

Cover Page

Order ID : Q3015

Project ID : NJ Waste Water PT

Client : Alliance Technical Group, LLC - Newark

Lab Sample Number

Q3015-01
Q3015-02
Q3015-03
Q3015-04
Q3015-05
Q3015-06
Q3015-07
Q3015-08
Q3015-09
Q3015-10
Q3015-11
Q3015-12
Q3015-13
Q3015-14
Q3015-15
Q3015-16
Q3015-17
Q3015-18
Q3015-19
Q3015-20
Q3015-21
Q3015-22

Client Sample Number

WP0925-PT-VOA-WP
WP0925-PT-VOA-WP
WP0925-PT-BN-WP
WP0925-PT-BN-WP
WP0925-PT-BN-WP
WP0925-PT-ACIDS-WP
WP0925-PT-ACIDS-WP
WP0925-PT-ACIDS-WP
WP0925-PT-PEST-WP
WP0925-PT-PEST-WP
WP0925-PT-CHLR-WP
WP0925-PT-CHLR-WP
WP0925-PT-TXP-WP
WP0925-PT-TXP-WP
WP0925-PT-PCBW-WP
WP0925-PT-PCBW-WP
WP0925-PT-HERB-WP
WP0925-RR-GAS-WP
WP0925-RR-DIES-WP
WP0925-RR-8011-WP
WP0925-RR-PAH-WP
WP0925-RR-TRIAZINE-WP

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: 9/25/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following “ Results Qualifiers” are used:

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q3015

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 Custody

✓

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: PATEL VAISHALI

Date: 09/25/2025

LAB CHRONICLE

OrderID:	Q3015	OrderDate:	9/4/2025 10:14:00 AM
Client:	Alliance Technical Group, LLC - Newark	Project:	NJ Waste Water PT
Contact:	Mohammad Ahmed	Location:	QA Office, VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3015-09	WP0925-PT-PEST-WP	WATER	PESTICIDE Group1	8081B	09/02/25	09/08/25	09/08/25	09/04/25
Q3015-09DL	WP0925-PT-PEST-WP DL	WATER	PESTICIDE Group1	8081B	09/02/25	09/08/25	09/08/25	09/04/25
Q3015-09DL 2	WP0925-PT-PEST-WP DL2	WATER	PESTICIDE Group1	8081B	09/02/25	09/08/25	09/08/25	09/04/25
Q3015-15	WP0925-PT-PCBW-W P	WATER	PCB	8082A	09/02/25	09/08/25	09/09/25	09/04/25
Q3015-18	WP0925-RR-GAS-WP	Water	Gasoline Range Organics	8015D	09/02/25		09/17/25	09/04/25
Q3015-19	WP0925-RR-DIES-WP	Water	Diesel Range Organics	8015D	09/02/25	09/17/25	09/18/25	09/04/25



QC SUMMARY



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

WATER DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Alliance

Client: Alliance Technical Group, LLC - Newark

Lab Code: ACE

SDG No.: Q3015

CLIENT ID	S1	S2	S3	S4	TOT
	TETRACOSANE-d50				OUT
PIBLK-FG016613.D	78				0
PIBLK-FG016623.D	77				0
PB169733BL	72				0
PB169733BS	88				0
PB169733BSD	76				0
WP0925-RR-DIES-WP	82				0

QC LIMITS

TETRACOSANE-d50

For Water : 29-130

For Soil : 37-130

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate Diluted Out



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

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

Lab Name: Alliance

Client: Alliance Technical Group, LLC - Newark

Lab Code: ACE

SDG No: Q3015

Client Sample ID : PB169733BS

Datafile: FG016617.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS (%)
DRO	200	0	185	92	78-117



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

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

Lab Name: Alliance

Client: Alliance Technical Group, LLC - Newark

Lab Code: ACE

SDG No: Q3015

Client Sample ID : PB169733BSD

Datafile: FG016618.D

COMPOUND	SPIKE ADDED ug/L	CONCENTRATION ug/L	LCS/LCSD CONCENTRATION ug/L	% REC	QC LIMITS (%)
DRO	200	0	157	78	78-117

LCS/LCSD % Recovery RPD : 16.4

4B
METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PB169733BL

Lab Name: Alliance

Contract: ALLI03

Lab Code: ACE

SDG NO.: Q3015

Lab File ID: FG016616.D

Lab Sample ID: PB169733BL

Instrument ID: FG

Date Extracted: 09/18/2025

Matrix: (soil/water) Water

Date Analyzed: 09/18/25

Level: (low/med) low

Time Analyzed: 9:23

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

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB169733BS	PB169733BS	FG016617.D	09/18/25
PB169733BSD	PB169733BSD	FG016618.D	09/18/25
WP0925-RR-DIES-WP	Q3015-19	FG016620.D	09/18/25

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:	09/02/25	
Project:	NJ Waste Water PT		Date Received:	09/04/25	
Client Sample ID:	WP0925-RR-DIES-WP		SDG No.:	Q3015	
Lab Sample ID:	Q3015-19		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016620.D	5	09/17/25 12:20	09/18/25 12:22	PB169733

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	1640		31.0	250	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	3.29		29 - 130	82%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016620.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 12:22
Operator : YP\AJ
Sample : Q3015-19 5X
Misc :
ALS Vial : 41 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
WP0925-RR-DIES-WP

Integration File: autoint1.e
Quant Time: Sep 19 01:50:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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...	15.172	359672	3.292 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

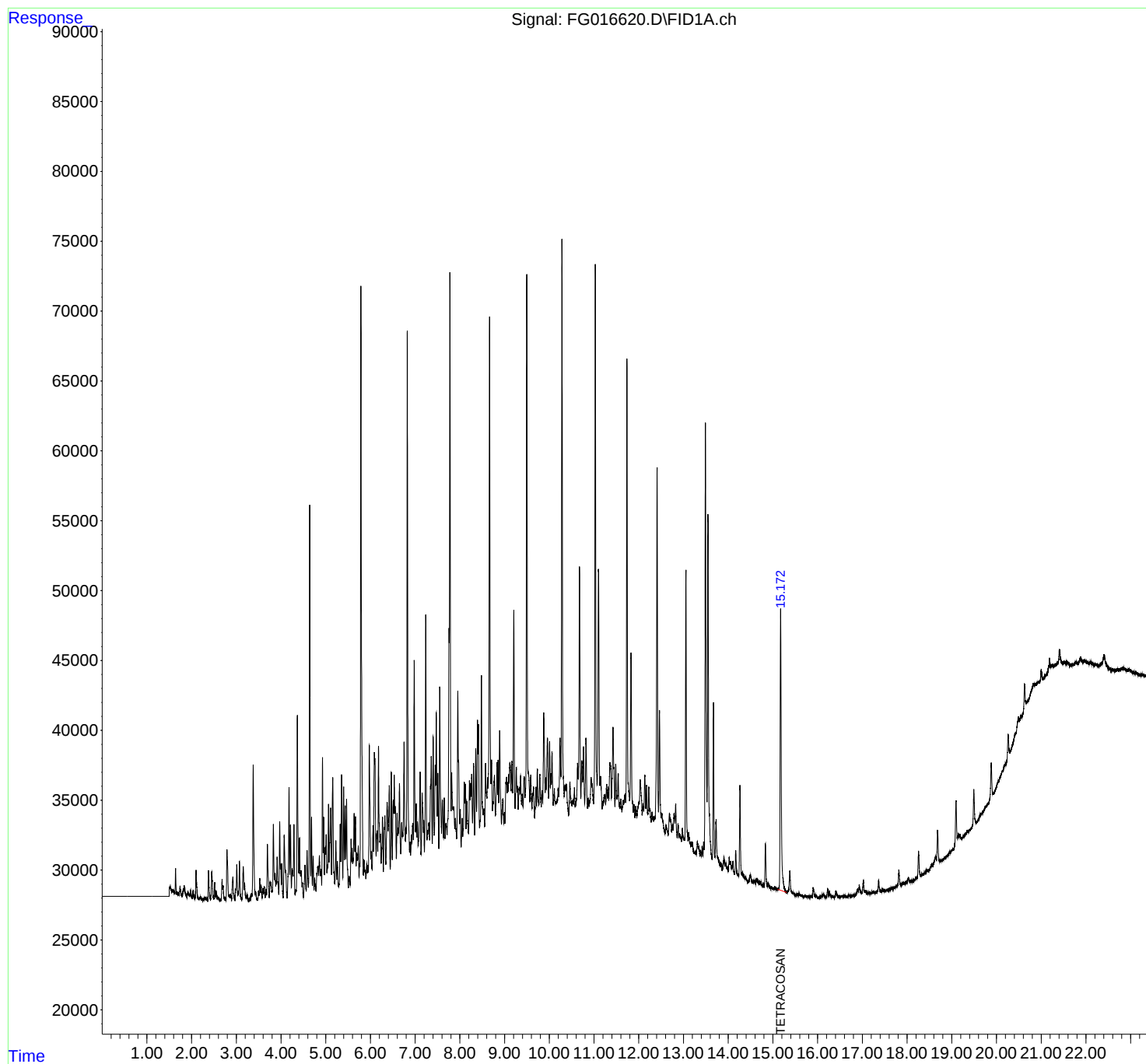
(m)=manual int.

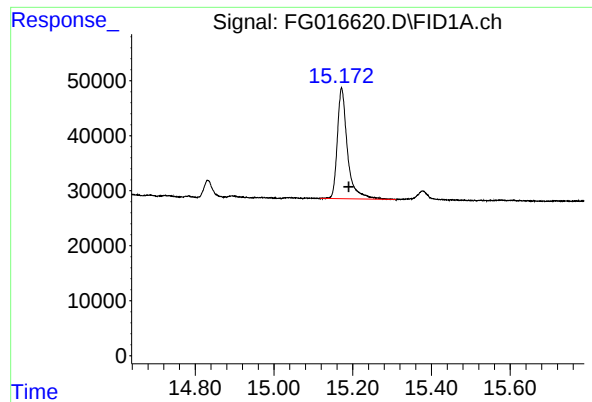
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016620.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 12:22
Operator : YP\AJ
Sample : Q3015-19 5X
Misc :
ALS Vial : 41 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
WP0925-RR-DIES-WP

Integration File: autoint1.e
Quant Time: Sep 19 01:50:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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.: 15.172 min
Delta R.T.: -0.018 min
Response: 359672
Conc: 3.29 ug/ml

Instrument :
FID_G
ClientSampleId :
WP0925-RR-DIES-WP

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016620.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 12:22
 Sample : Q3015-19 5X
 Misc :
 ALS Vial : 41 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.642	4.612	4.667	VV	28070	319524	38.95%	0.778%
2	4.682	4.667	4.702	VV	5698	64638	7.88%	0.157%
3	4.719	4.702	4.738	VV	2930	37873	4.62%	0.092%
4	4.753	4.738	4.784	VV	1312	23132	2.82%	0.056%
5	4.802	4.784	4.807	VV	1643	15869	1.93%	0.039%
6	4.826	4.807	4.842	VV	2235	41737	5.09%	0.102%
7	4.859	4.842	4.882	VV	2976	52473	6.40%	0.128%
8	4.896	4.882	4.910	VV	2006	27381	3.34%	0.067%
9	4.928	4.910	4.943	VV	9998	107597	13.12%	0.262%
10	4.954	4.943	4.971	VV	5708	65008	7.92%	0.158%
11	4.989	4.971	4.999	VV	3552	47787	5.83%	0.116%
12	5.010	4.999	5.026	VV	4484	53105	6.47%	0.129%
13	5.036	5.026	5.041	VV	2285	19211	2.34%	0.047%
14	5.063	5.041	5.079	VV	6655	91584	11.16%	0.223%
15	5.108	5.079	5.130	VV	6406	124580	15.19%	0.303%
16	5.157	5.130	5.203	VV	8589	171085	20.86%	0.417%
17	5.227	5.203	5.245	VV	4050	60222	7.34%	0.147%
18	5.261	5.245	5.294	VV	2548	45332	5.53%	0.110%
19	5.324	5.294	5.337	VV	5212	71743	8.75%	0.175%
20	5.355	5.337	5.382	VV	8741	140610	17.14%	0.342%
21	5.401	5.382	5.420	VV	7912	106697	13.01%	0.260%
22	5.435	5.420	5.450	VV	6539	79375	9.68%	0.193%
23	5.467	5.450	5.507	VV	7052	113005	13.78%	0.275%
24	5.523	5.507	5.546	VV	1491	28463	3.47%	0.069%
25	5.567	5.546	5.582	VV	4169	58904	7.18%	0.143%
26	5.591	5.582	5.603	VV	3512	38223	4.66%	0.093%
27	5.636	5.603	5.653	VV	6002	118654	14.46%	0.289%
28	5.665	5.653	5.681	VV	5777	70402	8.58%	0.171%
29	5.693	5.681	5.708	VV	3182	45668	5.57%	0.111%
30	5.728	5.708	5.747	VV	3684	64260	7.83%	0.156%
31	5.759	5.747	5.765	VV	2455	23197	2.83%	0.056%
32	5.787	5.765	5.843	VV	43705	663385	80.87%	1.616%
33	5.858	5.843	5.878	VV	2636	45691	5.57%	0.111%
34	5.881	5.878	5.898	VV	1924	19852	2.42%	0.048%
35	5.917	5.898	5.931	VV	2401	39166	4.77%	0.095%
36	5.942	5.931	5.952	VV	2279	25985	3.17%	0.063%

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37	5.975	5.952	6.007	VV	10846	196301	23.93%	0.478%
38	6.014	6.007	6.037	VV	3291	46948	5.72%	0.114%
39	6.057	6.037	6.068	VV	5144	68131	8.31%	0.166%
40	6.087	6.068	6.095	VV	10351	124665	15.20%	0.304%
41	6.100	6.095	6.126	VV	9946	127154	15.50%	0.310%
42	6.141	6.126	6.148	VV	4560	50560	6.16%	0.123%
43	6.154	6.148	6.165	VV	4725	43119	5.26%	0.105%
44	6.180	6.165	6.213	VV	10792	181714	22.15%	0.443%
45	6.222	6.213	6.240	VV	4538	61589	7.51%	0.150%
46	6.270	6.240	6.289	VV	5758	110479	13.47%	0.269%
47	6.308	6.289	6.312	VV	4986	51264	6.25%	0.125%
48	6.323	6.312	6.344	VV	5821	86156	10.50%	0.210%
49	6.373	6.344	6.394	VV	6799	153483	18.71%	0.374%
50	6.421	6.394	6.442	VV	8013	154270	18.81%	0.376%
51	6.467	6.442	6.488	VV	8940	136361	16.62%	0.332%
52	6.510	6.488	6.520	VV	6940	107776	13.14%	0.262%
53	6.532	6.520	6.544	VV	8767	104950	12.79%	0.256%
54	6.552	6.544	6.579	VV	6539	111599	13.60%	0.272%
55	6.596	6.579	6.611	VV	5974	91085	11.10%	0.222%
56	6.620	6.611	6.629	VV	4934	48845	5.95%	0.119%
57	6.649	6.629	6.677	VV	8142	158331	19.30%	0.386%
58	6.698	6.677	6.712	VV	5366	92736	11.30%	0.226%
59	6.719	6.712	6.726	VV	4595	38743	4.72%	0.094%
60	6.752	6.726	6.785	VV	11012	227908	27.78%	0.555%
61	6.795	6.785	6.803	VV	4980	51488	6.28%	0.125%
62	6.824	6.803	6.875	VV	40545	578016	70.46%	1.408%
63	6.885	6.875	6.898	VV	3957	49242	6.00%	0.120%
64	6.915	6.898	6.926	VV	4471	65376	7.97%	0.159%
65	6.948	6.926	6.961	VV	5276	99133	12.08%	0.241%
66	6.978	6.961	7.009	VV	16974	257949	31.44%	0.628%
67	7.025	7.009	7.042	VV	6657	114518	13.96%	0.279%
68	7.051	7.042	7.068	VV	5378	72429	8.83%	0.176%
69	7.111	7.068	7.132	VV	8992	210538	25.66%	0.513%
70	7.156	7.132	7.184	VV	7480	173895	21.20%	0.423%
71	7.192	7.184	7.206	VV	5525	63618	7.75%	0.155%
72	7.236	7.206	7.265	VV	20249	318571	38.83%	0.776%
73	7.280	7.265	7.290	VV	4821	66253	8.08%	0.161%
74	7.306	7.290	7.322	VV	5366	95187	11.60%	0.232%
75	7.343	7.322	7.347	VV	7942	93039	11.34%	0.227%
76	7.359	7.347	7.382	VV	10104	157873	19.24%	0.384%
77	7.402	7.382	7.430	VV	11499	202526	24.69%	0.493%
78	7.448	7.430	7.458	VV	9475	126470	15.42%	0.308%
79	7.472	7.458	7.494	VV	13208	204058	24.87%	0.497%
80	7.506	7.494	7.529	VV	8891	135395	16.50%	0.330%
81	7.549	7.529	7.589	VV	14978	293017	35.72%	0.714%
82	7.607	7.589	7.634	VV	7004	154001	18.77%	0.375%
83	7.651	7.634	7.669	VV	7121	117023	14.26%	0.285%
84	7.690	7.669	7.714	VV	5304	132645	16.17%	0.323%
85	7.757	7.714	7.761	VV	19233	265137	32.32%	0.646%
86	7.777	7.761	7.804	VV	44672	590753	72.01%	1.439%
87	7.817	7.804	7.840	VV	8921	161002	19.63%	0.392%
88	7.848	7.840	7.858	VV	6483	70078	8.54%	0.171%
89	7.865	7.858	7.884	VV	6444	93054	11.34%	0.227%

					rteres.txt			
90	7.901	7.884	7.927	VV	5646	129610	15.80%	0.316%
91	7.954	7.927	7.994	VV	14708	347123	42.31%	0.845%
92	8.008	7.994	8.028	VV	6278	108272	13.20%	0.264%
93	8.052	8.028	8.065	VV	5644	102922	12.55%	0.251%
94	8.097	8.065	8.108	VV	8205	160943	19.62%	0.392%
95	8.121	8.108	8.137	VV	8114	118634	14.46%	0.289%
96	8.153	8.137	8.194	VV	6815	193117	23.54%	0.470%
97	8.215	8.194	8.230	VV	8271	149340	18.20%	0.364%
98	8.240	8.230	8.250	VV	8096	92346	11.26%	0.225%
99	8.263	8.250	8.282	VV	8852	140505	17.13%	0.342%
100	8.306	8.282	8.330	VV	9604	197038	24.02%	0.480%
101	8.355	8.330	8.374	VV	10656	198571	24.21%	0.484%
102	8.394	8.374	8.404	VV	12728	178437	21.75%	0.435%
103	8.415	8.404	8.440	VV	12360	188592	22.99%	0.459%
104	8.482	8.440	8.522	VV	15883	395743	48.24%	0.964%
105	8.537	8.522	8.556	VV	6363	120635	14.71%	0.294%
106	8.574	8.556	8.604	VV	9621	217364	26.50%	0.529%
107	8.618	8.604	8.631	VV	8551	129932	15.84%	0.316%
108	8.664	8.631	8.695	VV	41531	698001	85.09%	1.700%
109	8.709	8.695	8.729	VV	9837	170205	20.75%	0.415%
110	8.772	8.729	8.795	VV	8752	290437	35.40%	0.707%
111	8.831	8.795	8.843	VV	9646	218572	26.64%	0.532%
112	8.854	8.843	8.869	VV	9839	130759	15.94%	0.318%
113	8.890	8.869	8.932	VV	11964	311101	37.92%	0.758%
114	8.961	8.932	8.985	VV	7058	198911	24.25%	0.484%
115	8.996	8.985	9.009	VV	6111	80448	9.81%	0.196%
116	9.029	9.009	9.034	VV	8157	106833	13.02%	0.260%
117	9.044	9.034	9.056	VV	8608	107951	13.16%	0.263%
118	9.064	9.056	9.078	VV	8222	103067	12.56%	0.251%
119	9.091	9.078	9.100	VV	8797	112503	13.71%	0.274%
120	9.116	9.100	9.143	VV	9580	227553	27.74%	0.554%
121	9.158	9.143	9.180	VV	9663	192558	23.47%	0.469%
122	9.206	9.180	9.237	VV	20572	400475	48.82%	0.975%
123	9.262	9.237	9.281	VV	9292	210392	25.65%	0.512%
124	9.289	9.281	9.305	VV	7981	107060	13.05%	0.261%
125	9.327	9.305	9.345	VV	7821	178759	21.79%	0.435%
126	9.357	9.345	9.379	VV	8725	160432	19.56%	0.391%
127	9.397	9.379	9.412	VV	7403	137819	16.80%	0.336%
128	9.437	9.412	9.459	VV	8670	217592	26.52%	0.530%
129	9.496	9.459	9.526	VV	44379	731446	89.16%	1.781%
130	9.530	9.526	9.564	VV	9003	187305	22.83%	0.456%
131	9.582	9.564	9.614	VV	8611	229203	27.94%	0.558%
132	9.648	9.614	9.670	VV	7947	236866	28.87%	0.577%
133	9.703	9.670	9.715	VV	7940	183856	22.41%	0.448%
134	9.731	9.715	9.767	VV	9188	236138	28.78%	0.575%
135	9.786	9.767	9.820	VV	8747	241186	29.40%	0.587%
136	9.837	9.820	9.851	VV	7679	134119	16.35%	0.327%
137	9.876	9.851	9.909	VV	13223	342655	41.77%	0.834%
138	9.921	9.909	9.933	VV	8556	118000	14.38%	0.287%
139	9.958	9.933	9.985	VV	11299	290875	35.46%	0.708%
140	10.006	9.985	10.026	VV	11194	225591	27.50%	0.549%
141	10.037	10.026	10.046	VV	8886	102316	12.47%	0.249%

					rteres.txt			
142	10.060	10.046	10.089	VV	10347	220226	26.85%	0.536%
143	10.113	10.089	10.134	VV	7828	190988	23.28%	0.465%
144	10.171	10.134	10.181	VV	6955	194707	23.73%	0.474%
145	10.196	10.181	10.212	VV	7731	137098	16.71%	0.334%
146	10.239	10.212	10.260	VV	11413	276718	33.73%	0.674%
147	10.283	10.260	10.335	VV	47143	797637	97.23%	1.942%
148	10.349	10.335	10.365	VV	8094	136802	16.68%	0.333%
149	10.366	10.365	10.374	VV	7985	43863	5.35%	0.107%
150	10.386	10.374	10.429	VV	8096	233064	28.41%	0.568%
151	10.461	10.429	10.500	VV	8265	298314	36.36%	0.726%
152	10.504	10.500	10.508	VV	6761	35794	4.36%	0.087%
153	10.531	10.508	10.543	VV	6994	141374	17.23%	0.344%
154	10.561	10.543	10.580	VV	7873	159193	19.41%	0.388%
155	10.631	10.580	10.645	VV	9633	304447	37.11%	0.741%
156	10.674	10.645	10.704	VV	23628	488871	59.59%	1.191%
157	10.728	10.704	10.745	VV	9828	213798	26.06%	0.521%
158	10.763	10.745	10.790	VV	10822	239907	29.24%	0.584%
159	10.820	10.790	10.856	VV	11395	333096	40.60%	0.811%
160	10.875	10.856	10.890	VV	7153	140165	17.09%	0.341%
161	10.901	10.890	10.908	VV	6932	71784	8.75%	0.175%
162	10.935	10.908	10.990	VV	8592	377964	46.07%	0.920%
163	11.027	10.990	11.070	VV	45262	820355	100.00%	1.998%
164	11.100	11.070	11.129	VV	23403	504415	61.49%	1.228%
165	11.148	11.129	11.182	VV	8665	252692	30.80%	0.615%
166	11.195	11.182	11.206	VV	6884	97911	11.94%	0.238%
167	11.240	11.206	11.257	VV	7347	216488	26.39%	0.527%
168	11.282	11.257	11.302	VV	8090	199714	24.34%	0.486%
169	11.315	11.302	11.330	VV	7961	125248	15.27%	0.305%
170	11.357	11.330	11.389	VV	9501	305278	37.21%	0.743%
171	11.424	11.389	11.466	VV	12217	427550	52.12%	1.041%
172	11.485	11.466	11.506	VV	9586	191924	23.40%	0.467%
173	11.511	11.506	11.522	VV	7191	67926	8.28%	0.165%
174	11.538	11.522	11.576	VV	8887	242738	29.59%	0.591%
175	11.596	11.576	11.623	VV	7104	187573	22.86%	0.457%
176	11.648	11.623	11.662	VV	6973	158173	19.28%	0.385%
177	11.693	11.662	11.708	VV	7364	191561	23.35%	0.467%
178	11.736	11.708	11.800	VV	38444	765172	93.27%	1.863%
179	11.827	11.800	11.880	VV	17538	473988	57.78%	1.154%
180	11.896	11.880	11.916	VV	6683	136025	16.58%	0.331%
181	11.933	11.916	11.956	VV	6582	148025	18.04%	0.360%
182	12.033	11.956	12.079	VV	8475	512127	62.43%	1.247%
183	12.094	12.079	12.115	VV	6732	138150	16.84%	0.336%
184	12.134	12.115	12.157	VV	8819	193543	23.59%	0.471%
185	12.174	12.157	12.206	VV	8040	202623	24.70%	0.493%
186	12.224	12.206	12.243	VV	7873	153559	18.72%	0.374%
187	12.248	12.243	12.277	VV	6405	122037	14.88%	0.297%
188	12.297	12.277	12.328	VV	6134	178554	21.77%	0.435%
189	12.341	12.328	12.355	VV	5814	94037	11.46%	0.229%
190	12.410	12.355	12.441	VV	30769	638418	77.82%	1.555%
191	12.464	12.441	12.507	VV	13358	329761	40.20%	0.803%
192	12.516	12.507	12.574	VV	6065	218906	26.68%	0.533%
193	12.576	12.574	12.586	VV	4883	34770	4.24%	0.085%
194	12.615	12.586	12.655	VV	5219	201464	24.56%	0.491%

					rteres.txt			
195	12.687	12.655	12.707	VV	6112	169512	20.66%	0.413%
196	12.717	12.707	12.739	VV	5646	102681	12.52%	0.250%
197	12.750	12.739	12.767	VV	5225	83875	10.22%	0.204%
198	12.789	12.767	12.810	VV	6042	142877	17.42%	0.348%
199	12.827	12.810	12.863	VV	6733	173671	21.17%	0.423%
200	12.879	12.863	12.897	VV	5342	99753	12.16%	0.243%
201	12.907	12.897	12.955	VV	4603	151026	18.41%	0.368%
202	12.977	12.955	13.025	VV	4983	186255	22.70%	0.454%
203	13.056	13.025	13.100	VV	23500	421938	51.43%	1.028%
204	13.114	13.100	13.140	VV	4736	102236	12.46%	0.249%
205	13.146	13.140	13.160	VV	4001	47049	5.74%	0.115%
206	13.170	13.160	13.193	VV	4008	77428	9.44%	0.189%
207	13.201	13.193	13.261	VV	3979	141507	17.25%	0.345%
208	13.267	13.261	13.291	VV	3375	58547	7.14%	0.143%
209	13.309	13.291	13.329	VV	4012	83853	10.22%	0.204%
210	13.332	13.329	13.336	VV	3689	16370	2.00%	0.040%
211	13.342	13.336	13.365	VV	3701	60511	7.38%	0.147%
212	13.377	13.365	13.406	VV	3462	78649	9.59%	0.192%
213	13.418	13.406	13.437	VV	3692	62359	7.60%	0.152%
214	13.451	13.437	13.465	VV	4006	60863	7.42%	0.148%
215	13.492	13.465	13.527	VV	33990	595473	72.59%	1.450%
216	13.549	13.527	13.644	VV	27356	606056	73.88%	1.476%
217	13.672	13.644	13.705	VV	14002	241608	29.45%	0.588%
218	13.731	13.705	13.764	VV	5552	141076	17.20%	0.344%
219	13.770	13.764	13.816	VV	2917	83815	10.22%	0.204%
220	13.818	13.816	13.826	VV	2476	13660	1.67%	0.033%
221	13.840	13.826	13.870	VV	2511	60039	7.32%	0.146%
222	13.904	13.870	13.929	VV	2977	89728	10.94%	0.219%
223	13.951	13.929	14.003	VV	2540	100152	12.21%	0.244%
224	14.024	14.003	14.040	VV	2929	54588	6.65%	0.133%
225	14.055	14.040	14.080	VV	2605	58285	7.10%	0.142%
226	14.100	14.080	14.142	VV	2560	79732	9.72%	0.194%
227	14.168	14.142	14.205	VV	3393	89004	10.85%	0.217%
228	14.209	14.205	14.215	VV	1733	9498	1.16%	0.023%
229	14.223	14.215	14.238	VV	1707	23305	2.84%	0.057%
230	14.263	14.238	14.309	VV	7984	153566	18.72%	0.374%
231	14.322	14.309	14.339	VV	1850	31274	3.81%	0.076%
232	14.346	14.339	14.368	VV	1681	28571	3.48%	0.070%
233	14.381	14.368	14.442	VV	1544	59806	7.29%	0.146%
234	14.447	14.442	14.455	VV	1195	9037	1.10%	0.022%
235	14.488	14.455	14.547	VV	1657	74929	9.13%	0.182%
236	14.576	14.547	14.591	VV	1320	32738	3.99%	0.080%
237	14.598	14.591	14.616	VV	1298	17359	2.12%	0.042%
238	14.633	14.616	14.666	VV	1390	38054	4.64%	0.093%
239	14.687	14.666	14.705	VV	1259	26723	3.26%	0.065%
240	14.724	14.705	14.761	VV	1212	35508	4.33%	0.086%
241	14.765	14.761	14.769	VV	930	4018	0.49%	0.010%
242	14.783	14.769	14.803	VV	1129	19279	2.35%	0.047%
243	14.832	14.803	14.872	VV	3919	79883	9.74%	0.195%
244	14.875	14.872	14.879	VV	879	3982	0.49%	0.010%
245	14.894	14.879	14.946	VV	1107	36043	4.39%	0.088%
246	14.953	14.946	14.966	VV	821	9251	1.13%	0.023%

					rteres.txt				
247	14.969	14.966	14.986	VV	877	8987	1.10%	0.022%	
248	14.990	14.986	15.011	VV	780	10456	1.27%	0.025%	
249	15.014	15.011	15.020	VV	672	3599	0.44%	0.009%	
250	15.040	15.020	15.068	VV	833	20644	2.52%	0.050%	
251	15.070	15.068	15.074	VV	696	2268	0.28%	0.006%	
252	15.082	15.074	15.094	VV	719	7973	0.97%	0.019%	
253	15.095	15.094	15.117	VV	718	9372	1.14%	0.023%	
254	15.172	15.117	15.286	VV	20741	414948	50.58%	1.011%	
255	15.300	15.286	15.309	VV	557	6757	0.82%	0.016%	
256	15.377	15.309	15.445	VV	1984	62373	7.60%	0.152%	
257	15.450	15.445	15.459	VV	434	3028	0.37%	0.007%	
258	15.465	15.459	15.471	VV	385	2454	0.30%	0.006%	
259	15.477	15.471	15.517	VV	328	7467	0.91%	0.018%	
260	15.526	15.517	15.531	VV	340	2209	0.27%	0.005%	
261	15.536	15.531	15.546	VV	294	2322	0.28%	0.006%	
262	15.551	15.546	15.560	VV	273	2092	0.26%	0.005%	
263	15.579	15.560	15.632	VV	362	11298	1.38%	0.028%	
264	15.636	15.632	15.641	VV	223	1096	0.13%	0.003%	
265	15.644	15.641	15.672	VV	250	3204	0.39%	0.008%	
266	15.676	15.672	15.689	VV	142	1364	0.17%	0.003%	
267	15.719	15.689	15.734	VV	204	4202	0.51%	0.010%	
268	15.745	15.734	15.755	VV	214	1789	0.22%	0.004%	
269	15.769	15.755	15.785	VV	201	2677	0.33%	0.007%	
270	15.790	15.785	15.809	VV	167	1867	0.23%	0.005%	
271	15.815	15.809	15.837	VV	163	1923	0.23%	0.005%	
272	15.844	15.837	15.848	VV	147	742	0.09%	0.002%	
273	15.853	15.848	15.859	VV	123	659	0.08%	0.002%	
274	15.862	15.859	15.879	VV	105	1272	0.16%	0.003%	
275	15.901	15.879	15.948	VV	772	14935	1.82%	0.036%	
276	15.967	15.948	16.017	VV	272	5339	0.65%	0.013%	
277	16.030	16.017	16.043	PV	127	1133	0.14%	0.003%	
278	16.046	16.043	16.051	VV	129	402	0.05%	0.001%	
279	16.056	16.051	16.066	VV	132	740	0.09%	0.002%	
280	16.074	16.066	16.079	VV	95	610	0.07%	0.001%	
281	16.095	16.079	16.114	VV	246	3373	0.41%	0.008%	
282	16.133	16.114	16.139	VV	286	3094	0.38%	0.008%	
283	16.142	16.139	16.197	VV	263	4230	0.52%	0.010%	
284	16.224	16.197	16.248	VV	659	11287	1.38%	0.027%	
285	16.265	16.248	16.294	VV	502	7563	0.92%	0.018%	
286	16.300	16.294	16.318	VV	167	1507	0.18%	0.004%	
287	16.327	16.318	16.334	VV	200	967	0.12%	0.002%	
288	16.341	16.334	16.359	VV	111	1037	0.13%	0.003%	
289	16.364	16.359	16.372	VV	107	434	0.05%	0.001%	
290	16.407	16.372	16.458	VV	514	11099	1.35%	0.027%	
291	16.482	16.458	16.494	VV	132	1654	0.20%	0.004%	
292	16.501	16.494	16.529	VV	151	1655	0.20%	0.004%	
293	16.532	16.529	16.566	VV	123	1715	0.21%	0.004%	
294	16.573	16.566	16.577	PV	111	546	0.07%	0.001%	
295	16.583	16.577	16.597	VV	129	1107	0.13%	0.003%	
296	16.608	16.597	16.637	VV	144	1969	0.24%	0.005%	
297	16.644	16.637	16.669	VV	109	577	0.07%	0.001%	
298	16.692	16.669	16.700	PV	156	1384	0.17%	0.003%	
299	16.705	16.700	16.726	VV	116	1218	0.15%	0.003%	

					rteres.txt				
300	16.747	16.726	16.791	VV	95	2222	0.27%	0.005%	
301	16.799	16.791	16.806	VV	60	535	0.07%	0.001%	
302	16.812	16.806	16.825	VV	94	515	0.06%	0.001%	
303	16.832	16.825	16.840	PV	102	612	0.07%	0.001%	
304	16.898	16.840	16.911	VV	534	11640	1.42%	0.028%	
305	16.932	16.911	16.969	VV	740	15074	1.84%	0.037%	
306	16.971	16.969	16.989	VV	258	2209	0.27%	0.005%	
307	17.021	16.989	17.048	VV	1035	18431	2.25%	0.045%	
308	17.062	17.048	17.094	VV	334	6721	0.82%	0.016%	
309	17.098	17.094	17.101	VV	153	660	0.08%	0.002%	
310	17.104	17.101	17.111	VV	174	756	0.09%	0.002%	
311	17.123	17.111	17.127	VV	145	930	0.11%	0.002%	
312	17.132	17.127	17.157	VV	139	1647	0.20%	0.004%	
313	17.159	17.157	17.169	VV	147	613	0.07%	0.001%	
314	17.174	17.169	17.182	VV	91	657	0.08%	0.002%	
315	17.210	17.182	17.216	VV	112	1583	0.19%	0.004%	
316	17.220	17.216	17.222	VV	79	253	0.03%	0.001%	
317	17.231	17.222	17.236	VV	120	772	0.09%	0.002%	
318	17.243	17.236	17.265	VV	138	1870	0.23%	0.005%	
319	17.271	17.265	17.282	VV	114	710	0.09%	0.002%	
320	17.364	17.282	17.405	PV	894	18089	2.20%	0.044%	
321	17.408	17.405	17.419	VV	93	681	0.08%	0.002%	
322	17.450	17.419	17.495	VV	248	5270	0.64%	0.013%	
					Sum of corrected areas:		41062551		

FG090525.M Fri Sep 19 02:43:46 2025



CALIBRATION SUMMARY

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Alliance

Contract: ALLI03

ProjectID: NJ Waste Water PT

Lab Code: ACE

SDG No.: Q3015

Calibration Sequence : FG090525		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	113844337	113844	FG016555.D
500	59456306	118913	FG016556.D
200	25421963	127110	FG016557.D
100	12920061	129201	FG016558.D
50	6583572	131671	FG016559.D
AVG RF : 124148		% RSD : 6.034	AVG RT : 15.1874

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: ALLI03
ProjectID: NJ Waste Water PT
Lab Code: ACE SDG No.: Q3015
DataFile: FG016614.D Analyst Name: YP\AJ Analyst Date: 09-18-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	60690131	121380	124148	2.23

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016614.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 08:24
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Sep 18 15:05:37 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:20:52 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...	15.172	5307658	48.574 ug/ml
Target Compounds			
2) N-DECANE	4.642	6072704	49.826 ug/ml
3) N-DODECANE	6.826	6158579	50.021 ug/ml
4) N-TETRADECANE	8.667	6170739	49.665 ug/ml
5) N-HEXADECANE	10.286	6182947	49.297 ug/ml
6) N-OCTADECANE	11.739	6275159	48.824 ug/ml
7) N-EICOSANE	13.059	6267382	48.575 ug/ml
8) N-DOCOSANE	14.267	6056094	48.489 ug/ml
10) N-TETRACOSANE	15.378	5977167	48.295 ug/ml
11) N-HEXACOSANE	16.407	5842151	48.180 ug/ml
12) N-OCTACOSANE	17.363	5687209	47.598 ug/ml

(f)=RT Delta > 1/2 Window

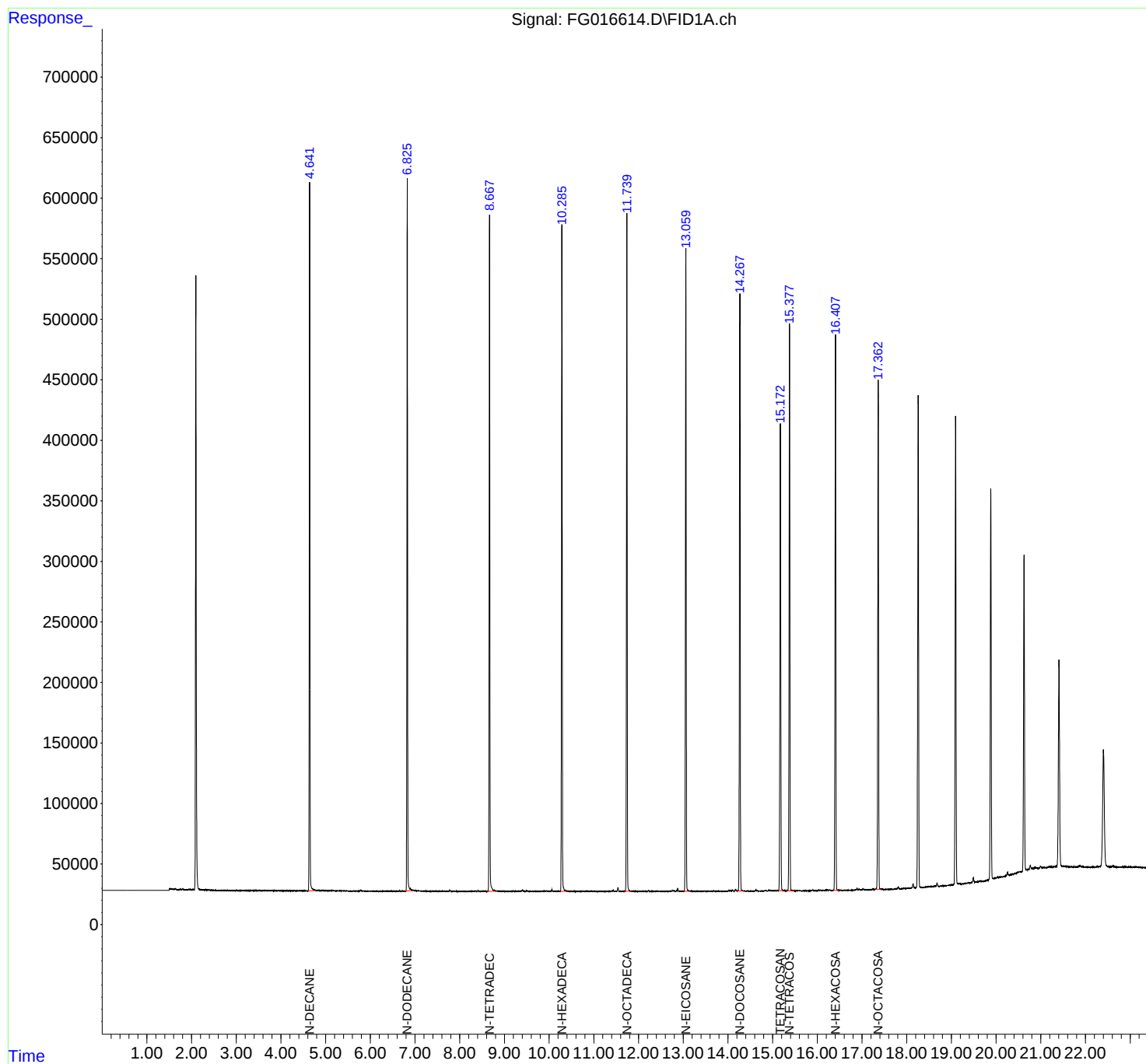
(m)=manual int.

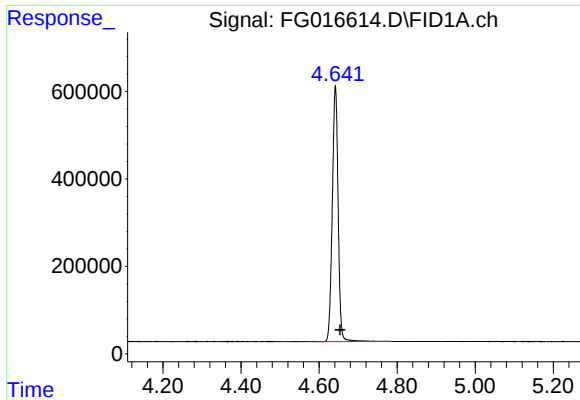
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016614.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 08:24
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Sep 18 15:05:37 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 2025
Response via : Initial Calibration
Integrator: ChemStation

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

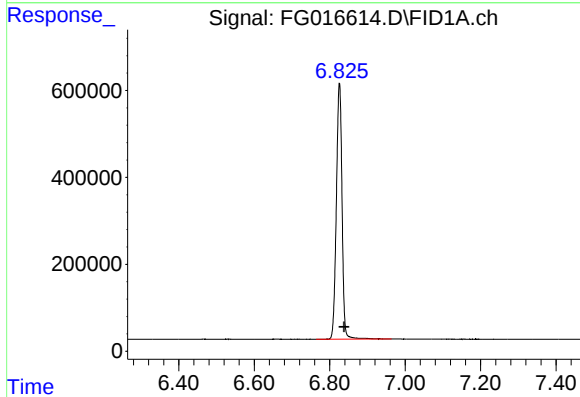




#2 N-DECANE

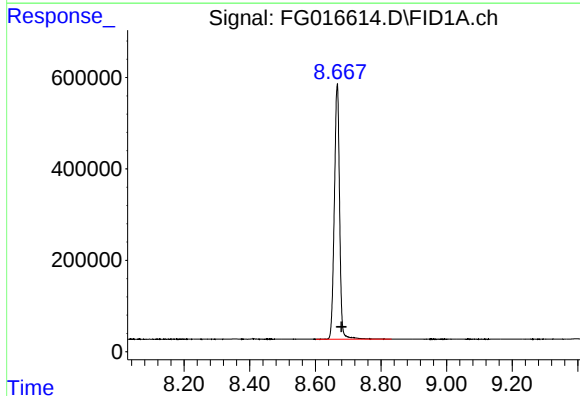
R.T.: 4.642 min
Delta R.T.: -0.012 min
Response: 6072704
Conc: 49.83 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



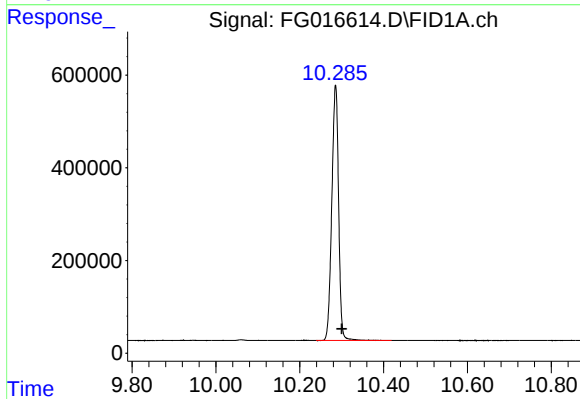
#3 N-DODECANE

R.T.: 6.826 min
Delta R.T.: -0.012 min
Response: 6158579
Conc: 50.02 ug/ml



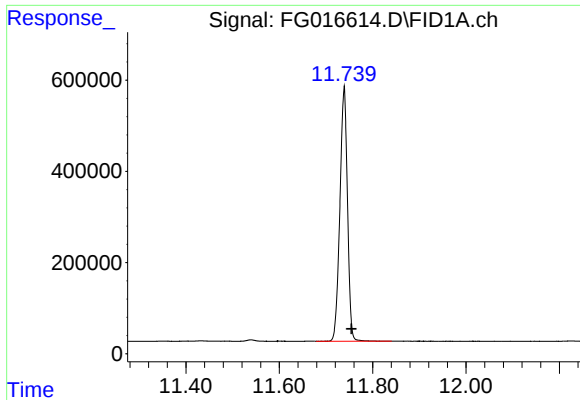
#4 N-TETRADECANE

R.T.: 8.667 min
Delta R.T.: -0.013 min
Response: 6170739
Conc: 49.66 ug/ml



#5 N-HEXADECANE

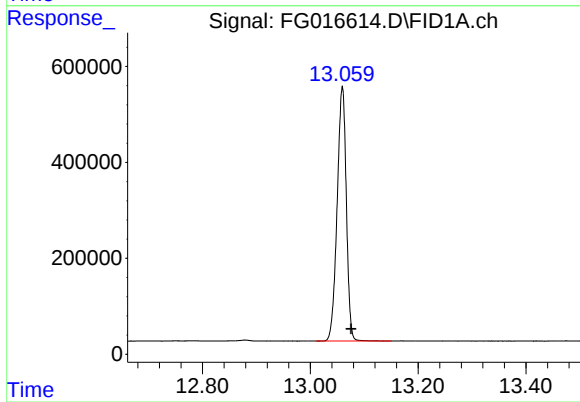
R.T.: 10.286 min
Delta R.T.: -0.015 min
Response: 6182947
Conc: 49.30 ug/ml



#6 N-OCTADECANE

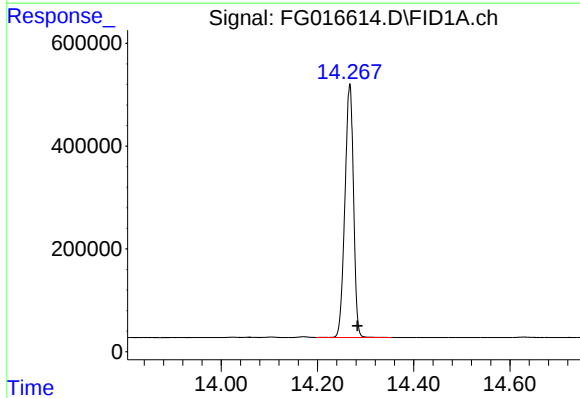
R.T.: 11.739 min
Delta R.T.: -0.016 min
Response: 6275159
Conc: 48.82 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



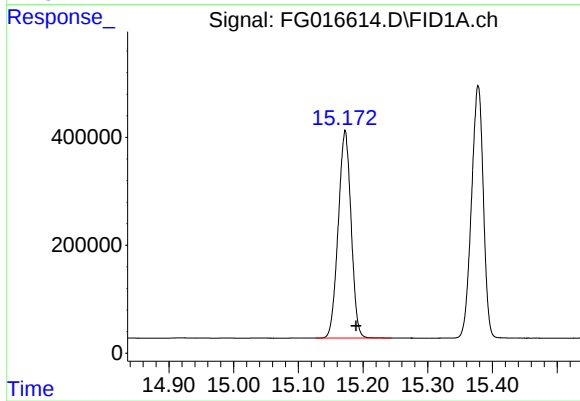
#7 N-EICOSANE

R.T.: 13.059 min
Delta R.T.: -0.016 min
Response: 6267382
Conc: 48.58 ug/ml



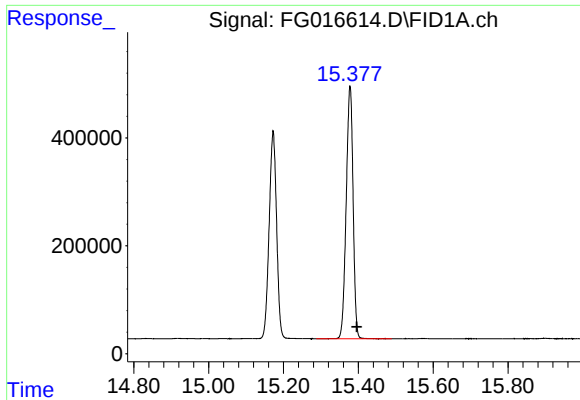
#8 N-DOCOSANE

R.T.: 14.267 min
Delta R.T.: -0.016 min
Response: 6056094
Conc: 48.49 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

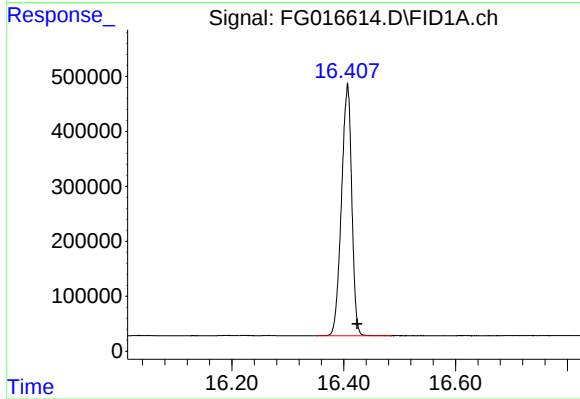
R.T.: 15.172 min
Delta R.T.: -0.017 min
Response: 5307658
Conc: 48.57 ug/ml



#10 N-TETRACOSANE

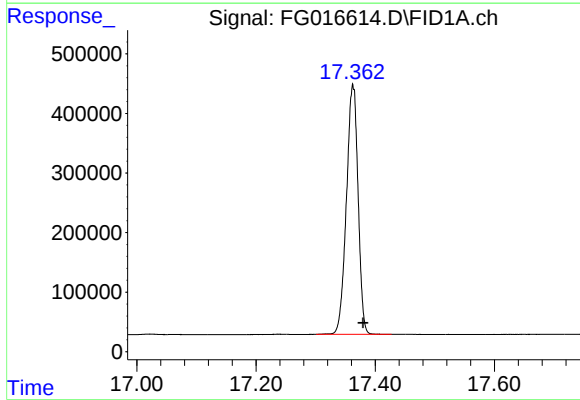
R.T.: 15.378 min
Delta R.T.: -0.017 min
Response: 5977167
Conc: 48.30 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.407 min
Delta R.T.: -0.017 min
Response: 5842151
Conc: 48.18 ug/ml



#12 N-OCTACOSANE

R.T.: 17.363 min
Delta R.T.: -0.017 min
Response: 5687209
Conc: 47.60 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016614.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 08:24
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.642	4.592	4.786	BB	584365	6072704	96.77%	8.478%
2	6.826	6.764	6.964	BV	589643	6158579	98.14%	8.597%
3	8.667	8.602	8.832	BB	560740	6170739	98.34%	8.614%
4	10.286	10.239	10.419	BB	550934	6182947	98.53%	8.631%
5	11.739	11.679	11.841	BB	557519	6275159	100.00%	8.760%
6	13.059	13.011	13.151	BB	529856	6267382	99.88%	8.749%
7	14.267	14.197	14.354	VB	493933	6056094	96.51%	8.454%
8	15.172	15.127	15.244	BV	385581	5307658	84.58%	7.410%
9	15.378	15.287	15.489	BB	468683	5977167	95.25%	8.344%
10	16.407	16.351	16.486	BB	457041	5842151	93.10%	8.156%
11	17.363	17.301	17.427	BV	418953	5687209	90.63%	7.939%
12	18.256	18.181	18.329	BB	405826	5634700	89.79%	7.866%
Sum of corrected areas:							71632489	

FG090525.M Thu Sep 18 15:13:53 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: ALLI03
ProjectID: NJ Waste Water PT
Lab Code: ACE SDG No.: Q3015
DataFile: FG016624.D Analyst Name: YP\AJ Analyst Date: 09-18-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	57688481	115377	124148	7.065

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016624.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 14:21
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Sep 19 01:51:17 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:20:52 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...	15.172	5042887	46.151 ug/ml
Target Compounds			
2) N-DECANE	4.642	5767927	47.326 ug/ml
3) N-DODECANE	6.826	5842022	47.450 ug/ml
4) N-TETRADECANE	8.666	5861316	47.174 ug/ml
5) N-HEXADECANE	10.285	5872195	46.820 ug/ml
6) N-OCTADECANE	11.739	5959831	46.371 ug/ml
7) N-EICOSANE	13.059	5948260	46.102 ug/ml
8) N-DOCOSANE	14.267	5749546	46.035 ug/ml
10) N-TETRACOSANE	15.378	5678055	45.879 ug/ml
11) N-HEXACOSANE	16.406	5571035	45.944 ug/ml
12) N-OCTACOSANE	17.362	5438294	45.515 ug/ml

(f)=RT Delta > 1/2 Window

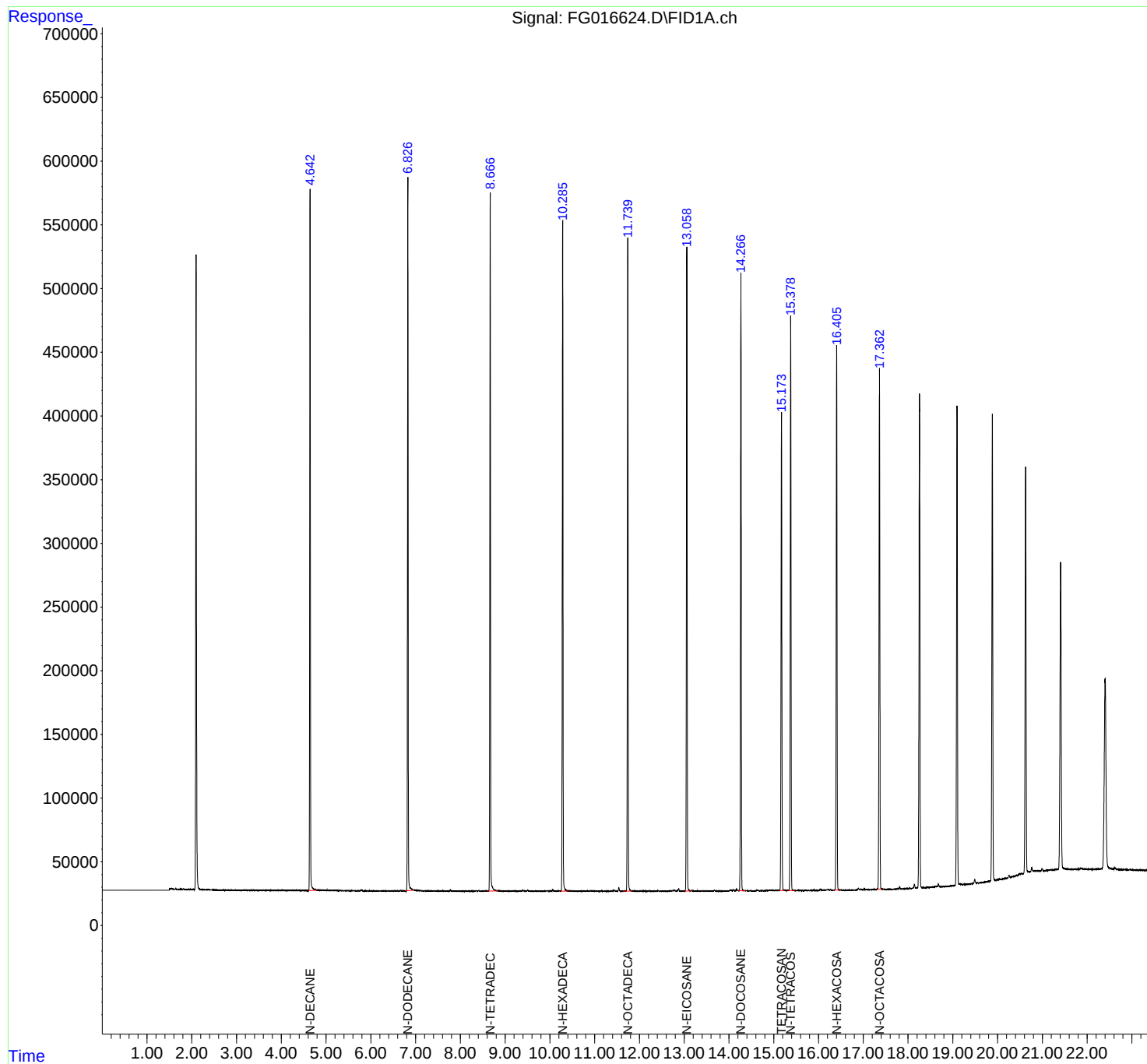
(m)=manual int.

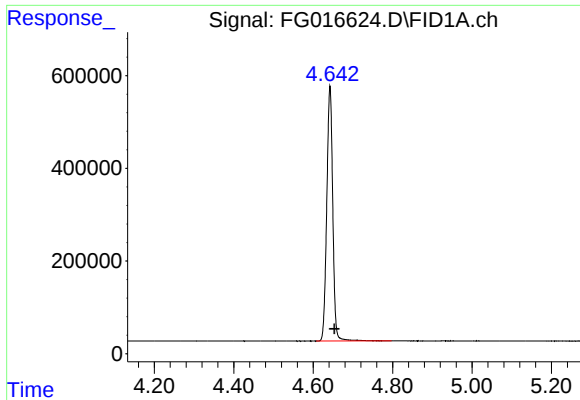
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016624.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 14:21
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Sep 19 01:51:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 2025
Response via : Initial Calibration
Integrator: ChemStation

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

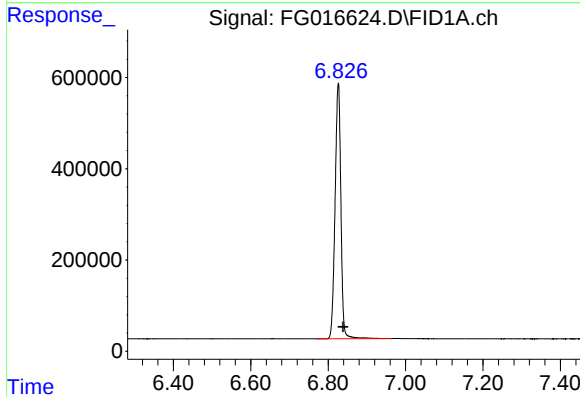




#2 N-DECANE

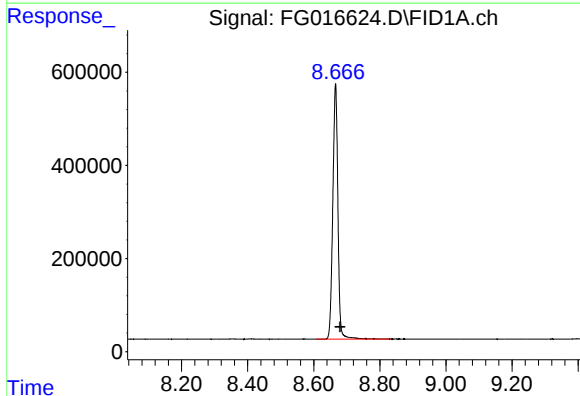
R.T.: 4.642 min
Delta R.T.: -0.011 min
Response: 5767927
Conc: 47.33 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



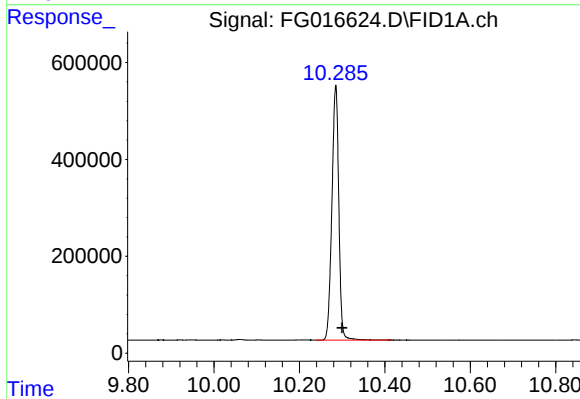
#3 N-DODECANE

R.T.: 6.826 min
Delta R.T.: -0.012 min
Response: 5842022
Conc: 47.45 ug/ml



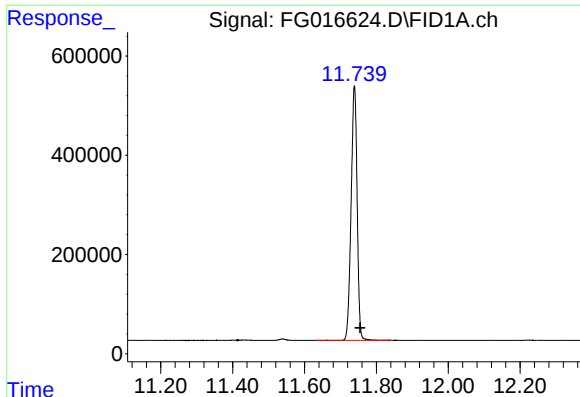
#4 N-TETRADECANE

R.T.: 8.666 min
Delta R.T.: -0.014 min
Response: 5861316
Conc: 47.17 ug/ml



#5 N-HEXADECANE

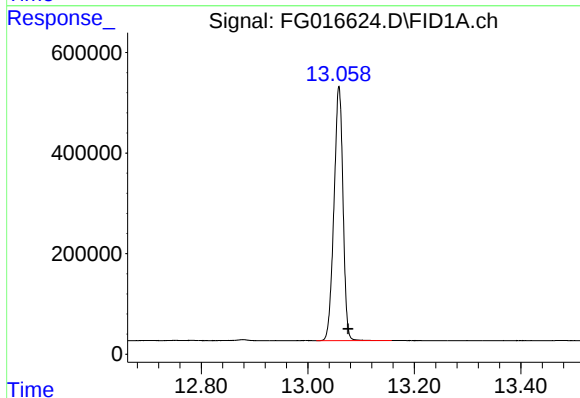
R.T.: 10.285 min
Delta R.T.: -0.015 min
Response: 5872195
Conc: 46.82 ug/ml



#6 N-OCTADECANE

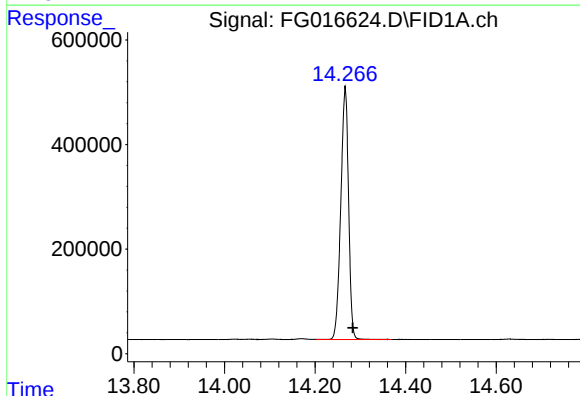
R.T.: 11.739 min
Delta R.T.: -0.016 min
Response: 5959831
Conc: 46.37 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



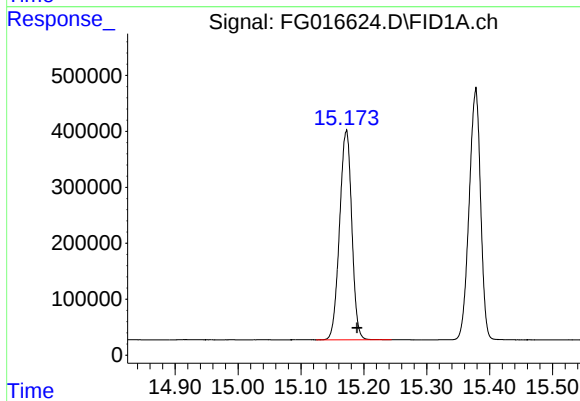
#7 N-EICOSANE

R.T.: 13.059 min
Delta R.T.: -0.017 min
Response: 5948260
Conc: 46.10 ug/ml



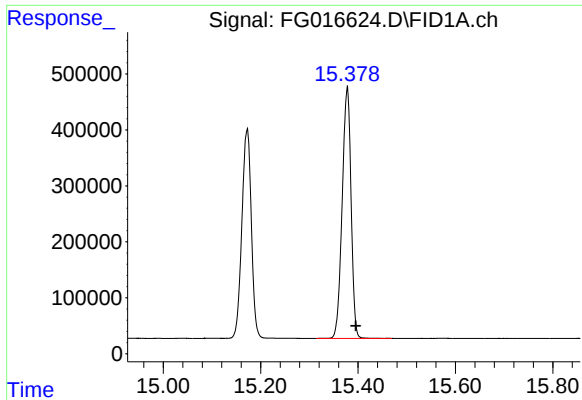
#8 N-DOCOSANE

R.T.: 14.267 min
Delta R.T.: -0.016 min
Response: 5749546
Conc: 46.03 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

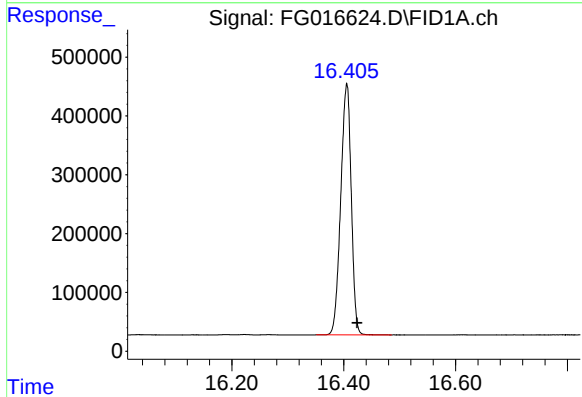
R.T.: 15.172 min
Delta R.T.: -0.017 min
Response: 5042887
Conc: 46.15 ug/ml



#10 N-TETRACOSANE

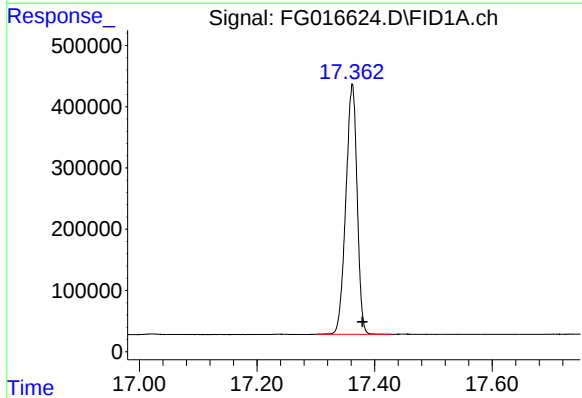
R.T.: 15.378 min
Delta R.T.: -0.017 min
Response: 5678055
Conc: 45.88 ug/ml

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD



#11 N-HEXACOSANE

R.T.: 16.406 min
Delta R.T.: -0.018 min
Response: 5571035
Conc: 45.94 ug/ml



#12 N-OCTACOSANE

R.T.: 17.362 min
Delta R.T.: -0.017 min
Response: 5438294
Conc: 45.51 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016624.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 14:21
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.642	4.607	4.797	BB	550227	5767927	96.78%	9.195%
2	6.826	6.769	6.964	BV	559086	5842022	98.02%	9.313%
3	8.666	8.607	8.836	BB	547940	5861316	98.35%	9.344%
4	10.285	10.239	10.416	BB	527419	5872195	98.53%	9.361%
5	11.739	11.632	11.842	BB	512728	5959831	100.00%	9.501%
6	13.059	13.016	13.157	BV	506392	5948260	99.81%	9.482%
7	14.267	14.202	14.369	VB	481137	5749546	96.47%	9.165%
8	15.172	15.124	15.244	VV	374044	5042887	84.61%	8.039%
9	15.378	15.314	15.469	BB	446682	5678055	95.27%	9.051%
10	16.406	16.351	16.486	BB	427111	5571035	93.48%	8.881%
11	17.362	17.301	17.429	BV	409280	5438294	91.25%	8.669%
Sum of corrected areas:						62731367		

FG090525.M Fri Sep 19 02:34:29 2025

Analytical Sequence

Client: Alliance Technical Group, LLC - Newark

SDG No.: Q3015

Project: NJ Waste Water PT

Instrument ID: FID_G

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 15.1874					
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	18 Sep 2025 07:55	FG016613.D	15.174	
50 PPM TRPH STD	50 PPM TRPH STD	18 Sep 2025 08:24	FG016614.D	15.172	
PB169733BL	PB169733BL	18 Sep 2025 09:23	FG016616.D	15.171	
PB169733BS	PB169733BS	18 Sep 2025 09:52	FG016617.D	15.169	
PB169733BSD	PB169733BSD	18 Sep 2025 10:54	FG016618.D	15.170	
WP0925-RR-DIES-WP	Q3015-19	18 Sep 2025 12:22	FG016620.D	15.172	
PIBLK02	LBLK02	18 Sep 2025 13:51	FG016623.D	15.170	
50 PPM TRPH STD	50 PPM TRPH STD	18 Sep 2025 14:21	FG016624.D	15.172	



QC SAMPLE DATA

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:		
Project:	NJ Waste Water PT		Date Received:		
Client Sample ID:	PB169733BL		SDG No.:	Q3015	
Lab Sample ID:	PB169733BL		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016616.D	1	09/17/25 12:20	09/18/25 9:23	PB169733

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	14.4		29 - 130	72%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016616.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:23
Operator : YP\AJ
Sample : PB169733BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169733BL

Integration File: autoint1.e
Quant Time: Sep 19 01:48:55 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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...	15.171	1578233	14.443 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

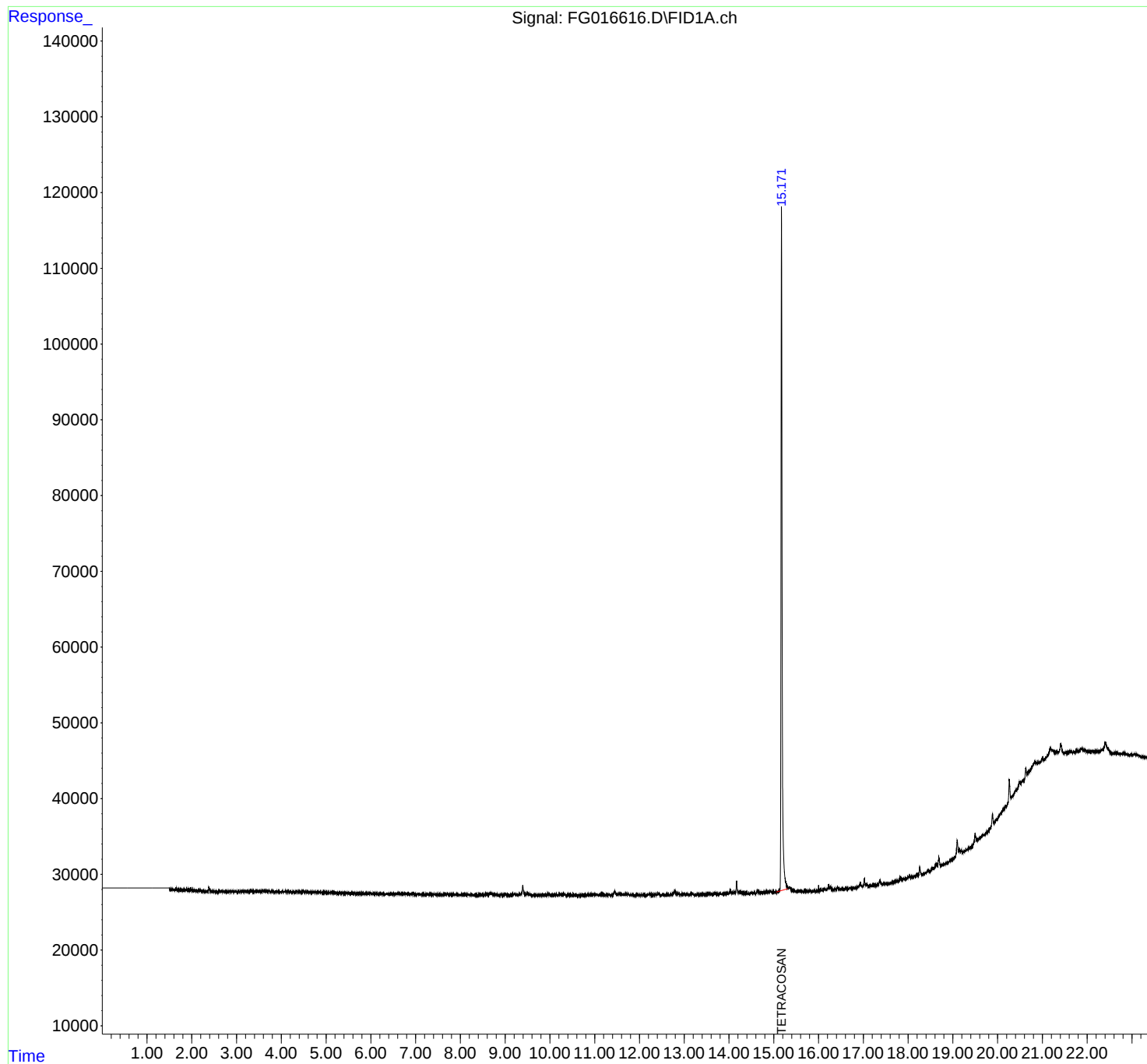
(m)=manual int.

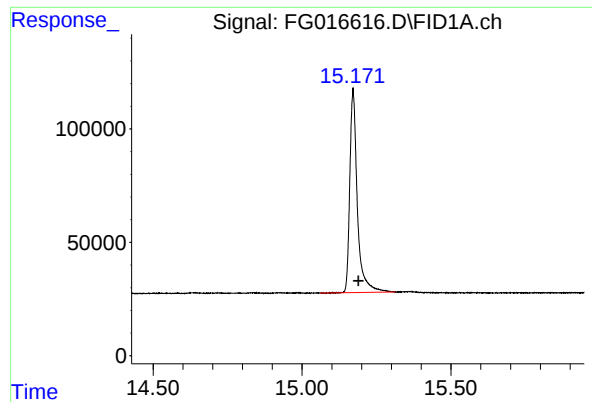
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016616.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:23
Operator : YP\AJ
Sample : PB169733BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169733BL

Integration File: autoint1.e
Quant Time: Sep 19 01:48:55 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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.: 15.171 min
Delta R.T.: -0.018 min
Response: 1578233
Conc: 14.44 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BL

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016616.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:23
Sample : PB169733BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.171	15.061	15.314	BB	89572	1578233	100.00%	100.000%
Sum of corrected areas:						1578233		

FG090525.M Fri Sep 19 02:25:34 2025

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:	09/18/25	
Project:	NJ Waste Water PT		Date Received:	09/18/25	
Client Sample ID:	PIBLK-FG016613.D		SDG No.:	Q3015	
Lab Sample ID:	I.BLK-FG016613.D		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016613.D	1		09/18/25	FG091825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	15.5		29 - 130	78%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016613.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 07:55
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Sep 18 15:05:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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...	15.174	1693359	15.497 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

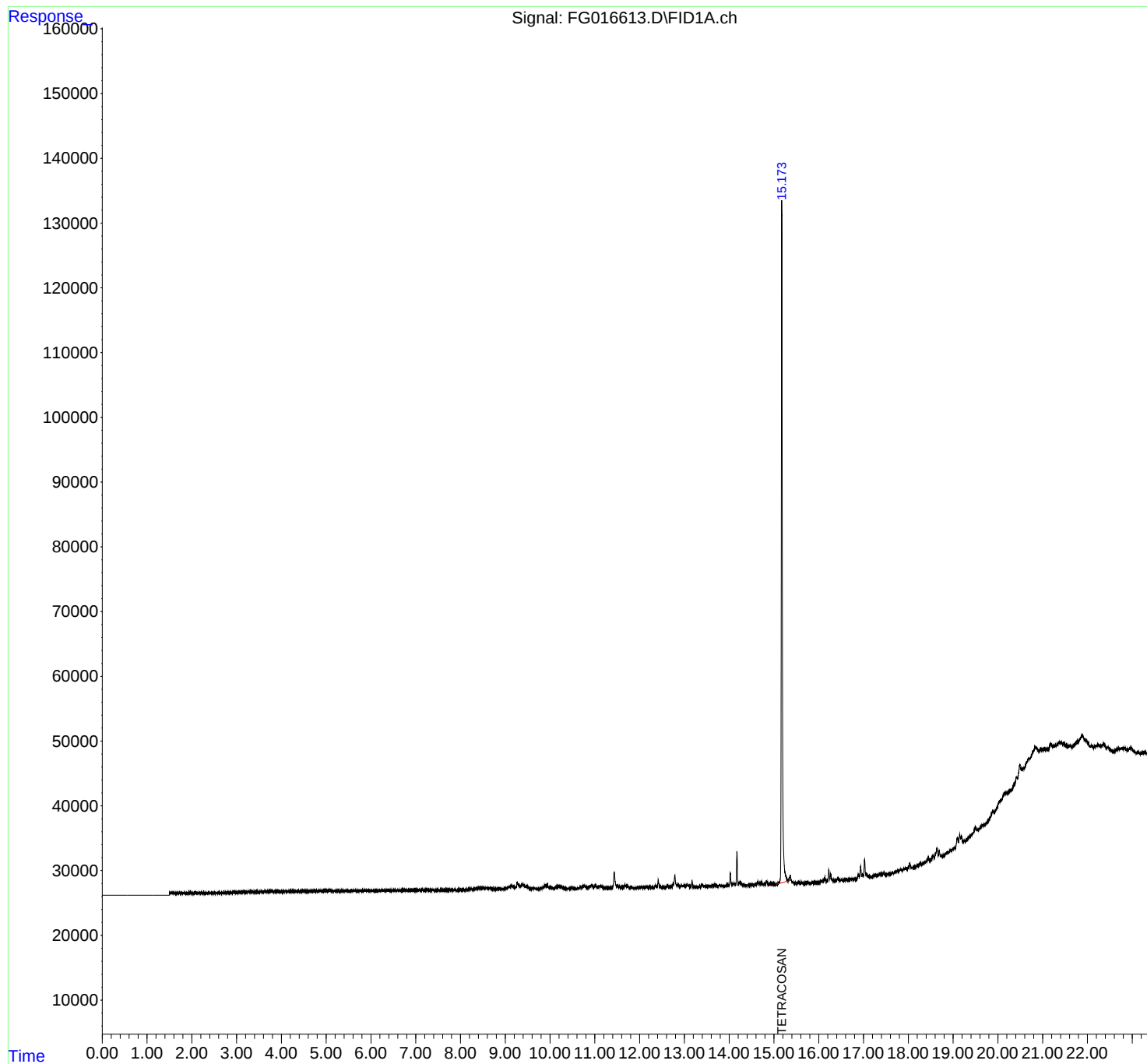
(m)=manual int.

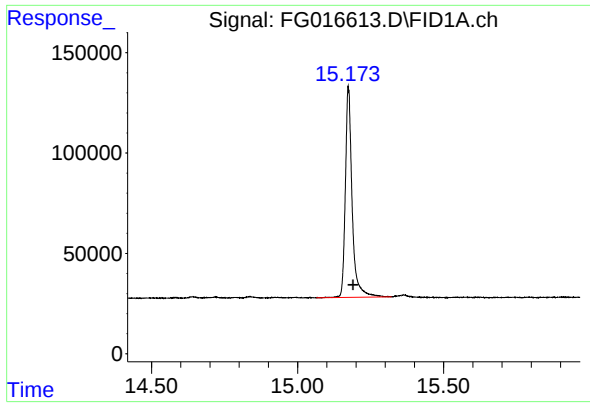
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016613.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 07:55
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Sep 18 15:05:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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.: 15.174 min
Delta R.T.: -0.016 min
Response: 1693359
Conc: 15.50 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016613.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 07:55
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.174	15.064	15.322	BV	104426	1693359	100.00%	100.000%
Sum of corrected areas:						1693359		

FG090525.M Thu Sep 18 15:12:37 2025

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:	09/18/25	
Project:	NJ Waste Water PT		Date Received:	09/18/25	
Client Sample ID:	PIBLK-FG016623.D		SDG No.:	Q3015	
Lab Sample ID:	I.BLK-FG016623.D		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016623.D	1		09/18/25	FG091825

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	6.00	U	6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	15.4		29 - 130	77%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016623.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 13:51
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Sep 19 01:50:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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...	15.170	1680873	15.383 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

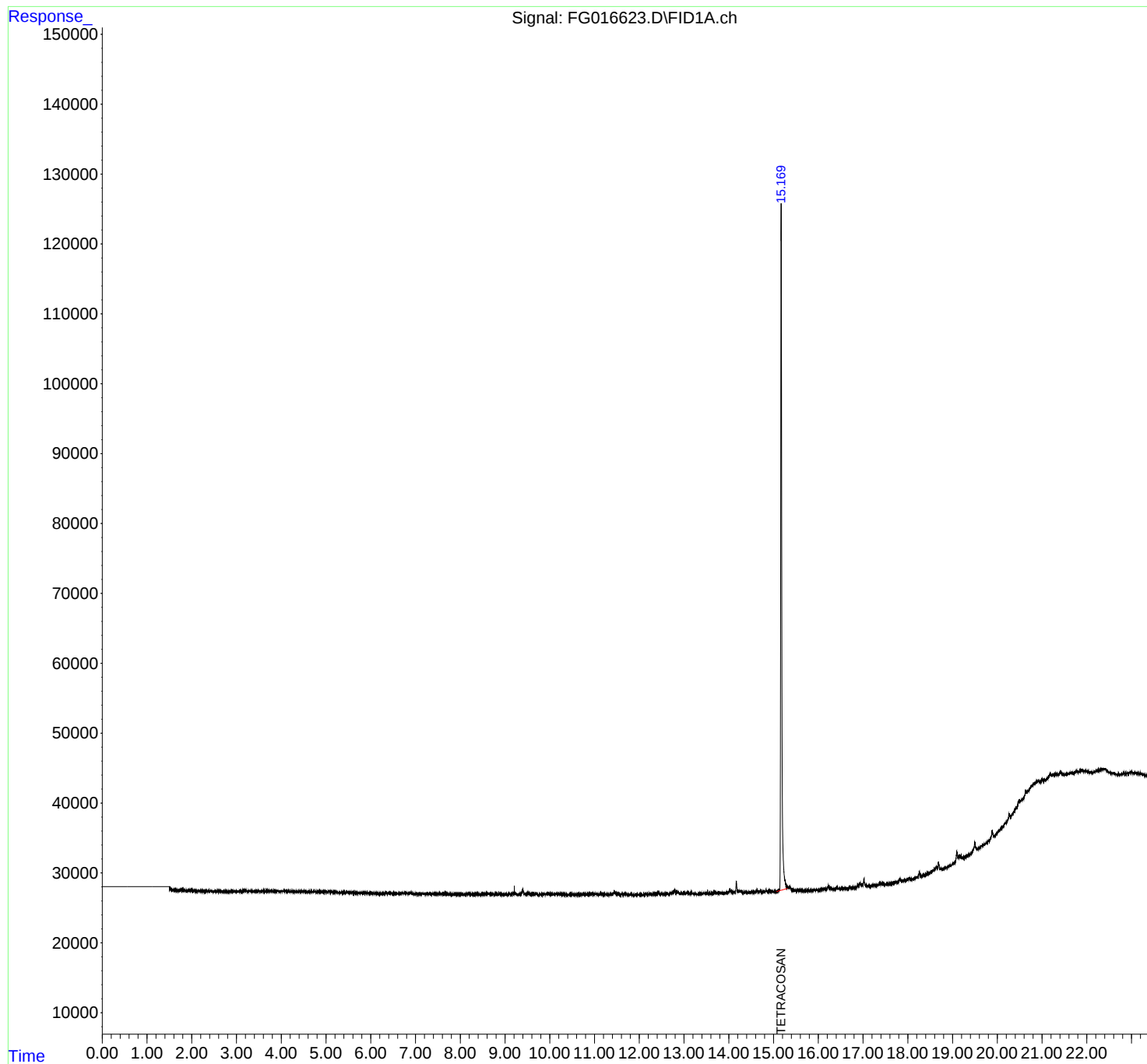
(m)=manual int.

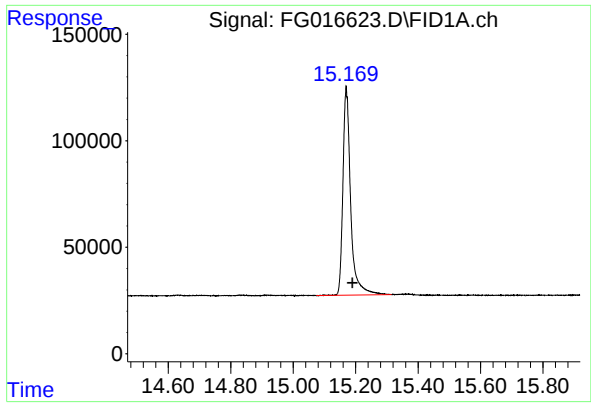
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016623.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 13:51
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Sep 19 01:50:58 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 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.: 15.170 min
Delta R.T.: -0.020 min
Response: 1680873
Conc: 15.38 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016623.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 13:51
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.170	15.074	15.315	BV	97876	1680873	100.00%	100.000%
Sum of corrected areas:						1680873		

FG090525.M Fri Sep 19 02:33:51 2025

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:		
Project:	NJ Waste Water PT		Date Received:		
Client Sample ID:	PB169733BS		SDG No.:	Q3015	
Lab Sample ID:	PB169733BS		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016617.D	1	09/17/25 12:20	09/18/25 9:52	PB169733

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	185		6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	17.6		29 - 130	88%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016617.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 09:52
 Operator : YP\AJ
 Sample : PB169733BS
 Misc :
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 PB169733BS

Integration File: autoint1.e
 Quant Time: Sep 19 01:49:15 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:20:52 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...	15.169	1926332	17.629 ug/ml
Target Compounds			
2) N-DECANE	4.644	2187266	17.946 ug/ml
3) N-DODECANE	6.825	2244339	18.229 ug/ml
4) N-TETRADECANE	8.665	2311489	18.604 ug/ml
5) N-HEXADECANE	10.284	2319377	18.493 ug/ml
6) N-OCTADECANE	11.737	2370678	18.445 ug/ml
7) N-EICOSANE	13.056	2411496	18.690 ug/ml
8) N-DOCOSANE	14.264	2321176	18.585 ug/ml
10) N-TETRACOSANE	15.375	2316853	18.720 ug/ml
11) N-HEXACOSANE	16.402	2225363	18.352 ug/ml
12) N-OCTACOSANE	17.360	2279249	19.076 ug/ml

(f)=RT Delta > 1/2 Window

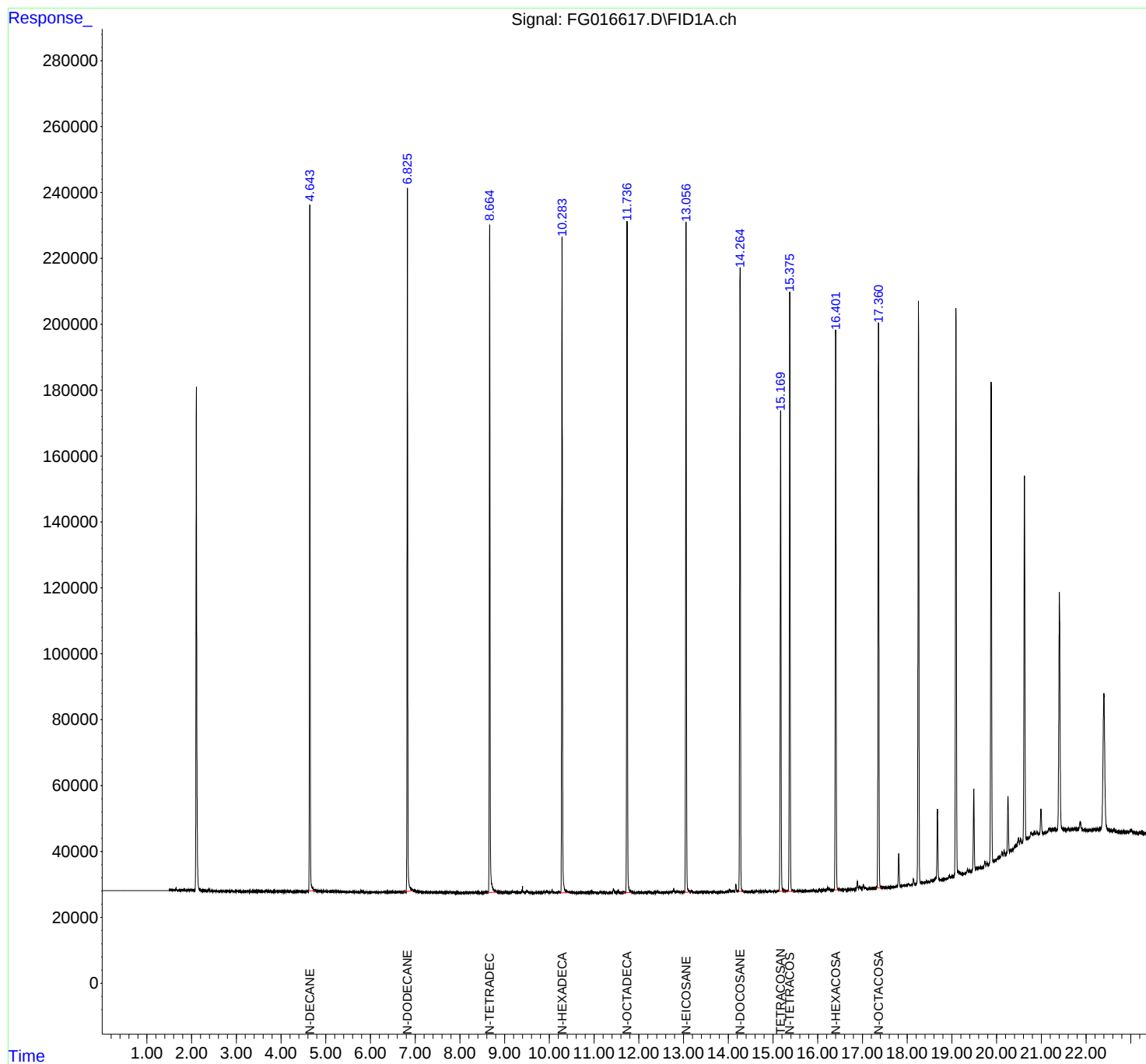
(m)=manual int.

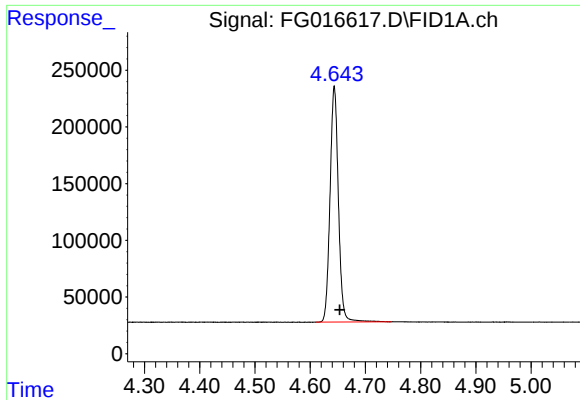
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016617.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:52
Operator : YP\AJ
Sample : PB169733BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169733BS

Integration File: autoint1.e
Quant Time: Sep 19 01:49:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 2025
Response via : Initial Calibration
Integrator: ChemStation

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

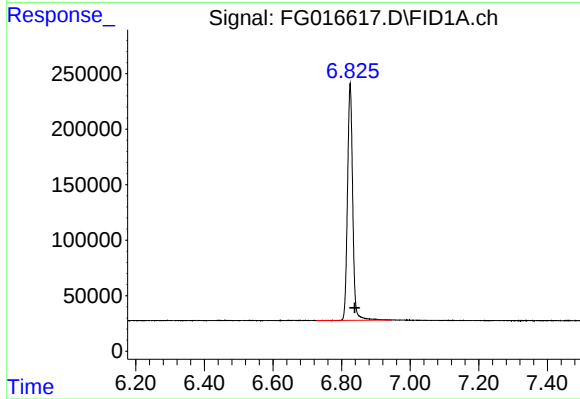




#2 N-DECANE

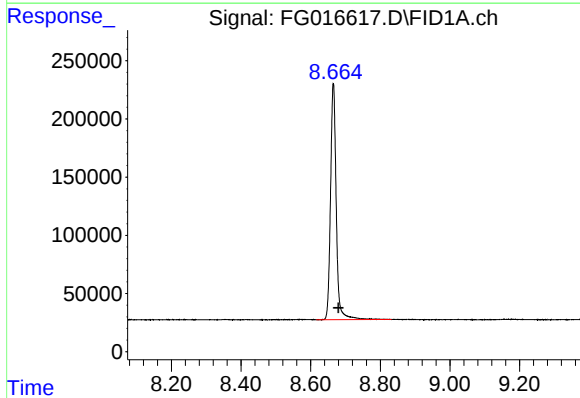
R.T.: 4.644 min
Delta R.T.: -0.010 min
Response: 2187266
Conc: 17.95 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BS



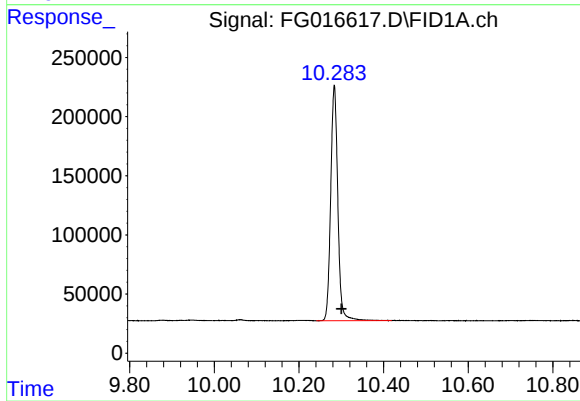
#3 N-DODECANE

R.T.: 6.825 min
Delta R.T.: -0.013 min
Response: 2244339
Conc: 18.23 ug/ml



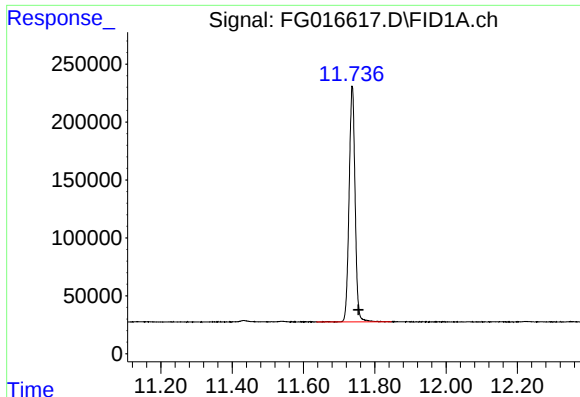
#4 N-TETRADECANE

R.T.: 8.665 min
Delta R.T.: -0.015 min
Response: 2311489
Conc: 18.60 ug/ml



#5 N-HEXADECANE

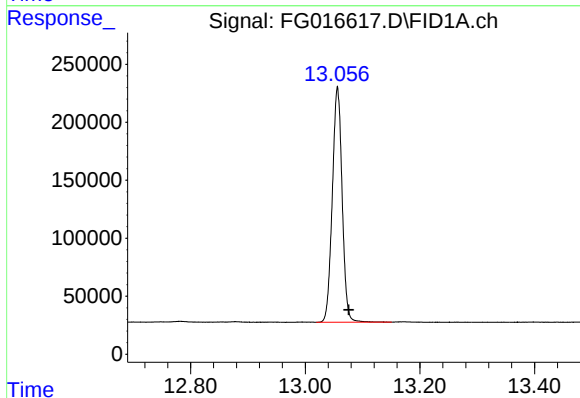
R.T.: 10.284 min
Delta R.T.: -0.016 min
Response: 2319377
Conc: 18.49 ug/ml



#6 N-OCTADECANE

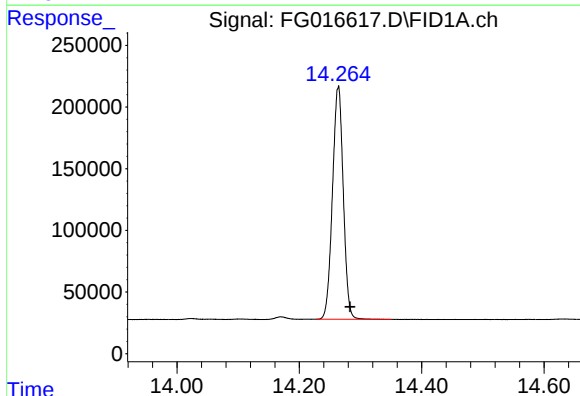
R.T.: 11.737 min
Delta R.T.: -0.018 min
Response: 2370678
Conc: 18.45 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BS



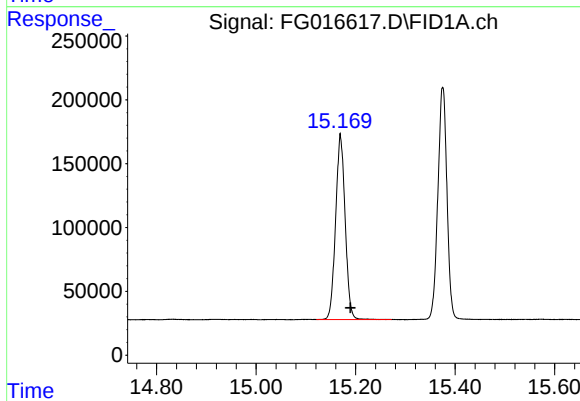
#7 N-EICOSANE

R.T.: 13.056 min
Delta R.T.: -0.019 min
Response: 2411496
Conc: 18.69 ug/ml



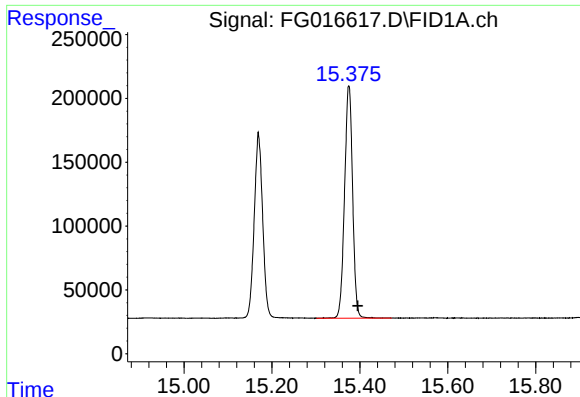
#8 N-DOCOSANE

R.T.: 14.264 min
Delta R.T.: -0.019 min
Response: 2321176
Conc: 18.58 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

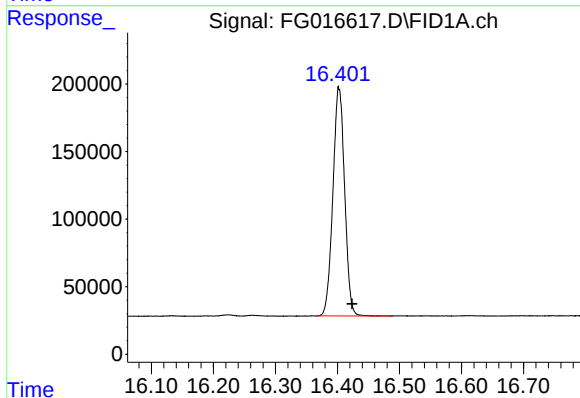
R.T.: 15.169 min
Delta R.T.: -0.020 min
Response: 1926332
Conc: 17.63 ug/ml



#10 N-TETRACOSANE

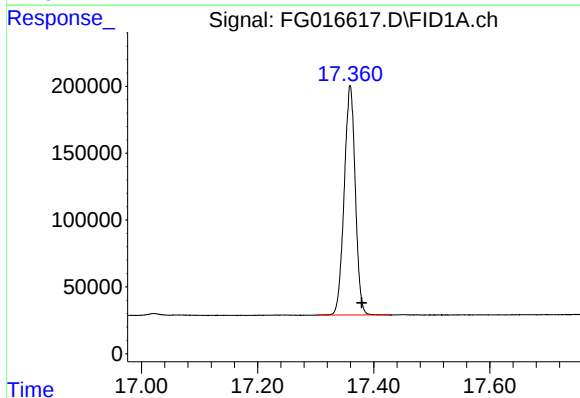
R.T.: 15.375 min
Delta R.T.: -0.020 min
Response: 2316853
Conc: 18.72 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BS



#11 N-HEXACOSANE

R.T.: 16.402 min
Delta R.T.: -0.021 min
Response: 2225363
Conc: 18.35 ug/ml



#12 N-OCTACOSANE

R.T.: 17.360 min
Delta R.T.: -0.020 min
Response: 2279249
Conc: 19.08 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016617.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 09:52
Sample : PB169733BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.644	4.611	4.747	BB	207782	2187266	90.70%	8.779%
2	6.825	6.726	6.946	BB	212689	2244339	93.07%	9.008%
3	8.665	8.616	8.832	BB	202819	2311489	95.85%	9.278%
4	10.284	10.241	10.419	BB	199530	2319377	96.18%	9.310%
5	11.737	11.636	11.847	BB	202953	2370678	98.31%	9.516%
6	13.056	13.019	13.151	BV	202467	2411496	100.00%	9.679%
7	14.264	14.227	14.351	BB	188780	2321176	96.25%	9.317%
8	15.169	15.121	15.272	BB	145090	1926332	79.88%	7.732%
9	15.375	15.301	15.472	BB	182078	2316853	96.08%	9.300%
10	16.402	16.366	16.487	BB	168207	2225363	92.28%	8.932%
11	17.360	17.301	17.431	BV	171913	2279249	94.52%	9.149%
Sum of corrected areas:						24913618		

FG090525.M Fri Sep 19 02:32:24 2025

Report of Analysis

Client:	Alliance Technical Group, LLC - Newark		Date Collected:		
Project:	NJ Waste Water PT		Date Received:		
Client Sample ID:	PB169733BSD		SDG No.:	Q3015	
Lab Sample ID:	PB169733BSD		Matrix:	Water	
Analytical Method:	8015D DRO		% Solid:	0	Decanted:
Sample Wt/Vol:	1000	Units: mL	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	Diesel Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3510				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016618.D	1	09/17/25 12:20	09/18/25 10:54	PB169733

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
DRO	DRO	157		6.00	50.0	ug/L
SURROGATES						
16416-32-3	Tetracosane-d50	15.1		29 - 130	76%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016618.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 10:54
 Operator : YP\AJ
 Sample : PB169733BSD
 Misc :
 ALS Vial : 23 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 PB169733BSD

Integration File: autoint1.e
 Quant Time: Sep 19 01:49:46 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Quant Title :
 QLast Update : Sat Sep 06 04:20:52 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...	15.170	1654484	15.141 ug/ml
Target Compounds			
2) N-DECANE	4.642	1788485	14.674 ug/ml
3) N-DODECANE	6.825	1865403	15.151 ug/ml
4) N-TETRADECANE	8.665	1933542	15.562 ug/ml
5) N-HEXADECANE	10.284	1955037	15.588 ug/ml
6) N-OCTADECANE	11.737	2012743	15.660 ug/ml
7) N-EICOSANE	13.058	2068223	16.030 ug/ml
8) N-DOCOSANE	14.264	2008798	16.084 ug/ml
10) N-TETRACOSANE	15.375	1993531	16.108 ug/ml
11) N-HEXACOSANE	16.404	1915607	15.798 ug/ml
12) N-OCTACOSANE	17.359	1913311	16.013 ug/ml

(f)=RT Delta > 1/2 Window

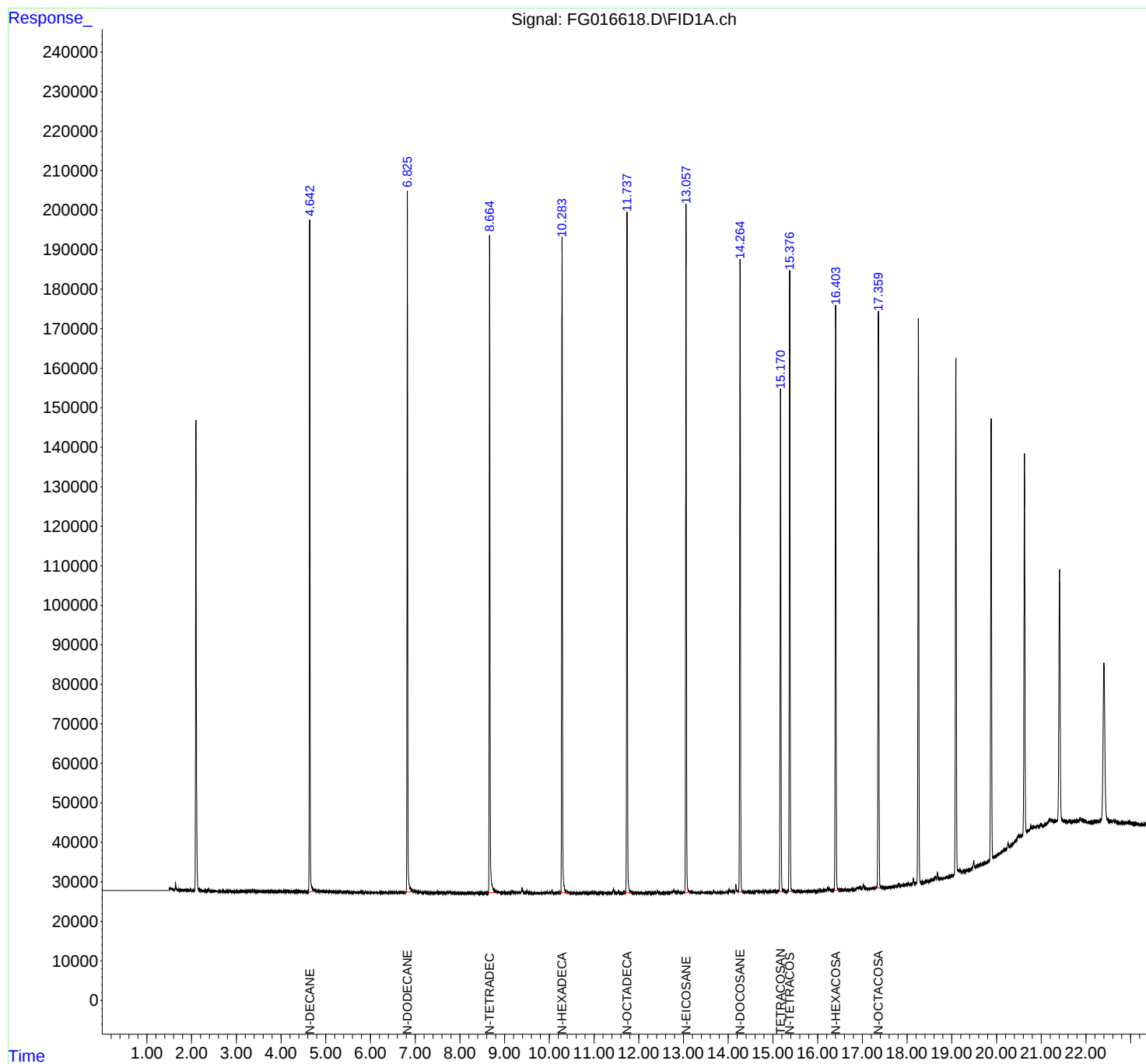
(m)=manual int.

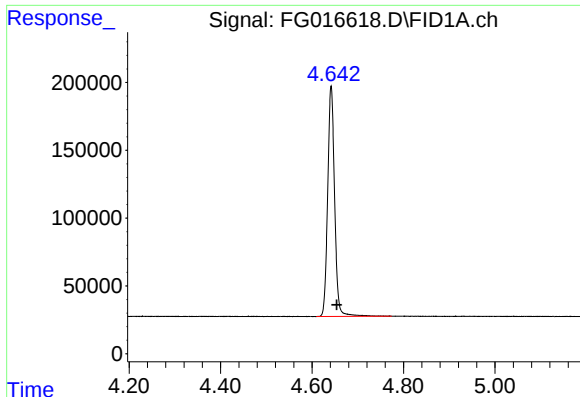
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
Data File : FG016618.D
Signal(s) : FID1A.ch
Acq On : 18 Sep 2025 10:54
Operator : YP\AJ
Sample : PB169733BSD
Misc :
ALS Vial : 23 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB169733BSD

Integration File: autoint1.e
Quant Time: Sep 19 01:49:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
Quant Title :
QLast Update : Sat Sep 06 04:20:52 2025
Response via : Initial Calibration
Integrator: ChemStation

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

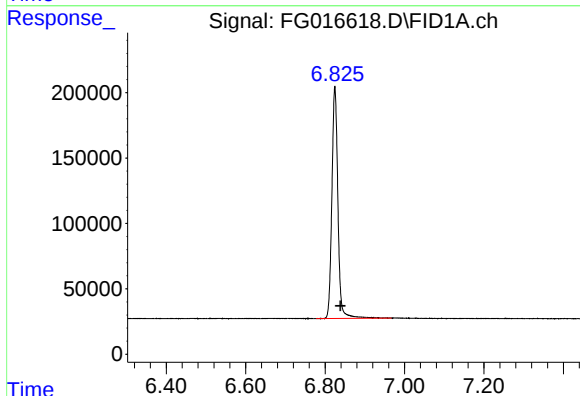




#2 N-DECANE

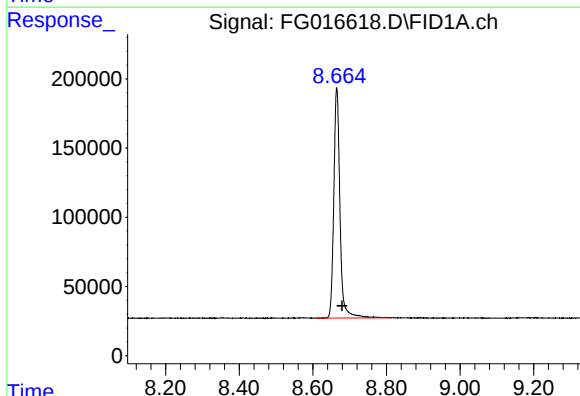
R.T.: 4.642 min
Delta R.T.: -0.012 min
Response: 1788485
Conc: 14.67 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BSD



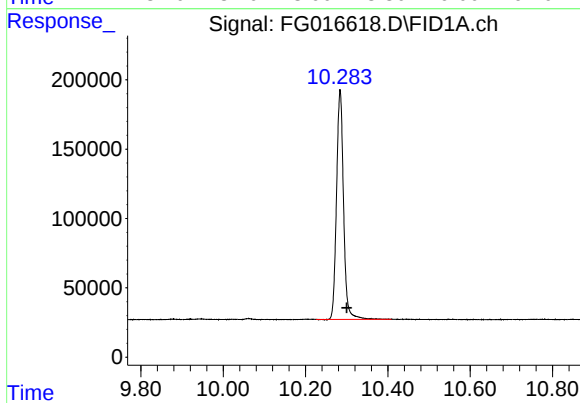
#3 N-DODECANE

R.T.: 6.825 min
Delta R.T.: -0.014 min
Response: 1865403
Conc: 15.15 ug/ml



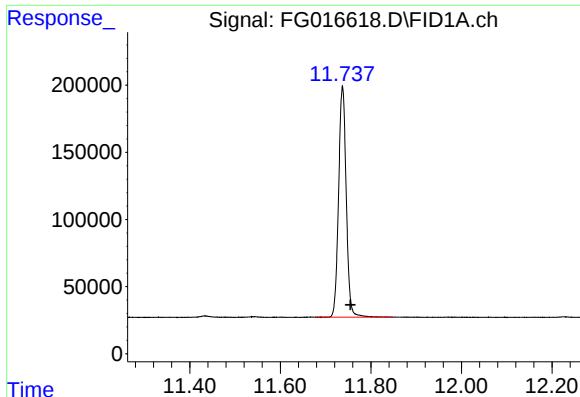
#4 N-TETRADECANE

R.T.: 8.665 min
Delta R.T.: -0.015 min
Response: 1933542
Conc: 15.56 ug/ml



#5 N-HEXADECANE

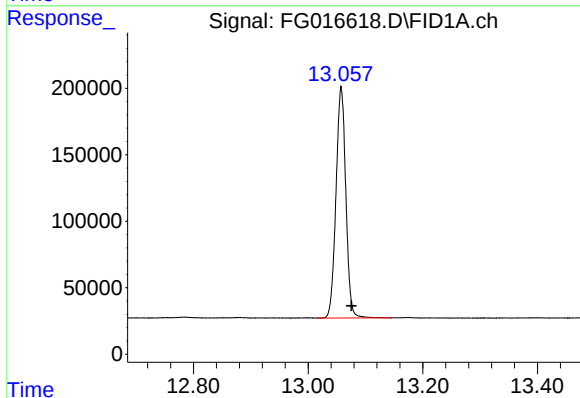
R.T.: 10.284 min
Delta R.T.: -0.016 min
Response: 1955037
Conc: 15.59 ug/ml



#6 N-OCTADECANE

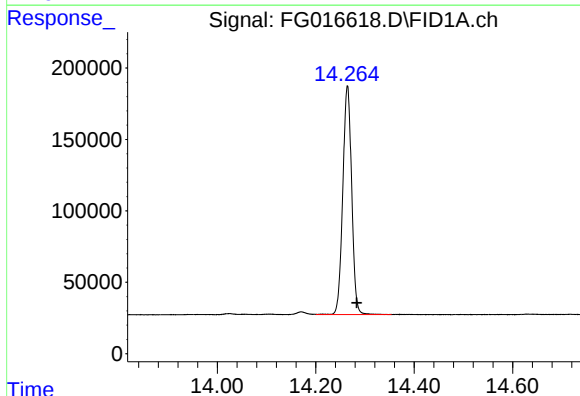
R.T.: 11.737 min
Delta R.T.: -0.017 min
Response: 2012743
Conc: 15.66 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BSD



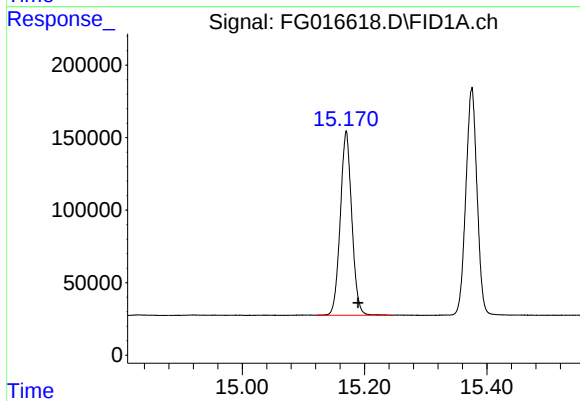
#7 N-EICOSANE

R.T.: 13.058 min
Delta R.T.: -0.018 min
Response: 2068223
Conc: 16.03 ug/ml



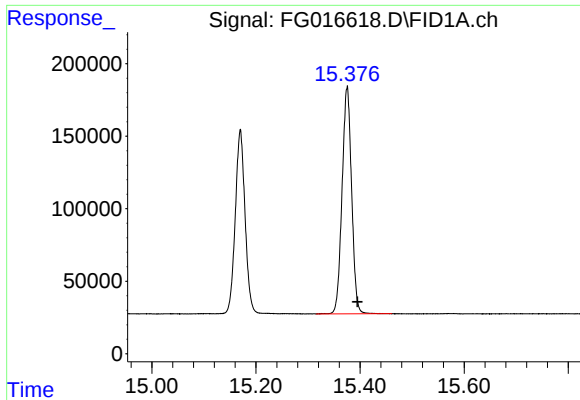
#8 N-DOCOSANE

R.T.: 14.264 min
Delta R.T.: -0.019 min
Response: 2008798
Conc: 16.08 ug/ml



#9 TETRACOSANE-d50 (SURROGATE)

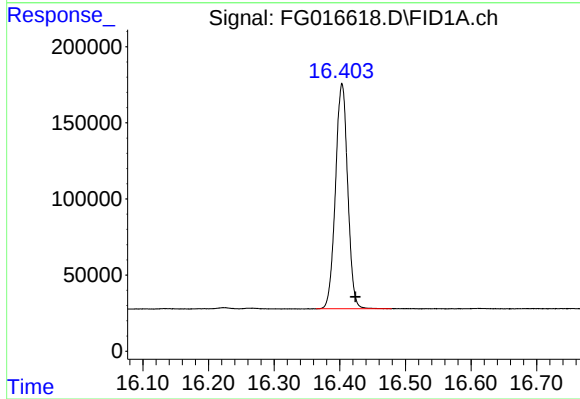
R.T.: 15.170 min
Delta R.T.: -0.019 min
Response: 1654484
Conc: 15.14 ug/ml



#10 N-TETRACOSANE

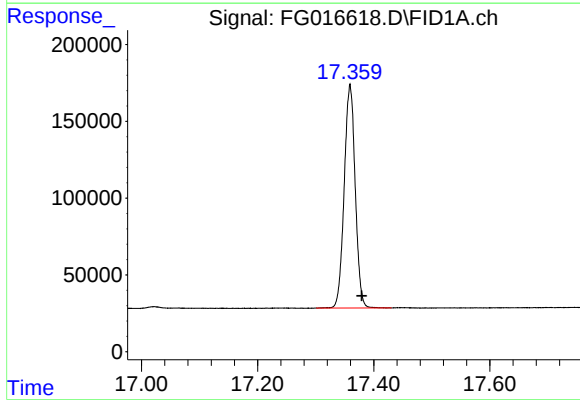
R.T.: 15.375 min
Delta R.T.: -0.020 min
Response: 1993531
Conc: 16.11 ug/ml

Instrument :
FID_G
ClientSampleId :
PB169733BSD



#11 N-HEXACOSANE

R.T.: 16.404 min
Delta R.T.: -0.020 min
Response: 1915607
Conc: 15.80 ug/ml



#12 N-OCTACOSANE

R.T.: 17.359 min
Delta R.T.: -0.020 min
Response: 1913311
Conc: 16.01 ug/ml

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG091825\
 Data File : FG016618.D
 Signal(s) : FID1A.ch
 Acq On : 18 Sep 2025 10:54
 Sample : PB169733BSD
 Misc :
 ALS Vial : 23 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG090525.M
 Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.642	4.609	4.774	BB	170175	1788485	86.47%	8.473%
2	6.825	6.777	6.967	BB	176953	1865403	90.19%	8.837%
3	8.665	8.609	8.814	BB	166127	1933542	93.49%	9.160%
4	10.284	10.226	10.409	BB	165793	1955037	94.53%	9.262%
5	11.737	11.679	11.846	BB	172053	2012743	97.32%	9.535%
6	13.058	13.014	13.146	BB	173696	2068223	100.00%	9.798%
7	14.264	14.201	14.354	VB	160239	2008798	97.13%	9.516%
8	15.170	15.121	15.244	BB	127426	1654484	80.00%	7.838%
9	15.375	15.316	15.461	BB	157123	1993531	96.39%	9.444%
10	16.404	16.364	16.479	BB	147779	1915607	92.62%	9.075%
11	17.359	17.301	17.431	BV	145762	1913311	92.51%	9.064%
Sum of corrected areas:						21109164		

FG090525.M Fri Sep 19 02:33:21 2025

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
5 TRPH STD		FG016559.D	FG090525	N-HEXATRIACONTANE	mohammad	9/9/2025 12:27:44 AM	Peak Integrated by Software incorrectly
FG090525ICV		FG016560.D	FG090525	N-OCTATRIACONTANE	mohammad	9/9/2025 12:27:44 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q3124-02		FG016621.D	FG091825	TETRACOSANE-d50 (SURROGA	mohammad	9/19/2025 1:53:18 AM	Peak Integrated by Software incorrectly

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG090525

Review By	yogesh	Review On	9/5/2025 11:12:03 AM
Supervise By	mohammad	Supervise On	9/9/2025 12:27:44 AM
SubDirectory	FG090525	HP Acquire Method	HP Processing Method FG090525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG016553.D	05 Sep 2025 08:56	YP\AJ	Ok
2	I.BLK	FG016554.D	05 Sep 2025 09:26	YP\AJ	Ok
3	100 TRPH STD	FG016555.D	05 Sep 2025 09:55	YP\AJ	Ok
4	50 TRPH STD	FG016556.D	05 Sep 2025 10:25	YP\AJ	Ok
5	20 TRPH STD	FG016557.D	05 Sep 2025 10:55	YP\AJ	Ok
6	10 TRPH STD	FG016558.D	05 Sep 2025 11:24	YP\AJ	Ok
7	5 TRPH STD	FG016559.D	05 Sep 2025 11:54	YP\AJ	Ok,M
8	FG090525ICV	FG016560.D	05 Sep 2025 12:24	YP\AJ	Ok,M

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QCBatch ID # FG091825

Review By	yogesh	Review On	9/18/2025 9:20:20 AM
Supervise By	mohammad	Supervise On	9/19/2025 1:53:18 AM
SubDirectory	FG091825	HP Acquire Method	HP Processing Method FG090525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24469 PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG016612.D	18 Sep 2025 06:19	YP\AJ	Ok
2	I.BLK	FG016613.D	18 Sep 2025 07:55	YP\AJ	Ok
3	50 PPM TRPH STD	FG016614.D	18 Sep 2025 08:24	YP\AJ	Ok
4	RT MARKER	FG016615.D	18 Sep 2025 08:53	YP\AJ	Ok
5	PB169733BL	FG016616.D	18 Sep 2025 09:23	YP\AJ	Ok
6	PB169733BS	FG016617.D	18 Sep 2025 09:52	YP\AJ	Ok
7	PB169733BSD	FG016618.D	18 Sep 2025 10:54	YP\AJ	Ok
8	Q3015-19	FG016619.D	18 Sep 2025 11:23	YP\AJ	Dilution
9	Q3015-19	FG016620.D	18 Sep 2025 12:22	YP\AJ	Ok
10	Q3124-02	FG016621.D	18 Sep 2025 12:52	YP\AJ	Ok,M
11	Q3124-04	FG016622.D	18 Sep 2025 13:22	YP\AJ	Ok
12	I.BLK	FG016623.D	18 Sep 2025 13:51	YP\AJ	Ok
13	50 PPM TRPH STD	FG016624.D	18 Sep 2025 14:21	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG090525

Review By	yogesh	Review On	9/5/2025 11:12:03 AM
Supervise By	mohammad	Supervise On	9/9/2025 12:27:44 AM
SubDirectory	FG090525	HP Acquire Method	HP Processing Method FG090525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG016553.D	05 Sep 2025 08:56		YP\AJ	Ok
2	I.BLK		FG016554.D	05 Sep 2025 09:26		YP\AJ	Ok
3	100 TRPH STD		FG016555.D	05 Sep 2025 09:55		YP\AJ	Ok
4	50 TRPH STD		FG016556.D	05 Sep 2025 10:25		YP\AJ	Ok
5	20 TRPH STD		FG016557.D	05 Sep 2025 10:55		YP\AJ	Ok
6	10 TRPH STD		FG016558.D	05 Sep 2025 11:24		YP\AJ	Ok
7	5 TRPH STD		FG016559.D	05 Sep 2025 11:54		YP\AJ	Ok,M
8	FG090525ICV		FG016560.D	05 Sep 2025 12:24		YP\AJ	Ok,M

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG091825

Review By	yogesh	Review On	9/18/2025 9:20:20 AM
Supervise By	mohammad	Supervise On	9/19/2025 1:53:18 AM
SubDirectory	FG091825	HP Acquire Method	HP Processing Method FG090525
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM			
ICV/I.BLK	PP24468,PP24473		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FG016612.D	18 Sep 2025 06:19		YP\AJ	Ok
2	I.BLK		FG016613.D	18 Sep 2025 07:55		YP\AJ	Ok
3	50 PPM TRPH STD		FG016614.D	18 Sep 2025 08:24		YP\AJ	Ok
4	RT MARKER		FG016615.D	18 Sep 2025 08:53		YP\AJ	Ok
5	PB169733BL		FG016616.D	18 Sep 2025 09:23		YP\AJ	Ok
6	PB169733BS		FG016617.D	18 Sep 2025 09:52		YP\AJ	Ok
7	PB169733BSD		FG016618.D	18 Sep 2025 10:54		YP\AJ	Ok
8	Q3015-19		FG016619.D	18 Sep 2025 11:23	Need 5X	YP\AJ	Dilution
9	Q3015-19		FG016620.D	18 Sep 2025 12:22		YP\AJ	Ok
10	Q3124-02		FG016621.D	18 Sep 2025 12:52		YP\AJ	Ok,M
11	Q3124-04		FG016622.D	18 Sep 2025 13:22		YP\AJ	Ok
12	I.BLK		FG016623.D	18 Sep 2025 13:51		YP\AJ	Ok
13	50 PPM TRPH STD		FG016624.D	18 Sep 2025 14:21		YP\AJ	Ok

M : Manual Integration

SOP ID: M3510C,3580A-Extraction DRO-13

Clean Up SOP #: N/A

Extraction Start Date : 09/17/2025

Matrix : Water

Extraction Start Time : 12:20

Weigh By: N/A

Extraction By: RJ

Extraction End Date : 09/17/2025

Balance check: N/A

Filter By: RJ

Extraction End Time : 16:35

Balance ID: N/A

pH Meter ID: N/A

Concentration By: EH

pH Strip Lot#: E3953

Hood ID: 4,6,7

Supervisor By : ritesh

Extraction Method: ☒ Separatory Funnel

☐ Continuous Liquid/Liquid

☐ Sonication

☐ Waste Dilution

☐ Soxhlet

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

Chemical Used	ML/SAMPLE USED	Lot Number
Methylene Chloride	N/A	E3973
Baked Na2SO4	N/A	EP2639
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210443.

KD Bath ID: WATER BATH-1,2

Envap ID: NEVAP-02

KD Bath Temperature: 60 °C

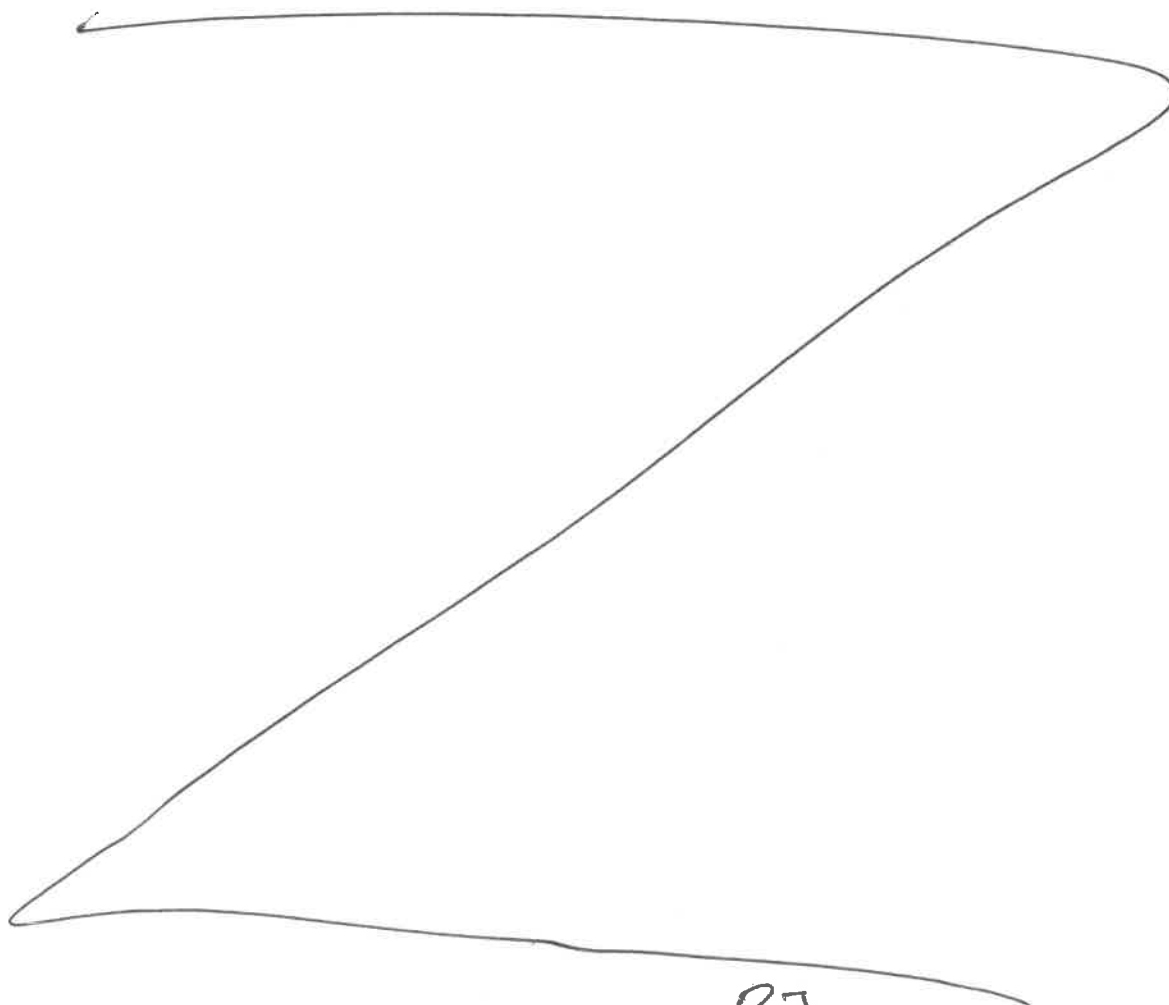
Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
9/17/25 16:40	RJ (E-1 Lab) Preparation Group	R. Pest-PCB Lab Analysis Group

Analytical Method: M3510C,3580A-Extraction DRO-13

Concentration Date: 09/17/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB169733BL	PB169733BL	Diesel Range Organics	1000	6	ritesh	Evelyn	1			SEP-1
PB169733BS	PB169733BS	Diesel Range Organics	1000	6	ritesh	Evelyn	1			2
PB169733BSD	PB169733BSD	Diesel Range Organics	1000	6	ritesh	Evelyn	1			3
Q3015-19	WP0925-RR-DIES-WP	Diesel Range Organics	1000	6	ritesh	Evelyn	1			4
Q3124-02	WEST-SIDE	Diesel Range Organics	840	6	ritesh	Evelyn	1			5
Q3124-04	NORTH-SIDE	Diesel Range Organics	850	6	ritesh	Evelyn	1			6



RJ
9/17

164733
12:20

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q3124 WorkList ID : 191925 Department : Extraction Date : 09-17-2025 12:15:37

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3015-19	WP0925-RR-DIES-WP	Water	Diesel Range Organics	Cool 4 deg C	ALLI03	QA Of	09/02/2025	8015D
Q3124-02	WEST-SIDE	Water	Diesel Range Organics	Cool 4 deg C	ATGG02	D31	09/16/2025	8015D
Q3124-04	NORTH-SIDE	Water	Diesel Range Organics	Cool 4 deg C	ATGG02	D31	09/16/2025	8015D

Date/Time 09/17/25 12:15
Raw Sample Received by: RJ LERQ-1066
Raw Sample Relinquished by: JDCSM

Date/Time 09/17/25 12:40
Raw Sample Received by: JDCSM
Raw Sample Relinquished by: RJ LERQ-1066

Prep Standard - Chemical Standard Summary

Order ID : Q3015
Test : Diesel Range Organics
Prepbatch ID : PB169733,
Sequence ID/Qc Batch ID: FG091825,

Standard ID :
EP2639,PP24467,PP24468,PP24469,PP24470,PP24471,PP24472,PP24473,PP24583,PP24596,

Chemical ID :
E3875,E3926,E3930,E3931,E3973,P11951,P11952,P13106,P13108,P13477,P13479,P13483,P13484,P13485,P13486,
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>
3923	Baked Sodium Sulfate	EP2639	09/12/2025	01/28/2026	Riteshkumar Patel	Extraction_SC ALE_2	None	Evelyn Huang

(EX-SC-2)

FROM 4000.00000gram of E3875 = Final Quantity: 4000.000 gram

<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)	PP24467	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza

05/08/2025

FROM 1.00000ml of P11951 + 1.00000ml of P11952 + 1.00000ml of P13477 + 7.00000ml of E3926 = 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>
3979	100/100 PPM DRO ICV (RESTEK)	PP24468	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 1.00000ml of P13106 + 1.00000ml of P13108 + 1.00000ml of P13479 + 7.00000ml of E3926 = 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>
435	50 PPM ICC DRO STD (Restek)	PP24469	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.50000ml of E3926 + 0.50000ml of PP24467 = 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>
437	20 PPM ICC DRO STD (Restek)	PP24470	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.80000ml of E3926 + 0.20000ml of PP24467 = 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>
438	10 PPM ICC DRO STD (Restek)	PP24471	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24467 = 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>
439	5 PPM ICC DRO STD (Restek)	PP24472	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.90000ml of E3926 + 0.10000ml of PP24469 = 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>
3608	50 PPM ICV DRO STD (RESTEK)	PP24473	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.50000ml of E3926 + 0.50000ml of PP24468 = 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>
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

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	10/08/2025	04/08/2025 / Rajesh	02/07/2025 / Rajesh	E3926

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-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-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 #
Restek	31266 / Florida TRPH Standard	A0186840	10/22/2025	04/22/2025 / yogesh	07/11/2022 / Yogesh	P11951

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0186840	10/22/2025	04/22/2025 / yogesh	07/11/2022 / Yogesh	P11952

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	10/22/2025	04/22/2025 / yogesh	01/12/2024 / Yogesh	P13106

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	10/22/2025	04/22/2025 / yogesh	01/12/2024 / Yogesh	P13108

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	10/22/2025	04/22/2025 / yogesh	07/24/2024 / yogesh	P13477

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	10/22/2025	04/22/2025 / yogesh	07/24/2024 / yogesh	P13479

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

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	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 #
Restek	31266 / Florida TRPH Standard	A0217113	11/16/2025	05/16/2025 / Rahul	03/07/2025 / yogesh	P13938

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



**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

E 3926

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 ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	10
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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

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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)



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

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.: 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

E 3973

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



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

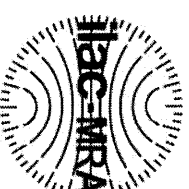
Bellefonte, PA 16823-8812

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:

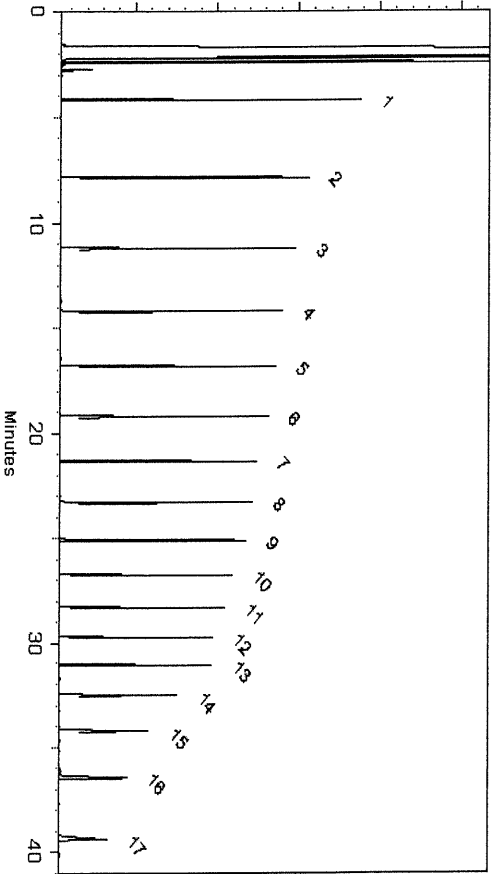
250°C

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

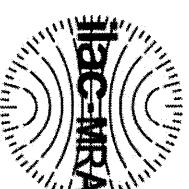
Bellefonte, PA 16823-8812

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:

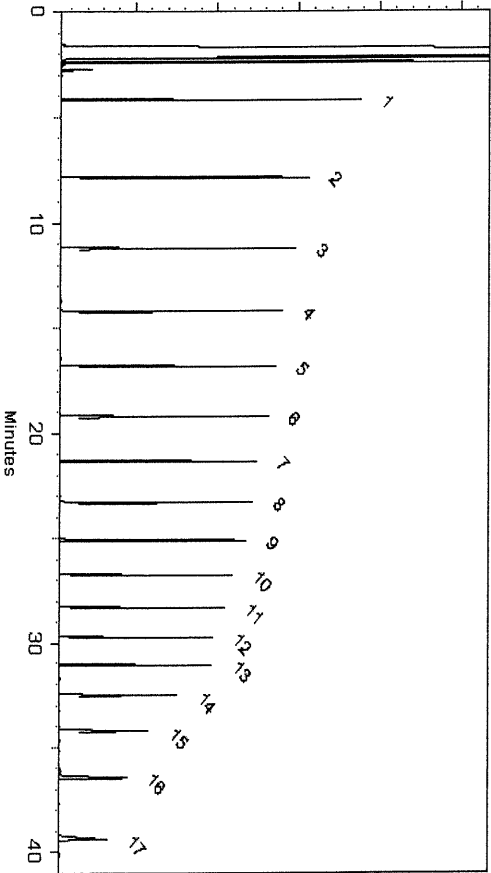
250°C

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



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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.:** A0204859

Description : Florida TRPH Standard

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

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

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

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

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

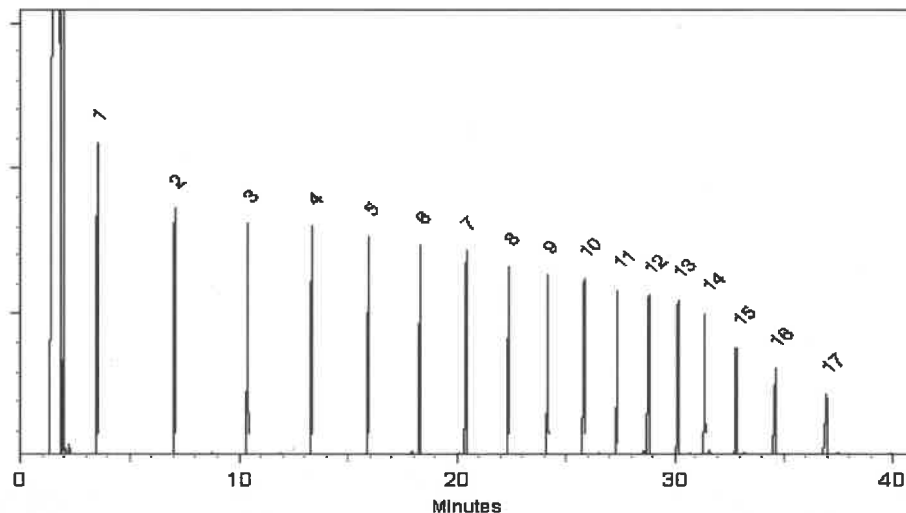
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

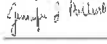


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ 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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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.:** A0204859

Description : Florida TRPH Standard

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

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

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

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

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
1	n-Octane (C8)	111-65-9	SHBP9758	99%	504.4 µg/mL	+/- 13.0305
2	n-Decane (C10)	124-18-5	SHBQ1342	99%	503.6 µg/mL	+/- 13.0098
3	n-Dodecane (C12)	112-40-3	SHBP7054	99%	503.6 µg/mL	+/- 13.0098
4	n-Tetradecane (C14)	629-59-4	STBK5437	99%	504.0 µg/mL	+/- 13.0201
5	n-Hexadecane (C16)	544-76-3	SHBP8192	99%	504.0 µg/mL	+/- 13.0201
6	n-Octadecane (C18)	593-45-3	UE5NG	98%	504.1 µg/mL	+/- 13.0230
7	n-Eicosane (C20)	112-95-8	MKCN8767	97%	504.0 µg/mL	+/- 13.0204
8	n-Docosane (C22)	629-97-0	MKQC3882	99%	503.6 µg/mL	+/- 13.0098
9	n-Tetracosane (C24)	646-31-1	MKQC8345	99%	504.0 µg/mL	+/- 13.0201
10	n-Hexacosane (C26)	630-01-3	MKQC4814	99%	504.0 µg/mL	+/- 13.0201
11	n-Octacosane (C28)	630-02-4	BCCG0084	99%	504.0 µg/mL	+/- 13.0201
12	n-Triacontane (C30)	638-68-6	MKQC9436	97%	504.0 µg/mL	+/- 13.0204
13	n-Dotriacontane (C32)	544-85-4	BCBW0661	99%	504.0 µg/mL	+/- 13.0201
14	n-Tetratriacontane (C34)	14167-59-0	OML4N	99%	504.4 µg/mL	+/- 13.0305
15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	504.0 µg/mL	+/- 13.0201
16	n-Octatriacontane (C38)	7194-85-6	0000145137	96%	503.8 µg/mL	+/- 13.0152
17	n-Tetracontane (C40)	4181-95-7	OKEGA	99%	503.6 µg/mL	+/- 13.0098

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

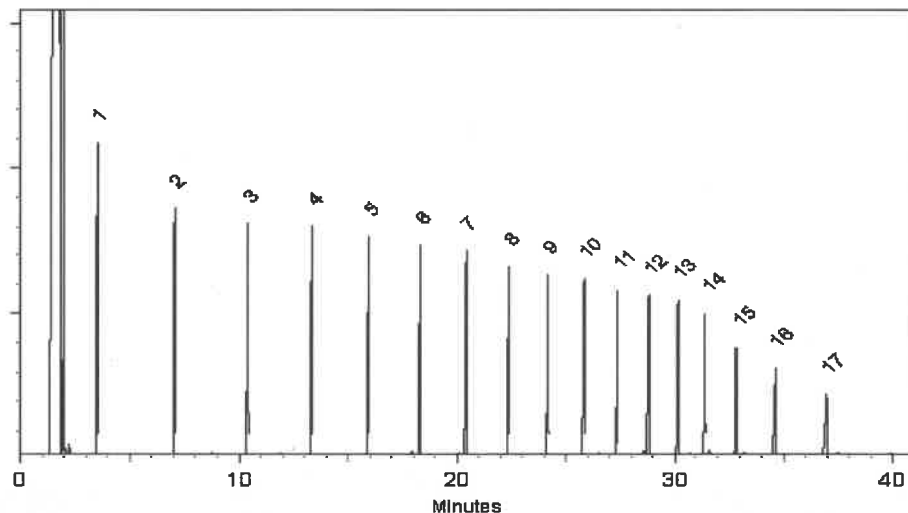
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

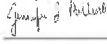


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/ 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.

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



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 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 Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-nr 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)	N/A	or-nr 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	N/A	or-nr 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	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	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 = sData 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	8.34
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

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

Part # 10009R Lot # 041219 1 of 2

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

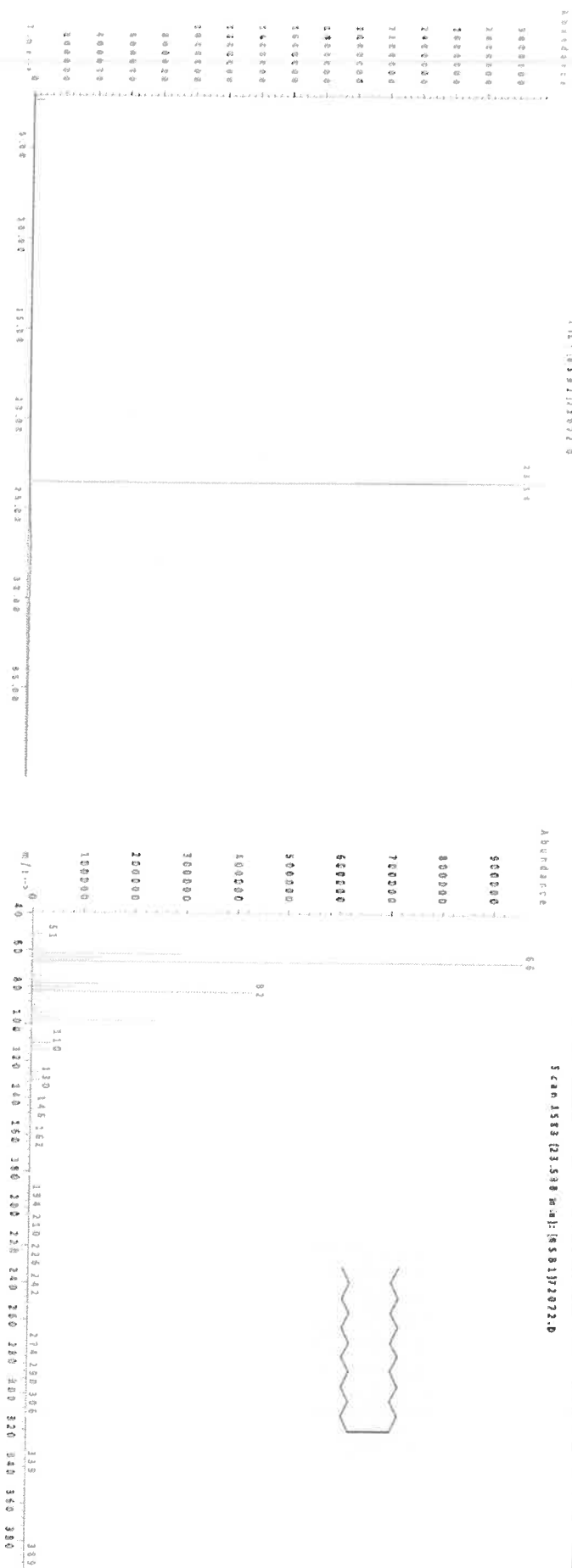
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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 (%D)	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).

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



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 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 Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	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)	N/A	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	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	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	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 "070816-GC/MS2", Method "GC-MS2".
Analyzed using Method "GC-MS2".

Comments:
GC-MS2 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 = sData 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	8.34
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

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

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

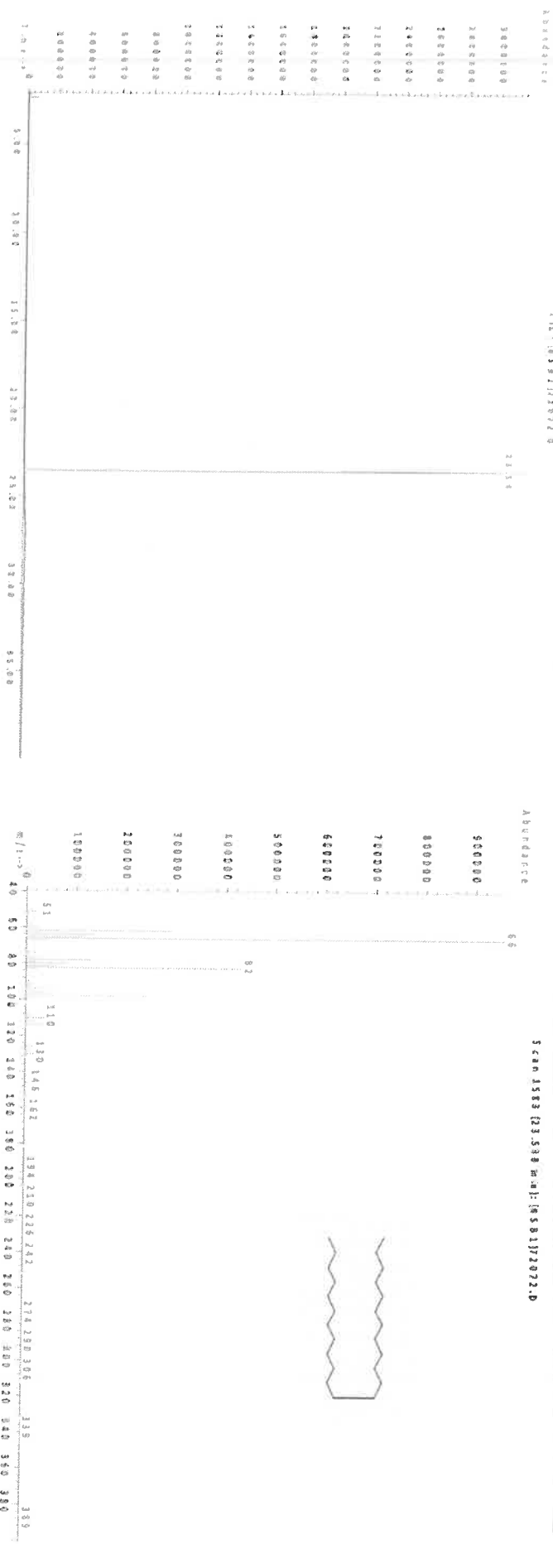
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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

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

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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 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 Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	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)	N/A	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	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	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	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 = sData 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	8.34
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



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

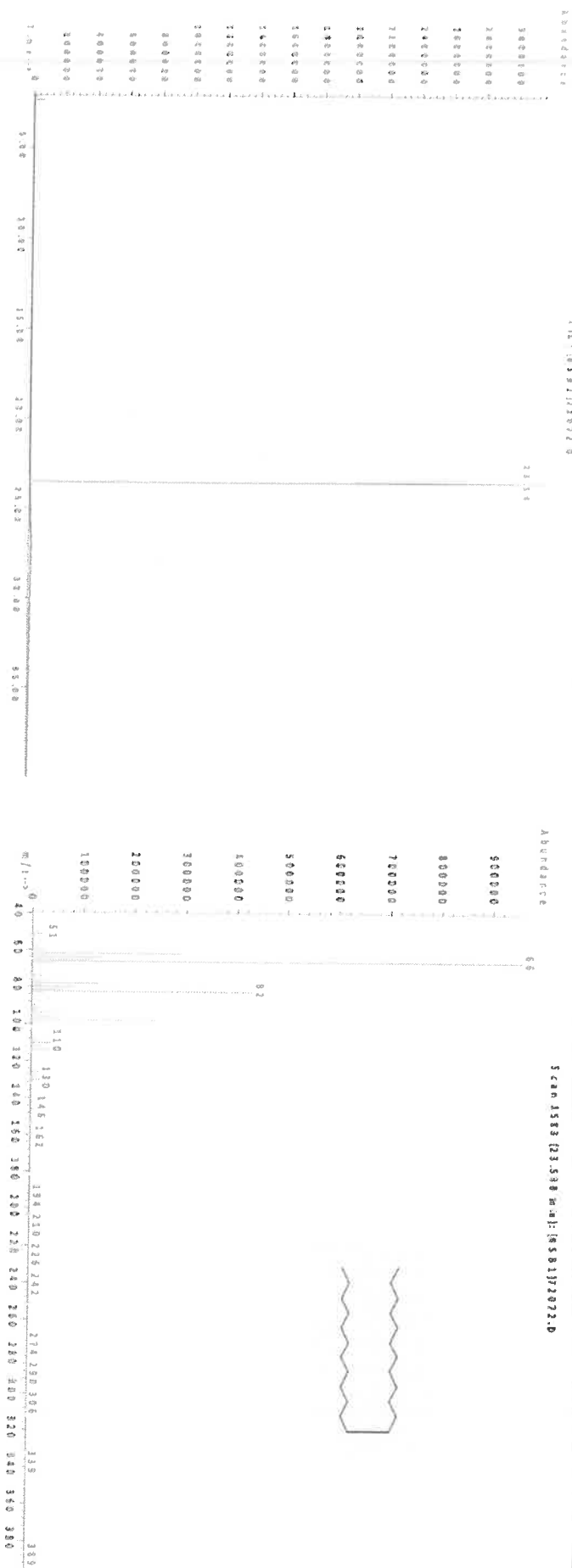
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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).

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.

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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



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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
Expiration Date: 070721
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 4000
NIST Test ID#: 822-275872-11
Weight(s) shown below were combined and diluted to (mL): 500.0

Solvent(s): Methylene chloride
Lot# 78782

5E-05 Balance Uncertainty
0.058 Peak Uncertainty

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

070716
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-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	or-nr 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1168-85-2	10 ppm (50mg/m3/8h)	or-nr 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-nr 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	2.04158	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 = sData Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak Data

Peak No.	Name	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

Qualitative Quantitative

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



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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

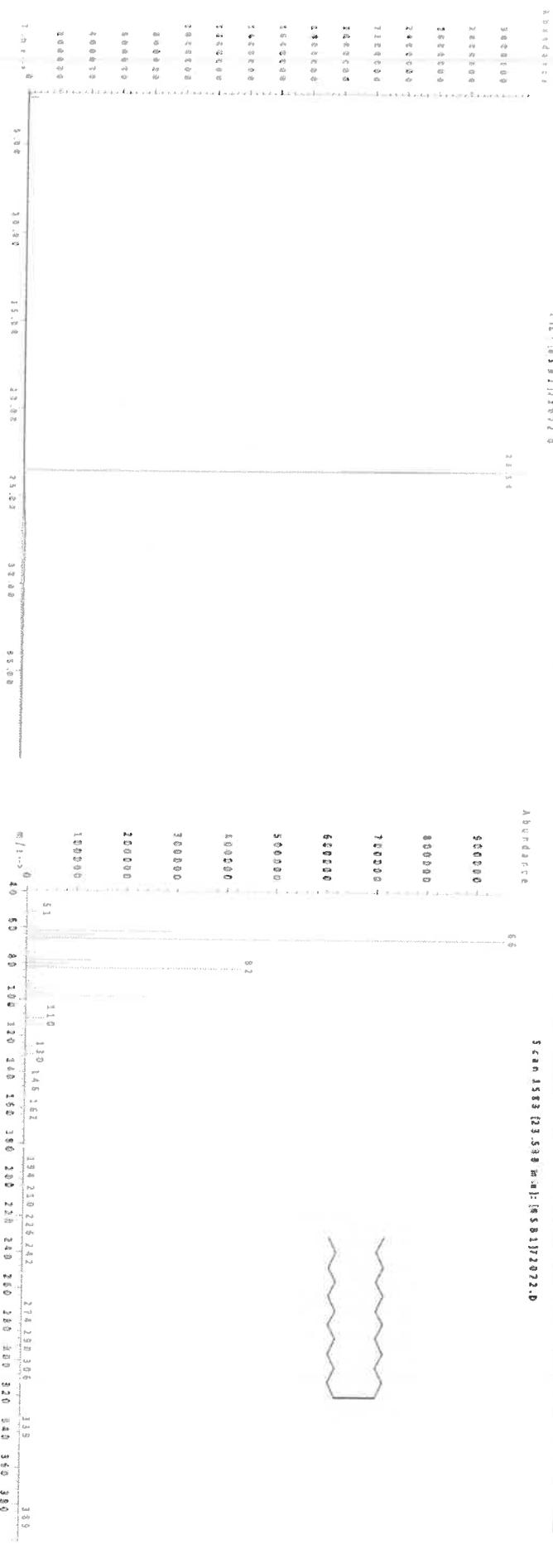
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	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, (1996).

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 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 Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-nr 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)	N/A	or-nr 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	N/A	or-nr 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	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	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 = sData 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

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

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

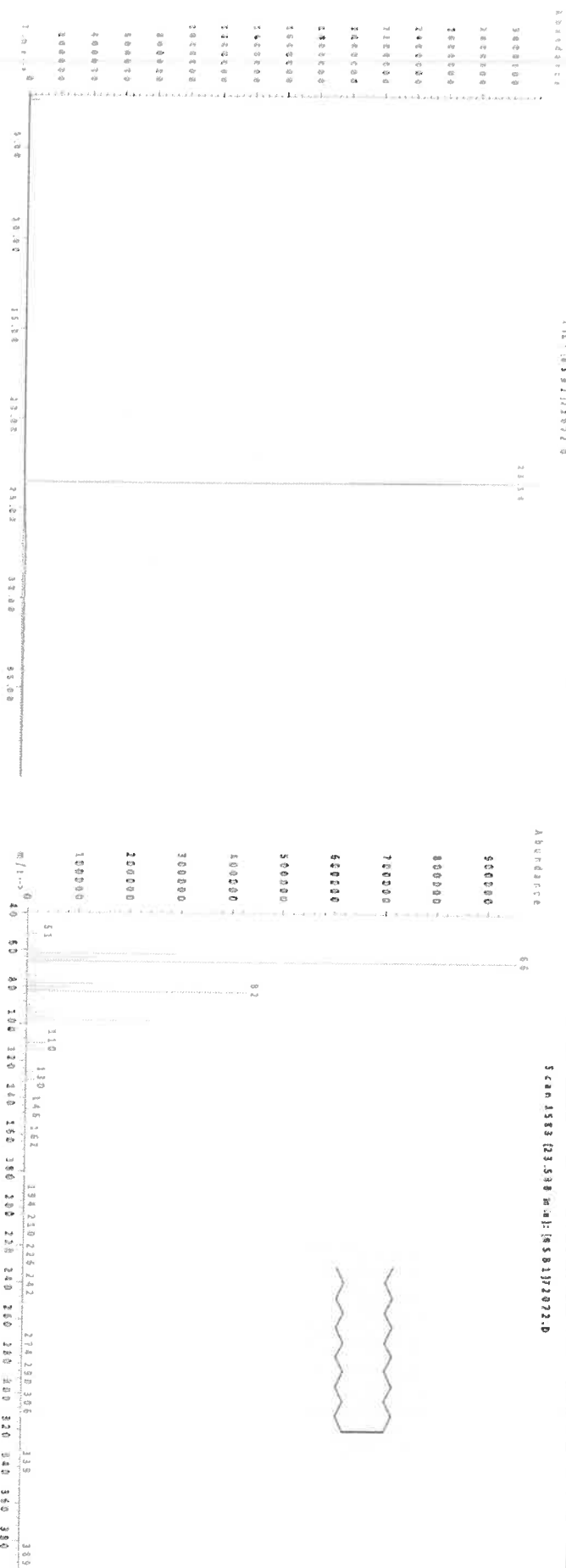
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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).

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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Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 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 Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-nr 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)	N/A	or-nr 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	N/A	or-nr 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	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	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 = sData 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

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

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

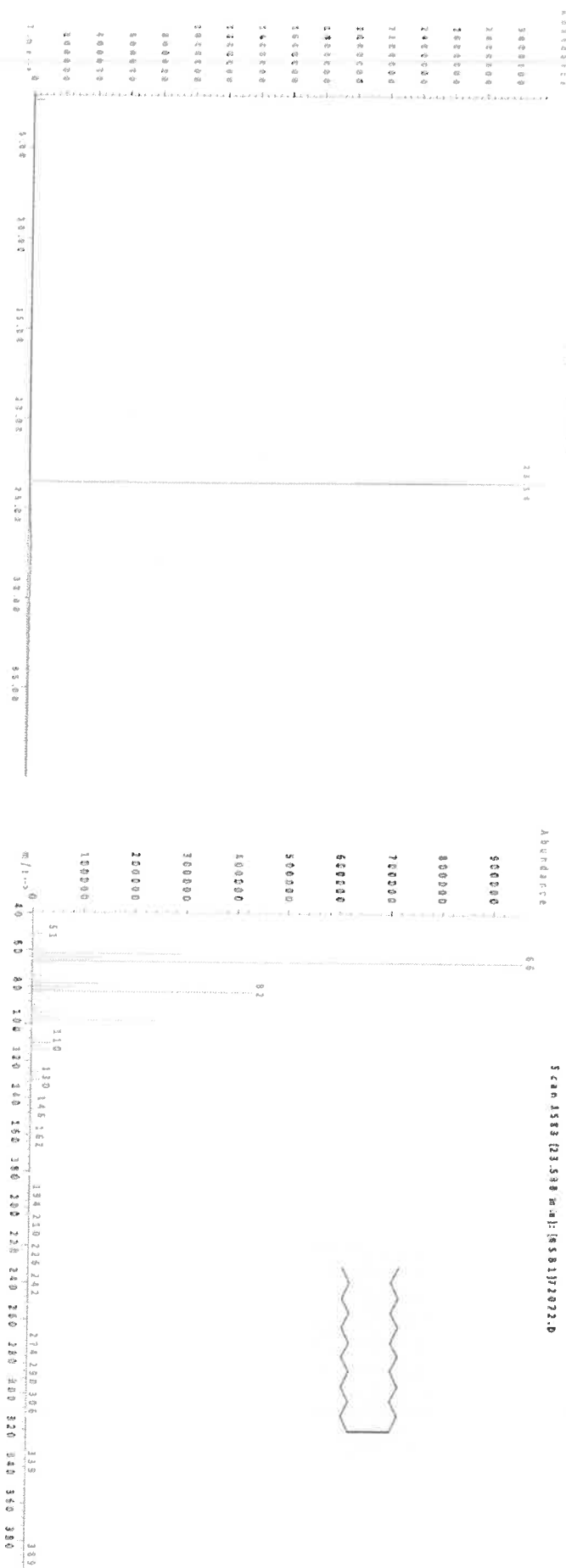
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

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



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

P031937
*
P031946
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.)

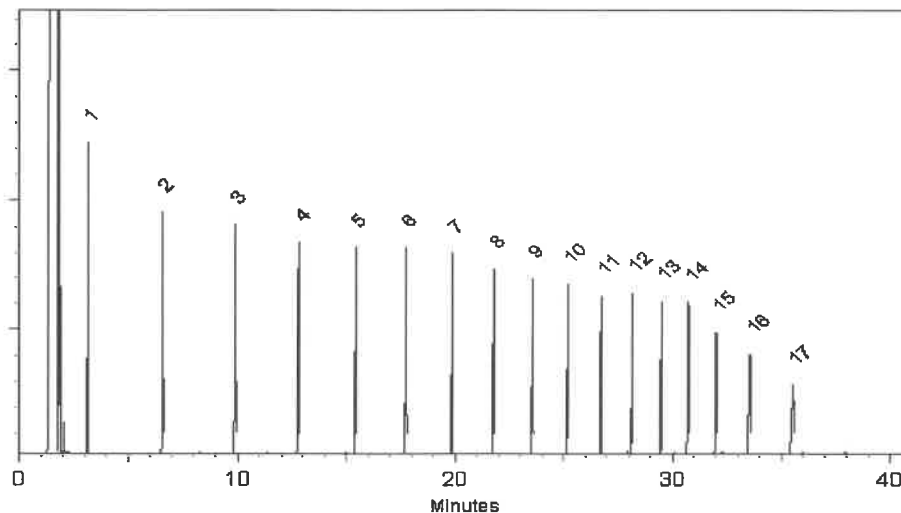
Inj. Temp:
250°C

Det. Temp:
330°C

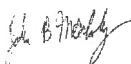
Det. Type:
FID

Split Vent:
2 ml/min.

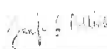
Inj. Vol
1µl



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 - Operations Technician I

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


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.



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

P031937
*
P031946
Y.P.
03/07/25

CERTIFIED VALUES

Elution Order	Compound	CAS #	Lot #	Purity	Grav. Conc. (weight/volume)	Expanded Uncertainty * (95% C.L.; K=2)
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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.)

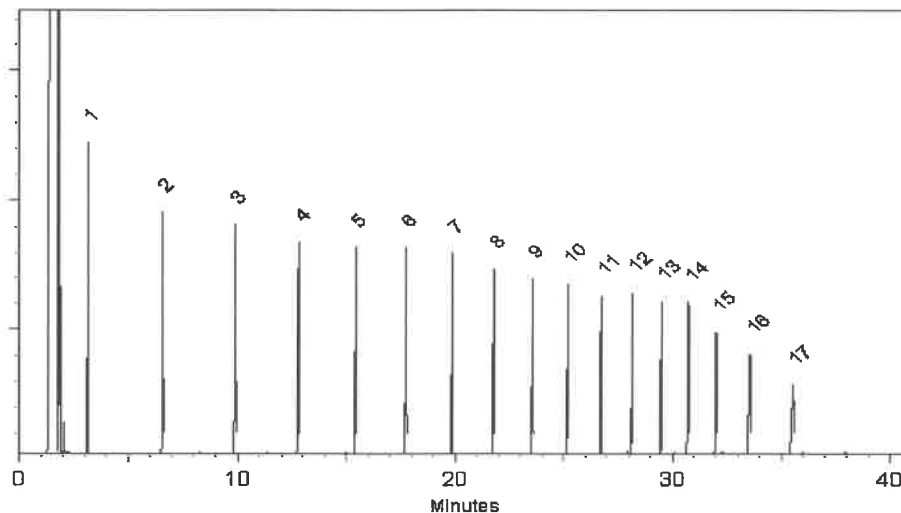
Inj. Temp:
250°C

Det. Temp:
330°C

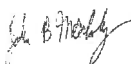
Det. Type:
FID

Split Vent:
2 ml/min.

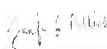
Inj. Vol
1µl



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 - Operations Technician I

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


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:

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

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



SHIPPING DOCUMENTS

Packing List

6390 Joyce Dr., #100
Golden, CO 80403

Tel: +1-303-940-0033
Fax: +1-303-940-0043
info@phenova.com
www.phenova.com

For terms and conditions of your order, please visit:
www.phenova.com/home/termsandsale

Date	Order #
09/02/2025	333290



Ship To

Alliance Tech Group - Newark
ATTN: Sohil Jodhani
284 Sheffield St., #1
Mountainside, NJ 07092
USA

Received by: ST 9/4/2025
9:25

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
PO2-3159	Net 30	ZCM-100	1500470	FedEx 2nd Day	Golden, CO

Qty Ordered	Qty Shipped	Qty Backorder	Part Number	Part Description	Study Number	Lot Number
			PT-TMSET-WP	WP Trace Metals Set : (TM1, HG and SNTI)		
1	1	0	PT-TM1-WP	WP Trace Metals 1	WP0925	8270-04
1	1	0	PT-HG-WP	WP Mercury	WP0925	8270-05
1	1	0	PT-SNTI-WP	WP Tin & Titanium	WP0925	8270-38
1	1	0	PT-CR6-WP	WP Hexavalent Chromium	WP0925	8270-06
1	1	0	PT-DEM-WP	WP Demand	WP0925	8270-07
			PT-MINSET-WP	WP Minerals Set : (MIN1, MIN2 and COND)		
1	1	0	PT-MIN1-WP	WP Minerals 1 Only	WP0925	8270-08
1	1	0	PT-MIN2-WP	WP Minerals 2 Only	WP0925	8270-102
1	1	0	PT-COND-WP	WP Conductivity Only	WP0925	8270-72
1	1	0	PT-COND-WP	WP Conductivity Only	WP0925	8270-72
1	1	0	PT-SOL-WP	WP Solids	WP0925	8270-09
			PT-NUTSET-WP	WP Nutrients Set : (NUT1, NUT2 and NUT3)		
1	1	0	PT-NUT1-WP	WP NUT1 Simple Nutrients Only	WP0925	8270-10
1	1	0	PT-NUT2-WP	WP NUT2 - Complex Nutrients	WP0925	8270-11
1	1	0	PT-NUT3-WP	WP NUT3 - Nitrite Only	WP0925	8270-69
1	1	0	PT-OGR1L-WP	WP Oil and Grease 1L	WP0925	8270-103
1	1	0	PT-CL-WP	WP Residual Chlorine	WP0925	8270-13
1	1	0	PT-PH-WP	WP pH	WP0925	8270-15
1	1	0	PT-CN-WP	WP Cyanide	WP0925	8270-14

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www.phenova.com

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Date	Order #
09/02/2025	333290



Ship To

Alliance Tech Group - Newark
ATTN: Sohil Jodhani
284 Sheffield St., #1
Mountainside, NJ 07092
USA

Received by: SJ
9/4/2025
9:25

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
PO2-3159	Net 30	ZCM-100	1500470	FedEx 2nd Day	Golden, CO

Qty Ordered	Qty Shipped	Qty Backorder	Part Number	Part Description	Study Number	Lot Number
1	1	0	PT-PHEN-WP	WP Phenolics	WP0925	8270-16
1	1	0	PT-S2-WP	WP Sulfide	WP0925	8270-22
1	1	0	PT-SSOL-WP	WP Settleable Solids	WP0925	8270-17
1	1	0	PT-VSOL-WP	WP Volatile Solids	WP0925	8270-18
1	1	0	PT-TURB-WP	WP Turbidity	WP0925	8270-20
1	1	0	PT-SIO2-WP	WP Silica	WP0925	8270-21
1	1	0	PT-COL-WP	WP Color	WP0925	8270-51
1	1	0	PT-VOA-WP	WP Volatiles	WP0925	8270-26
1	1	0	PT-BN-WP	WP Base Neutrals	WP0925	8270-27
1	1	0	PT-ACIDS-WP	WP Acids	WP0925	8270-28
1	1	0	PT-PEST-WP	WP Pesticides	WP0925	8270-29
1	1	0	PT-CHLR-WP	WP Chlordane	WP0925	8270-30
1	1	0	PT-TXP-WP	WP Toxaphene	WP0925	8270-31
1	1	0	PT-PCBW-WP	WP PCBs in Water	WP0925	8270-32
1	1	0	PT-HERB-WP	WP Herbicides	WP0925	8270-36
1	1	0	RR-TPH1L-WP	WP TPH 1L	R41815	R41815-104
1	1	0	RR-PAH-WP	WP PAH-Low Level	R41815	R41815-37
1	1	0	RR-GAS-WP	WP Gasoline Range Organics	R41815	R41815-62
1	1	0	RR-DIES-WP	WP Diesel Range Organics	R41815	R41815-63
1	1	0	RR-8011-WP	WP EDB/DBCP/TCP	R41815	R41815-98



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Certified Reference Materials

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Packing List

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info@phenova.com
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For terms and conditions of your order, please visit:
www.phenova.com/home/termsandsale

Date	Order #
09/05/2025	340092



Ship To

Alliance Tech Group - Newark
ATTN: Sohil Jodhani
284 Sheffield St., #1
Mountainside, NJ 07092
USA

Received by: SJ

9/9/2025 12:20

Customer PO #	Terms	PT Acct #	Customer #	Ship Via	F.O.B.
PO2-3159	Net 30	ZCM-100	1500470	FedEx 2nd Day	Golden, CO

Qty Ordered	Qty Shipped	Qty Backorder	Part Number	Part Description	Study Number	Lot Number
1	1	0	RR-TRIAZINE-WP	WP Triazine Pesticides	R41854	R41854-108

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