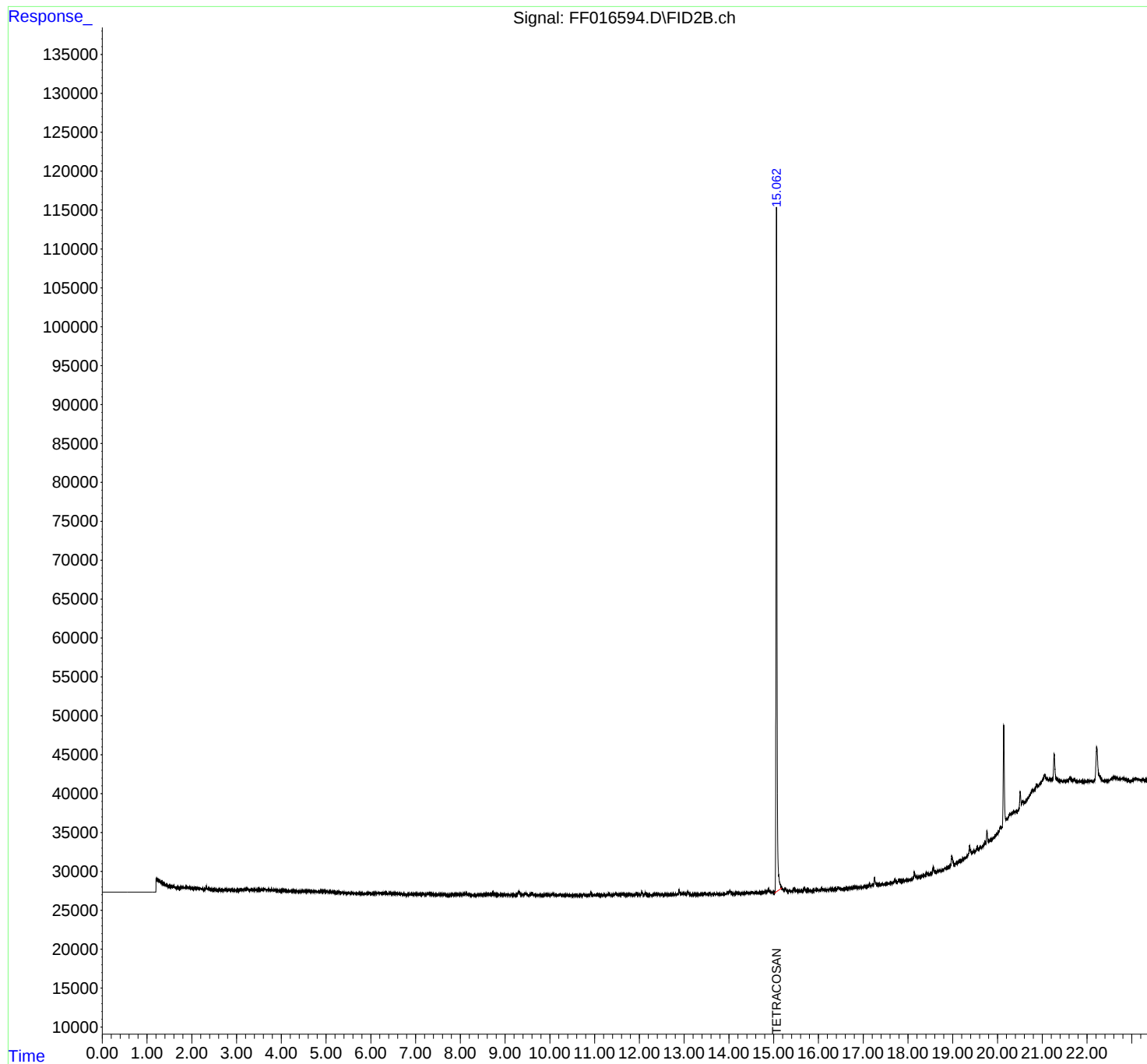
(m)=manual int.

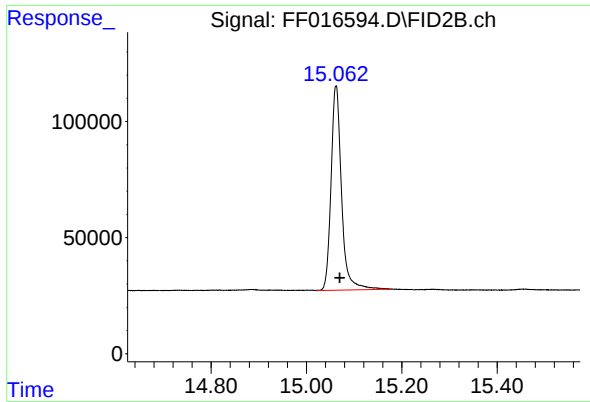
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016594.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 13:33
Operator : YP\AJ
Sample : PB170209BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB170209BL

Integration File: autoint1.e
Quant Time: Oct 22 13:41:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.062 min
Delta R.T.: -0.008 min
Response: 1339249
Conc: 11.39 ug/ml

Instrument :
FID_F
ClientSampleId :
PB170209BL

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016594.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 13:33
Sample : PB170209BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.062	15.020	15.179	BB	87944	1339249	100.00%	100.000%
Sum of corrected areas:						1339249		

FF100225.M Thu Oct 23 01:27:15 2025

Report of Analysis

Client:	ICE Service Group, Inc.	Date Collected:	10/22/25
Project:	NWIRP Northrup Grumman Site – Bethpage, NY	Date Received:	10/22/25
Client Sample ID:	PIBLK-FF016591.D	SDG No.:	Q3399
Lab Sample ID:	I.BLK-FF016591.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000 mL	Final Vol:	1 mL
Prep Method:	SW3510	Test:	Diesel Range Organics
	Prep Date		

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS										
DRO	DRO	25.0	U	1	6.00	25.0	50.0	ug/L	10/22/25	FF102225
SURROGATES										
16416-32-3	Tetracosane-d50	14.3			29 - 130		72%	SPK: 20		

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

Q3399-Diesel Range Organics

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016591.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 11:30
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Oct 22 11:39:29 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units
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System Monitoring Compounds

9) S	TETRACOSANE-d50 (SURR...	15.063	1684694	14.324 ug/ml
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Target Compounds

(f)=RT Delta > 1/2 Window

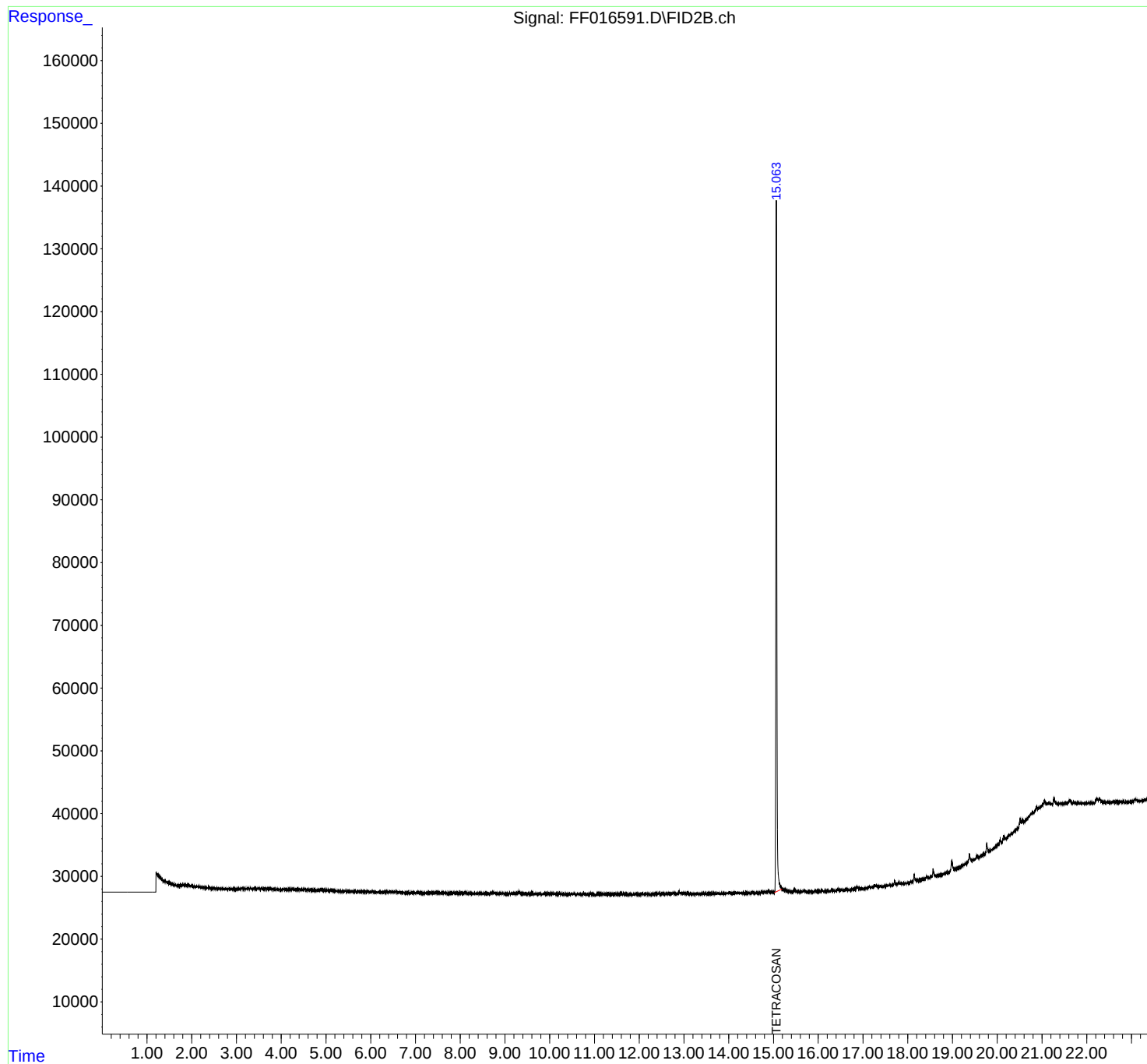
(m)=manual int.

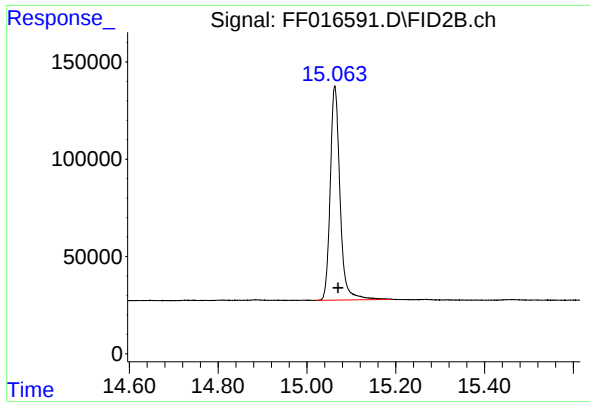
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016591.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 11:30
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Oct 22 11:39:29 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.063 min
Delta R.T.: -0.007 min
Response: 1684694
Conc: 14.32 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

1
2
3
4
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6
7
8
9
10
11
12
13
14
15
16
17
18

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016591.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 11:30
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.063	15.021	15.191	BB	109977	1684694	100.00%	100.000%
Sum of corrected areas:						1684694		

FF100225.M Thu Oct 23 01:25:13 2025

Report of Analysis

Client:	ICE Service Group, Inc.	Date Collected:	10/22/25
Project:	NWIRP Northrup Grumman Site – Bethpage, NY	Date Received:	10/22/25
Client Sample ID:	PIBLK-FF016599.D	SDG No.:	Q3399
Lab Sample ID:	I.BLK-FF016599.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000 mL	Final Vol:	1 mL
Prep Method:	SW3510	Test:	Diesel Range Organics
	Prep Date		

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS										
DRO	DRO	25.0	U	1	6.00	25.0	50.0	ug/L	10/22/25	FF102225
SURROGATES										
16416-32-3	Tetracosane-d50	14.8			29 - 130		74%	SPK: 20		

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

Q3399-Diesel Range Organics

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016599.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 16:12
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Oct 23 01:20:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.062	1744016	14.828 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

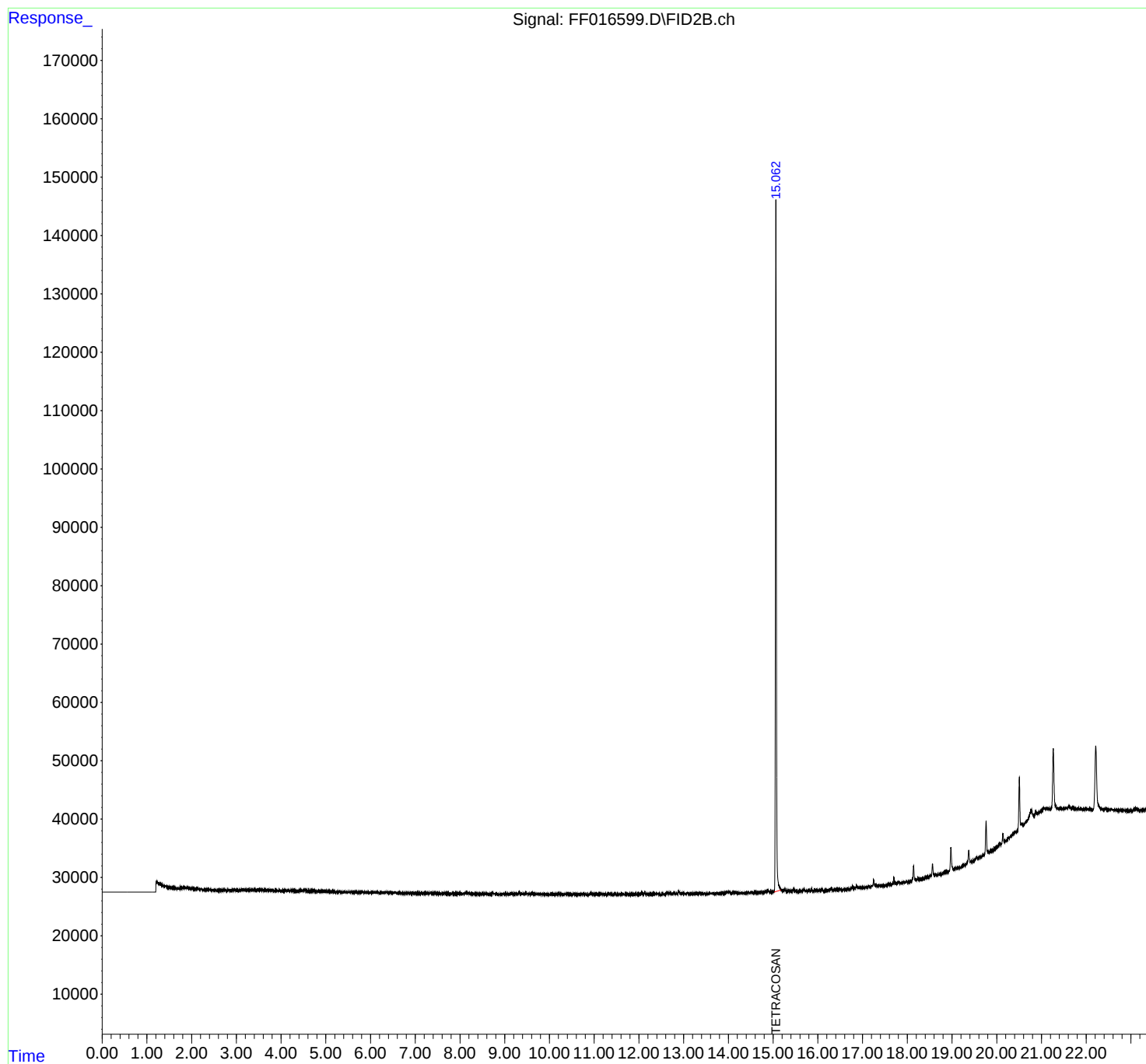
(m)=manual int.

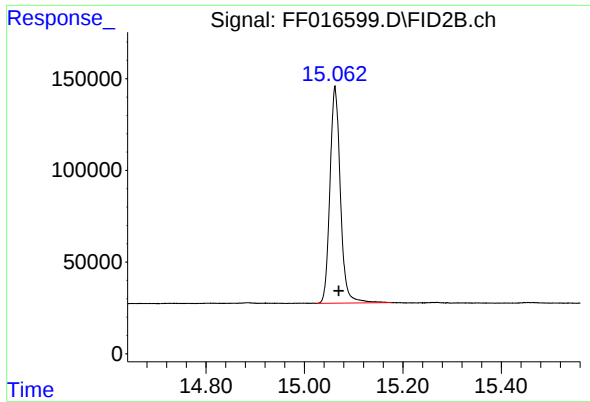
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016599.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 16:12
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Oct 23 01:20:49 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.062 min
Delta R.T.: -0.008 min
Response: 1744016
Conc: 14.83 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016599.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 16:12
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.062	15.024	15.177	BB	118211	1744016	100.00%	100.000%
Sum of corrected areas:						1744016		

FF100225.M Thu Oct 23 01:28:18 2025

Report of Analysis

Client:	ICE Service Group, Inc.		Date Collected:	
Project:	NWIRP Northrup Grumman Site – Bethpage, NY		Date Received:	
Client Sample ID:	PB170209BS		SDG No.:	Q3399
Lab Sample ID:	PB170209BS		Matrix:	SOIL
Analytical Method:	8015D DRO		% Solid:	100
Sample Wt/Vol:	30.03 g	Final Vol: 1 mL	Test:	Diesel Range Organics
Prep Method:	SW3541	Prep Date 10/22/25		

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS										
DRO	DRO	5070		1	169	833	1670	ug/kg	10/22/25 14:03	PB170209
SURROGATES										
16416-32-3	Tetracosane-d50	15.3			37 - 130		77%	SPK: 20		

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

Q3399-Diesel Range Organics

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
 Data File : FF016595.D
 Signal(s) : FID2B.ch
 Acq On : 22 Oct 2025 14:03
 Operator : YP\AJ
 Sample : PB170209BS
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 PB170209BS

Integration File: autoint1.e
 Quant Time: Oct 22 14:17:10 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
 Quant Title :
 QLast Update : Fri Oct 03 03:40:27 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.062	1802324	15.324 ug/ml
Target Compounds			
2) N-DECANE	4.576	1853794	15.420 ug/ml
3) N-DODECANE	6.755	1898671	15.577 ug/ml
4) N-TETRADECANE	8.588	1943510	15.790 ug/ml
5) N-HEXADECANE	10.198	1971445	15.753 ug/ml
6) N-OCTADECANE	11.644	2019550	15.542 ug/ml
7) N-EICOSANE	12.957	2064634	15.483 ug/ml
8) N-DOCOSANE	14.159	1991408	15.193 ug/ml
10) N-TETRACOSANE	15.266	1964868	14.834 ug/ml
11) N-HEXACOSANE	16.291	1897658	14.369 ug/ml
12) N-OCTACOSANE	17.245	1889610	14.388 ug/ml

(f)=RT Delta > 1/2 Window

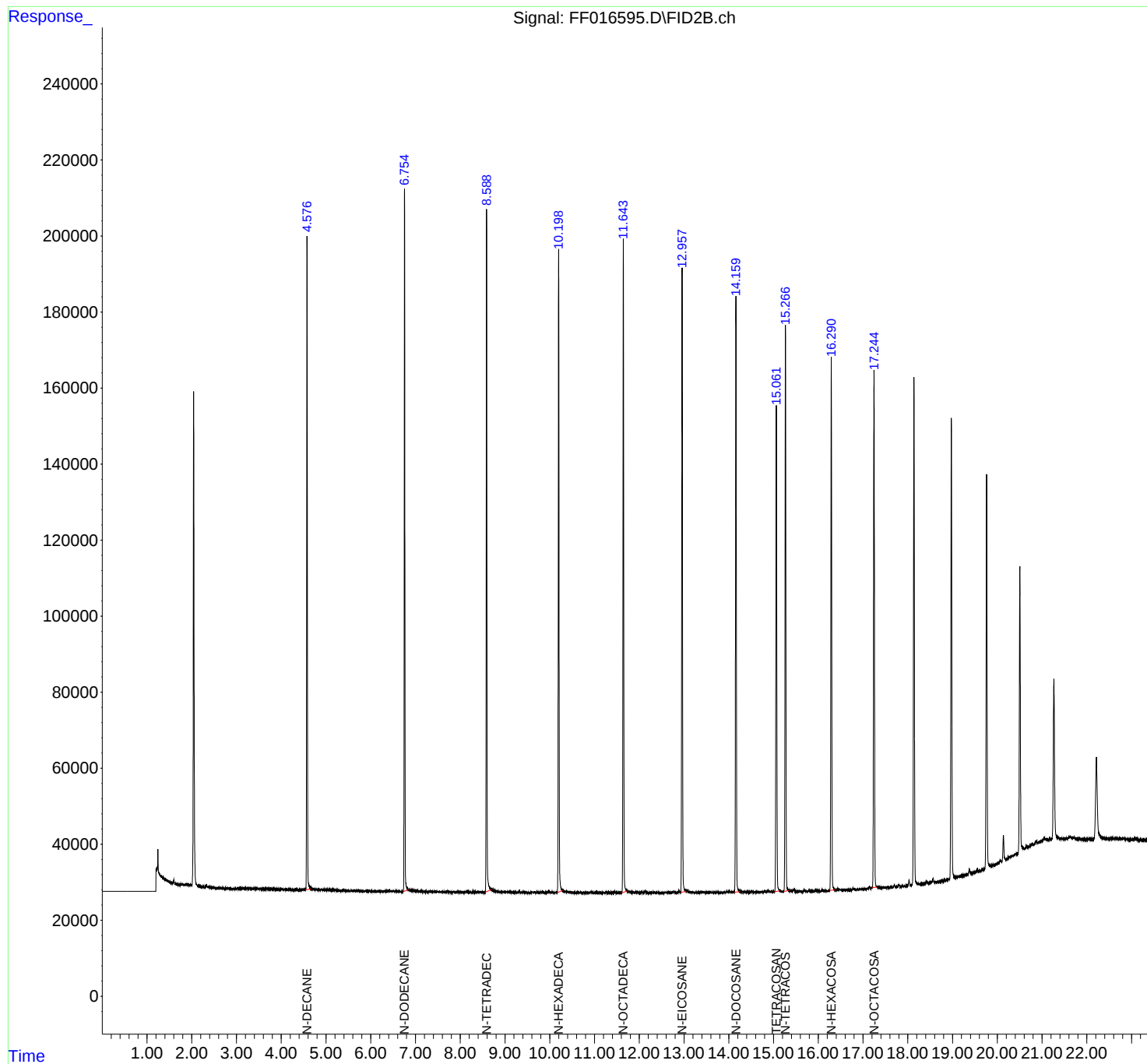
(m)=manual int.

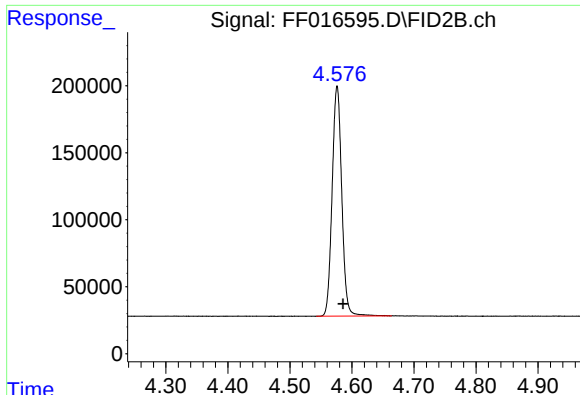
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016595.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 14:03
Operator : YP\AJ
Sample : PB170209BS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB170209BS

Integration File: autoint1.e
Quant Time: Oct 22 14:17:10 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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

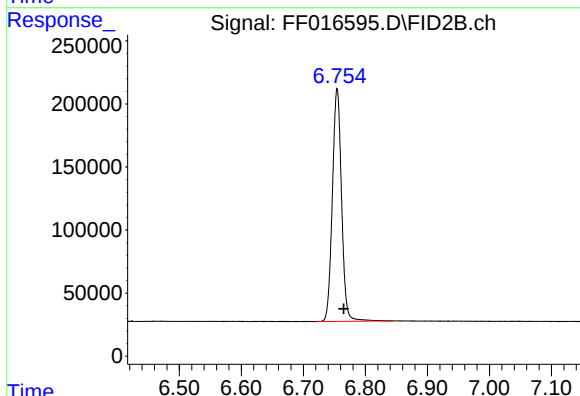




#2 N-DECANE

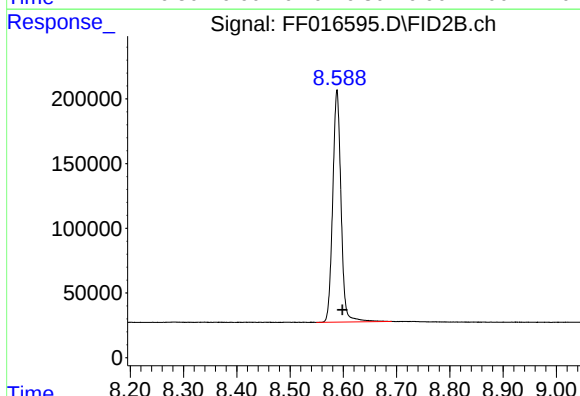
R.T.: 4.576 min
Delta R.T.: -0.009 min
Response: 1853794
Conc: 15.42 ug/ml

Instrument :
FID_F
ClientSampleId :
PB170209BS



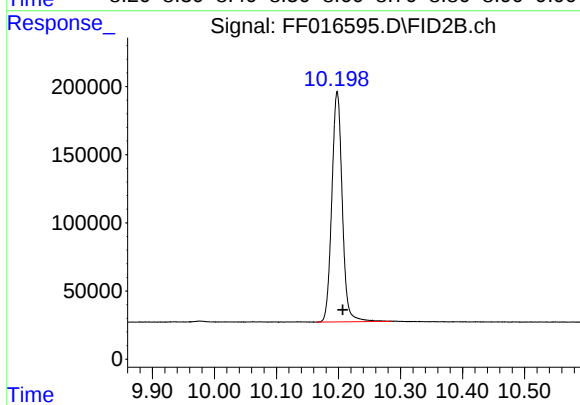
#3 N-DODECANE

R.T.: 6.755 min
Delta R.T.: -0.010 min
Response: 1898671
Conc: 15.58 ug/ml



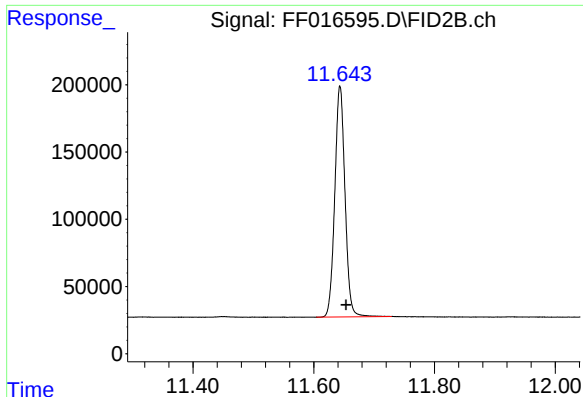
#4 N-TETRADECANE

R.T.: 8.588 min
Delta R.T.: -0.010 min
Response: 1943510
Conc: 15.79 ug/ml



#5 N-HEXADECANE

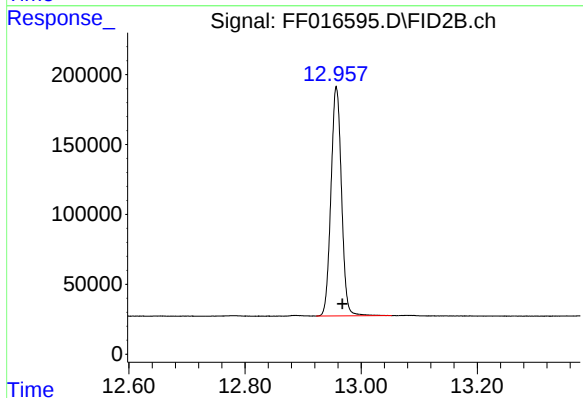
R.T.: 10.198 min
Delta R.T.: -0.009 min
Response: 1971445
Conc: 15.75 ug/ml



#6 N-OCTADECANE

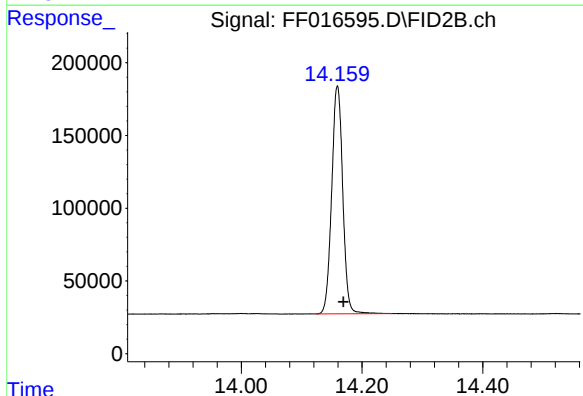
R.T.: 11.644 min
Delta R.T.: -0.010 min
Response: 2019550
Conc: 15.54 ug/ml

Instrument :
FID_F
ClientSampleId :
PB170209BS



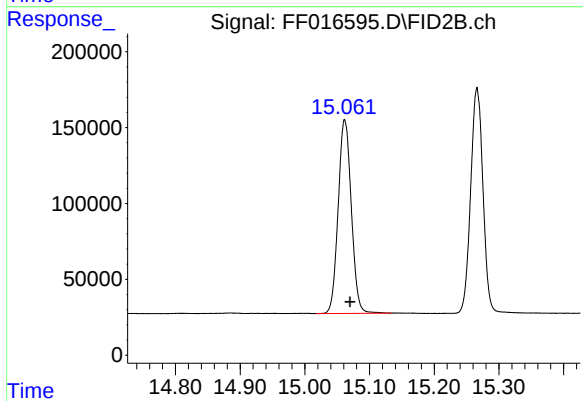
#7 N-EICOSANE

R.T.: 12.957 min
Delta R.T.: -0.010 min
Response: 2064634
Conc: 15.48 ug/ml



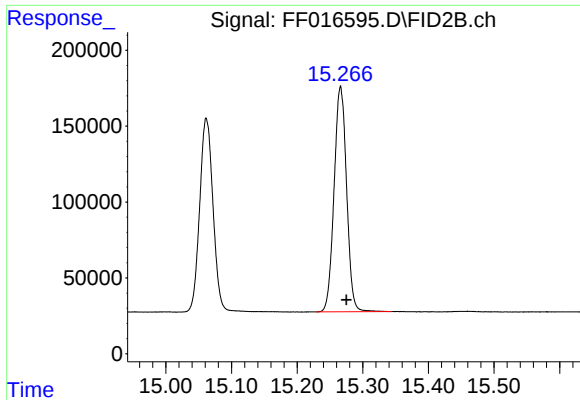
#8 N-DOCOSANE

R.T.: 14.159 min
Delta R.T.: -0.010 min
Response: 1991408
Conc: 15.19 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

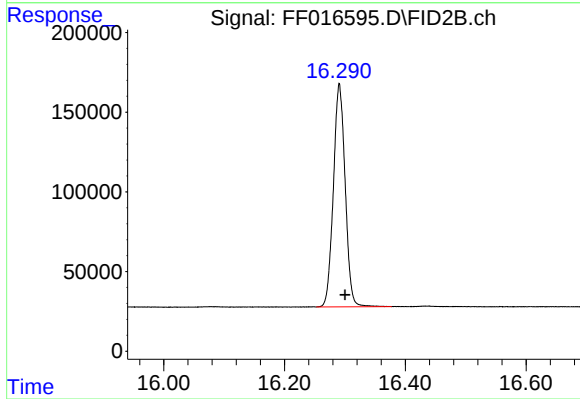
R.T.: 15.062 min
Delta R.T.: -0.008 min
Response: 1802324
Conc: 15.32 ug/ml



#10 N-TETRACOSANE

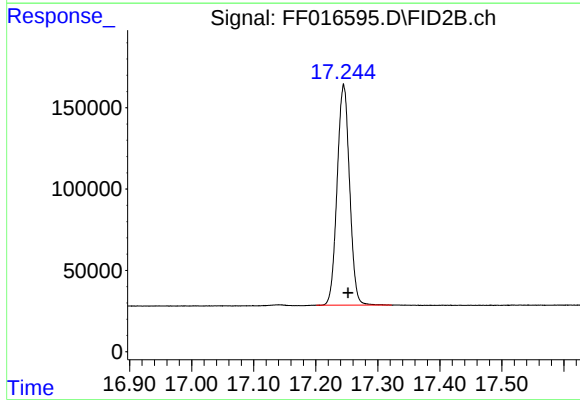
R.T.: 15.266 min
Delta R.T.: -0.009 min
Response: 1964868
Conc: 14.83 ug/ml

Instrument :
FID_F
ClientSampleId :
PB170209BS



#11 N-HEXACOSANE

R.T.: 16.291 min
Delta R.T.: -0.009 min
Response: 1897658
Conc: 14.37 ug/ml



#12 N-OCTACOSANE

R.T.: 17.245 min
Delta R.T.: -0.007 min
Response: 1889610
Conc: 14.39 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016595.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 14:03
Sample : PB170209BS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.576	4.542	4.664	BB	171723	1853794	89.79%	8.704%
2	6.755	6.721	6.842	BB	184618	1898671	91.96%	8.915%
3	8.588	8.549	8.691	BB	178742	1943510	94.13%	9.126%
4	10.198	10.164	10.286	BB	168712	1971445	95.49%	9.257%
5	11.644	11.604	11.729	BB	171557	2019550	97.82%	9.483%
6	12.957	12.922	13.052	BB	163794	2064634	100.00%	9.694%
7	14.159	14.124	14.249	BB	156542	1991408	96.45%	9.350%
8	15.062	15.017	15.134	BB	127198	1802324	87.30%	8.463%
9	15.266	15.229	15.344	BB	148308	1964868	95.17%	9.226%
10	16.291	16.252	16.377	BB	140234	1897658	91.91%	8.910%
11	17.245	17.201	17.322	BB	135047	1889610	91.52%	8.872%
Sum of corrected areas:						21297472		

FF100225.M Thu Oct 23 01:27:33 2025

Report of Analysis

Client:	ICE Service Group, Inc.	Date Collected:	10/20/25
Project:	NWIRP Northrup Grumman Site – Bethpage, NY	Date Received:	10/20/25
Client Sample ID:	COMP-ROLLOFFMS	SDG No.:	Q3399
Lab Sample ID:	Q3399-01MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	89.9
Sample Wt/Vol:	30.06 g	Final Vol:	1 mL
Prep Method:	SW3541	Test:	Diesel Range Organics
	Prep Date		10/22/25

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS										
DRO	DRO	6570		1	188	925	1850	ug/kg	10/22/25 15:13	PB170209
SURROGATES										
16416-32-3	Tetracosane-d50	10.4			37 - 130		52%	SPK: 20		

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

Q3399-Diesel Range Organics

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
 Data File : FF016597.D
 Signal(s) : FID2B.ch
 Acq On : 22 Oct 2025 15:13
 Operator : YP\AJ
 Sample : Q3399-01MS
 Misc :
 ALS Vial : 74 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 COMP-ROLLOFFMS

Integration File: autoint1.e
 Quant Time: Oct 22 15:20:45 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
 Quant Title :
 QLast Update : Fri Oct 03 03:40:27 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.062	1217883	10.355 ug/ml
Target Compounds			
2) N-DECANE	4.576	1627447	13.537 ug/ml
3) N-DODECANE	6.754	1715883	14.078 ug/ml
4) N-TETRADECANE	8.587	1769814	14.379 ug/ml
5) N-HEXADECANE	10.197	1851051	14.791 ug/ml
6) N-OCTADECANE	11.643	1888261	14.531 ug/ml
7) N-EICOSANE	12.956	1933172	14.498 ug/ml
8) N-DOCOSANE	14.159	1874779	14.303 ug/ml
10) N-TETRACOSANE	15.266	1824860	13.777 ug/ml
11) N-HEXACOSANE	16.291	1787647	13.536 ug/ml
12) N-OCTACOSANE	17.246	1792982	13.652 ug/ml

(f)=RT Delta > 1/2 Window

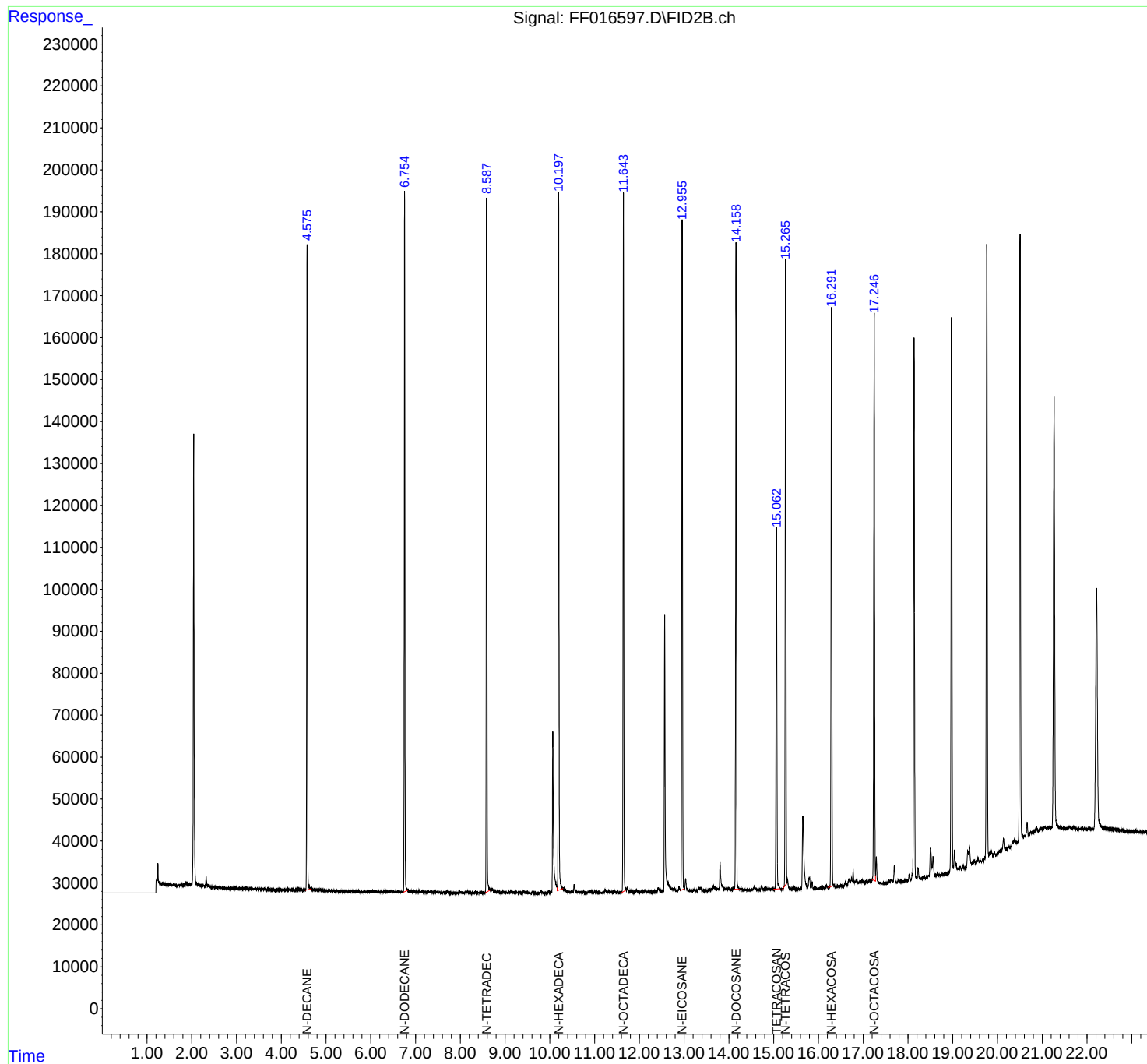
(m)=manual int.

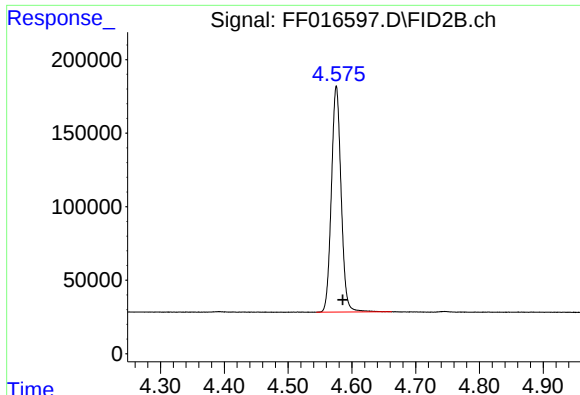
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016597.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 15:13
Operator : YP\AJ
Sample : Q3399-01MS
Misc :
ALS Vial : 74 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFFMS

Integration File: autoint1.e
Quant Time: Oct 22 15:20:45 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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

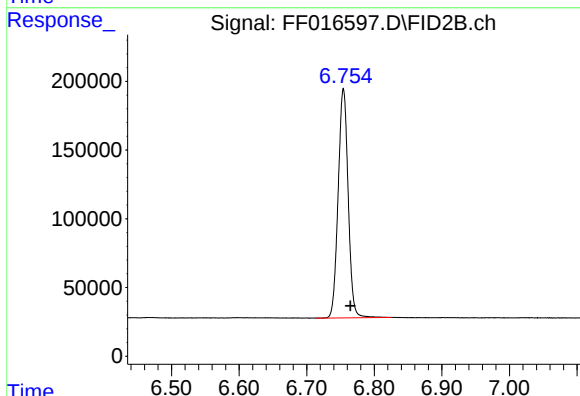




#2 N-DECANE

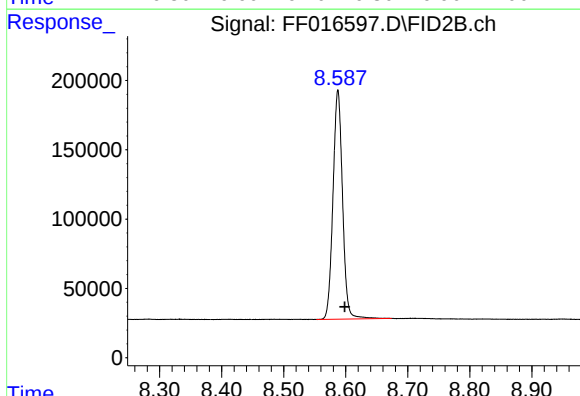
R.T.: 4.576 min
Delta R.T.: -0.010 min
Response: 1627447
Conc: 13.54 ug/ml

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFFMS



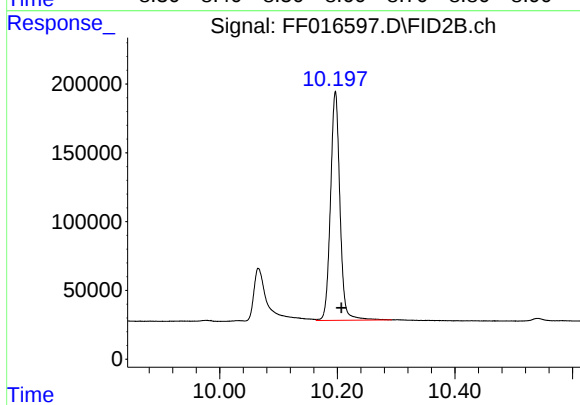
#3 N-DODECANE

R.T.: 6.754 min
Delta R.T.: -0.010 min
Response: 1715883
Conc: 14.08 ug/ml



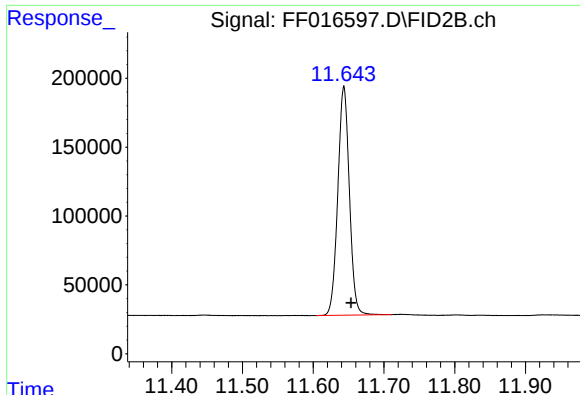
#4 N-TETRADECANE

R.T.: 8.587 min
Delta R.T.: -0.011 min
Response: 1769814
Conc: 14.38 ug/ml



#5 N-HEXADECANE

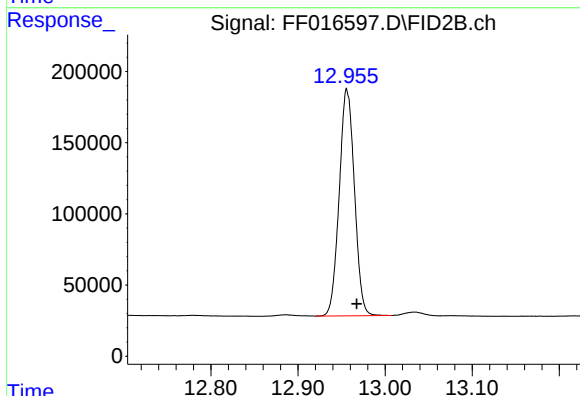
R.T.: 10.197 min
Delta R.T.: -0.010 min
Response: 1851051
Conc: 14.79 ug/ml



#6 N-OCTADECANE

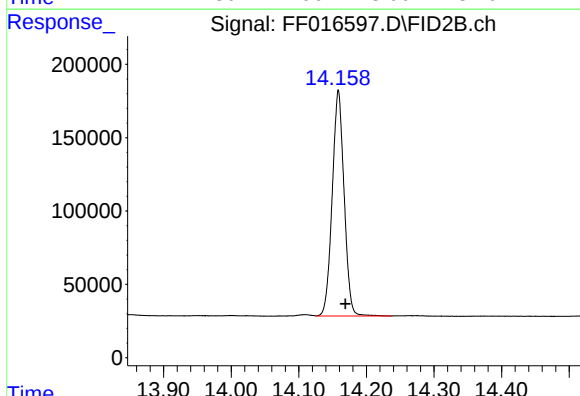
R.T.: 11.643 min
Delta R.T.: -0.010 min
Response: 1888261
Conc: 14.53 ug/ml

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFFMS



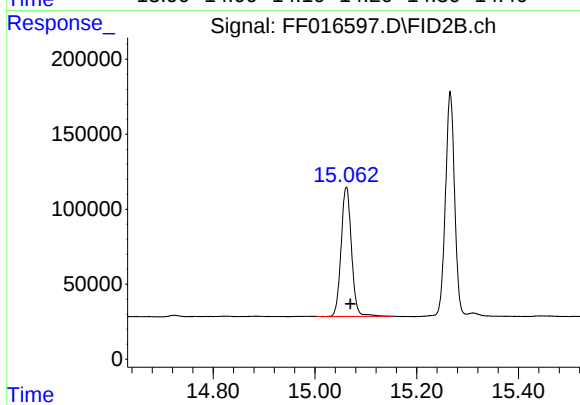
#7 N-EICOSANE

R.T.: 12.956 min
Delta R.T.: -0.011 min
Response: 1933172
Conc: 14.50 ug/ml



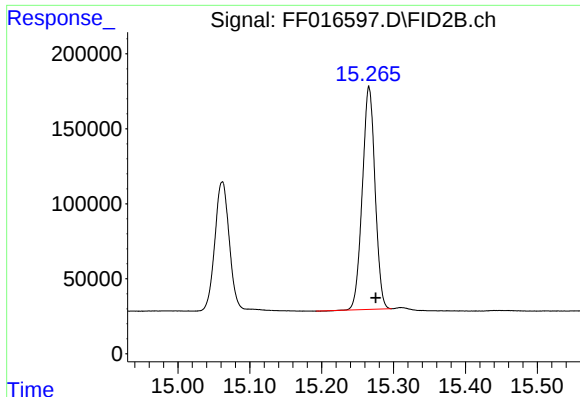
#8 N-DOCOSANE

R.T.: 14.159 min
Delta R.T.: -0.010 min
Response: 1874779
Conc: 14.30 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

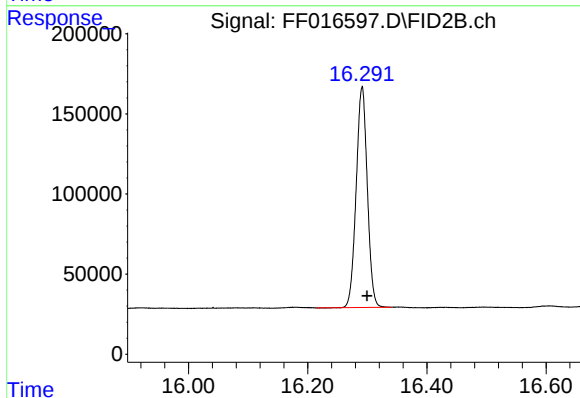
R.T.: 15.062 min
Delta R.T.: -0.008 min
Response: 1217883
Conc: 10.36 ug/ml



#10 N-TETRACOSANE

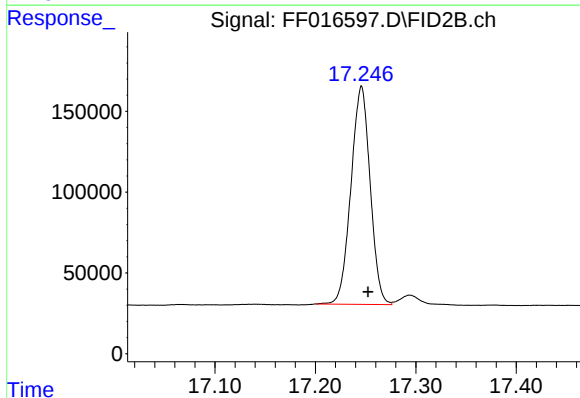
R.T.: 15.266 min
Delta R.T.: -0.009 min
Response: 1824860
Conc: 13.78 ug/ml

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFFMS



#11 N-HEXACOSANE

R.T.: 16.291 min
Delta R.T.: -0.008 min
Response: 1787647
Conc: 13.54 ug/ml



#12 N-OCTACOSANE

R.T.: 17.246 min
Delta R.T.: -0.006 min
Response: 1792982
Conc: 13.65 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016597.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 15:13
Sample : Q3399-01MS
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.414	4.400	4.420	BV	75	280	0.01%	0.001%
2	4.425	4.420	4.449	PV	114	1167	0.06%	0.005%
3	4.453	4.449	4.463	VV	123	645	0.03%	0.003%
4	4.466	4.463	4.477	VV	109	639	0.03%	0.003%
5	4.489	4.477	4.496	PV	119	626	0.03%	0.003%
6	4.519	4.496	4.541	PV	175	2758	0.14%	0.012%
7	4.576	4.541	4.679	VV	154005	1648529	84.04%	6.879%
8	4.683	4.679	4.689	VV	367	2027	0.10%	0.008%
9	4.693	4.689	4.728	VV	369	5885	0.30%	0.025%
10	4.746	4.728	4.771	VV	645	9382	0.48%	0.039%
11	4.774	4.771	4.784	VV	266	1703	0.09%	0.007%
12	4.793	4.784	4.803	VV	259	2211	0.11%	0.009%
13	4.815	4.803	4.849	VV	270	5321	0.27%	0.022%
14	4.866	4.849	4.877	VV	301	3610	0.18%	0.015%
15	4.882	4.877	4.921	VV	276	5377	0.27%	0.022%
16	4.925	4.921	4.939	VV	200	1796	0.09%	0.007%
17	4.941	4.939	4.951	VV	174	1109	0.06%	0.005%
18	4.955	4.951	4.960	VV	147	817	0.04%	0.003%
19	4.967	4.960	5.007	VV	204	4059	0.21%	0.017%
20	5.028	5.007	5.035	VV	229	2667	0.14%	0.011%
21	5.046	5.035	5.075	VV	209	3322	0.17%	0.014%
22	5.085	5.075	5.104	VV	187	2281	0.12%	0.010%
23	5.109	5.104	5.124	VV	135	1041	0.05%	0.004%
24	5.142	5.124	5.154	VV	214	2095	0.11%	0.009%
25	5.166	5.154	5.194	VV	169	2145	0.11%	0.009%
26	5.200	5.194	5.221	VV	161	1639	0.08%	0.007%
27	5.238	5.221	5.274	VV	307	4677	0.24%	0.020%
28	5.278	5.274	5.284	VV	104	336	0.02%	0.001%
29	5.288	5.284	5.296	VV	113	421	0.02%	0.002%
30	5.299	5.296	5.307	VV	96	341	0.02%	0.001%
31	5.312	5.307	5.330	PV	110	709	0.04%	0.003%
32	5.333	5.330	5.339	VV	87	282	0.01%	0.001%
33	5.344	5.339	5.375	VV	120	1564	0.08%	0.007%
34	5.385	5.375	5.391	VV	151	986	0.05%	0.004%
35	5.398	5.391	5.402	VV	165	798	0.04%	0.003%
36	5.410	5.402	5.419	VV	181	1358	0.07%	0.006%

					rteres			
37	5.423	5.419	5.431	VV	103	638	0.03%	0.003%
38	5.435	5.431	5.446	VV	150	705	0.04%	0.003%
39	5.453	5.446	5.473	VV	118	1194	0.06%	0.005%
40	5.477	5.473	5.490	VV	113	750	0.04%	0.003%
41	5.498	5.490	5.504	VV	88	464	0.02%	0.002%
42	5.507	5.504	5.512	VV	124	371	0.02%	0.002%
43	5.542	5.512	5.547	VV	234	3298	0.17%	0.014%
44	5.556	5.547	5.594	VV	265	4254	0.22%	0.018%
45	5.607	5.594	5.625	VV	168	1240	0.06%	0.005%
46	5.635	5.625	5.643	VV	122	832	0.04%	0.003%
47	5.648	5.643	5.678	VV	126	1554	0.08%	0.006%
48	5.720	5.678	5.738	VV	386	5294	0.27%	0.022%
49	5.742	5.738	5.747	VV	109	451	0.02%	0.002%
50	5.786	5.747	5.808	PV	148	2572	0.13%	0.011%
51	5.814	5.808	5.819	PV	84	301	0.02%	0.001%
52	5.826	5.819	5.831	VV	107	392	0.02%	0.002%
53	5.854	5.831	5.859	PV	126	1146	0.06%	0.005%
54	5.864	5.859	5.870	VV	143	695	0.04%	0.003%
55	5.877	5.870	5.885	VV	194	1007	0.05%	0.004%
56	5.889	5.885	5.904	VV	101	977	0.05%	0.004%
57	5.912	5.904	5.916	VV	106	658	0.03%	0.003%
58	5.920	5.916	5.933	VV	135	871	0.04%	0.004%
59	5.939	5.933	5.958	VV	122	1356	0.07%	0.006%
60	5.973	5.958	5.980	VV	198	1973	0.10%	0.008%
61	5.984	5.980	5.996	VV	207	1620	0.08%	0.007%
62	6.001	5.996	6.006	VV	138	650	0.03%	0.003%
63	6.012	6.006	6.017	VV	140	776	0.04%	0.003%
64	6.043	6.017	6.066	VV	312	5351	0.27%	0.022%
65	6.091	6.066	6.127	VV	372	7370	0.38%	0.031%
66	6.133	6.127	6.141	VV	167	1050	0.05%	0.004%
67	6.143	6.141	6.152	VV	137	581	0.03%	0.002%
68	6.166	6.152	6.173	VV	145	1145	0.06%	0.005%
69	6.178	6.173	6.195	VV	150	1295	0.07%	0.005%
70	6.200	6.195	6.214	VV	114	1061	0.05%	0.004%
71	6.217	6.214	6.260	VV	161	2832	0.14%	0.012%
72	6.266	6.260	6.270	VV	141	534	0.03%	0.002%
73	6.289	6.270	6.308	VV	240	3633	0.19%	0.015%
74	6.325	6.308	6.352	VV	196	4169	0.21%	0.017%
75	6.360	6.352	6.364	VV	179	1132	0.06%	0.005%
76	6.374	6.364	6.394	VV	238	3293	0.17%	0.014%
77	6.397	6.394	6.424	VV	246	2914	0.15%	0.012%
78	6.443	6.424	6.454	VV	326	4039	0.21%	0.017%
79	6.470	6.454	6.507	VV	426	7886	0.40%	0.033%
80	6.514	6.507	6.523	VV	195	1257	0.06%	0.005%
81	6.526	6.523	6.534	VV	179	963	0.05%	0.004%
82	6.548	6.534	6.559	VV	247	2782	0.14%	0.012%
83	6.562	6.559	6.579	VV	194	1838	0.09%	0.008%
84	6.597	6.579	6.633	VV	376	8054	0.41%	0.034%
85	6.638	6.633	6.674	VV	254	4425	0.23%	0.018%
86	6.684	6.674	6.697	VV	183	1646	0.08%	0.007%
87	6.701	6.697	6.714	VV	148	849	0.04%	0.004%
88	6.754	6.714	6.829	VV	167047	1736744	88.54%	7.247%
89	6.831	6.829	6.851	VV	630	6292	0.32%	0.026%

					rteres			
90	6.855	6.851	6.871	VV	419	4829	0.25%	0.020%
91	6.876	6.871	6.893	VV	406	4616	0.24%	0.019%
92	6.901	6.893	6.914	VV	452	5034	0.26%	0.021%
93	6.919	6.914	6.940	VV	434	5234	0.27%	0.022%
94	6.950	6.940	6.958	VV	354	3092	0.16%	0.013%
95	6.972	6.958	6.979	VV	369	4112	0.21%	0.017%
96	6.984	6.979	7.003	VV	370	4028	0.21%	0.017%
97	7.019	7.003	7.039	VV	391	6906	0.35%	0.029%
98	7.043	7.039	7.052	VV	314	2016	0.10%	0.008%
99	7.057	7.052	7.095	VV	397	6361	0.32%	0.027%
100	7.102	7.095	7.109	VV	239	1581	0.08%	0.007%
101	7.112	7.109	7.116	VV	214	780	0.04%	0.003%
102	7.148	7.116	7.163	VV	310	6241	0.32%	0.026%
103	7.168	7.163	7.180	VV	264	1989	0.10%	0.008%
104	7.190	7.180	7.199	VV	248	2160	0.11%	0.009%
105	7.217	7.199	7.231	VV	228	3694	0.19%	0.015%
106	7.238	7.231	7.285	VV	257	6476	0.33%	0.027%
107	7.294	7.285	7.300	VV	282	2084	0.11%	0.009%
108	7.308	7.300	7.313	VV	334	2117	0.11%	0.009%
109	7.325	7.313	7.330	VV	293	2718	0.14%	0.011%
110	7.338	7.330	7.353	VV	269	3081	0.16%	0.013%
111	7.358	7.353	7.374	VV	238	2200	0.11%	0.009%
112	7.382	7.374	7.387	VV	238	1597	0.08%	0.007%
113	7.391	7.387	7.397	VV	233	1155	0.06%	0.005%
114	7.404	7.397	7.412	VV	186	1472	0.08%	0.006%
115	7.432	7.412	7.467	VV	292	7243	0.37%	0.030%
116	7.478	7.467	7.517	VV	364	5779	0.29%	0.024%
117	7.522	7.517	7.528	VV	167	878	0.04%	0.004%
118	7.537	7.528	7.555	VV	249	2529	0.13%	0.011%
119	7.570	7.555	7.578	VV	133	1357	0.07%	0.006%
120	7.592	7.578	7.624	VV	207	3603	0.18%	0.015%
121	7.629	7.624	7.635	VV	128	654	0.03%	0.003%
122	7.648	7.635	7.673	VV	194	2532	0.13%	0.011%
123	7.678	7.673	7.687	VV	120	740	0.04%	0.003%
124	7.709	7.687	7.763	VV	377	7256	0.37%	0.030%
125	7.792	7.763	7.831	VV	123	3136	0.16%	0.013%
126	7.838	7.831	7.858	VV	112	1154	0.06%	0.005%
127	7.881	7.858	7.894	VV	140	1716	0.09%	0.007%
128	7.897	7.894	7.924	VV	121	1195	0.06%	0.005%
129	7.944	7.924	7.951	PV	108	877	0.04%	0.004%
130	7.956	7.951	7.967	VV	177	763	0.04%	0.003%
131	7.992	7.967	8.048	VV	420	9507	0.48%	0.040%
132	8.054	8.048	8.059	VV	142	643	0.03%	0.003%
133	8.064	8.059	8.089	VV	153	1668	0.09%	0.007%
134	8.127	8.089	8.148	VV	321	7477	0.38%	0.031%
135	8.164	8.148	8.202	VV	434	7100	0.36%	0.030%
136	8.208	8.202	8.214	VV	86	508	0.03%	0.002%
137	8.225	8.214	8.247	VV	146	1874	0.10%	0.008%
138	8.251	8.247	8.257	VV	145	606	0.03%	0.003%
139	8.283	8.257	8.299	VV	330	4283	0.22%	0.018%
140	8.319	8.299	8.327	VV	209	2557	0.13%	0.011%
141	8.331	8.327	8.351	VV	245	2439	0.12%	0.010%

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142	8.356	8.351	8.387	VV	156	1642	0.08%	0.007%
143	8.409	8.387	8.424	VV	188	2680	0.14%	0.011%
144	8.429	8.424	8.441	VV	112	932	0.05%	0.004%
145	8.446	8.441	8.450	VV	126	496	0.03%	0.002%
146	8.453	8.450	8.459	VV	88	470	0.02%	0.002%
147	8.493	8.459	8.511	VV	209	4590	0.23%	0.019%
148	8.526	8.511	8.531	VV	198	1819	0.09%	0.008%
149	8.543	8.531	8.552	VV	142	1504	0.08%	0.006%
150	8.587	8.552	8.691	VV	165738	1811428	92.35%	7.558%
151	8.709	8.691	8.884	VV	923	58065	2.96%	0.242%
152	8.891	8.884	8.898	VV	269	1888	0.10%	0.008%
153	8.919	8.898	8.932	VV	279	5039	0.26%	0.021%
154	8.948	8.932	8.992	VV	417	8794	0.45%	0.037%
155	9.008	8.992	9.012	VV	255	2150	0.11%	0.009%
156	9.018	9.012	9.064	VV	277	6007	0.31%	0.025%
157	9.082	9.064	9.102	VV	367	5879	0.30%	0.025%
158	9.126	9.102	9.166	VV	570	11913	0.61%	0.050%
159	9.182	9.166	9.193	VV	228	2761	0.14%	0.012%
160	9.214	9.193	9.224	VV	238	3354	0.17%	0.014%
161	9.239	9.224	9.289	VV	290	7372	0.38%	0.031%
162	9.315	9.289	9.398	VV	500	16070	0.82%	0.067%
163	9.418	9.398	9.449	VV	623	10170	0.52%	0.042%
164	9.459	9.449	9.490	VV	293	5603	0.29%	0.023%
165	9.499	9.490	9.526	VV	216	2580	0.13%	0.011%
166	9.554	9.526	9.562	VV	133	1964	0.10%	0.008%
167	9.566	9.562	9.575	VV	123	706	0.04%	0.003%
168	9.581	9.575	9.584	VV	83	356	0.02%	0.001%
169	9.607	9.584	9.643	VV	317	5653	0.29%	0.024%
170	9.658	9.643	9.681	VV	162	2503	0.13%	0.010%
171	9.683	9.681	9.695	VV	144	726	0.04%	0.003%
172	9.718	9.695	9.737	VV	186	2430	0.12%	0.010%
173	9.741	9.737	9.747	PV	35	186	0.01%	0.001%
174	9.802	9.747	9.821	VV	616	12356	0.63%	0.052%
175	9.837	9.821	9.861	VV	374	5843	0.30%	0.024%
176	9.864	9.861	9.876	VV	126	938	0.05%	0.004%
177	9.882	9.876	9.897	VV	173	1250	0.06%	0.005%
178	9.934	9.897	9.951	VV	231	4187	0.21%	0.017%
179	9.977	9.951	10.002	VV	722	9146	0.47%	0.038%
180	10.033	10.002	10.042	VV	547	6329	0.32%	0.026%
181	10.066	10.042	10.164	VV	38478	636760	32.46%	2.657%
182	10.197	10.164	10.299	VV	167491	1922166	97.99%	8.020%
183	10.302	10.299	10.347	VV	1159	24346	1.24%	0.102%
184	10.355	10.347	10.396	VV	673	16219	0.83%	0.068%
185	10.404	10.396	10.415	VV	390	4155	0.21%	0.017%
186	10.429	10.415	10.447	VV	433	6654	0.34%	0.028%
187	10.453	10.447	10.484	VV	316	5829	0.30%	0.024%
188	10.487	10.484	10.507	VV	263	3077	0.16%	0.013%
189	10.541	10.507	10.575	VV	2062	34077	1.74%	0.142%
190	10.581	10.575	10.610	VV	444	6778	0.35%	0.028%
191	10.621	10.610	10.637	VV	311	3880	0.20%	0.016%
192	10.643	10.637	10.661	VV	291	3243	0.17%	0.014%
193	10.679	10.661	10.702	VV	275	4885	0.25%	0.020%
194	10.718	10.702	10.741	VV	286	4038	0.21%	0.017%

					rteres			
195	10.757	10.741	10.777	VV	287	4158	0.21%	0.017%
196	10.788	10.777	10.801	VV	111	1366	0.07%	0.006%
197	10.822	10.801	10.846	VV	251	4017	0.20%	0.017%
198	10.865	10.846	10.883	VV	249	3819	0.19%	0.016%
199	10.921	10.883	10.924	VV	377	6602	0.34%	0.028%
200	10.934	10.924	10.961	VV	442	6492	0.33%	0.027%
201	11.008	10.961	11.022	VV	334	6717	0.34%	0.028%
202	11.045	11.022	11.051	VV	301	3970	0.20%	0.017%
203	11.054	11.051	11.061	VV	225	1162	0.06%	0.005%
204	11.068	11.061	11.094	VV	226	2513	0.13%	0.010%
205	11.100	11.094	11.148	VV	132	2477	0.13%	0.010%
206	11.165	11.148	11.171	PV	122	808	0.04%	0.003%
207	11.175	11.171	11.187	VV	100	339	0.02%	0.001%
208	11.191	11.187	11.199	PV	66	228	0.01%	0.001%
209	11.232	11.199	11.281	VV	709	19723	1.01%	0.082%
210	11.293	11.281	11.297	VV	318	2905	0.15%	0.012%
211	11.313	11.297	11.349	VV	523	10774	0.55%	0.045%
212	11.358	11.349	11.403	VV	222	6038	0.31%	0.025%
213	11.448	11.403	11.523	VV	470	10813	0.55%	0.045%
214	11.576	11.523	11.596	VV	142	2485	0.13%	0.010%
215	11.643	11.596	11.710	VV	166934	1911967	97.47%	7.978%
216	11.724	11.710	11.776	VV	952	23112	1.18%	0.096%
217	11.803	11.776	11.823	VV	529	9373	0.48%	0.039%
218	11.837	11.823	11.864	VV	318	4780	0.24%	0.020%
219	11.925	11.864	11.980	VV	591	18135	0.92%	0.076%
220	11.994	11.980	12.022	VV	268	4575	0.23%	0.019%
221	12.065	12.022	12.101	VV	493	13631	0.69%	0.057%
222	12.129	12.101	12.152	VV	627	8539	0.44%	0.036%
223	12.201	12.152	12.231	VV	213	5423	0.28%	0.023%
224	12.237	12.231	12.261	VV	118	1069	0.05%	0.004%
225	12.265	12.261	12.277	VV	81	630	0.03%	0.003%
226	12.313	12.277	12.335	PV	340	7112	0.36%	0.030%
227	12.368	12.335	12.384	VV	250	5707	0.29%	0.024%
228	12.421	12.384	12.495	VV	1120	34715	1.77%	0.145%
229	12.525	12.495	12.536	VV	536	8527	0.43%	0.036%
230	12.566	12.536	12.631	VV	66179	870917	44.40%	3.634%
231	12.640	12.631	12.659	VV	2401	34502	1.76%	0.144%
232	12.668	12.659	12.762	VV	1676	59989	3.06%	0.250%
233	12.780	12.762	12.856	VV	910	27454	1.40%	0.115%
234	12.886	12.856	12.921	VV	1279	25095	1.28%	0.105%
235	12.956	12.921	13.007	VV	159586	1961528	100.00%	8.185%
236	13.033	13.007	13.064	VV	3086	57366	2.92%	0.239%
237	13.076	13.064	13.145	VV	590	16498	0.84%	0.069%
238	13.176	13.145	13.189	VV	227	5104	0.26%	0.021%
239	13.217	13.189	13.306	VV	493	18688	0.95%	0.078%
240	13.328	13.306	13.342	VV	799	12901	0.66%	0.054%
241	13.368	13.342	13.432	VV	986	30943	1.58%	0.129%
242	13.442	13.432	13.470	VV	256	4690	0.24%	0.020%
243	13.479	13.470	13.500	VV	223	2750	0.14%	0.011%
244	13.514	13.500	13.547	VV	154	2931	0.15%	0.012%
245	13.573	13.547	13.594	VV	637	9300	0.47%	0.039%
246	13.618	13.594	13.631	VV	625	10914	0.56%	0.046%

					rteres			
247	13.651	13.631	13.736	VV	1178	49673	2.53%	0.207%
248	13.747	13.736	13.772	VV	617	11519	0.59%	0.048%
249	13.803	13.772	13.931	VV	6825	155986	7.95%	0.651%
250	13.951	13.931	13.984	VV	631	17153	0.87%	0.072%
251	14.000	13.984	14.017	VV	655	11196	0.57%	0.047%
252	14.024	14.017	14.056	VV	539	8824	0.45%	0.037%
253	14.109	14.056	14.125	VV	1182	24889	1.27%	0.104%
254	14.159	14.125	14.237	VV	154503	1899321	96.83%	7.925%
255	14.273	14.237	14.337	VV	535	18997	0.97%	0.079%
256	14.374	14.337	14.477	VV	250	10753	0.55%	0.045%
257	14.522	14.477	14.535	PV	306	4723	0.24%	0.020%
258	14.563	14.535	14.659	VV	838	28419	1.45%	0.119%
259	14.669	14.659	14.694	VV	157	2292	0.12%	0.010%
260	14.723	14.694	14.759	VV	1044	15929	0.81%	0.066%
261	14.765	14.759	14.778	VV	237	2357	0.12%	0.010%
262	14.789	14.778	14.801	VV	247	2914	0.15%	0.012%
263	14.827	14.801	14.852	VV	430	8358	0.43%	0.035%
264	14.883	14.852	14.909	VV	360	8291	0.42%	0.035%
265	14.918	14.909	14.948	VV	202	3719	0.19%	0.016%
266	14.981	14.948	15.021	VV	294	9314	0.47%	0.039%
267	15.062	15.021	15.197	VV	86685	1241304	63.28%	5.179%
268	15.266	15.197	15.299	VV	149830	1881428	95.92%	7.850%
269	15.311	15.299	15.406	VV	2438	45606	2.33%	0.190%
270	15.414	15.406	15.421	VV	105	875	0.04%	0.004%
271	15.443	15.421	15.499	VV	408	11182	0.57%	0.047%
272	15.512	15.499	15.542	PV	160	1947	0.10%	0.008%
273	15.607	15.542	15.619	VV	206	5523	0.28%	0.023%
274	15.651	15.619	15.764	VV	17218	440517	22.46%	1.838%
275	15.801	15.764	15.831	VV	2599	63800	3.25%	0.266%
276	15.859	15.831	15.889	VV	1730	25741	1.31%	0.107%
277	15.920	15.889	15.944	VV	362	7481	0.38%	0.031%
278	15.956	15.944	16.006	VV	204	3890	0.20%	0.016%
279	16.041	16.006	16.096	PV	360	9251	0.47%	0.039%
280	16.109	16.096	16.141	VV	299	4339	0.22%	0.018%
281	16.179	16.141	16.229	VV	604	15321	0.78%	0.064%
282	16.291	16.229	16.340	VV	137905	1809603	92.25%	7.551%
283	16.353	16.340	16.402	VV	529	10665	0.54%	0.044%
284	16.431	16.402	16.457	VV	333	6661	0.34%	0.028%
285	16.496	16.457	16.556	VV	398	12903	0.66%	0.054%
286	16.606	16.556	16.644	PV	1082	27916	1.42%	0.116%
287	16.680	16.644	16.705	VV	1766	42084	2.15%	0.176%
288	16.741	16.705	16.757	VV	1984	43565	2.22%	0.182%
289	16.776	16.757	16.819	VV	3498	63373	3.23%	0.264%
290	16.858	16.819	16.882	VV	1683	44222	2.25%	0.185%
291	16.946	16.882	16.959	VV	1035	38897	1.98%	0.162%
292	16.975	16.959	17.049	VV	1288	43901	2.24%	0.183%
293	17.066	17.049	17.107	VV	954	26114	1.33%	0.109%
294	17.139	17.107	17.183	VV	1078	37521	1.91%	0.157%
295	17.246	17.183	17.276	VV	136191	1843939	94.01%	7.694%
296	17.294	17.276	17.364	VV	6551	107260	5.47%	0.448%
297	17.377	17.364	17.401	VBA	339	4887	0.25%	0.020%
Sum of corrected areas:					23965924			

rteres

FF100225.M Thu Oct 23 01:30:23 2025

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Report of Analysis

Client:	ICE Service Group, Inc.		Date Collected:	10/20/25
Project:	NWIRP Northrup Grumman Site – Bethpage, NY		Date Received:	10/20/25
Client Sample ID:	COMP-ROLLOFFMSD		SDG No.:	Q3399
Lab Sample ID:	Q3399-01MSD		Matrix:	SOIL
Analytical Method:	8015D DRO		% Solid:	89.9
Sample Wt/Vol:	30.07 g	Final Vol:	1 mL	Test:
Prep Method:	SW3541	Prep Date	10/22/25	

CAS Number	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units	Date Ana.	BatchID
TARGETS										
DRO	DRO	6820		1	188	925	1850	ug/kg	10/22/25 15:42	PB170209
SURROGATES										
16416-32-3	Tetracosane-d50	10.8			37 - 130		54%	SPK: 20		

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

P = Indicates >25% difference for detected concentrations between the two GC columns

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

Q3399-Diesel Range Organics

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

S = Indicates estimated value where valid five-point calibration was not performed prior to analyte detection in sample.

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
 Data File : FF016598.D
 Signal(s) : FID2B.ch
 Acq On : 22 Oct 2025 15:42
 Operator : YP\AJ
 Sample : Q3399-01MSD
 Misc :
 ALS Vial : 75 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 COMP-ROLLOFFMSD

Integration File: autoint1.e
 Quant Time: Oct 23 01:20:00 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
 Quant Title :
 QLast Update : Fri Oct 03 03:40:27 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.061	1267907	10.780 ug/ml
Target Compounds			
2) N-DECANE	4.576	1663829	13.840 ug/ml
3) N-DODECANE	6.755	1766231	14.491 ug/ml
4) N-TETRADECANE	8.588	1822423	14.806 ug/ml
5) N-HEXADECANE	10.198	1916385	15.313 ug/ml
6) N-OCTADECANE	11.644	1948242	14.993 ug/ml
7) N-EICOSANE	12.958	2002721	15.019 ug/ml
8) N-DOCOSANE	14.159	1942208	14.817 ug/ml
10) N-TETRACOSANE	15.267	1906096	14.390 ug/ml
11) N-HEXACOSANE	16.291	1865851	14.128 ug/ml
12) N-OCTACOSANE	17.245	1861679	14.175 ug/ml

(f)=RT Delta > 1/2 Window

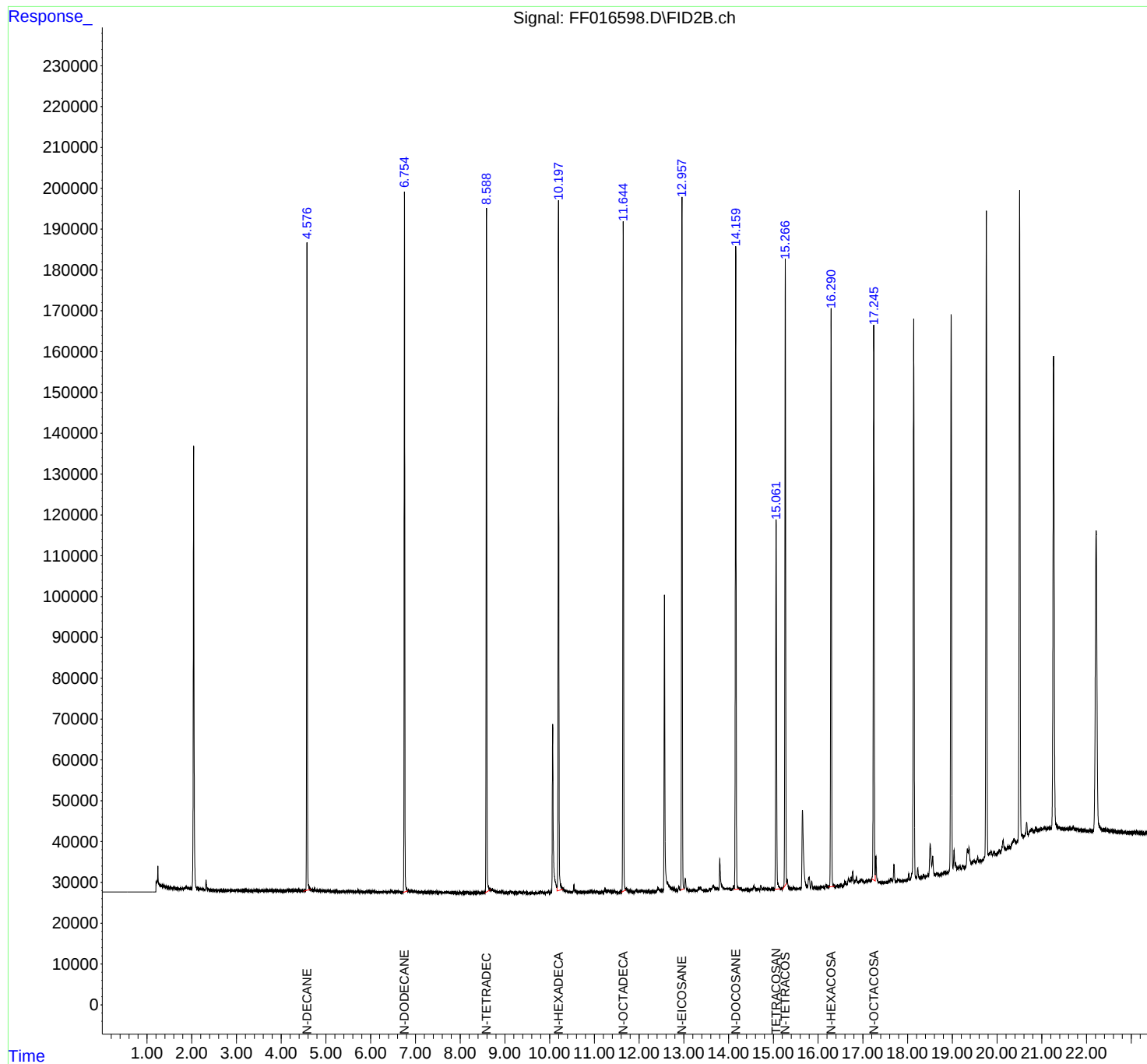
(m)=manual int.

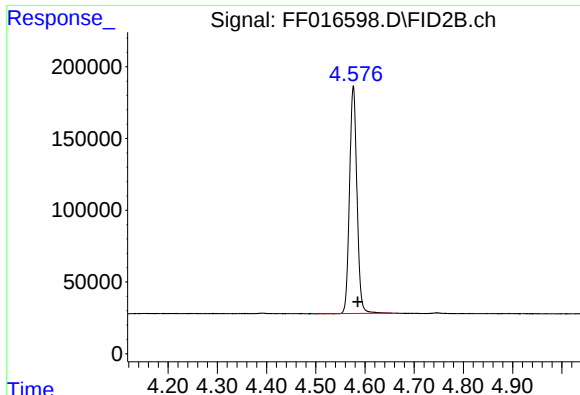
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016598.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 15:42
Operator : YP\AJ
Sample : Q3399-01MSD
Misc :
ALS Vial : 75 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFFMSD

Integration File: autoint1.e
Quant Time: Oct 23 01:20:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF102225.M
Quant Title :
QLast Update : Fri Oct 03 03:40:27 2025
Response via : Initial Calibration
Integrator: ChemStation

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

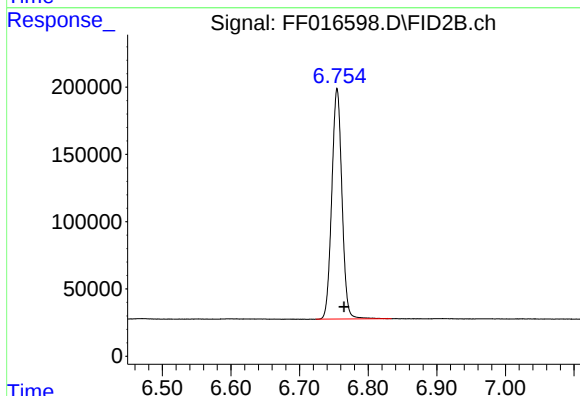




#2 N-DECANE

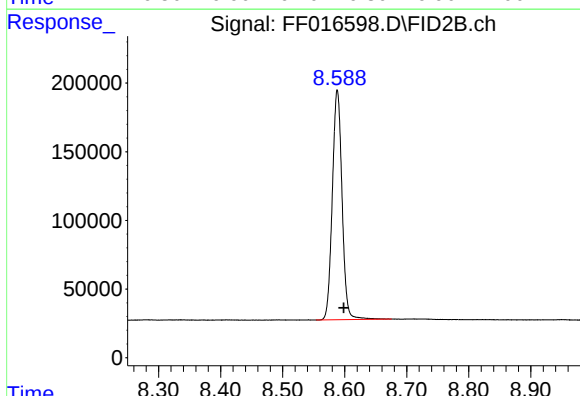
R.T.: 4.576 min
Delta R.T.: -0.009 min
Response: 1663829
Conc: 13.84 ug/ml

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFFMSD



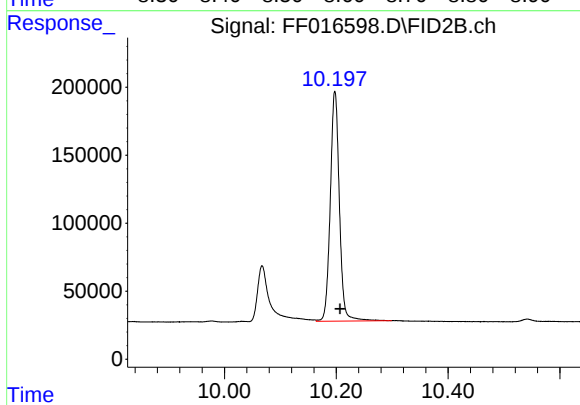
#3 N-DODECANE

R.T.: 6.755 min
Delta R.T.: -0.010 min
Response: 1766231
Conc: 14.49 ug/ml



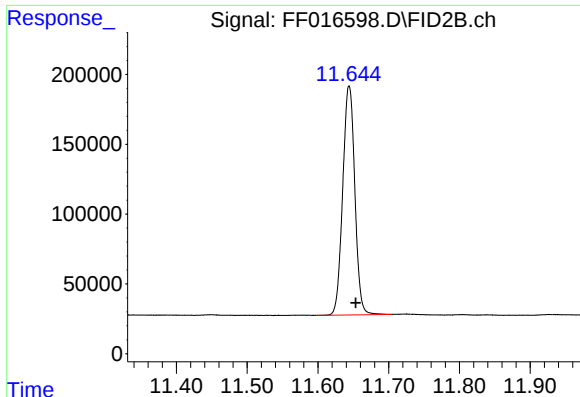
#4 N-TETRADECANE

R.T.: 8.588 min
Delta R.T.: -0.010 min
Response: 1822423
Conc: 14.81 ug/ml



#5 N-HEXADECANE

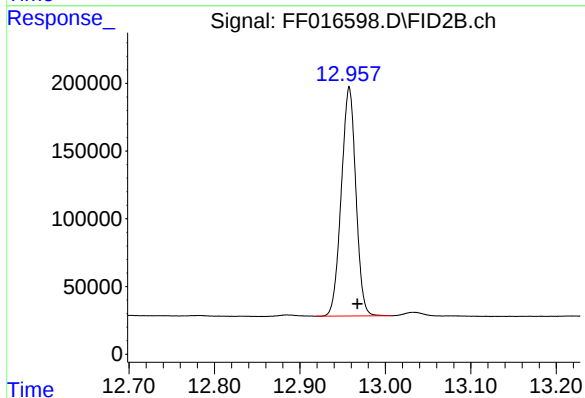
R.T.: 10.198 min
Delta R.T.: -0.009 min
Response: 1916385
Conc: 15.31 ug/ml



#6 N-OCTADECANE

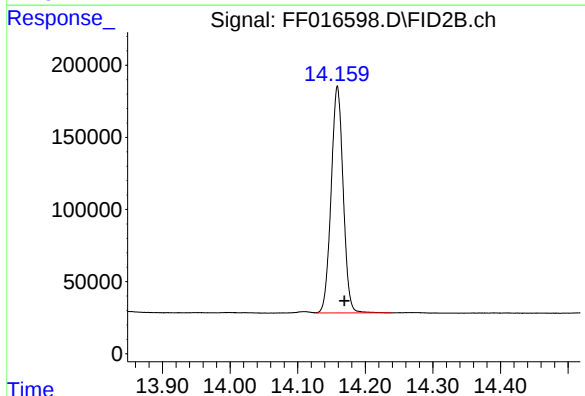
R.T.: 11.644 min
Delta R.T.: -0.009 min
Response: 1948242
Conc: 14.99 ug/ml

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFFMSD



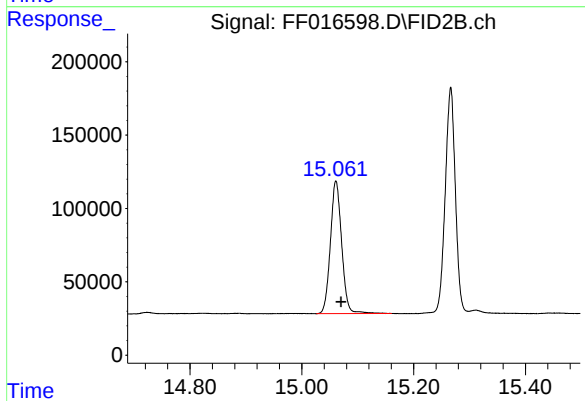
#7 N-EICOSANE

R.T.: 12.958 min
Delta R.T.: -0.010 min
Response: 2002721
Conc: 15.02 ug/ml



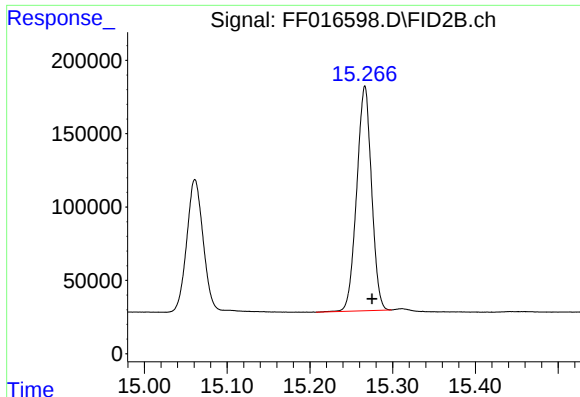
#8 N-DOCOSANE

R.T.: 14.159 min
Delta R.T.: -0.010 min
Response: 1942208
Conc: 14.82 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

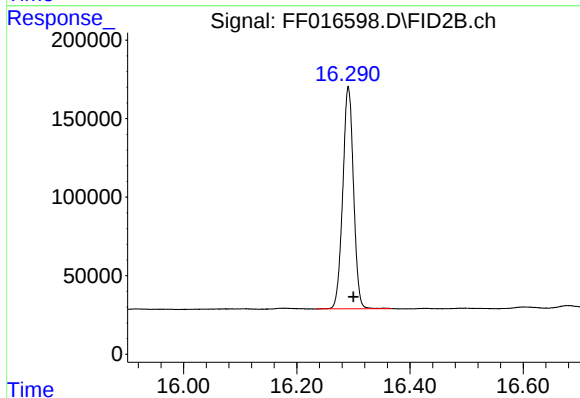
R.T.: 15.061 min
Delta R.T.: -0.009 min
Response: 1267907
Conc: 10.78 ug/ml



#10 N-TETRACOSANE

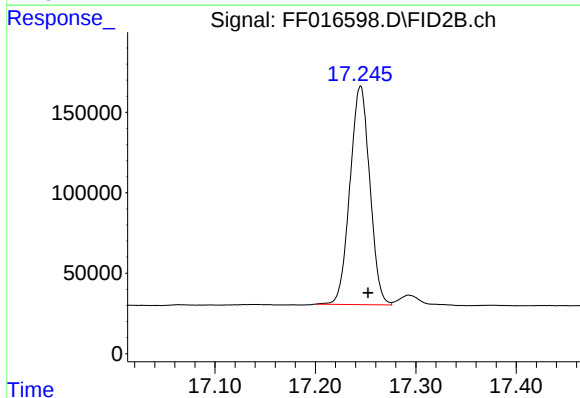
R.T.: 15.267 min
Delta R.T.: -0.009 min
Response: 1906096
Conc: 14.39 ug/ml

Instrument :
FID_F
ClientSampleId :
COMP-ROLLOFFMSD



#11 N-HEXACOSANE

R.T.: 16.291 min
Delta R.T.: -0.009 min
Response: 1865851
Conc: 14.13 ug/ml



#12 N-OCTACOSANE

R.T.: 17.245 min
Delta R.T.: -0.007 min
Response: 1861679
Conc: 14.18 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF102225\
Data File : FF016598.D
Signal(s) : FID2B.ch
Acq On : 22 Oct 2025 15:42
Sample : Q3399-01MSD
Misc :
ALS Vial : 75 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.446	4.418	4.453	BV	89	460	0.02%	0.002%
2	4.458	4.453	4.462	PV	108	430	0.02%	0.002%
3	4.474	4.462	4.483	VV	123	863	0.04%	0.003%
4	4.508	4.483	4.534	PV	159	2732	0.13%	0.011%
5	4.576	4.534	4.688	VV	158679	1693945	83.31%	6.811%
6	4.694	4.688	4.698	VV	412	2114	0.10%	0.008%
7	4.701	4.698	4.713	VV	378	3111	0.15%	0.013%
8	4.717	4.713	4.722	VV	302	1423	0.07%	0.006%
9	4.745	4.722	4.779	VV	727	13683	0.67%	0.055%
10	4.782	4.779	4.789	VV	268	1386	0.07%	0.006%
11	4.796	4.789	4.807	VV	284	2405	0.12%	0.010%
12	4.814	4.807	4.845	VV	316	4869	0.24%	0.020%
13	4.859	4.845	4.877	VV	269	3730	0.18%	0.015%
14	4.895	4.877	4.917	VV	265	4866	0.24%	0.020%
15	4.922	4.917	4.988	VV	250	7007	0.34%	0.028%
16	4.999	4.988	5.016	VV	204	2306	0.11%	0.009%
17	5.046	5.016	5.085	VV	238	7267	0.36%	0.029%
18	5.094	5.085	5.111	VV	224	2339	0.12%	0.009%
19	5.115	5.111	5.118	VV	170	585	0.03%	0.002%
20	5.121	5.118	5.139	VV	152	1664	0.08%	0.007%
21	5.147	5.139	5.155	VV	172	1088	0.05%	0.004%
22	5.168	5.155	5.188	VV	153	1940	0.10%	0.008%
23	5.192	5.188	5.210	VV	143	960	0.05%	0.004%
24	5.237	5.210	5.256	PV	346	4648	0.23%	0.019%
25	5.261	5.256	5.266	VV	148	571	0.03%	0.002%
26	5.271	5.266	5.307	VV	157	2081	0.10%	0.008%
27	5.312	5.307	5.322	PV	109	511	0.03%	0.002%
28	5.330	5.322	5.346	VV	90	924	0.05%	0.004%
29	5.355	5.346	5.361	VV	67	429	0.02%	0.002%
30	5.369	5.361	5.379	VV	108	824	0.04%	0.003%
31	5.390	5.379	5.398	VV	148	1105	0.05%	0.004%
32	5.400	5.398	5.405	VV	103	419	0.02%	0.002%
33	5.410	5.405	5.435	VV	160	1483	0.07%	0.006%
34	5.450	5.435	5.454	VV	100	856	0.04%	0.003%
35	5.457	5.454	5.464	VV	116	497	0.02%	0.002%
36	5.469	5.464	5.488	VV	167	1507	0.07%	0.006%

					rteres			
37	5.497	5.488	5.504	VV	141	817	0.04%	0.003%
38	5.509	5.504	5.517	VV	119	751	0.04%	0.003%
39	5.537	5.517	5.568	VV	309	6074	0.30%	0.024%
40	5.572	5.568	5.590	VV	200	1815	0.09%	0.007%
41	5.617	5.590	5.633	VV	160	3022	0.15%	0.012%
42	5.655	5.633	5.660	VV	181	1553	0.08%	0.006%
43	5.664	5.660	5.690	VV	161	1410	0.07%	0.006%
44	5.722	5.690	5.763	VV	487	7526	0.37%	0.030%
45	5.767	5.763	5.771	VV	123	424	0.02%	0.002%
46	5.778	5.771	5.783	VV	191	943	0.05%	0.004%
47	5.786	5.783	5.815	VV	228	2412	0.12%	0.010%
48	5.819	5.815	5.840	VV	218	1645	0.08%	0.007%
49	5.844	5.840	5.849	VV	161	643	0.03%	0.003%
50	5.857	5.849	5.894	VV	175	3114	0.15%	0.013%
51	5.916	5.894	5.922	VV	205	2225	0.11%	0.009%
52	5.925	5.922	5.954	VV	177	2367	0.12%	0.010%
53	5.959	5.954	5.970	VV	175	1393	0.07%	0.006%
54	5.979	5.970	5.985	VV	228	1694	0.08%	0.007%
55	5.995	5.985	6.020	VV	247	3136	0.15%	0.013%
56	6.042	6.020	6.069	VV	314	5232	0.26%	0.021%
57	6.093	6.069	6.147	VV	322	6975	0.34%	0.028%
58	6.154	6.147	6.162	VV	95	442	0.02%	0.002%
59	6.191	6.162	6.208	PV	138	1424	0.07%	0.006%
60	6.211	6.208	6.220	VV	75	400	0.02%	0.002%
61	6.241	6.220	6.249	VV	144	1615	0.08%	0.006%
62	6.255	6.249	6.261	VV	158	767	0.04%	0.003%
63	6.290	6.261	6.303	VV	318	4312	0.21%	0.017%
64	6.309	6.303	6.342	VV	215	3951	0.19%	0.016%
65	6.352	6.342	6.367	VV	219	2307	0.11%	0.009%
66	6.378	6.367	6.387	VV	211	2076	0.10%	0.008%
67	6.400	6.387	6.428	VV	265	5034	0.25%	0.020%
68	6.445	6.428	6.457	VV	355	4357	0.21%	0.018%
69	6.470	6.457	6.523	VV	490	9757	0.48%	0.039%
70	6.552	6.523	6.572	VV	286	4718	0.23%	0.019%
71	6.601	6.572	6.628	VV	334	7579	0.37%	0.030%
72	6.631	6.628	6.637	VV	226	1099	0.05%	0.004%
73	6.643	6.637	6.656	VV	223	2128	0.10%	0.009%
74	6.662	6.656	6.676	VV	177	1267	0.06%	0.005%
75	6.689	6.676	6.703	VV	131	1262	0.06%	0.005%
76	6.707	6.703	6.713	VV	90	365	0.02%	0.001%
77	6.755	6.713	6.836	PV	171567	1786037	87.84%	7.181%
78	6.841	6.836	6.848	VV	531	3506	0.17%	0.014%
79	6.852	6.848	6.885	VV	461	9454	0.46%	0.038%
80	6.909	6.885	6.955	VV	565	17281	0.85%	0.069%
81	6.981	6.955	7.014	VV	425	11894	0.58%	0.048%
82	7.026	7.014	7.030	VV	409	3367	0.17%	0.014%
83	7.035	7.030	7.056	VV	379	4408	0.22%	0.018%
84	7.064	7.056	7.071	VV	325	2246	0.11%	0.009%
85	7.081	7.071	7.087	VV	254	2178	0.11%	0.009%
86	7.093	7.087	7.112	VV	279	3083	0.15%	0.012%
87	7.118	7.112	7.134	VV	255	2556	0.13%	0.010%
88	7.137	7.134	7.145	VV	187	1237	0.06%	0.005%
89	7.146	7.145	7.157	VV	233	1376	0.07%	0.006%

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90	7.162	7.157	7.187	VV	218	3049	0.15%	0.012%	
91	7.191	7.187	7.197	VV	204	1127	0.06%	0.005%	
92	7.216	7.197	7.235	VV	271	4385	0.22%	0.018%	
93	7.237	7.235	7.251	VV	220	1631	0.08%	0.007%	
94	7.253	7.251	7.264	VV	180	1209	0.06%	0.005%	
95	7.270	7.264	7.276	VV	186	1277	0.06%	0.005%	
96	7.281	7.276	7.295	VV	208	2089	0.10%	0.008%	
97	7.298	7.295	7.314	VV	288	2682	0.13%	0.011%	
98	7.318	7.314	7.335	VV	238	2717	0.13%	0.011%	
99	7.337	7.335	7.356	VV	287	2399	0.12%	0.010%	
100	7.362	7.356	7.370	VV	205	1272	0.06%	0.005%	
101	7.375	7.370	7.390	VV	246	2227	0.11%	0.009%	
102	7.393	7.390	7.424	VV	221	3352	0.16%	0.013%	
103	7.438	7.424	7.454	VV	302	4087	0.20%	0.016%	
104	7.461	7.454	7.465	VV	228	1313	0.06%	0.005%	
105	7.478	7.465	7.515	VV	359	5517	0.27%	0.022%	
106	7.538	7.515	7.556	VV	233	3309	0.16%	0.013%	
107	7.584	7.556	7.598	VV	249	3552	0.17%	0.014%	
108	7.602	7.598	7.623	VV	219	2030	0.10%	0.008%	
109	7.630	7.623	7.640	VV	130	981	0.05%	0.004%	
110	7.650	7.640	7.665	VV	164	1821	0.09%	0.007%	
111	7.672	7.665	7.678	VV	137	807	0.04%	0.003%	
112	7.707	7.678	7.750	VV	414	8468	0.42%	0.034%	
113	7.754	7.750	7.767	VV	159	730	0.04%	0.003%	
114	7.771	7.767	7.778	VV	58	361	0.02%	0.001%	
115	7.787	7.778	7.799	VV	121	843	0.04%	0.003%	
116	7.805	7.799	7.820	VV	139	1123	0.06%	0.005%	
117	7.830	7.820	7.835	VV	94	665	0.03%	0.003%	
118	7.840	7.835	7.870	VV	112	1462	0.07%	0.006%	
119	7.873	7.870	7.919	VV	99	1418	0.07%	0.006%	
120	7.924	7.919	7.944	VV	74	489	0.02%	0.002%	
121	7.993	7.944	8.022	PV	430	7665	0.38%	0.031%	
122	8.030	8.022	8.037	VV	149	885	0.04%	0.004%	
123	8.041	8.037	8.061	VV	127	864	0.04%	0.003%	
124	8.071	8.061	8.085	VV	108	901	0.04%	0.004%	
125	8.121	8.085	8.152	VV	307	6807	0.33%	0.027%	
126	8.165	8.152	8.197	VV	462	6080	0.30%	0.024%	
127	8.208	8.197	8.213	VV	122	692	0.03%	0.003%	
128	8.216	8.213	8.220	VV	98	237	0.01%	0.001%	
129	8.223	8.220	8.227	VV	65	222	0.01%	0.001%	
130	8.232	8.227	8.253	VV	125	981	0.05%	0.004%	
131	8.282	8.253	8.302	PV	303	4440	0.22%	0.018%	
132	8.319	8.302	8.330	VV	254	2705	0.13%	0.011%	
133	8.341	8.330	8.362	VV	244	3013	0.15%	0.012%	
134	8.371	8.362	8.382	VV	158	1112	0.05%	0.004%	
135	8.409	8.382	8.447	VV	231	4531	0.22%	0.018%	
136	8.458	8.447	8.469	VV	125	1050	0.05%	0.004%	
137	8.494	8.469	8.514	VV	259	3993	0.20%	0.016%	
138	8.518	8.514	8.529	VV	170	1286	0.06%	0.005%	
139	8.588	8.529	8.692	VV	167946	1868863	91.92%	7.514%	
140	8.710	8.692	8.772	VV	914	34315	1.69%	0.138%	
141	8.777	8.772	8.796	VV	540	6556	0.32%	0.026%	

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142	8.814	8.796	8.821	VV	447	5906	0.29%	0.024%
143	8.822	8.821	8.832	VV	467	2892	0.14%	0.012%
144	8.835	8.832	8.859	VV	453	5436	0.27%	0.022%
145	8.863	8.859	8.869	VV	340	1823	0.09%	0.007%
146	8.873	8.869	8.878	VV	285	1445	0.07%	0.006%
147	8.884	8.878	8.894	VV	255	2451	0.12%	0.010%
148	8.907	8.894	8.915	VV	279	3097	0.15%	0.012%
149	8.920	8.915	8.937	VV	322	3533	0.17%	0.014%
150	8.951	8.937	8.985	VV	414	7464	0.37%	0.030%
151	9.006	8.985	9.011	VV	248	2902	0.14%	0.012%
152	9.021	9.011	9.036	VV	286	3793	0.19%	0.015%
153	9.042	9.036	9.049	VV	262	1467	0.07%	0.006%
154	9.076	9.049	9.092	VV	300	5208	0.26%	0.021%
155	9.129	9.092	9.164	VV	563	13566	0.67%	0.055%
156	9.170	9.164	9.193	VV	201	2693	0.13%	0.011%
157	9.203	9.193	9.207	VV	190	1139	0.06%	0.005%
158	9.234	9.207	9.263	VV	216	4732	0.23%	0.019%
159	9.285	9.263	9.294	VV	171	1970	0.10%	0.008%
160	9.316	9.294	9.381	VV	498	11803	0.58%	0.047%
161	9.387	9.381	9.396	VV	88	528	0.03%	0.002%
162	9.417	9.396	9.445	VV	562	7981	0.39%	0.032%
163	9.459	9.445	9.483	VV	276	4158	0.20%	0.017%
164	9.497	9.483	9.519	VV	146	1976	0.10%	0.008%
165	9.524	9.519	9.534	VV	90	516	0.03%	0.002%
166	9.560	9.534	9.581	VV	125	1636	0.08%	0.007%
167	9.606	9.581	9.639	VV	282	4776	0.23%	0.019%
168	9.651	9.639	9.667	VV	164	1448	0.07%	0.006%
169	9.674	9.667	9.688	VV	148	1223	0.06%	0.005%
170	9.716	9.688	9.741	VV	165	2135	0.11%	0.009%
171	9.746	9.741	9.754	PV	57	332	0.02%	0.001%
172	9.797	9.754	9.823	VV	640	12782	0.63%	0.051%
173	9.837	9.823	9.862	VV	369	5310	0.26%	0.021%
174	9.872	9.862	9.889	VV	122	1981	0.10%	0.008%
175	9.890	9.889	9.907	VV	140	647	0.03%	0.003%
176	9.940	9.907	9.947	VV	254	3858	0.19%	0.016%
177	9.951	9.947	9.959	VV	210	1251	0.06%	0.005%
178	9.977	9.959	10.014	VV	775	9995	0.49%	0.040%
179	10.031	10.014	10.043	VV	558	5952	0.29%	0.024%
180	10.067	10.043	10.166	VV	41408	663980	32.66%	2.670%
181	10.198	10.166	10.304	VV	169809	1982265	97.49%	7.970%
182	10.307	10.304	10.406	VV	1057	38873	1.91%	0.156%
183	10.410	10.406	10.419	VV	429	3103	0.15%	0.012%
184	10.427	10.419	10.433	VV	391	2915	0.14%	0.012%
185	10.437	10.433	10.444	VV	332	2126	0.10%	0.009%
186	10.446	10.444	10.449	VV	373	998	0.05%	0.004%
187	10.454	10.449	10.481	VV	350	5296	0.26%	0.021%
188	10.486	10.481	10.504	VV	307	3275	0.16%	0.013%
189	10.542	10.504	10.577	VV	2163	36843	1.81%	0.148%
190	10.581	10.577	10.612	VV	516	7651	0.38%	0.031%
191	10.617	10.612	10.627	VV	279	2396	0.12%	0.010%
192	10.633	10.627	10.647	VV	261	2900	0.14%	0.012%
193	10.651	10.647	10.662	VV	272	2005	0.10%	0.008%
194	10.674	10.662	10.707	VV	286	5601	0.28%	0.023%

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195	10.723	10.707	10.738	VV	279	3871	0.19%	0.016%
196	10.759	10.738	10.805	VV	342	7684	0.38%	0.031%
197	10.825	10.805	10.833	VV	267	3259	0.16%	0.013%
198	10.837	10.833	10.842	VV	247	1135	0.06%	0.005%
199	10.845	10.842	10.848	VV	241	678	0.03%	0.003%
200	10.863	10.848	10.883	VV	291	4686	0.23%	0.019%
201	10.916	10.883	10.921	VV	495	7793	0.38%	0.031%
202	10.936	10.921	10.958	VV	544	9532	0.47%	0.038%
203	10.964	10.958	10.974	VV	253	2069	0.10%	0.008%
204	11.013	10.974	11.031	VV	422	9665	0.48%	0.039%
205	11.043	11.031	11.090	VV	415	9148	0.45%	0.037%
206	11.094	11.090	11.098	VV	126	660	0.03%	0.003%
207	11.101	11.098	11.108	VV	145	769	0.04%	0.003%
208	11.129	11.108	11.149	VV	192	2994	0.15%	0.012%
209	11.157	11.149	11.160	VV	165	898	0.04%	0.004%
210	11.166	11.160	11.193	VV	234	2937	0.14%	0.012%
211	11.232	11.193	11.283	VV	834	26522	1.30%	0.107%
212	11.288	11.283	11.296	VV	448	3298	0.16%	0.013%
213	11.314	11.296	11.409	VV	660	24111	1.19%	0.097%
214	11.413	11.409	11.426	VV	233	1939	0.10%	0.008%
215	11.451	11.426	11.487	VV	521	10078	0.50%	0.041%
216	11.494	11.487	11.524	VV	126	2513	0.12%	0.010%
217	11.532	11.524	11.537	VV	138	622	0.03%	0.003%
218	11.543	11.537	11.557	PV	110	825	0.04%	0.003%
219	11.576	11.557	11.599	VV	216	3497	0.17%	0.014%
220	11.644	11.599	11.704	VV	164318	1976102	97.19%	7.946%
221	11.725	11.704	11.766	VV	1007	25961	1.28%	0.104%
222	11.767	11.766	11.781	VV	390	2924	0.14%	0.012%
223	11.805	11.781	11.829	VV	568	11150	0.55%	0.045%
224	11.839	11.829	11.867	VV	420	5505	0.27%	0.022%
225	11.877	11.867	11.881	VV	152	948	0.05%	0.004%
226	11.896	11.881	11.900	VV	168	1427	0.07%	0.006%
227	11.926	11.900	11.980	VV	600	17840	0.88%	0.072%
228	11.993	11.980	12.018	VV	329	5237	0.26%	0.021%
229	12.035	12.018	12.044	VV	408	4145	0.20%	0.017%
230	12.063	12.044	12.068	VV	564	6139	0.30%	0.025%
231	12.070	12.068	12.107	VV	512	7110	0.35%	0.029%
232	12.128	12.107	12.147	VV	581	8238	0.41%	0.033%
233	12.161	12.147	12.168	VV	160	1709	0.08%	0.007%
234	12.172	12.168	12.186	VV	161	1132	0.06%	0.005%
235	12.202	12.186	12.217	VV	251	3520	0.17%	0.014%
236	12.221	12.217	12.236	VV	255	1644	0.08%	0.007%
237	12.255	12.236	12.280	VV	144	2504	0.12%	0.010%
238	12.316	12.280	12.347	VV	333	8385	0.41%	0.034%
239	12.357	12.347	12.379	VV	291	4278	0.21%	0.017%
240	12.421	12.379	12.497	VV	1156	37286	1.83%	0.150%
241	12.523	12.497	12.537	VV	537	9216	0.45%	0.037%
242	12.567	12.537	12.626	VV	72774	926342	45.56%	3.725%
243	12.640	12.626	12.659	VV	2515	42075	2.07%	0.169%
244	12.667	12.659	12.728	VV	1731	47517	2.34%	0.191%
245	12.734	12.728	12.759	VV	815	13105	0.64%	0.053%
246	12.782	12.759	12.824	VV	944	23529	1.16%	0.095%

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247	12.839	12.824	12.859	VV	394	6223	0.31%	0.025%
248	12.885	12.859	12.920	VV	1333	26346	1.30%	0.106%
249	12.958	12.920	13.008	VV	169823	2033219	100.00%	8.175%
250	13.033	13.008	13.067	VV	3238	60361	2.97%	0.243%
251	13.082	13.067	13.114	VV	616	12297	0.60%	0.049%
252	13.118	13.114	13.132	VV	291	2326	0.11%	0.009%
253	13.136	13.132	13.142	VV	253	1304	0.06%	0.005%
254	13.145	13.142	13.176	VV	287	4626	0.23%	0.019%
255	13.182	13.176	13.188	VV	272	1736	0.09%	0.007%
256	13.195	13.188	13.200	VV	267	1887	0.09%	0.008%
257	13.220	13.200	13.274	VV	476	14531	0.71%	0.058%
258	13.279	13.274	13.300	VV	281	3227	0.16%	0.013%
259	13.329	13.300	13.346	VV	857	15093	0.74%	0.061%
260	13.368	13.346	13.419	VV	1017	27878	1.37%	0.112%
261	13.424	13.419	13.436	VV	239	2095	0.10%	0.008%
262	13.457	13.436	13.466	VV	234	3676	0.18%	0.015%
263	13.472	13.466	13.477	VV	189	1167	0.06%	0.005%
264	13.481	13.477	13.494	VV	191	1499	0.07%	0.006%
265	13.502	13.494	13.519	VV	198	2433	0.12%	0.010%
266	13.521	13.519	13.541	VV	166	1491	0.07%	0.006%
267	13.571	13.541	13.590	VV	729	10169	0.50%	0.041%
268	13.614	13.590	13.630	VV	657	12578	0.62%	0.051%
269	13.653	13.630	13.736	VV	1332	53159	2.61%	0.214%
270	13.749	13.736	13.770	VV	623	10549	0.52%	0.042%
271	13.802	13.770	13.901	VV	7799	159722	7.86%	0.642%
272	13.908	13.901	13.931	VV	575	8738	0.43%	0.035%
273	13.946	13.931	13.952	VV	577	6495	0.32%	0.026%
274	13.956	13.952	13.976	VV	552	7067	0.35%	0.028%
275	13.999	13.976	14.014	VV	658	11988	0.59%	0.048%
276	14.022	14.014	14.046	VV	492	7877	0.39%	0.032%
277	14.051	14.046	14.059	VV	269	1977	0.10%	0.008%
278	14.061	14.059	14.064	VV	274	747	0.04%	0.003%
279	14.078	14.064	14.084	VV	360	3636	0.18%	0.015%
280	14.110	14.084	14.127	VV	1222	19745	0.97%	0.079%
281	14.159	14.127	14.242	VV	157758	1967101	96.75%	7.909%
282	14.269	14.242	14.315	VV	553	15901	0.78%	0.064%
283	14.321	14.315	14.346	VV	180	2546	0.13%	0.010%
284	14.359	14.346	14.365	VV	248	1920	0.09%	0.008%
285	14.369	14.365	14.401	VV	232	4500	0.22%	0.018%
286	14.409	14.401	14.439	VV	221	3420	0.17%	0.014%
287	14.454	14.439	14.459	VV	162	1320	0.06%	0.005%
288	14.461	14.459	14.471	VV	131	736	0.04%	0.003%
289	14.477	14.471	14.489	VV	108	749	0.04%	0.003%
290	14.497	14.489	14.502	VV	121	624	0.03%	0.003%
291	14.519	14.502	14.536	VV	335	4612	0.23%	0.019%
292	14.566	14.536	14.617	VV	976	27089	1.33%	0.109%
293	14.632	14.617	14.646	VV	246	3170	0.16%	0.013%
294	14.668	14.646	14.691	VV	218	4225	0.21%	0.017%
295	14.724	14.691	14.756	PV	1082	17347	0.85%	0.070%
296	14.763	14.756	14.773	VV	290	2603	0.13%	0.010%
297	14.785	14.773	14.801	VV	312	4382	0.22%	0.018%
298	14.821	14.801	14.841	VV	459	8519	0.42%	0.034%
299	14.850	14.841	14.857	VV	242	2007	0.10%	0.008%

					rteres			
300	14.863	14.857	14.867	VV	229	1100	0.05%	0.004%
301	14.888	14.867	14.906	VV	383	6317	0.31%	0.025%
302	14.917	14.906	14.922	VV	193	1606	0.08%	0.006%
303	14.928	14.922	14.931	VV	177	896	0.04%	0.004%
304	14.934	14.931	14.941	VV	185	838	0.04%	0.003%
305	14.963	14.941	14.967	VV	237	2874	0.14%	0.012%
306	14.978	14.967	15.026	VV	268	7191	0.35%	0.029%
307	15.061	15.026	15.176	VV	90571	1282425	63.07%	5.156%
308	15.183	15.176	15.207	VV	136	2190	0.11%	0.009%
309	15.267	15.207	15.299	VV	154262	1951720	95.99%	7.847%
310	15.311	15.299	15.356	VV	2415	39325	1.93%	0.158%
311	15.362	15.356	15.369	VV	311	2058	0.10%	0.008%
312	15.374	15.369	15.407	VV	256	3666	0.18%	0.015%
313	15.414	15.407	15.419	VV	99	416	0.02%	0.002%
314	15.442	15.419	15.448	VV	427	4138	0.20%	0.017%
315	15.459	15.448	15.501	VV	435	6601	0.32%	0.027%
316	15.513	15.501	15.518	VV	126	840	0.04%	0.003%
317	15.526	15.518	15.532	VV	88	543	0.03%	0.002%
318	15.555	15.532	15.575	VV	148	2906	0.14%	0.012%
319	15.581	15.575	15.591	VV	131	1005	0.05%	0.004%
320	15.605	15.591	15.616	VV	175	1966	0.10%	0.008%
321	15.650	15.616	15.765	VV	19280	467390	22.99%	1.879%
322	15.791	15.765	15.799	VV	2704	37533	1.85%	0.151%
323	15.803	15.799	15.832	VV	2600	27883	1.37%	0.112%
324	15.859	15.832	15.896	VV	1808	27148	1.34%	0.109%
325	15.915	15.896	15.942	VV	398	6599	0.32%	0.027%
326	15.951	15.942	15.961	VV	164	1575	0.08%	0.006%
327	15.968	15.961	15.975	VV	182	1171	0.06%	0.005%
328	15.978	15.975	15.994	VV	153	697	0.03%	0.003%
329	16.049	15.994	16.053	PV	251	4015	0.20%	0.016%
330	16.074	16.053	16.079	VV	291	3759	0.18%	0.015%
331	16.084	16.079	16.094	VV	296	2449	0.12%	0.010%
332	16.111	16.094	16.140	VV	355	5095	0.25%	0.020%
333	16.176	16.140	16.219	VV	638	16644	0.82%	0.067%
334	16.224	16.219	16.232	VV	190	1179	0.06%	0.005%
335	16.291	16.232	16.342	VV	141713	1875823	92.26%	7.542%
336	16.353	16.342	16.386	VV	545	8159	0.40%	0.033%
337	16.389	16.386	16.406	VV	100	922	0.05%	0.004%
338	16.428	16.406	16.450	VV	357	5632	0.28%	0.023%
339	16.499	16.450	16.556	VV	388	12399	0.61%	0.050%
340	16.600	16.556	16.644	PV	1052	30205	1.49%	0.121%
341	16.677	16.644	16.707	VV	1873	46573	2.29%	0.187%
342	16.710	16.707	16.717	VV	1199	6828	0.34%	0.027%
343	16.739	16.717	16.757	VV	2166	37992	1.87%	0.153%
344	16.777	16.757	16.822	VV	3401	67751	3.33%	0.272%
345	16.856	16.822	16.882	VV	1866	46017	2.26%	0.185%
346	16.925	16.882	16.932	VV	979	24709	1.22%	0.099%
347	16.944	16.932	16.956	VV	1124	14473	0.71%	0.058%
348	16.975	16.956	17.002	VV	1472	30720	1.51%	0.124%
349	17.007	17.002	17.025	VV	907	9998	0.49%	0.040%
350	17.028	17.025	17.047	VV	637	7749	0.38%	0.031%
351	17.065	17.047	17.081	VV	1030	16708	0.82%	0.067%

						rteres		
352	17.086	17.081	17.089	VV	785	3611	0.18%	0.015%
353	17.096	17.089	17.103	VV	855	6692	0.33%	0.027%
354	17.141	17.103	17.162	VV	1104	32258	1.59%	0.130%
355	17.177	17.162	17.188	VV	852	11987	0.59%	0.048%
356	17.245	17.188	17.276	VV	137248	1912733	94.07%	7.691%
357	17.293	17.276	17.355	VV	6750	109723	5.40%	0.441%
358	17.375	17.355	17.401	VBA	377	7172	0.35%	0.029%
					Sum of corrected areas:	24870669		

FF100225.M Thu Oct 23 01:30:49 2025

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
5 TRPH STD		FF016513.D	FF100225	N-TETRACONTANE	mohammad	10/4/2025 6:31:32 AM	Peak Integrated by Software incorrectly
5 TRPH STD		FF016513.D	FF100225	TETRACOSANE-d50 (SURROGA	mohammad	10/4/2025 6:31:32 AM	Peak Integrated by Software incorrectly
10 TRPH STD		FF016512.D	FF100225	N-TETRACONTANE	mohammad	10/4/2025 6:31:32 AM	Peak Integrated by Software incorrectly
10 TRPH STD		FF016512.D	FF100225	TETRACOSANE-d50 (SURROGA	mohammad	10/4/2025 6:31:32 AM	Peak Integrated by Software incorrectly
.BLK		FF016508.D	FF100225	TETRACOSANE-d50 (SURROGA	mohammad	10/4/2025 6:31:32 AM	Peak Integrated by Software incorrectly

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF100225

Review By	yogesh	Review On	10/2/2025 10:24:19 AM
Supervise By	mohammad	Supervise On	10/4/2025 6:31:32 AM
SubDirectory	FF100225	HP Acquire Method	HP Processing Method FF100225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24962,PP24964,PP24965,PP24966,PP24967		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24963,PP24968		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FF016507.D	02 Oct 2025 09:28	YP\AJ	Ok
2	I.BLK	FF016508.D	02 Oct 2025 10:27	YP\AJ	Ok,M
3	100 TRPH STD	FF016509.D	02 Oct 2025 10:56	YP\AJ	Ok
4	50 TRPH STD	FF016510.D	02 Oct 2025 11:55	YP\AJ	Ok
5	20 TRPH STD	FF016511.D	02 Oct 2025 12:24	YP\AJ	Ok
6	10 TRPH STD	FF016512.D	02 Oct 2025 12:54	YP\AJ	Ok,M
7	5 TRPH STD	FF016513.D	02 Oct 2025 13:23	YP\AJ	Ok,M
8	FF100225ICV	FF016514.D	02 Oct 2025 13:53	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF102225

Review By	yogesh	Review On	10/22/2025 1:28:26 PM
Supervise By	mohammad	Supervise On	10/24/2025 1:11:25 AM
SubDirectory	FF102225	HP Acquire Method	HP Processing Method FF100225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24962,PP24964,PP24965,PP24966,PP24967		
CCC Internal Standard/PEM	PP24964		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24963,PP24968		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FF016590.D	22 Oct 2025 11:01	YP\AJ	Ok
2	I.BLK	FF016591.D	22 Oct 2025 11:30	YP\AJ	Ok
3	50 PPM TRPH STD	FF016592.D	22 Oct 2025 12:00	YP\AJ	Ok
4	RT MARKER	FF016593.D	22 Oct 2025 12:59	YP\AJ	Ok
5	PB170209BL	FF016594.D	22 Oct 2025 13:33	YP\AJ	Ok
6	PB170209BS	FF016595.D	22 Oct 2025 14:03	YP\AJ	Ok
7	Q3399-01	FF016596.D	22 Oct 2025 14:43	YP\AJ	Ok
8	Q3399-01MS	FF016597.D	22 Oct 2025 15:13	YP\AJ	Ok
9	Q3399-01MSD	FF016598.D	22 Oct 2025 15:42	YP\AJ	Ok
10	I.BLK	FF016599.D	22 Oct 2025 16:12	YP\AJ	Ok
11	50 PPM TRPH STD	FF016600.D	22 Oct 2025 16:41	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF100225

Review By	yogesh	Review On	10/2/2025 10:24:19 AM
Supervise By	mohammad	Supervise On	10/4/2025 6:31:32 AM
SubDirectory	FF100225	HP Acquire Method	HP Processing Method FF100225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24962,PP24964,PP24965,PP24966,PP24967		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24963,PP24968		

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF016507.D	02 Oct 2025 09:28		YP\AJ	Ok
2	I.BLK		FF016508.D	02 Oct 2025 10:27		YP\AJ	Ok,M
3	100 TRPH STD		FF016509.D	02 Oct 2025 10:56		YP\AJ	Ok
4	50 TRPH STD		FF016510.D	02 Oct 2025 11:55		YP\AJ	Ok
5	20 TRPH STD		FF016511.D	02 Oct 2025 12:24		YP\AJ	Ok
6	10 TRPH STD		FF016512.D	02 Oct 2025 12:54		YP\AJ	Ok,M
7	5 TRPH STD		FF016513.D	02 Oct 2025 13:23		YP\AJ	Ok,M
8	FF100225ICV		FF016514.D	02 Oct 2025 13:53		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF102225

Review By	yogesh	Review On	10/22/2025 1:28:26 PM
Supervise By	mohammad	Supervise On	10/24/2025 1:11:25 AM
SubDirectory	FF102225	HP Acquire Method	HP Processing Method FF100225

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP24962,PP24964,PP24965,PP24966,PP24967
CCC	PP24964
Internal Standard/PEM	
ICV/I.BLK	PP24963,PP24968
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF016590.D	22 Oct 2025 11:01		YP\AJ	Ok
2	I.BLK		FF016591.D	22 Oct 2025 11:30		YP\AJ	Ok
3	50 PPM TRPH STD		FF016592.D	22 Oct 2025 12:00		YP\AJ	Ok
4	RT MARKER		FF016593.D	22 Oct 2025 12:59		YP\AJ	Ok
5	PB170209BL		FF016594.D	22 Oct 2025 13:33		YP\AJ	Ok
6	PB170209BS		FF016595.D	22 Oct 2025 14:03		YP\AJ	Ok
7	Q3399-01		FF016596.D	22 Oct 2025 14:43		YP\AJ	Ok
8	Q3399-01MS		FF016597.D	22 Oct 2025 15:13	FF016596.D	YP\AJ	Ok
9	Q3399-01MSD		FF016598.D	22 Oct 2025 15:42	FF016596.D\FF016597.D	YP\AJ	Ok
10	I.BLK		FF016599.D	22 Oct 2025 16:12		YP\AJ	Ok
11	50 PPM TRPH STD		FF016600.D	22 Oct 2025 16:41		YP\AJ	Ok

M : Manual Integration

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/22/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 10/21/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:15
Out Date: 10/22/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137592

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
Q3399-01	COMP-ROLLOFF	13	1.15	10.96	12.11	11.00	89.9	
Q3401-01	41-CONCRETE	1	1.00	1.00	2.00	2.00	100.0	Concrete sample
Q3402-01	41-LA	2	1.15	10.90	12.05	8.69	69.2	
Q3402-02	41-LA-E2	3	1.13	10.64	11.77	10.2	85.2	
Q3402-04	41-RA	4	1.16	10.73	11.89	7.61	60.1	
Q3402-05	41-RA-E2	5	1.16	10.98	12.14	7.39	56.7	
Q3402-07	41-LB	6	1.16	10.77	11.93	8.26	65.9	
Q3402-08	41-LB-E2	7	1.16	10.95	12.11	6.22	46.2	
Q3402-10	41-RB	8	1.11	10.87	11.98	7.01	54.3	
Q3402-11	41-RB-E2	9	1.15	10.68	11.83	9.78	80.8	
Q3403-01	MH-18	10	1.19	10.49	11.68	10.75	91.1	
Q3403-02	MH-18-EPH	11	1.16	10.66	11.82	10.8	90.4	
Q3403-03	MH-18-VOC	12	1.19	11.37	12.56	11.59	91.5	
Q3404-01	MOO-25-0285-0288	14	1.15	10.74	11.89	10.22	84.5	
Q3404-03	MOO-25-0285-0288-E2	15	1.19	10.42	11.61	9.77	82.3	
Q3404-04	MOO-25-0292	16	1.18	10.22	11.4	10.5	91.2	
Q3404-07	MOO-25-0292-EPH-2	17	1.14	10.27	11.41	10.44	90.6	
Q3405-01	PAD-10-20-25-A	18	1.00	1.00	2.00	2.00	100.0	Concrete sample
Q3405-02	PAD-10-20-25-B	19	1.00	1.00	2.00	2.00	100.0	Concrete sample
Q3405-03	PAD-10-20-25-C	20	1.00	1.00	2.00	2.00	100.0	Concrete sample
Q3405-04	SW-10-20-25-A	21	1.00	1.00	2.00	2.00	100.0	Concrete sample
Q3406-01	ARS20-0037	22	1.18	11.19	12.37	11.24	89.9	
Q3406-03	ARS20-0037-E2	23	1.18	11.48	12.66	11.4	89.0	
Q3407-01	L35-A	24	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-02	L35-B	25	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-03	L36-A	26	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-04	L36-B	27	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-05	L37-A	28	1.00	1.00	2.00	2.00	100.0	PILC

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/22/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 10/21/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:15
Out Date: 10/22/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137592

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
Q3407-06	L37-B	29	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-07	L38-A	30	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-08	L38-B	31	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-09	L39-A	32	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-10	L39-B	33	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-11	L40-A	34	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-12	L40-B	35	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-13	L41-A	36	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-14	L41-B	37	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-15	L42-A	38	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-16	L42-B	39	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-17	L43-A	40	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-18	L43-B	41	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-19	L44-A	42	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-20	L44-B	43	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-21	L45-A	44	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-22	L45-B	45	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-23	L46-A	46	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-24	L46-B	47	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-25	L47-A	48	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-26	L47-B	49	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-27	L48-A	50	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-28	L48-B	51	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-29	L49-A	52	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-30	L49-B	53	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-31	L50-A	54	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-32	L50-B	55	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-33	L51-A	56	1.00	1.00	2.00	2.00	100.0	PILC

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/22/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 10/21/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:15
Out Date: 10/22/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137592

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
Q3407-34	L51-B	57	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-35	L52-A	58	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-36	L52-B	59	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-37	L53-A	60	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-38	L53-B	61	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-39	245F69-A	62	1.00	1.00	2.00	2.00	100.0	PILC
Q3407-40	245F69-B	63	1.00	1.00	2.00	2.00	100.0	PILC
Q3408-01	ASPHALT-A	64	1.00	1.00	2.00	2.00	100.0	ASPHALT
Q3408-02	ASPHALT-B	65	1.00	1.00	2.00	2.00	100.0	ASPHALT
Q3408-03	ASPHALT-C	66	1.00	1.00	2.00	2.00	100.0	ASPHALT
Q3408-04	ASPHALT-D	67	1.00	1.00	2.00	2.00	100.0	ASPHALT
Q3409-01	EXCAVATION-AREA-A	68	1.00	1.00	2.00	2.00	100.0	Concreate sample
Q3409-02	EXCAVATION-AREA-B	69	1.00	1.00	2.00	2.00	100.0	Concreate sample
Q3410-01	WASTE	70	1.14	10.45	11.59	9.59	80.9	
Q3410-02	VOC	71	1.15	10.55	11.7	9.64	80.5	
Q3410-03	1	72	1.15	10.97	12.12	9.89	79.7	
Q3410-04	2	73	1.13	11.27	12.4	11.24	89.7	
Q3410-05	3	74	1.16	10.62	11.78	9.6	79.5	
Q3410-06	4	75	1.12	10.50	11.62	9.76	82.3	
Q3410-07	5	76	1.16	10.50	11.66	9.43	78.8	
Q3412-01	TP-6	77	1.14	10.81	11.95	10.84	89.7	
Q3412-02	TP-6-EPH	78	1.18	10.73	11.91	10.7	88.7	
Q3412-03	TP-6-VOC	79	1.15	10.52	11.67	10.38	87.7	
Q3413-01	BP-VPB-184-GW-980-982	80	1.14	11.55	12.69	2.00	7.4	sludge sample
Q3414-01	SB-1	81	1.13	10.12	11.25	11.17	99.2	
Q3414-02	SB-2	82	1.15	10.62	11.77	11.6	98.4	
Q3414-03	SB-3	83	1.13	10.53	11.66	11.4	97.5	
Q3414-04	SB-4	84	1.14	10.28	11.42	11.3	98.8	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/22/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:15
In Date: 10/21/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:15
Out Date: 10/22/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137592

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
Q3414-05	SB-5	85	1.16	10.25	11.41	11.34	99.3	
Q3414-06	SB-6	86	1.18	10.36	11.54	11.49	99.5	
Q3414-07	SB-7	87	1.15	10.25	11.4	11.26	98.6	
Q3414-08	SB-8	88	1.19	10.25	11.44	11.14	97.1	
Q3414-09	SB-9	89	1.16	10.31	11.47	11.18	97.2	
Q3414-10	SB-10	90	1.14	10.55	11.69	11.6	99.1	
Q3414-11	SB-11	91	1.19	10.20	11.39	11.04	96.6	
Q3414-12	SB-12	92	1.18	10.10	11.28	10.9	96.2	
Q3414-13	SB-13	93	1.14	10.06	11.2	10.85	96.5	
Q3415-01	50841	94	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3415-02	50842	95	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3415-03	50843	96	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3416-01	NB-08-10212025	97	1.15	10.52	11.67	11.02	93.8	
Q3416-02	NB-08-10212025-E2	98	1.18	10.92	12.1	11.43	93.9	

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

WORKLIST(Hardcopy Internal Chain)

137592

WorkList Name : %1-102125 WorkList ID : 192565 Department : Wet-Chemistry Date : 10-21-2025 08:08:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3399-01	COMP-ROLLOFF	Solid	Percent Solids	Cool 4 deg C	ICES02	D41	10/20/2025	Chemtech -SO
Q3401-01	41-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3402-01	41-LA	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3402-02	41-LA-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3402-04	41-RA	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3402-05	41-RA-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3402-07	41-LB	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3402-08	41-LB-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3402-10	41-RB	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3402-11	41-RB-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3403-01	MH-18	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3403-02	MH-18-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3403-03	MH-18-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3404-01	MOO-25-0285-0288	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3404-03	MOO-25-0285-0288-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3404-04	MOO-25-0292	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3404-07	MOO-25-0292-EPH-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3405-01	PAD-10-20-25-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3405-02	PAD-10-20-25-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3405-03	PAD-10-20-25-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3405-04	SW-10-20-25-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO

Date/Time 10/21/25 15:00
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

Date/Time 10/21/25 17:13
Raw Sample Received by: [Signature]
Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

137592

WorkList Name : %1-102125 WorkList ID : 192565 Department : Wet-Chemistry Date : 10-21-2025 08:08:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3406-01	ARS20-0037	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3406-03	ARS20-0037-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3407-01	L35-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-02	L35-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-03	L36-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-04	L36-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-05	L37-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-06	L37-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-07	L38-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-08	L38-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-09	L39-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-10	L39-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-11	L40-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-12	L40-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-13	L41-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-14	L41-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-15	L42-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-16	L42-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-17	L43-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-18	L43-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-19	L44-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO

Date/Time 10/21/25 15:00
 Raw Sample Received by: *SS WOC*
 Raw Sample Relinquished by: *QFS*

Date/Time 10/21/25 17:30
 Raw Sample Received by: *QFS*
 Raw Sample Relinquished by: *SS WOC*

- 1
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WORKLIST(Hardcopy Internal Chain)

137592

WorkList Name : %1-102125 WorkList ID : 192565 Department : Wet-Chemistry Date : 10-21-2025 08:08:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3407-20	L44-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-21	L45-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-22	L45-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-23	L46-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-24	L46-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-25	L47-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-26	L47-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-27	L48-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-28	L48-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-29	L49-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-30	L49-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-31	L50-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-32	L50-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-33	L51-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-34	L51-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-35	L52-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-36	L52-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-37	L53-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-38	L53-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-39	245F69-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3407-40	245F69-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO

Date/Time 10/21/25 151.00
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Date/Time 10/21/25 17130
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

137592

WorkList Name : %1-102125 WorkList ID : 192565 Department : Wet-Chemistry Date : 10-21-2025 08:08:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3408-01	ASPHALT-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3408-02	ASPHALT-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3408-03	ASPHALT-C	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3408-04	ASPHALT-D	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3409-01	EXCAVATION-AREA-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3409-02	EXCAVATION-AREA-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/20/2025	Chemtech -SO
Q3410-01	WASTE	Solid	Percent Solids	Cool 4 deg C	SCIA01	J11	10/20/2025	Chemtech -SO
Q3410-02	VOC	Solid	Percent Solids	Cool 4 deg C	SCIA01	J11	10/20/2025	Chemtech -SO
Q3410-03	1	Solid	Percent Solids	Cool 4 deg C	SCIA01	J11	10/20/2025	Chemtech -SO
Q3410-04	2	Solid	Percent Solids	Cool 4 deg C	SCIA01	J11	10/20/2025	Chemtech -SO
Q3410-05	3	Solid	Percent Solids	Cool 4 deg C	SCIA01	J11	10/20/2025	Chemtech -SO
Q3410-06	4	Solid	Percent Solids	Cool 4 deg C	SCIA01	J11	10/20/2025	Chemtech -SO
Q3410-07	5	Solid	Percent Solids	Cool 4 deg C	SCIA01	J11	10/20/2025	Chemtech -SO
Q3412-01	TP-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3412-02	TP-6-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3412-03	TP-6-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/20/2025	Chemtech -SO
Q3413-01	BP-VPB-184-GW-980-982	Solid	Percent Solids	Cool 4 deg C	TETR06	D31	10/20/2025	Chemtech -SO
Q3414-01	SB-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/17/2025	Chemtech -SO
Q3414-02	SB-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-03	SB-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-04	SB-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO

Date/Time 10/21/25 15:00 Date/Time 10/21/25 17:30
 Raw Sample Received by: TB woc Raw Sample Received by: CP SN
 Raw Sample Relinquished by: OP SN Raw Sample Relinquished by: TB woc

WORKLIST(Hardcopy Internal Chain)

W-137592

WorkList Name : %1-102125 WorkList ID : 192565 Department : Wet-Chemistry Date : 10-21-2025 08:08:50

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3414-05	SB-5	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-06	SB-6	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-07	SB-7	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-08	SB-8	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-09	SB-9	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-10	SB-10	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-11	SB-11	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-12	SB-12	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3414-13	SB-13	Solid	Percent Solids	Cool 4 deg C	PSEG03	D32	10/21/2025	Chemtech -SO
Q3415-01	50841	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/21/2025	Chemtech -SO
Q3415-02	50842	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/21/2025	Chemtech -SO
Q3415-03	50843	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/21/2025	Chemtech -SO
Q3416-01	NB-08-10212025	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	10/21/2025	Chemtech -SO
Q3416-02	NB-08-10212025-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	10/21/2025	Chemtech -SO
Q3418-01	101725	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/21/2025	Chemtech -SO
Q3418-02	101725-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/21/2025	Chemtech -SO
Q3418-03	101725-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/21/2025	Chemtech -SO

Date/Time 10/21/25 15:00
Raw Sample Received by: SB wcc
Raw Sample Relinquished by: cd sm

Date/Time 10/21/25 17:30
Raw Sample Received by: cd sm
Raw Sample Relinquished by: SB wcc

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/24/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:25
In Date: 10/23/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:15
Out Date: 10/24/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137624

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
Q3399-03	COMP-ROLLOFF	15	1.15	10.96	12.11	11.00	89.9	
Q3437-03	SS-15R(2.0-2.5)	1	1.18	10.46	11.64	10.32	87.4	
Q3437-05	SS-26(0-0.5)	2	1.16	10.19	11.35	10.17	88.4	
Q3437-11	SS-27(0-0.5)	3	1.17	10.34	11.51	10.85	93.6	
Q3437-14	SS-25(0-0.5)	4	1.11	10.33	11.44	10.34	89.4	
Q3437-16	SS-23(0-0.5)	5	1.13	10.84	11.97	11.26	93.5	
Q3439-01	TP-9	6	1.18	10.29	11.47	10.55	91.1	
Q3439-02	TP-9-EPH	7	1.19	10.61	11.8	10.87	91.2	
Q3439-03	TP-9-VOC	8	1.18	10.14	11.32	10.41	91.0	
Q3439-05	TP-10	9	1.15	10.60	11.75	10.82	91.2	
Q3439-06	TP-10-EPH	10	1.19	10.17	11.36	10.44	91.0	
Q3439-07	TP-10-VOC	11	1.18	10.31	11.49	10.37	89.1	
Q3440-01	JB-2	12	1.13	11.32	12.45	10.38	81.7	
Q3440-02	JB-2-EPH	13	1.17	10.42	11.59	9.79	82.7	
Q3440-03	JB-2-VOC	14	1.13	8.36	9.49	8.14	83.9	
Q3445-01	EO-01-102325	16	1.14	10.46	11.6	10.74	91.8	
Q3445-02	EO-01-102325-E2	17	1.16	10.40	11.56	10.57	90.5	
Q3446-01	SB-14	18	1.11	10.00	11.11	10.82	97.1	
Q3446-02	SB-15	19	1.14	10.54	11.68	11.64	99.6	
Q3446-03	SB-16	20	1.19	10.31	11.5	11.44	99.4	
Q3446-04	SB-17	21	1.19	10.13	11.32	11.27	99.5	
Q3446-05	SB-18	22	1.19	10.53	11.72	11.67	99.5	
Q3446-06	SB-19	23	1.15	10.44	11.59	11.32	97.4	
Q3446-07	SB-20	24	1.16	10.50	11.66	11.6	99.4	
Q3446-08	SB-21	25	1.14	10.08	11.22	10.9	96.8	
Q3447-01	P001-TW1-251023-01	26	1.00	1.00	2.00	2.00	100.0	TAR SAMPLE
Q3447-03	P001-TW2-251023-01	27	1.19	10.43	11.62	10.75	91.7	
Q3447-05	P001-TW3-251023-01	28	1.18	10.70	11.88	11.64	97.8	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 10/24/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:25
In Date: 10/23/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:15
Out Date: 10/24/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB137624

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
Q3447-07	P001-TW4-251023-01	29	1.00	1.00	2.00	2.00	100.0	TAR SAMPLE

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

WORKLIST(Hardcopy Internal Chain)

10/23/25

WorkList Name : %1-102325

WorkList ID : 192629

Department : Wet-Chemistry

Date : 10-23-2025 08:26:05

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3399-03	COMP-ROLLOFF	Solid	Percent Solids	Cool 4 deg C	ICES02	D41	10/20/2025	Chemtech -SO
Q3437-03	SS-15R(2.0-2.5)	Solid	Percent Solids	Cool 4 deg C	MATR02	D31	10/22/2025	Chemtech -SO
Q3437-05	SS-26(0-0.5)	Solid	Percent Solids	Cool 4 deg C	MATR02	D31	10/22/2025	Chemtech -SO
Q3437-11	SS-27(0-0.5)	Solid	Percent Solids	Cool 4 deg C	MATR02	D31	10/22/2025	Chemtech -SO
Q3437-14	SS-25(0-0.5)	Solid	Percent Solids	Cool 4 deg C	MATR02	D31	10/22/2025	Chemtech -SO
Q3437-16	SS-23(0-0.5)	Solid	Percent Solids	Cool 4 deg C	MATR02	D31	10/22/2025	Chemtech -SO
Q3439-01	TP-9	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/22/2025	Chemtech -SO
Q3439-02	TP-9-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/22/2025	Chemtech -SO
Q3439-03	TP-9-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/22/2025	Chemtech -SO
Q3439-05	TP-10	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/22/2025	Chemtech -SO
Q3439-06	TP-10-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/23/2025	Chemtech -SO
Q3439-07	TP-10-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/23/2025	Chemtech -SO
Q3440-01	JB-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/23/2025	Chemtech -SO
Q3440-02	JB-2-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/22/2025	Chemtech -SO
Q3440-03	JB-2-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D41	10/22/2025	Chemtech -SO
Q3445-01	EO-01-102325	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	10/23/2025	Chemtech -SO
Q3445-02	EO-01-102325-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	10/23/2025	Chemtech -SO
Q3446-01	SB-14	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/23/2025	Chemtech -SO
Q3446-02	SB-15	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/23/2025	Chemtech -SO
Q3446-03	SB-16	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/23/2025	Chemtech -SO
Q3446-04	SB-17	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/23/2025	Chemtech -SO

Date/Time 10/23/25 15:00
 Raw Sample Received by: JH (wpc)
 Raw Sample Relinquished by: JH (wpc)

WORKLIST(Hardcopy Internal Chain)

10/23/25

WorkList Name : %1-102325

WorkList ID : 192629

Department : Wet-Chemistry

Date : 10-23-2025 08:26:05

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3446-05	SB-18	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/23/2025	Chemtech -SO
Q3446-06	SB-19	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/23/2025	Chemtech -SO
Q3446-07	SB-20	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/23/2025	Chemtech -SO
Q3446-08	SB-21	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	10/23/2025	Chemtech -SO
Q3447-01	P001-TW1-251023-01	Solid	Percent Solids	Cool 4 deg C	ROYF02	D41	10/23/2025	Chemtech -SO
Q3447-03	P001-TW2-251023-01	Solid	Percent Solids	Cool 4 deg C	ROYF02	D41	10/23/2025	Chemtech -SO
Q3447-05	P001-TW3-251023-01	Solid	Percent Solids	Cool 4 deg C	ROYF02	D41	10/23/2025	Chemtech -SO
Q3447-07	P001-TW4-251023-01	Solid	Percent Solids	Cool 4 deg C	ROYF02	D41	10/23/2025	Chemtech -SO

Date/Time 10/23/25 15:00
 Raw Sample Received by: JG WWC
 Raw Sample Relinquished by: JG WWC

Date/Time 10/23/25 17:30
 Raw Sample Received by: JG WWC
 Raw Sample Relinquished by: JG WWC

SOP ID: M3541-ASE Extraction-15

Clean Up SOP #: N/A

Matrix : Solid

Welgh By: EH **Extraction By:** EH

Balance check: EH **Filter By:** RS

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

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

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

Extraction Start Date : 10/22/2025

Extraction Start Time : 10:08

Extraction End Date : 10/22/2025

Extraction End Time : 13:25

Concentration By: EH

Supervisor By : RUPESH

Standared Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	20 PPM	PP24583
Surrogate	1.0ML	20 PPM	PP24596
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
MeCl2/Acetone/1:1	N/A	EP2641
Baked Na2SO4	N/A	EP2652
Methylene Chloride	N/A	E3980
Sand	N/A	E3951
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210443.

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
10/22/25	RS (Bt-lab)	My Pest/PCB Lab
13:30	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-15

Concentration Date: 10/22/2025

Sample ID	Client Sample ID	Test	g mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB170209BL	PB170209BL	Diesel Range Organics	30.01	N/A	Evelyn	RUPESH	1			U6-1
PB170209BS	PB170209BS	Diesel Range Organics	30.03	N/A	Evelyn	RUPESH	1			2
Q3399-01	COMP-ROLLOFF	Diesel Range Organics	30.04	N/A	Evelyn	RUPESH	1	C		3
Q3399-01MS	COMP-ROLLOFFMS	Diesel Range Organics	30.06	N/A	Evelyn	RUPESH	1	C		4
Q3399-01MS D	COMP-ROLLOFFMSD	Diesel Range Organics	30.07	N/A	Evelyn	RUPESH	1	C		5

Rs
10/22

* Extracts relinquished on the same date as received.

10:05
10/22/25

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q3399D WorkList ID : 192617 Department : Extraction Date : 10-22-2025 09:56:30

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3399-01	COMP-ROLLOFF	Solid	Diesel Range Organics	Cool 4 deg C	ICES02	D41	10/20/2025	8015D

Date/Time 10/22/25 10:05
Raw Sample Received by: RS (Exp-66)
Raw Sample Relinquished by: SA SH

Date/Time 10/22/25 10:15
Raw Sample Received by: SA SH
Raw Sample Relinquished by: RS (Exp-66)

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- 18

Prep Standard - Chemical Standard Summary

Order ID : Q3399
Test : Diesel Range Organics
Prepbatch ID : PB170209,
Sequence ID/Qc Batch ID: FF102225,

Standard ID :
EP2641,EP2652,PP24583,PP24596,PP24962,PP24963,PP24964,PP24965,PP24966,PP24967,PP24968,

Chemical ID :
E3875,E3930,E3931,E3951,E3964,E3972,E3973,E3980,P 11957,P11961,P13220,P13221,P13483,P13484,P13485,P13486,P13491,P13938,P13945,

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	EP2641	09/16/2025	03/16/2026	Evelyn Huang	None	None	Riteshkumar Patel
09/16/2025								

FROM 8000.00000ml of E3972 + 8000.00000ml of E3973 = 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	EP2652	10/10/2025	01/28/2026	Evelyn Huang	Extraction_SC ALE_2	None	Riteshkumar Patel
(EX-SC-2)								

FROM 4000.00000gram of E3875 = 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>
3609	20 PPM DRO SPIKE SOLUTION (RESTEK)	PP24583	05/16/2025	11/16/2025	Rahul Chavli	None	None	Yogesh Patel
								05/22/2025

FROM 0.70000ml of P13945 + 1.30000ml of P13938 + 48.00000ml of E3930 = Final Quantity: 50.000 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>
147	20 PPM DRO Surrogate Spike Solution	PP24596	05/20/2025	11/20/2025	Abdul Mirza	None	None	Yogesh Patel
								05/22/2025

FROM 1.00000ml of P13483 + 1.00000ml of P13484 + 1.00000ml of P13485 + 1.00000ml of P13486 + 196.00000ml of E3931 = Final Quantity: 200.000 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>
433	100/100 PPM DRO (Restek)	PP24962	10/02/2025	04/02/2026	Yogesh Patel	None	None	Abdul Mirza
								10/10/2025

FROM 1.00000ml of P11957 + 1.00000ml of P11961 + 1.00000ml of P13491 = Final Quantity: 10.000 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>
3796	100/100 PPM DRO STD (CPI)	PP24963	10/02/2025	04/02/2026	Yogesh Patel	None	None	Abdul Mirza
								10/10/2025

FROM 1.00000ml of P13220 + 1.00000ml of P13221 + 1.00000ml of P13491 + 7.00000ml of E3964 = Final Quantity: 10.000 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>
435	50 PPM ICC DRO STD (Restek)	PP24964	10/02/2025	04/02/2026	Yogesh Patel	None	None	Abdul Mirza
								10/10/2025

FROM 0.50000ml of E3973 + 0.50000ml of PP24962 = 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>
437	20 PPM ICC DRO STD (Restek)	PP24965	10/02/2025	04/02/2026	Yogesh Patel	None	None	Abdul Mirza
								10/10/2025

FROM 0.80000ml of E3973 + 0.20000ml of PP24962 = 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>
438	10 PPM ICC DRO STD (Restek)	PP24966	10/02/2025	04/02/2026	Yogesh Patel	None	None	Abdul Mirza
								10/10/2025

FROM 0.90000ml of E3973 + 0.10000ml of PP24962 = 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>
439	5 PPM ICC DRO STD (Restek)	PP24967	10/02/2025	04/02/2026	Yogesh Patel	None	None	Abdul Mirza
								10/10/2025

FROM 0.90000ml of E3973 + 0.10000ml of PP24964 = 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>
3797	50 PPM DRO ICV STD (CPI)	PP24968	10/02/2025	04/02/2026	Yogesh Patel	None	None	Abdul Mirza 10/10/2025
FROM 0.50000ml of E3973 + 0.50000ml of PP24963 = Final Quantity: 1.000 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	417203	01/28/2026	07/28/2025 / RUPESH	01/29/2025 / Rajesh	E3875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	02/20/2026	05/02/2025 / RUPESH	03/09/2025 / RUPESH	E3930

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	02/20/2026	05/02/2025 / RUPESH	03/09/2025 / RUPESH	E3931

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)	25A2756718	12/31/2028	07/09/2025 / RUPESH	04/28/2020 / RUPESH	E3951

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)	25C1262005	04/16/2026	08/14/2025 / RUPESH	03/06/2025 / RUPESH	E3964

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)	24H1462005	05/24/2027	09/16/2025 / Evelyn	09/04/2025 / Riteshkumar	E3972

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25C1262005	04/16/2026	09/15/2025 / Riteshkumar	09/15/2025 / Riteshkumar	E3973

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)	25C1262005	04/16/2026	10/10/2025 / RUPESH	10/10/2025 / RUPESH	E3980

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	04/02/2026	10/02/2025 / yogesh	07/11/2022 / Yogesh	P11957

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	04/02/2026	10/02/2025 / yogesh	07/11/2022 / Yogesh	P11961

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml	514983	10/02/2026	10/02/2025 / yogesh	01/31/2024 / Ankita	P13220

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
CPI International	Z-110400-05-01 / TRPH Standard (C8-C40), 500 mg/L, 1 ml	514983	10/02/2026	10/02/2025 / yogesh	01/31/2024 / Ankita	P13221

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13483

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13484

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13485

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	11/20/2025	05/20/2025 / Abdul	07/24/2024 / yogesh	P13486

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	04/02/2026	10/02/2025 / yogesh	07/24/2024 / yogesh	P13491

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0217113	11/16/2025	05/16/2025 / Rahul	03/07/2025 / yogesh	P13938

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0217113	11/16/2025	05/16/2025 / Rahul	03/07/2025 / yogesh	P13945

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

MIRADOR 201, COL. MIRADOR
MONTERREY, N.L. MÉXICO
CP 64070
TEL +52 81 13 52 67 67
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:	MAY/23/2024
LOT NUMBER :	417203		

TEST	SPECIFICATIONS	LOT VALUES
Assay (Na ₂ SO ₄)	Min. 99.0%	99.8 %
pH of a 5% solution at 25°C	5.2 - 9.2	6.2
Insoluble matter	Max. 0.01%	0.001 %
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%	0.001 %
Magnesium (Mg)	Max. 0.005%	0.001 %
Potassium (K)	Max. 0.008%	0.001 %
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%	0.2 %
Retained on US Standard No. 60 sieve	Min. 94%	96.2 %
Through US Standard No. 60 sieve	Max. 5%	3.5 %
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.

RE-02-01, Ed. 3

E 3875

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

avantor



Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date: 2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid (μ eq/g)	≤ 0.3	<0.1
Chloride (Cl)	≤ 10 ppm	<5 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

E3930

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

100 Matsonford Rd, Suite 200, Radnor, PA, 19087, U.S.A. Phone 610.386.1700

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

Avantor

Material No.: 9266-A4
Batch No.: 25A0262002
Manufactured Date: 2024-11-21
Expiration Date: 2026-02-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	99.9%
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 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

E3930



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

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Material	BDH9274-2.5KG
Material Description	BDH SAND STDD OTTAWA W+I 2.5KG
Grade	NOT APPLICABLE
Batch	25A2756718
Reassay Date	12/31/2028
CAS Number	14808-60-7
Molecular Formula	SiO ₂
Molecular Mass	60.09
Date of Manufacture	12/05/2024
Storage	Room Temperature

Characteristics	Specifications	Measured Values
Appearance	Beige granules.	Beige granules.
Moisture	<= 0.1 %	0.1 %
Particle Size 30-40 mesh	>= 80 %	99 %
CUSTOMER PART # BDH9274-2.5KG		

Received on 1/12/25.

E3951

Internal ID #: 793

Signature	Additional Information
We certify that this batch conforms to the specifications listed above. This document has been electronically produced and is valid without a signature. Leona Edwardson, Quality Control Sr. Manager - Solon VWR Chemicals, LLC. 28600 Fountain Parkway, Solon OH 44139 USA	Analysis may have been rounded to significant digits in specification limits Product meets analytical specifications of the grades listed.

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



Material No.: 9266-A4
Batch No.: 25C1262005
Manufactured Date: 2025-01-15
Expiration Date: 2026-04-16
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 Heptachlor Epoxide) Single Peak (pg/mL)	≤ 10	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	$\leq 1.0 \text{ ppm}$	0.1 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
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

Received on .

E 3964

Jamie Croak
Director Quality Operations, Bioscience Production

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

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



Material No.: 9254-03
Batch No.: 24H1462005
Manufactured Date: 2024-05-24
Expiration Date: 2027-05-24
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 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 %	0.2 %
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

E3972

Jamie Croak
Director Quality Operations, Bioscience Production

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

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



Material No.: 9266-A4
Batch No.: 25C1262005
Manufactured Date: 2025-01-15
Expiration Date: 2026-04-16
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	1
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	100.0 %
Color (APHA)	≤ 10	5
Residue after Evaporation	≤ 1.0 ppm	0.1 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	<0.1
Chloride (Cl)	≤ 10 ppm	<5 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

REC. on 10/10/25
RJ

E3980

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



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

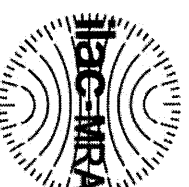
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

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. : 31266

Lot No.: A0186840

Description :

Florida TRPH Standard

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

Container Size :

2 mL

Pkg Amt: > 1 mL

Expiration Date :

July 31, 2029

Storage: 25°C nominal

Handling:

Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) CAS # 111-65-9 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Stressed
3	n-Dodecane (C12) CAS # 112-40-3 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed
4	n-Tetradecane (C14) CAS # 629-59-4 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Stressed
5	n-Hexadecane (C16) CAS # 544-76-3 Purity 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Stressed
6	n-Octadecane (C18) CAS # 593-45-3 Purity 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Stressed
7	n-Eicosane (C20) CAS # 112-95-8 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Stressed

P11948 } 7.8
P11962 } 07/11/16

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

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

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

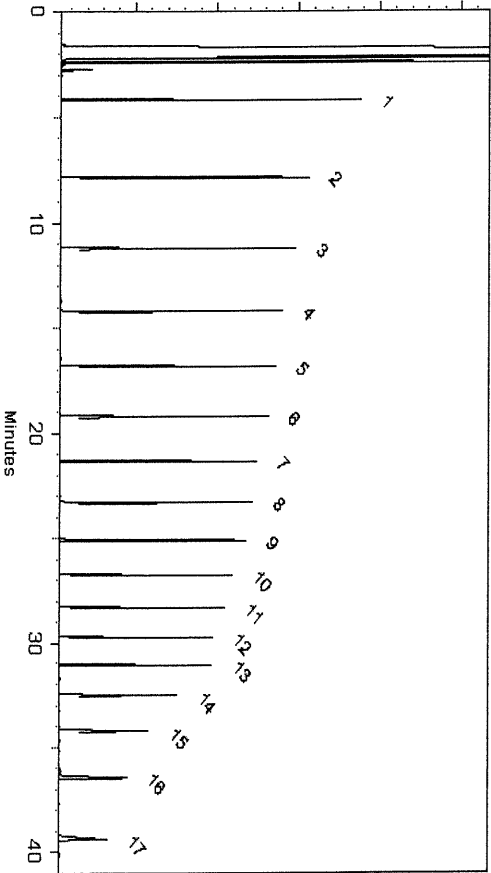
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

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.



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

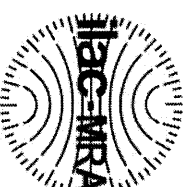
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

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. : 31266

Lot No.: A0186840

Description :

Florida TRPH Standard

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

Container Size :

2 mL

Pkg Amt: > 1 mL

Expiration Date :

July 31, 2029

Storage: 25°C nominal

Handling:

Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	n-Octane (C8) CAS # 111-65-9 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Unstressed Stressed
2	n-Decane (C10) CAS # 124-18-5 Purity 99%	503.0 µg/mL	+/- 2.9877 µg/mL +/- 12.4968 µg/mL +/- 14.9795 µg/mL	Gravimetric Unstressed Unstressed Stressed
3	n-Dodecane (C12) CAS # 112-40-3 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Unstressed Stressed
4	n-Tetradecane (C14) CAS # 629-59-4 Purity 99%	505.0 µg/mL	+/- 2.9995 µg/mL +/- 12.5465 µg/mL +/- 15.0390 µg/mL	Gravimetric Unstressed Unstressed Stressed
5	n-Hexadecane (C16) CAS # 544-76-3 Purity 98%	504.7 µg/mL	+/- 2.9978 µg/mL +/- 12.5390 µg/mL +/- 15.0301 µg/mL	Gravimetric Unstressed Unstressed Stressed
6	n-Octadecane (C18) CAS # 593-45-3 Purity 97%	504.4 µg/mL	+/- 2.9960 µg/mL +/- 12.5316 µg/mL +/- 15.0212 µg/mL	Gravimetric Unstressed Unstressed Stressed
7	n-Eicosane (C20) CAS # 112-95-8 Purity 99%	503.5 µg/mL	+/- 2.9906 µg/mL +/- 12.5092 µg/mL +/- 14.9944 µg/mL	Gravimetric Unstressed Unstressed Stressed

P11948 } 7.8
P11962 } 07/11/16

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

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

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

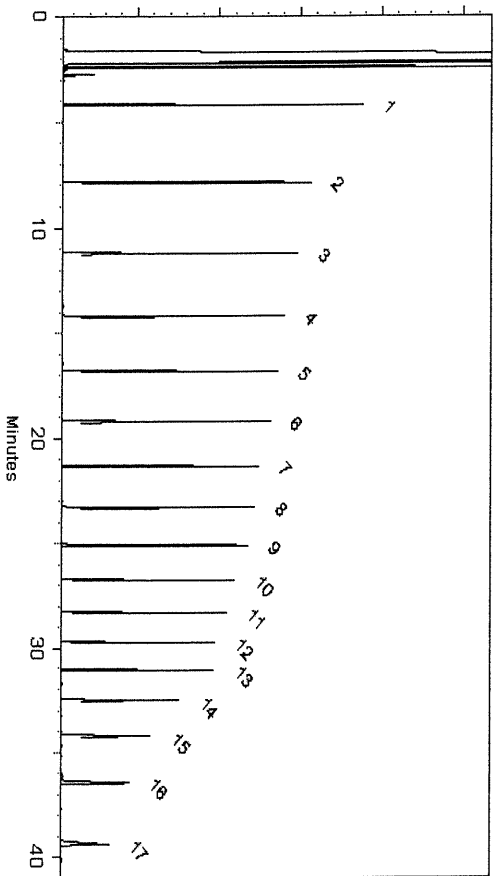
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

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.



5580 Skyline Blvd
Santa Rosa, CA 95403
(707)525-5788
(800)878-7654 Toll Free
(707)545-7901 Fax

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

Date Received: _____

Certificate of Analysis

Page 1 of 1

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:	
Z-110400-05	514983	≤ -10 Degrees C	Hexane	11/20/2028	TRPH Standard (C8-C40), 500 mg/L, 1 ml	
-01						
Compound			CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
decane (C10)			124-18-5	99.7	415.7.2P	498.5 ± 6.92
docosane (C22)			629-97-0	98.8	420.9.1P	499.4 ± 6.93
dodecane (C12)			112-40-3	99.7	416.9.3P	502 ± 6.97
dotriacontane (C32)			544-85-4	97	425.9.2.2P	499.6 ± 8.53
eicosane (C20)			112-95-8	99.8	419.7.1P	501 ± 6.95
hexacosane (C26)			630-01-3	99.3	422.7.2.1P	501 ± 6.95
hexatriacontane (C36)			630-06-8	98	427.29.1.1P	499.3 ± 8.53
n-hexadecane (C16)			544-76-3	99.45	368.271.1P	498.7 ± 6.91
octacosane (C28)			630-02-4	99.1	423.24.1P	500.5 ± 6.95
n-octadecane (C18)			593-45-3	99.5	418.29.1P	499.5 ± 6.92
octane (C8)			111-65-9	99.4	385.7.2.1P	498.5 ± 6.92
octatriacontane (C38)			7194-85-6	95	428.1.2P	500.2 ± 6.94
tetracontane (C40)			4181-95-7	97	429.7.2P	499.6 ± 6.93
n-tetracosane (C24)			646-31-1	99.5	421.7.1P	499.5 ± 6.93
n-tetradecane (C14)			629-59-4	99.3	417.9.1P	500 ± 6.94
tetratriacontane (C34)			14167-59-0	96.1	426.7.2.2P	499.7 ± 8.53
triacontane (C30)			638-68-6	99.5	424.7.1.1P	500 ± 6.94

P13215
↓
P13224

AJ
01131124

*Not a certified value

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

Andrea Schaible

Certified By: _____
Andrea Schaible
Chemist

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



5580 Skyline Blvd
 Santa Rosa, CA 95403
 (707)525-5788
 (800)878-7654 Toll Free
 (707)545-7901 Fax

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

Date Received: _____

Certificate of Analysis

Page 1 of 1

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:	
Z-110400-05	514983	≤ -10 Degrees C	Hexane	11/20/2028	TRPH Standard (C8-C40), 500 mg/L, 1 ml	
-01						
Compound			CAS No.	Purity (%)	Compound Lot No.	Concentration, mg/L
decane (C10)			124-18-5	99.7	415.7.2P	498.5 ± 6.92
docosane (C22)			629-97-0	98.8	420.9.1P	499.4 ± 6.93
dodecane (C12)			112-40-3	99.7	416.9.3P	502 ± 6.97
dotriacontane (C32)			544-85-4	97	425.9.2.2P	499.6 ± 8.53
eicosane (C20)			112-95-8	99.8	419.7.1P	501 ± 6.95
hexacosane (C26)			630-01-3	99.3	422.7.2.1P	501 ± 6.95
hexatriacontane (C36)			630-06-8	98	427.29.1.1P	499.3 ± 8.53
n-hexadecane (C16)			544-76-3	99.45	368.27.1.1P	498.7 ± 6.91
octacosane (C28)			630-02-4	99.1	423.24.1P	500.5 ± 6.95
n-octadecane (C18)			593-45-3	99.5	418.29.1P	499.5 ± 6.92
octane (C8)			111-65-9	99.4	385.7.2.1P	498.5 ± 6.92
octatriacontane (C38)			7194-85-6	95	428.1.2P	500.2 ± 6.94
tetracontane (C40)			4181-95-7	97	429.7.2P	499.6 ± 6.93
n-tetracosane (C24)			646-31-1	99.5	421.7.1P	499.5 ± 6.93
n-tetradecane (C14)			629-59-4	99.3	417.9.1P	500 ± 6.94
tetratriacontane (C34)			14167-59-0	96.1	426.7.2.2P	499.7 ± 8.53
triacontane (C30)			638-68-6	99.5	424.7.1.1P	500 ± 6.94

P 13215
 ↓
 P 13224

AJ
 01/31/24

*Not a certified value

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

Andrea Schaible

Certified By: _____
 Andrea Schaible
 Chemist

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

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.)
1. 1,4-Dichlorobenzene-d4	118	PR-1848M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1 N/A
2. Naphthalene-d8	222	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1148-85-2 10 ppm (50mg/m3) N/A
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2 N/A
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2 N/A
5. Chrysene-d12	92	I-19280	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5 N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04158	4001.2	15.4	1503-58-3 N/A

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Peak No.	Name	FID RT (min)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

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Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2

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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot# 105345

Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UB3
Weight(s) shown below were combined and diluted to (mL): 200.0
SE-05 Balance Uncertainty
0.058 Flask Uncertainty

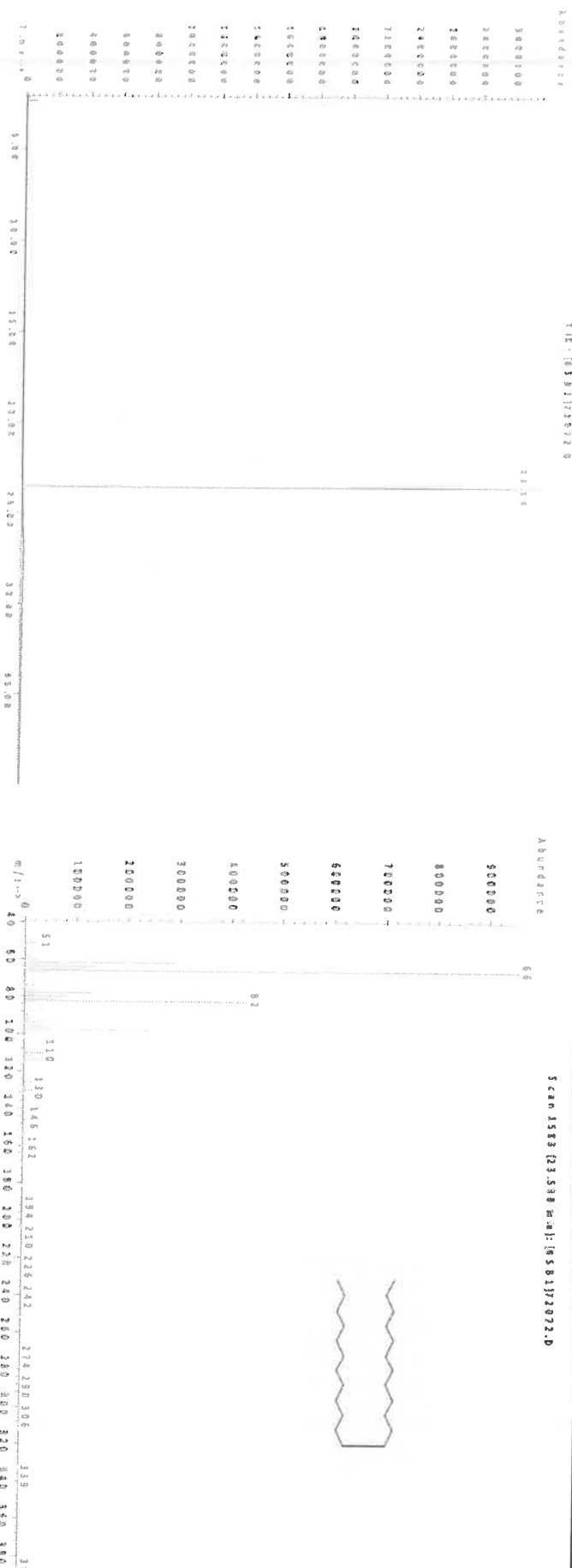
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Formulated By:	Prashant Chauhan	101122
Reviewed By:	Pedro L. Rentas	101122
		DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
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1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A

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



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

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ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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www.absolutestandards.com

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070716
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1848M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	en-ra 500mg/kg	
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3)(H)	en-ra 400mg/kg	
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-26-2	N/A	en-ra 500mg/kg	
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A	
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04156	4001.2	15.4	1503-58-3	N/A	N/A	

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"
Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

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Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2

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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



CERTIFIED WEIGHT REPORT

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

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

Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UB3
Weight(s) shown below were combined and diluted to (mL): 200.0 **Balance Uncertainty** 5E-05 **Flask Uncertainty** 0.058

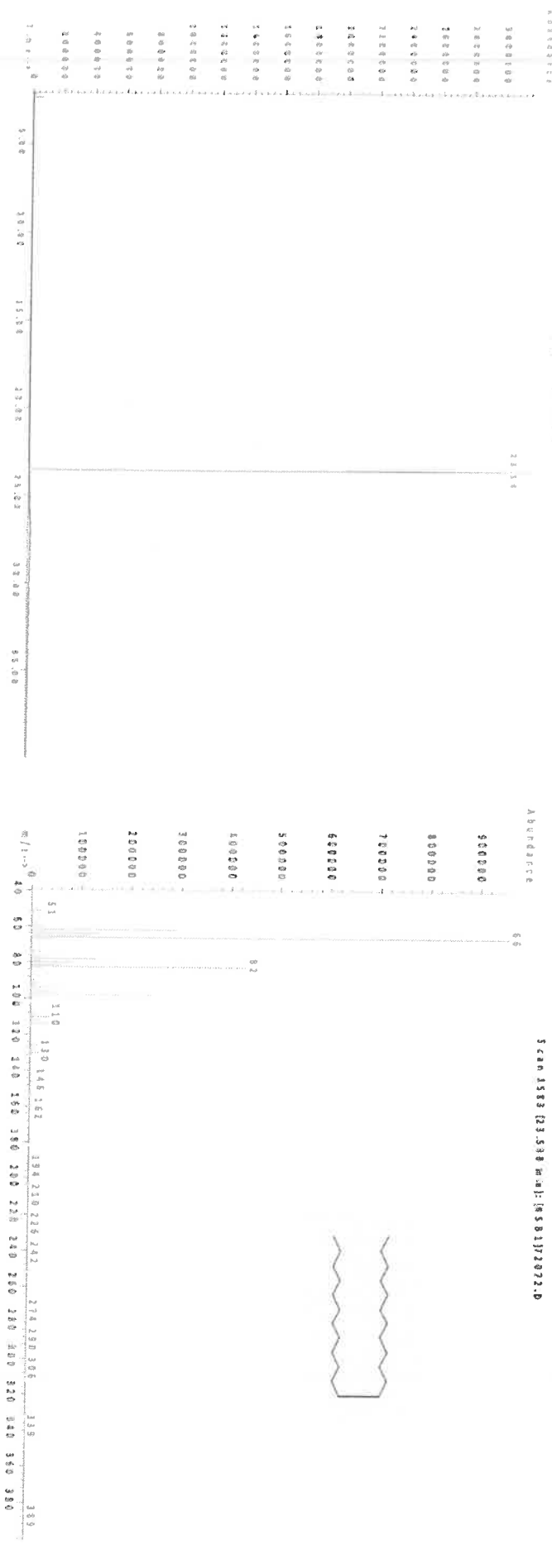
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P13496 } 07/24/24

Formulated By: <i>Prashant Chauhan</i>	DATE <u>101122</u>
Reviewed By: <i>Pedro L. Rentas</i>	DATE <u>101122</u>

SDS Information															
Target Information (On Attached pg.)															
Compound		Lot		Nominal		Purity		Uncertainty		Assay		Target		Expanded	
RM#	Number	Conc (µg/mL)	(%)	Purity	(%D)	Weight(g)	Actual	Actual	Uncertainty	CAS#	OSHA PEL (TWA)	LD50	LD50 (mg/kg)	LD50 (mg/kg)	LD50 (mg/kg)

1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A N/A

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



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

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ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1848M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	en-ra 500mg/kg	
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1148-65-2	10 ppm (50mg/m3)(H)	en-ra 400mg/kg	
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	en-ra 500mg/kg	
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	
5. Chrysene-d12	92	I-19280	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A	
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04158	4001.2	15.4	1503-58-3	N/A	N/A	

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Peak No.	Name	FID RT (min)
1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

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Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2

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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



CERTIFIED WEIGHT REPORT

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

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

Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UB3
Weight(s) shown below were combined and diluted to (mL): 200.0 **Balance Uncertainty** 5E-05 **Flask Uncertainty** 0.058

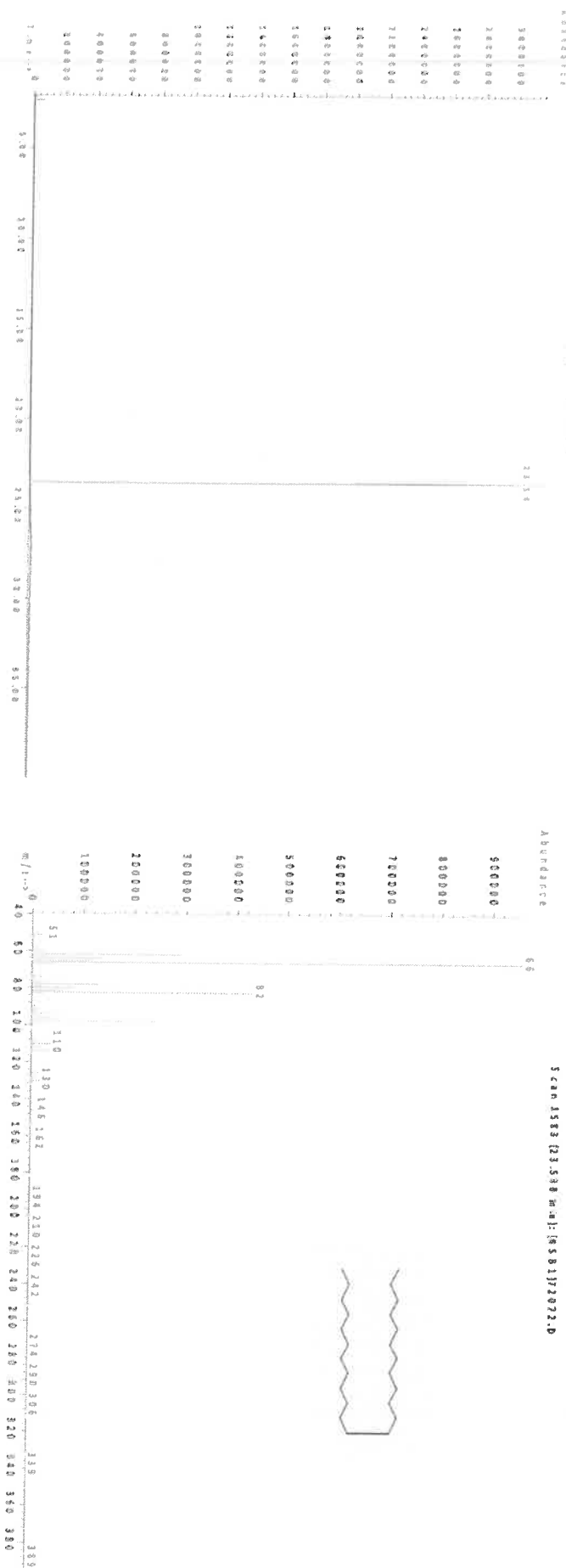
Handwritten: P13437 } x.f.
P13496 } 07/24/24

Formulated By: <i>Prashant Chauhan</i>	DATE <u>101122</u>
Reviewed By: <i>Pedro L. Rentas</i>	DATE <u>101122</u>

Compound	SDS Information													
	Lot		Nominal		Purity		Uncertainty		Assay		Target		Expanded	
RM#	Number	Conc (µg/mL)	(%)	Purity	(%D)	Weight(g)	Actual	Conc (µg/mL)	(+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50		

1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A N/A

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



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

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ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070716
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1848M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	en-ra 500mg/kg	
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1148-65-2	10 ppm (50mg/m3)(H)	en-ra 400mg/kg	
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	en-ra 500mg/kg	
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	
5. Chrysene-d12	92	I-19280	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A	
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04158	4001.2	15.4	1503-58-3	N/A	N/A	

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

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Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

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Voice: 800-368-1131 • Fax: 800-410-2577 • eMail: StephenArpie@AbsoluteStandards.com
Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot# 105345

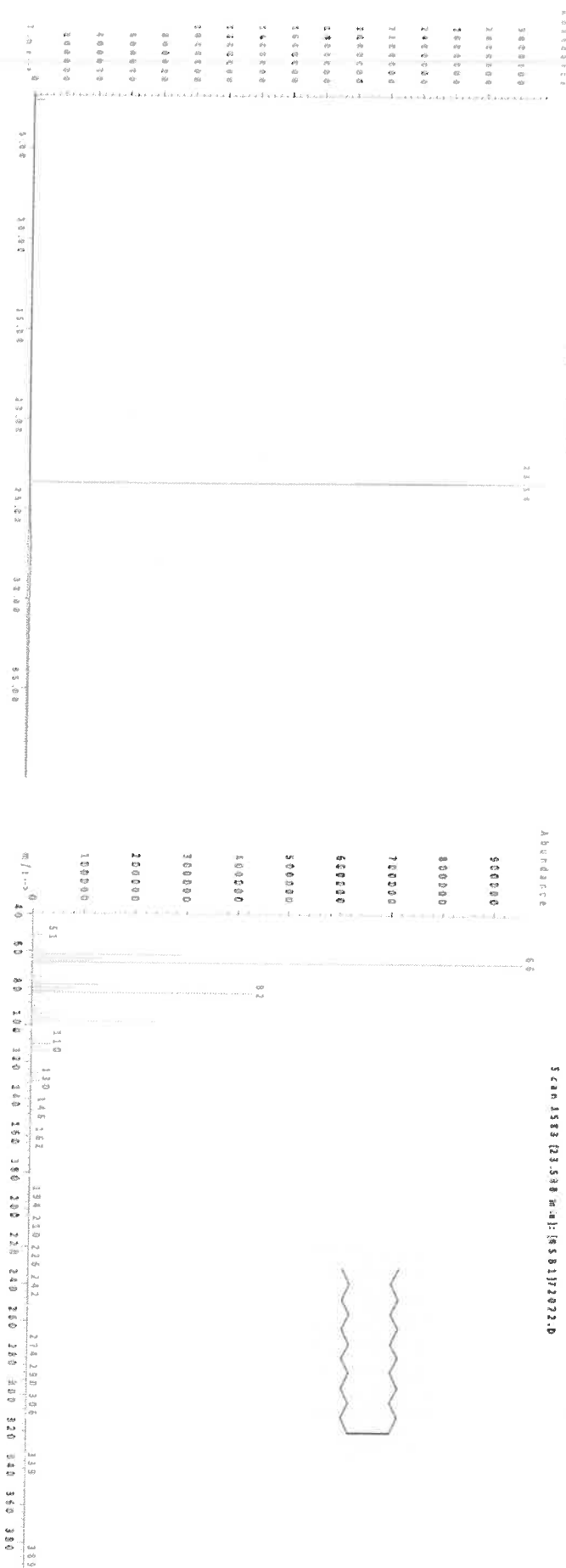
Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6U1B
Weight(s) shown below were combined and diluted to (mL): 200.0
SE-05 Balance Uncertainty
0.058 Flask Uncertainty

13437 }
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X.F.

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
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1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A
Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



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

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ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

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Document Identification: Certificate of Analysis Rev 14, Date Issued: 05/30/2019



ABSOLUTE STANDARDS, INC.

ISO - 17034



Understanding the Certified Weight Report



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

Absolute Standards, Inc.
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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070716
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

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

Formulated By: Paul Barron
Reviewed By: Pedro L. Rentes

DATE: 070716
DATE: 070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1848M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19280	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.3	15.4	1503-58-3	N/A	N/A

Run 35, "P10009R L070716 (4000µg/mL in MeCl2)"

Run Length: 40.00 min, 23900 points at 10 points/second.
Created: Sat, Jul 9, 2016 at 1:54:53 PM.
Sampled: Sequence "070716-GC/MS", Method "GC-MS".
Analyzed using Method "GC-MS".

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

Qualitative Quantitative

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	6.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

3rd Party Comparison

Analyte	Sup/Abs Dev (%)
1,4-Dichlorobenzene-d4	2.55
Naphthalene-d8	2.43
Acenaphthene-d10	2.74
Phenanthrene-d10	0.65
Chrysene-d12	1.93
Perylene-d12	-1.72
Total	-0.55

Printed: 5/8/2019, 12:55:50 PM

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



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





CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot# 105345

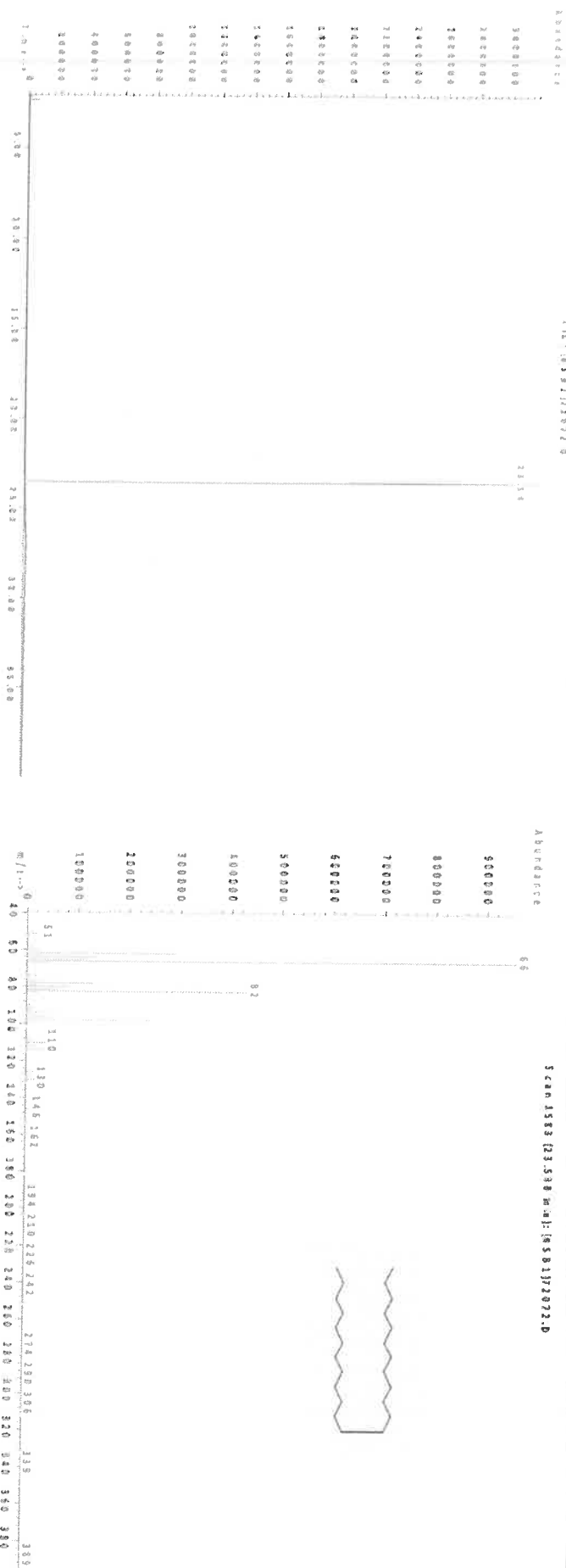
Expiration Date: 101132
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 6UB3
Weight(s) shown below were combined and diluted to (mL): 200.0
SE-05 Balance Uncertainty
0.058 Flask Uncertainty

13437
13496 } X.F.
07/24/24

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
----------	-----	------------	----------------------	------------	------------------------	-----------	------------------	------------------	---------------------	------------------------------------	--	------

1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A
Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



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

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0217113

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : October 31, 2031

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

P031837
*
P031846
Y.P.
03/07/25

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Octane (C8)	111-65-9	SHBR0789	99%	502.0 µg/mL	+/- 12.9685
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	501.5 µg/mL	+/- 12.9555
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	502.5 µg/mL	+/- 12.9814
4	n-Tetradecane (C14)	629-59-4	STBL0465	99%	500.5 µg/mL	+/- 12.9297
5	n-Hexadecane (C16)	544-76-3	SHBR0669	99%	500.0 µg/mL	+/- 12.9168
6	n-Octadecane (C18)	593-45-3	UB5NG	99%	500.5 µg/mL	+/- 12.9297
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	500.0 µg/mL	+/- 12.9177
8	n-Docosane (C22)	629-97-0	MKCQ3882	99%	500.5 µg/mL	+/- 12.9297
9	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	500.5 µg/mL	+/- 12.9297
10	n-Hexacosane (C26)	630-01-3	MKCQ4814	99%	502.0 µg/mL	+/- 12.9685
11	n-Octacosane (C28)	630-02-4	BCCJ4566	99%	501.0 µg/mL	+/- 12.9426
12	n-Triacontane (C30)	638-68-6	MKCV7007	98%	499.8 µg/mL	+/- 12.9116
13	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	500.0 µg/mL	+/- 12.9168
14	n-Tetratriacontane (C34)	14167-59-0	D3MZN	99%	501.5 µg/mL	+/- 12.9555
15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	500.5 µg/mL	+/- 12.9297
16	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	500.2 µg/mL	+/- 12.9209
17	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	503.5 µg/mL	+/- 13.0072

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.)

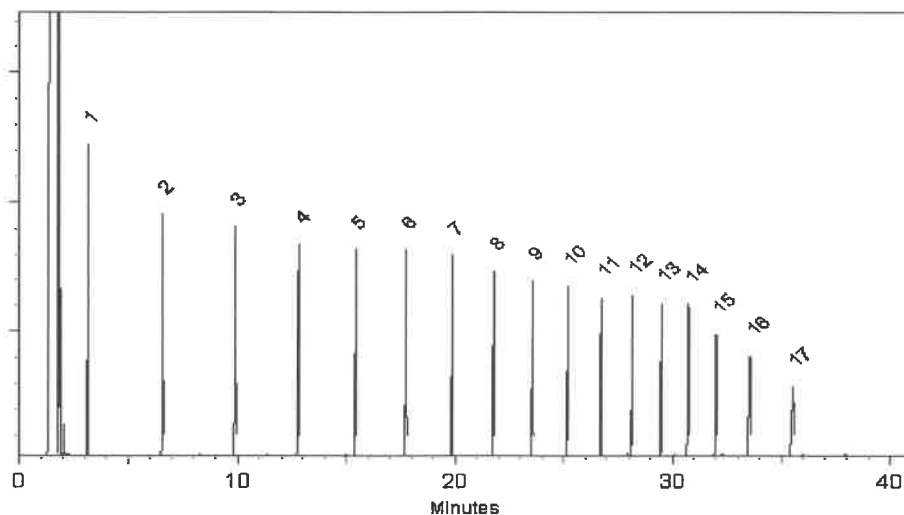
Inj. Temp:
 250°C

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.

Josh McCloskey
 Josh McCloskey - Operations Technician I

Date Mixed: 26-Sep-2024 **Balance Serial #** 1128353505

Jennifer Pollino
 Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-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.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

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chromatographic plus



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P031837
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P031846
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Purity 99%

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 @ 10°C/min. (hold 10 min.)

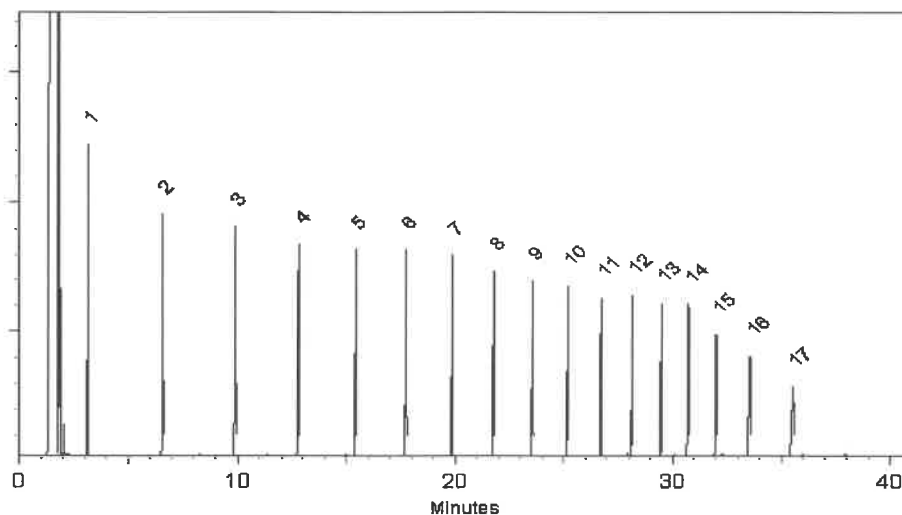
Inj. Temp:
 250°C

Det. Temp:
 330°C

Det. Type:
 FID

Split Vent:
 2 ml/min.

Inj. Vol
 1µl



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Josh McCloskey
 Josh McCloskey - Operations Technician I

Date Mixed: 26-Sep-2024 **Balance Serial #** 1128353505

Jennifer Pollino
 Jennifer Pollino - Operations Tech III - ARM QC

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Manufactured under Restek's ISO 9001:2015
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k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

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SHIPPING DOCUMENTS

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CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: TCE Service Group, Inc.
ADDRESS: 125 Bloomingdale Rd
CITY Levittown STATE: N.Y. ZIP:
ATTENTION: Dennis d. Morgan, II
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: ICES 02
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY Stam STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): 72 HR TAT DAYS*
EDD: 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. TCL 2. TCLP 3. Hev 4. DF 5. PL 6. 7. 8. 9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS ← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	<u>Comp-Rolloff</u>	<u>50L</u>	<u>X</u>		<u>10-20-25</u>	<u>12:00</u>	<u>6</u>			<u>X</u>	<u>X</u>	<u>X</u>					<u>PiD = 1.3</u>
2.	<u>I</u>	<u>I</u>		<u>X</u>	<u>I</u>	<u>12:04</u>	<u>3</u>	<u>X</u>	<u>X</u>								<u>PiD = 1.3</u>
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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>1300</u> <u>10-20-2025</u>	RECEIVED BY: 1. <u>[Signature]</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☒ COOLER TEMP <u>35</u> °C Comments: <u>*PiD Meter Calibrated 10-20-2025 *</u> <u>Equal Volume of soil used,</u>
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME: <u></u>	RECEIVED BY: 2. <u>[Signature]</u>	
RELINQUISHED BY SAMPLER: 3. <u>[Signature]</u>	DATE/TIME: <u>1739</u> <u>10-20-2025</u>	RECEIVED BY: 3. <u>[Signature]</u>	

Page of CLIENT: ☐ Hand Delivered ☐ Other Shipment Complete ☐ YES ☐ NO

CHEMTECH

Environmental Laboratory
www.chemtech.net | EMAIL: PM@chemtech.net

Project Name: ICE502

Chemtech Order ID: _____

Service Order #:

Sampler Name: Lawrence Carter

Work Order #:

Client Project Coordinator & Phone:

Labor WBS #:

Facility/Site:

Page #: 1 of 1

Site Address:

Date: 10.20.2025

125 Bloomingdale Rd. Hewittown, N.Y.

Arrive Time: 11:28 am

Depart Time: 1300

Waste Stream (circle one): drum roll-off

soil pile / in-situ / linear construction frac-tank

Sample Matrices (circle all that apply): Water Solid

NAPL / Concrete / Wipe AAQ

Collection Depths:

Temp (range):

°C PID Readings (range):

PPM

Odor: Y / N Color: Y / N

Sample Description:

Water Soil Soil water Bender, Brown & Q.

Field Observations:

Sampled, RB47191RT, RB2520555, frac tank 0760450

Grid / Area Composite Map:

QA Control # A3041134

frac-tank X
0760450
PID = 0.7
AQ

RB47191RT
PID = 1.3
CAA3-VOC
X X X X X

RB2520555
PID = 0.7
X X X X X

collect & composite samples

Comp Roll off samples

Sampler Signature:

Client Signature:

J. P. [Signature]
Environmental

10.20.2025

Supervisor Review/Date:

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3399 ICES02
Client Name : ICE Service Group, Inc.
Client Contact : Dennis D. Morgan, II
Invoice Name : ICE Service Group, Inc.
Invoice Contact : Dennis D. Morgan, II

Order Date : 10/20/2025 1:23:08 PM
Project Name : NWIRP Northrup Grumman
Receive Date Time : 10/20/2025 12:00:00 AM
Purchase Order : 5:54 PM

Project Mgr :
Report Type : NYS ASP A
EDD Type : NYSDEC EDD V-4
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3399-03	COMP-ROLLOFF	Solid	10/20/2025	12:04	VOC-TCLVOA-10		8260D		3 Bus. Days

Relinquished By :

Date / Time : 10/21/25 0740

Received By :

Date / Time : 10/21/25 08:00

Storage Area : VOA Refridgerator Room

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF100225\
 Data File : FF016512.D
 Signal(s) : FID2B.ch
 Acq On : 02 Oct 2025 12:54
 Operator : YP\AJ
 Sample : 10 TRPH STD
 Misc :
 ALS Vial : 34 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 10 TRPH STD

Integration File: autoint1.e
 Quant Time: Oct 03 03:34:16 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
 Quant Title :
 QLast Update : Fri Oct 03 03:31:45 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.065	1196583	10.209 ug/ml
Target Compounds			
1) N-OCTANE	2.048	1231207	10.502 ug/ml
2) N-DECANE	4.583	1248028	10.377 ug/ml
3) N-DODECANE	6.762	1268209	10.354 ug/ml
4) N-TETRADECANE	8.595	1279939	10.370 ug/ml
5) N-HEXADECANE	10.204	1309042	10.459 ug/ml
6) N-OCTADECANE	11.650	1366007	10.570 ug/ml
7) N-EICOSANE	12.963	1399742	10.628 ug/ml
8) N-DOCOSANE	14.164	1372675	10.562 ug/ml
10) N-TETRACOSANE	15.270	1385923	10.545 ug/ml
11) N-HEXACOSANE	16.294	1386979	10.534 ug/ml
12) N-OCTACOSANE	17.248	1372048	10.548 ug/ml
13) N-TRIACONTANE	18.139	1393151	10.709 ug/ml
14) N-DOTRIACONTANE	18.975	1361594	11.315 ug/ml
15) N-TETRATRIACONTANE	19.762	1111280	11.310 ug/ml
16) N-HEXATRIACONTANE	20.503	884066	11.584 ug/ml
17) N-OCTATRIACONTANE	21.263	731150	11.468 ug/ml
18) N-TETRACONTANE	22.211	583651	10.392 ug/ml

(f)=RT Delta > 1/2 Window

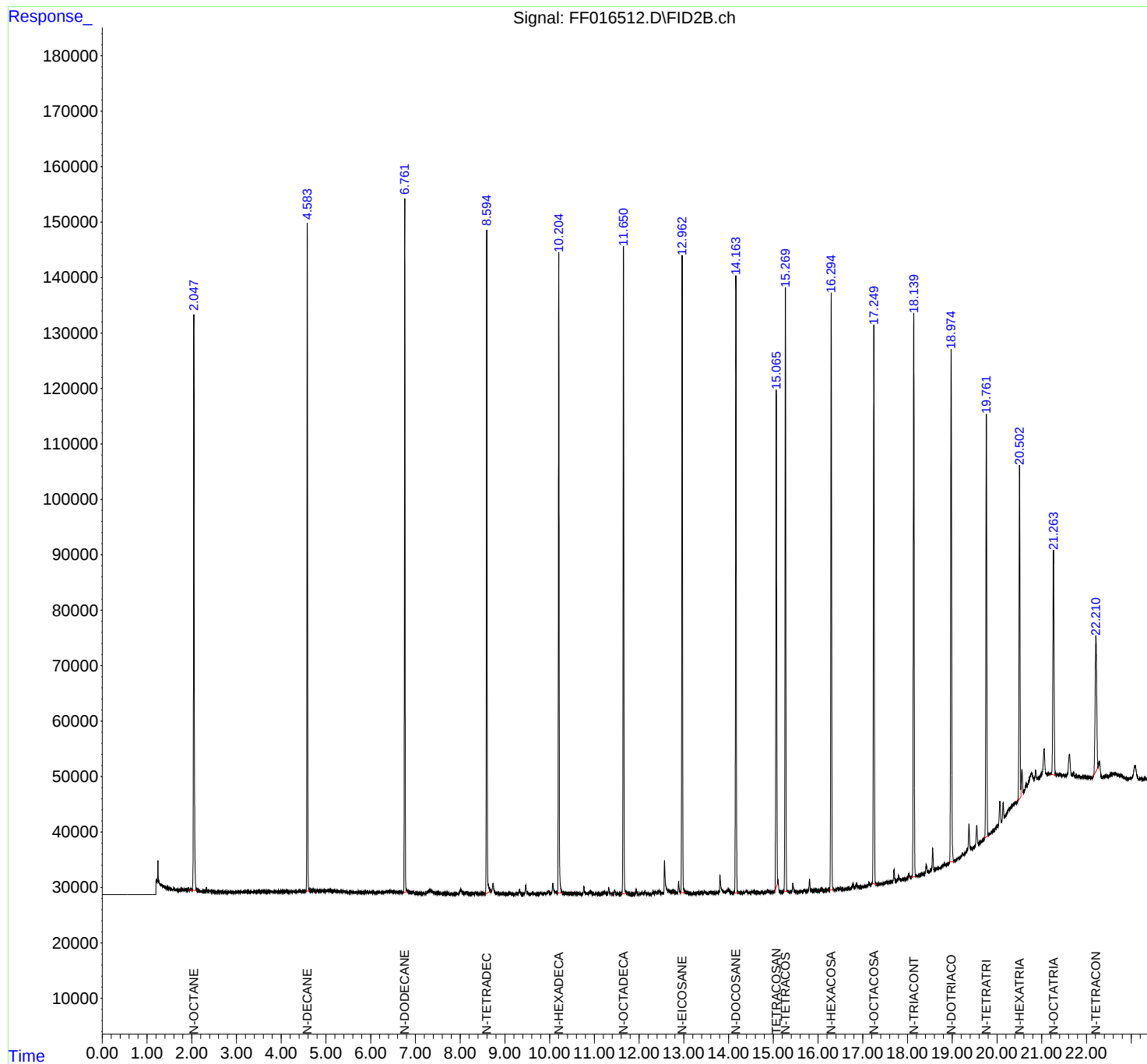
(m)=manual int.

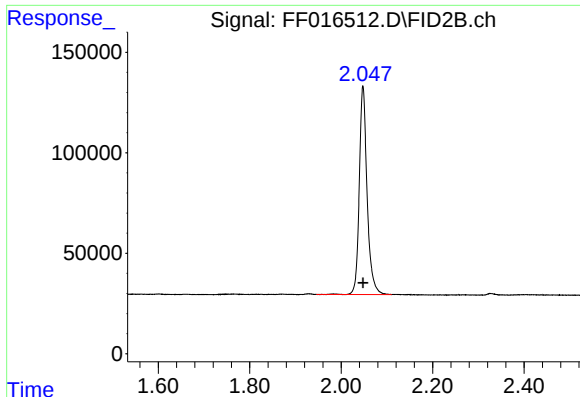
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF100225\
Data File : FF016512.D
Signal(s) : FID2B.ch
Acq On : 02 Oct 2025 12:54
Operator : YP\AJ
Sample : 10 TRPH STD
Misc :
ALS Vial : 34 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
10 TRPH STD

Integration File: autoint1.e
Quant Time: Oct 03 03:34:16 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Quant Title :
QLast Update : Fri Oct 03 03:31:45 2025
Response via : Initial Calibration
Integrator: ChemStation

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

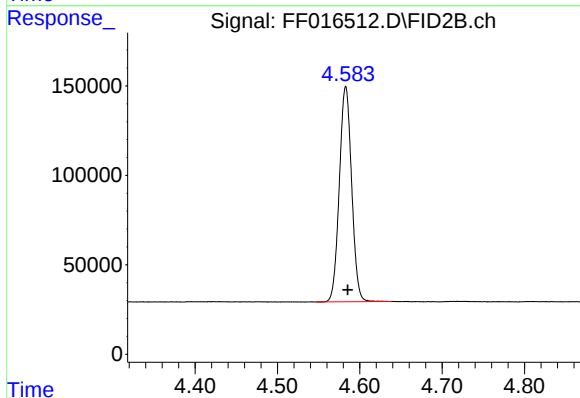




#1 N-OCTANE

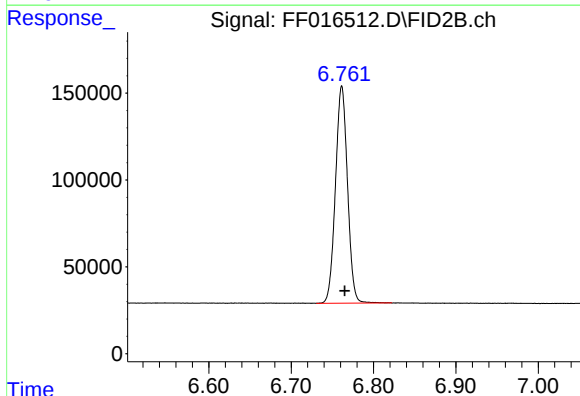
R.T.: 2.048 min
Delta R.T.: 0.000 min
Response: 1231207
Conc: 10.50 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



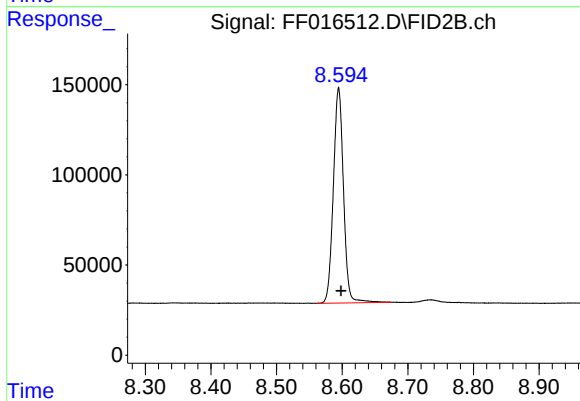
#2 N-DECANE

R.T.: 4.583 min
Delta R.T.: -0.003 min
Response: 1248028
Conc: 10.38 ug/ml



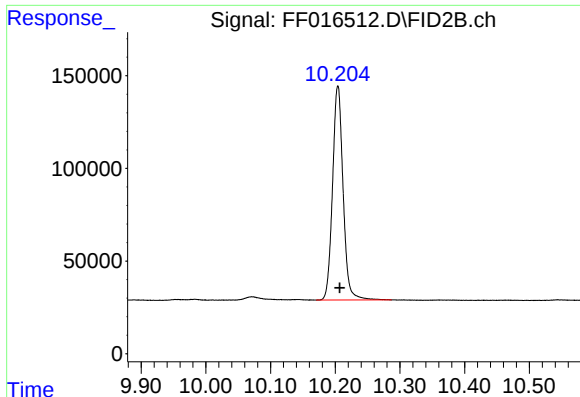
#3 N-DODECANE

R.T.: 6.762 min
Delta R.T.: -0.003 min
Response: 1268209
Conc: 10.35 ug/ml



#4 N-TETRADECANE

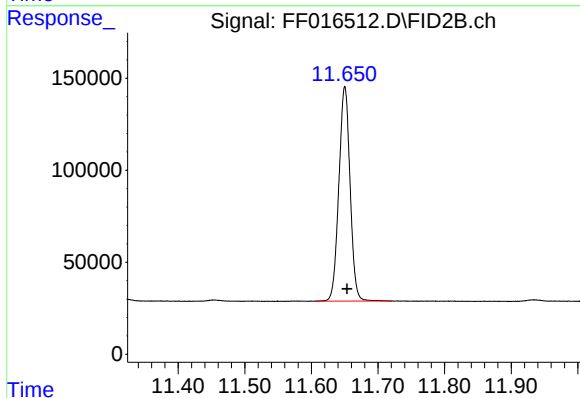
R.T.: 8.595 min
Delta R.T.: -0.004 min
Response: 1279939
Conc: 10.37 ug/ml



#5 N-HEXADECANE

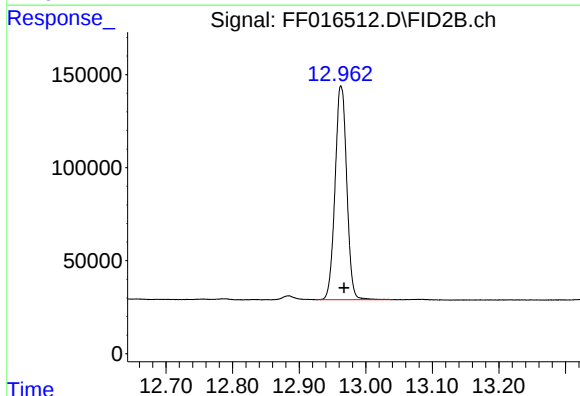
R.T.: 10.204 min
Delta R.T.: -0.003 min
Response: 1309042
Conc: 10.46 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



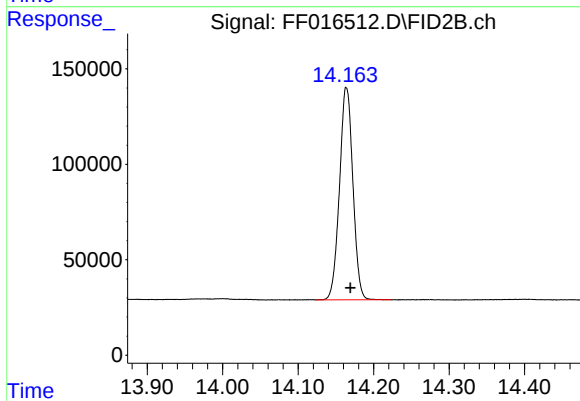
#6 N-OCTADECANE

R.T.: 11.650 min
Delta R.T.: -0.003 min
Response: 1366007
Conc: 10.57 ug/ml



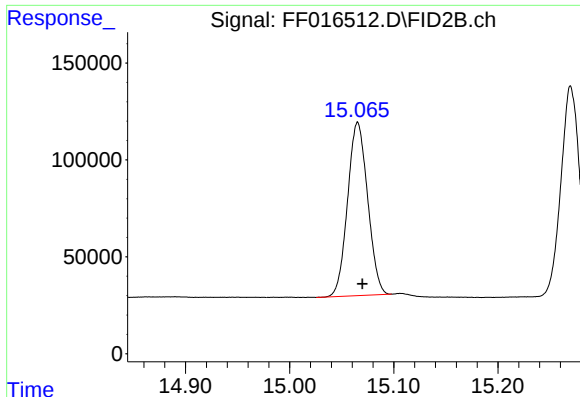
#7 N-EICOSANE

R.T.: 12.963 min
Delta R.T.: -0.005 min
Response: 1399742
Conc: 10.63 ug/ml



#8 N-DOCOSANE

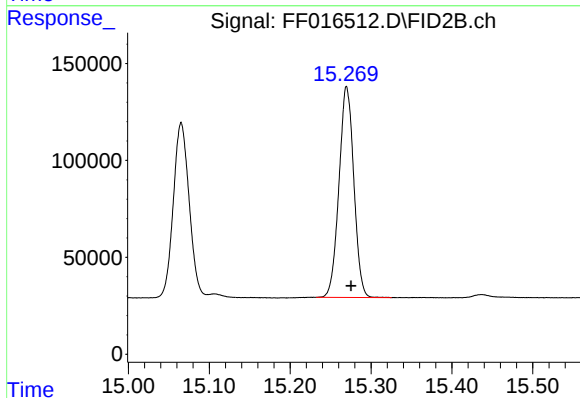
R.T.: 14.164 min
Delta R.T.: -0.005 min
Response: 1372675
Conc: 10.56 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

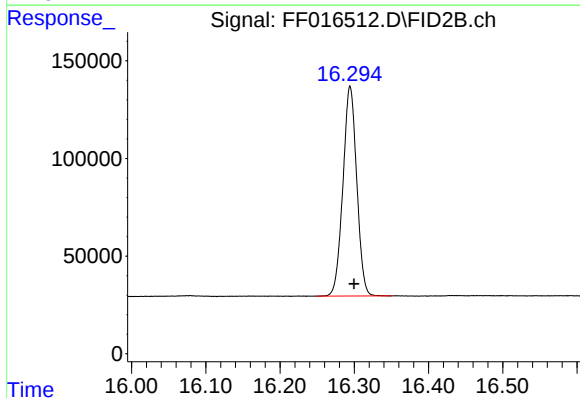
R.T.: 15.065 min
Delta R.T.: -0.005 min
Response: 1196583
Conc: 10.21 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



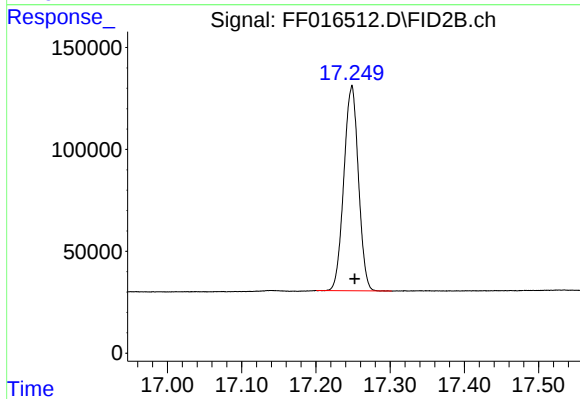
#10 N-TETRACOSANE

R.T.: 15.270 min
Delta R.T.: -0.005 min
Response: 1385923
Conc: 10.54 ug/ml



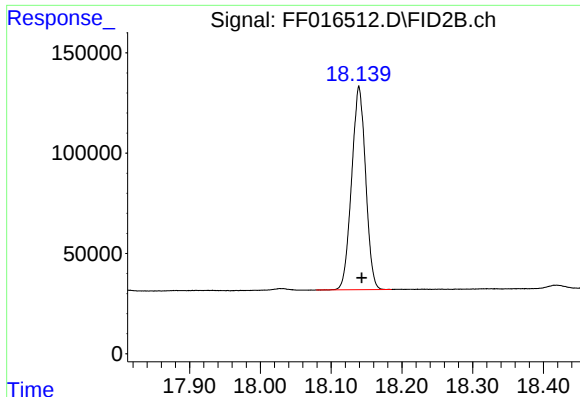
#11 N-HEXACOSANE

R.T.: 16.294 min
Delta R.T.: -0.005 min
Response: 1386979
Conc: 10.53 ug/ml



#12 N-OCTACOSANE

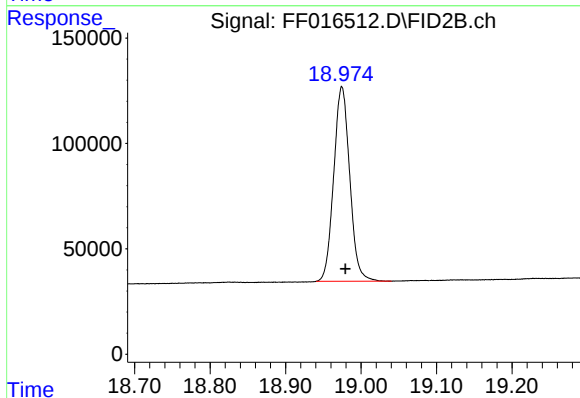
R.T.: 17.248 min
Delta R.T.: -0.004 min
Response: 1372048
Conc: 10.55 ug/ml



#13 N-TRIACONTANE

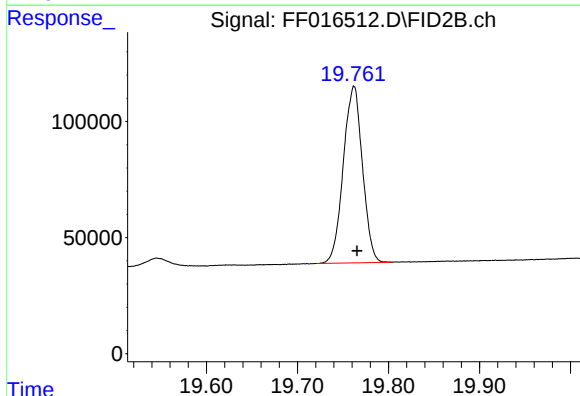
R.T.: 18.139 min
Delta R.T.: -0.004 min
Response: 1393151
Conc: 10.71 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



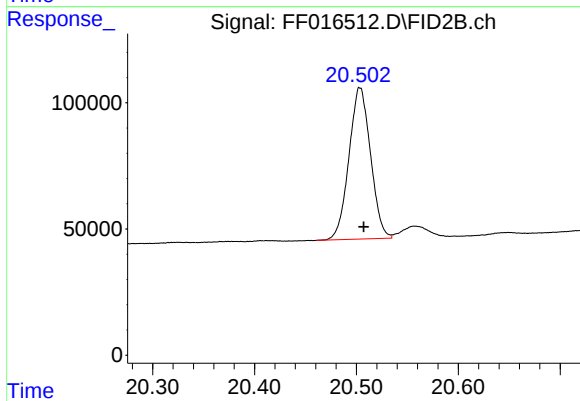
#14 N-DOTRIACONTANE

R.T.: 18.975 min
Delta R.T.: -0.005 min
Response: 1361594
Conc: 11.32 ug/ml



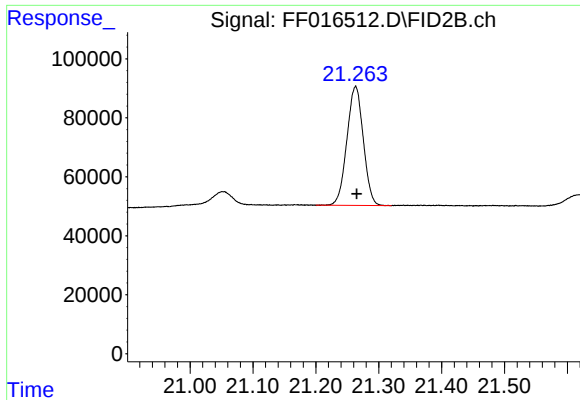
#15 N-TETRATRIACONTANE

R.T.: 19.762 min
Delta R.T.: -0.003 min
Response: 1111280
Conc: 11.31 ug/ml



#16 N-HEXATRIACONTANE

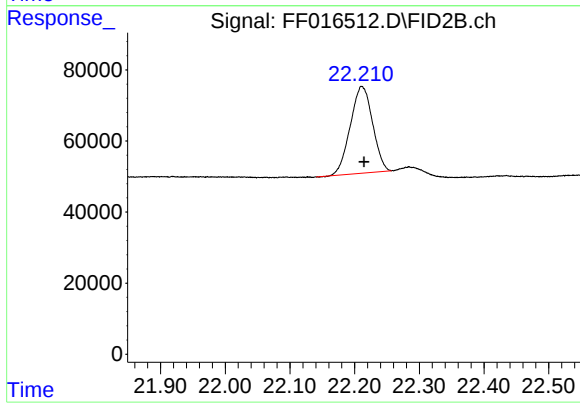
R.T.: 20.503 min
Delta R.T.: -0.004 min
Response: 884066
Conc: 11.58 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.263 min
Delta R.T.: -0.002 min
Response: 731150
Conc: 11.47 ug/ml

Instrument :
FID_F
ClientSampleId :
10 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.211 min
Delta R.T.: -0.004 min
Response: 583651
Conc: 10.39 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF100225\
 Data File : FF016513.D
 Signal(s) : FID2B.ch
 Acq On : 02 Oct 2025 13:23
 Operator : YP\AJ
 Sample : 5 TRPH STD
 Misc :
 ALS Vial : 35 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 5 TRPH STD

Integration File: autoint1.e
 Quant Time: Oct 03 03:34:33 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
 Quant Title :
 QLast Update : Fri Oct 03 03:31:45 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.066	564211	4.814 ug/ml
Target Compounds			
1) N-OCTANE	2.047	583369	4.976 ug/ml
2) N-DECANE	4.583	590237	4.908 ug/ml
3) N-DODECANE	6.761	594495	4.854 ug/ml
4) N-TETRADECANE	8.594	597390	4.840 ug/ml
5) N-HEXADECANE	10.204	618189	4.939 ug/ml
6) N-OCTADECANE	11.649	648723	5.020 ug/ml
7) N-EICOSANE	12.963	670370	5.090 ug/ml
8) N-DOCOSANE	14.164	657028	5.056 ug/ml
10) N-TETRACOSANE	15.270	662716	5.042 ug/ml
11) N-HEXACOSANE	16.295	663022	5.036 ug/ml
12) N-OCTACOSANE	17.249	665505	5.116 ug/ml
13) N-TRIACONTANE	18.139	689704	5.302 ug/ml
14) N-DOTRIACONTANE	18.975	685711	5.699 ug/ml
15) N-TETRATRIACONTANE	19.761	548534	5.583 ug/ml
16) N-HEXATRIACONTANE	20.504	421389	5.521 ug/ml
17) N-OCTATRIACONTANE	21.263	342578	5.373 ug/ml
18) N-TETRACONTANE	22.211	267029	4.754 ug/ml

(f)=RT Delta > 1/2 Window

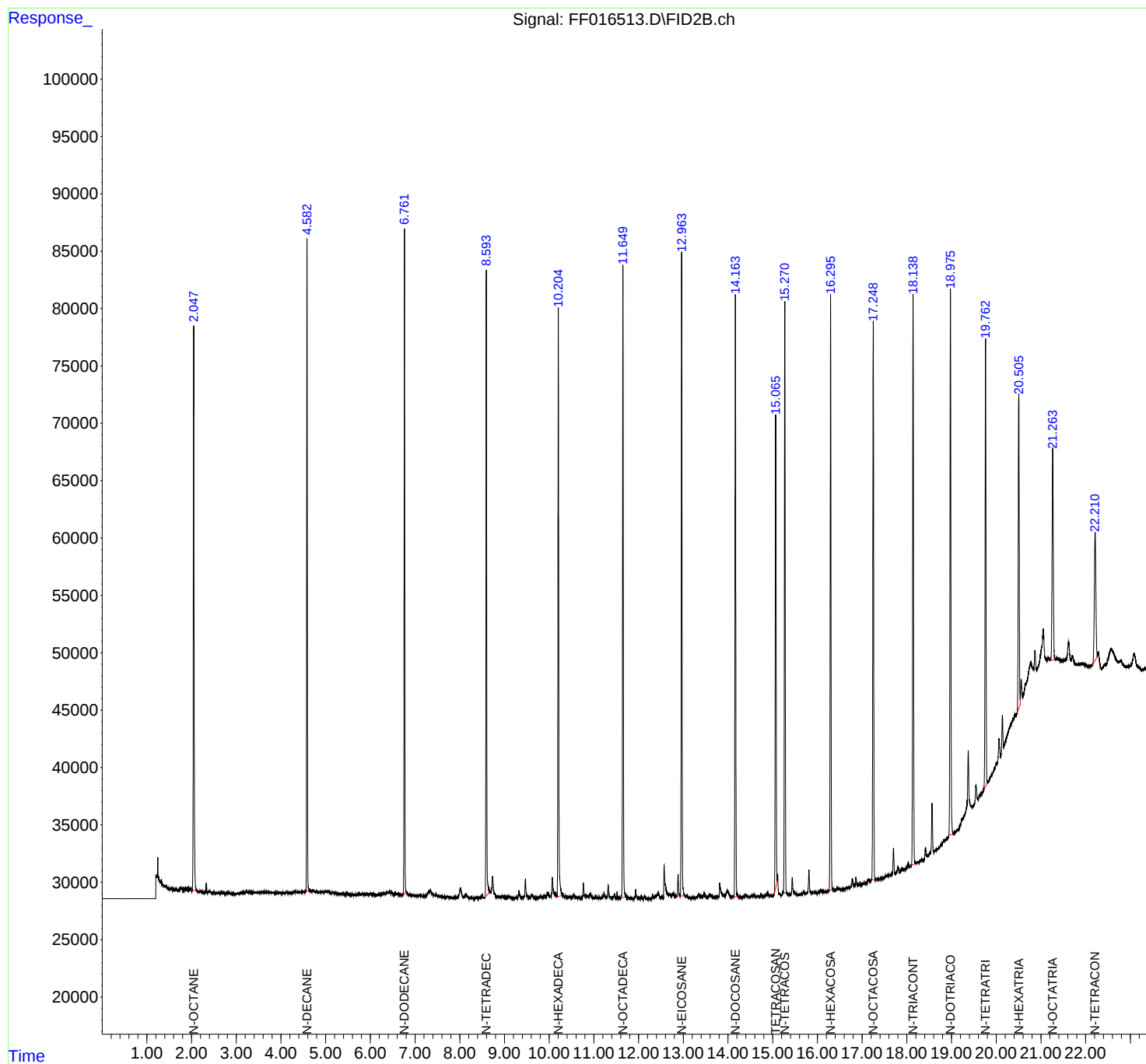
(m)=manual int.

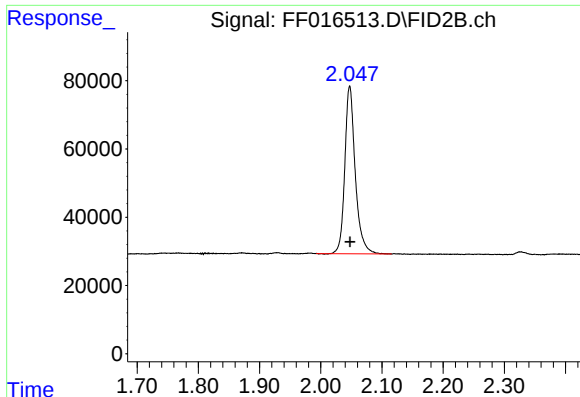
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF100225\
Data File : FF016513.D
Signal(s) : FID2B.ch
Acq On : 02 Oct 2025 13:23
Operator : YP\AJ
Sample : 5 TRPH STD
Misc :
ALS Vial : 35 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
5 TRPH STD

Integration File: autoint1.e
Quant Time: Oct 03 03:34:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF100225.M
Quant Title :
QLast Update : Fri Oct 03 03:31:45 2025
Response via : Initial Calibration
Integrator: ChemStation

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

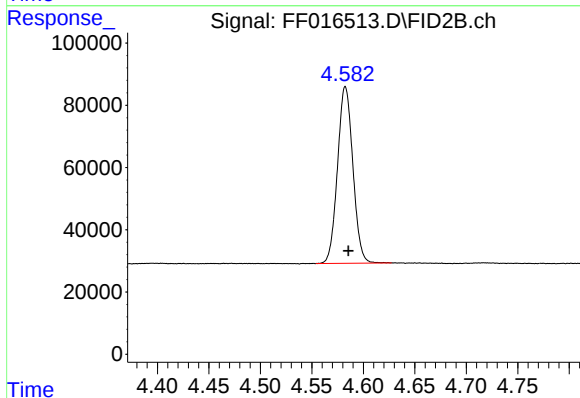




#1 N-OCTANE

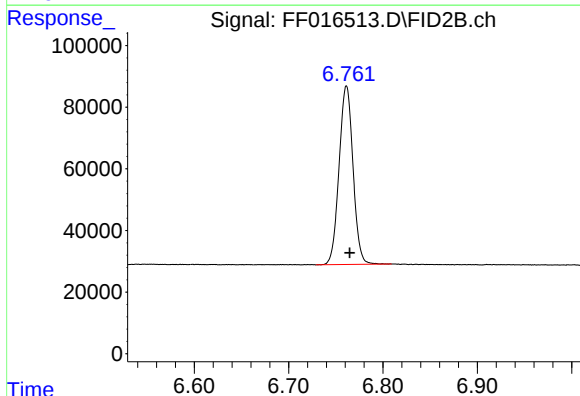
R.T.: 2.047 min
Delta R.T.: 0.000 min
Response: 583369
Conc: 4.98 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD



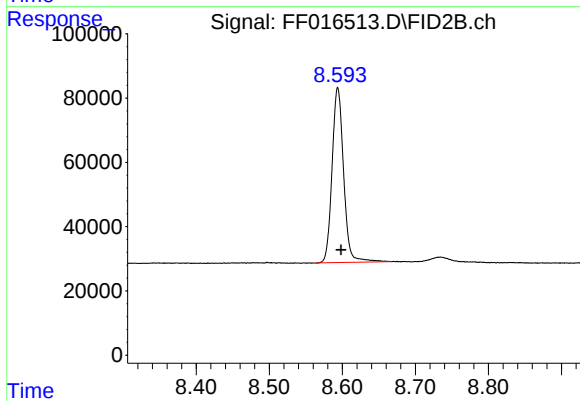
#2 N-DECANE

R.T.: 4.583 min
Delta R.T.: -0.003 min
Response: 590237
Conc: 4.91 ug/ml



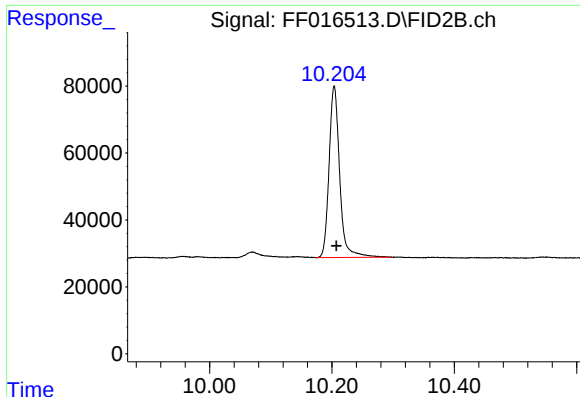
#3 N-DODECANE

R.T.: 6.761 min
Delta R.T.: -0.004 min
Response: 594495
Conc: 4.85 ug/ml



#4 N-TETRADECANE

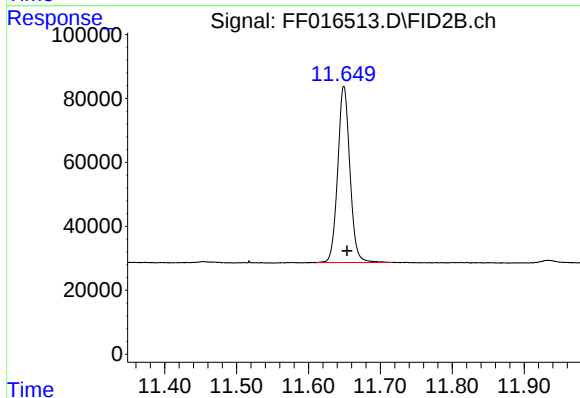
R.T.: 8.594 min
Delta R.T.: -0.004 min
Response: 597390
Conc: 4.84 ug/ml



#5 N-HEXADECANE

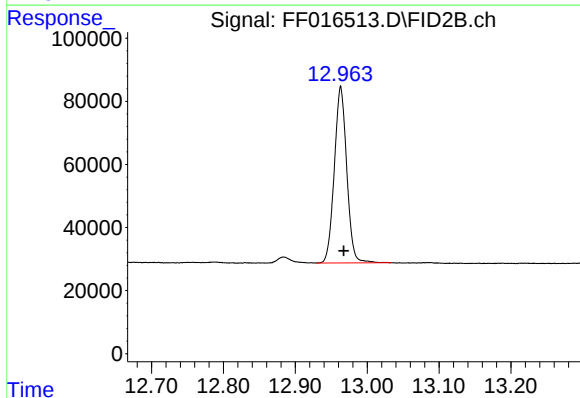
R.T.: 10.204 min
Delta R.T.: -0.003 min
Response: 618189
Conc: 4.94 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD



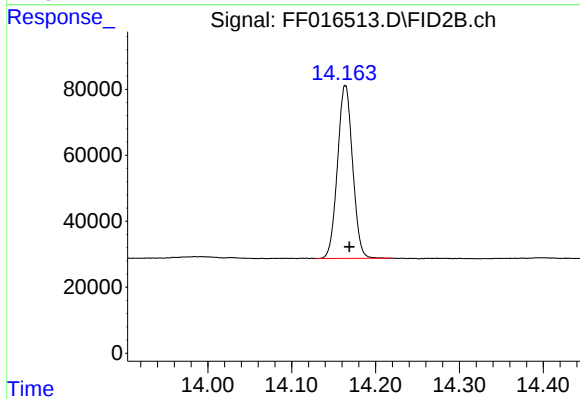
#6 N-OCTADECANE

R.T.: 11.649 min
Delta R.T.: -0.004 min
Response: 648723
Conc: 5.02 ug/ml



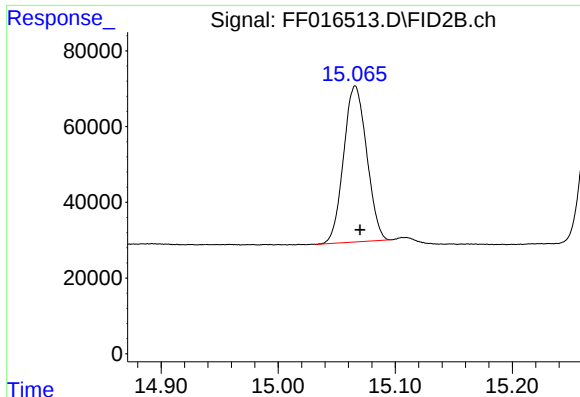
#7 N-EICOSANE

R.T.: 12.963 min
Delta R.T.: -0.004 min
Response: 670370
Conc: 5.09 ug/ml



#8 N-DOCOSANE

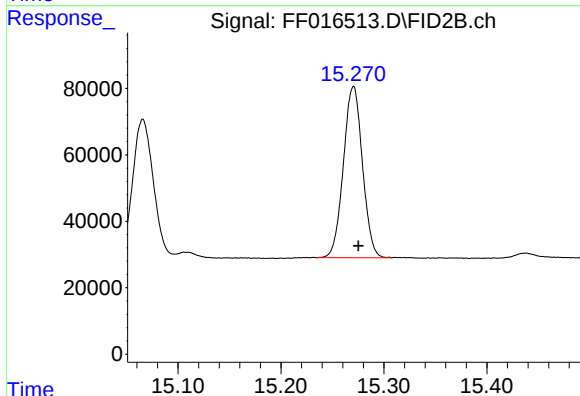
R.T.: 14.164 min
Delta R.T.: -0.005 min
Response: 657028
Conc: 5.06 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

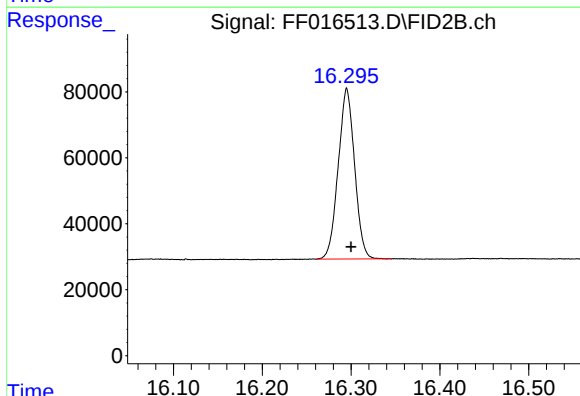
R.T.: 15.066 min
Delta R.T.: -0.004 min
Response: 564211
Conc: 4.81 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD



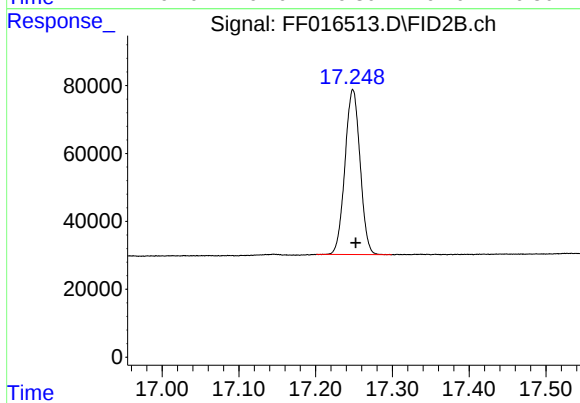
#10 N-TETRACOSANE

R.T.: 15.270 min
Delta R.T.: -0.005 min
Response: 662716
Conc: 5.04 ug/ml



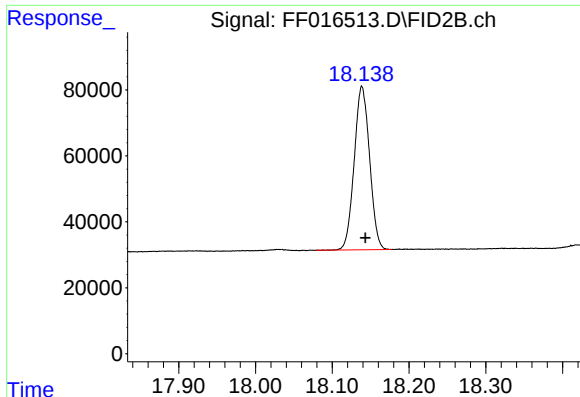
#11 N-HEXACOSANE

R.T.: 16.295 min
Delta R.T.: -0.005 min
Response: 663022
Conc: 5.04 ug/ml



#12 N-OCTACOSANE

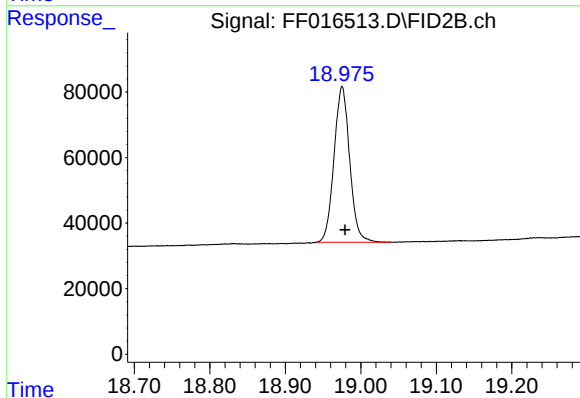
R.T.: 17.249 min
Delta R.T.: -0.004 min
Response: 665505
Conc: 5.12 ug/ml



#13 N-TRIACONTANE

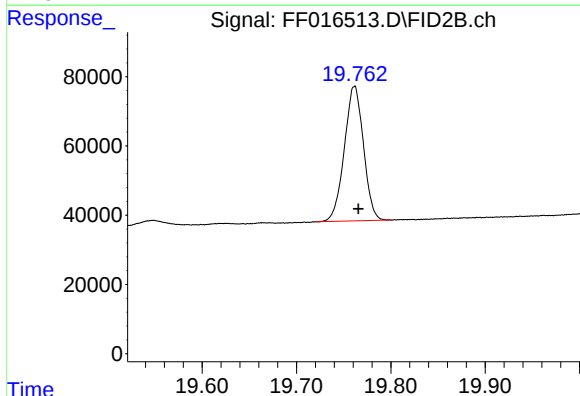
R.T.: 18.139 min
Delta R.T.: -0.005 min
Response: 689704
Conc: 5.30 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD



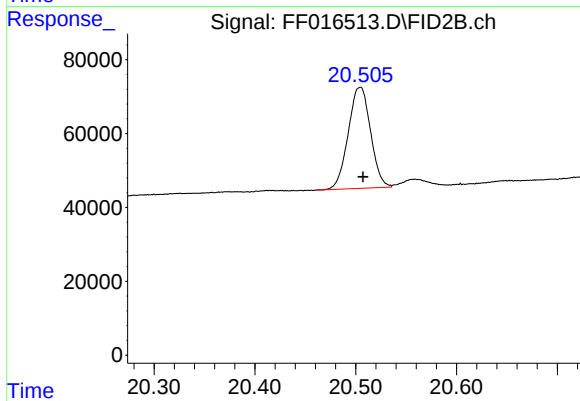
#14 N-DOTRIACONTANE

R.T.: 18.975 min
Delta R.T.: -0.004 min
Response: 685711
Conc: 5.70 ug/ml



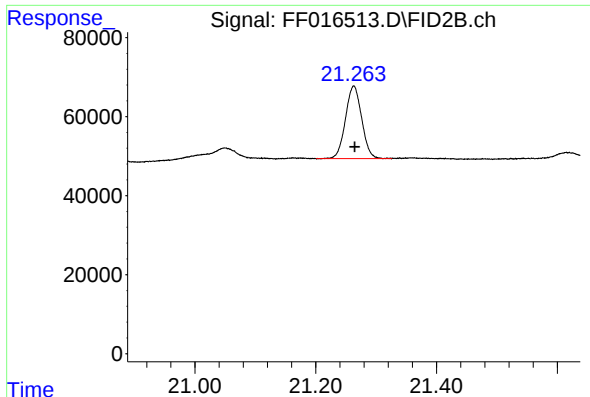
#15 N-TETRATRIACONTANE

R.T.: 19.761 min
Delta R.T.: -0.004 min
Response: 548534
Conc: 5.58 ug/ml



#16 N-HEXATRIACONTANE

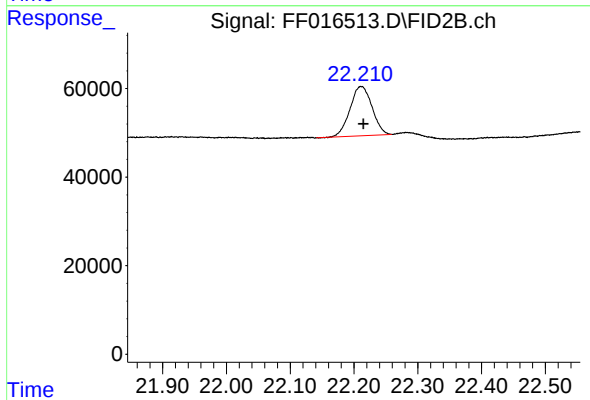
R.T.: 20.504 min
Delta R.T.: -0.003 min
Response: 421389
Conc: 5.52 ug/ml



#17 N-OCTATRIACONTANE

R.T.: 21.263 min
Delta R.T.: -0.002 min
Response: 342578
Conc: 5.37 ug/ml

Instrument :
FID_F
ClientSampleId :
5 TRPH STD



#18 N-TETRACONTANE

R.T.: 22.211 min
Delta R.T.: -0.004 min
Response: 267029
Conc: 4.75 ug/ml