

Cover Page

Order ID : Q2176

Project ID : South River WM Replacement

Client : CDM Smith

Lab Sample Number

Q2176-01
Q2176-02
Q2176-03
Q2176-04
Q2176-05
Q2176-06
Q2176-07
Q2176-08

Client Sample Number

TP-46
TP-56
TP-25
TP-26
TP-28
TP-27
TP-31
TP-65

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: 6/5/2025

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 #: Q2176

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: PRADIP PRAJAPATI

Date: 06/05/2025

LAB CHRONICLE

OrderID:	Q2176	OrderDate:	5/30/2025 4:04:00 PM
Client:	CDM Smith	Project:	South River WM Replacement
Contact:	Marcie Ann Encinas	Location:	L41,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2176-01	TP-46	SOIL			05/28/25			05/30/25
			Diesel Range Organics	8015D		06/04/25	06/04/25	
			Pesticide-TCL	8081B		06/03/25	06/03/25	
Q2176-02	TP-56	SOIL			05/29/25			05/30/25
			Diesel Range Organics	8015D		06/04/25	06/04/25	
			Pesticide-TCL	8081B		06/03/25	06/03/25	
Q2176-03	TP-25	SOIL			05/29/25			05/30/25
			Diesel Range Organics	8015D		06/04/25	06/04/25	
			Pesticide-TCL	8081B		06/03/25	06/03/25	
Q2176-04	TP-26	SOIL			05/29/25			05/30/25
			Diesel Range Organics	8015D		06/04/25	06/04/25	
			Pesticide-TCL	8081B		06/03/25	06/03/25	
Q2176-05	TP-28	SOIL			05/29/25			05/30/25
			Diesel Range Organics	8015D		06/04/25	06/04/25	
			Pesticide-TCL	8081B		06/03/25	06/03/25	
Q2176-06	TP-27	SOIL			05/29/25			05/30/25
			Diesel Range Organics	8015D		06/04/25	06/04/25	
			Pesticide-TCL	8081B		06/03/25	06/03/25	
Q2176-07	TP-31	SOIL			05/29/25			05/30/25
			Diesel Range Organics	8015D		06/04/25	06/04/25	
			Pesticide-TCL	8081B		06/03/25	06/03/25	
Q2176-08	TP-65	SOIL			05/30/25			05/30/25
			Diesel Range Organics	8015D		06/04/25	06/04/25	
			Pesticide-TCL	8081B		06/03/25	06/03/25	



QC SUMMARY

SOIL DIESEL RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: CDM Smith
Lab Code: CHEM Case No.: Q2176 SAS No.: Q2176 SDG No.: Q2176

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF015894.D	60				0
PIBLK-FF015908.D	73				0
PIBLK-FG015909.D	71				0
PIBLK-FG015923.D	78				0
PB168274BL	78				0
PB168274BS	82				0
TP-54MS	55				0
TP-54MSD	57				0
TP-46	114				0
TP-56	63				0
TP-25	91				0
TP-26	66				0
TP-28	54				0
TP-27	51				0
TP-31	50				0
TP-65	54				0

QC LIMITS

TETRACOSANE-d50

For Water : 29-130

For Soil : 37-130

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate Diluted Out

SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q2176 **SAS No :** Q2176 **SDG No:** Q2176
Client SampleID : TP-54MS **Datafile:** FF015898.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7953	3240	12154	112%		68-131

SOIL DIESEL RANGE ORGANICS MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q2176 **SAS No :** Q2176 **SDG No:** Q2176
Client SampleID : TP-54MSD **Datafile:** FF015899.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
DRO	7967	3240	12817	120%		68-131

MS/MSD % Recovery RPD : 7

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

Lab Name: Chemtech **Client:** CDM Smith
Lab Code: CHEM **Cas No:** Q2176 **SAS No :** Q2176 **SDG No:** Q2176
Matrix Spike - EPA Sample No : PB168274BS **Datafile:** FG015913.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
DRO	6662	0	5871	88	68-131

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB168274BL

Lab Name: CHEMTECH

Contract: CAMP02

Lab Code: CHEM Case No.: Q2176

SAS No.: Q2176 SDG NO.: Q2176

Lab File ID: FG015912.D

Lab Sample ID: PB168274BL

Instrument ID: FG

Date Extracted: 06/04/2025

Matrix: (soil/water) Soil

Date Analyzed: 06/04/25

Level: (low/med) low

Time Analyzed: 12:48

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
TP-54MS	Q2150-09MS	FF015898.D	06/04/25
TP-54MSD	Q2150-09MSD	FF015899.D	06/04/25
TP-46	Q2176-01	FF015900.D	06/04/25
TP-56	Q2176-02	FF015901.D	06/04/25
TP-25	Q2176-03	FF015902.D	06/04/25
TP-26	Q2176-04	FF015903.D	06/04/25
TP-28	Q2176-05	FF015904.D	06/04/25
TP-27	Q2176-06	FF015905.D	06/04/25
TP-31	Q2176-07	FF015906.D	06/04/25
TP-65	Q2176-08	FF015907.D	06/04/25
PB168274BS	PB168274BS	FG015913.D	06/04/25

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	05/28/25
Project:	South River WM Replacement	Date Received:	05/30/25
Client Sample ID:	TP-46	SDG No.:	Q2176
Lab Sample ID:	Q2176-01	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	83.7
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015900.D	1	06/04/25 08:30	06/04/25 14:16	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	2490		202	1990	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	22.7		37 - 130	114%	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_F\Data\FF060425\
Data File : FF015900.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 14:16
Operator : YP\AJ
Sample : Q2176-01
Misc :
ALS Vial : 74 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-46

Integration File: autoint1.e
Quant Time: Jun 05 03:03:30 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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...	15.018	2777704	22.743 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

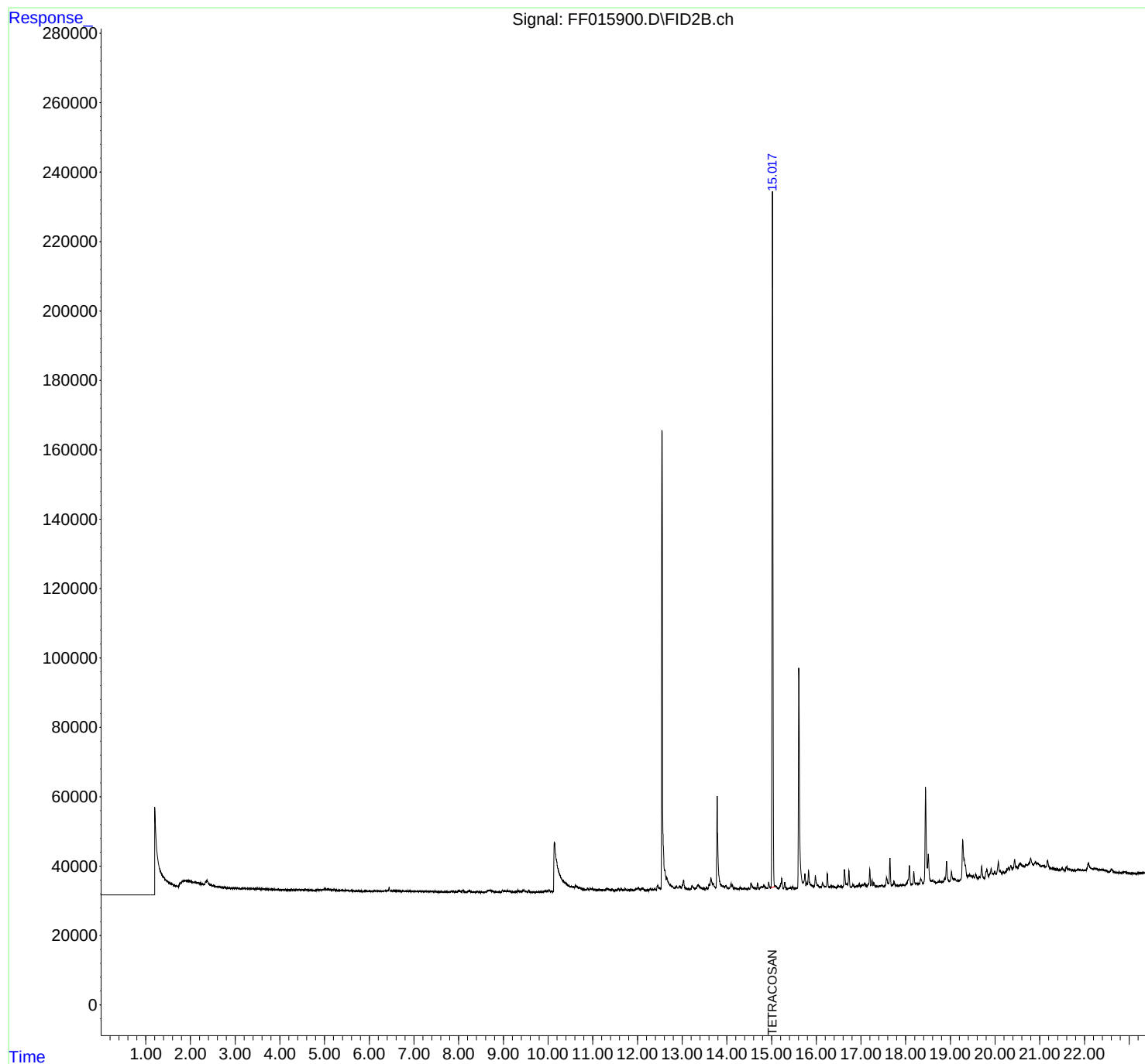
(m)=manual int.

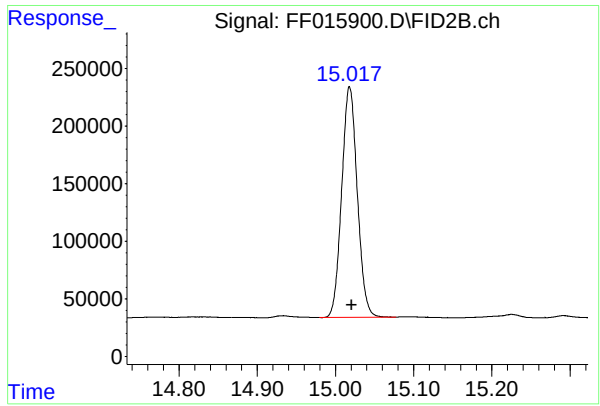
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015900.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 14:16
Operator : YP\AJ
Sample : Q2176-01
Misc :
ALS Vial : 74 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-46

Integration File: autoint1.e
Quant Time: Jun 05 03:03:30 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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.: 15.018 min

Delta R.T.: -0.003 min

Response: 2777704

Conc: 22.74 ug/ml

Instrument :

FID_F

ClientSampleId :

TP-46

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015900.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 14:16
Sample : Q2176-01
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.514	4.500	4.525	BV	113	522	0.02%	0.005%
2	4.537	4.525	4.547	PV	130	1228	0.04%	0.011%
3	4.551	4.547	4.555	VV	123	491	0.02%	0.004%
4	4.565	4.555	4.571	VV	143	1130	0.04%	0.010%
5	4.575	4.571	4.580	VV	150	577	0.02%	0.005%
6	4.584	4.580	4.594	VV	182	976	0.03%	0.009%
7	4.597	4.594	4.607	VV	120	760	0.03%	0.007%
8	4.612	4.607	4.626	VV	102	1211	0.04%	0.011%
9	4.630	4.626	4.645	VV	115	1124	0.04%	0.010%
10	4.650	4.645	4.670	VV	173	1160	0.04%	0.010%
11	4.676	4.670	4.681	VV	128	553	0.02%	0.005%
12	4.687	4.681	4.720	VV	138	2135	0.08%	0.019%
13	4.726	4.720	4.744	VV	111	817	0.03%	0.007%
14	4.746	4.744	4.764	VV	102	544	0.02%	0.005%
15	4.771	4.764	4.789	PV	174	1378	0.05%	0.012%
16	4.808	4.789	4.815	VV	199	2060	0.07%	0.019%
17	4.842	4.815	4.849	VV	214	3151	0.11%	0.028%
18	4.895	4.849	4.899	VV	264	5815	0.21%	0.052%
19	4.903	4.899	4.911	VV	317	1848	0.07%	0.017%
20	4.928	4.911	4.934	VV	328	3677	0.13%	0.033%
21	4.949	4.934	4.954	VV	362	3582	0.13%	0.032%
22	4.959	4.954	4.965	VV	371	2022	0.07%	0.018%
23	4.990	4.965	5.005	VV	447	9364	0.33%	0.084%
24	5.010	5.005	5.015	VV	496	2586	0.09%	0.023%
25	5.018	5.015	5.043	VV	457	7090	0.25%	0.064%
26	5.050	5.043	5.064	VV	429	5076	0.18%	0.046%
27	5.068	5.064	5.102	VV	475	9215	0.33%	0.083%
28	5.106	5.102	5.124	VV	423	4692	0.17%	0.042%
29	5.131	5.124	5.135	VV	383	2307	0.08%	0.021%
30	5.143	5.135	5.150	VV	574	3025	0.11%	0.027%
31	5.174	5.150	5.177	VV	384	5452	0.19%	0.049%
32	5.182	5.177	5.190	VV	353	2364	0.08%	0.021%
33	5.207	5.190	5.230	VV	343	6157	0.22%	0.055%
34	5.234	5.230	5.242	VV	277	1631	0.06%	0.015%
35	5.248	5.242	5.266	VV	286	3090	0.11%	0.028%
36	5.269	5.266	5.280	VV	283	1601	0.06%	0.014%

					rteres			
37	5.285	5.280	5.327	VV	265	5654	0.20%	0.051%
38	5.330	5.327	5.351	VV	239	2872	0.10%	0.026%
39	5.381	5.351	5.405	VV	278	6188	0.22%	0.056%
40	5.408	5.405	5.426	VV	205	2089	0.07%	0.019%
41	5.429	5.426	5.442	VV	220	1643	0.06%	0.015%
42	5.448	5.442	5.454	VV	207	1335	0.05%	0.012%
43	5.459	5.454	5.488	VV	283	3991	0.14%	0.036%
44	5.495	5.488	5.504	VV	202	1713	0.06%	0.015%
45	5.510	5.504	5.522	VV	208	1640	0.06%	0.015%
46	5.527	5.522	5.547	VV	190	2103	0.07%	0.019%
47	5.551	5.547	5.557	VV	144	746	0.03%	0.007%
48	5.564	5.557	5.597	VV	133	2847	0.10%	0.026%
49	5.602	5.597	5.614	VV	200	1386	0.05%	0.012%
50	5.618	5.614	5.622	VV	128	428	0.02%	0.004%
51	5.645	5.622	5.655	VV	148	1925	0.07%	0.017%
52	5.661	5.655	5.688	VV	165	1608	0.06%	0.014%
53	5.695	5.688	5.724	VV	157	1895	0.07%	0.017%
54	5.732	5.724	5.755	VV	98	1704	0.06%	0.015%
55	5.764	5.755	5.788	VV	151	1871	0.07%	0.017%
56	5.795	5.788	5.807	VV	148	984	0.04%	0.009%
57	5.811	5.807	5.849	VV	136	2011	0.07%	0.018%
58	5.855	5.849	5.862	VV	125	619	0.02%	0.006%
59	5.870	5.862	5.877	PV	123	625	0.02%	0.006%
60	5.891	5.877	5.921	VV	152	3072	0.11%	0.028%
61	5.928	5.921	5.954	VV	146	1742	0.06%	0.016%
62	5.958	5.954	5.971	VV	134	789	0.03%	0.007%
63	5.983	5.971	5.988	VV	110	790	0.03%	0.007%
64	6.005	5.988	6.037	VV	162	2969	0.11%	0.027%
65	6.068	6.037	6.082	VV	159	2971	0.11%	0.027%
66	6.103	6.082	6.114	VV	207	2299	0.08%	0.021%
67	6.125	6.114	6.160	VV	176	4240	0.15%	0.038%
68	6.164	6.160	6.177	VV	217	1651	0.06%	0.015%
69	6.185	6.177	6.189	VV	164	1024	0.04%	0.009%
70	6.195	6.189	6.214	VV	240	2406	0.09%	0.022%
71	6.222	6.214	6.227	VV	211	1148	0.04%	0.010%
72	6.234	6.227	6.275	VV	215	3825	0.14%	0.034%
73	6.281	6.275	6.291	VV	180	1399	0.05%	0.013%
74	6.294	6.291	6.298	VV	208	776	0.03%	0.007%
75	6.301	6.298	6.310	VV	183	1047	0.04%	0.009%
76	6.327	6.310	6.359	VV	267	6188	0.22%	0.056%
77	6.362	6.359	6.373	VV	231	1774	0.06%	0.016%
78	6.386	6.373	6.391	VV	258	2494	0.09%	0.022%
79	6.443	6.391	6.486	VV	1268	25062	0.89%	0.225%
80	6.488	6.486	6.506	VV	217	2588	0.09%	0.023%
81	6.532	6.506	6.551	VV	332	6495	0.23%	0.058%
82	6.563	6.551	6.598	VV	258	6367	0.23%	0.057%
83	6.603	6.598	6.608	VV	235	1252	0.04%	0.011%
84	6.637	6.608	6.666	VV	297	7588	0.27%	0.068%
85	6.668	6.666	6.670	VV	219	554	0.02%	0.005%
86	6.675	6.670	6.680	VV	278	1416	0.05%	0.013%
87	6.685	6.680	6.694	VV	306	1856	0.07%	0.017%
88	6.717	6.694	6.735	VV	249	4810	0.17%	0.043%
89	6.745	6.735	6.821	VV	271	10193	0.36%	0.092%

					rteres			
90	6.841	6.821	6.852	VV	220	3390	0.12%	0.030%
91	6.861	6.852	6.897	VV	222	5419	0.19%	0.049%
92	6.924	6.897	6.936	VV	259	4788	0.17%	0.043%
93	6.951	6.936	6.961	VV	249	3546	0.13%	0.032%
94	6.968	6.961	6.975	VV	259	1863	0.07%	0.017%
95	6.995	6.975	7.050	VV	268	9063	0.32%	0.081%
96	7.058	7.050	7.068	VV	163	1679	0.06%	0.015%
97	7.089	7.068	7.099	VV	217	2931	0.10%	0.026%
98	7.111	7.099	7.131	VV	229	3043	0.11%	0.027%
99	7.146	7.131	7.162	VV	207	2965	0.11%	0.027%
100	7.175	7.162	7.239	VV	240	7974	0.28%	0.072%
101	7.259	7.239	7.301	VV	227	6016	0.21%	0.054%
102	7.317	7.301	7.329	VV	187	2696	0.10%	0.024%
103	7.351	7.329	7.383	VV	282	6147	0.22%	0.055%
104	7.398	7.383	7.461	VV	249	7726	0.27%	0.069%
105	7.472	7.461	7.545	VV	323	6891	0.25%	0.062%
106	7.557	7.545	7.580	PV	141	2005	0.07%	0.018%
107	7.597	7.580	7.672	VV	240	7307	0.26%	0.066%
108	7.677	7.672	7.697	VV	182	1717	0.06%	0.015%
109	7.703	7.697	7.743	VV	141	2104	0.07%	0.019%
110	7.759	7.743	7.769	PV	91	1162	0.04%	0.010%
111	7.775	7.769	7.780	VV	119	581	0.02%	0.005%
112	7.788	7.780	7.795	VV	123	897	0.03%	0.008%
113	7.839	7.795	7.946	VV	239	15182	0.54%	0.136%
114	8.001	7.946	8.062	VV	509	19985	0.71%	0.180%
115	8.096	8.062	8.156	VV	551	16022	0.57%	0.144%
116	8.220	8.156	8.323	VV	429	23302	0.83%	0.209%
117	8.345	8.323	8.357	VV	189	2669	0.09%	0.024%
118	8.362	8.357	8.377	VV	119	1224	0.04%	0.011%
119	8.418	8.377	8.451	VV	237	6027	0.21%	0.054%
120	8.453	8.451	8.509	VV	154	2179	0.08%	0.020%
121	8.516	8.509	8.533	PV	86	739	0.03%	0.007%
122	8.541	8.533	8.556	VV	55	690	0.02%	0.006%
123	8.606	8.556	8.617	VV	211	4582	0.16%	0.041%
124	8.655	8.617	8.691	VV	611	20365	0.72%	0.183%
125	8.701	8.691	8.838	VV	607	27203	0.97%	0.244%
126	8.844	8.838	8.862	VV	155	1685	0.06%	0.015%
127	8.885	8.862	8.931	VV	255	6423	0.23%	0.058%
128	8.975	8.931	8.998	VV	567	12234	0.44%	0.110%
129	9.020	8.998	9.056	VV	455	11471	0.41%	0.103%
130	9.081	9.056	9.114	VV	436	11461	0.41%	0.103%
131	9.135	9.114	9.206	VV	414	14037	0.50%	0.126%
132	9.222	9.206	9.233	VV	175	2470	0.09%	0.022%
133	9.253	9.233	9.282	VV	268	5458	0.19%	0.049%
134	9.328	9.282	9.377	VV	598	17235	0.61%	0.155%
135	9.447	9.377	9.536	VV	634	32358	1.15%	0.291%
136	9.569	9.536	9.626	VV	600	13890	0.49%	0.125%
137	9.639	9.626	9.654	VV	107	959	0.03%	0.009%
138	9.661	9.654	9.696	VV	110	1110	0.04%	0.010%
139	9.727	9.696	9.741	PV	124	1967	0.07%	0.018%
140	9.766	9.741	9.790	VV	230	3962	0.14%	0.036%
141	9.815	9.790	9.835	VV	229	4456	0.16%	0.040%

					rteres			
142	9.842	9.835	9.877	VV	206	4285	0.15%	0.038%
143	9.930	9.877	9.960	VV	444	13401	0.48%	0.120%
144	9.971	9.960	10.002	VV	365	7791	0.28%	0.070%
145	10.024	10.002	10.062	VV	740	13618	0.48%	0.122%
146	10.080	10.062	10.111	VV	222	4746	0.17%	0.043%
147	10.142	10.111	10.381	VV	14362	978236	34.82%	8.787%
148	10.396	10.381	10.506	VV	2598	149403	5.32%	1.342%
149	10.522	10.506	10.553	VV	1630	42195	1.50%	0.379%
150	10.569	10.553	10.587	VV	1506	29330	1.04%	0.263%
151	10.612	10.587	10.692	VV	1801	88993	3.17%	0.799%
152	10.706	10.692	10.799	VV	1233	59469	2.12%	0.534%
153	10.806	10.799	10.851	VV	718	18705	0.67%	0.168%
154	10.882	10.851	10.914	VV	1092	27525	0.98%	0.247%
155	10.943	10.914	10.967	VV	900	23164	0.82%	0.208%
156	10.987	10.967	11.014	VV	882	19984	0.71%	0.180%
157	11.040	11.014	11.089	VV	653	23878	0.85%	0.214%
158	11.095	11.089	11.114	VV	482	6420	0.23%	0.058%
159	11.150	11.114	11.177	VV	625	19172	0.68%	0.172%
160	11.192	11.177	11.246	VV	544	17263	0.61%	0.155%
161	11.309	11.246	11.414	VV	819	55976	1.99%	0.503%
162	11.423	11.414	11.502	VV	668	18230	0.65%	0.164%
163	11.533	11.502	11.549	VV	362	8766	0.31%	0.079%
164	11.576	11.549	11.605	VV	844	16844	0.60%	0.151%
165	11.633	11.605	11.687	VV	869	22461	0.80%	0.202%
166	11.725	11.687	11.769	VV	751	19997	0.71%	0.180%
167	11.788	11.769	11.822	VV	439	9173	0.33%	0.082%
168	11.846	11.822	11.878	VV	498	12149	0.43%	0.109%
169	11.889	11.878	11.910	VV	338	5375	0.19%	0.048%
170	11.932	11.910	11.942	VV	310	5060	0.18%	0.045%
171	11.960	11.942	11.997	VV	680	19338	0.69%	0.174%
172	12.019	11.997	12.064	VV	987	24792	0.88%	0.223%
173	12.120	12.064	12.178	VV	784	33384	1.19%	0.300%
174	12.191	12.178	12.216	VV	240	4191	0.15%	0.038%
175	12.241	12.216	12.257	VV	294	5231	0.19%	0.047%
176	12.300	12.257	12.321	VV	537	15164	0.54%	0.136%
177	12.339	12.321	12.360	VV	395	8102	0.29%	0.073%
178	12.389	12.360	12.420	VV	715	14959	0.53%	0.134%
179	12.451	12.420	12.487	VV	1501	38596	1.37%	0.347%
180	12.500	12.487	12.520	VV	938	14109	0.50%	0.127%
181	12.549	12.520	12.645	VV	132240	1927122	68.59%	17.311%
182	12.658	12.645	12.821	VV	3744	191607	6.82%	1.721%
183	12.829	12.821	12.841	VV	713	8374	0.30%	0.075%
184	12.867	12.841	12.907	VV	1296	37209	1.32%	0.334%
185	12.931	12.907	12.946	VV	1201	23289	0.83%	0.209%
186	12.957	12.946	12.984	VV	1070	21083	0.75%	0.189%
187	13.031	12.984	13.097	VV	2934	90933	3.24%	0.817%
188	13.114	13.097	13.159	VV	471	13688	0.49%	0.123%
189	13.219	13.159	13.297	VV	1348	51901	1.85%	0.466%
190	13.358	13.297	13.469	VV	1567	85988	3.06%	0.772%
191	13.474	13.469	13.481	VV	414	3163	0.11%	0.028%
192	13.492	13.481	13.514	VV	480	7766	0.28%	0.070%
193	13.543	13.514	13.569	VV	918	17336	0.62%	0.156%
194	13.606	13.569	13.619	VV	1658	29963	1.07%	0.269%

					rteres			
195	13.641	13.619	13.681	VV	3521	87853	3.13%	0.789%
196	13.693	13.681	13.756	VV	1822	51964	1.85%	0.467%
197	13.781	13.756	13.948	VV	27030	562919	20.03%	5.056%
198	13.976	13.948	14.046	VV	1225	42866	1.53%	0.385%
199	14.091	14.046	14.109	VV	1731	36390	1.30%	0.327%
200	14.124	14.109	14.158	VV	1442	24503	0.87%	0.220%
201	14.177	14.158	14.199	VV	501	8584	0.31%	0.077%
202	14.209	14.199	14.251	VV	373	9422	0.34%	0.085%
203	14.294	14.251	14.376	VV	544	21496	0.77%	0.193%
204	14.397	14.376	14.432	VV	326	6831	0.24%	0.061%
205	14.488	14.432	14.512	VV	479	9099	0.32%	0.082%
206	14.538	14.512	14.664	VV	1920	61052	2.17%	0.548%
207	14.688	14.664	14.727	VV	1724	26259	0.93%	0.236%
208	14.776	14.727	14.797	VV	695	22492	0.80%	0.202%
209	14.832	14.797	14.904	VV	961	38358	1.37%	0.345%
210	14.933	14.904	14.982	VV	1952	41321	1.47%	0.371%
211	15.018	14.982	15.077	VV	201122	2809733	100.00%	25.239%
212	15.092	15.077	15.159	VV	1024	27436	0.98%	0.246%
213	15.226	15.159	15.261	VV	3091	69130	2.46%	0.621%
214	15.292	15.261	15.351	VV	1954	33032	1.18%	0.297%
215	15.395	15.351	15.409	PV	320	5186	0.18%	0.047%
216	15.428	15.409	15.449	VV	358	5479	0.20%	0.049%
217	15.473	15.449	15.524	VV	556	10399	0.37%	0.093%
218	15.608	15.524	15.707	PV	63317	1126974	40.11%	10.123%
219	15.744	15.707	15.769	VV	4271	89351	3.18%	0.803%
220	15.787	15.769	15.804	VV	1750	27877	0.99%	0.250%
221	15.826	15.804	15.874	VV	5162	105914	3.77%	0.951%
222	15.882	15.874	15.953	VV	1081	35140	1.25%	0.316%
223	15.978	15.953	16.026	VV	3678	76819	2.73%	0.690%
224	16.037	16.026	16.103	VV	898	24025	0.86%	0.216%
225	16.138	16.103	16.195	VV	1572	42649	1.52%	0.383%
226	16.207	16.195	16.222	VV	513	7050	0.25%	0.063%
227	16.246	16.222	16.307	VV	4068	63074	2.24%	0.567%
228	16.331	16.307	16.346	VV	568	9851	0.35%	0.088%
229	16.350	16.346	16.369	VV	625	6367	0.23%	0.057%
230	16.377	16.369	16.439	VV	446	7497	0.27%	0.067%
231	16.486	16.439	16.517	VV	532	11541	0.41%	0.104%
232	16.543	16.517	16.582	VV	355	9754	0.35%	0.088%
233	16.629	16.582	16.674	VV	5158	101819	3.62%	0.915%
234	16.691	16.674	16.704	VV	1068	16025	0.57%	0.144%
235	16.728	16.704	16.787	VV	4856	76732	2.73%	0.689%
236	16.814	16.787	16.872	VV	676	16693	0.59%	0.150%
237	16.962	16.872	17.001	PV	811	26381	0.94%	0.237%
238	17.075	17.001	17.141	VV	885	45768	1.63%	0.411%
239	17.163	17.141	17.171	VV	946	12493	0.44%	0.112%
240	17.195	17.171	17.224	VV	5148	75338	2.68%	0.677%
241	17.246	17.224	17.267	VV	2012	29280	1.04%	0.263%
242	17.286	17.267	17.342	VV	1203	20195	0.72%	0.181%
243	17.352	17.342	17.362	VV	76	768	0.03%	0.007%
244	17.369	17.362	17.376	VV	98	565	0.02%	0.005%
245	17.466	17.376	17.501	VBA	366	13701	0.49%	0.123%

Sum of corrected areas: 11132674
Page 5

rteres

FF052125.M Thu Jun 05 03:46:51 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/29/25
Project:	South River WM Replacement	Date Received:	05/30/25
Client Sample ID:	TP-56	SDG No.:	Q2176
Lab Sample ID:	Q2176-02	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	86.2
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015901.D	1	06/04/25 08:30	06/04/25 14:46	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1470	J	196	1930	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	12.6		37 - 130	63%	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_F\Data\FF060425\
Data File : FF015901.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 14:46
Operator : YP\AJ
Sample : Q2176-02
Misc :
ALS Vial : 75 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-56

Integration File: autoint1.e
Quant Time: Jun 05 03:03:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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...	15.017	1536636	12.581 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

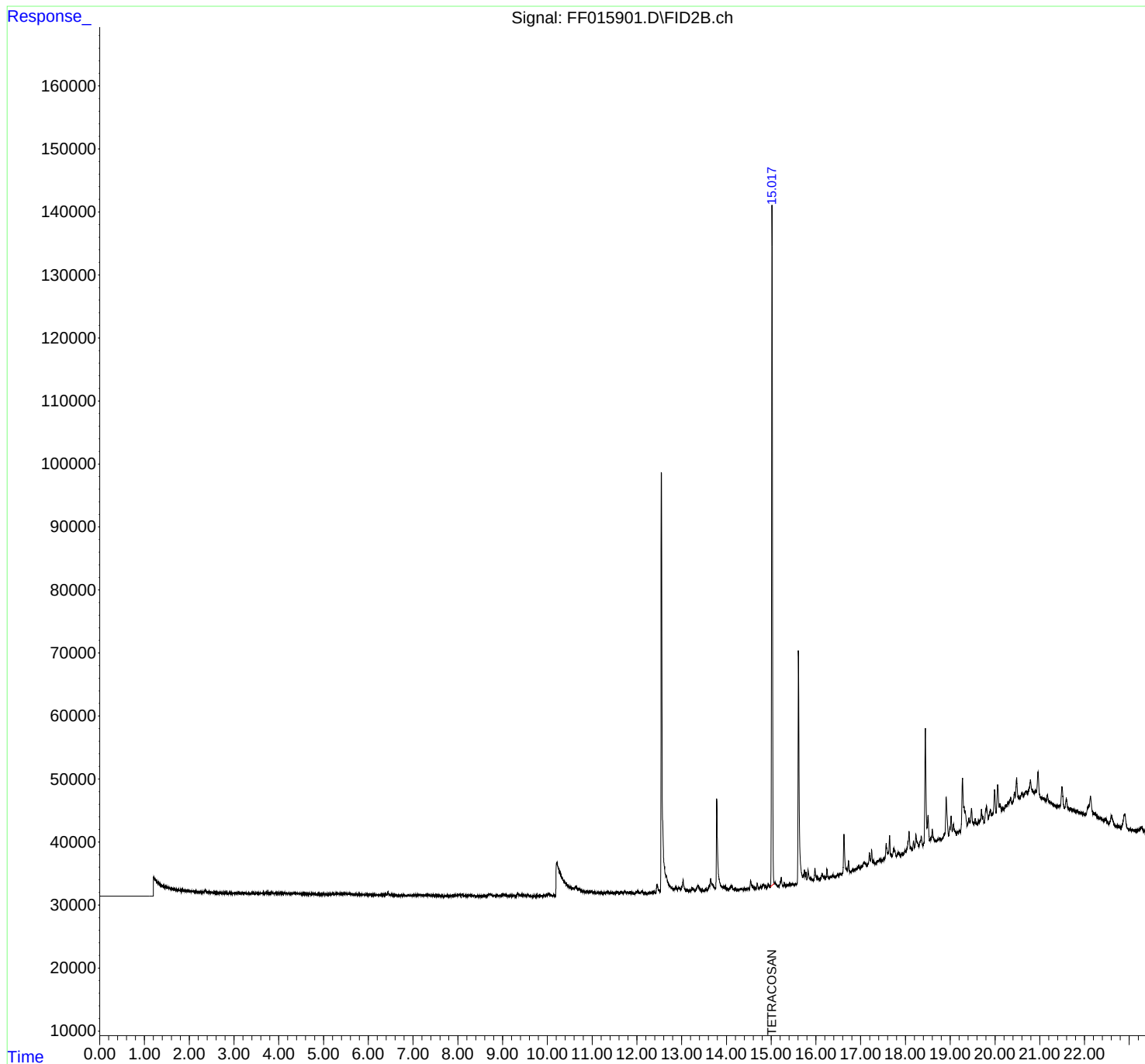
(m)=manual int.

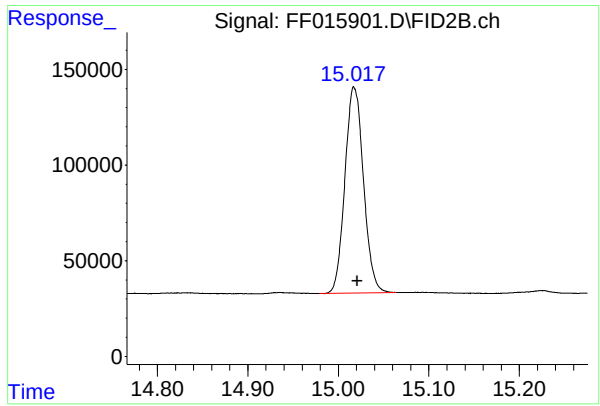
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015901.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 14:46
Operator : YP\AJ
Sample : Q2176-02
Misc :
ALS Vial : 75 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-56

Integration File: autoint1.e
Quant Time: Jun 05 03:03:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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.: 15.017 min
Delta R.T.: -0.003 min
Response: 1536636
Conc: 12.58 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-56

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015901.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 14:46
Sample : Q2176-02
Misc :
ALS Vial : 75 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.520	4.500	4.539	BV	120	721	0.05%	0.011%
2	4.544	4.539	4.583	PV	106	1741	0.11%	0.026%
3	4.593	4.583	4.607	VV	106	917	0.06%	0.014%
4	4.614	4.607	4.624	PV	140	564	0.04%	0.008%
5	4.629	4.624	4.662	VV	125	1635	0.10%	0.025%
6	4.673	4.662	4.715	VV	157	2763	0.18%	0.042%
7	4.723	4.715	4.728	VV	96	516	0.03%	0.008%
8	4.744	4.728	4.753	VV	148	1019	0.07%	0.015%
9	4.757	4.753	4.767	PV	114	719	0.05%	0.011%
10	4.773	4.767	4.788	VV	167	998	0.06%	0.015%
11	4.795	4.788	4.815	VV	107	1421	0.09%	0.021%
12	4.821	4.815	4.834	VV	95	894	0.06%	0.013%
13	4.840	4.834	4.856	VV	101	1046	0.07%	0.016%
14	4.875	4.856	4.900	VV	148	2382	0.15%	0.036%
15	4.905	4.900	4.926	VV	127	1388	0.09%	0.021%
16	4.932	4.926	4.950	VV	135	1253	0.08%	0.019%
17	4.965	4.950	4.975	VV	131	1224	0.08%	0.018%
18	5.002	4.975	5.012	VV	178	1981	0.13%	0.030%
19	5.015	5.012	5.027	VV	159	809	0.05%	0.012%
20	5.031	5.027	5.037	VV	112	486	0.03%	0.007%
21	5.046	5.037	5.056	VV	118	857	0.06%	0.013%
22	5.069	5.056	5.075	VV	180	919	0.06%	0.014%
23	5.084	5.075	5.097	VV	156	1121	0.07%	0.017%
24	5.112	5.097	5.130	VV	140	1845	0.12%	0.028%
25	5.132	5.130	5.148	VV	160	1168	0.07%	0.018%
26	5.154	5.148	5.171	VV	168	1620	0.10%	0.024%
27	5.190	5.171	5.206	VV	190	2722	0.17%	0.041%
28	5.214	5.206	5.222	VV	206	1427	0.09%	0.021%
29	5.225	5.222	5.252	VV	206	2775	0.18%	0.042%
30	5.257	5.252	5.276	VV	233	2739	0.18%	0.041%
31	5.288	5.276	5.302	VV	230	3173	0.20%	0.048%
32	5.309	5.302	5.317	VV	270	1831	0.12%	0.028%
33	5.328	5.317	5.341	VV	311	3430	0.22%	0.052%
34	5.347	5.341	5.358	VV	261	2248	0.14%	0.034%
35	5.363	5.358	5.398	VV	242	5393	0.35%	0.081%
36	5.403	5.398	5.413	VV	263	2056	0.13%	0.031%

					rteres			
37	5.420	5.413	5.425	VV	286	1536	0.10%	0.023%
38	5.429	5.425	5.438	VV	276	1780	0.11%	0.027%
39	5.450	5.438	5.455	VV	311	2564	0.16%	0.039%
40	5.461	5.455	5.474	VV	265	2469	0.16%	0.037%
41	5.476	5.474	5.479	VV	274	753	0.05%	0.011%
42	5.482	5.479	5.488	VV	287	1288	0.08%	0.019%
43	5.498	5.488	5.514	VV	224	3323	0.21%	0.050%
44	5.517	5.514	5.522	VV	246	1136	0.07%	0.017%
45	5.526	5.522	5.550	VV	245	3295	0.21%	0.050%
46	5.561	5.550	5.602	VV	265	6325	0.41%	0.095%
47	5.611	5.602	5.619	VV	203	1801	0.12%	0.027%
48	5.622	5.619	5.630	VV	196	1133	0.07%	0.017%
49	5.636	5.630	5.665	VV	221	3371	0.22%	0.051%
50	5.669	5.665	5.694	VV	199	2482	0.16%	0.037%
51	5.711	5.694	5.720	VV	203	2476	0.16%	0.037%
52	5.725	5.720	5.737	VV	172	1571	0.10%	0.024%
53	5.745	5.737	5.761	VV	182	2199	0.14%	0.033%
54	5.765	5.761	5.785	VV	169	1944	0.12%	0.029%
55	5.787	5.785	5.805	VV	169	1423	0.09%	0.021%
56	5.809	5.805	5.817	VV	196	958	0.06%	0.014%
57	5.821	5.817	5.843	VV	172	2287	0.15%	0.034%
58	5.849	5.843	5.861	VV	159	1519	0.10%	0.023%
59	5.884	5.861	5.892	VV	171	2357	0.15%	0.036%
60	5.897	5.892	5.912	VV	153	1676	0.11%	0.025%
61	5.916	5.912	5.921	VV	175	836	0.05%	0.013%
62	5.936	5.921	5.940	VV	171	1560	0.10%	0.023%
63	5.952	5.940	5.972	VV	189	2629	0.17%	0.040%
64	5.977	5.972	6.017	VV	112	3255	0.21%	0.049%
65	6.021	6.017	6.035	VV	126	1113	0.07%	0.017%
66	6.042	6.035	6.069	VV	140	2193	0.14%	0.033%
67	6.074	6.069	6.097	VV	138	1534	0.10%	0.023%
68	6.104	6.097	6.111	VV	166	820	0.05%	0.012%
69	6.116	6.111	6.121	VV	105	426	0.03%	0.006%
70	6.132	6.121	6.137	VV	164	1043	0.07%	0.016%
71	6.146	6.137	6.169	VV	148	1548	0.10%	0.023%
72	6.194	6.169	6.212	VV	131	2275	0.15%	0.034%
73	6.219	6.212	6.225	VV	170	768	0.05%	0.012%
74	6.230	6.225	6.239	VV	135	700	0.04%	0.011%
75	6.266	6.239	6.294	VV	184	4116	0.26%	0.062%
76	6.335	6.294	6.354	VV	201	5365	0.34%	0.081%
77	6.372	6.354	6.379	VV	201	2488	0.16%	0.037%
78	6.383	6.379	6.393	VV	178	1267	0.08%	0.019%
79	6.400	6.393	6.412	VV	248	1815	0.12%	0.027%
80	6.415	6.412	6.424	VV	181	1125	0.07%	0.017%
81	6.442	6.424	6.475	VV	745	10621	0.68%	0.160%
82	6.479	6.475	6.484	VV	145	780	0.05%	0.012%
83	6.489	6.484	6.493	VV	172	771	0.05%	0.012%
84	6.503	6.493	6.510	VV	209	1749	0.11%	0.026%
85	6.514	6.510	6.567	VV	241	5102	0.33%	0.077%
86	6.573	6.567	6.577	VV	152	796	0.05%	0.012%
87	6.581	6.577	6.585	VV	135	486	0.03%	0.007%
88	6.593	6.585	6.609	VV	169	1569	0.10%	0.024%
89	6.624	6.609	6.632	VV	142	1464	0.09%	0.022%

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90	6.637	6.632	6.669	VV	142	1931	0.12%	0.029%
91	6.674	6.669	6.679	VV	168	640	0.04%	0.010%
92	6.683	6.679	6.692	VV	112	634	0.04%	0.010%
93	6.698	6.692	6.712	PV	140	909	0.06%	0.014%
94	6.722	6.712	6.729	VV	117	926	0.06%	0.014%
95	6.737	6.729	6.757	VV	116	1502	0.10%	0.023%
96	6.761	6.757	6.769	VV	126	627	0.04%	0.009%
97	6.777	6.769	6.783	VV	160	817	0.05%	0.012%
98	6.790	6.783	6.811	VV	154	1658	0.11%	0.025%
99	6.815	6.811	6.835	VV	99	1123	0.07%	0.017%
100	6.838	6.835	6.855	VV	112	867	0.06%	0.013%
101	6.861	6.855	6.874	VV	109	896	0.06%	0.013%
102	6.893	6.874	6.911	VV	147	1768	0.11%	0.027%
103	6.916	6.911	6.931	VV	136	1032	0.07%	0.016%
104	6.935	6.931	6.940	VV	72	399	0.03%	0.006%
105	6.952	6.940	6.984	VV	139	2723	0.17%	0.041%
106	6.989	6.984	6.997	VV	201	1052	0.07%	0.016%
107	7.008	6.997	7.020	VV	214	2226	0.14%	0.034%
108	7.024	7.020	7.027	VV	225	777	0.05%	0.012%
109	7.043	7.027	7.050	VV	259	2913	0.19%	0.044%
110	7.059	7.050	7.072	VV	244	2621	0.17%	0.039%
111	7.086	7.072	7.096	VV	244	2688	0.17%	0.040%
112	7.104	7.096	7.109	VV	176	1274	0.08%	0.019%
113	7.115	7.109	7.154	VV	216	4643	0.30%	0.070%
114	7.158	7.154	7.170	VV	190	1494	0.10%	0.023%
115	7.176	7.170	7.182	VV	190	1006	0.06%	0.015%
116	7.190	7.182	7.245	VV	206	6108	0.39%	0.092%
117	7.251	7.245	7.257	VV	229	1337	0.09%	0.020%
118	7.290	7.257	7.305	VV	208	4453	0.29%	0.067%
119	7.309	7.305	7.336	VV	243	3371	0.22%	0.051%
120	7.344	7.336	7.355	VV	235	1989	0.13%	0.030%
121	7.362	7.355	7.377	VV	189	2044	0.13%	0.031%
122	7.383	7.377	7.391	VV	171	1127	0.07%	0.017%
123	7.395	7.391	7.401	VV	143	775	0.05%	0.012%
124	7.408	7.401	7.421	VV	173	1617	0.10%	0.024%
125	7.430	7.421	7.437	VV	205	1287	0.08%	0.019%
126	7.442	7.437	7.457	VV	185	1440	0.09%	0.022%
127	7.467	7.457	7.477	VV	174	1360	0.09%	0.020%
128	7.502	7.477	7.509	VV	185	2387	0.15%	0.036%
129	7.518	7.509	7.539	VV	200	2010	0.13%	0.030%
130	7.544	7.539	7.553	VV	108	703	0.05%	0.011%
131	7.560	7.553	7.570	VV	138	890	0.06%	0.013%
132	7.578	7.570	7.602	VV	165	1952	0.13%	0.029%
133	7.607	7.602	7.611	VV	166	642	0.04%	0.010%
134	7.620	7.611	7.641	VV	209	2152	0.14%	0.032%
135	7.649	7.641	7.654	VV	101	713	0.05%	0.011%
136	7.658	7.654	7.675	VV	90	643	0.04%	0.010%
137	7.698	7.675	7.725	VV	155	1698	0.11%	0.026%
138	7.767	7.725	7.796	VV	137	3048	0.20%	0.046%
139	7.802	7.796	7.809	VV	93	550	0.04%	0.008%
140	7.818	7.809	7.840	VV	119	1511	0.10%	0.023%
141	7.849	7.840	7.872	VV	103	1673	0.11%	0.025%

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142	7.924	7.872	7.943	VV	158	4783	0.31%	0.072%
143	7.984	7.943	8.005	VV	258	6764	0.43%	0.102%
144	8.023	8.005	8.049	VV	303	6358	0.41%	0.096%
145	8.056	8.049	8.075	VV	256	3237	0.21%	0.049%
146	8.094	8.075	8.142	VV	369	9554	0.61%	0.144%
147	8.150	8.142	8.180	VV	201	2862	0.18%	0.043%
148	8.185	8.180	8.194	VV	154	703	0.05%	0.011%
149	8.206	8.194	8.217	VV	81	1223	0.08%	0.018%
150	8.271	8.217	8.304	VV	264	8772	0.56%	0.132%
151	8.315	8.304	8.327	VV	258	2347	0.15%	0.035%
152	8.337	8.327	8.345	VV	173	1420	0.09%	0.021%
153	8.355	8.345	8.407	VV	185	4223	0.27%	0.064%
154	8.452	8.407	8.464	VV	168	4344	0.28%	0.065%
155	8.472	8.464	8.485	VV	111	1349	0.09%	0.020%
156	8.490	8.485	8.520	VV	120	1637	0.11%	0.025%
157	8.534	8.520	8.579	VV	130	2173	0.14%	0.033%
158	8.587	8.579	8.609	PV	99	1256	0.08%	0.019%
159	8.615	8.609	8.627	VV	76	834	0.05%	0.013%
160	8.637	8.627	8.654	VV	143	1791	0.11%	0.027%
161	8.694	8.654	8.797	VV	446	23971	1.54%	0.361%
162	8.803	8.797	8.817	VV	252	2334	0.15%	0.035%
163	8.824	8.817	8.864	VV	190	4695	0.30%	0.071%
164	8.892	8.864	8.900	VV	281	4228	0.27%	0.064%
165	8.909	8.900	8.964	VV	157	5264	0.34%	0.079%
166	8.986	8.964	9.013	VV	374	7768	0.50%	0.117%
167	9.033	9.013	9.066	VV	344	7863	0.50%	0.118%
168	9.082	9.066	9.108	VV	281	4992	0.32%	0.075%
169	9.151	9.108	9.224	VV	213	10625	0.68%	0.160%
170	9.233	9.224	9.309	VV	181	6207	0.40%	0.094%
171	9.334	9.309	9.395	VV	597	15392	0.99%	0.232%
172	9.435	9.395	9.464	VV	291	8797	0.56%	0.133%
173	9.486	9.464	9.519	VV	297	6388	0.41%	0.096%
174	9.528	9.519	9.544	VV	203	2210	0.14%	0.033%
175	9.565	9.544	9.655	VV	307	8919	0.57%	0.134%
176	9.662	9.655	9.674	VV	108	674	0.04%	0.010%
177	9.689	9.674	9.729	PV	83	2536	0.16%	0.038%
178	9.739	9.729	9.762	VV	109	1069	0.07%	0.016%
179	9.770	9.762	9.797	PV	168	2068	0.13%	0.031%
180	9.803	9.797	9.840	VV	130	2399	0.15%	0.036%
181	9.864	9.840	9.907	VV	133	3827	0.25%	0.058%
182	9.918	9.907	9.932	VV	122	1456	0.09%	0.022%
183	10.027	9.932	10.124	VV	515	22484	1.44%	0.339%
184	10.144	10.124	10.175	VV	166	2680	0.17%	0.040%
185	10.213	10.175	10.520	VV	5309	556713	35.74%	8.386%
186	10.531	10.520	10.554	VV	1317	25995	1.67%	0.392%
187	10.562	10.554	10.605	VV	1221	35136	2.26%	0.529%
188	10.624	10.605	10.699	VV	1428	68144	4.38%	1.026%
189	10.712	10.699	10.797	VV	1040	48640	3.12%	0.733%
190	10.804	10.797	10.855	VV	666	19183	1.23%	0.289%
191	10.881	10.855	10.919	VV	704	21602	1.39%	0.325%
192	10.943	10.919	10.972	VV	657	16490	1.06%	0.248%
193	10.990	10.972	11.094	VV	644	31726	2.04%	0.478%
194	11.145	11.094	11.182	VV	428	19582	1.26%	0.295%

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195	11.191	11.182	11.245	VV	398	11688	0.75%	0.176%
196	11.261	11.245	11.301	VV	371	9364	0.60%	0.141%
197	11.342	11.301	11.390	VV	520	21753	1.40%	0.328%
198	11.405	11.390	11.430	VV	383	8175	0.52%	0.123%
199	11.440	11.430	11.449	VV	350	3498	0.22%	0.053%
200	11.463	11.449	11.507	VV	333	9485	0.61%	0.143%
201	11.535	11.507	11.553	VV	315	7448	0.48%	0.112%
202	11.578	11.553	11.619	VV	434	10841	0.70%	0.163%
203	11.641	11.619	11.692	VV	505	13622	0.87%	0.205%
204	11.730	11.692	11.770	VV	457	15492	0.99%	0.233%
205	11.792	11.770	11.817	VV	392	8640	0.55%	0.130%
206	11.843	11.817	11.880	VV	399	10781	0.69%	0.162%
207	11.887	11.880	11.912	VV	278	3673	0.24%	0.055%
208	11.919	11.912	11.956	VV	180	2731	0.18%	0.041%
209	12.021	11.956	12.050	PV	533	17909	1.15%	0.270%
210	12.122	12.050	12.167	VV	448	17716	1.14%	0.267%
211	12.172	12.167	12.199	VV	119	1558	0.10%	0.023%
212	12.202	12.199	12.218	VV	85	636	0.04%	0.010%
213	12.240	12.218	12.257	PV	101	1540	0.10%	0.023%
214	12.296	12.257	12.330	VV	250	6860	0.44%	0.103%
215	12.389	12.330	12.422	VV	412	11124	0.71%	0.168%
216	12.450	12.422	12.492	VV	1391	33946	2.18%	0.511%
217	12.499	12.492	12.524	VV	602	8779	0.56%	0.132%
218	12.547	12.524	12.646	VV	66742	1130935	72.61%	17.035%
219	12.657	12.646	12.842	VV	2772	148172	9.51%	2.232%
220	12.872	12.842	12.912	VV	983	29624	1.90%	0.446%
221	12.929	12.912	12.984	VV	845	28966	1.86%	0.436%
222	13.033	12.984	13.104	VV	2057	65497	4.21%	0.987%
223	13.113	13.104	13.157	VV	355	9035	0.58%	0.136%
224	13.180	13.157	13.206	VV	347	8068	0.52%	0.122%
225	13.236	13.206	13.310	VV	645	24879	1.60%	0.375%
226	13.363	13.310	13.482	VV	1035	51262	3.29%	0.772%
227	13.502	13.482	13.517	VV	251	3953	0.25%	0.060%
228	13.543	13.517	13.572	VV	467	10267	0.66%	0.155%
229	13.613	13.572	13.623	VV	919	17323	1.11%	0.261%
230	13.646	13.623	13.753	VV	2077	84676	5.44%	1.275%
231	13.783	13.753	13.900	VV	14507	314369	20.18%	4.735%
232	13.908	13.900	13.952	VV	739	20052	1.29%	0.302%
233	13.972	13.952	14.048	VV	714	24536	1.58%	0.370%
234	14.096	14.048	14.107	VV	746	15200	0.98%	0.229%
235	14.124	14.107	14.165	VV	805	16378	1.05%	0.247%
236	14.176	14.165	14.235	VV	269	7618	0.49%	0.115%
237	14.249	14.235	14.275	PV	103	2109	0.14%	0.032%
238	14.308	14.275	14.326	VV	189	4872	0.31%	0.073%
239	14.350	14.326	14.382	VV	222	5658	0.36%	0.085%
240	14.407	14.382	14.430	VV	180	3669	0.24%	0.055%
241	14.445	14.430	14.468	VV	157	2775	0.18%	0.042%
242	14.487	14.468	14.509	VV	315	4143	0.27%	0.062%
243	14.540	14.509	14.627	PV	1377	40579	2.61%	0.611%
244	14.643	14.627	14.660	VV	230	3190	0.20%	0.048%
245	14.687	14.660	14.729	VV	939	15173	0.97%	0.229%
246	14.771	14.729	14.791	VV	369	9051	0.58%	0.136%

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247	14.835	14.791	14.911	VV	611	21623	1.39%	0.326%
248	14.935	14.911	14.985	VV	680	14980	0.96%	0.226%
249	15.018	14.985	15.072	VV	108031	1557504	100.00%	23.461%
250	15.092	15.072	15.169	VV	672	21552	1.38%	0.325%
251	15.225	15.169	15.265	VV	1433	31283	2.01%	0.471%
252	15.294	15.265	15.357	VV	601	11302	0.73%	0.170%
253	15.389	15.357	15.407	PV	226	4038	0.26%	0.061%
254	15.427	15.407	15.452	VV	278	4633	0.30%	0.070%
255	15.472	15.452	15.510	VV	262	4573	0.29%	0.069%
256	15.533	15.510	15.541	PV	93	1333	0.09%	0.020%
257	15.608	15.541	15.707	VV	36986	653926	41.99%	9.850%
258	15.744	15.707	15.761	VV	2105	47873	3.07%	0.721%
259	15.777	15.761	15.800	VV	1740	28007	1.80%	0.422%
260	15.824	15.800	15.870	VV	2008	44020	2.83%	0.663%
261	15.886	15.870	15.950	VV	620	18606	1.19%	0.280%
262	15.977	15.950	16.023	VV	2045	41121	2.64%	0.619%
263	16.036	16.023	16.089	VV	530	12602	0.81%	0.190%
264	16.135	16.089	16.172	VV	1021	24775	1.59%	0.373%
265	16.175	16.172	16.217	VV	493	7827	0.50%	0.118%
266	16.246	16.217	16.272	VV	1574	23330	1.50%	0.351%
267	16.280	16.272	16.293	VV	122	1425	0.09%	0.021%
268	16.330	16.293	16.357	PV	288	6594	0.42%	0.099%
269	16.379	16.357	16.415	VV	512	8626	0.55%	0.130%
270	16.446	16.415	16.454	PV	187	2479	0.16%	0.037%
271	16.483	16.454	16.508	VV	324	6240	0.40%	0.094%
272	16.538	16.508	16.567	VV	343	7681	0.49%	0.116%
273	16.625	16.567	16.681	VV	6406	128591	8.26%	1.937%
274	16.690	16.681	16.705	VV	831	9806	0.63%	0.148%
275	16.728	16.705	16.774	VV	1964	30743	1.97%	0.463%
276	16.829	16.774	16.859	PV	452	10953	0.70%	0.165%
277	16.954	16.859	16.984	VV	749	24981	1.60%	0.376%
278	17.080	16.984	17.102	VV	953	36513	2.34%	0.550%
279	17.111	17.102	17.132	VV	602	8120	0.52%	0.122%
280	17.193	17.132	17.217	VV	2102	42603	2.74%	0.642%
281	17.244	17.217	17.267	VV	2442	40115	2.58%	0.604%
282	17.283	17.267	17.312	VV	745	11795	0.76%	0.178%
283	17.329	17.312	17.342	PV	182	2598	0.17%	0.039%
284	17.383	17.342	17.400	VV	378	8079	0.52%	0.122%
285	17.415	17.400	17.430	VV	419	5316	0.34%	0.080%
286	17.445	17.430	17.474	VV	427	5271	0.34%	0.079%
Sum of corrected areas:						6638718		

FF052125.M Thu Jun 05 03:47:32 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/29/25
Project:	South River WM Replacement	Date Received:	05/30/25
Client Sample ID:	TP-25	SDG No.:	Q2176
Lab Sample ID:	Q2176-03	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	85.7
Sample Wt/Vol:	30.05	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015902.D	1	06/04/25 08:30	06/04/25 15:15	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	2330		197	1940	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	18.1		37 - 130	91%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015902.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 15:15
Operator : YP\AJ
Sample : Q2176-03
Misc :
ALS Vial : 76 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-25

Integration File: autoint1.e
Quant Time: Jun 05 03:04:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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...	15.016	2211368	18.106 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

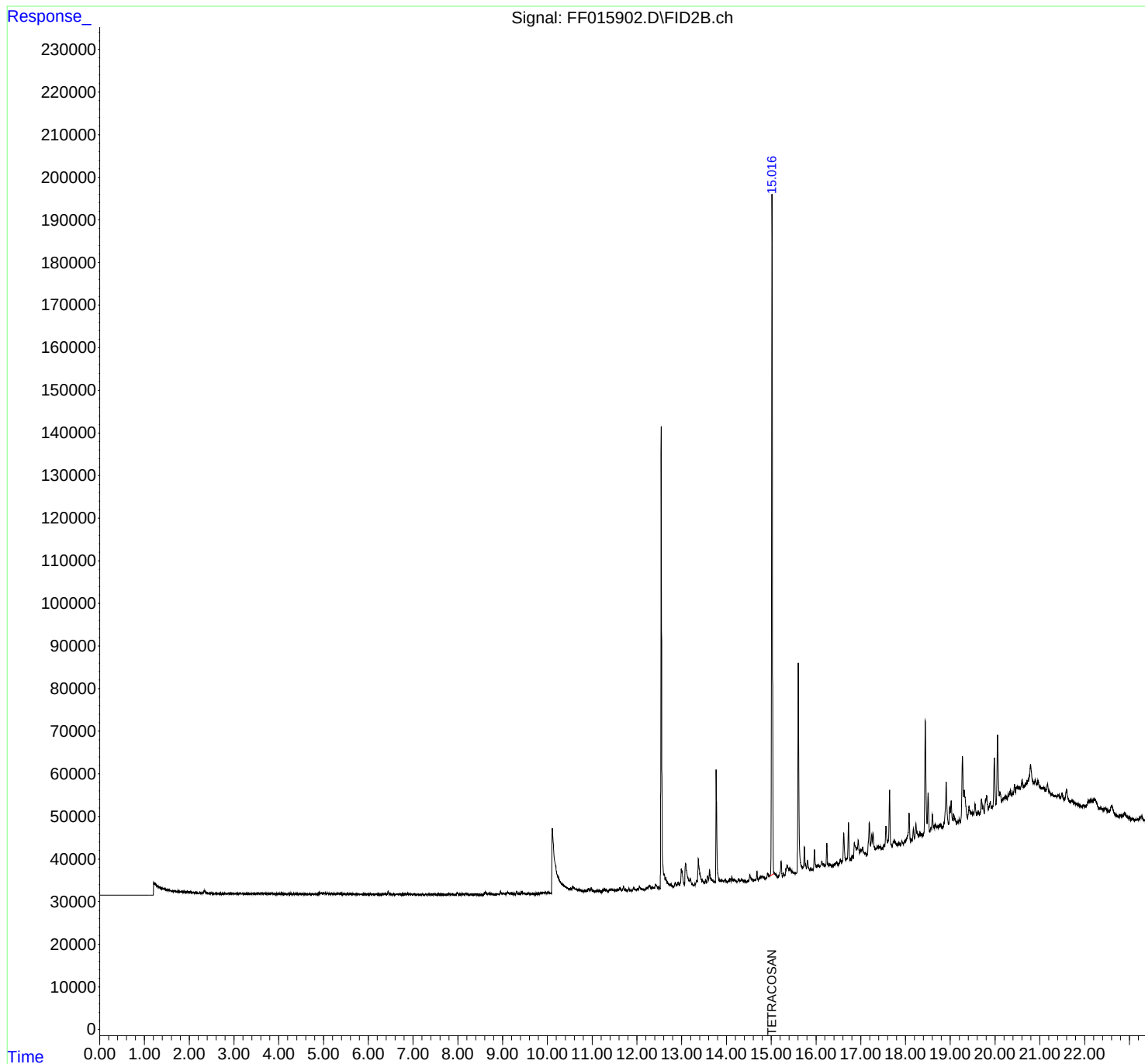
(m)=manual int.

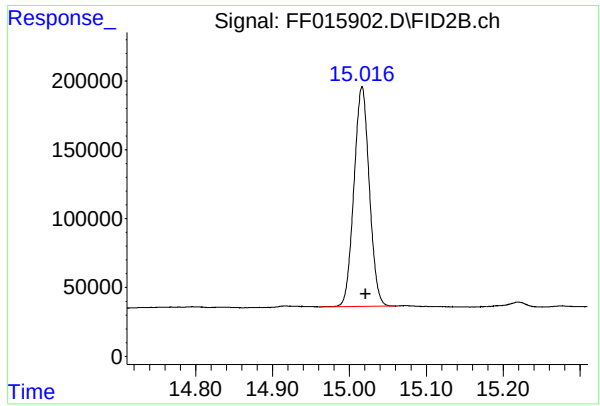
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015902.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 15:15
Operator : YP\AJ
Sample : Q2176-03
Misc :
ALS Vial : 76 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-25

Integration File: autoint1.e
Quant Time: Jun 05 03:04:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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.: 15.016 min
Delta R.T.: -0.004 min
Response: 2211368
Conc: 18.11 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-25

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015902.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 15:15
Sample : Q2176-03
Misc :
ALS Vial : 76 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.516	4.500	4.543	BV	90	856	0.04%	0.008%
2	4.571	4.543	4.579	PV	158	1521	0.07%	0.015%
3	4.583	4.579	4.590	VV	95	377	0.02%	0.004%
4	4.593	4.590	4.605	VV	121	633	0.03%	0.006%
5	4.609	4.605	4.621	VV	78	659	0.03%	0.006%
6	4.631	4.621	4.654	VV	128	1318	0.06%	0.013%
7	4.663	4.654	4.668	VV	95	357	0.02%	0.003%
8	4.677	4.668	4.683	PV	126	649	0.03%	0.006%
9	4.686	4.683	4.703	VV	157	846	0.04%	0.008%
10	4.714	4.703	4.725	VV	127	693	0.03%	0.007%
11	4.728	4.725	4.737	VV	83	428	0.02%	0.004%
12	4.743	4.737	4.751	VV	97	612	0.03%	0.006%
13	4.763	4.751	4.769	VV	120	905	0.04%	0.009%
14	4.775	4.769	4.788	PV	65	573	0.03%	0.006%
15	4.796	4.788	4.802	VV	129	663	0.03%	0.006%
16	4.806	4.802	4.812	VV	134	570	0.03%	0.006%
17	4.815	4.812	4.829	VV	157	969	0.04%	0.009%
18	4.860	4.829	4.864	VV	134	2021	0.09%	0.020%
19	4.890	4.864	4.894	VV	316	3786	0.17%	0.037%
20	4.916	4.894	4.920	VV	341	4460	0.20%	0.044%
21	4.926	4.920	4.934	VV	355	2639	0.12%	0.026%
22	4.943	4.934	4.962	VV	341	4710	0.21%	0.046%
23	4.965	4.962	4.969	VV	339	1238	0.05%	0.012%
24	4.975	4.969	4.984	VV	293	2629	0.12%	0.026%
25	4.990	4.984	4.996	VV	364	2133	0.09%	0.021%
26	5.003	4.996	5.014	VV	398	3642	0.16%	0.036%
27	5.021	5.014	5.032	VV	328	3041	0.13%	0.030%
28	5.044	5.032	5.083	VV	368	8558	0.38%	0.084%
29	5.085	5.083	5.122	VV	346	6132	0.27%	0.060%
30	5.125	5.122	5.164	VV	287	6048	0.27%	0.059%
31	5.178	5.164	5.190	VV	289	3394	0.15%	0.033%
32	5.200	5.190	5.204	VV	210	1599	0.07%	0.016%
33	5.212	5.204	5.241	VV	310	4615	0.20%	0.045%
34	5.242	5.241	5.253	VV	244	1467	0.06%	0.014%
35	5.268	5.253	5.283	VV	219	3241	0.14%	0.032%
36	5.289	5.283	5.294	VV	195	1124	0.05%	0.011%

					rteres			
37	5.303	5.294	5.331	VV	229	3948	0.17%	0.039%
38	5.332	5.331	5.367	VV	224	4025	0.18%	0.039%
39	5.378	5.367	5.383	VV	215	1682	0.07%	0.016%
40	5.395	5.383	5.438	VV	226	5358	0.24%	0.052%
41	5.441	5.438	5.453	VV	192	1640	0.07%	0.016%
42	5.458	5.453	5.467	VV	196	1512	0.07%	0.015%
43	5.471	5.467	5.490	VV	214	2084	0.09%	0.020%
44	5.499	5.490	5.506	VV	170	1315	0.06%	0.013%
45	5.528	5.506	5.540	VV	243	3068	0.14%	0.030%
46	5.554	5.540	5.596	VV	266	5156	0.23%	0.050%
47	5.614	5.596	5.623	VV	392	3069	0.14%	0.030%
48	5.624	5.623	5.637	VV	224	1497	0.07%	0.015%
49	5.645	5.637	5.659	VV	181	1944	0.09%	0.019%
50	5.671	5.659	5.708	VV	197	4152	0.18%	0.041%
51	5.716	5.708	5.735	VV	180	2019	0.09%	0.020%
52	5.739	5.735	5.762	VV	169	1802	0.08%	0.018%
53	5.770	5.762	5.782	VV	125	1179	0.05%	0.012%
54	5.791	5.782	5.795	VV	139	848	0.04%	0.008%
55	5.800	5.795	5.812	VV	178	1077	0.05%	0.011%
56	5.822	5.812	5.833	VV	154	1186	0.05%	0.012%
57	5.835	5.833	5.851	VV	127	728	0.03%	0.007%
58	5.897	5.851	5.909	VV	214	4280	0.19%	0.042%
59	5.916	5.909	5.937	VV	178	2010	0.09%	0.020%
60	5.942	5.937	5.962	VV	212	1542	0.07%	0.015%
61	5.965	5.962	5.972	VV	93	605	0.03%	0.006%
62	5.977	5.972	5.991	VV	156	1131	0.05%	0.011%
63	5.994	5.991	6.001	VV	105	536	0.02%	0.005%
64	6.008	6.001	6.023	VV	135	1263	0.06%	0.012%
65	6.028	6.023	6.031	VV	164	513	0.02%	0.005%
66	6.057	6.031	6.066	VV	181	2524	0.11%	0.025%
67	6.070	6.066	6.109	VV	159	3138	0.14%	0.031%
68	6.113	6.109	6.128	VV	150	1317	0.06%	0.013%
69	6.138	6.128	6.143	VV	129	877	0.04%	0.009%
70	6.151	6.143	6.158	VV	139	994	0.04%	0.010%
71	6.164	6.158	6.173	VV	122	800	0.04%	0.008%
72	6.184	6.173	6.229	VV	144	3021	0.13%	0.030%
73	6.245	6.229	6.251	VV	145	1124	0.05%	0.011%
74	6.254	6.251	6.273	PV	86	796	0.04%	0.008%
75	6.278	6.273	6.288	VV	108	692	0.03%	0.007%
76	6.330	6.288	6.342	VV	207	3849	0.17%	0.038%
77	6.354	6.342	6.370	VV	244	3036	0.13%	0.030%
78	6.375	6.370	6.379	VV	189	981	0.04%	0.010%
79	6.383	6.379	6.397	VV	237	1603	0.07%	0.016%
80	6.407	6.397	6.417	VV	228	1882	0.08%	0.018%
81	6.442	6.417	6.465	VV	917	12316	0.54%	0.121%
82	6.469	6.465	6.477	VV	145	1035	0.05%	0.010%
83	6.481	6.477	6.515	VV	159	2934	0.13%	0.029%
84	6.518	6.515	6.525	VV	94	628	0.03%	0.006%
85	6.530	6.525	6.535	VV	90	538	0.02%	0.005%
86	6.541	6.535	6.565	VV	173	2509	0.11%	0.025%
87	6.578	6.565	6.586	VV	175	1519	0.07%	0.015%
88	6.591	6.586	6.605	VV	140	1227	0.05%	0.012%
89	6.614	6.605	6.620	VV	160	1068	0.05%	0.010%

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90	6.660	6.620	6.665	VV	181	3688	0.16%	0.036%
91	6.675	6.665	6.682	VV	158	1354	0.06%	0.013%
92	6.686	6.682	6.692	VV	181	912	0.04%	0.009%
93	6.697	6.692	6.709	VV	189	1428	0.06%	0.014%
94	6.714	6.709	6.754	VV	178	3439	0.15%	0.034%
95	6.759	6.754	6.769	VV	102	900	0.04%	0.009%
96	6.804	6.769	6.817	VV	193	4522	0.20%	0.044%
97	6.819	6.817	6.822	VV	223	592	0.03%	0.006%
98	6.826	6.822	6.839	VV	200	1840	0.08%	0.018%
99	6.845	6.839	6.858	VV	245	1999	0.09%	0.020%
100	6.871	6.858	6.889	VV	258	3908	0.17%	0.038%
101	6.895	6.889	6.900	VV	249	1423	0.06%	0.014%
102	6.905	6.900	6.920	VV	249	2580	0.11%	0.025%
103	6.931	6.920	6.946	VV	279	3141	0.14%	0.031%
104	6.949	6.946	6.985	VV	229	3570	0.16%	0.035%
105	7.009	6.985	7.031	VV	185	3224	0.14%	0.032%
106	7.039	7.031	7.047	VV	151	1155	0.05%	0.011%
107	7.053	7.047	7.069	VV	190	1668	0.07%	0.016%
108	7.079	7.069	7.096	VV	180	1741	0.08%	0.017%
109	7.112	7.096	7.122	VV	133	1485	0.07%	0.015%
110	7.127	7.122	7.152	VV	126	1538	0.07%	0.015%
111	7.157	7.152	7.164	VV	98	468	0.02%	0.005%
112	7.173	7.164	7.190	VV	112	1018	0.05%	0.010%
113	7.196	7.190	7.240	VV	131	2284	0.10%	0.022%
114	7.246	7.240	7.257	VV	135	801	0.04%	0.008%
115	7.262	7.257	7.275	VV	104	793	0.04%	0.008%
116	7.284	7.275	7.324	VV	152	3109	0.14%	0.030%
117	7.342	7.324	7.371	VV	163	3410	0.15%	0.033%
118	7.377	7.371	7.408	VV	144	2351	0.10%	0.023%
119	7.417	7.408	7.446	VV	173	2483	0.11%	0.024%
120	7.466	7.446	7.499	VV	304	5442	0.24%	0.053%
121	7.503	7.499	7.515	VV	122	838	0.04%	0.008%
122	7.521	7.515	7.529	VV	91	704	0.03%	0.007%
123	7.537	7.529	7.542	VV	157	905	0.04%	0.009%
124	7.549	7.542	7.569	VV	178	1494	0.07%	0.015%
125	7.572	7.569	7.592	VV	161	1546	0.07%	0.015%
126	7.594	7.592	7.607	VV	146	1026	0.05%	0.010%
127	7.615	7.607	7.620	VV	137	769	0.03%	0.008%
128	7.640	7.620	7.668	VV	135	2853	0.13%	0.028%
129	7.672	7.668	7.693	VV	119	1257	0.06%	0.012%
130	7.703	7.693	7.711	VV	126	948	0.04%	0.009%
131	7.721	7.711	7.737	VV	114	1131	0.05%	0.011%
132	7.774	7.737	7.779	VV	218	3592	0.16%	0.035%
133	7.784	7.779	7.792	VV	176	1038	0.05%	0.010%
134	7.804	7.792	7.822	VV	182	2467	0.11%	0.024%
135	7.829	7.822	7.837	VV	201	1443	0.06%	0.014%
136	7.842	7.837	7.845	VV	163	711	0.03%	0.007%
137	7.854	7.845	7.873	VV	234	2645	0.12%	0.026%
138	7.882	7.873	7.889	VV	179	1521	0.07%	0.015%
139	7.892	7.889	7.905	VV	184	1207	0.05%	0.012%
140	7.911	7.905	7.925	VV	141	1358	0.06%	0.013%
141	7.940	7.925	7.960	VV	163	2436	0.11%	0.024%

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142	7.990	7.960	8.021	VV	527	11634	0.51%	0.114%
143	8.028	8.021	8.053	VV	198	2868	0.13%	0.028%
144	8.060	8.053	8.065	VV	150	839	0.04%	0.008%
145	8.097	8.065	8.132	VV	381	8543	0.38%	0.084%
146	8.136	8.132	8.146	VV	145	1026	0.05%	0.010%
147	8.151	8.146	8.159	VV	199	1147	0.05%	0.011%
148	8.179	8.159	8.230	VV	407	9978	0.44%	0.098%
149	8.234	8.230	8.245	VV	136	838	0.04%	0.008%
150	8.247	8.245	8.258	VV	141	736	0.03%	0.007%
151	8.285	8.258	8.291	VV	177	2227	0.10%	0.022%
152	8.298	8.291	8.304	VV	205	1276	0.06%	0.012%
153	8.308	8.304	8.340	VV	159	1909	0.08%	0.019%
154	8.344	8.340	8.371	VV	148	1801	0.08%	0.018%
155	8.398	8.371	8.417	VV	307	4474	0.20%	0.044%
156	8.422	8.417	8.430	VV	174	729	0.03%	0.007%
157	8.435	8.430	8.459	VV	131	1684	0.07%	0.016%
158	8.464	8.459	8.475	PV	116	685	0.03%	0.007%
159	8.499	8.475	8.514	VV	116	1572	0.07%	0.015%
160	8.517	8.514	8.539	VV	96	833	0.04%	0.008%
161	8.567	8.539	8.580	VV	245	3546	0.16%	0.035%
162	8.612	8.580	8.655	VV	679	19617	0.87%	0.192%
163	8.661	8.655	8.665	VV	296	1741	0.08%	0.017%
164	8.667	8.665	8.684	VV	312	2959	0.13%	0.029%
165	8.697	8.684	8.761	VV	382	12686	0.56%	0.124%
166	8.765	8.761	8.769	VV	152	659	0.03%	0.006%
167	8.774	8.769	8.787	VV	149	1254	0.06%	0.012%
168	8.791	8.787	8.800	VV	131	827	0.04%	0.008%
169	8.807	8.800	8.811	VV	159	794	0.04%	0.008%
170	8.818	8.811	8.833	VV	180	1695	0.07%	0.017%
171	8.847	8.833	8.862	VV	203	2248	0.10%	0.022%
172	8.883	8.862	8.915	VV	283	4680	0.21%	0.046%
173	8.951	8.915	8.985	VV	658	12996	0.57%	0.127%
174	8.990	8.985	8.995	VV	253	1413	0.06%	0.014%
175	9.010	8.995	9.057	VV	419	10742	0.48%	0.105%
176	9.082	9.057	9.089	VV	305	4475	0.20%	0.044%
177	9.091	9.089	9.094	VV	362	977	0.04%	0.010%
178	9.112	9.094	9.161	VV	581	14583	0.65%	0.143%
179	9.188	9.161	9.232	VV	306	8845	0.39%	0.087%
180	9.247	9.232	9.289	VV	298	6524	0.29%	0.064%
181	9.312	9.289	9.347	VV	771	12283	0.54%	0.120%
182	9.353	9.347	9.366	VV	175	2052	0.09%	0.020%
183	9.377	9.366	9.390	VV	251	2610	0.12%	0.026%
184	9.424	9.390	9.477	VV	575	17537	0.78%	0.172%
185	9.484	9.477	9.510	VV	259	3163	0.14%	0.031%
186	9.518	9.510	9.525	VV	146	1033	0.05%	0.010%
187	9.532	9.525	9.554	VV	159	2201	0.10%	0.022%
188	9.571	9.554	9.621	VV	287	6752	0.30%	0.066%
189	9.644	9.621	9.665	PV	141	2689	0.12%	0.026%
190	9.674	9.665	9.682	VV	125	1179	0.05%	0.012%
191	9.691	9.682	9.720	VV	129	2228	0.10%	0.022%
192	9.780	9.720	9.811	VV	204	5283	0.23%	0.052%
193	9.867	9.811	9.887	PV	309	9087	0.40%	0.089%
194	9.914	9.887	9.942	VV	341	8557	0.38%	0.084%

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195	9.964	9.942	9.985	VV	277	5500	0.24%	0.054%
196	10.012	9.985	10.050	VV	536	10379	0.46%	0.102%
197	10.055	10.050	10.061	VV	146	659	0.03%	0.006%
198	10.068	10.061	10.090	VV	142	2028	0.09%	0.020%
199	10.112	10.090	10.500	VV	15329	990605	43.83%	9.701%
200	10.516	10.500	10.540	VV	1093	23449	1.04%	0.230%
201	10.576	10.540	10.680	VV	1459	84325	3.73%	0.826%
202	10.705	10.680	10.780	VV	798	34230	1.51%	0.335%
203	10.799	10.780	10.832	VV	439	10683	0.47%	0.105%
204	10.853	10.832	10.862	VV	428	6205	0.27%	0.061%
205	10.883	10.862	10.900	VV	559	10503	0.46%	0.103%
206	10.921	10.900	10.953	VV	899	20059	0.89%	0.196%
207	10.978	10.953	11.060	VV	1000	29410	1.30%	0.288%
208	11.079	11.060	11.110	VV	301	6589	0.29%	0.065%
209	11.129	11.110	11.154	VV	349	6746	0.30%	0.066%
210	11.168	11.154	11.210	VV	301	6481	0.29%	0.063%
211	11.260	11.210	11.352	VV	574	26108	1.16%	0.256%
212	11.426	11.352	11.512	PV	604	32501	1.44%	0.318%
213	11.519	11.512	11.539	VV	325	4406	0.19%	0.043%
214	11.552	11.539	11.595	VV	398	11545	0.51%	0.113%
215	11.618	11.595	11.669	VV	913	20275	0.90%	0.199%
216	11.702	11.669	11.792	VV	1165	28549	1.26%	0.280%
217	11.819	11.792	11.877	PV	588	9336	0.41%	0.091%
218	11.925	11.877	11.955	VV	725	14720	0.65%	0.144%
219	11.969	11.955	11.992	VV	308	4381	0.19%	0.043%
220	12.012	11.992	12.033	VV	491	6342	0.28%	0.062%
221	12.056	12.033	12.155	VV	962	25939	1.15%	0.254%
222	12.167	12.155	12.192	PV	180	1759	0.08%	0.017%
223	12.222	12.192	12.237	VV	489	10010	0.44%	0.098%
224	12.285	12.237	12.321	VV	1001	31688	1.40%	0.310%
225	12.328	12.321	12.338	VV	436	4311	0.19%	0.042%
226	12.380	12.338	12.396	VV	493	13263	0.59%	0.130%
227	12.421	12.396	12.477	VV	1111	30114	1.33%	0.295%
228	12.494	12.477	12.513	VV	515	6366	0.28%	0.062%
229	12.543	12.513	12.599	VV	108528	1416295	62.66%	13.870%
230	12.608	12.599	12.630	VV	3432	53232	2.36%	0.521%
231	12.646	12.630	12.814	VV	2449	120139	5.32%	1.177%
232	12.857	12.814	12.895	VV	1264	32782	1.45%	0.321%
233	12.920	12.895	12.942	VV	1357	24636	1.09%	0.241%
234	12.992	12.942	13.057	VV	4251	138261	6.12%	1.354%
235	13.085	13.057	13.169	VV	5492	186498	8.25%	1.826%
236	13.191	13.169	13.269	VV	1980	56481	2.50%	0.553%
237	13.339	13.269	13.352	VV	1326	35768	1.58%	0.350%
238	13.371	13.352	13.508	VV	6281	214136	9.47%	2.097%
239	13.533	13.508	13.555	VV	1398	24654	1.09%	0.241%
240	13.578	13.555	13.600	VV	2178	40136	1.78%	0.393%
241	13.620	13.600	13.678	VV	3563	90122	3.99%	0.883%
242	13.687	13.678	13.728	VV	1137	25690	1.14%	0.252%
243	13.771	13.728	13.864	VV	26915	426472	18.87%	4.177%
244	13.877	13.864	13.891	VV	906	13879	0.61%	0.136%
245	13.907	13.891	13.940	VV	892	21510	0.95%	0.211%
246	13.972	13.940	14.012	VV	988	29860	1.32%	0.292%

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247	14.080	14.012	14.099	VV	1123	34389	1.52%	0.337%
248	14.119	14.099	14.144	VV	1587	26384	1.17%	0.258%
249	14.170	14.144	14.239	VV	828	31374	1.39%	0.307%
250	14.271	14.239	14.312	VV	897	23830	1.05%	0.233%
251	14.343	14.312	14.405	VV	768	25317	1.12%	0.248%
252	14.413	14.405	14.437	VV	195	2811	0.12%	0.028%
253	14.448	14.437	14.460	VV	101	1234	0.05%	0.012%
254	14.481	14.460	14.492	PV	323	3733	0.17%	0.037%
255	14.522	14.492	14.552	VV	1698	32361	1.43%	0.317%
256	14.559	14.552	14.615	VV	610	13976	0.62%	0.137%
257	14.633	14.615	14.654	VV	359	4861	0.22%	0.048%
258	14.681	14.654	14.712	VV	2146	30206	1.34%	0.296%
259	14.797	14.712	14.818	VV	926	36920	1.63%	0.362%
260	14.835	14.818	14.867	VV	563	10277	0.45%	0.101%
261	14.917	14.867	14.962	VV	1385	38496	1.70%	0.377%
262	15.016	14.962	15.060	VV	160915	2260288	100.00%	22.136%
263	15.073	15.060	15.158	VV	1261	36765	1.63%	0.360%
264	15.220	15.158	15.250	VV	3707	68308	3.02%	0.669%
265	15.276	15.250	15.305	PV	842	11397	0.50%	0.112%
266	15.353	15.305	15.400	VV	2500	92893	4.11%	0.910%
267	15.423	15.400	15.535	VV	1680	64220	2.84%	0.629%
268	15.553	15.535	15.563	VV	302	3813	0.17%	0.037%
269	15.603	15.563	15.705	VV	49199	783077	34.65%	7.669%
270	15.740	15.705	15.789	VV	5890	118925	5.26%	1.165%
271	15.809	15.789	15.857	VV	2592	51778	2.29%	0.507%
272	15.879	15.857	15.905	VV	690	11229	0.50%	0.110%
273	15.924	15.905	15.937	VV	321	4507	0.20%	0.044%
274	15.964	15.937	16.019	VV	4790	86758	3.84%	0.850%
275	16.041	16.019	16.052	VV	936	16713	0.74%	0.164%
276	16.064	16.052	16.087	VV	822	15187	0.67%	0.149%
277	16.128	16.087	16.152	VV	1758	43461	1.92%	0.426%
278	16.161	16.152	16.209	VV	977	23166	1.02%	0.227%
279	16.241	16.209	16.269	VV	5626	81617	3.61%	0.799%
280	16.278	16.269	16.294	VV	597	6800	0.30%	0.067%
281	16.315	16.294	16.329	VV	600	9038	0.40%	0.089%
282	16.337	16.329	16.360	VV	277	3500	0.15%	0.034%
283	16.374	16.360	16.392	PV	232	3270	0.14%	0.032%
284	16.435	16.392	16.442	VV	443	8370	0.37%	0.082%
285	16.462	16.442	16.499	VV	914	14891	0.66%	0.146%
286	16.549	16.499	16.572	PV	899	20180	0.89%	0.198%
287	16.619	16.572	16.669	VV	7133	136335	6.03%	1.335%
288	16.724	16.669	16.762	VV	9143	145662	6.44%	1.427%
289	16.773	16.762	16.784	VV	277	3030	0.13%	0.030%
290	16.816	16.784	16.835	VV	1067	21378	0.95%	0.209%
291	16.856	16.835	16.907	VV	3973	114458	5.06%	1.121%
292	16.942	16.907	16.979	VV	4329	112633	4.98%	1.103%
293	17.002	16.979	17.022	VV	2022	41775	1.85%	0.409%
294	17.041	17.022	17.098	VV	2275	59117	2.62%	0.579%
295	17.105	17.098	17.133	VV	623	7830	0.35%	0.077%
296	17.191	17.133	17.222	PV	7506	165806	7.34%	1.624%
297	17.242	17.222	17.255	VV	4336	66083	2.92%	0.647%
298	17.273	17.255	17.344	VV	4616	108770	4.81%	1.065%
299	17.368	17.344	17.395	VV	1288	28441	1.26%	0.279%

300	17.414	17.395	17.430	VV	839	16196	0.72%	0.159%
301	17.439	17.430	17.462	VV	840	9101	0.40%	0.089%
302	17.482	17.462	17.493	VV	295	2480	0.11%	0.024%
Sum of corrected areas:						10210974		

FF052125.M Thu Jun 05 03:48:10 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/29/25
Project:	South River WM Replacement	Date Received:	05/30/25
Client Sample ID:	TP-26	SDG No.:	Q2176
Lab Sample ID:	Q2176-04	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	85.2
Sample Wt/Vol:	30.02	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015903.D	1	06/04/25 08:30	06/04/25 15:45	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	12000		198	1960	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	13.2		37 - 130	66%	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_F\Data\FF060425\
Data File : FF015903.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 15:45
Operator : YP\AJ
Sample : Q2176-04
Misc :
ALS Vial : 77 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-26

Integration File: autoint1.e
Quant Time: Jun 05 03:04:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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...	15.018	1612667	13.204 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

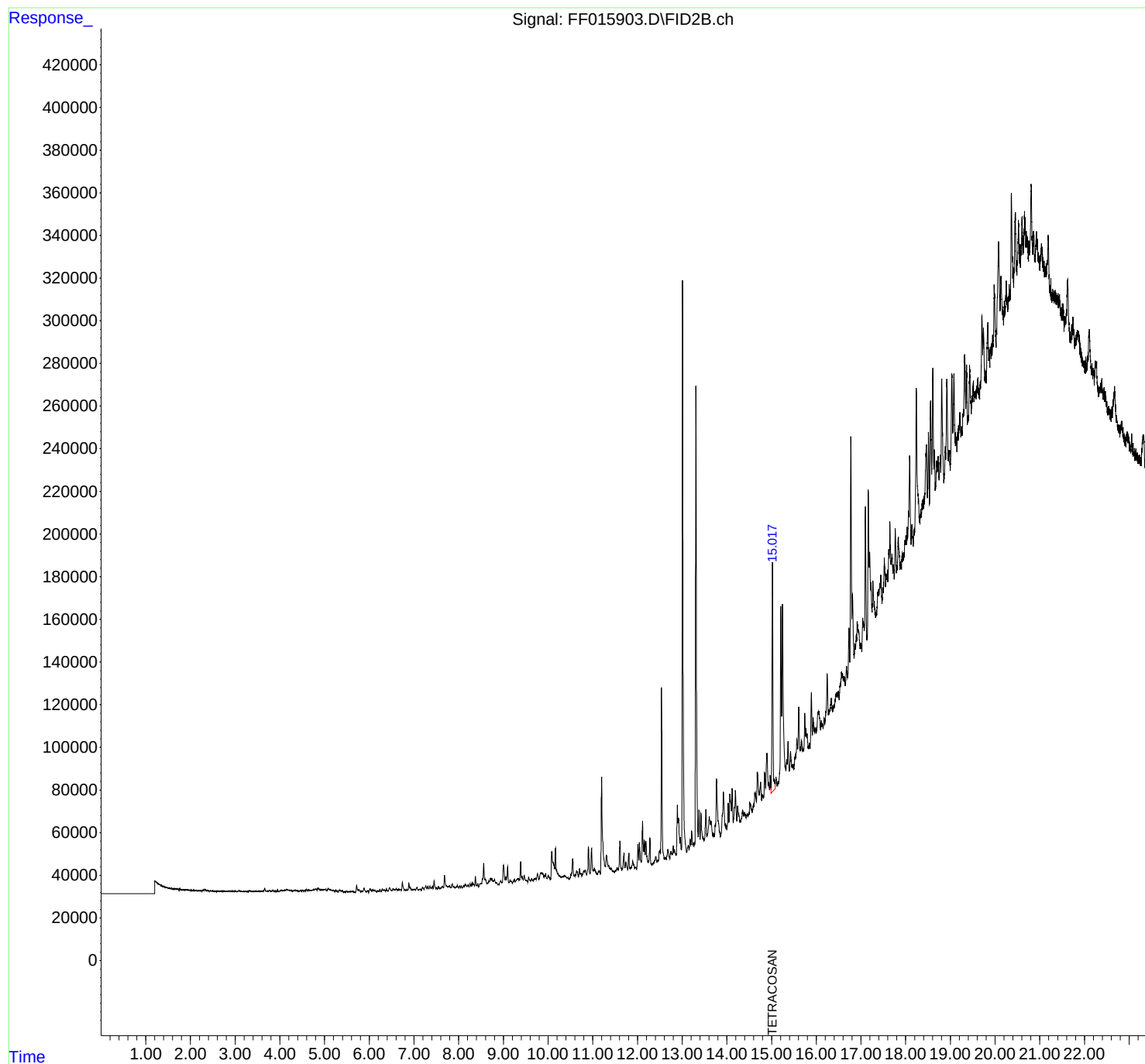
(m)=manual int.

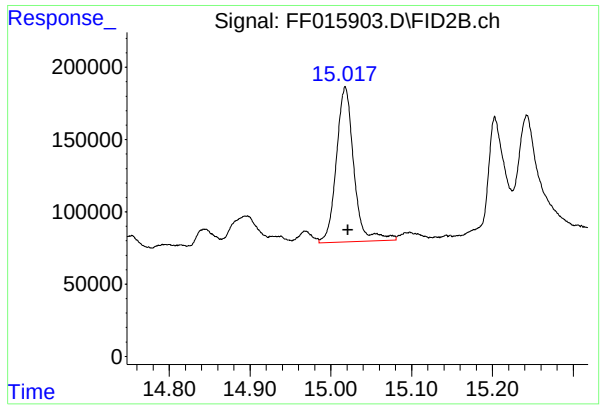
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015903.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 15:45
Operator : YP\AJ
Sample : Q2176-04
Misc :
ALS Vial : 77 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-26

Integration File: autoint1.e
Quant Time: Jun 05 03:04:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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.: 15.018 min
Delta R.T.: -0.003 min
Response: 1612667
Conc: 13.20 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-26

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
 Data File : FF015903.D
 Signal(s) : FID2B.ch
 Acq On : 04 Jun 2025 15:45
 Sample : Q2176-04
 Misc :
 ALS Vial : 77 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.508	4.500	4.525	BV	148	1358	0.04%	0.003%
2	4.529	4.525	4.533	PV	157	500	0.01%	0.001%
3	4.554	4.533	4.570	VV	245	3106	0.09%	0.007%
4	4.592	4.570	4.619	VV	713	12775	0.36%	0.030%
5	4.633	4.619	4.669	VV	551	13335	0.37%	0.031%
6	4.678	4.669	4.688	VV	479	4815	0.13%	0.011%
7	4.695	4.688	4.701	VV	510	3852	0.11%	0.009%
8	4.706	4.701	4.710	VV	484	2421	0.07%	0.006%
9	4.741	4.710	4.761	VV	761	19117	0.54%	0.045%
10	4.779	4.761	4.790	VV	1068	15987	0.45%	0.038%
11	4.799	4.790	4.812	VV	1052	12812	0.36%	0.030%
12	4.817	4.812	4.835	VV	1040	11821	0.33%	0.028%
13	4.851	4.835	4.867	VV	1797	25998	0.73%	0.061%
14	4.878	4.867	4.897	VV	1283	18812	0.53%	0.044%
15	4.908	4.897	4.928	VV	1100	18162	0.51%	0.043%
16	4.934	4.928	4.962	VV	992	17076	0.48%	0.040%
17	4.984	4.962	4.990	VV	1024	15399	0.43%	0.036%
18	5.005	4.990	5.019	VV	1176	18062	0.51%	0.042%
19	5.030	5.019	5.056	VV	1199	20183	0.57%	0.047%
20	5.081	5.056	5.095	VV	1479	26552	0.74%	0.062%
21	5.099	5.095	5.129	VV	1277	22604	0.63%	0.053%
22	5.135	5.129	5.168	VV	1084	21450	0.60%	0.050%
23	5.181	5.168	5.232	VV	866	23700	0.66%	0.056%
24	5.249	5.232	5.270	VV	984	16062	0.45%	0.038%
25	5.278	5.270	5.304	VV	603	8274	0.23%	0.019%
26	5.324	5.304	5.335	VV	979	12439	0.35%	0.029%
27	5.343	5.335	5.378	VV	1014	17949	0.50%	0.042%
28	5.395	5.378	5.425	VV	894	14562	0.41%	0.034%
29	5.445	5.425	5.465	VV	427	6575	0.18%	0.015%
30	5.489	5.465	5.501	VV	628	8575	0.24%	0.020%
31	5.504	5.501	5.532	VV	440	6791	0.19%	0.016%
32	5.549	5.532	5.560	VV	509	6734	0.19%	0.016%
33	5.569	5.560	5.572	VV	527	3606	0.10%	0.008%
34	5.581	5.572	5.595	VV	591	6472	0.18%	0.015%
35	5.612	5.595	5.630	VV	686	11660	0.33%	0.027%
36	5.643	5.630	5.663	VV	598	8311	0.23%	0.020%

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37	5.667	5.663	5.687	VV	362	3820	0.11%	0.009%
38	5.717	5.687	5.757	PV	3415	64443	1.80%	0.151%
39	5.769	5.757	5.810	VV	1305	30676	0.86%	0.072%
40	5.822	5.810	5.850	VV	587	12196	0.34%	0.029%
41	5.856	5.850	5.860	VV	592	3407	0.10%	0.008%
42	5.884	5.860	5.924	VV	2130	42185	1.18%	0.099%
43	5.934	5.924	5.951	VV	393	5651	0.16%	0.013%
44	5.969	5.951	5.988	VV	831	10653	0.30%	0.025%
45	6.014	5.988	6.055	VV	1467	38660	1.08%	0.091%
46	6.074	6.055	6.102	VV	950	21698	0.61%	0.051%
47	6.112	6.102	6.123	VV	816	8871	0.25%	0.021%
48	6.132	6.123	6.156	VV	717	9135	0.26%	0.021%
49	6.183	6.156	6.199	VV	644	8617	0.24%	0.020%
50	6.235	6.199	6.256	VV	796	15071	0.42%	0.035%
51	6.297	6.256	6.315	VV	1166	23903	0.67%	0.056%
52	6.336	6.315	6.353	VV	1008	16552	0.46%	0.039%
53	6.384	6.353	6.410	VV	1048	19096	0.53%	0.045%
54	6.418	6.410	6.429	VV	419	4115	0.12%	0.010%
55	6.451	6.429	6.506	VV	1696	42548	1.19%	0.100%
56	6.530	6.506	6.548	VV	1228	19399	0.54%	0.046%
57	6.573	6.548	6.592	VV	818	18804	0.53%	0.044%
58	6.607	6.592	6.634	VV	1243	20132	0.56%	0.047%
59	6.650	6.634	6.668	VV	809	12357	0.35%	0.029%
60	6.680	6.668	6.694	VV	764	10440	0.29%	0.025%
61	6.698	6.694	6.720	VV	711	8161	0.23%	0.019%
62	6.741	6.720	6.788	VV	4104	73082	2.05%	0.172%
63	6.792	6.788	6.809	VV	617	5343	0.15%	0.013%
64	6.834	6.809	6.847	VV	430	7698	0.22%	0.018%
65	6.859	6.847	6.867	VV	578	4745	0.13%	0.011%
66	6.886	6.867	6.908	VV	3384	47901	1.34%	0.112%
67	6.918	6.908	6.945	VV	1509	20685	0.58%	0.049%
68	6.958	6.945	6.971	VV	695	7384	0.21%	0.017%
69	6.998	6.971	7.039	VV	625	16530	0.46%	0.039%
70	7.066	7.039	7.093	VV	1386	24775	0.69%	0.058%
71	7.103	7.093	7.113	VV	277	1842	0.05%	0.004%
72	7.131	7.113	7.135	PV	506	4192	0.12%	0.010%
73	7.138	7.135	7.157	VV	548	3524	0.10%	0.008%
74	7.192	7.157	7.225	VV	1061	24080	0.67%	0.057%
75	7.266	7.225	7.290	VV	1660	41265	1.16%	0.097%
76	7.310	7.290	7.334	VV	1466	24641	0.69%	0.058%
77	7.354	7.334	7.379	VV	1664	28548	0.80%	0.067%
78	7.387	7.379	7.392	VV	703	5196	0.15%	0.012%
79	7.413	7.392	7.430	VV	1604	23924	0.67%	0.056%
80	7.451	7.430	7.495	VV	3993	64472	1.81%	0.151%
81	7.505	7.495	7.520	VV	640	6614	0.19%	0.016%
82	7.553	7.520	7.575	VV	1272	21393	0.60%	0.050%
83	7.597	7.575	7.611	VV	539	8941	0.25%	0.021%
84	7.636	7.611	7.663	VV	1323	27443	0.77%	0.064%
85	7.685	7.663	7.723	VV	6507	107947	3.02%	0.254%
86	7.728	7.723	7.755	VV	1345	21346	0.60%	0.050%
87	7.796	7.755	7.827	VV	1149	36433	1.02%	0.086%
88	7.853	7.827	7.884	VV	2095	38199	1.07%	0.090%
89	7.898	7.884	7.921	VV	732	11735	0.33%	0.028%

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90	7.940	7.921	7.952	VV	744	8613	0.24%	0.020%
91	7.968	7.952	7.991	VV	1192	16861	0.47%	0.040%
92	7.994	7.991	8.002	VV	419	2264	0.06%	0.005%
93	8.023	8.002	8.040	VV	1037	13521	0.38%	0.032%
94	8.057	8.040	8.082	VV	996	13609	0.38%	0.032%
95	8.111	8.082	8.125	PV	1132	14090	0.39%	0.033%
96	8.144	8.125	8.188	VV	1546	36066	1.01%	0.085%
97	8.209	8.188	8.235	VV	1442	22103	0.62%	0.052%
98	8.255	8.235	8.273	VV	1846	25387	0.71%	0.060%
99	8.288	8.273	8.297	VV	1266	14368	0.40%	0.034%
100	8.311	8.297	8.356	VV	2148	47464	1.33%	0.111%
101	8.376	8.356	8.405	VV	5026	63139	1.77%	0.148%
102	8.427	8.405	8.450	VV	1588	22063	0.62%	0.052%
103	8.475	8.450	8.492	PV	1447	25418	0.71%	0.060%
104	8.504	8.492	8.512	VV	1567	16846	0.47%	0.040%
105	8.535	8.512	8.541	VV	3725	45854	1.28%	0.108%
106	8.561	8.541	8.591	VV	10898	176964	4.96%	0.416%
107	8.604	8.591	8.631	VV	3088	57384	1.61%	0.135%
108	8.650	8.631	8.661	VV	1365	23480	0.66%	0.055%
109	8.676	8.661	8.685	VV	2306	28052	0.79%	0.066%
110	8.712	8.685	8.729	VV	3654	75647	2.12%	0.178%
111	8.740	8.729	8.781	VV	3221	81807	2.29%	0.192%
112	8.802	8.781	8.840	VV	2778	70319	1.97%	0.165%
113	8.846	8.840	8.880	VV	1217	19054	0.53%	0.045%
114	8.889	8.880	8.902	VV	347	3538	0.10%	0.008%
115	8.940	8.902	8.963	VV	1916	46427	1.30%	0.109%
116	9.002	8.963	9.039	VV	9321	208486	5.84%	0.490%
117	9.055	9.039	9.069	VV	3499	51229	1.43%	0.120%
118	9.096	9.069	9.124	VV	8354	135750	3.80%	0.319%
119	9.153	9.124	9.165	VV	1900	31545	0.88%	0.074%
120	9.177	9.165	9.201	VV	1443	22081	0.62%	0.052%
121	9.219	9.201	9.229	VV	1304	16204	0.45%	0.038%
122	9.244	9.229	9.271	VV	2238	38072	1.07%	0.089%
123	9.310	9.271	9.315	VV	2131	43278	1.21%	0.102%
124	9.320	9.315	9.325	VV	2146	13572	0.38%	0.032%
125	9.331	9.325	9.350	VV	2244	29024	0.81%	0.068%
126	9.387	9.350	9.408	VV	10090	154894	4.34%	0.364%
127	9.419	9.408	9.448	VV	3297	59823	1.68%	0.140%
128	9.467	9.448	9.508	VV	3630	76433	2.14%	0.180%
129	9.511	9.508	9.548	VV	1150	20399	0.57%	0.048%
130	9.568	9.548	9.607	VV	2613	49739	1.39%	0.117%
131	9.629	9.607	9.659	VV	1671	35511	0.99%	0.083%
132	9.694	9.659	9.700	VV	1565	26740	0.75%	0.063%
133	9.704	9.700	9.708	VV	1503	7066	0.20%	0.017%
134	9.714	9.708	9.719	VV	1469	9253	0.26%	0.022%
135	9.731	9.719	9.742	VV	1665	20985	0.59%	0.049%
136	9.763	9.742	9.792	VV	3825	80811	2.26%	0.190%
137	9.839	9.792	9.855	VV	4247	111408	3.12%	0.262%
138	9.867	9.855	9.881	VV	4160	59795	1.67%	0.140%
139	9.889	9.881	9.906	VV	3529	43137	1.21%	0.101%
140	9.920	9.906	9.932	VV	2831	37562	1.05%	0.088%
141	9.945	9.932	9.983	VV	3497	66129	1.85%	0.155%

					rteres			
142	10.003	9.983	10.057	VV	2739	73488	2.06%	0.173%
143	10.082	10.057	10.109	VV	13682	259940	7.28%	0.610%
144	10.114	10.109	10.149	VV	8315	172003	4.82%	0.404%
145	10.166	10.149	10.210	VV	15001	272454	7.63%	0.640%
146	10.219	10.210	10.240	VV	3282	50915	1.43%	0.120%
147	10.244	10.240	10.258	VV	2246	21354	0.60%	0.050%
148	10.264	10.258	10.285	VV	1969	27691	0.78%	0.065%
149	10.311	10.285	10.318	VV	1407	25626	0.72%	0.060%
150	10.330	10.318	10.342	VV	1519	20509	0.57%	0.048%
151	10.359	10.342	10.375	VV	1995	32845	0.92%	0.077%
152	10.387	10.375	10.423	VV	1615	34439	0.96%	0.081%
153	10.444	10.423	10.472	VV	886	14075	0.39%	0.033%
154	10.513	10.472	10.520	PV	2296	31004	0.87%	0.073%
155	10.551	10.520	10.584	VV	9521	172044	4.82%	0.404%
156	10.603	10.584	10.618	VV	1817	28947	0.81%	0.068%
157	10.638	10.618	10.681	VV	3387	82542	2.31%	0.194%
158	10.704	10.681	10.725	VV	4281	63763	1.79%	0.150%
159	10.738	10.725	10.762	VV	1960	32916	0.92%	0.077%
160	10.795	10.762	10.807	VV	2870	53161	1.49%	0.125%
161	10.835	10.807	10.867	VV	3190	79807	2.23%	0.187%
162	10.904	10.867	10.938	VV	13943	219532	6.15%	0.516%
163	10.974	10.938	11.010	VV	13036	238493	6.68%	0.560%
164	11.032	11.010	11.104	VV	3102	103555	2.90%	0.243%
165	11.127	11.104	11.133	VV	1738	20120	0.56%	0.047%
166	11.143	11.133	11.171	VV	1764	28853	0.81%	0.068%
167	11.195	11.171	11.284	VV	45932	957897	26.83%	2.250%
168	11.305	11.284	11.344	VV	8744	209430	5.86%	0.492%
169	11.357	11.344	11.399	VV	3809	91599	2.57%	0.215%
170	11.409	11.399	11.448	VV	2426	47544	1.33%	0.112%
171	11.459	11.448	11.479	VV	926	12188	0.34%	0.029%
172	11.498	11.479	11.510	VV	765	8977	0.25%	0.021%
173	11.544	11.510	11.568	VV	1910	46321	1.30%	0.109%
174	11.606	11.568	11.653	VV	14423	246364	6.90%	0.579%
175	11.696	11.653	11.721	VV	8804	158078	4.43%	0.371%
176	11.739	11.721	11.782	VV	4191	85240	2.39%	0.200%
177	11.806	11.782	11.828	VV	8265	107520	3.01%	0.253%
178	11.846	11.828	11.860	VV	1417	22291	0.62%	0.052%
179	11.891	11.860	11.943	VV	4165	110999	3.11%	0.261%
180	11.959	11.943	11.979	VV	1148	16446	0.46%	0.039%
181	12.009	11.979	12.030	PV	11704	176678	4.95%	0.415%
182	12.045	12.030	12.091	VV	12253	224972	6.30%	0.528%
183	12.111	12.091	12.138	VV	21986	348354	9.76%	0.818%
184	12.152	12.138	12.173	VV	12518	193899	5.43%	0.455%
185	12.188	12.173	12.236	VV	11942	236572	6.63%	0.556%
186	12.277	12.236	12.320	VV	12970	205475	5.75%	0.483%
187	12.323	12.320	12.328	VV	157	392	0.01%	0.001%
188	12.339	12.328	12.344	PV	661	3872	0.11%	0.009%
189	12.410	12.344	12.436	VV	3398	83574	2.34%	0.196%
190	12.452	12.436	12.461	VV	1318	15185	0.43%	0.036%
191	12.504	12.461	12.514	VV	5793	118785	3.33%	0.279%
192	12.538	12.514	12.601	VV	81384	1080474	30.26%	2.537%
193	12.617	12.601	12.631	VV	1329	19815	0.55%	0.047%
194	12.683	12.631	12.721	VV	4730	116293	3.26%	0.273%

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195	12.748	12.721	12.777	PV	3247	67104	1.88%	0.158%
196	12.799	12.777	12.813	VV	5712	74578	2.09%	0.175%
197	12.824	12.813	12.870	VV	3528	68003	1.90%	0.160%
198	12.892	12.870	12.907	VV	24006	338539	9.48%	0.795%
199	12.917	12.907	12.947	VV	17540	293578	8.22%	0.689%
200	12.959	12.947	12.985	VV	8265	114148	3.20%	0.268%
201	13.006	12.985	13.100	VV	268409	3570888	100.00%	8.386%
202	13.133	13.100	13.154	PV	2909	54565	1.53%	0.128%
203	13.178	13.154	13.196	VV	5132	84057	2.35%	0.197%
204	13.212	13.196	13.235	VV	8845	125334	3.51%	0.294%
205	13.245	13.235	13.262	VV	3086	40181	1.13%	0.094%
206	13.276	13.262	13.283	VV	2618	28030	0.78%	0.066%
207	13.305	13.283	13.357	VV	216697	2953660	82.72%	6.937%
208	13.374	13.357	13.398	VV	17043	245996	6.89%	0.578%
209	13.419	13.398	13.460	VV	15290	290572	8.14%	0.682%
210	13.474	13.460	13.496	VV	3172	53348	1.49%	0.125%
211	13.528	13.496	13.551	VV	15883	264597	7.41%	0.621%
212	13.605	13.551	13.632	VV	11962	356301	9.98%	0.837%
213	13.647	13.632	13.687	VV	9226	192303	5.39%	0.452%
214	13.697	13.687	13.718	VV	3072	43950	1.23%	0.103%
215	13.768	13.718	13.856	VV	28039	735501	20.60%	1.727%
216	13.920	13.856	13.971	PV	19956	555400	15.55%	1.304%
217	13.975	13.971	13.993	VV	3472	31822	0.89%	0.075%
218	14.027	13.993	14.046	VV	13171	196342	5.50%	0.461%
219	14.064	14.046	14.099	VV	16835	375677	10.52%	0.882%
220	14.117	14.099	14.140	VV	18533	268806	7.53%	0.631%
221	14.190	14.140	14.220	VV	16680	376499	10.54%	0.884%
222	14.237	14.220	14.306	VV	8541	192070	5.38%	0.451%
223	14.353	14.306	14.376	PV	4920	103489	2.90%	0.243%
224	14.387	14.376	14.395	VV	3023	27989	0.78%	0.066%
225	14.400	14.395	14.430	VV	2653	27704	0.78%	0.065%
226	14.454	14.430	14.471	VV	1612	20831	0.58%	0.049%
227	14.480	14.471	14.491	VV	804	6190	0.17%	0.015%
228	14.516	14.491	14.527	VV	5345	72458	2.03%	0.170%
229	14.531	14.527	14.552	VV	4437	43719	1.22%	0.103%
230	14.556	14.552	14.568	VV	1626	10841	0.30%	0.025%
231	14.588	14.568	14.595	PV	2912	28653	0.80%	0.067%
232	14.628	14.595	14.661	VV	8272	204350	5.72%	0.480%
233	14.682	14.661	14.719	VV	16397	353180	9.89%	0.829%
234	14.723	14.719	14.728	VV	5877	31772	0.89%	0.075%
235	14.754	14.728	14.780	VV	10363	191599	5.37%	0.450%
236	14.799	14.780	14.807	VV	3149	44126	1.24%	0.104%
237	14.814	14.807	14.822	VV	2606	19095	0.53%	0.045%
238	14.844	14.822	14.865	VV	12685	203506	5.70%	0.478%
239	14.895	14.865	14.923	VV	20479	474659	13.29%	1.115%
240	14.928	14.923	14.952	VV	6118	84671	2.37%	0.199%
241	14.968	14.952	14.986	VV	8534	109944	3.08%	0.258%
242	15.018	14.986	15.048	VV	107685	1544173	43.24%	3.626%
243	15.055	15.048	15.070	VV	4968	55108	1.54%	0.129%
244	15.075	15.070	15.081	VV	3233	20998	0.59%	0.049%
245	15.098	15.081	15.126	VV	5220	86943	2.43%	0.204%
246	15.130	15.126	15.135	VV	1319	5454	0.15%	0.013%

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247	15.203	15.135	15.225	VV	82796	1206160	33.78%	2.833%
248	15.243	15.225	15.320	VV	82912	1675595	46.92%	3.935%
249	15.337	15.320	15.349	VV	7949	114379	3.20%	0.269%
250	15.366	15.349	15.400	VV	16256	251702	7.05%	0.591%
251	15.423	15.400	15.458	VV	10030	196521	5.50%	0.462%
252	15.478	15.458	15.499	VV	2833	45155	1.26%	0.106%
253	15.529	15.499	15.544	PV	6507	113243	3.17%	0.266%
254	15.566	15.544	15.585	VV	12224	223622	6.26%	0.525%
255	15.606	15.585	15.631	VV	26475	435460	12.19%	1.023%
256	15.635	15.631	15.645	VV	6092	46949	1.31%	0.110%
257	15.670	15.645	15.693	VV	9008	187061	5.24%	0.439%
258	15.696	15.693	15.712	VV	4023	40843	1.14%	0.096%
259	15.741	15.712	15.760	VV	19958	293956	8.23%	0.690%
260	15.768	15.760	15.785	VV	12275	150333	4.21%	0.353%
261	15.794	15.785	15.818	VV	8736	108838	3.05%	0.256%
262	15.822	15.818	15.831	VV	2091	13123	0.37%	0.031%
263	15.848	15.831	15.861	VV	2908	30770	0.86%	0.072%
264	15.888	15.861	15.913	PV	25292	378347	10.60%	0.889%
265	15.929	15.913	15.948	VV	11759	180348	5.05%	0.424%
266	15.952	15.948	15.956	VV	6481	28454	0.80%	0.067%
267	15.974	15.956	16.000	VV	5453	123343	3.45%	0.290%
268	16.035	16.000	16.047	VV	11323	216712	6.07%	0.509%
269	16.053	16.047	16.057	VV	10819	63015	1.76%	0.148%
270	16.061	16.057	16.097	VV	10834	143204	4.01%	0.336%
271	16.114	16.097	16.126	VV	4330	45738	1.28%	0.107%
272	16.131	16.126	16.156	VV	2512	23497	0.66%	0.055%
273	16.177	16.156	16.191	VV	3419	43448	1.22%	0.102%
274	16.243	16.191	16.269	VV	21460	392518	10.99%	0.922%
275	16.276	16.269	16.295	VV	3667	42780	1.20%	0.100%
276	16.306	16.295	16.310	VV	3596	26444	0.74%	0.062%
277	16.333	16.310	16.362	VV	7110	136081	3.81%	0.320%
278	16.383	16.362	16.389	PV	2071	13635	0.38%	0.032%
279	16.394	16.389	16.402	VV	1923	11832	0.33%	0.028%
280	16.449	16.402	16.468	VV	5682	149037	4.17%	0.350%
281	16.479	16.468	16.491	VV	4775	53749	1.51%	0.126%
282	16.496	16.491	16.510	VV	4691	27469	0.77%	0.065%
283	16.533	16.510	16.541	PV	6812	76550	2.14%	0.180%
284	16.567	16.541	16.577	VV	10497	176704	4.95%	0.415%
285	16.584	16.577	16.627	VV	8896	190488	5.33%	0.447%
286	16.631	16.627	16.652	VV	5049	42305	1.18%	0.099%
287	16.677	16.652	16.703	VV	8161	143307	4.01%	0.337%
288	16.729	16.703	16.747	VV	23791	342847	9.60%	0.805%
289	16.772	16.747	16.795	VV	111781	1615951	45.25%	3.795%
290	16.810	16.795	16.846	VV	35614	666424	18.66%	1.565%
291	16.862	16.846	16.875	VV	10563	134790	3.77%	0.317%
292	16.895	16.875	16.904	VV	12823	182217	5.10%	0.428%
293	16.916	16.904	16.932	VV	18401	260682	7.30%	0.612%
294	16.939	16.932	16.979	VV	13319	267715	7.50%	0.629%
295	16.992	16.979	17.017	VV	5234	78426	2.20%	0.184%
296	17.038	17.017	17.051	PV	14653	188916	5.29%	0.444%
297	17.056	17.051	17.073	VV	11933	129627	3.63%	0.304%
298	17.096	17.073	17.133	VV	63574	899457	25.19%	2.112%
299	17.162	17.133	17.184	PV	68481	1020246	28.57%	2.396%

						rteres		
300	17.195	17.184	17.215	VV	37277	552279	15.47%	1.297%
301	17.222	17.215	17.247	VV	22060	300521	8.42%	0.706%
302	17.266	17.247	17.291	VV	20686	351923	9.86%	0.826%
303	17.295	17.291	17.312	VV	9289	84120	2.36%	0.198%
304	17.317	17.312	17.334	VV	3328	30330	0.85%	0.071%
305	17.344	17.334	17.349	VV	3293	17381	0.49%	0.041%
306	17.375	17.349	17.404	VV	10295	227104	6.36%	0.533%
307	17.427	17.404	17.434	VV	11600	181568	5.08%	0.426%
308	17.442	17.434	17.468	VV	14510	160525	4.50%	0.377%
309	17.484	17.468	17.501	PBA	3821	98463	2.76%	0.231%
					Sum of corrected areas:		42580483	

FF052125.M Thu Jun 05 03:48:50 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/29/25
Project:	South River WM Replacement	Date Received:	05/30/25
Client Sample ID:	TP-28	SDG No.:	Q2176
Lab Sample ID:	Q2176-05	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	90.5
Sample Wt/Vol:	30.05	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015904.D	1	06/04/25 08:30	06/04/25 16:48	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	2170		186	1840	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	10.8		37 - 130	54%	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_F\Data\FF060425\
Data File : FF015904.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 16:48
Operator : YP\AJ
Sample : Q2176-05
Misc :
ALS Vial : 78 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-28

Integration File: autoint1.e
Quant Time: Jun 05 03:04:35 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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...	15.020	1323052	10.833 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

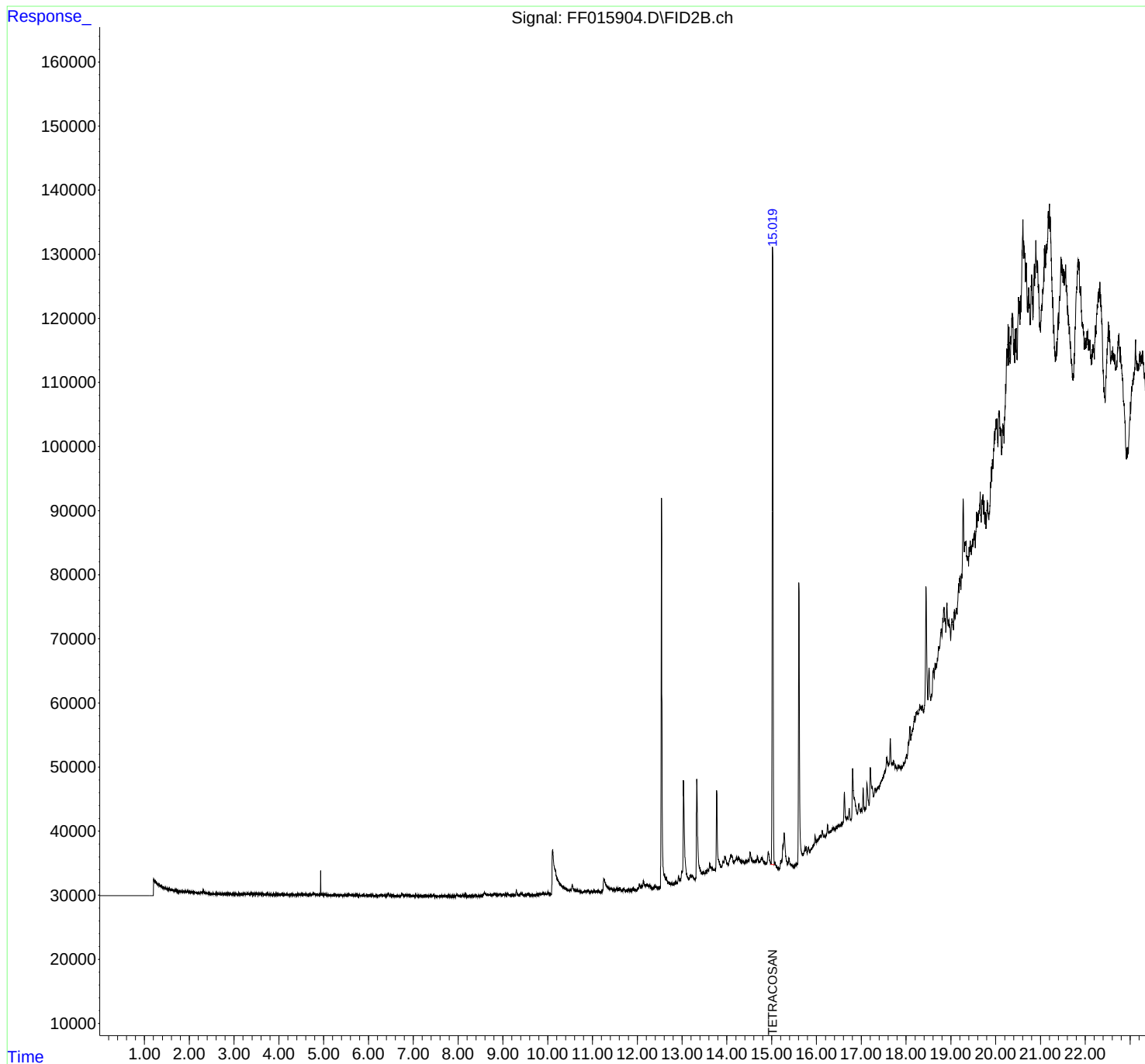
(m)=manual int.

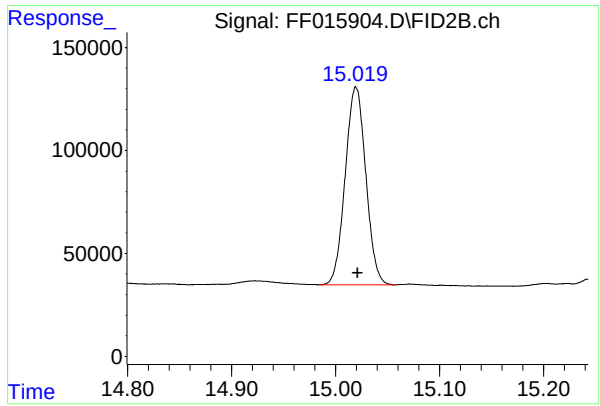
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015904.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 16:48
Operator : YP\AJ
Sample : Q2176-05
Misc :
ALS Vial : 78 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-28

Integration File: autoint1.e
Quant Time: Jun 05 03:04:35 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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.: 15.020 min
Delta R.T.: -0.001 min
Response: 1323052
Conc: 10.83 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-28

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015904.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 16:48
Sample : Q2176-05
Misc :
ALS Vial : 78 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.535	4.518	4.549	BV	79	481	0.04%	0.005%
2	4.569	4.549	4.595	PV	170	3083	0.23%	0.034%
3	4.601	4.595	4.642	VV	213	2955	0.22%	0.032%
4	4.646	4.642	4.660	VV	92	935	0.07%	0.010%
5	4.665	4.660	4.671	VV	85	570	0.04%	0.006%
6	4.682	4.671	4.694	VV	207	2022	0.15%	0.022%
7	4.699	4.694	4.706	VV	238	1160	0.08%	0.013%
8	4.716	4.706	4.742	VV	231	2795	0.20%	0.030%
9	4.760	4.742	4.771	VV	320	4027	0.29%	0.044%
10	4.780	4.771	4.795	VV	311	3464	0.25%	0.038%
11	4.797	4.795	4.806	VV	307	1311	0.10%	0.014%
12	4.813	4.806	4.818	VV	198	1244	0.09%	0.014%
13	4.822	4.818	4.825	VV	142	708	0.05%	0.008%
14	4.833	4.825	4.840	VV	190	1377	0.10%	0.015%
15	4.842	4.840	4.846	VV	153	557	0.04%	0.006%
16	4.859	4.846	4.866	VV	229	1955	0.14%	0.021%
17	4.874	4.866	4.878	VV	171	965	0.07%	0.011%
18	4.882	4.878	4.887	VV	119	659	0.05%	0.007%
19	4.893	4.887	4.909	VV	161	1726	0.13%	0.019%
20	4.931	4.909	4.939	VV	3364	5101	0.37%	0.056%
21	4.947	4.939	4.959	VV	166	1562	0.11%	0.017%
22	4.962	4.959	4.970	VV	190	883	0.06%	0.010%
23	4.974	4.970	4.977	VV	181	583	0.04%	0.006%
24	4.983	4.977	5.010	VV	203	2760	0.20%	0.030%
25	5.029	5.010	5.037	VV	200	2157	0.16%	0.023%
26	5.043	5.037	5.055	VV	191	1192	0.09%	0.013%
27	5.068	5.055	5.079	VV	158	1516	0.11%	0.017%
28	5.088	5.079	5.104	VV	179	1727	0.13%	0.019%
29	5.108	5.104	5.119	VV	125	705	0.05%	0.008%
30	5.132	5.119	5.141	VV	171	1103	0.08%	0.012%
31	5.144	5.141	5.156	VV	135	835	0.06%	0.009%
32	5.172	5.156	5.191	VV	125	1915	0.14%	0.021%
33	5.203	5.191	5.215	VV	167	1295	0.09%	0.014%
34	5.238	5.215	5.253	VV	201	3125	0.23%	0.034%
35	5.258	5.253	5.274	VV	151	1408	0.10%	0.015%
36	5.288	5.274	5.307	VV	148	1698	0.12%	0.018%

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37	5.312	5.307	5.320	VV	118	591	0.04%	0.006%
38	5.324	5.320	5.338	VV	128	741	0.05%	0.008%
39	5.344	5.338	5.375	VV	176	2472	0.18%	0.027%
40	5.379	5.375	5.390	VV	104	880	0.06%	0.010%
41	5.392	5.390	5.419	VV	152	1501	0.11%	0.016%
42	5.435	5.419	5.447	PV	104	1251	0.09%	0.014%
43	5.453	5.447	5.467	VV	128	1099	0.08%	0.012%
44	5.473	5.467	5.490	VV	109	1048	0.08%	0.011%
45	5.497	5.490	5.516	VV	139	1656	0.12%	0.018%
46	5.521	5.516	5.538	VV	154	1300	0.10%	0.014%
47	5.547	5.538	5.564	VV	191	2235	0.16%	0.024%
48	5.569	5.564	5.578	VV	163	1072	0.08%	0.012%
49	5.582	5.578	5.593	VV	158	867	0.06%	0.009%
50	5.600	5.593	5.619	VV	187	1625	0.12%	0.018%
51	5.634	5.619	5.656	VV	174	2475	0.18%	0.027%
52	5.663	5.656	5.683	VV	149	1584	0.12%	0.017%
53	5.688	5.683	5.694	VV	89	478	0.04%	0.005%
54	5.706	5.694	5.713	VV	178	1195	0.09%	0.013%
55	5.718	5.713	5.726	VV	130	847	0.06%	0.009%
56	5.730	5.726	5.760	VV	130	2506	0.18%	0.027%
57	5.763	5.760	5.775	VV	136	811	0.06%	0.009%
58	5.781	5.775	5.786	VV	121	398	0.03%	0.004%
59	5.791	5.786	5.796	VV	144	446	0.03%	0.005%
60	5.800	5.796	5.806	VV	93	439	0.03%	0.005%
61	5.822	5.806	5.844	VV	100	1425	0.10%	0.016%
62	5.878	5.844	5.885	VV	163	1848	0.14%	0.020%
63	5.887	5.885	5.896	VV	111	691	0.05%	0.008%
64	5.901	5.896	5.920	VV	126	1086	0.08%	0.012%
65	5.930	5.920	5.941	VV	105	1010	0.07%	0.011%
66	5.945	5.941	5.964	VV	102	1170	0.09%	0.013%
67	5.964	5.964	5.971	VV	155	318	0.02%	0.003%
68	5.986	5.971	6.030	VV	192	4267	0.31%	0.046%
69	6.034	6.030	6.064	VV	133	1687	0.12%	0.018%
70	6.071	6.064	6.077	VV	126	743	0.05%	0.008%
71	6.095	6.077	6.101	VV	145	1455	0.11%	0.016%
72	6.104	6.101	6.119	VV	125	937	0.07%	0.010%
73	6.133	6.119	6.150	VV	111	1361	0.10%	0.015%
74	6.154	6.150	6.157	VV	92	288	0.02%	0.003%
75	6.175	6.157	6.200	VV	167	2687	0.20%	0.029%
76	6.212	6.200	6.224	PV	96	945	0.07%	0.010%
77	6.234	6.224	6.252	VV	163	1959	0.14%	0.021%
78	6.278	6.252	6.314	VV	229	5370	0.39%	0.058%
79	6.321	6.314	6.329	VV	148	1108	0.08%	0.012%
80	6.340	6.329	6.345	VV	158	1190	0.09%	0.013%
81	6.352	6.345	6.368	VV	143	1478	0.11%	0.016%
82	6.376	6.368	6.390	VV	156	1275	0.09%	0.014%
83	6.393	6.390	6.400	VV	89	478	0.03%	0.005%
84	6.406	6.400	6.418	VV	114	731	0.05%	0.008%
85	6.440	6.418	6.480	VV	604	8665	0.63%	0.094%
86	6.487	6.480	6.500	VV	143	1305	0.10%	0.014%
87	6.526	6.500	6.538	VV	175	2709	0.20%	0.029%
88	6.540	6.538	6.562	VV	126	1296	0.09%	0.014%
89	6.567	6.562	6.582	VV	150	887	0.06%	0.010%

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90	6.585	6.582	6.602	VV	84	598	0.04%	0.007%
91	6.613	6.602	6.634	VV	120	1133	0.08%	0.012%
92	6.639	6.634	6.644	PV	114	339	0.02%	0.004%
93	6.647	6.644	6.657	VV	69	441	0.03%	0.005%
94	6.664	6.657	6.670	VV	104	445	0.03%	0.005%
95	6.674	6.670	6.692	VV	63	476	0.03%	0.005%
96	6.700	6.692	6.714	VV	110	808	0.06%	0.009%
97	6.740	6.714	6.775	VV	448	8772	0.64%	0.096%
98	6.777	6.775	6.781	VV	270	893	0.07%	0.010%
99	6.784	6.781	6.789	VV	197	775	0.06%	0.008%
100	6.793	6.789	6.817	VV	187	3008	0.22%	0.033%
101	6.830	6.817	6.841	VV	214	2662	0.20%	0.029%
102	6.862	6.841	6.877	VV	228	3705	0.27%	0.040%
103	6.881	6.877	6.899	VV	193	2089	0.15%	0.023%
104	6.906	6.899	6.917	VV	205	1651	0.12%	0.018%
105	6.920	6.917	6.927	VV	143	800	0.06%	0.009%
106	6.931	6.927	6.946	VV	137	1363	0.10%	0.015%
107	6.951	6.946	6.976	VV	157	2000	0.15%	0.022%
108	6.984	6.976	7.006	VV	148	1657	0.12%	0.018%
109	7.027	7.006	7.032	VV	165	1406	0.10%	0.015%
110	7.036	7.032	7.039	VV	131	406	0.03%	0.004%
111	7.048	7.039	7.060	VV	175	1416	0.10%	0.015%
112	7.077	7.060	7.106	VV	149	3114	0.23%	0.034%
113	7.109	7.106	7.121	VV	171	936	0.07%	0.010%
114	7.150	7.121	7.161	VV	133	2480	0.18%	0.027%
115	7.165	7.161	7.180	VV	139	1012	0.07%	0.011%
116	7.188	7.180	7.215	VV	154	2406	0.18%	0.026%
117	7.243	7.215	7.278	VV	186	3863	0.28%	0.042%
118	7.284	7.278	7.305	VV	121	1545	0.11%	0.017%
119	7.317	7.305	7.323	VV	164	1107	0.08%	0.012%
120	7.326	7.323	7.329	VV	97	272	0.02%	0.003%
121	7.345	7.329	7.355	VV	150	1565	0.11%	0.017%
122	7.361	7.355	7.367	VV	159	821	0.06%	0.009%
123	7.373	7.367	7.430	VV	158	4068	0.30%	0.044%
124	7.451	7.430	7.487	VV	268	4277	0.31%	0.047%
125	7.490	7.487	7.497	VV	104	374	0.03%	0.004%
126	7.508	7.497	7.513	VV	75	575	0.04%	0.006%
127	7.524	7.513	7.547	VV	119	1367	0.10%	0.015%
128	7.551	7.547	7.557	VV	132	546	0.04%	0.006%
129	7.565	7.557	7.595	VV	121	1821	0.13%	0.020%
130	7.600	7.595	7.625	VV	95	1770	0.13%	0.019%
131	7.641	7.625	7.672	VV	193	3617	0.26%	0.039%
132	7.677	7.672	7.689	VV	105	1034	0.08%	0.011%
133	7.752	7.689	7.764	VV	179	5792	0.42%	0.063%
134	7.770	7.764	7.786	VV	144	1649	0.12%	0.018%
135	7.789	7.786	7.812	VV	198	1629	0.12%	0.018%
136	7.822	7.812	7.897	VV	133	4093	0.30%	0.045%
137	7.975	7.897	8.016	PV	367	11159	0.82%	0.122%
138	8.039	8.016	8.051	VV	181	2879	0.21%	0.031%
139	8.058	8.051	8.077	VV	196	2368	0.17%	0.026%
140	8.100	8.077	8.131	VV	265	5068	0.37%	0.055%
141	8.160	8.131	8.221	VV	360	9145	0.67%	0.100%

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142	8.262	8.221	8.302	VV	146	4622	0.34%	0.050%
143	8.331	8.302	8.363	VV	160	3710	0.27%	0.040%
144	8.376	8.363	8.417	VV	161	3695	0.27%	0.040%
145	8.426	8.417	8.453	VV	116	1712	0.13%	0.019%
146	8.475	8.453	8.487	PV	173	1907	0.14%	0.021%
147	8.588	8.487	8.661	VV	647	27553	2.02%	0.300%
148	8.679	8.661	8.716	VV	314	8618	0.63%	0.094%
149	8.719	8.716	8.749	VV	254	3587	0.26%	0.039%
150	8.808	8.749	8.860	VV	393	17969	1.32%	0.196%
151	8.882	8.860	8.916	VV	342	8254	0.60%	0.090%
152	8.936	8.916	8.976	VV	438	9575	0.70%	0.104%
153	8.999	8.976	9.052	VV	302	9882	0.72%	0.108%
154	9.081	9.052	9.091	VV	346	5691	0.42%	0.062%
155	9.105	9.091	9.159	VV	426	9812	0.72%	0.107%
156	9.169	9.159	9.197	VV	213	3609	0.26%	0.039%
157	9.248	9.197	9.274	VV	193	5397	0.40%	0.059%
158	9.301	9.274	9.347	VV	930	16852	1.23%	0.184%
159	9.364	9.347	9.384	VV	194	3358	0.25%	0.037%
160	9.404	9.384	9.458	VV	444	12679	0.93%	0.138%
161	9.480	9.458	9.499	PV	189	2438	0.18%	0.027%
162	9.516	9.499	9.541	VV	179	2811	0.21%	0.031%
163	9.567	9.541	9.669	VV	321	8410	0.62%	0.092%
164	9.690	9.669	9.703	VV	121	1161	0.09%	0.013%
165	9.758	9.703	9.801	VV	218	5791	0.42%	0.063%
166	9.817	9.801	9.864	VV	279	7155	0.52%	0.078%
167	9.898	9.864	9.937	VV	327	9962	0.73%	0.108%
168	9.951	9.937	9.982	VV	285	4645	0.34%	0.051%
169	10.009	9.982	10.069	VV	457	8706	0.64%	0.095%
170	10.110	10.069	10.359	PV	6957	449634	32.93%	4.896%
171	10.369	10.359	10.489	VV	989	57588	4.22%	0.627%
172	10.512	10.489	10.522	VV	679	12233	0.90%	0.133%
173	10.550	10.522	10.625	VV	1439	48057	3.52%	0.523%
174	10.649	10.625	10.686	VV	531	16369	1.20%	0.178%
175	10.693	10.686	10.767	VV	522	14891	1.09%	0.162%
176	10.833	10.767	10.861	VV	419	14136	1.04%	0.154%
177	10.880	10.861	10.895	VV	418	7040	0.52%	0.077%
178	10.912	10.895	10.949	VV	432	8459	0.62%	0.092%
179	10.985	10.949	11.009	VV	298	7295	0.53%	0.079%
180	11.040	11.009	11.079	VV	351	8804	0.64%	0.096%
181	11.123	11.079	11.142	VV	283	7611	0.56%	0.083%
182	11.157	11.142	11.203	VV	257	5087	0.37%	0.055%
183	11.253	11.203	11.407	VV	2042	114745	8.40%	1.249%
184	11.414	11.407	11.497	VV	577	22500	1.65%	0.245%
185	11.551	11.497	11.588	VV	519	22958	1.68%	0.250%
186	11.611	11.588	11.641	VV	681	12649	0.93%	0.138%
187	11.651	11.641	11.675	VV	251	4129	0.30%	0.045%
188	11.697	11.675	11.744	VV	490	9460	0.69%	0.103%
189	11.772	11.744	11.792	PV	208	3664	0.27%	0.040%
190	11.809	11.792	11.852	VV	314	5487	0.40%	0.060%
191	11.902	11.852	11.952	VV	532	12844	0.94%	0.140%
192	11.966	11.952	11.991	VV	206	2205	0.16%	0.024%
193	12.015	11.991	12.024	PV	436	5187	0.38%	0.056%
194	12.046	12.024	12.069	VV	1044	19122	1.40%	0.208%

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195	12.098	12.069	12.116	VV	700	16876	1.24%	0.184%
196	12.135	12.116	12.162	VV	1501	29479	2.16%	0.321%
197	12.175	12.162	12.195	VV	853	14727	1.08%	0.160%
198	12.219	12.195	12.267	VV	865	29632	2.17%	0.323%
199	12.281	12.267	12.307	VV	687	11736	0.86%	0.128%
200	12.318	12.307	12.359	VV	329	6746	0.49%	0.073%
201	12.400	12.359	12.467	VV	483	16651	1.22%	0.181%
202	12.493	12.467	12.508	PV	292	3425	0.25%	0.037%
203	12.539	12.508	12.599	PV	60742	814563	59.67%	8.870%
204	12.609	12.599	12.629	VV	2156	32376	2.37%	0.353%
205	12.644	12.629	12.742	VV	1518	59118	4.33%	0.644%
206	12.769	12.742	12.797	VV	538	13561	0.99%	0.148%
207	12.856	12.797	12.879	VV	754	21521	1.58%	0.234%
208	12.919	12.879	12.971	VV	1448	47895	3.51%	0.522%
209	12.991	12.971	13.007	VV	2136	38484	2.82%	0.419%
210	13.031	13.007	13.157	VV	15967	386605	28.32%	4.210%
211	13.179	13.157	13.199	VV	1324	27457	2.01%	0.299%
212	13.205	13.199	13.214	VV	1130	10102	0.74%	0.110%
213	13.232	13.214	13.274	VV	1155	34105	2.50%	0.371%
214	13.327	13.274	13.451	VV	16100	403076	29.52%	4.389%
215	13.479	13.451	13.514	VV	1466	50560	3.70%	0.551%
216	13.532	13.514	13.552	VV	1645	34006	2.49%	0.370%
217	13.571	13.552	13.592	VV	1742	38268	2.80%	0.417%
218	13.615	13.592	13.637	VV	2733	59060	4.33%	0.643%
219	13.649	13.637	13.724	VV	2125	91661	6.71%	0.998%
220	13.771	13.724	13.872	VV	13853	353373	25.88%	3.848%
221	13.918	13.872	13.931	VV	2680	77287	5.66%	0.842%
222	13.952	13.931	14.028	VV	3386	155852	11.42%	1.697%
223	14.087	14.028	14.104	VV	3456	128044	9.38%	1.394%
224	14.116	14.104	14.160	VV	3317	92122	6.75%	1.003%
225	14.210	14.160	14.234	VV	3041	115113	8.43%	1.253%
226	14.259	14.234	14.320	VV	2928	130040	9.53%	1.416%
227	14.332	14.320	14.394	VV	2247	94127	6.89%	1.025%
228	14.445	14.394	14.460	VV	2105	80248	5.88%	0.874%
229	14.484	14.460	14.496	VV	2144	45701	3.35%	0.498%
230	14.518	14.496	14.597	VV	3388	144411	10.58%	1.572%
231	14.634	14.597	14.652	VV	2028	62102	4.55%	0.676%
232	14.681	14.652	14.739	VV	2659	102383	7.50%	1.115%
233	14.783	14.739	14.821	VV	2227	94943	6.95%	1.034%
234	14.836	14.821	14.872	VV	1635	42773	3.13%	0.466%
235	14.923	14.872	14.984	VV	3012	122232	8.95%	1.331%
236	15.019	14.984	15.059	VV	97247	1365226	100.00%	14.866%
237	15.072	15.059	15.171	VV	1218	33742	2.47%	0.367%
238	15.202	15.171	15.212	VV	1314	19310	1.41%	0.210%
239	15.222	15.212	15.227	VV	1290	10598	0.78%	0.115%
240	15.247	15.227	15.257	VV	3752	51002	3.74%	0.555%
241	15.278	15.257	15.357	VV	5546	163324	11.96%	1.778%
242	15.384	15.357	15.502	VV	1555	48192	3.53%	0.525%
243	15.607	15.502	15.702	PV	43726	692715	50.74%	7.543%
244	15.743	15.702	15.757	VV	1787	40538	2.97%	0.441%
245	15.770	15.757	15.791	VV	1706	23622	1.73%	0.257%
246	15.818	15.791	15.846	VV	1300	28384	2.08%	0.309%

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247	15.929	15.846	15.941	VV	1159	40121	2.94%	0.437%
248	15.967	15.941	15.991	VV	2350	45673	3.35%	0.497%
249	16.011	15.991	16.026	VV	1327	24940	1.83%	0.272%
250	16.086	16.026	16.104	VV	1599	65256	4.78%	0.711%
251	16.128	16.104	16.170	VV	2173	59866	4.39%	0.652%
252	16.181	16.170	16.191	VV	964	11346	0.83%	0.124%
253	16.247	16.191	16.300	VV	2394	79128	5.80%	0.862%
254	16.381	16.300	16.419	VV	1187	68977	5.05%	0.751%
255	16.506	16.419	16.527	VV	899	52017	3.81%	0.566%
256	16.621	16.527	16.674	VV	5289	139888	10.25%	1.523%
257	16.729	16.674	16.759	VV	2227	56491	4.14%	0.615%
258	16.806	16.759	16.917	VV	7963	235910	17.28%	2.569%
259	16.944	16.917	16.985	VV	1743	39122	2.87%	0.426%
260	17.002	16.985	17.017	VV	570	7387	0.54%	0.080%
261	17.041	17.017	17.066	VV	3689	46417	3.40%	0.505%
262	17.082	17.066	17.097	VV	231	2768	0.20%	0.030%
263	17.126	17.097	17.173	PV	3738	69659	5.10%	0.759%
264	17.201	17.173	17.236	PV	5595	106144	7.77%	1.156%
265	17.242	17.236	17.274	VV	2009	28286	2.07%	0.308%
266	17.309	17.274	17.325	VV	1072	18520	1.36%	0.202%
267	17.382	17.325	17.397	VV	352	14173	1.04%	0.154%
					Sum of corrected areas:	9183535		

FF052125.M Thu Jun 05 03:49:24 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/29/25
Project:	South River WM Replacement	Date Received:	05/30/25
Client Sample ID:	TP-27	SDG No.:	Q2176
Lab Sample ID:	Q2176-06	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	83.1
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015905.D	1	06/04/25 08:30	06/04/25 17:18	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1690	J	203	2000	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	10.2		37 - 130	51%	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_F\Data\FF060425\
Data File : FF015905.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 17:18
Operator : YP\AJ
Sample : Q2176-06
Misc :
ALS Vial : 79 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-27

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 06/05/2025
Supervised By :mohammad ahmed 06/06/2025

Integration File: autoint1.e
Quant Time: Jun 05 03:04:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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...	15.018	1241126	10.162 ug/mlm
Target Compounds			

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015905.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 17:18
Operator : YP\AJ
Sample : Q2176-06
Misc :
ALS Vial : 79 Sample Multiplier: 1

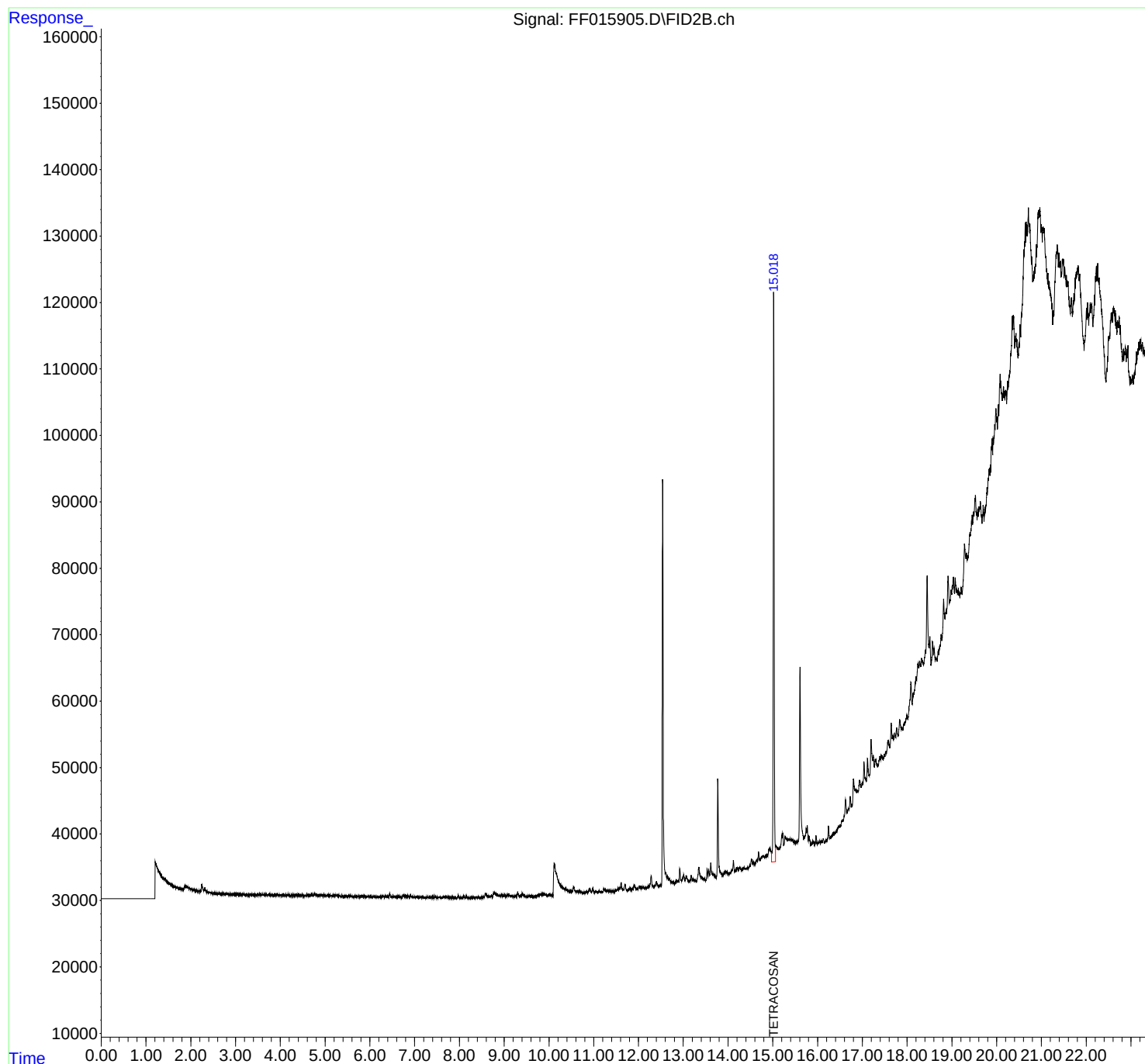
Instrument :
FID_F
ClientSampleId :
TP-27

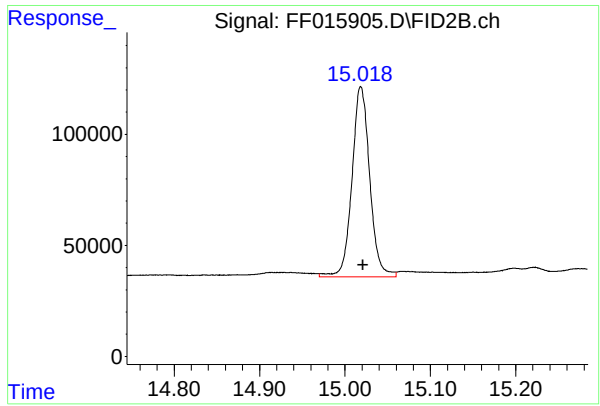
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 06/05/2025
Supervised By :mohammad ahmed 06/06/2025

Integration File: autoint1.e
Quant Time: Jun 05 03:04:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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.: 15.018 min
Delta R.T.: -0.003 min
Response: 1241126
Conc: 10.16 ug/ml

Instrument :

FID_F

ClientSampleId :

TP-27

Manual Integrations

APPROVED

Reviewed By :Yogesh Patel 06/05/2025

Supervised By :mohammad ahmed 06/06/2025

Instrument :

FID_F

ClientSampleId :

TP-27

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 06/05/2025

Supervised By :mohammad ahmed 06/06/2025

rteres

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF06042
Data File : FF015905.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 17:18
Sample : Q2176-06
Misc :
ALS Vial : 79 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.508	4.500	4.523	BV	77	620	0.05%	0.009%
2	4.529	4.523	4.551	PV	130	1269	0.10%	0.018%
3	4.570	4.551	4.584	VV	179	2175	0.18%	0.032%
4	4.590	4.584	4.602	VV	179	1454	0.12%	0.021%
5	4.607	4.602	4.615	VV	153	926	0.08%	0.013%
6	4.620	4.615	4.640	VV	180	1622	0.13%	0.024%
7	4.648	4.640	4.670	VV	256	2130	0.18%	0.031%
8	4.689	4.670	4.692	VV	213	2056	0.17%	0.030%
9	4.697	4.692	4.724	VV	221	3322	0.27%	0.048%
10	4.730	4.724	4.736	VV	175	1093	0.09%	0.016%
11	4.759	4.736	4.763	VV	346	4230	0.35%	0.061%
12	4.769	4.763	4.780	VV	352	3014	0.25%	0.044%
13	4.783	4.780	4.790	VV	339	1782	0.15%	0.026%
14	4.795	4.790	4.804	VV	336	2221	0.18%	0.032%
15	4.811	4.804	4.824	VV	291	2505	0.21%	0.036%
16	4.837	4.824	4.843	VV	254	2518	0.21%	0.037%
17	4.849	4.843	4.882	VV	216	4684	0.39%	0.068%
18	4.887	4.882	4.895	VV	213	1326	0.11%	0.019%
19	4.905	4.895	4.913	VV	242	2193	0.18%	0.032%
20	4.920	4.913	4.948	VV	239	3995	0.33%	0.058%
21	4.955	4.948	4.978	VV	188	3109	0.26%	0.045%
22	4.988	4.978	4.993	VV	218	1554	0.13%	0.023%
23	5.006	4.993	5.018	VV	231	2584	0.21%	0.038%
24	5.024	5.018	5.033	VV	228	1598	0.13%	0.023%
25	5.043	5.033	5.062	VV	201	2840	0.23%	0.041%
26	5.075	5.062	5.093	VV	216	3147	0.26%	0.046%
27	5.095	5.093	5.103	VV	214	1078	0.09%	0.016%
28	5.111	5.103	5.117	VV	171	1256	0.10%	0.018%
29	5.129	5.117	5.142	VV	211	2557	0.21%	0.037%
30	5.149	5.142	5.153	VV	169	1012	0.08%	0.015%
31	5.165	5.153	5.175	VV	185	1857	0.15%	0.027%
32	5.179	5.175	5.192	VV	212	1472	0.12%	0.021%
33	5.212	5.192	5.216	VV	222	2264	0.19%	0.033%
34	5.232	5.216	5.266	VV	242	5599	0.46%	0.081%
35	5.270	5.266	5.277	VV	192	1091	0.09%	0.016%
36	5.282	5.277	5.293	VV	190	1473	0.12%	0.021%

					retention			
37	5.317	5.293	5.337	VV	186	3357	0.28%	0.049%
38	5.346	5.337	5.356	VV	138	1194		
39	5.361	5.356	5.398	VV	139	2798		
40	5.422	5.398	5.454	VV	125	2995		
41	5.467	5.454	5.472	VV	134	1252		
42	5.477	5.472	5.496	VV	150	1439		
43	5.501	5.496	5.514	VV	145	1131	0.09%	0.016%
44	5.543	5.514	5.568	VV	169	3608	0.30%	0.052%
45	5.576	5.568	5.589	VV	149	1283	0.11%	0.019%
46	5.593	5.589	5.596	VV	89	294	0.02%	0.004%
47	5.599	5.596	5.604	VV	73	300	0.02%	0.004%
48	5.607	5.604	5.628	VV	110	1092	0.09%	0.016%
49	5.633	5.628	5.662	VV	123	1468	0.12%	0.021%
50	5.666	5.662	5.687	VV	135	972	0.08%	0.014%
51	5.707	5.687	5.716	VV	125	1191	0.10%	0.017%
52	5.721	5.716	5.727	VV	110	504	0.04%	0.007%
53	5.745	5.727	5.763	VV	178	2241	0.18%	0.033%
54	5.769	5.763	5.778	VV	145	900	0.07%	0.013%
55	5.784	5.778	5.798	VV	169	1228	0.10%	0.018%
56	5.808	5.798	5.832	VV	169	2168	0.18%	0.031%
57	5.836	5.832	5.868	VV	131	2031	0.17%	0.029%
58	5.875	5.868	5.884	VV	160	1059	0.09%	0.015%
59	5.888	5.884	5.899	VV	125	925	0.08%	0.013%
60	5.901	5.899	5.924	VV	180	1494	0.12%	0.022%
61	5.935	5.924	5.967	VV	115	2108	0.17%	0.031%
62	5.977	5.967	5.985	VV	210	1325	0.11%	0.019%
63	5.990	5.985	5.999	VV	152	1027	0.08%	0.015%
64	6.004	5.999	6.019	VV	134	1254	0.10%	0.018%
65	6.021	6.019	6.060	VV	146	2288	0.19%	0.033%
66	6.066	6.060	6.069	VV	105	503	0.04%	0.007%
67	6.081	6.069	6.085	VV	100	798	0.07%	0.012%
68	6.090	6.085	6.105	VV	116	1121	0.09%	0.016%
69	6.108	6.105	6.120	VV	76	584	0.05%	0.008%
70	6.125	6.120	6.154	VV	96	1209	0.10%	0.018%
71	6.164	6.154	6.168	PV	106	452	0.04%	0.007%
72	6.182	6.168	6.194	VV	159	1730	0.14%	0.025%
73	6.204	6.194	6.208	VV	99	596	0.05%	0.009%
74	6.211	6.208	6.220	VV	105	461	0.04%	0.007%
75	6.239	6.220	6.252	VV	114	1448	0.12%	0.021%
76	6.258	6.252	6.269	VV	91	639	0.05%	0.009%
77	6.281	6.269	6.341	VV	186	6382	0.52%	0.093%
78	6.352	6.341	6.384	VV	200	3544	0.29%	0.051%
79	6.392	6.384	6.407	VV	168	1826	0.15%	0.027%
80	6.444	6.407	6.480	VV	653	11725	0.96%	0.170%
81	6.492	6.480	6.499	VV	166	1495	0.12%	0.022%
82	6.501	6.499	6.511	VV	187	1098	0.09%	0.016%
83	6.517	6.511	6.521	VV	180	813	0.07%	0.012%
84	6.529	6.521	6.538	VV	177	1512	0.12%	0.022%
85	6.543	6.538	6.597	VV	183	5000	0.41%	0.073%
86	6.612	6.597	6.643	VV	172	3490	0.29%	0.051%
87	6.649	6.643	6.664	VV	187	1851	0.15%	0.027%
88	6.681	6.664	6.724	VV	141	4202	0.35%	0.061%
89	6.744	6.724	6.782	VV	448	9819	0.81%	0.143%

Instrument :

FID_F

ClientSampleId :

TP-27

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 06/05/2025

Supervised By :mohammad ahmed 06/06/2025

90	6.786	6.782	6.827	VV	298	6787	0.56%	0.099%
91	6.834	6.827	6.851	VV	260	3324		
92	6.857	6.851	6.869	VV	198	2037		
93	6.887	6.869	6.912	VV	272	5550		
94	6.917	6.912	6.939	VV	272	2952		
95	6.942	6.939	6.950	VV	171	1069		
96	6.955	6.950	6.971	VV	207	1727	0.14%	0.025%
97	6.974	6.971	6.989	VV	162	1131	0.09%	0.016%
98	6.997	6.989	7.004	VV	158	1153	0.09%	0.017%
99	7.008	7.004	7.014	VV	98	534	0.04%	0.008%
100	7.017	7.014	7.032	VV	135	1118	0.09%	0.016%
101	7.037	7.032	7.047	VV	128	777	0.06%	0.011%
102	7.052	7.047	7.058	VV	112	606	0.05%	0.009%
103	7.070	7.058	7.087	VV	104	1460	0.12%	0.021%
104	7.091	7.087	7.099	VV	100	523	0.04%	0.008%
105	7.107	7.099	7.114	VV	127	710	0.06%	0.010%
106	7.122	7.114	7.129	VV	125	626	0.05%	0.009%
107	7.153	7.129	7.163	VV	144	1803	0.15%	0.026%
108	7.175	7.163	7.187	VV	151	1464	0.12%	0.021%
109	7.191	7.187	7.197	VV	121	537	0.04%	0.008%
110	7.202	7.197	7.214	VV	90	553	0.05%	0.008%
111	7.217	7.214	7.255	VV	71	1993	0.16%	0.029%
112	7.259	7.255	7.274	VV	144	1253	0.10%	0.018%
113	7.290	7.274	7.309	VV	184	2977	0.24%	0.043%
114	7.317	7.309	7.372	VV	190	5146	0.42%	0.075%
115	7.376	7.372	7.392	VV	150	1569	0.13%	0.023%
116	7.397	7.392	7.403	VV	139	651	0.05%	0.009%
117	7.409	7.403	7.417	VV	132	801	0.07%	0.012%
118	7.421	7.417	7.429	VV	119	697	0.06%	0.010%
119	7.455	7.429	7.499	VV	318	6523	0.54%	0.095%
120	7.504	7.499	7.522	PV	134	1234	0.10%	0.018%
121	7.528	7.522	7.530	VV	141	536	0.04%	0.008%
122	7.539	7.530	7.569	VV	182	2871	0.24%	0.042%
123	7.577	7.569	7.585	VV	185	1306	0.11%	0.019%
124	7.592	7.585	7.602	VV	174	1275	0.10%	0.019%
125	7.604	7.602	7.617	VV	154	987	0.08%	0.014%
126	7.621	7.617	7.624	VV	158	577	0.05%	0.008%
127	7.630	7.624	7.647	VV	193	2391	0.20%	0.035%
128	7.653	7.647	7.664	VV	203	1790	0.15%	0.026%
129	7.669	7.664	7.687	VV	167	1891	0.16%	0.027%
130	7.730	7.687	7.736	VV	205	4681	0.38%	0.068%
131	7.758	7.736	7.766	VV	193	2571	0.21%	0.037%
132	7.770	7.766	7.797	VV	191	2134	0.18%	0.031%
133	7.809	7.797	7.819	VV	148	1478	0.12%	0.021%
134	7.823	7.819	7.834	VV	162	1012	0.08%	0.015%
135	7.840	7.834	7.855	VV	181	1465	0.12%	0.021%
136	7.860	7.855	7.882	VV	175	2000	0.16%	0.029%
137	7.886	7.882	7.900	VV	118	978	0.08%	0.014%
138	7.910	7.900	7.928	VV	139	1317	0.11%	0.019%
139	7.972	7.928	8.007	VV	428	8760	0.72%	0.127%
140	8.015	8.007	8.054	VV	139	2720	0.22%	0.039%
141	8.057	8.054	8.065	VV	122	751	0.06%	0.011%

Instrument :

FID_F

ClientSampleId :

TP-27

Manual IntegrationsAPPROVED

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Supervised By :mohammad ahmed 06/06/2025

					rters			
142	8.071	8.065	8.082	VV	178	1325	0.11%	0.019%
143	8.097	8.082	8.129	VV	316	5542		
144	8.152	8.129	8.185	VV	393	7842		
145	8.190	8.185	8.219	VV	167	2089		
146	8.222	8.219	8.237	VV	76	619		
147	8.248	8.237	8.264	PV	130	1299		
148	8.269	8.264	8.272	VV	125	554	0.05%	0.008%
149	8.275	8.272	8.279	VV	121	455	0.04%	0.007%
150	8.282	8.279	8.308	VV	116	1209	0.10%	0.018%
151	8.324	8.308	8.359	VV	173	3094	0.25%	0.045%
152	8.362	8.359	8.367	VV	104	583	0.05%	0.008%
153	8.379	8.367	8.421	VV	236	4639	0.38%	0.067%
154	8.437	8.421	8.444	VV	117	1052	0.09%	0.015%
155	8.454	8.444	8.470	VV	112	852	0.07%	0.012%
156	8.484	8.470	8.490	VV	200	909	0.07%	0.013%
157	8.495	8.490	8.516	VV	135	1843	0.15%	0.027%
158	8.542	8.516	8.550	VV	242	3437	0.28%	0.050%
159	8.582	8.550	8.660	VV	725	23365	1.92%	0.339%
160	8.672	8.660	8.688	VV	261	3709	0.30%	0.054%
161	8.715	8.688	8.735	VV	322	7126	0.59%	0.103%
162	8.771	8.735	8.866	VV	749	40001	3.29%	0.581%
163	8.874	8.866	8.880	VV	361	2826	0.23%	0.041%
164	8.888	8.880	8.909	VV	393	5195	0.43%	0.075%
165	8.935	8.909	8.981	VV	534	13503	1.11%	0.196%
166	9.003	8.981	9.019	VV	362	6845	0.56%	0.099%
167	9.024	9.019	9.045	VV	322	4461	0.37%	0.065%
168	9.050	9.045	9.061	VV	265	2409	0.20%	0.035%
169	9.102	9.061	9.141	VV	531	16412	1.35%	0.238%
170	9.149	9.141	9.168	VV	240	3555	0.29%	0.052%
171	9.172	9.168	9.202	VV	255	3656	0.30%	0.053%
172	9.205	9.202	9.214	VV	149	878	0.07%	0.013%
173	9.222	9.214	9.227	VV	155	991	0.08%	0.014%
174	9.249	9.227	9.275	VV	259	5274	0.43%	0.077%
175	9.302	9.275	9.350	VV	838	16878	1.39%	0.245%
176	9.355	9.350	9.357	VV	212	798	0.07%	0.012%
177	9.361	9.357	9.374	VV	264	2158	0.18%	0.031%
178	9.400	9.374	9.512	VV	589	20681	1.70%	0.300%
179	9.515	9.512	9.528	VV	103	932	0.08%	0.014%
180	9.536	9.528	9.541	VV	124	722	0.06%	0.010%
181	9.572	9.541	9.602	VV	314	5837	0.48%	0.085%
182	9.608	9.602	9.667	VV	161	2408	0.20%	0.035%
183	9.680	9.667	9.704	VV	112	1719	0.14%	0.025%
184	9.813	9.704	9.834	PV	405	18380	1.51%	0.267%
185	9.840	9.834	9.876	VV	359	8413	0.69%	0.122%
186	9.896	9.876	9.939	VV	404	10555	0.87%	0.153%
187	9.949	9.939	9.990	VV	257	4314	0.35%	0.063%
188	10.007	9.990	10.069	VV	351	6657	0.55%	0.097%
189	10.117	10.069	10.330	VV	4887	338765	27.85%	4.919%
190	10.338	10.330	10.430	VV	1036	48479	3.99%	0.704%
191	10.441	10.430	10.475	VV	571	14183	1.17%	0.206%
192	10.510	10.475	10.529	VV	566	16534	1.36%	0.240%
193	10.552	10.529	10.630	VV	1165	40523	3.33%	0.588%
194	10.649	10.630	10.677	VV	476	11442	0.94%	0.166%

Instrument :

FID_F

ClientSampleId :

TP-27

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 06/05/2025

Supervised By :mohammad ahmed 06/06/2025

195	10.701	10.677	10.779	VV	484	15683	1.29%	0.228%
196	10.834	10.779	10.867	VV	343	10813		
197	10.911	10.867	10.950	VV	748	19586		
198	10.979	10.950	11.016	VV	793	15583		
199	11.041	11.016	11.097	VV	267	7968		
200	11.124	11.097	11.147	VV	304	5678		
201	11.154	11.147	11.176	VV	168	2475	0.20%	0.036%
202	11.187	11.176	11.203	VV	123	1471	0.12%	0.021%
203	11.232	11.203	11.272	PV	582	15139	1.24%	0.220%
204	11.279	11.272	11.288	VV	317	2463	0.20%	0.036%
205	11.300	11.288	11.315	VV	297	3573	0.29%	0.052%
206	11.330	11.315	11.345	VV	194	2957	0.24%	0.043%
207	11.363	11.345	11.400	VV	186	3196	0.26%	0.046%
208	11.417	11.400	11.452	VV	170	2899	0.24%	0.042%
209	11.470	11.452	11.490	VV	93	1829	0.15%	0.027%
210	11.563	11.490	11.594	VV	481	18691	1.54%	0.271%
211	11.613	11.594	11.674	VV	1299	24998	2.06%	0.363%
212	11.700	11.674	11.740	VV	1026	18902	1.55%	0.274%
213	11.812	11.740	11.836	PV	327	8121	0.67%	0.118%
214	11.903	11.836	11.952	VV	814	21849	1.80%	0.317%
215	11.968	11.952	11.987	VV	192	2534	0.21%	0.037%
216	12.013	11.987	12.029	VV	450	7311	0.60%	0.106%
217	12.045	12.029	12.071	VV	454	7282	0.60%	0.106%
218	12.107	12.071	12.141	VV	346	7395	0.61%	0.107%
219	12.164	12.141	12.175	PV	165	1964	0.16%	0.029%
220	12.283	12.175	12.329	VV	1829	45333	3.73%	0.658%
221	12.342	12.329	12.355	VV	244	2954	0.24%	0.043%
222	12.401	12.355	12.474	VV	822	22676	1.86%	0.329%
223	12.492	12.474	12.508	VV	309	3618	0.30%	0.053%
224	12.540	12.508	12.600	VV	61005	814233	66.95%	11.822%
225	12.608	12.600	12.630	VV	2022	30489	2.51%	0.443%
226	12.646	12.630	12.677	VV	1400	33323	2.74%	0.484%
227	12.690	12.677	12.759	VV	972	30572	2.51%	0.444%
228	12.765	12.759	12.810	VV	421	9438	0.78%	0.137%
229	12.854	12.810	12.877	VV	583	15110	1.24%	0.219%
230	12.888	12.877	12.899	VV	454	5086	0.42%	0.074%
231	12.921	12.899	12.968	VV	2298	41359	3.40%	0.600%
232	13.008	12.968	13.034	VV	1348	32266	2.65%	0.468%
233	13.064	13.034	13.130	VV	1102	34075	2.80%	0.495%
234	13.176	13.130	13.209	VV	1001	21555	1.77%	0.313%
235	13.219	13.209	13.267	VV	383	10580	0.87%	0.154%
236	13.275	13.267	13.300	VV	200	2567	0.21%	0.037%
237	13.346	13.300	13.401	VV	2124	61589	5.06%	0.894%
238	13.414	13.401	13.474	VV	634	15464	1.27%	0.225%
239	13.479	13.474	13.509	VV	247	2460	0.20%	0.036%
240	13.533	13.509	13.550	PV	1651	21386	1.76%	0.311%
241	13.567	13.550	13.589	VV	1459	23575	1.94%	0.342%
242	13.613	13.589	13.670	VV	2376	54100	4.45%	0.785%
243	13.680	13.670	13.734	VV	558	12496	1.03%	0.181%
244	13.770	13.734	13.884	VV	14779	228481	18.79%	3.317%
245	13.920	13.884	13.930	VV	510	8147	0.67%	0.118%
246	13.950	13.930	13.970	VV	518	10129	0.83%	0.147%

Instrument :

FID_F

ClientSampleId :

TP-27

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 06/05/2025

Supervised By :mohammad ahmed 06/06/2025

						Instrument : FID_F ClientSampleId : TP-27		
247	13.977	13.970	14.002	VV	471	4877	0.40%	0.071%
248	14.020	14.002	14.035	VV	190	1967		
249	14.082	14.035	14.097	PV	587	11116		
250	14.120	14.097	14.152	VV	1907	29075		
251	14.174	14.152	14.185	VV	352	4710		
252	14.211	14.185	14.235	VV	595	12461		
253	14.256	14.235	14.315	VV	617	16137	1.33%	0.234%
254	14.353	14.315	14.384	VV	383	9386	0.77%	0.136%
255	14.428	14.384	14.437	VV	156	3909	0.32%	0.057%
256	14.482	14.437	14.492	PV	404	6063	0.50%	0.088%
257	14.521	14.492	14.549	VV	1316	29263	2.41%	0.425%
258	14.564	14.549	14.589	VV	743	14785	1.22%	0.215%
259	14.637	14.589	14.662	VV	967	27785	2.28%	0.403%
260	14.682	14.662	14.707	VV	2015	34843	2.86%	0.506%
261	14.776	14.707	14.785	VV	1151	45787	3.76%	0.665%
262	14.794	14.785	14.818	VV	1197	20352	1.67%	0.295%
263	14.916	14.818	14.984	VV	2030	132670	10.91%	1.926%
264	15.019	14.984	15.058	VV	85352	1216213	100.00%	17.658%
265	15.069	15.058	15.132	VV	2156	78108	6.42%	1.134%
266	15.198	15.132	15.207	VV	3281	90941	7.48%	1.320%
267	15.221	15.207	15.244	VV	3617	62582	5.15%	0.909%
268	15.276	15.244	15.324	VV	2865	118876	9.77%	1.726%
269	15.345	15.324	15.366	VV	2426	59449	4.89%	0.863%
270	15.385	15.366	15.410	VV	2408	60348	4.96%	0.876%
271	15.432	15.410	15.471	VV	2162	73238	6.02%	1.063%
272	15.484	15.471	15.501	VV	1708	30123	2.48%	0.437%
273	15.606	15.501	15.694	VV	27638	629234	51.74%	9.136%
274	15.744	15.694	15.754	VV	3146	81840	6.73%	1.188%
275	15.768	15.754	15.788	VV	3525	53959	4.44%	0.783%
276	15.804	15.788	15.854	VV	1844	45917	3.78%	0.667%
277	15.892	15.854	15.944	VV	821	29390	2.42%	0.427%
278	15.964	15.944	15.990	VV	1460	23214	1.91%	0.337%
279	16.002	15.990	16.015	VV	384	4752	0.39%	0.069%
280	16.045	16.015	16.065	VV	591	11924	0.98%	0.173%
281	16.084	16.065	16.105	VV	466	7960	0.65%	0.116%
282	16.127	16.105	16.154	VV	730	11832	0.97%	0.172%
283	16.181	16.154	16.202	PV	180	3455	0.28%	0.050%
284	16.243	16.202	16.276	PV	2035	27275	2.24%	0.396%
285	16.350	16.276	16.362	PV	257	6685	0.55%	0.097%
286	16.384	16.362	16.395	PV	295	3380	0.28%	0.049%
287	16.468	16.395	16.484	PV	416	8869	0.73%	0.129%
288	16.496	16.484	16.505	VV	268	2441	0.20%	0.035%
289	16.559	16.505	16.568	PV	335	9374	0.77%	0.136%
290	16.623	16.568	16.660	VV	2755	62804	5.16%	0.912%
291	16.691	16.660	16.700	VV	803	15763	1.30%	0.229%
292	16.728	16.700	16.752	VV	2222	36534	3.00%	0.530%
293	16.764	16.752	16.773	VV	699	5910	0.49%	0.086%
294	16.802	16.773	16.883	VV	4019	141530	11.64%	2.055%
295	16.939	16.883	16.973	VV	2430	87714	7.21%	1.274%
296	17.038	16.973	17.090	VV	4175	121811	10.02%	1.769%
297	17.115	17.090	17.153	VV	3933	76757	6.31%	1.114%
298	17.194	17.153	17.228	VV	5983	139349	11.46%	2.023%
299	17.244	17.228	17.268	VV	3034	53838	4.43%	0.782%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 06/05/2025
Supervised By :mohammad ahmed 06/06/2025

					rters	
300	17.292	17.268	17.328	VV	1934	49604
301	17.335	17.328	17.357	VV	804	8970
302	17.393	17.357	17.410	VV	1273	28355
303	17.426	17.410	17.464	VV	1133	25510
304	17.490	17.464	17.500	PBA	387	15508
Sum of corrected areas:					68	

Instrument :
FID_F
ClientSampleId :
TP-27

4.08% 0.720%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 06/05/2025
Supervised By :mohammad ahmed 06/06/2025

FF052125.M Thu Jun 05 03:50:14 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/29/25
Project:	South River WM Replacement	Date Received:	05/30/25
Client Sample ID:	TP-31	SDG No.:	Q2176
Lab Sample ID:	Q2176-07	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	86.8
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015906.D	1	06/04/25 08:30	06/04/25 17:47	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1530	J	194	1920	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	10.0		37 - 130	50%	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_F\Data\FF060425\
Data File : FF015906.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 17:47
Operator : YP\AJ
Sample : Q2176-07
Misc :
ALS Vial : 80 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-31

Integration File: autoint1.e
Quant Time: Jun 05 03:05:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.021	1224500	10.026 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

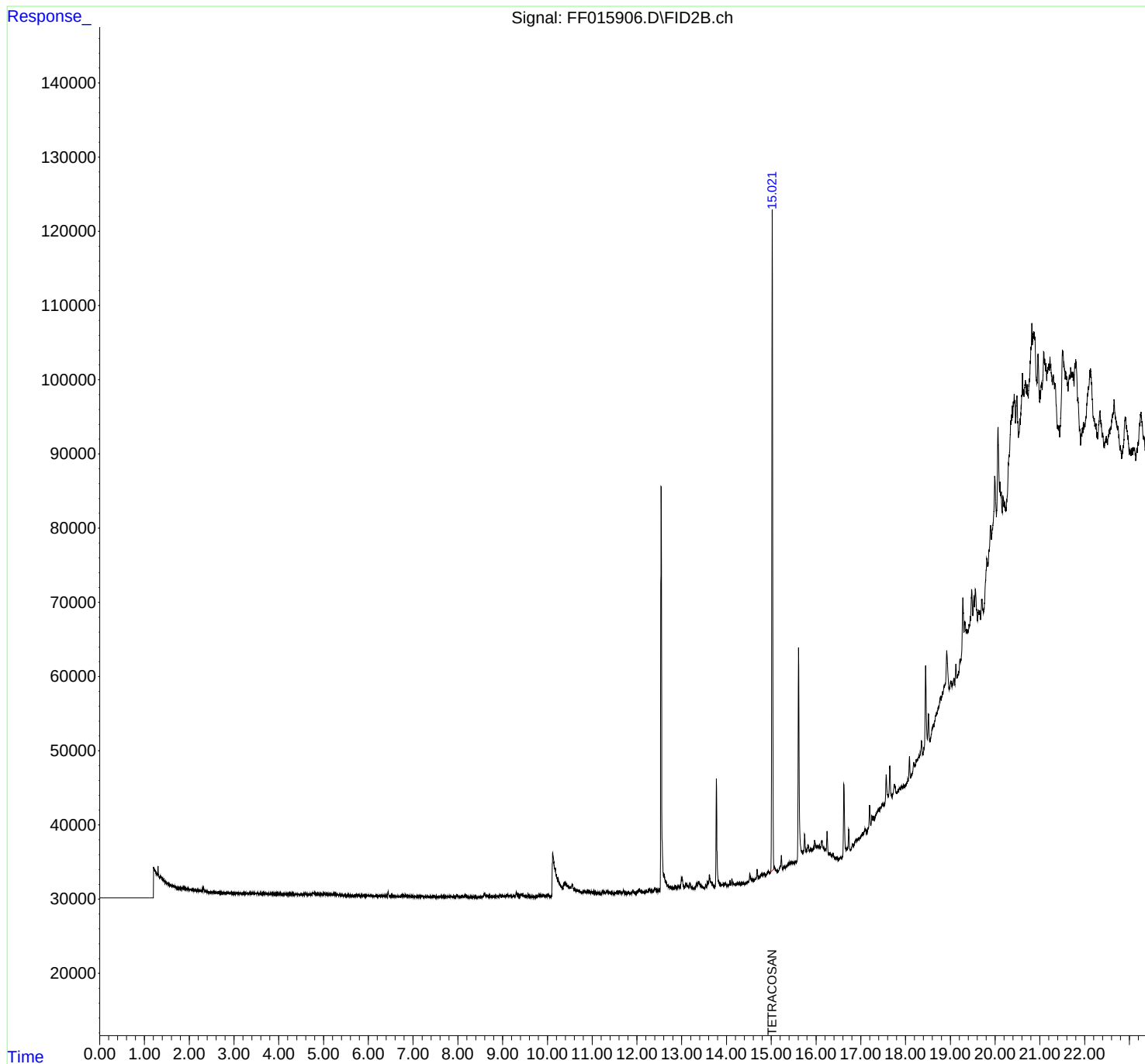
(m)=manual int.

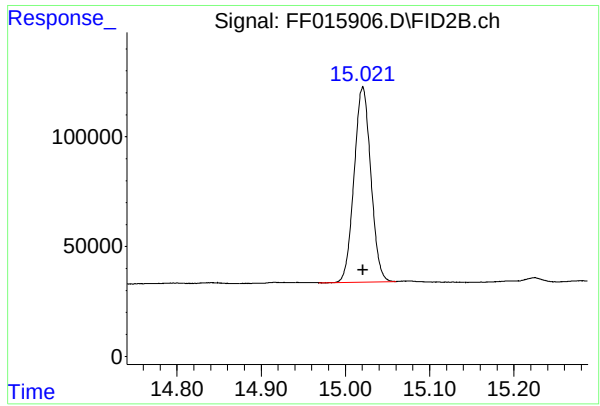
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015906.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 17:47
Operator : YP\AJ
Sample : Q2176-07
Misc :
ALS Vial : 80 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-31

Integration File: autoint1.e
Quant Time: Jun 05 03:05:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 2025
Response via : Initial Calibration
Integrator: ChemStation

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





#9 TETRACOSANE-d50 (SURROGATE)

R.T.: 15.021 min
Delta R.T.: 0.000 min
Response: 1224500
Conc: 10.03 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-31

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015906.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 17:47
Sample : Q2176-07
Misc :
ALS Vial : 80 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.516	4.500	4.533	BV	88	966	0.08%	0.015%
2	4.545	4.533	4.561	PV	121	1184	0.09%	0.018%
3	4.565	4.561	4.568	VV	127	264	0.02%	0.004%
4	4.572	4.568	4.581	VV	169	611	0.05%	0.009%
5	4.589	4.581	4.606	VV	181	1686	0.13%	0.026%
6	4.609	4.606	4.639	VV	191	1726	0.14%	0.026%
7	4.646	4.639	4.667	VV	125	1224	0.10%	0.019%
8	4.688	4.667	4.706	PV	194	2437	0.19%	0.037%
9	4.712	4.706	4.728	VV	132	1235	0.10%	0.019%
10	4.733	4.728	4.736	VV	140	480	0.04%	0.007%
11	4.770	4.736	4.817	VV	410	12188	0.96%	0.186%
12	4.820	4.817	4.838	VV	260	2322	0.18%	0.036%
13	4.850	4.838	4.867	VV	261	3557	0.28%	0.054%
14	4.869	4.867	4.880	VV	228	1504	0.12%	0.023%
15	4.885	4.880	4.897	VV	202	1825	0.14%	0.028%
16	4.901	4.897	4.908	VV	166	925	0.07%	0.014%
17	4.912	4.908	4.929	VV	203	2009	0.16%	0.031%
18	4.931	4.929	4.942	VV	198	1207	0.10%	0.018%
19	4.946	4.942	4.971	VV	220	2696	0.21%	0.041%
20	4.978	4.971	4.997	VV	220	2590	0.20%	0.040%
21	5.000	4.997	5.013	VV	219	1858	0.15%	0.028%
22	5.029	5.013	5.055	VV	299	4516	0.36%	0.069%
23	5.059	5.055	5.073	VV	177	1543	0.12%	0.024%
24	5.079	5.073	5.082	VV	151	701	0.06%	0.011%
25	5.088	5.082	5.109	VV	208	2379	0.19%	0.036%
26	5.113	5.109	5.119	VV	199	946	0.07%	0.014%
27	5.124	5.119	5.131	VV	190	1158	0.09%	0.018%
28	5.148	5.131	5.169	VV	179	3307	0.26%	0.051%
29	5.174	5.169	5.198	VV	177	2250	0.18%	0.034%
30	5.214	5.198	5.218	VV	243	1933	0.15%	0.030%
31	5.232	5.218	5.273	VV	279	6359	0.50%	0.097%
32	5.282	5.273	5.292	VV	213	1694	0.13%	0.026%
33	5.298	5.292	5.303	VV	227	1067	0.08%	0.016%
34	5.305	5.303	5.317	VV	190	1038	0.08%	0.016%
35	5.321	5.317	5.328	VV	170	823	0.06%	0.013%
36	5.331	5.328	5.348	VV	127	1424	0.11%	0.022%

					rteres			
37	5.354	5.348	5.368	VV	165	1520	0.12%	0.023%
38	5.379	5.368	5.397	VV	182	2001	0.16%	0.031%
39	5.406	5.397	5.414	VV	133	1012	0.08%	0.015%
40	5.418	5.414	5.441	VV	161	1440	0.11%	0.022%
41	5.449	5.441	5.457	VV	121	818	0.06%	0.013%
42	5.466	5.457	5.478	VV	147	1421	0.11%	0.022%
43	5.479	5.478	5.517	VV	166	1839	0.15%	0.028%
44	5.526	5.517	5.532	VV	136	890	0.07%	0.014%
45	5.540	5.532	5.567	VV	219	3060	0.24%	0.047%
46	5.570	5.567	5.600	VV	167	2003	0.16%	0.031%
47	5.606	5.600	5.613	VV	149	671	0.05%	0.010%
48	5.617	5.613	5.628	VV	124	679	0.05%	0.010%
49	5.651	5.628	5.666	VV	122	1884	0.15%	0.029%
50	5.677	5.666	5.696	VV	142	1637	0.13%	0.025%
51	5.699	5.696	5.708	VV	115	550	0.04%	0.008%
52	5.711	5.708	5.723	VV	77	739	0.06%	0.011%
53	5.755	5.723	5.779	VV	156	3337	0.26%	0.051%
54	5.788	5.779	5.795	VV	148	808	0.06%	0.012%
55	5.803	5.795	5.807	PV	106	521	0.04%	0.008%
56	5.818	5.807	5.830	VV	173	1314	0.10%	0.020%
57	5.847	5.830	5.851	VV	139	1217	0.10%	0.019%
58	5.854	5.851	5.869	VV	116	1122	0.09%	0.017%
59	5.873	5.869	5.890	VV	160	1583	0.13%	0.024%
60	5.898	5.890	5.913	VV	197	1789	0.14%	0.027%
61	5.922	5.913	5.942	VV	163	1648	0.13%	0.025%
62	5.944	5.942	5.968	VV	141	1960	0.15%	0.030%
63	5.973	5.968	5.982	VV	166	1061	0.08%	0.016%
64	5.995	5.982	6.003	VV	238	2006	0.16%	0.031%
65	6.007	6.003	6.013	VV	180	826	0.07%	0.013%
66	6.027	6.013	6.035	VV	215	1716	0.14%	0.026%
67	6.037	6.035	6.051	VV	113	997	0.08%	0.015%
68	6.054	6.051	6.064	VV	206	1084	0.09%	0.017%
69	6.065	6.064	6.072	VV	140	530	0.04%	0.008%
70	6.091	6.072	6.105	VV	187	2262	0.18%	0.035%
71	6.118	6.105	6.149	VV	177	2852	0.23%	0.044%
72	6.152	6.149	6.161	VV	136	831	0.07%	0.013%
73	6.164	6.161	6.197	VV	197	2748	0.22%	0.042%
74	6.202	6.197	6.216	VV	114	879	0.07%	0.013%
75	6.238	6.216	6.252	VV	125	1973	0.16%	0.030%
76	6.260	6.252	6.269	VV	151	968	0.08%	0.015%
77	6.287	6.269	6.307	VV	269	3517	0.28%	0.054%
78	6.311	6.307	6.334	VV	161	2110	0.17%	0.032%
79	6.338	6.334	6.350	VV	201	1351	0.11%	0.021%
80	6.367	6.350	6.393	VV	229	3547	0.28%	0.054%
81	6.396	6.393	6.425	VV	167	2422	0.19%	0.037%
82	6.444	6.425	6.467	VV	782	10456	0.83%	0.160%
83	6.470	6.467	6.474	VV	179	701	0.06%	0.011%
84	6.477	6.474	6.484	VV	166	808	0.06%	0.012%
85	6.492	6.484	6.497	VV	175	1145	0.09%	0.018%
86	6.508	6.497	6.551	VV	198	4796	0.38%	0.073%
87	6.568	6.551	6.577	VV	169	1688	0.13%	0.026%
88	6.582	6.577	6.602	VV	137	1437	0.11%	0.022%
89	6.605	6.602	6.610	VV	135	374	0.03%	0.006%

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90	6.627	6.610	6.657	VV	175	3059	0.24%	0.047%
91	6.661	6.657	6.674	VV	148	900	0.07%	0.014%
92	6.680	6.674	6.687	PV	133	795	0.06%	0.012%
93	6.697	6.687	6.709	VV	161	1212	0.10%	0.019%
94	6.713	6.709	6.720	VV	134	448	0.04%	0.007%
95	6.747	6.720	6.767	VV	328	5553	0.44%	0.085%
96	6.777	6.767	6.789	VV	227	2457	0.19%	0.038%
97	6.794	6.789	6.813	VV	190	2374	0.19%	0.036%
98	6.824	6.813	6.836	VV	275	2739	0.22%	0.042%
99	6.838	6.836	6.843	VV	249	892	0.07%	0.014%
100	6.846	6.843	6.865	VV	216	2440	0.19%	0.037%
101	6.880	6.865	6.894	VV	272	3575	0.28%	0.055%
102	6.908	6.894	6.957	VV	216	5888	0.46%	0.090%
103	6.968	6.957	6.992	VV	159	2433	0.19%	0.037%
104	6.996	6.992	7.022	VV	142	1710	0.14%	0.026%
105	7.039	7.022	7.072	VV	201	2748	0.22%	0.042%
106	7.082	7.072	7.104	VV	146	1853	0.15%	0.028%
107	7.107	7.104	7.128	VV	121	1124	0.09%	0.017%
108	7.133	7.128	7.137	VV	97	542	0.04%	0.008%
109	7.143	7.137	7.160	VV	104	1075	0.08%	0.016%
110	7.163	7.160	7.169	VV	115	383	0.03%	0.006%
111	7.189	7.169	7.200	VV	154	1782	0.14%	0.027%
112	7.205	7.200	7.214	VV	127	836	0.07%	0.013%
113	7.216	7.214	7.232	VV	124	927	0.07%	0.014%
114	7.248	7.232	7.260	VV	119	1722	0.14%	0.026%
115	7.274	7.260	7.296	VV	160	2189	0.17%	0.033%
116	7.308	7.296	7.326	VV	141	1883	0.15%	0.029%
117	7.332	7.326	7.345	VV	121	1139	0.09%	0.017%
118	7.349	7.345	7.354	VV	150	547	0.04%	0.008%
119	7.356	7.354	7.370	VV	163	857	0.07%	0.013%
120	7.380	7.370	7.397	VV	115	1469	0.12%	0.022%
121	7.407	7.397	7.426	VV	132	1628	0.13%	0.025%
122	7.456	7.426	7.495	VV	278	5384	0.43%	0.082%
123	7.512	7.495	7.518	VV	134	1070	0.08%	0.016%
124	7.521	7.518	7.531	VV	90	550	0.04%	0.008%
125	7.537	7.531	7.545	VV	110	596	0.05%	0.009%
126	7.550	7.545	7.555	VV	130	529	0.04%	0.008%
127	7.561	7.555	7.577	VV	148	1226	0.10%	0.019%
128	7.580	7.577	7.597	VV	132	1235	0.10%	0.019%
129	7.610	7.597	7.615	VV	174	1119	0.09%	0.017%
130	7.624	7.615	7.630	VV	169	1161	0.09%	0.018%
131	7.639	7.630	7.656	VV	175	2182	0.17%	0.033%
132	7.669	7.656	7.687	VV	173	2035	0.16%	0.031%
133	7.693	7.687	7.697	VV	148	570	0.05%	0.009%
134	7.702	7.697	7.724	VV	159	1600	0.13%	0.024%
135	7.745	7.724	7.770	VV	179	3025	0.24%	0.046%
136	7.776	7.770	7.784	VV	140	921	0.07%	0.014%
137	7.798	7.784	7.804	VV	198	1354	0.11%	0.021%
138	7.806	7.804	7.827	VV	187	1500	0.12%	0.023%
139	7.831	7.827	7.836	VV	135	494	0.04%	0.008%
140	7.857	7.836	7.869	VV	156	2176	0.17%	0.033%
141	7.875	7.869	7.897	VV	131	1127	0.09%	0.017%

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142	7.902	7.897	7.946	VV	126	1912	0.15%	0.029%
143	7.979	7.946	8.017	VV	430	8247	0.65%	0.126%
144	8.024	8.017	8.029	VV	140	706	0.06%	0.011%
145	8.035	8.029	8.056	VV	146	1391	0.11%	0.021%
146	8.066	8.056	8.072	VV	142	791	0.06%	0.012%
147	8.097	8.072	8.122	VV	252	4729	0.37%	0.072%
148	8.158	8.122	8.229	VV	349	9422	0.74%	0.144%
149	8.236	8.229	8.249	VV	104	649	0.05%	0.010%
150	8.254	8.249	8.274	VV	106	1158	0.09%	0.018%
151	8.277	8.274	8.285	VV	145	557	0.04%	0.009%
152	8.289	8.285	8.299	VV	69	534	0.04%	0.008%
153	8.308	8.299	8.315	VV	104	605	0.05%	0.009%
154	8.322	8.315	8.337	VV	134	1021	0.08%	0.016%
155	8.346	8.337	8.374	VV	98	1678	0.13%	0.026%
156	8.381	8.374	8.453	VV	180	3533	0.28%	0.054%
157	8.457	8.453	8.464	VV	60	300	0.02%	0.005%
158	8.469	8.464	8.475	PV	64	217	0.02%	0.003%
159	8.480	8.475	8.484	VV	89	188	0.01%	0.003%
160	8.490	8.484	8.505	VV	62	489	0.04%	0.007%
161	8.551	8.505	8.560	VV	189	2874	0.23%	0.044%
162	8.597	8.560	8.662	VV	565	18399	1.45%	0.281%
163	8.666	8.662	8.675	VV	213	1424	0.11%	0.022%
164	8.701	8.675	8.750	VV	269	6940	0.55%	0.106%
165	8.757	8.750	8.768	VV	117	1012	0.08%	0.015%
166	8.777	8.768	8.784	VV	116	863	0.07%	0.013%
167	8.803	8.784	8.835	VV	137	3412	0.27%	0.052%
168	8.849	8.835	8.902	VV	188	5742	0.45%	0.088%
169	8.939	8.902	8.984	VV	330	7918	0.63%	0.121%
170	9.006	8.984	9.037	VV	289	5783	0.46%	0.088%
171	9.044	9.037	9.052	VV	173	1093	0.09%	0.017%
172	9.109	9.052	9.146	VV	429	12788	1.01%	0.196%
173	9.166	9.146	9.223	VV	222	7501	0.59%	0.115%
174	9.236	9.223	9.284	VV	224	5762	0.45%	0.088%
175	9.305	9.284	9.354	VV	724	15615	1.23%	0.239%
176	9.362	9.354	9.377	VV	214	2526	0.20%	0.039%
177	9.407	9.377	9.509	VV	461	21647	1.71%	0.331%
178	9.524	9.509	9.537	VV	175	2060	0.16%	0.032%
179	9.573	9.537	9.605	VV	327	6458	0.51%	0.099%
180	9.614	9.605	9.674	VV	136	3318	0.26%	0.051%
181	9.688	9.674	9.712	VV	110	1425	0.11%	0.022%
182	9.758	9.712	9.774	PV	134	3100	0.24%	0.047%
183	9.828	9.774	9.844	VV	303	7348	0.58%	0.112%
184	9.852	9.844	9.884	VV	242	4130	0.33%	0.063%
185	9.906	9.884	9.946	VV	255	6725	0.53%	0.103%
186	9.960	9.946	9.982	VV	226	2632	0.21%	0.040%
187	10.010	9.982	10.056	VV	411	7311	0.58%	0.112%
188	10.064	10.056	10.074	VV	65	475	0.04%	0.007%
189	10.121	10.074	10.347	VV	5892	399779	31.56%	6.114%
190	10.393	10.347	10.494	VV	1882	130696	10.32%	1.999%
191	10.514	10.494	10.534	VV	1249	27881	2.20%	0.426%
192	10.553	10.534	10.647	VV	1603	70204	5.54%	1.074%
193	10.661	10.647	10.684	VV	793	15861	1.25%	0.243%
194	10.695	10.684	10.797	VV	748	36092	2.85%	0.552%

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195	10.834	10.797	10.864	VV	590	19470	1.54%	0.298%
196	10.885	10.864	10.895	VV	563	9545	0.75%	0.146%
197	10.914	10.895	10.940	VV	636	14161	1.12%	0.217%
198	10.948	10.940	10.962	VV	432	5314	0.42%	0.081%
199	10.983	10.962	11.021	VV	524	14580	1.15%	0.223%
200	11.045	11.021	11.105	VV	477	17647	1.39%	0.270%
201	11.124	11.105	11.147	VV	380	7281	0.57%	0.111%
202	11.161	11.147	11.201	VV	269	7481	0.59%	0.114%
203	11.229	11.201	11.293	VV	515	19504	1.54%	0.298%
204	11.330	11.293	11.408	VV	447	24032	1.90%	0.368%
205	11.418	11.408	11.450	VV	324	6532	0.52%	0.100%
206	11.454	11.450	11.463	VV	241	1479	0.12%	0.023%
207	11.474	11.463	11.499	VV	231	3662	0.29%	0.056%
208	11.552	11.499	11.594	VV	380	15091	1.19%	0.231%
209	11.615	11.594	11.640	VV	500	8774	0.69%	0.134%
210	11.659	11.640	11.679	VV	283	4780	0.38%	0.073%
211	11.701	11.679	11.755	VV	508	11907	0.94%	0.182%
212	11.783	11.755	11.795	PV	221	2656	0.21%	0.041%
213	11.811	11.795	11.842	VV	267	4504	0.36%	0.069%
214	11.873	11.842	11.881	VV	144	2603	0.21%	0.040%
215	11.907	11.881	11.955	VV	482	10988	0.87%	0.168%
216	11.970	11.955	11.993	VV	217	2603	0.21%	0.040%
217	12.016	11.993	12.030	PV	380	5118	0.40%	0.078%
218	12.047	12.030	12.082	VV	603	11014	0.87%	0.168%
219	12.106	12.082	12.154	VV	297	7086	0.56%	0.108%
220	12.192	12.154	12.202	VV	210	4030	0.32%	0.062%
221	12.212	12.202	12.242	VV	205	4048	0.32%	0.062%
222	12.282	12.242	12.305	VV	490	11694	0.92%	0.179%
223	12.326	12.305	12.360	VV	268	6676	0.53%	0.102%
224	12.405	12.360	12.471	VV	602	18635	1.47%	0.285%
225	12.495	12.471	12.510	VV	404	4981	0.39%	0.076%
226	12.540	12.510	12.598	VV	54557	744944	58.81%	11.393%
227	12.609	12.598	12.631	VV	2155	36639	2.89%	0.560%
228	12.643	12.631	12.706	VV	1480	44791	3.54%	0.685%
229	12.713	12.706	12.760	VV	598	17541	1.38%	0.268%
230	12.772	12.760	12.800	VV	488	9328	0.74%	0.143%
231	12.806	12.800	12.825	VV	340	4426	0.35%	0.068%
232	12.857	12.825	12.884	VV	658	16308	1.29%	0.249%
233	12.922	12.884	12.944	VV	664	16040	1.27%	0.245%
234	12.952	12.944	12.967	VV	455	5750	0.45%	0.088%
235	12.993	12.967	13.061	VV	1707	52858	4.17%	0.808%
236	13.098	13.061	13.159	VV	852	33281	2.63%	0.509%
237	13.181	13.159	13.230	VV	869	20164	1.59%	0.308%
238	13.237	13.230	13.302	VV	216	5429	0.43%	0.083%
239	13.332	13.302	13.354	VV	753	15316	1.21%	0.234%
240	13.375	13.354	13.507	VV	989	36040	2.85%	0.551%
241	13.535	13.507	13.555	PV	536	7112	0.56%	0.109%
242	13.576	13.555	13.594	VV	892	13455	1.06%	0.206%
243	13.618	13.594	13.738	VV	1732	57427	4.53%	0.878%
244	13.773	13.738	13.902	VV	14430	230622	18.21%	3.527%
245	13.946	13.902	13.960	VV	421	9568	0.76%	0.146%
246	13.979	13.960	14.009	VV	476	7275	0.57%	0.111%

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247	14.079	14.009	14.102	VV	692	11934	0.94%	0.183%
248	14.121	14.102	14.169	VV	889	15359	1.21%	0.235%
249	14.184	14.169	14.202	VV	245	3287	0.26%	0.050%
250	14.207	14.202	14.219	VV	142	1089	0.09%	0.017%
251	14.265	14.219	14.280	VV	268	6630	0.52%	0.101%
252	14.286	14.280	14.325	VV	238	3916	0.31%	0.060%
253	14.357	14.325	14.404	PV	195	4813	0.38%	0.074%
254	14.422	14.404	14.443	VV	101	1427	0.11%	0.022%
255	14.482	14.443	14.494	VV	197	2676	0.21%	0.041%
256	14.520	14.494	14.594	VV	1179	29564	2.33%	0.452%
257	14.608	14.594	14.624	VV	245	3330	0.26%	0.051%
258	14.683	14.624	14.711	VV	1526	28302	2.23%	0.433%
259	14.800	14.711	14.817	VV	758	31683	2.50%	0.485%
260	14.840	14.817	14.875	VV	839	21047	1.66%	0.322%
261	14.917	14.875	14.932	VV	885	20128	1.59%	0.308%
262	14.942	14.932	14.954	VV	779	9413	0.74%	0.144%
263	14.962	14.954	14.974	VV	703	7909	0.62%	0.121%
264	15.021	14.974	15.060	VV	89547	1266613	100.00%	19.371%
265	15.075	15.060	15.146	VV	1235	41629	3.29%	0.637%
266	15.224	15.146	15.252	VV	2534	68624	5.42%	1.049%
267	15.279	15.252	15.314	VV	1051	29456	2.33%	0.450%
268	15.423	15.314	15.445	VV	1339	83068	6.56%	1.270%
269	15.466	15.445	15.494	VV	1188	33243	2.62%	0.508%
270	15.535	15.494	15.541	VV	1172	31531	2.49%	0.482%
271	15.608	15.541	15.702	VV	29890	604875	47.76%	9.251%
272	15.744	15.702	15.788	VV	4572	147854	11.67%	2.261%
273	15.820	15.788	15.855	VV	3113	101865	8.04%	1.558%
274	15.877	15.855	15.907	VV	2404	69649	5.50%	1.065%
275	15.970	15.907	16.017	VV	3387	170607	13.47%	2.609%
276	16.037	16.017	16.057	VV	2558	59492	4.70%	0.910%
277	16.069	16.057	16.098	VV	2460	58538	4.62%	0.895%
278	16.129	16.098	16.201	VV	3218	144491	11.41%	2.210%
279	16.208	16.201	16.222	VV	1897	22950	1.81%	0.351%
280	16.246	16.222	16.295	VV	4219	94457	7.46%	1.445%
281	16.314	16.295	16.361	VV	1193	37857	2.99%	0.579%
282	16.380	16.361	16.437	VV	1043	27049	2.14%	0.414%
283	16.443	16.437	16.462	VV	336	4619	0.36%	0.071%
284	16.471	16.462	16.504	VV	305	3372	0.27%	0.052%
285	16.549	16.504	16.572	PV	231	4859	0.38%	0.074%
286	16.622	16.572	16.675	PV	9584	168155	13.28%	2.572%
287	16.692	16.675	16.702	VV	702	9854	0.78%	0.151%
288	16.730	16.702	16.770	VV	3027	47306	3.73%	0.723%
289	16.814	16.770	16.837	PV	600	10431	0.82%	0.160%
290	16.889	16.837	16.910	VV	606	17889	1.41%	0.274%
291	16.951	16.910	16.964	VV	562	12415	0.98%	0.190%
292	17.043	16.964	17.060	VV	583	21157	1.67%	0.324%
293	17.101	17.060	17.130	VV	721	19026	1.50%	0.291%
294	17.196	17.130	17.222	PV	3046	46054	3.64%	0.704%
295	17.248	17.222	17.264	VV	987	14071	1.11%	0.215%
296	17.279	17.264	17.314	VV	719	11422	0.90%	0.175%
297	17.444	17.314	17.455	PV	363	25694	2.03%	0.393%
298	17.475	17.455	17.500	VBA	383	11785	0.93%	0.180%

Sum of corrected areas: 6538782

rteres

FF052125.M Thu Jun 05 03:50:53 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/30/25
Project:	South River WM Replacement	Date Received:	05/30/25
Client Sample ID:	TP-65	SDG No.:	Q2176
Lab Sample ID:	Q2176-08	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	87.3
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015907.D	1	06/04/25 08:30	06/04/25 18:17	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	1850	J	193	1910	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	10.7		37 - 130	54%	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_F\Data\FF060425\
Data File : FF015907.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 18:17
Operator : YP\AJ
Sample : Q2176-08
Misc :
ALS Vial : 81 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-65

Integration File: autoint1.e
Quant Time: Jun 05 03:05:21 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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...	15.020	1308554	10.714 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

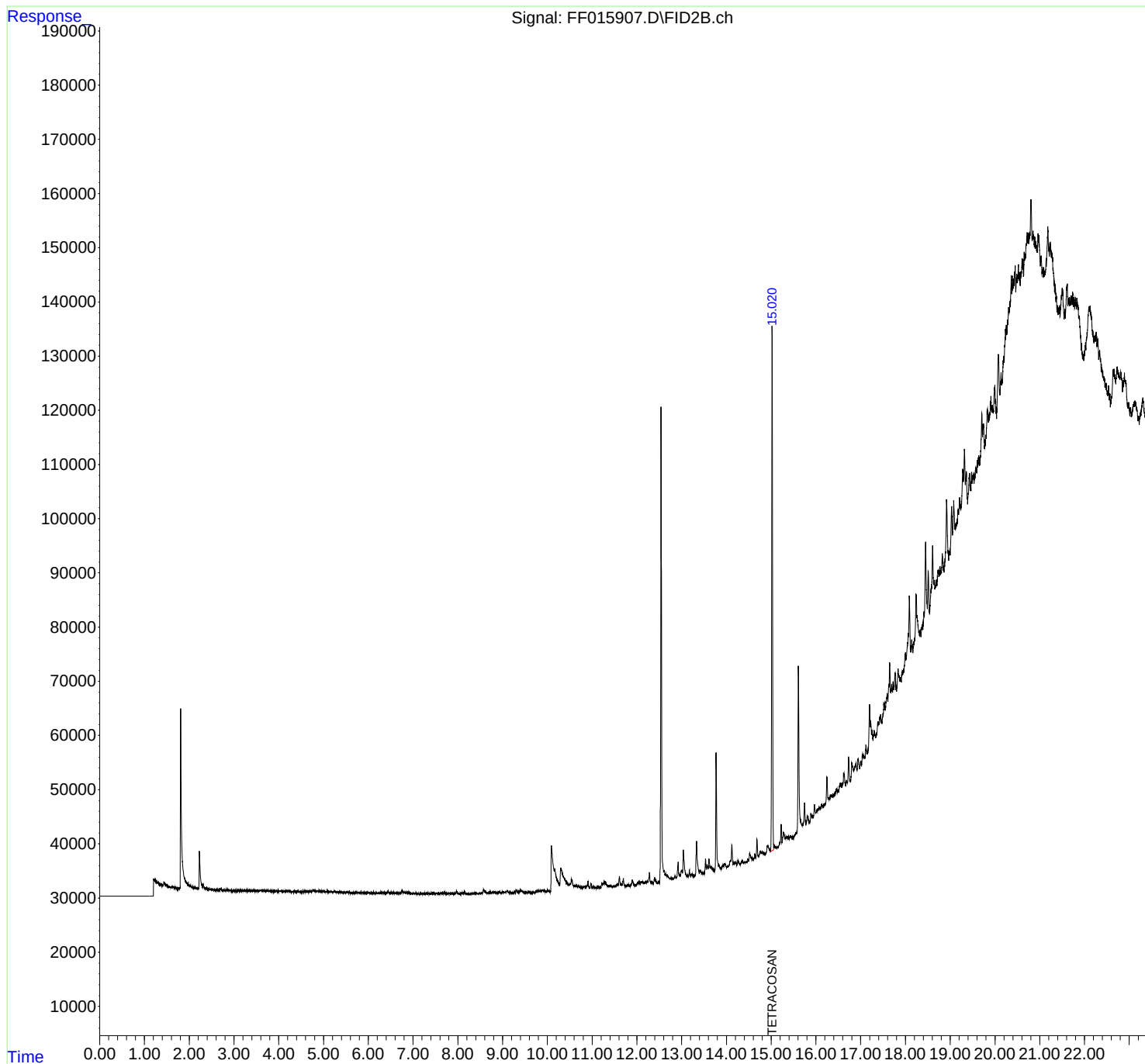
(m)=manual int.

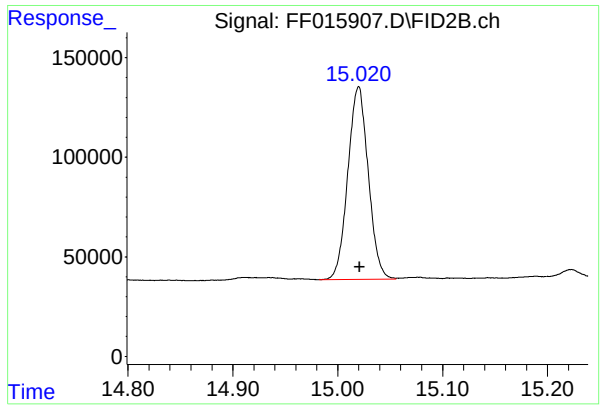
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015907.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 18:17
Operator : YP\AJ
Sample : Q2176-08
Misc :
ALS Vial : 81 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-65

Integration File: autoint1.e
Quant Time: Jun 05 03:05:21 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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.: 15.020 min
Delta R.T.: -0.001 min
Response: 1308554
Conc: 10.71 ug/ml

Instrument :
FID_F
ClientSampleId :
TP-65

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
 Data File : FF015907.D
 Signal(s) : FID2B.ch
 Acq On : 04 Jun 2025 18:17
 Sample : Q2176-08
 Misc :
 ALS Vial : 81 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.511	4.500	4.526	BV	64	175	0.01%	0.002%
2	4.529	4.526	4.542	VV	124	615	0.05%	0.008%
3	4.546	4.542	4.562	VV	119	702	0.05%	0.009%
4	4.587	4.562	4.598	PV	204	3235	0.25%	0.042%
5	4.601	4.598	4.616	VV	153	1486	0.11%	0.019%
6	4.620	4.616	4.633	VV	169	1390	0.11%	0.018%
7	4.638	4.633	4.642	VV	147	773	0.06%	0.010%
8	4.654	4.642	4.660	VV	203	1510	0.12%	0.019%
9	4.677	4.660	4.700	VV	169	3443	0.26%	0.044%
10	4.709	4.700	4.728	VV	192	2385	0.18%	0.031%
11	4.735	4.728	4.743	VV	262	1601	0.12%	0.021%
12	4.768	4.743	4.792	VV	375	9476	0.72%	0.122%
13	4.797	4.792	4.809	VV	328	2968	0.23%	0.038%
14	4.812	4.809	4.832	VV	340	3612	0.28%	0.046%
15	4.846	4.832	4.865	VV	330	5125	0.39%	0.066%
16	4.868	4.865	4.882	VV	319	2662	0.20%	0.034%
17	4.897	4.882	4.903	VV	303	3419	0.26%	0.044%
18	4.908	4.903	4.914	VV	284	1456	0.11%	0.019%
19	4.919	4.914	4.923	VV	231	1223	0.09%	0.016%
20	4.927	4.923	4.934	VV	269	1571	0.12%	0.020%
21	4.938	4.934	4.946	VV	286	1554	0.12%	0.020%
22	4.951	4.946	4.977	VV	310	4113	0.31%	0.053%
23	4.981	4.977	5.017	VV	267	4625	0.35%	0.059%
24	5.031	5.017	5.046	VV	251	3338	0.25%	0.043%
25	5.051	5.046	5.058	VV	192	1270	0.10%	0.016%
26	5.077	5.058	5.102	VV	293	5163	0.39%	0.066%
27	5.106	5.102	5.110	VV	191	927	0.07%	0.012%
28	5.113	5.110	5.122	VV	280	1544	0.12%	0.020%
29	5.127	5.122	5.142	VV	211	1957	0.15%	0.025%
30	5.149	5.142	5.184	VV	258	3564	0.27%	0.046%
31	5.188	5.184	5.196	VV	180	897	0.07%	0.012%
32	5.201	5.196	5.204	VV	163	625	0.05%	0.008%
33	5.209	5.204	5.213	VV	164	892	0.07%	0.011%
34	5.231	5.213	5.235	VV	227	2344	0.18%	0.030%
35	5.243	5.235	5.276	VV	320	5286	0.40%	0.068%
36	5.280	5.276	5.284	VV	186	749	0.06%	0.010%

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37	5.290	5.284	5.298	VV	176	1289	0.10%	0.017%
38	5.323	5.298	5.345	VV	198	4281	0.33%	0.055%
39	5.351	5.345	5.362	VV	212	1202	0.09%	0.015%
40	5.368	5.362	5.372	VV	107	553	0.04%	0.007%
41	5.377	5.372	5.413	VV	131	2710	0.21%	0.035%
42	5.422	5.413	5.442	VV	114	1303	0.10%	0.017%
43	5.457	5.442	5.494	VV	154	2911	0.22%	0.037%
44	5.501	5.494	5.532	VV	150	2223	0.17%	0.029%
45	5.553	5.532	5.619	VV	180	5349	0.41%	0.069%
46	5.625	5.619	5.631	VV	86	440	0.03%	0.006%
47	5.634	5.631	5.639	VV	64	233	0.02%	0.003%
48	5.641	5.639	5.655	VV	90	479	0.04%	0.006%
49	5.666	5.655	5.684	PV	124	815	0.06%	0.010%
50	5.688	5.684	5.708	VV	75	843	0.06%	0.011%
51	5.719	5.708	5.748	VV	203	3519	0.27%	0.045%
52	5.753	5.748	5.759	VV	177	722	0.06%	0.009%
53	5.763	5.759	5.769	VV	90	527	0.04%	0.007%
54	5.792	5.769	5.803	VV	151	1927	0.15%	0.025%
55	5.810	5.803	5.817	VV	133	678	0.05%	0.009%
56	5.835	5.817	5.858	VV	169	2888	0.22%	0.037%
57	5.864	5.858	5.874	VV	159	1192	0.09%	0.015%
58	5.885	5.874	5.915	VV	176	2620	0.20%	0.034%
59	5.927	5.915	5.964	VV	135	2227	0.17%	0.029%
60	5.978	5.964	5.982	VV	115	914	0.07%	0.012%
61	5.997	5.982	6.012	VV	184	2004	0.15%	0.026%
62	6.018	6.012	6.030	VV	129	873	0.07%	0.011%
63	6.035	6.030	6.049	VV	72	525	0.04%	0.007%
64	6.060	6.049	6.066	VV	85	502	0.04%	0.006%
65	6.073	6.066	6.094	PV	125	973	0.07%	0.012%
66	6.097	6.094	6.111	VV	46	423	0.03%	0.005%
67	6.120	6.111	6.133	VV	217	787	0.06%	0.010%
68	6.138	6.133	6.144	VV	84	364	0.03%	0.005%
69	6.156	6.144	6.168	VV	81	798	0.06%	0.010%
70	6.174	6.168	6.182	VV	152	739	0.06%	0.009%
71	6.187	6.182	6.200	VV	123	786	0.06%	0.010%
72	6.207	6.200	6.212	PV	71	329	0.03%	0.004%
73	6.232	6.212	6.260	VV	101	2058	0.16%	0.026%
74	6.280	6.260	6.312	VV	215	3633	0.28%	0.047%
75	6.328	6.312	6.335	VV	165	1540	0.12%	0.020%
76	6.342	6.335	6.360	VV	155	1684	0.13%	0.022%
77	6.387	6.360	6.396	VV	198	2662	0.20%	0.034%
78	6.407	6.396	6.415	VV	152	1395	0.11%	0.018%
79	6.420	6.415	6.423	VV	146	606	0.05%	0.008%
80	6.445	6.423	6.471	VV	581	7880	0.60%	0.101%
81	6.484	6.471	6.498	VV	158	2012	0.15%	0.026%
82	6.503	6.498	6.526	VV	218	2458	0.19%	0.032%
83	6.529	6.526	6.549	VV	158	1734	0.13%	0.022%
84	6.564	6.549	6.610	VV	219	3897	0.30%	0.050%
85	6.646	6.610	6.670	VV	182	3614	0.28%	0.046%
86	6.677	6.670	6.689	VV	120	1112	0.08%	0.014%
87	6.702	6.689	6.720	VV	145	1723	0.13%	0.022%
88	6.743	6.720	6.877	VV	491	23218	1.77%	0.298%
89	6.890	6.877	6.905	VV	251	3388	0.26%	0.043%

					rteres				
90	6.919	6.905	6.947	VV	187	3449	0.26%	0.044%	
91	6.955	6.947	7.012	VV	159	2666	0.20%	0.034%	
92	7.021	7.012	7.038	VV	86	944	0.07%	0.012%	
93	7.045	7.038	7.060	PV	13	640	0.05%	0.008%	
94	7.066	7.060	7.107	VV	147	1800	0.14%	0.023%	
95	7.117	7.107	7.175	VV	82	990	0.08%	0.013%	
96	7.191	7.175	7.229	VV	90	1825	0.14%	0.023%	
97	7.237	7.229	7.248	VV	101	658	0.05%	0.008%	
98	7.279	7.248	7.304	VV	141	2244	0.17%	0.029%	
99	7.319	7.304	7.342	VV	225	1559	0.12%	0.020%	
100	7.352	7.342	7.365	VV	99	981	0.07%	0.013%	
101	7.373	7.365	7.397	VV	85	1167	0.09%	0.015%	
102	7.455	7.397	7.486	VV	292	5728	0.44%	0.074%	
103	7.494	7.486	7.507	PV	86	702	0.05%	0.009%	
104	7.538	7.507	7.574	VV	151	3630	0.28%	0.047%	
105	7.581	7.574	7.607	VV	82	1777	0.14%	0.023%	
106	7.636	7.607	7.671	VV	193	5535	0.42%	0.071%	
107	7.715	7.671	7.799	VV	262	11667	0.89%	0.150%	
108	7.804	7.799	7.832	VV	161	2255	0.17%	0.029%	
109	7.851	7.832	7.883	VV	163	2871	0.22%	0.037%	
110	7.891	7.883	7.929	VV	86	1816	0.14%	0.023%	
111	7.972	7.929	8.020	VV	534	11103	0.85%	0.142%	
112	8.056	8.020	8.077	VV	172	3407	0.26%	0.044%	
113	8.100	8.077	8.135	VV	267	5912	0.45%	0.076%	
114	8.150	8.135	8.194	VV	467	8613	0.66%	0.111%	
115	8.204	8.194	8.248	VV	78	1958	0.15%	0.025%	
116	8.289	8.248	8.301	PV	133	2118	0.16%	0.027%	
117	8.324	8.301	8.332	PV	94	1258	0.10%	0.016%	
118	8.380	8.332	8.407	VV	280	5539	0.42%	0.071%	
119	8.423	8.407	8.461	VV	115	2350	0.18%	0.030%	
120	8.481	8.461	8.491	VV	106	1441	0.11%	0.018%	
121	8.577	8.491	8.650	VV	817	30138	2.30%	0.387%	
122	8.657	8.650	8.670	VV	232	2433	0.19%	0.031%	
123	8.710	8.670	8.759	VV	338	12361	0.94%	0.159%	
124	8.771	8.759	8.785	VV	261	3588	0.27%	0.046%	
125	8.803	8.785	8.830	VV	339	6958	0.53%	0.089%	
126	8.837	8.830	8.874	VV	236	5055	0.39%	0.065%	
127	8.882	8.874	8.897	VV	235	2189	0.17%	0.028%	
128	8.899	8.897	8.911	VV	181	1112	0.08%	0.014%	
129	8.933	8.911	8.980	VV	411	8733	0.67%	0.112%	
130	8.999	8.980	9.045	VV	359	9099	0.69%	0.117%	
131	9.103	9.045	9.136	VV	600	16960	1.29%	0.218%	
132	9.147	9.136	9.162	VV	214	2736	0.21%	0.035%	
133	9.185	9.162	9.212	VV	228	3848	0.29%	0.049%	
134	9.247	9.212	9.275	VV	209	5476	0.42%	0.070%	
135	9.302	9.275	9.347	VV	654	14625	1.12%	0.188%	
136	9.397	9.347	9.472	VV	794	25027	1.91%	0.321%	
137	9.476	9.472	9.505	VV	246	2773	0.21%	0.036%	
138	9.529	9.505	9.550	VV	117	2613	0.20%	0.034%	
139	9.572	9.550	9.614	VV	300	6158	0.47%	0.079%	
140	9.623	9.614	9.654	VV	144	1403	0.11%	0.018%	
141	9.685	9.654	9.701	PV	136	2165	0.17%	0.028%	

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142	9.775	9.701	9.795	VV	392	11769	0.90%	0.151%
143	9.814	9.795	9.845	VV	433	9772	0.75%	0.125%
144	9.893	9.845	9.939	VV	412	17764	1.36%	0.228%
145	9.949	9.939	9.979	VV	295	4303	0.33%	0.055%
146	10.007	9.979	10.064	VV	453	9995	0.76%	0.128%
147	10.094	10.064	10.157	PV	8471	271102	20.68%	3.479%
148	10.168	10.157	10.280	VV	4057	175736	13.41%	2.255%
149	10.303	10.280	10.495	VV	4289	292523	22.32%	3.754%
150	10.539	10.495	10.621	VV	2098	95200	7.26%	1.222%
151	10.636	10.621	10.682	VV	907	27944	2.13%	0.359%
152	10.699	10.682	10.767	VV	750	27756	2.12%	0.356%
153	10.833	10.767	10.862	VV	622	26469	2.02%	0.340%
154	10.908	10.862	10.946	VV	1461	36018	2.75%	0.462%
155	10.976	10.946	11.015	VV	1046	22117	1.69%	0.284%
156	11.032	11.015	11.094	VV	483	13028	0.99%	0.167%
157	11.130	11.094	11.144	VV	283	7672	0.59%	0.098%
158	11.153	11.144	11.178	VV	302	4549	0.35%	0.058%
159	11.218	11.178	11.240	VV	886	18277	1.39%	0.235%
160	11.258	11.240	11.290	VV	1013	27879	2.13%	0.358%
161	11.298	11.290	11.346	VV	1210	22554	1.72%	0.289%
162	11.358	11.346	11.375	VV	485	6608	0.50%	0.085%
163	11.389	11.375	11.400	VV	376	5035	0.38%	0.065%
164	11.413	11.400	11.445	VV	383	8419	0.64%	0.108%
165	11.462	11.445	11.482	VV	225	3854	0.29%	0.049%
166	11.496	11.482	11.515	VV	246	4333	0.33%	0.056%
167	11.565	11.515	11.587	VV	596	18032	1.38%	0.231%
168	11.610	11.587	11.634	VV	1952	29593	2.26%	0.380%
169	11.649	11.634	11.670	VV	606	10444	0.80%	0.134%
170	11.699	11.670	11.745	VV	1466	26556	2.03%	0.341%
171	11.780	11.745	11.790	PV	200	4074	0.31%	0.052%
172	11.808	11.790	11.832	VV	362	5101	0.39%	0.065%
173	11.896	11.832	11.949	VV	1157	26587	2.03%	0.341%
174	11.960	11.949	11.989	VV	218	2842	0.22%	0.036%
175	12.012	11.989	12.029	PV	540	8615	0.66%	0.111%
176	12.045	12.029	12.071	VV	753	14203	1.08%	0.182%
177	12.095	12.071	12.124	VV	613	15156	1.16%	0.194%
178	12.138	12.124	12.162	VV	600	10520	0.80%	0.135%
179	12.177	12.162	12.197	VV	518	9054	0.69%	0.116%
180	12.227	12.197	12.249	VV	593	15079	1.15%	0.193%
181	12.281	12.249	12.362	VV	2144	45103	3.44%	0.579%
182	12.396	12.362	12.462	VV	1118	29442	2.25%	0.378%
183	12.494	12.462	12.509	PV	373	4781	0.36%	0.061%
184	12.541	12.509	12.599	VV	87886	1133675	86.49%	14.548%
185	12.609	12.599	12.634	VV	2171	37418	2.85%	0.480%
186	12.643	12.634	12.680	VV	1498	34962	2.67%	0.449%
187	12.689	12.680	12.752	VV	1042	30397	2.32%	0.390%
188	12.780	12.752	12.810	VV	552	14420	1.10%	0.185%
189	12.856	12.810	12.874	VV	766	19201	1.46%	0.246%
190	12.920	12.874	12.970	VV	3282	69138	5.27%	0.887%
191	13.003	12.970	13.018	VV	1633	36405	2.78%	0.467%
192	13.039	13.018	13.114	VV	5285	119712	9.13%	1.536%
193	13.141	13.114	13.154	VV	380	8212	0.63%	0.105%
194	13.173	13.154	13.207	VV	1409	22421	1.71%	0.288%

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195	13.232	13.207	13.266	VV	471	11827	0.90%	0.152%
196	13.333	13.266	13.405	PV	6447	138547	10.57%	1.778%
197	13.419	13.405	13.459	VV	775	15883	1.21%	0.204%
198	13.478	13.459	13.503	VV	316	5079	0.39%	0.065%
199	13.532	13.503	13.552	VV	2764	36360	2.77%	0.467%
200	13.566	13.552	13.589	VV	1533	24680	1.88%	0.317%
201	13.611	13.589	13.640	VV	2504	46249	3.53%	0.593%
202	13.655	13.640	13.730	VV	979	31883	2.43%	0.409%
203	13.769	13.730	13.884	PV	21852	320947	24.49%	4.119%
204	13.916	13.884	13.934	VV	666	13268	1.01%	0.170%
205	13.960	13.934	14.000	VV	908	25157	1.92%	0.323%
206	14.027	14.000	14.036	VV	300	4828	0.37%	0.062%
207	14.120	14.036	14.155	VV	3981	86976	6.64%	1.116%
208	14.175	14.155	14.187	VV	663	10312	0.79%	0.132%
209	14.205	14.187	14.237	VV	742	13666	1.04%	0.175%
210	14.259	14.237	14.309	VV	796	16690	1.27%	0.214%
211	14.352	14.309	14.379	PV	628	12913	0.99%	0.166%
212	14.400	14.379	14.412	VV	157	2583	0.20%	0.033%
213	14.452	14.412	14.461	VV	130	2576	0.20%	0.033%
214	14.482	14.461	14.496	PV	467	5245	0.40%	0.067%
215	14.519	14.496	14.600	VV	1472	36896	2.81%	0.473%
216	14.634	14.600	14.659	VV	953	13943	1.06%	0.179%
217	14.682	14.659	14.714	VV	3392	47181	3.60%	0.605%
218	14.718	14.714	14.727	VV	337	2110	0.16%	0.027%
219	14.754	14.727	14.792	VV	986	27024	2.06%	0.347%
220	14.798	14.792	14.825	VV	612	9461	0.72%	0.121%
221	14.839	14.825	14.861	VV	399	5247	0.40%	0.067%
222	14.912	14.861	14.927	PV	1415	23852	1.82%	0.306%
223	14.934	14.927	14.982	VV	1273	21968	1.68%	0.282%
224	15.020	14.982	15.058	VV	97224	1310747	100.00%	16.820%
225	15.076	15.058	15.100	VV	817	12471	0.95%	0.160%
226	15.116	15.100	15.127	VV	238	2917	0.22%	0.037%
227	15.144	15.127	15.160	PV	289	2546	0.19%	0.033%
228	15.189	15.160	15.197	PV	805	9821	0.75%	0.126%
229	15.222	15.197	15.242	VV	3951	52946	4.04%	0.679%
230	15.281	15.242	15.325	VV	2130	68143	5.20%	0.874%
231	15.340	15.325	15.375	VV	1041	26049	1.99%	0.334%
232	15.380	15.375	15.402	VV	798	9515	0.73%	0.122%
233	15.424	15.402	15.484	VV	734	21255	1.62%	0.273%
234	15.492	15.484	15.500	VV	207	1254	0.10%	0.016%
235	15.606	15.500	15.688	PV	30574	527053	40.21%	6.764%
236	15.701	15.688	15.715	VV	952	14422	1.10%	0.185%
237	15.744	15.715	15.784	VV	4608	79071	6.03%	1.015%
238	15.805	15.784	15.850	VV	1720	38492	2.94%	0.494%
239	15.894	15.850	15.914	PV	1326	26984	2.06%	0.346%
240	15.926	15.914	15.942	VV	734	9460	0.72%	0.121%
241	15.966	15.942	16.000	VV	2387	43867	3.35%	0.563%
242	16.016	16.000	16.030	VV	1017	15329	1.17%	0.197%
243	16.086	16.030	16.107	VV	1086	42044	3.21%	0.540%
244	16.129	16.107	16.151	VV	1138	22600	1.72%	0.290%
245	16.245	16.151	16.273	VV	5114	107651	8.21%	1.381%
246	16.339	16.273	16.363	VV	1045	47971	3.66%	0.616%

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247	16.378	16.363	16.404	VV	958	16587	1.27%	0.213%
248	16.461	16.404	16.488	VV	1225	37679	2.87%	0.484%
249	16.501	16.488	16.514	VV	623	7370	0.56%	0.095%
250	16.545	16.514	16.576	VV	1582	40743	3.11%	0.523%
251	16.591	16.576	16.600	VV	1042	13666	1.04%	0.175%
252	16.623	16.600	16.661	VV	2608	54468	4.16%	0.699%
253	16.681	16.661	16.701	VV	989	14453	1.10%	0.185%
254	16.730	16.701	16.773	VV	4682	71049	5.42%	0.912%
255	16.801	16.773	16.840	PV	3098	71734	5.47%	0.921%
256	16.895	16.840	16.920	VV	1954	63600	4.85%	0.816%
257	16.942	16.920	16.977	VV	2166	40423	3.08%	0.519%
258	17.004	16.977	17.018	PV	1117	14086	1.07%	0.181%
259	17.043	17.018	17.057	PV	1729	23359	1.78%	0.300%
260	17.063	17.057	17.097	VV	1138	15456	1.18%	0.198%
261	17.117	17.097	17.150	VV	2165	29073	2.22%	0.373%
262	17.197	17.150	17.214	VV	8283	132395	10.10%	1.699%
263	17.222	17.214	17.240	VV	4650	61896	4.72%	0.794%
264	17.251	17.240	17.272	VV	2721	37498	2.86%	0.481%
265	17.299	17.272	17.332	VV	1924	35231	2.69%	0.452%
266	17.383	17.332	17.402	PV	1842	35324	2.69%	0.453%
267	17.445	17.402	17.472	VV	2034	51399	3.92%	0.660%
					Sum of corrected areas:	7792560		

FF052125.M Thu Jun 05 03:51:58 2025



CALIBRATION SUMMARY

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: CAMP02
 ProjectID: South River WM Replacement
 Lab Code: CHEM Case No.: Q2176 SAS No.: Q2176 SDG No.: Q2176

Calibration Sequence : FF052125		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	131501360	131501	FF015874.D
500	66823160	133646	FF015875.D
200	25639665	128198	FF015876.D
100	14440283	144403	FF015877.D
50	6491363	129827	FF015878.D
AVG RF : 133515		% RSD : 4.803	AVG RT : 15.0206

DIESEL RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: CAMP02
 ProjectID: South River WM Replacement
 Lab Code: CHEM Case No.: Q2176 SAS No.: Q2176 SDG No.: Q2176

Calibration Sequence : FG052225		Test : Diesel Range Organics	
Concentration (PPM)	Area Count	Reference Factor	File ID
1000	132190666	132191	FG015886.D
500	67168968	134338	FG015887.D
200	26324104	131621	FG015888.D
100	13743634	137436	FG015889.D
50	6335792	126716	FG015890.D
AVG RF : 132460		% RSD : 2.974	AVG RT : 14.9848

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: CHEM Case No.: Q2176 SAS No.: Q2176 SDG No.: Q2176
DataFile: FF015895.D Analyst Name: YP\AJ Analyst Date: 06-04-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	65931359	131863	133515	1.237

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
 Data File : FF015895.D
 Signal(s) : FID2B.ch
 Acq On : 04 Jun 2025 11:46
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Jun 05 03:01:59 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
 Quant Title :
 QLast Update : Wed May 21 12:32:51 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.019	5978332	48.948 ug/ml
Target Compounds			
2) N-DECANE	4.565	6134144	51.750 ug/ml
3) N-DODECANE	6.733	6392900	50.809 ug/ml
4) N-TETRADECANE	8.560	6529246	52.037 ug/ml
5) N-HEXADECANE	10.167	6557070	49.995 ug/ml
6) N-OCTADECANE	11.611	6758094	49.183 ug/ml
7) N-EICOSANE	12.921	6878706	48.344 ug/ml
8) N-DOCOSANE	14.119	6706283	48.275 ug/ml
10) N-TETRACOSANE	15.223	6730160	48.285 ug/ml
11) N-HEXACOSANE	16.245	6668011	48.077 ug/ml
12) N-OCTACOSANE	17.195	6576745	47.840 ug/ml

(f)=RT Delta > 1/2 Window

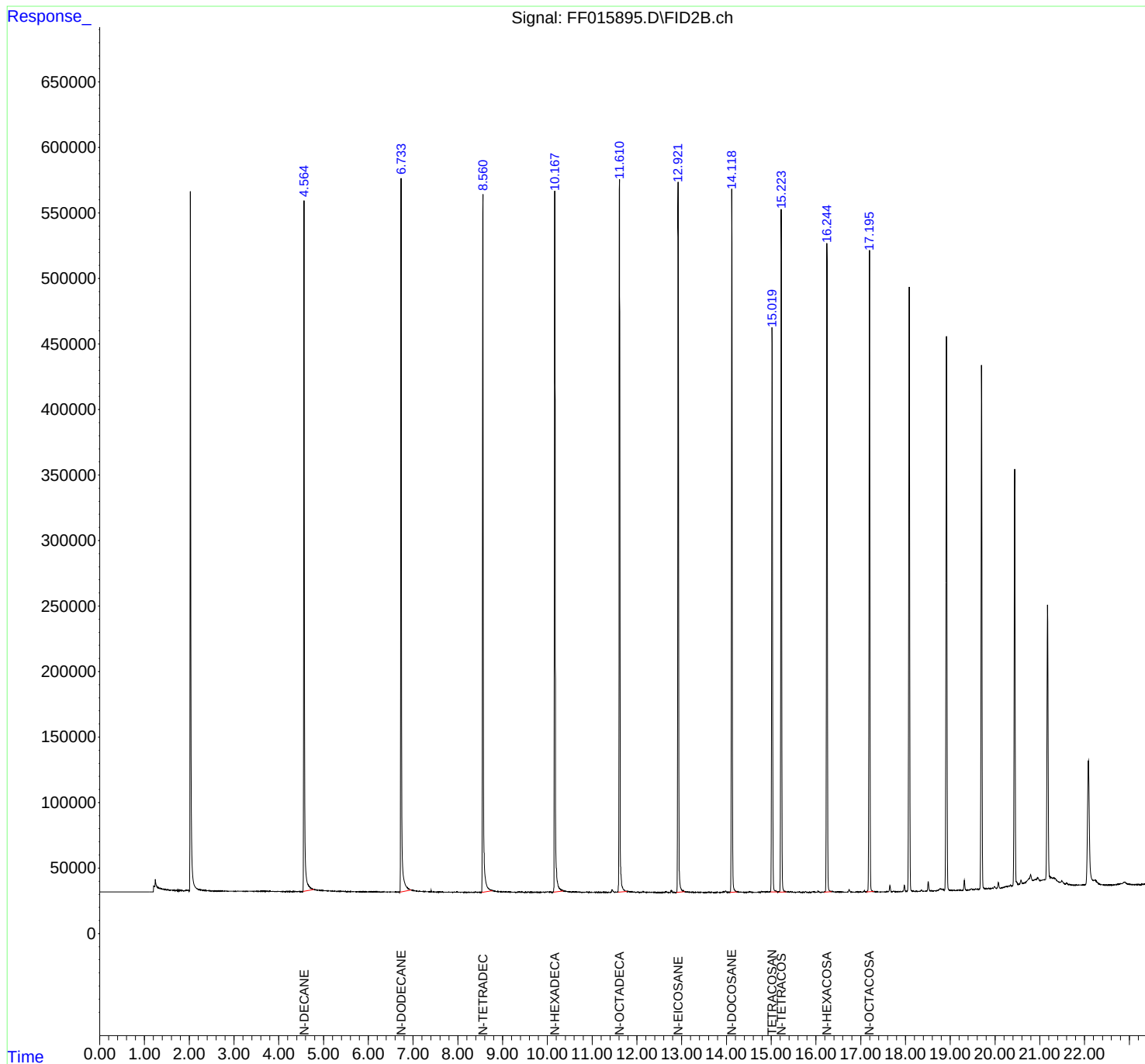
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015895.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 11:46
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jun 05 03:01:59 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015895.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 11:46
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.565	4.539	4.784	BB	527292	6134144	89.18%	8.530%
2	6.733	6.707	6.959	BB	544659	6392900	92.94%	8.890%
3	8.560	8.532	8.775	BB	531779	6529246	94.92%	9.080%
4	10.167	10.137	10.357	BB	534413	6557070	95.32%	9.118%
5	11.611	11.579	11.785	BB	542439	6758094	98.25%	9.398%
6	12.921	12.882	13.064	BB	542290	6878706	100.00%	9.566%
7	14.119	14.072	14.242	BB	537429	6706283	97.49%	9.326%
8	15.019	14.982	15.139	BB	430430	5978332	86.91%	8.314%
9	15.223	15.167	15.337	BB	520020	6730160	97.84%	9.359%
10	16.245	16.184	16.344	BB	495080	6668011	96.94%	9.273%
11	17.195	17.124	17.297	BB	488355	6576745	95.61%	9.146%
Sum of corrected areas:						71909690		

FF052125.M Thu Jun 05 03:38:54 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: CHEM Case No.: Q2176 SAS No.: Q2176 SDG No.: Q2176
DataFile: FF015909.D Analyst Name: YP\AJ Analyst Date: 06-04-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	64819040	129638	133515	2.904

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
 Data File : FF015909.D
 Signal(s) : FID2B.ch
 Acq On : 04 Jun 2025 19:16
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Jun 05 03:05:57 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
 Quant Title :
 QLast Update : Wed May 21 12:32:51 2025
 Response via : Initial Calibration
 Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.024	5794485	47.443 ug/ml
Target Compounds			
2) N-DECANE	4.563	6194949	52.263 ug/ml
3) N-DODECANE	6.733	6377387	50.685 ug/ml
4) N-TETRADECANE	8.560	6446357	51.377 ug/ml
5) N-HEXADECANE	10.168	6478773	49.398 ug/ml
6) N-OCTADECANE	11.612	6647666	48.379 ug/ml
7) N-EICOSANE	12.924	6765447	47.548 ug/ml
8) N-DOCOSANE	14.124	6579517	47.363 ug/ml
10) N-TETRACOSANE	15.228	6556465	47.039 ug/ml
11) N-HEXACOSANE	16.250	6457624	46.560 ug/ml
12) N-OCTACOSANE	17.202	6314855	45.935 ug/ml

(f)=RT Delta > 1/2 Window

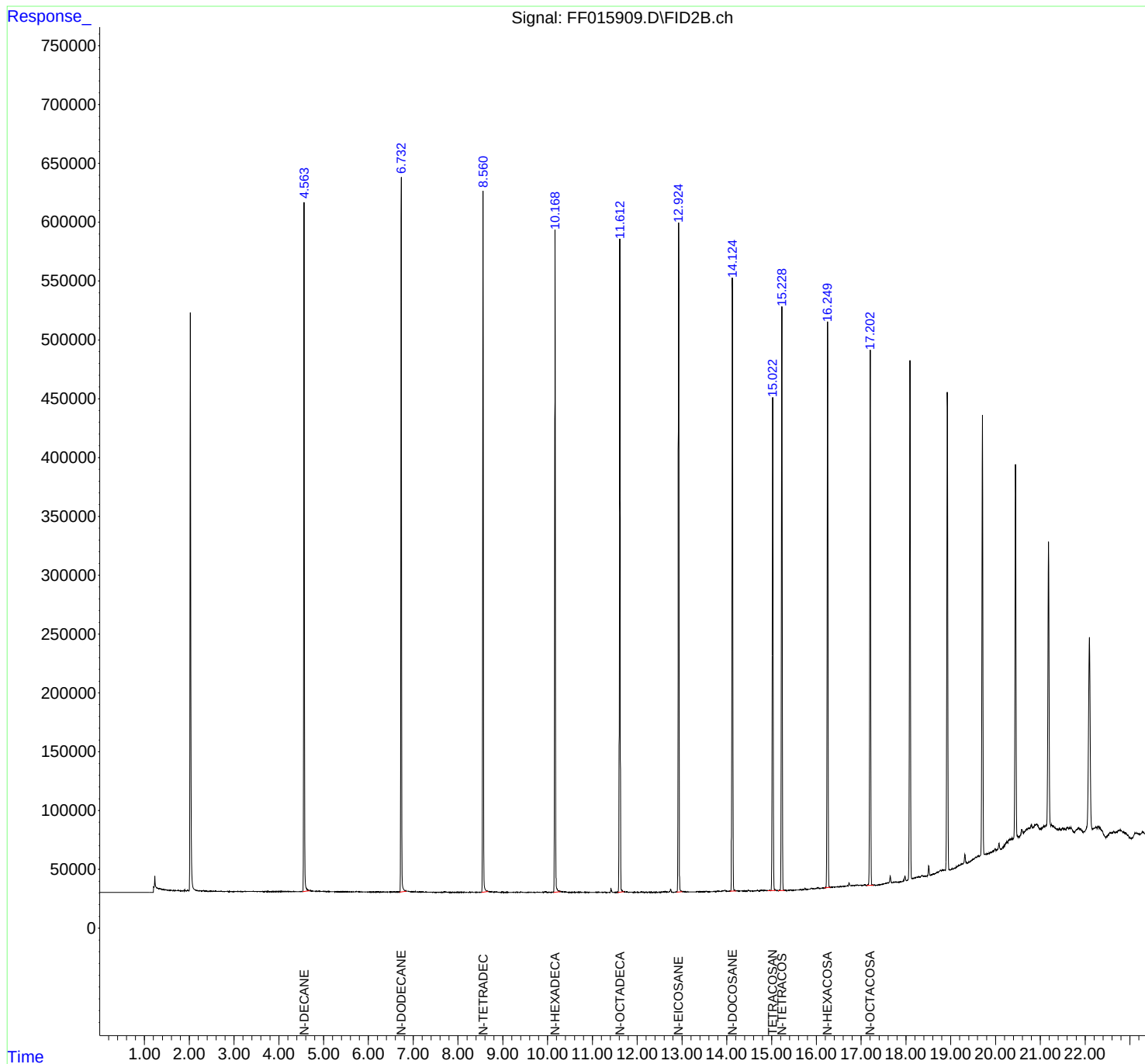
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015909.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 19:16
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jun 05 03:05:57 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015909.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 19:16
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.563	4.531	4.689	BB	585694	6194949	91.57%	8.773%
2	6.733	6.692	6.852	BB	608040	6377387	94.26%	9.031%
3	8.560	8.526	8.674	BB	595725	6446357	95.28%	9.129%
4	10.168	10.132	10.289	BB	562834	6478773	95.76%	9.175%
5	11.612	11.574	11.711	BB	555308	6647666	98.26%	9.414%
6	12.924	12.881	13.006	BB	568129	6765447	100.00%	9.581%
7	14.124	14.066	14.209	BB	521494	6579517	97.25%	9.318%
8	15.024	14.914	15.094	BB	417950	5794485	85.65%	8.206%
9	15.228	15.142	15.297	BB	495346	6556465	96.91%	9.285%
10	16.250	16.174	16.314	BB	480983	6457624	95.45%	9.145%
11	17.202	17.122	17.272	BB	456127	6314855	93.34%	8.943%
Sum of corrected areas:						70613525		

FF052125.M Thu Jun 05 03:40:25 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: CHEM Case No.: Q2176 SAS No.: Q2176 SDG No.: Q2176
DataFile: FG015910.D Analyst Name: YP\AJ Analyst Date: 06-04-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	64165362	128331	132460	3.117

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
 Data File : FG015910.D
 Signal(s) : FID1A.ch
 Acq On : 04 Jun 2025 11:46
 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: Jun 05 05:34:04 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
 Quant Title :
 QLast Update : Thu May 22 06:20:25 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...	14.982	5760753	47.003 ug/ml
Target Compounds			
2) N-DECANE	4.484	6043457	51.434 ug/ml
3) N-DODECANE	6.667	6241086	51.421 ug/ml
4) N-TETRADECANE	8.503	6426926	50.332 ug/ml
5) N-HEXADECANE	10.117	6529842	49.012 ug/ml
6) N-OCTADECANE	11.565	6685780	48.446 ug/ml
7) N-EICOSANE	12.878	6758974	47.842 ug/ml
8) N-DOCOSANE	14.080	6527424	47.519 ug/ml
10) N-TETRACOSANE	15.187	6450457	46.922 ug/ml
11) N-HEXACOSANE	16.209	6332239	46.606 ug/ml
12) N-OCTACOSANE	17.162	6169177	45.757 ug/ml

(f)=RT Delta > 1/2 Window

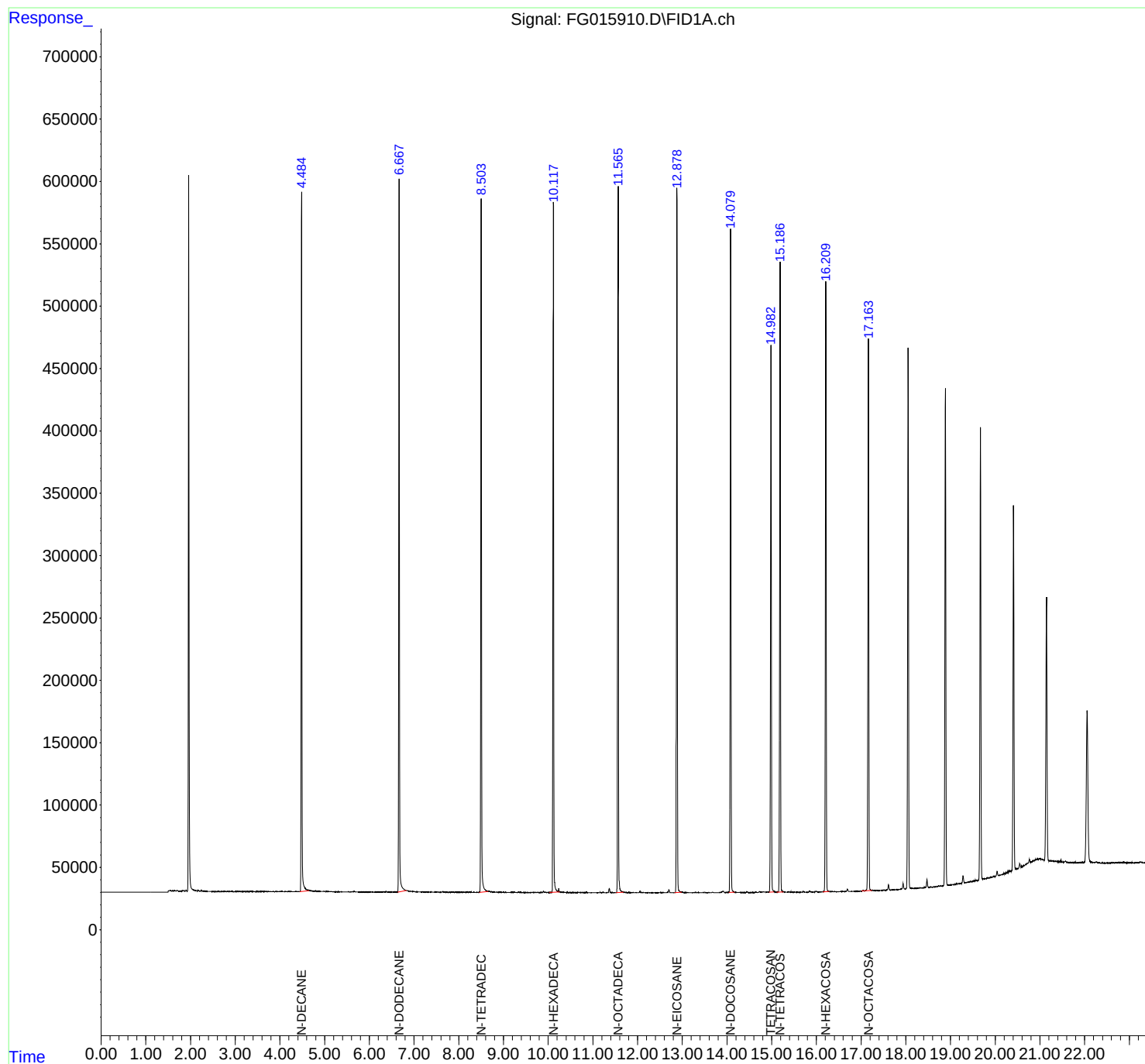
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015910.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 11:46
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: Jun 05 05:34:04 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Quant Title :
QLast Update : Thu May 22 06:20:25 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015910.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 11:46
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.484	4.441	4.652	BB	559942	6043457	89.41%	8.643%
2	6.667	6.631	6.833	BB	571770	6241086	92.34%	8.925%
3	8.503	8.456	8.661	BB	555611	6426926	95.09%	9.191%
4	10.117	10.029	10.260	BB	553551	6529842	96.61%	9.338%
5	11.565	11.518	11.681	BB	561342	6685780	98.92%	9.561%
6	12.878	12.827	12.987	BB	564224	6758974	100.00%	9.666%
7	14.080	14.042	14.171	BB	530072	6527424	96.57%	9.335%
8	14.982	14.939	15.051	BV	437552	5760753	85.23%	8.238%
9	15.187	15.117	15.263	BB	504750	6450457	95.44%	9.225%
10	16.209	16.144	16.288	BB	487260	6332239	93.69%	9.056%
11	17.162	17.009	17.245	BV	442311	6169177	91.27%	8.822%
Sum of corrected areas:						69926115		

FG052225.M Thu Jun 05 06:03:48 2025

DIESEL RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: CAMP02
ProjectID: South River WM Replacement
Lab Code: CHEM Case No.: Q2176 SAS No.: Q2176 SDG No.: Q2176
DataFile: FG015924.D Analyst Name: YP\AJ Analyst Date: 06-04-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
500	63833620	127667	132460	3.618

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
 Data File : FG015924.D
 Signal(s) : FID1A.ch
 Acq On : 04 Jun 2025 19:16
 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: Jun 05 05:37:51 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
 Quant Title :
 QLast Update : Thu May 22 06:20:25 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...	14.986	5701420	46.519 ug/ml
Target Compounds			
2) N-DECANE	4.486	6038906	51.395 ug/ml
3) N-DODECANE	6.669	6236954	51.387 ug/ml
4) N-TETRADECANE	8.506	6416437	50.250 ug/ml
5) N-HEXADECANE	10.119	6520853	48.945 ug/ml
6) N-OCTADECANE	11.568	6669094	48.325 ug/ml
7) N-EICOSANE	12.882	6726003	47.609 ug/ml
8) N-DOCOSANE	14.085	6486551	47.221 ug/ml
10) N-TETRACOSANE	15.191	6391631	46.495 ug/ml
11) N-HEXACOSANE	16.215	6255892	46.044 ug/ml
12) N-OCTACOSANE	17.168	6091299	45.179 ug/ml

(f)=RT Delta > 1/2 Window

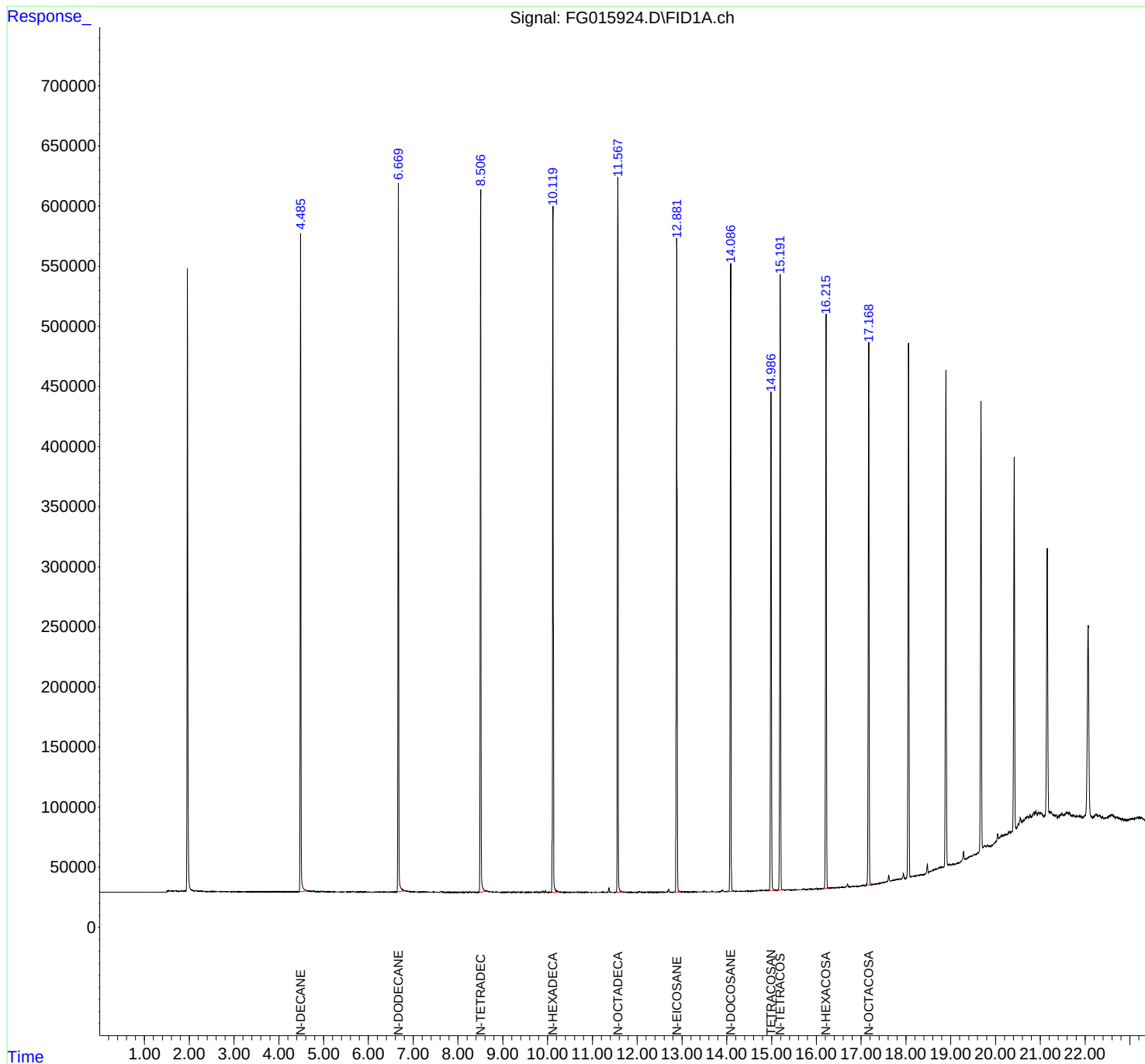
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015924.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 19:16
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: Jun 05 05:37:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Quant Title :
QLast Update : Thu May 22 06:20:25 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015924.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 19:16
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.486	4.441	4.632	BB	547690	6038906	89.78%	8.685%
2	6.669	6.625	6.807	BB	588948	6236954	92.73%	8.970%
3	8.506	8.468	8.643	BB	584911	6416437	95.40%	9.228%
4	10.119	10.080	10.245	BB	570732	6520853	96.95%	9.378%
5	11.568	11.528	11.670	BB	593537	6669094	99.15%	9.591%
6	12.882	12.844	12.971	BB	542921	6726003	100.00%	9.673%
7	14.085	14.007	14.171	BB	518893	6486551	96.44%	9.328%
8	14.986	14.937	15.095	BB	413988	5701420	84.77%	8.199%
9	15.191	15.115	15.272	BB	510236	6391631	95.03%	9.192%
10	16.215	16.141	16.280	BB	477765	6255892	93.01%	8.997%
11	17.168	17.096	17.226	BB	452119	6091299	90.56%	8.760%
Sum of corrected areas:						69535038		

FG052225.M Thu Jun 05 06:06:14 2025

Analytical Sequence

Client: CDM Smith

SDG No.: Q2176

Project: South River WM Replacement

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 15.0206					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	04 Jun 2025 11:16	FF015894.D	15.034	
50 PPM TRPH STD	50 PPM TRPH STD	04 Jun 2025 11:46	FF015895.D	15.019	
TP-54MS	Q2150-09MS	04 Jun 2025 13:17	FF015898.D	15.018	
TP-54MSD	Q2150-09MSD	04 Jun 2025 13:47	FF015899.D	15.018	
TP-46	Q2176-01	04 Jun 2025 14:16	FF015900.D	15.018	
TP-56	Q2176-02	04 Jun 2025 14:46	FF015901.D	15.017	
TP-25	Q2176-03	04 Jun 2025 15:15	FF015902.D	15.016	
TP-26	Q2176-04	04 Jun 2025 15:45	FF015903.D	15.018	
TP-28	Q2176-05	04 Jun 2025 16:48	FF015904.D	15.020	
TP-27	Q2176-06	04 Jun 2025 17:18	FF015905.D	15.018	
TP-31	Q2176-07	04 Jun 2025 17:47	FF015906.D	15.021	
TP-65	Q2176-08	04 Jun 2025 18:17	FF015907.D	15.020	
PIBLK02	LBLK02	04 Jun 2025 18:46	FF015908.D	15.023	
50 PPM TRPH STD	50 PPM TRPH STD	04 Jun 2025 19:16	FF015909.D	15.024	
PIBLK03	LBLK03	04 Jun 2025 11:16	FG015909.D	14.981	
50 PPM TRPH STD	50 PPM TRPH STD	04 Jun 2025 11:46	FG015910.D	14.982	
PB168274BL	PB168274BL	04 Jun 2025 12:48	FG015912.D	14.981	
PB168274BS	PB168274BS	04 Jun 2025 13:17	FG015913.D	14.979	
PIBLK04	LBLK04	04 Jun 2025 18:46	FG015923.D	14.983	
50 PPM TRPH STD	50 PPM TRPH STD	04 Jun 2025 19:16	FG015924.D	14.986	



QC SAMPLE DATA

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168274BL	SDG No.:	Q2176
Lab Sample ID:	PB168274BL	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100
Sample Wt/Vol:	30.01	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015912.D	1	06/04/25 08:30	06/04/25 12:48	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	169	U	169	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	15.7		37 - 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\FG060425\
Data File : FG015912.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 12:48
Operator : YP\AJ
Sample : PB168274BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB168274BL

Integration File: autoint1.e
Quant Time: Jun 05 05:34:45 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Quant Title :
QLast Update : Thu May 22 06:20:25 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...	14.981	1923041	15.690 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

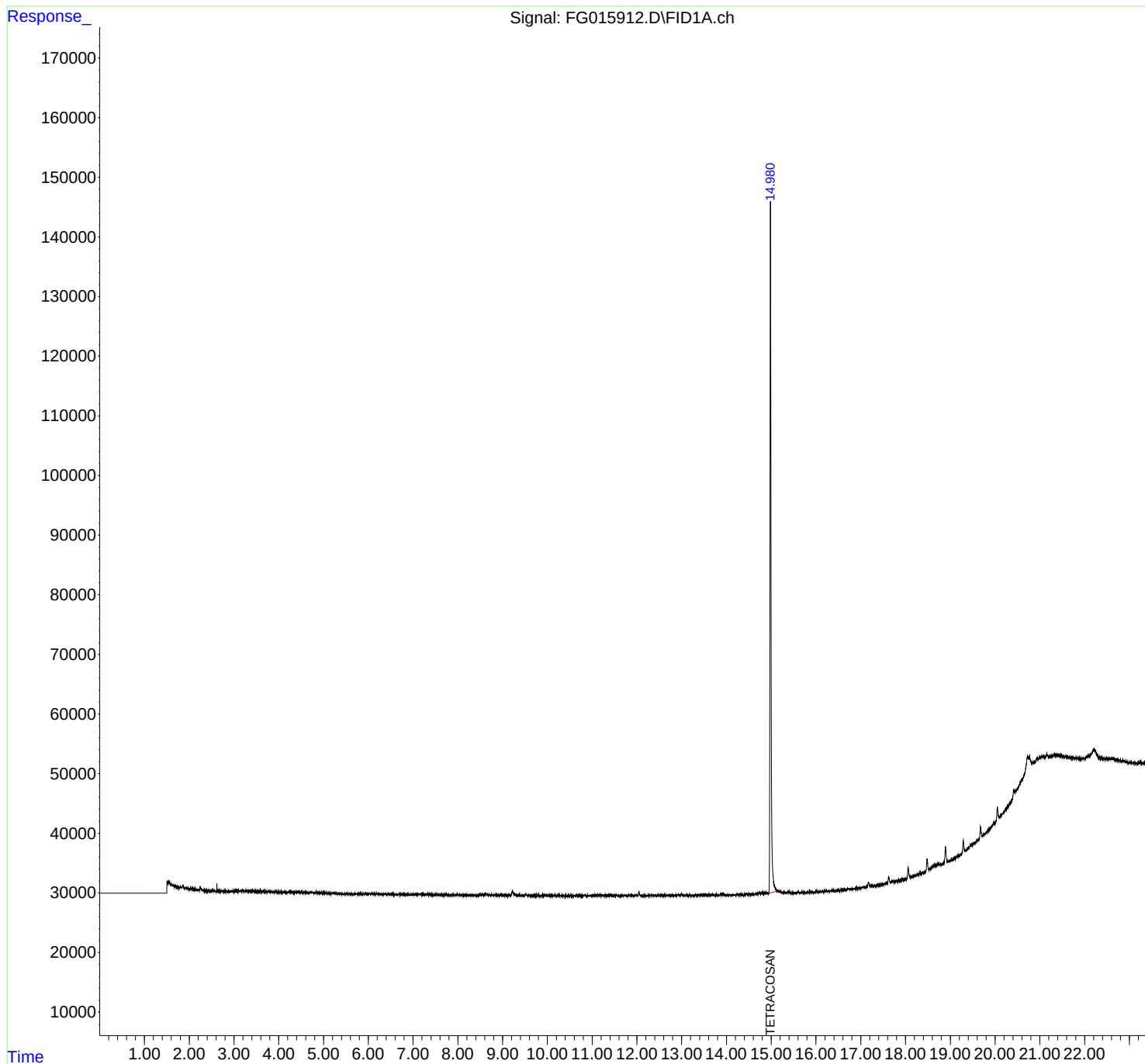
(m)=manual int.

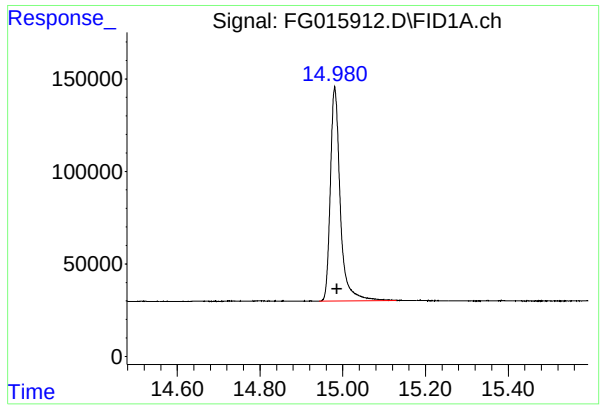
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015912.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 12:48
Operator : YP\AJ
Sample : PB168274BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB168274BL

Integration File: autoint1.e
Quant Time: Jun 05 05:34:45 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Quant Title :
QLast Update : Thu May 22 06:20:25 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.: 14.981 min
Delta R.T.: -0.006 min
Response: 1923041
Conc: 15.69 ug/ml

Instrument :
FID_G
ClientSampleId :
PB168274BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015912.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 12:48
Sample : PB168274BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	14.981	14.943	15.129	BB	115708	1923041	100.00%	100.000%
Sum of corrected areas:						1923041		

FG052225.M Thu Jun 05 06:04:25 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/04/25
Project:	South River WM Replacement	Date Received:	06/04/25
Client Sample ID:	PIBLK-FF015894.D	SDG No.:	Q2176
Lab Sample ID:	I.BLK-FF015894.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015894.D	1		06/04/25	FF060425

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	12.0		29 - 130	60%	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_F\Data\FF060425\
Data File : FF015894.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 11:16
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jun 05 03:01:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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...	15.034	1465898	12.002 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

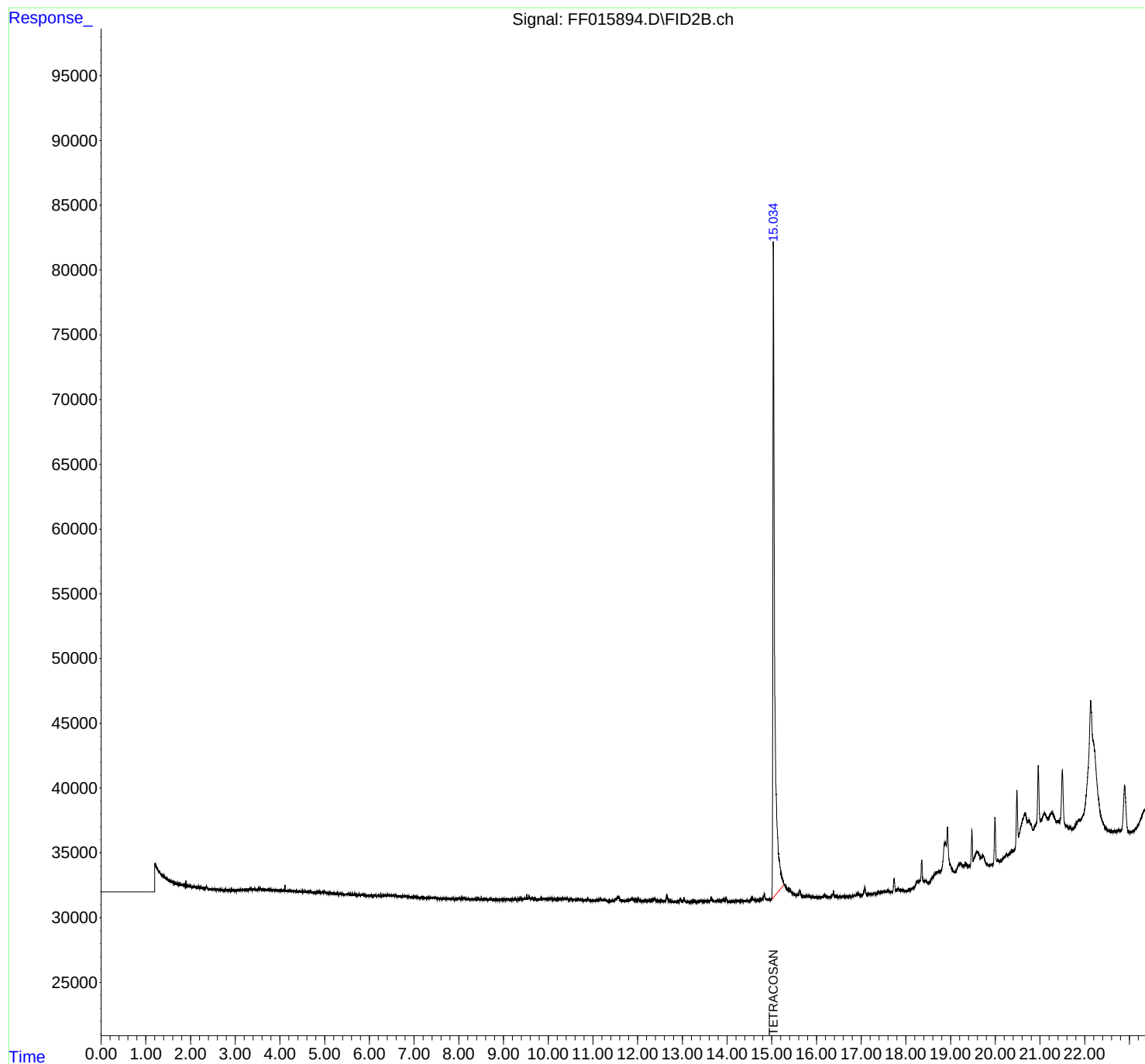
(m)=manual int.

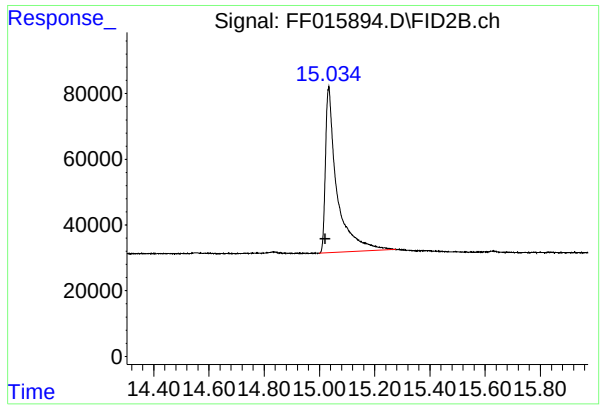
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015894.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 11:16
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jun 05 03:01:43 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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.: 15.034 min
Delta R.T.: 0.013 min
Response: 1465898
Conc: 12.00 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015894.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 11:16
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.034	14.999	15.277	BB	50311	1465898	100.00%	100.000%
Sum of corrected areas:						1465898		

FF052125.M Thu Jun 05 03:37:49 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/04/25
Project:	South River WM Replacement	Date Received:	06/04/25
Client Sample ID:	PIBLK-FF015908.D	SDG No.:	Q2176
Lab Sample ID:	I.BLK-FF015908.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015908.D	1		06/04/25	FF060425

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	14.7		29 - 130	73%	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_F\Data\FF060425\
Data File : FF015908.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 18:46
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jun 05 03:05:40 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 2025
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
9) S TETRACOSANE-d50 (SURR...	15.023	1794364	14.692 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

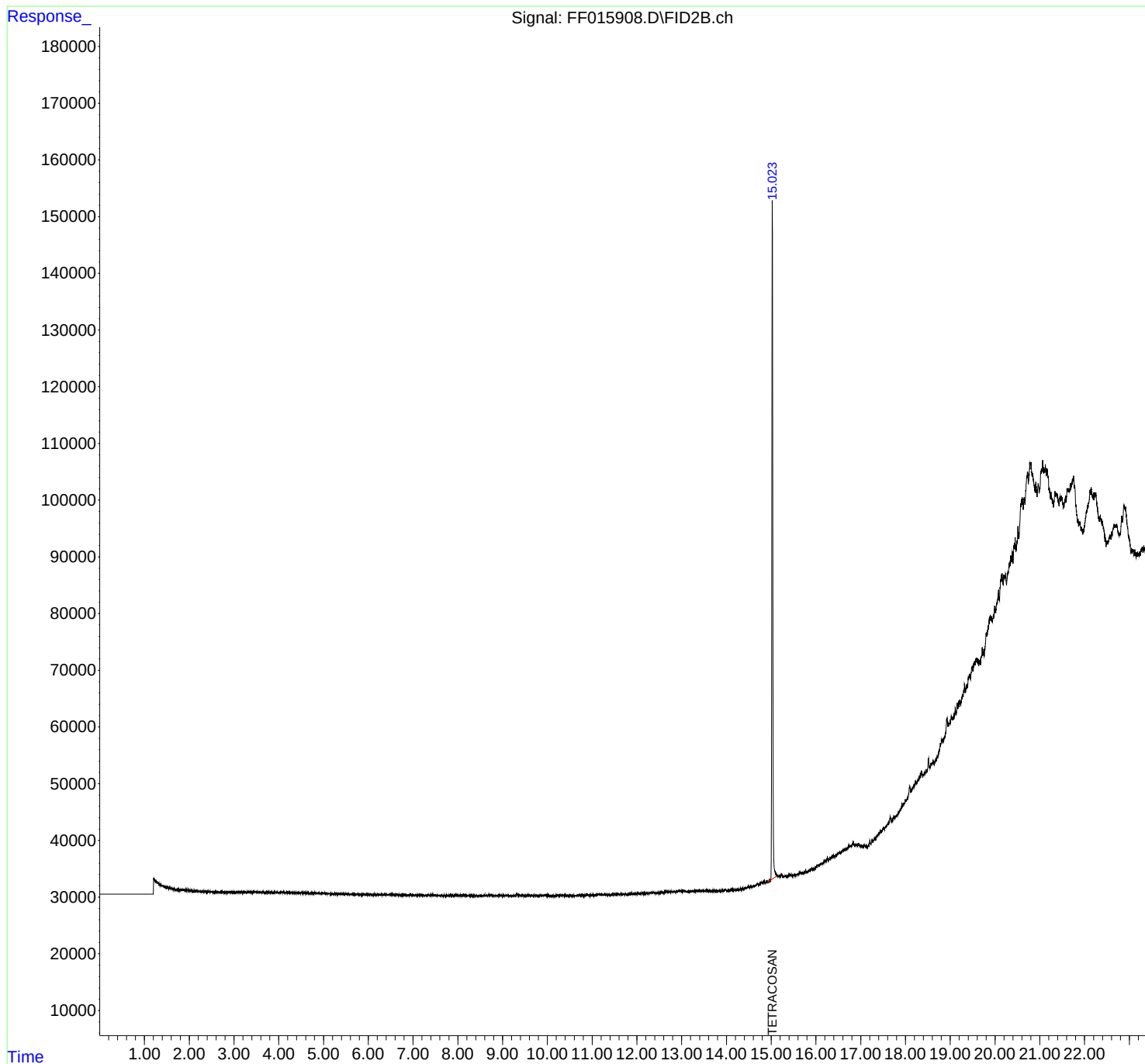
(m)=manual int.

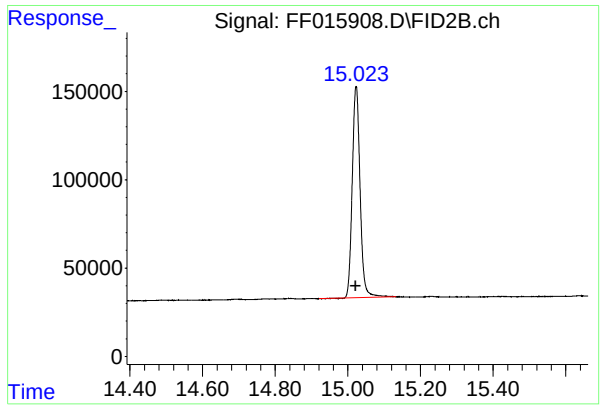
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015908.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 18:46
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jun 05 03:05:40 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 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.: 15.023 min
Delta R.T.: 0.002 min
Response: 1794364
Conc: 14.69 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015908.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 18:46
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.023	14.921	15.132	BB	119684	1794364	100.00%	100.000%
Sum of corrected areas:						1794364		

FF052125.M Thu Jun 05 03:39:45 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/04/25
Project:	South River WM Replacement	Date Received:	06/04/25
Client Sample ID:	PIBLK-FG015909.D	SDG No.:	Q2176
Lab Sample ID:	I.BLK-FG015909.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015909.D	1		06/04/25	FG060425

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	14.3		29 - 130	71%	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\FG060425\
Data File : FG015909.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 11:16
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: Jun 05 05:33:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Quant Title :
QLast Update : Thu May 22 06:20:25 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...	14.981	1746163	14.247 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

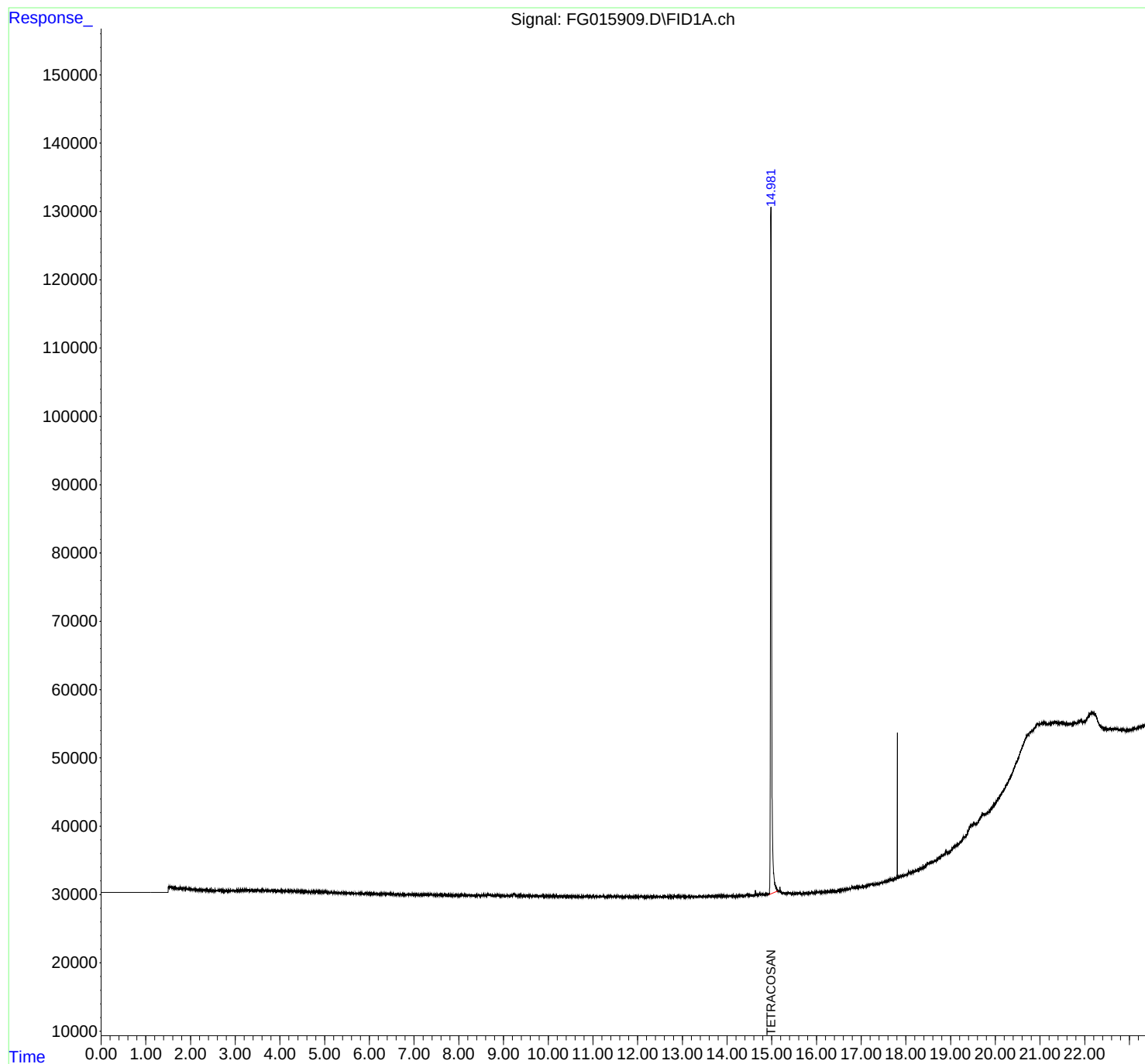
(m)=manual int.

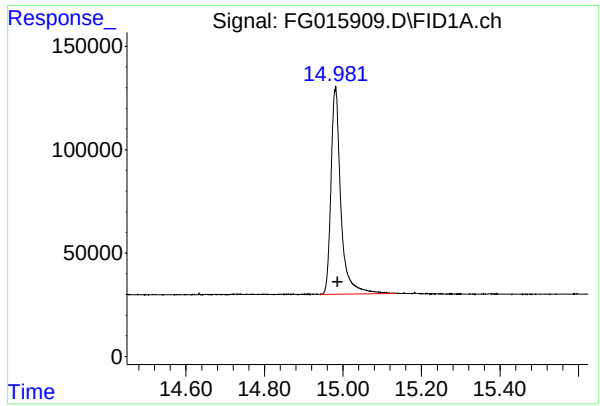
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015909.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 11:16
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jun 05 05:33:51 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Quant Title :
QLast Update : Thu May 22 06:20:25 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.: 14.981 min
Delta R.T.: -0.005 min
Response: 1746163
Conc: 14.25 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015909.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 11:16
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	14.981	14.939	15.135	BB	99311	1746163	100.00%	100.000%
Sum of corrected areas:						1746163		

FG052225.M Thu Jun 05 06:02:16 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	06/04/25
Project:	South River WM Replacement	Date Received:	06/04/25
Client Sample ID:	PIBLK-FG015923.D	SDG No.:	Q2176
Lab Sample ID:	I.BLK-FG015923.D	Matrix:	Water
Analytical Method:	8015D DRO	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	Diesel Range Organics
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015923.D	1		06/04/25	FG060425

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	15.6		29 - 130	78%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015923.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 18:46
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: Jun 05 05:37:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Quant Title :
QLast Update : Thu May 22 06:20:25 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...	14.983	1912801	15.607 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

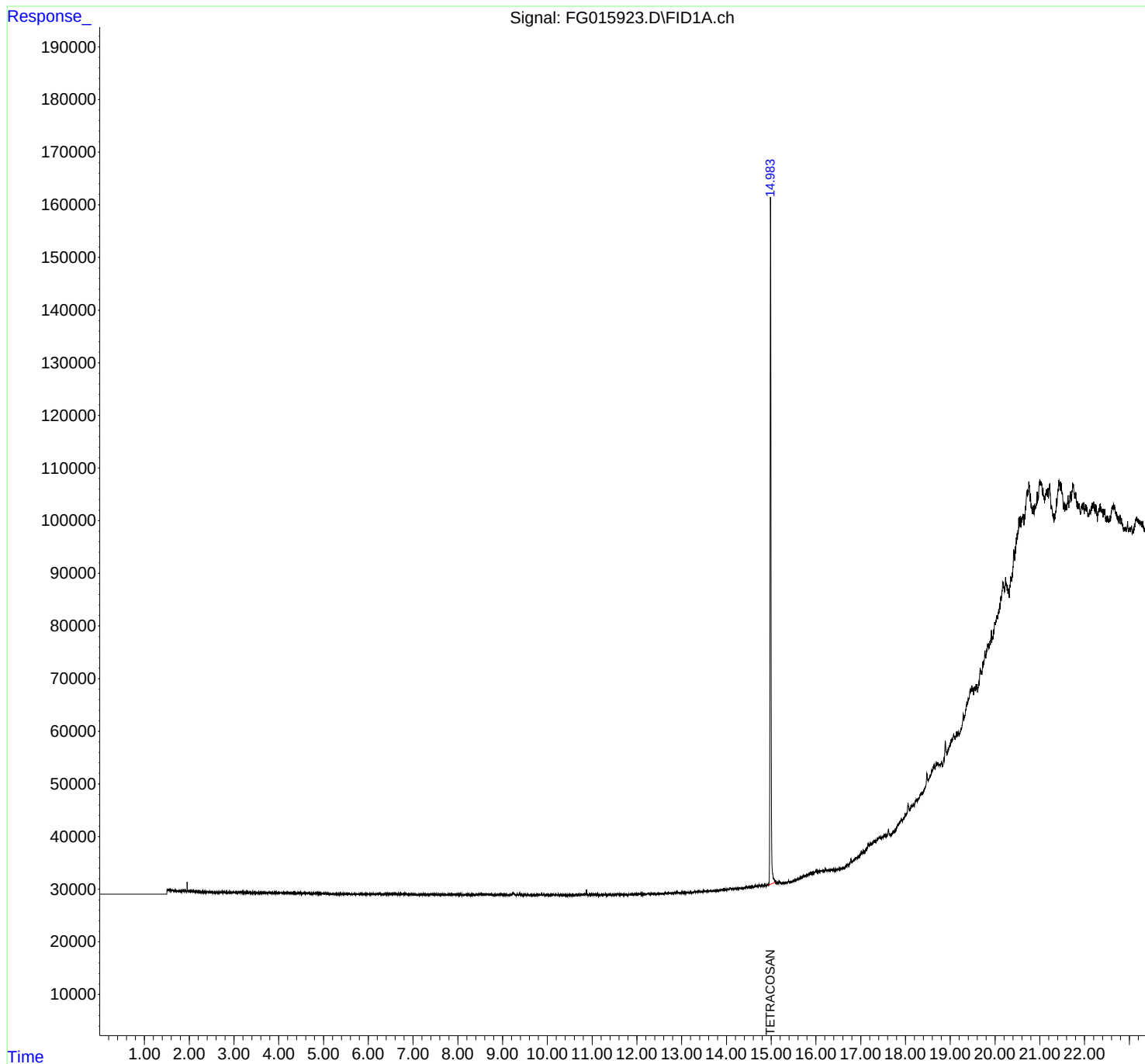
(m)=manual int.

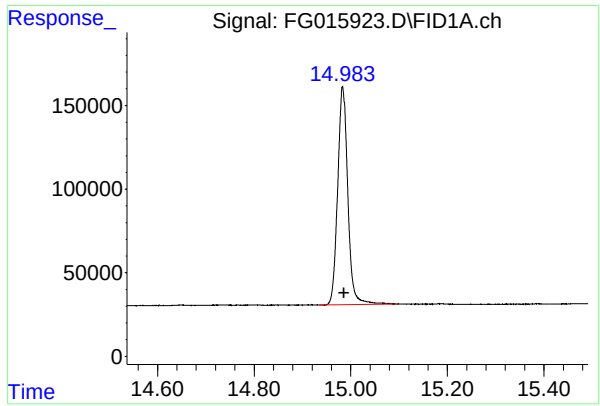
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015923.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 18:46
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jun 05 05:37:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Quant Title :
QLast Update : Thu May 22 06:20:25 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.: 14.983 min
Delta R.T.: -0.003 min
Response: 1912801
Conc: 15.61 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015923.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 18:46
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	14.983	14.935	15.094	BB	130229	1912801	100.00%	100.000%
Sum of corrected areas:						1912801		

FG052225.M Thu Jun 05 06:05:39 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	
Project:	South River WM Replacement	Date Received:	
Client Sample ID:	PB168274BS	SDG No.:	Q2176
Lab Sample ID:	PB168274BS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	100
Sample Wt/Vol:	30.02	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG015913.D	1	06/04/25 08:30	06/04/25 13:17	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	5870		169	1670	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	16.3		37 - 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\FG060425\
 Data File : FG015913.D
 Signal(s) : FID1A.ch
 Acq On : 04 Jun 2025 13:17
 Operator : YP\AJ
 Sample : PB168274BS
 Misc :
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 PB168274BS

Integration File: autoint1.e
 Quant Time: Jun 05 05:35:00 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
 Quant Title :
 QLast Update : Thu May 22 06:20:25 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...	14.979	1999645	16.315 ug/ml
Target Compounds			
2) N-DECANE	4.483	2058281	17.517 ug/ml
3) N-DODECANE	6.666	2205259	18.169 ug/ml
4) N-TETRADECANE	8.502	2229797	17.463 ug/ml
5) N-HEXADECANE	10.114	2341670	17.576 ug/ml
6) N-OCTADECANE	11.562	2475247	17.936 ug/ml
7) N-EICOSANE	12.875	2462652	17.431 ug/ml
8) N-DOCOSANE	14.077	2451579	17.847 ug/ml
10) N-TETRACOSANE	15.183	2442294	17.766 ug/ml
11) N-HEXACOSANE	16.207	2373228	17.467 ug/ml
12) N-OCTACOSANE	17.159	2306831	17.110 ug/ml

(f)=RT Delta > 1/2 Window

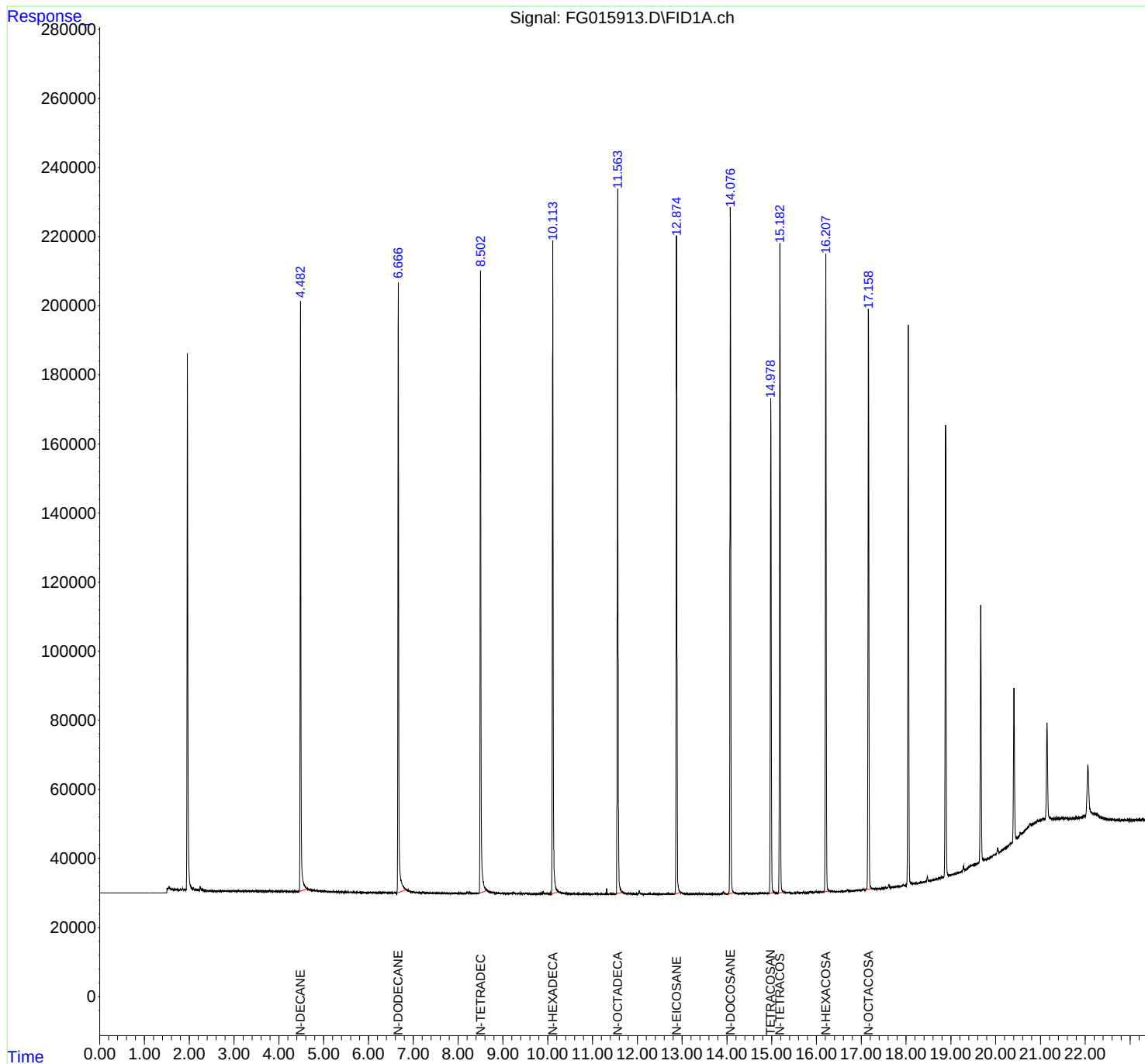
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015913.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 13:17
Operator : YP\AJ
Sample : PB168274BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB168274BS

Integration File: autoint1.e
Quant Time: Jun 05 05:35:00 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Quant Title :
QLast Update : Thu May 22 06:20:25 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG060425\
Data File : FG015913.D
Signal(s) : FID1A.ch
Acq On : 04 Jun 2025 13:17
Sample : PB168274BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG052225.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.483	4.438	4.633	BB	170242	2058281	83.15%	8.121%
2	6.666	6.632	6.835	BB	176631	2205259	89.09%	8.700%
3	8.502	8.458	8.645	BB	179981	2229797	90.08%	8.797%
4	10.114	10.072	10.243	BB	188107	2341670	94.60%	9.239%
5	11.562	11.515	11.676	BB	203620	2475247	100.00%	9.766%
6	12.875	12.829	12.974	BB	190008	2462652	99.49%	9.716%
7	14.077	14.026	14.168	BB	198348	2451579	99.04%	9.672%
8	14.979	14.938	15.062	BB	141209	1999645	80.79%	7.889%
9	15.183	15.143	15.266	BB	187778	2442294	98.67%	9.636%
10	16.207	16.153	16.281	BB	181544	2373228	95.88%	9.363%
11	17.159	17.090	17.227	BB	167873	2306831	93.20%	9.101%
Sum of corrected areas:						25346483		

FG052225.M Thu Jun 05 06:04:52 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/28/25
Project:	South River WM Replacement	Date Received:	05/28/25
Client Sample ID:	TP-54MS	SDG No.:	Q2176
Lab Sample ID:	Q2150-09MS	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	83.6
Sample Wt/Vol:	30.08	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015898.D	1	06/04/25 08:30	06/04/25 13:17	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	12200		202	1990	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	10.9		37 - 130	55%	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_F\Data\FF060425\
 Data File : FF015898.D
 Signal(s) : FID2B.ch
 Acq On : 04 Jun 2025 13:17
 Operator : YP\AJ
 Sample : Q2150-09MS
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 TP-54MS

Integration File: autoint1.e
 Quant Time: Jun 05 03:02:46 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
 Quant Title :
 QLast Update : Wed May 21 12:32:51 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...	15.018	1337224	10.949 ug/ml
Target Compounds			
2) N-DECANE	4.566	2737827	23.097 ug/ml
3) N-DODECANE	6.734	3059588	24.317 ug/ml
4) N-TETRADECANE	8.561	3103444	24.734 ug/ml
5) N-HEXADECANE	10.167	3829099	29.195 ug/ml
6) N-OCTADECANE	11.609	3435961	25.005 ug/ml
7) N-EICOSANE	12.919	3419098	24.029 ug/ml
8) N-DOCOSANE	14.118	3437804	24.747 ug/ml
10) N-TETRACOSANE	15.221	3442508	24.698 ug/ml
11) N-HEXACOSANE	16.243	3397310	24.495 ug/ml
12) N-OCTACOSANE	17.193	3329989	24.223 ug/ml

(f)=RT Delta > 1/2 Window

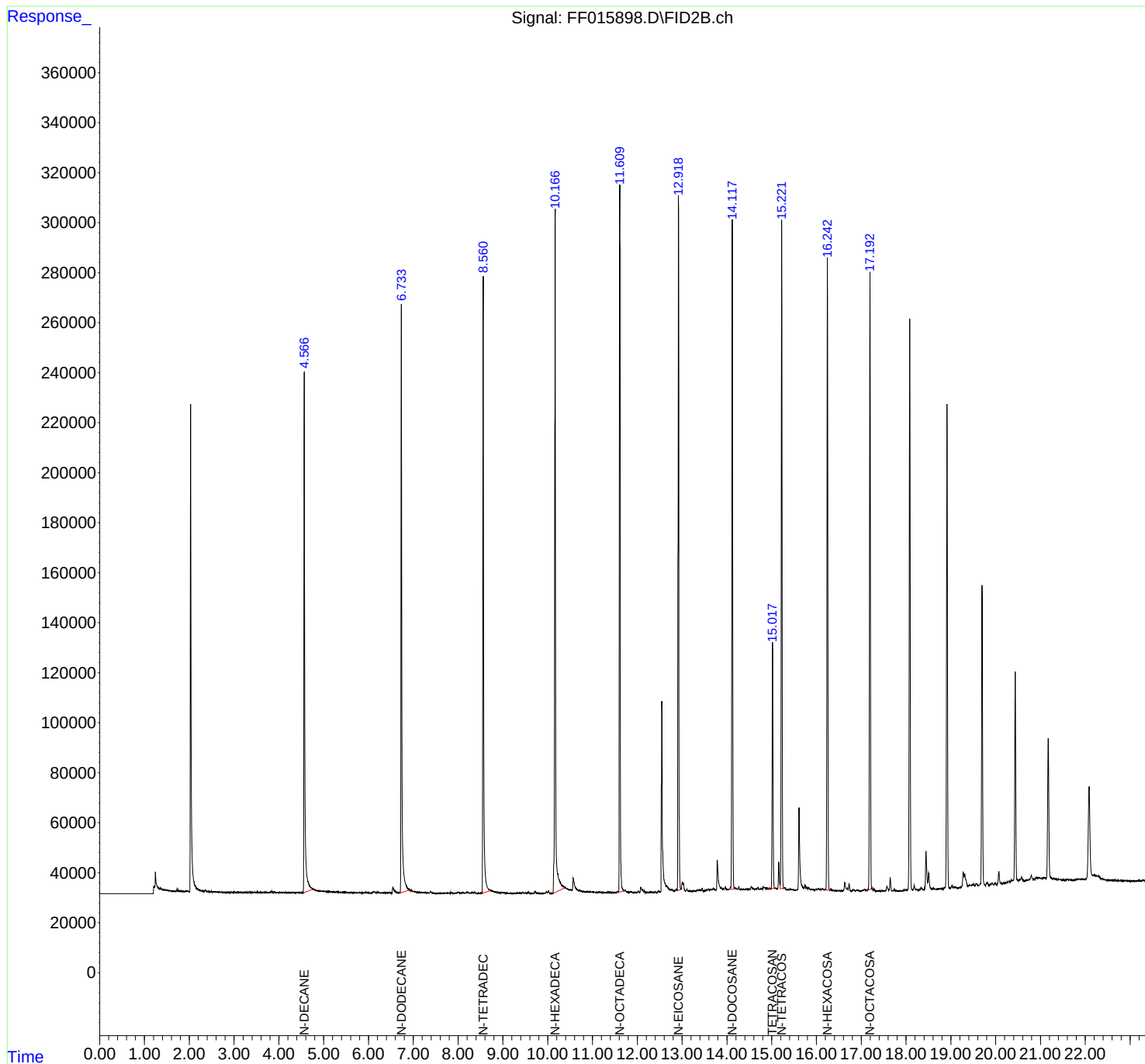
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015898.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 13:17
Operator : YP\AJ
Sample : Q2150-09MS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-54MS

Integration File: autoint1.e
Quant Time: Jun 05 03:02:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
 Data File : FF015898.D
 Signal(s) : FID2B.ch
 Acq On : 04 Jun 2025 13:17
 Sample : Q2150-09MS
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.566	4.506	4.795	BV	208236	2854611	69.02%	6.774%
2	4.799	4.795	4.825	VV	1180	19080	0.46%	0.045%
3	4.828	4.825	4.834	VV	999	5162	0.12%	0.012%
4	4.839	4.834	4.886	VV	948	26127	0.63%	0.062%
5	4.890	4.886	4.916	VV	780	12842	0.31%	0.030%
6	4.924	4.916	4.942	VV	742	10333	0.25%	0.025%
7	4.951	4.942	4.967	VV	687	9489	0.23%	0.023%
8	4.970	4.967	4.985	VV	681	6664	0.16%	0.016%
9	5.005	4.985	5.014	VV	646	10159	0.25%	0.024%
10	5.019	5.014	5.026	VV	598	4161	0.10%	0.010%
11	5.038	5.026	5.049	VV	587	7740	0.19%	0.018%
12	5.053	5.049	5.063	VV	565	4545	0.11%	0.011%
13	5.067	5.063	5.087	VV	601	7259	0.18%	0.017%
14	5.091	5.087	5.095	VV	538	2438	0.06%	0.006%
15	5.100	5.095	5.127	VV	548	9302	0.22%	0.022%
16	5.139	5.127	5.143	VV	503	4722	0.11%	0.011%
17	5.147	5.143	5.158	VV	482	4127	0.10%	0.010%
18	5.172	5.158	5.199	VV	471	10232	0.25%	0.024%
19	5.203	5.199	5.209	VV	436	2304	0.06%	0.005%
20	5.212	5.209	5.226	VV	472	3867	0.09%	0.009%
21	5.228	5.226	5.262	VV	404	7801	0.19%	0.019%
22	5.268	5.262	5.291	VV	396	5740	0.14%	0.014%
23	5.296	5.291	5.308	VV	417	3506	0.08%	0.008%
24	5.312	5.308	5.319	VV	360	1964	0.05%	0.005%
25	5.330	5.319	5.345	VV	370	4661	0.11%	0.011%
26	5.349	5.345	5.364	VV	328	3119	0.08%	0.007%
27	5.366	5.364	5.372	VV	277	1132	0.03%	0.003%
28	5.385	5.372	5.393	VV	272	3271	0.08%	0.008%
29	5.398	5.393	5.404	VV	298	1687	0.04%	0.004%
30	5.410	5.404	5.421	VV	266	2425	0.06%	0.006%
31	5.426	5.421	5.438	VV	302	2380	0.06%	0.006%
32	5.447	5.438	5.457	VV	547	2844	0.07%	0.007%
33	5.461	5.457	5.487	VV	251	4176	0.10%	0.010%
34	5.491	5.487	5.519	VV	248	4105	0.10%	0.010%
35	5.525	5.519	5.533	VV	222	1629	0.04%	0.004%
36	5.557	5.533	5.582	VV	241	5155	0.12%	0.012%

					rteres			
37	5.587	5.582	5.594	VV	169	960	0.02%	0.002%
38	5.598	5.594	5.611	VV	184	1406	0.03%	0.003%
39	5.615	5.611	5.625	VV	168	1049	0.03%	0.002%
40	5.638	5.625	5.642	VV	233	1459	0.04%	0.003%
41	5.646	5.642	5.664	VV	147	1855	0.04%	0.004%
42	5.676	5.664	5.718	VV	225	4552	0.11%	0.011%
43	5.732	5.718	5.765	VV	167	2646	0.06%	0.006%
44	5.775	5.765	5.785	VV	165	1292	0.03%	0.003%
45	5.790	5.785	5.805	VV	134	1480	0.04%	0.004%
46	5.807	5.805	5.813	VV	185	505	0.01%	0.001%
47	5.817	5.813	5.821	VV	115	466	0.01%	0.001%
48	5.826	5.821	5.864	VV	144	1959	0.05%	0.005%
49	5.890	5.864	5.894	VV	198	1876	0.05%	0.004%
50	5.897	5.894	5.917	VV	162	1677	0.04%	0.004%
51	5.942	5.917	5.987	VV	379	8936	0.22%	0.021%
52	5.996	5.987	6.015	VV	172	2018	0.05%	0.005%
53	6.021	6.015	6.025	VV	161	626	0.02%	0.001%
54	6.039	6.025	6.052	VV	168	1490	0.04%	0.004%
55	6.056	6.052	6.060	VV	109	304	0.01%	0.001%
56	6.109	6.060	6.162	VV	564	19123	0.46%	0.045%
57	6.166	6.162	6.176	VV	293	2145	0.05%	0.005%
58	6.196	6.176	6.244	VV	424	11123	0.27%	0.026%
59	6.257	6.244	6.272	VV	216	2409	0.06%	0.006%
60	6.280	6.272	6.303	VV	172	2274	0.05%	0.005%
61	6.310	6.303	6.315	VV	170	922	0.02%	0.002%
62	6.339	6.315	6.351	VV	242	3583	0.09%	0.009%
63	6.357	6.351	6.365	VV	172	1249	0.03%	0.003%
64	6.374	6.365	6.378	VV	156	1115	0.03%	0.003%
65	6.443	6.378	6.501	VV	383	12960	0.31%	0.031%
66	6.508	6.501	6.524	VV	155	1408	0.03%	0.003%
67	6.545	6.524	6.615	VV	2241	63716	1.54%	0.151%
68	6.617	6.615	6.659	VV	547	8449	0.20%	0.020%
69	6.663	6.659	6.679	VV	236	2045	0.05%	0.005%
70	6.683	6.679	6.697	VV	179	1428	0.03%	0.003%
71	6.702	6.697	6.708	VV	164	900	0.02%	0.002%
72	6.734	6.708	6.954	VV	234948	3174033	76.74%	7.531%
73	6.961	6.954	6.975	VV	1147	12644	0.31%	0.030%
74	6.979	6.975	7.020	VV	952	20913	0.51%	0.050%
75	7.026	7.020	7.107	VV	734	26723	0.65%	0.063%
76	7.112	7.107	7.194	VV	432	18895	0.46%	0.045%
77	7.197	7.194	7.209	VV	355	2991	0.07%	0.007%
78	7.212	7.209	7.221	VV	325	2279	0.06%	0.005%
79	7.228	7.221	7.236	VV	352	2849	0.07%	0.007%
80	7.244	7.236	7.280	VV	358	7527	0.18%	0.018%
81	7.284	7.280	7.306	VV	302	3840	0.09%	0.009%
82	7.310	7.306	7.328	VV	244	2707	0.07%	0.006%
83	7.337	7.328	7.357	VV	258	3708	0.09%	0.009%
84	7.362	7.357	7.367	VV	223	1199	0.03%	0.003%
85	7.384	7.367	7.418	VV	849	14668	0.35%	0.035%
86	7.422	7.418	7.450	VV	263	3290	0.08%	0.008%
87	7.456	7.450	7.467	VV	119	944	0.02%	0.002%
88	7.474	7.467	7.495	VV	123	1407	0.03%	0.003%
89	7.500	7.495	7.543	PV	93	1228	0.03%	0.003%

					rteres			
90	7.559	7.543	7.565	PV	150	738	0.02%	0.002%
91	7.598	7.565	7.635	VV	200	4124	0.10%	0.010%
92	7.637	7.635	7.641	VV	129	321	0.01%	0.001%
93	7.647	7.641	7.660	VV	156	1128	0.03%	0.003%
94	7.667	7.660	7.674	VV	94	612	0.01%	0.001%
95	7.679	7.674	7.700	VV	97	848	0.02%	0.002%
96	7.718	7.700	7.737	VV	189	2644	0.06%	0.006%
97	7.743	7.737	7.748	VV	158	851	0.02%	0.002%
98	7.772	7.748	7.777	VV	221	2809	0.07%	0.007%
99	7.815	7.777	7.832	VV	248	6200	0.15%	0.015%
100	7.837	7.832	7.842	VV	286	1415	0.03%	0.003%
101	7.847	7.842	7.852	VV	234	1227	0.03%	0.003%
102	7.859	7.852	7.876	VV	239	2856	0.07%	0.007%
103	7.891	7.876	7.899	VV	208	2057	0.05%	0.005%
104	7.903	7.899	7.926	VV	171	2126	0.05%	0.005%
105	7.997	7.926	8.072	VV	691	27607	0.67%	0.066%
106	8.102	8.072	8.138	VV	481	13200	0.32%	0.031%
107	8.142	8.138	8.149	VV	256	1500	0.04%	0.004%
108	8.159	8.149	8.169	VV	293	3030	0.07%	0.007%
109	8.193	8.169	8.234	VV	564	16244	0.39%	0.039%
110	8.239	8.234	8.268	VV	316	5178	0.13%	0.012%
111	8.272	8.268	8.276	VV	261	917	0.02%	0.002%
112	8.279	8.276	8.284	VV	282	1141	0.03%	0.003%
113	8.307	8.284	8.343	VV	497	12083	0.29%	0.029%
114	8.358	8.343	8.402	VV	552	11822	0.29%	0.028%
115	8.410	8.402	8.427	VV	182	1416	0.03%	0.003%
116	8.450	8.427	8.482	PV	226	4785	0.12%	0.011%
117	8.515	8.482	8.529	VV	233	4427	0.11%	0.011%
118	8.561	8.529	8.692	VV	246431	3156909	76.33%	7.491%
119	8.697	8.692	8.722	VV	1569	25184	0.61%	0.060%
120	8.730	8.722	8.753	VV	1285	22095	0.53%	0.052%
121	8.756	8.753	8.842	VV	1148	45239	1.09%	0.107%
122	8.845	8.842	8.865	VV	578	6945	0.17%	0.016%
123	8.883	8.865	8.949	VV	665	22947	0.55%	0.054%
124	8.966	8.949	8.983	VV	525	8859	0.21%	0.021%
125	8.986	8.983	8.995	VV	412	2876	0.07%	0.007%
126	9.012	8.995	9.064	VV	579	14759	0.36%	0.035%
127	9.072	9.064	9.101	VV	308	5374	0.13%	0.013%
128	9.105	9.101	9.115	VV	211	1483	0.04%	0.004%
129	9.121	9.115	9.125	VV	213	1117	0.03%	0.003%
130	9.129	9.125	9.144	VV	225	2092	0.05%	0.005%
131	9.148	9.144	9.162	VV	201	2006	0.05%	0.005%
132	9.163	9.162	9.168	VV	222	542	0.01%	0.001%
133	9.183	9.168	9.198	VV	191	2599	0.06%	0.006%
134	9.240	9.198	9.269	VV	204	5707	0.14%	0.014%
135	9.278	9.269	9.284	VV	183	1295	0.03%	0.003%
136	9.289	9.284	9.294	VV	217	845	0.02%	0.002%
137	9.298	9.294	9.310	VV	163	1212	0.03%	0.003%
138	9.319	9.310	9.360	VV	328	7209	0.17%	0.017%
139	9.364	9.360	9.367	VV	272	960	0.02%	0.002%
140	9.379	9.367	9.397	VV	284	4421	0.11%	0.010%
141	9.403	9.397	9.416	VV	297	2862	0.07%	0.007%

					rteres			
142	9.457	9.416	9.469	VV	363	10024	0.24%	0.024%
143	9.472	9.469	9.484	VV	331	2631	0.06%	0.006%
144	9.511	9.484	9.543	VV	356	8714	0.21%	0.021%
145	9.570	9.543	9.648	VV	728	15633	0.38%	0.037%
146	9.717	9.648	9.759	VV	841	21040	0.51%	0.050%
147	9.763	9.759	9.791	VV	303	2895	0.07%	0.007%
148	9.801	9.791	9.833	VV	147	2270	0.05%	0.005%
149	9.848	9.833	9.856	PV	107	923	0.02%	0.002%
150	9.862	9.856	9.872	VV	109	524	0.01%	0.001%
151	9.874	9.872	9.896	VV	72	377	0.01%	0.001%
152	9.901	9.896	9.913	PV	23	338	0.01%	0.001%
153	9.931	9.913	9.945	VV	207	2967	0.07%	0.007%
154	9.972	9.945	9.997	VV	887	15426	0.37%	0.037%
155	10.016	9.997	10.064	VV	1148	18515	0.45%	0.044%
156	10.069	10.064	10.072	VV	94	405	0.01%	0.001%
157	10.084	10.072	10.099	VV	185	1889	0.05%	0.004%
158	10.114	10.099	10.121	VV	218	2161	0.05%	0.005%
159	10.167	10.121	10.487	VV	273457	4135930	100.00%	9.814%
160	10.492	10.487	10.506	VV	1491	16180	0.39%	0.038%
161	10.513	10.506	10.516	VV	1443	9055	0.22%	0.021%
162	10.521	10.516	10.547	VV	1558	25027	0.61%	0.059%
163	10.572	10.547	10.687	VV	6203	231327	5.59%	0.549%
164	10.709	10.687	10.742	VV	1252	36537	0.88%	0.087%
165	10.745	10.742	10.785	VV	920	20996	0.51%	0.050%
166	10.789	10.785	10.797	VV	772	5116	0.12%	0.012%
167	10.805	10.797	10.845	VV	733	17640	0.43%	0.042%
168	10.847	10.845	10.859	VV	504	4031	0.10%	0.010%
169	10.882	10.859	10.902	VV	829	16461	0.40%	0.039%
170	10.907	10.902	10.912	VV	489	2811	0.07%	0.007%
171	10.948	10.912	10.965	VV	710	18344	0.44%	0.044%
172	10.971	10.965	10.977	VV	576	3901	0.09%	0.009%
173	10.987	10.977	11.006	VV	599	9327	0.23%	0.022%
174	11.011	11.006	11.030	VV	546	7368	0.18%	0.017%
175	11.035	11.030	11.077	VV	515	11908	0.29%	0.028%
176	11.096	11.077	11.110	VV	404	7077	0.17%	0.017%
177	11.145	11.110	11.169	VV	600	16056	0.39%	0.038%
178	11.174	11.169	11.180	VV	443	2483	0.06%	0.006%
179	11.190	11.180	11.229	VV	440	10453	0.25%	0.025%
180	11.234	11.229	11.240	VV	290	1854	0.04%	0.004%
181	11.267	11.240	11.297	VV	381	10030	0.24%	0.024%
182	11.300	11.297	11.310	VV	245	1608	0.04%	0.004%
183	11.347	11.310	11.374	VV	441	13389	0.32%	0.032%
184	11.393	11.374	11.409	VV	461	7693	0.19%	0.018%
185	11.434	11.409	11.479	VV	424	14287	0.35%	0.034%
186	11.485	11.479	11.493	VV	261	1970	0.05%	0.005%
187	11.502	11.493	11.514	VV	311	3382	0.08%	0.008%
188	11.525	11.514	11.538	VV	338	4096	0.10%	0.010%
189	11.562	11.538	11.576	VV	612	10140	0.25%	0.024%
190	11.609	11.576	11.713	VV	281931	3484985	84.26%	8.269%
191	11.727	11.713	11.772	VV	1245	30138	0.73%	0.072%
192	11.775	11.772	11.819	VV	544	11230	0.27%	0.027%
193	11.851	11.819	11.879	VV	631	16120	0.39%	0.038%
194	11.884	11.879	11.921	VV	414	6962	0.17%	0.017%

					rteres			
195	11.928	11.921	11.969	VV	211	4420	0.11%	0.010%
196	11.971	11.969	11.974	VV	135	308	0.01%	0.001%
197	12.018	11.974	12.047	VV	662	17196	0.42%	0.041%
198	12.078	12.047	12.109	VV	2333	48626	1.18%	0.115%
199	12.117	12.109	12.195	VV	1352	35906	0.87%	0.085%
200	12.202	12.195	12.219	VV	285	3188	0.08%	0.008%
201	12.242	12.219	12.249	VV	317	4613	0.11%	0.011%
202	12.260	12.249	12.289	VV	316	5999	0.15%	0.014%
203	12.299	12.289	12.340	VV	499	10270	0.25%	0.024%
204	12.344	12.340	12.349	VV	238	1198	0.03%	0.003%
205	12.354	12.349	12.359	VV	306	1427	0.03%	0.003%
206	12.364	12.359	12.372	VV	299	1950	0.05%	0.005%
207	12.403	12.372	12.446	VV	457	10968	0.27%	0.026%
208	12.470	12.446	12.519	PV	748	20507	0.50%	0.049%
209	12.546	12.519	12.647	VV	76689	1210014	29.26%	2.871%
210	12.658	12.647	12.715	VV	2873	88775	2.15%	0.211%
211	12.737	12.715	12.761	VV	1368	34839	0.84%	0.083%
212	12.765	12.761	12.770	VV	1125	6288	0.15%	0.015%
213	12.785	12.770	12.834	VV	1286	34592	0.84%	0.082%
214	12.867	12.834	12.887	VV	1345	32257	0.78%	0.077%
215	12.919	12.887	12.980	VV	278115	3479758	84.13%	8.257%
216	13.001	12.980	13.014	VV	4311	62259	1.51%	0.148%
217	13.027	13.014	13.077	VV	3984	81605	1.97%	0.194%
218	13.103	13.077	13.146	VV	1323	37900	0.92%	0.090%
219	13.189	13.146	13.217	VV	725	25913	0.63%	0.061%
220	13.253	13.217	13.281	VV	879	25406	0.61%	0.060%
221	13.291	13.281	13.317	VV	668	13533	0.33%	0.032%
222	13.345	13.317	13.370	VV	1072	28900	0.70%	0.069%
223	13.395	13.370	13.424	VV	1132	31395	0.76%	0.074%
224	13.447	13.424	13.509	VV	1784	47094	1.14%	0.112%
225	13.545	13.509	13.558	VV	1209	25582	0.62%	0.061%
226	13.591	13.558	13.616	VV	1454	39861	0.96%	0.095%
227	13.641	13.616	13.652	VV	1097	22116	0.53%	0.052%
228	13.676	13.652	13.689	VV	1378	27494	0.66%	0.065%
229	13.706	13.689	13.744	VV	1500	42322	1.02%	0.100%
230	13.784	13.744	13.940	VV	12773	383089	9.26%	0.909%
231	13.965	13.940	14.010	VV	2170	66241	1.60%	0.157%
232	14.035	14.010	14.050	VV	1287	28016	0.68%	0.066%
233	14.118	14.050	14.190	VV	268546	3551398	85.87%	8.427%
234	14.201	14.190	14.245	VV	1715	47658	1.15%	0.113%
235	14.266	14.245	14.297	VV	2128	48278	1.17%	0.115%
236	14.309	14.297	14.329	VV	1187	21896	0.53%	0.052%
237	14.355	14.329	14.388	VV	1348	42534	1.03%	0.101%
238	14.433	14.388	14.472	VV	1333	59116	1.43%	0.140%
239	14.487	14.472	14.515	VV	1283	31211	0.75%	0.074%
240	14.543	14.515	14.627	VV	2249	103914	2.51%	0.247%
241	14.648	14.627	14.667	VV	1322	30488	0.74%	0.072%
242	14.689	14.667	14.744	VV	1894	63678	1.54%	0.151%
243	14.762	14.744	14.790	VV	1391	36580	0.88%	0.087%
244	14.815	14.790	14.830	VV	2025	41419	1.00%	0.098%
245	14.840	14.830	14.876	VV	1864	45659	1.10%	0.108%
246	14.897	14.876	14.922	VV	1682	40363	0.98%	0.096%

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247	14.942	14.922	14.980	VV	1533	49080	1.19%	0.116%
248	15.018	14.980	15.089	VV	100003	1431763	34.62%	3.397%
249	15.098	15.089	15.121	VV	1535	27784	0.67%	0.066%
250	15.157	15.121	15.186	VV	12058	196617	4.75%	0.467%
251	15.221	15.186	15.277	VV	267974	3519467	85.09%	8.351%
252	15.293	15.277	15.379	VV	1678	70628	1.71%	0.168%
253	15.427	15.379	15.460	VV	1165	49045	1.19%	0.116%
254	15.480	15.460	15.552	VV	925	43573	1.05%	0.103%
255	15.564	15.552	15.580	VV	861	13921	0.34%	0.033%
256	15.609	15.580	15.714	VV	33568	669231	16.18%	1.588%
257	15.744	15.714	15.765	VV	2762	61595	1.49%	0.146%
258	15.780	15.765	15.804	VV	2057	36664	0.89%	0.087%
259	15.821	15.804	15.875	VV	1845	54847	1.33%	0.130%
260	15.885	15.875	15.960	VV	1075	44203	1.07%	0.105%
261	15.986	15.960	16.022	VV	1095	33517	0.81%	0.080%
262	16.041	16.022	16.072	VV	1401	33791	0.82%	0.080%
263	16.085	16.072	16.100	VV	1024	16091	0.39%	0.038%
264	16.139	16.100	16.190	VV	1194	50501	1.22%	0.120%
265	16.243	16.190	16.310	VV	253415	3445131	83.30%	8.175%
266	16.332	16.310	16.367	VV	882	23188	0.56%	0.055%
267	16.380	16.367	16.404	VV	615	10926	0.26%	0.026%
268	16.415	16.404	16.435	VV	394	6812	0.16%	0.016%
269	16.452	16.435	16.483	VV	486	11184	0.27%	0.027%
270	16.495	16.483	16.515	VV	432	6540	0.16%	0.016%
271	16.547	16.515	16.582	VV	384	13132	0.32%	0.031%
272	16.630	16.582	16.672	VV	3558	80259	1.94%	0.190%
273	16.689	16.672	16.705	VV	1167	19471	0.47%	0.046%
274	16.728	16.705	16.794	VV	3058	55856	1.35%	0.133%
275	16.815	16.794	16.823	VV	634	8034	0.19%	0.019%
276	16.839	16.823	16.875	VV	651	14696	0.36%	0.035%
277	16.921	16.875	16.997	VV	539	25112	0.61%	0.060%
278	17.075	16.997	17.099	VV	763	29243	0.71%	0.069%
279	17.114	17.099	17.128	VV	528	7650	0.18%	0.018%
280	17.193	17.128	17.232	VV	247170	3375495	81.61%	8.010%
281	17.242	17.232	17.265	VV	1315	18717	0.45%	0.044%
282	17.284	17.265	17.338	VV	1058	20492	0.50%	0.049%
283	17.356	17.338	17.383	VV	191	2954	0.07%	0.007%
284	17.408	17.383	17.432	PV	153	2312	0.06%	0.005%
285	17.459	17.432	17.483	PV	140	2439	0.06%	0.006%

Sum of corrected areas: 42143480

FF052125.M Thu Jun 05 03:45:41 2025

Report of Analysis

Client:	CDM Smith	Date Collected:	05/28/25
Project:	South River WM Replacement	Date Received:	05/28/25
Client Sample ID:	TP-54MSD	SDG No.:	Q2176
Lab Sample ID:	Q2150-09MSD	Matrix:	SOIL
Analytical Method:	8015D DRO	% Solid:	83.6
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		PH :	
Prep Method :	SW3541	Decanted:	
		Test:	Diesel Range Organics
		Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015899.D	1	06/04/25 08:30	06/04/25 13:47	PB168274

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
DRO	DRO	12800		202	1990	ug/kg
SURROGATES						
16416-32-3	Tetracosane-d50	11.5		37 - 130	57%	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_F\Data\FF060425\
 Data File : FF015899.D
 Signal(s) : FID2B.ch
 Acq On : 04 Jun 2025 13:47
 Operator : YP\AJ
 Sample : Q2150-09MSD
 Misc :
 ALS Vial : 73 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 TP-54MSD

Integration File: autoint1.e
 Quant Time: Jun 05 03:03:07 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
 Quant Title :
 QLast Update : Wed May 21 12:32:51 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...	15.018	1399735	11.460 ug/ml
Target Compounds			
2) N-DECANE	4.565	2930687	24.724 ug/ml
3) N-DODECANE	6.733	3253341	25.857 ug/ml
4) N-TETRADECANE	8.561	3280951	26.149 ug/ml
5) N-HEXADECANE	10.166	3913837	29.841 ug/ml
6) N-OCTADECANE	11.610	3610967	26.279 ug/ml
7) N-EICOSANE	12.919	3590330	25.233 ug/ml
8) N-DOCOSANE	14.118	3609795	25.985 ug/ml
10) N-TETRACOSANE	15.221	3611302	25.909 ug/ml
11) N-HEXACOSANE	16.242	3562535	25.686 ug/ml
12) N-OCTACOSANE	17.193	3497806	25.443 ug/ml

(f)=RT Delta > 1/2 Window

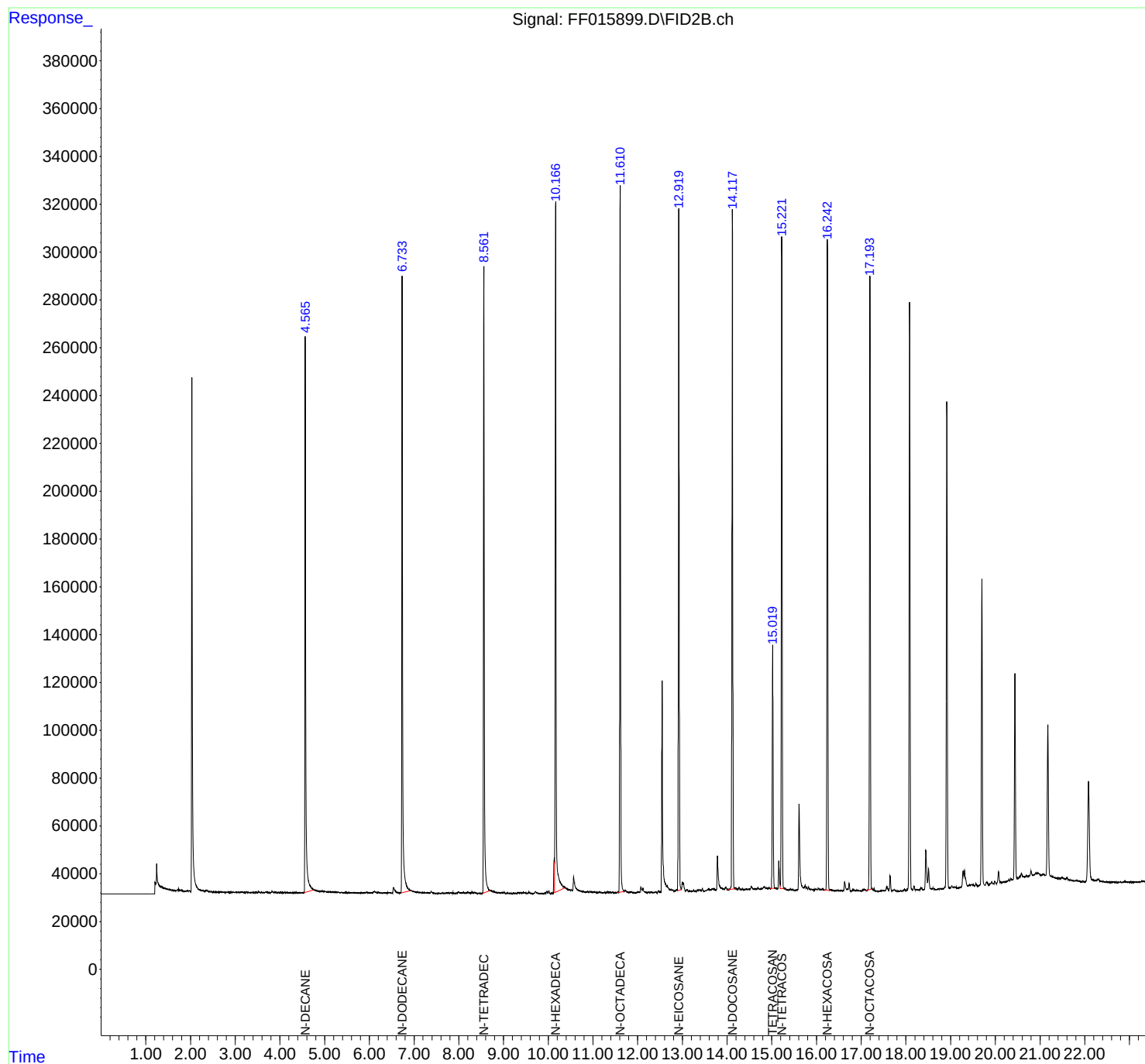
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015899.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 13:47
Operator : YP\AJ
Sample : Q2150-09MSD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
TP-54MSD

Integration File: autoint1.e
Quant Time: Jun 05 03:03:07 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Quant Title :
QLast Update : Wed May 21 12:32:51 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF060425\
Data File : FF015899.D
Signal(s) : FID2B.ch
Acq On : 04 Jun 2025 13:47
Sample : Q2150-09MSD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF052125.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.509	4.500	4.537	BV	87	931	0.02%	0.002%
2	4.565	4.537	4.813	PV	232492	3055502	69.39%	6.888%
3	4.819	4.813	4.885	VV	1036	35920	0.82%	0.081%
4	4.910	4.885	4.929	VV	761	17356	0.39%	0.039%
5	4.933	4.929	4.949	VV	703	8037	0.18%	0.018%
6	4.958	4.949	4.965	VV	711	6450	0.15%	0.015%
7	4.973	4.965	4.981	VV	691	6004	0.14%	0.014%
8	4.987	4.981	5.000	VV	624	6785	0.15%	0.015%
9	5.003	5.000	5.007	VV	575	2320	0.05%	0.005%
10	5.013	5.007	5.047	VV	624	13367	0.30%	0.030%
11	5.050	5.047	5.065	VV	539	5358	0.12%	0.012%
12	5.067	5.065	5.076	VV	631	3515	0.08%	0.008%
13	5.078	5.076	5.089	VV	535	3941	0.09%	0.009%
14	5.098	5.089	5.110	VV	567	6332	0.14%	0.014%
15	5.116	5.110	5.128	VV	531	5508	0.13%	0.012%
16	5.132	5.128	5.155	VV	509	7541	0.17%	0.017%
17	5.164	5.155	5.169	VV	494	3749	0.09%	0.008%
18	5.175	5.169	5.184	VV	526	4210	0.10%	0.009%
19	5.192	5.184	5.200	VV	447	3767	0.09%	0.008%
20	5.206	5.200	5.222	VV	420	5253	0.12%	0.012%
21	5.226	5.222	5.236	VV	457	3066	0.07%	0.007%
22	5.244	5.236	5.271	VV	417	7476	0.17%	0.017%
23	5.280	5.271	5.285	VV	378	2734	0.06%	0.006%
24	5.294	5.285	5.299	VV	323	2612	0.06%	0.006%
25	5.303	5.299	5.309	VV	381	1856	0.04%	0.004%
26	5.312	5.309	5.319	VV	320	1767	0.04%	0.004%
27	5.323	5.319	5.333	VV	329	2375	0.05%	0.005%
28	5.348	5.333	5.352	VV	287	2927	0.07%	0.007%
29	5.365	5.352	5.371	VV	281	2811	0.06%	0.006%
30	5.374	5.371	5.383	VV	270	1584	0.04%	0.004%
31	5.389	5.383	5.405	VV	202	2658	0.06%	0.006%
32	5.407	5.405	5.438	VV	280	4194	0.10%	0.009%
33	5.454	5.438	5.458	VV	247	2477	0.06%	0.006%
34	5.480	5.458	5.484	VV	285	2943	0.07%	0.007%
35	5.491	5.484	5.501	VV	265	1854	0.04%	0.004%
36	5.505	5.501	5.512	VV	212	1312	0.03%	0.003%

					rteres			
37	5.517	5.512	5.539	VV	214	2799	0.06%	0.006%
38	5.548	5.539	5.566	VV	247	2661	0.06%	0.006%
39	5.569	5.566	5.573	VV	174	658	0.01%	0.001%
40	5.578	5.573	5.584	VV	178	834	0.02%	0.002%
41	5.588	5.584	5.601	VV	179	1329	0.03%	0.003%
42	5.605	5.601	5.618	VV	152	1261	0.03%	0.003%
43	5.624	5.618	5.641	VV	204	1745	0.04%	0.004%
44	5.668	5.641	5.687	VV	228	4082	0.09%	0.009%
45	5.698	5.687	5.751	VV	165	3229	0.07%	0.007%
46	5.785	5.751	5.802	VV	143	2732	0.06%	0.006%
47	5.804	5.802	5.818	VV	176	970	0.02%	0.002%
48	5.828	5.818	5.841	VV	147	1232	0.03%	0.003%
49	5.846	5.841	5.850	VV	92	361	0.01%	0.001%
50	5.853	5.850	5.861	VV	82	334	0.01%	0.001%
51	5.869	5.861	5.877	VV	122	715	0.02%	0.002%
52	5.890	5.877	5.917	VV	233	3790	0.09%	0.009%
53	5.937	5.917	5.946	VV	485	5239	0.12%	0.012%
54	5.952	5.946	5.994	VV	337	6124	0.14%	0.014%
55	6.016	5.994	6.032	VV	228	4177	0.09%	0.009%
56	6.036	6.032	6.040	VV	172	674	0.02%	0.002%
57	6.043	6.040	6.051	VV	199	927	0.02%	0.002%
58	6.075	6.051	6.081	VV	270	3399	0.08%	0.008%
59	6.110	6.081	6.152	VV	695	19293	0.44%	0.043%
60	6.158	6.152	6.176	VV	272	3184	0.07%	0.007%
61	6.194	6.176	6.222	VV	430	8613	0.20%	0.019%
62	6.230	6.222	6.268	VV	218	3723	0.08%	0.008%
63	6.277	6.268	6.291	VV	138	1304	0.03%	0.003%
64	6.296	6.291	6.302	VV	115	575	0.01%	0.001%
65	6.307	6.302	6.313	VV	136	594	0.01%	0.001%
66	6.332	6.313	6.359	VV	156	3136	0.07%	0.007%
67	6.362	6.359	6.385	VV	135	1625	0.04%	0.004%
68	6.393	6.385	6.396	VV	151	693	0.02%	0.002%
69	6.408	6.396	6.423	VV	276	1840	0.04%	0.004%
70	6.441	6.423	6.464	VV	369	6284	0.14%	0.014%
71	6.470	6.464	6.489	VV	231	1970	0.04%	0.004%
72	6.540	6.489	6.626	VV	2445	72367	1.64%	0.163%
73	6.629	6.626	6.674	VV	388	6794	0.15%	0.015%
74	6.681	6.674	6.708	VV	261	3924	0.09%	0.009%
75	6.733	6.708	6.919	VV	258645	3336911	75.78%	7.522%
76	6.927	6.919	6.991	VV	1220	42165	0.96%	0.095%
77	6.995	6.991	7.058	VV	774	23733	0.54%	0.054%
78	7.061	7.058	7.073	VV	484	4081	0.09%	0.009%
79	7.078	7.073	7.105	VV	505	8446	0.19%	0.019%
80	7.122	7.105	7.129	VV	430	5677	0.13%	0.013%
81	7.146	7.129	7.174	VV	433	9684	0.22%	0.022%
82	7.191	7.174	7.222	VV	375	9167	0.21%	0.021%
83	7.229	7.222	7.273	VV	324	8453	0.19%	0.019%
84	7.279	7.273	7.339	VV	314	9248	0.21%	0.021%
85	7.343	7.339	7.359	VV	223	2548	0.06%	0.006%
86	7.383	7.359	7.456	VV	943	20622	0.47%	0.046%
87	7.466	7.456	7.476	VV	156	1474	0.03%	0.003%
88	7.485	7.476	7.499	VV	162	1260	0.03%	0.003%
89	7.518	7.499	7.532	VV	99	1181	0.03%	0.003%

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90	7.566	7.532	7.581	PV	154	2725	0.06%	0.006%
91	7.611	7.581	7.637	VV	170	3737	0.08%	0.008%
92	7.654	7.637	7.702	VV	202	4596	0.10%	0.010%
93	7.722	7.702	7.746	VV	249	4994	0.11%	0.011%
94	7.757	7.746	7.791	VV	255	5460	0.12%	0.012%
95	7.797	7.791	7.857	VV	291	9289	0.21%	0.021%
96	7.866	7.857	7.897	VV	454	4116	0.09%	0.009%
97	7.905	7.897	7.933	VV	124	2477	0.06%	0.006%
98	7.993	7.933	8.056	VV	780	24802	0.56%	0.056%
99	8.064	8.056	8.072	VV	231	2036	0.05%	0.005%
100	8.095	8.072	8.150	VV	466	15364	0.35%	0.035%
101	8.193	8.150	8.270	VV	586	23033	0.52%	0.052%
102	8.298	8.270	8.332	VV	526	11387	0.26%	0.026%
103	8.357	8.332	8.419	VV	497	13278	0.30%	0.030%
104	8.457	8.419	8.488	VV	169	4237	0.10%	0.010%
105	8.511	8.488	8.527	VV	161	3021	0.07%	0.007%
106	8.561	8.527	8.864	VV	262401	3428468	77.86%	7.729%
107	8.884	8.864	8.941	VV	601	16980	0.39%	0.038%
108	8.969	8.941	8.997	VV	508	12459	0.28%	0.028%
109	9.009	8.997	9.061	VV	616	12430	0.28%	0.028%
110	9.079	9.061	9.126	VV	235	6738	0.15%	0.015%
111	9.138	9.126	9.201	VV	189	4985	0.11%	0.011%
112	9.208	9.201	9.222	VV	121	1000	0.02%	0.002%
113	9.229	9.222	9.299	VV	408	6732	0.15%	0.015%
114	9.321	9.299	9.357	VV	531	10494	0.24%	0.024%
115	9.374	9.357	9.399	VV	299	6134	0.14%	0.014%
116	9.437	9.399	9.534	VV	458	21399	0.49%	0.048%
117	9.568	9.534	9.656	VV	658	15681	0.36%	0.035%
118	9.716	9.656	9.820	PV	911	28347	0.64%	0.064%
119	9.840	9.820	9.852	VV	115	1547	0.04%	0.003%
120	9.862	9.852	9.874	VV	160	910	0.02%	0.002%
121	9.882	9.874	9.892	PV	79	340	0.01%	0.001%
122	9.930	9.892	9.949	VV	331	5954	0.14%	0.013%
123	9.968	9.949	9.995	VV	980	16098	0.37%	0.036%
124	10.015	9.995	10.066	VV	1143	19292	0.44%	0.043%
125	10.080	10.066	10.092	VV	140	1415	0.03%	0.003%
126	10.166	10.092	10.502	PV	288299	4403183	100.00%	9.926%
127	10.520	10.502	10.546	VV	1483	36106	0.82%	0.081%
128	10.569	10.546	10.689	VV	6907	242255	5.50%	0.546%
129	10.704	10.689	10.846	VV	1220	77924	1.77%	0.176%
130	10.881	10.846	10.913	VV	928	26000	0.59%	0.059%
131	10.940	10.913	10.971	VV	832	21394	0.49%	0.048%
132	10.990	10.971	11.110	VV	674	38171	0.87%	0.086%
133	11.147	11.110	11.231	VV	633	27950	0.63%	0.063%
134	11.258	11.231	11.297	VV	335	11070	0.25%	0.025%
135	11.329	11.297	11.368	VV	559	17249	0.39%	0.039%
136	11.391	11.368	11.416	VV	400	10542	0.24%	0.024%
137	11.438	11.416	11.477	VV	434	11435	0.26%	0.026%
138	11.499	11.477	11.533	VV	264	7181	0.16%	0.016%
139	11.559	11.533	11.576	VV	563	10260	0.23%	0.023%
140	11.610	11.576	11.707	VV	295393	3654698	83.00%	8.239%
141	11.724	11.707	11.770	VV	1349	30891	0.70%	0.070%

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142	11.779	11.770	11.824	VV	478	10894	0.25%	0.025%
143	11.849	11.824	11.959	VV	595	22129	0.50%	0.050%
144	12.019	11.959	12.051	VV	602	19611	0.45%	0.044%
145	12.073	12.051	12.101	VV	2588	47509	1.08%	0.107%
146	12.118	12.101	12.215	VV	2085	53061	1.21%	0.120%
147	12.240	12.215	12.282	VV	298	9593	0.22%	0.022%
148	12.300	12.282	12.322	VV	505	8009	0.18%	0.018%
149	12.342	12.322	12.356	VV	240	4265	0.10%	0.010%
150	12.393	12.356	12.435	VV	452	11811	0.27%	0.027%
151	12.464	12.435	12.522	PV	800	22289	0.51%	0.050%
152	12.546	12.522	12.646	VV	88746	1320178	29.98%	2.976%
153	12.657	12.646	12.771	VV	2976	134018	3.04%	0.302%
154	12.783	12.771	12.832	VV	1337	34262	0.78%	0.077%
155	12.867	12.832	12.887	VV	1362	33766	0.77%	0.076%
156	12.919	12.887	12.977	VV	285931	3646502	82.82%	8.220%
157	13.000	12.977	13.012	VV	4599	66630	1.51%	0.150%
158	13.025	13.012	13.077	VV	4131	85669	1.95%	0.193%
159	13.100	13.077	13.142	VV	1408	38182	0.87%	0.086%
160	13.185	13.142	13.217	VV	810	29313	0.67%	0.066%
161	13.249	13.217	13.310	VV	996	40571	0.92%	0.091%
162	13.336	13.310	13.354	VV	1175	24249	0.55%	0.055%
163	13.361	13.354	13.370	VV	1087	10017	0.23%	0.023%
164	13.393	13.370	13.425	VV	1255	33508	0.76%	0.076%
165	13.447	13.425	13.487	VV	1848	40317	0.92%	0.091%
166	13.546	13.487	13.562	VV	1138	38777	0.88%	0.087%
167	13.589	13.562	13.621	VV	1628	44586	1.01%	0.101%
168	13.668	13.621	13.688	VV	1482	51676	1.17%	0.116%
169	13.710	13.688	13.742	VV	1564	43488	0.99%	0.098%
170	13.782	13.742	13.938	VV	15308	425125	9.65%	0.958%
171	13.965	13.938	14.014	VV	2301	74521	1.69%	0.168%
172	14.024	14.014	14.052	VV	1293	28013	0.64%	0.063%
173	14.118	14.052	14.187	VV	285109	3719672	84.48%	8.385%
174	14.205	14.187	14.241	VV	1688	47704	1.08%	0.108%
175	14.265	14.241	14.299	VV	2220	55285	1.26%	0.125%
176	14.318	14.299	14.330	VV	1267	22449	0.51%	0.051%
177	14.345	14.330	14.384	VV	1367	40333	0.92%	0.091%
178	14.431	14.384	14.467	VV	1429	62118	1.41%	0.140%
179	14.491	14.467	14.514	VV	1325	35461	0.81%	0.080%
180	14.541	14.514	14.616	VV	2416	103657	2.35%	0.234%
181	14.636	14.616	14.664	VV	1392	38590	0.88%	0.087%
182	14.688	14.664	14.737	VV	1952	64946	1.47%	0.146%
183	14.761	14.737	14.779	VV	1478	34884	0.79%	0.079%
184	14.814	14.779	14.822	VV	2137	45075	1.02%	0.102%
185	14.836	14.822	14.874	VV	2336	60307	1.37%	0.136%
186	14.895	14.874	14.919	VV	1768	42929	0.97%	0.097%
187	14.937	14.919	14.982	VV	1711	58547	1.33%	0.132%
188	15.018	14.982	15.064	VV	103140	1476791	33.54%	3.329%
189	15.081	15.064	15.124	VV	1724	55821	1.27%	0.126%
190	15.156	15.124	15.187	VV	13001	209904	4.77%	0.473%
191	15.221	15.187	15.274	VV	273766	3686175	83.72%	8.310%
192	15.291	15.274	15.376	VV	1630	70636	1.60%	0.159%
193	15.426	15.376	15.460	VV	1212	50745	1.15%	0.114%
194	15.473	15.460	15.514	VV	995	26291	0.60%	0.059%

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195	15.608	15.514	15.714	VV	36755	746329	16.95%	1.682%
196	15.744	15.714	15.764	VV	2808	61103	1.39%	0.138%
197	15.779	15.764	15.802	VV	2149	37806	0.86%	0.085%
198	15.822	15.802	15.867	VV	1982	54609	1.24%	0.123%
199	15.884	15.867	15.907	VV	1155	24149	0.55%	0.054%
200	15.916	15.907	15.959	VV	931	24966	0.57%	0.056%
201	15.982	15.959	16.016	VV	1278	33624	0.76%	0.076%
202	16.039	16.016	16.071	VV	1495	37320	0.85%	0.084%
203	16.083	16.071	16.104	VV	1047	18433	0.42%	0.042%
204	16.136	16.104	16.194	VV	1216	48879	1.11%	0.110%
205	16.242	16.194	16.307	VV	273184	3607667	81.93%	8.133%
206	16.326	16.307	16.362	VV	855	22094	0.50%	0.050%
207	16.379	16.362	16.414	VV	573	13813	0.31%	0.031%
208	16.421	16.414	16.428	VV	362	3016	0.07%	0.007%
209	16.450	16.428	16.479	VV	493	12735	0.29%	0.029%
210	16.491	16.479	16.527	VV	381	9290	0.21%	0.021%
211	16.543	16.527	16.578	VV	385	9716	0.22%	0.022%
212	16.628	16.578	16.670	VV	3993	85417	1.94%	0.193%
213	16.689	16.670	16.702	VV	1106	19450	0.44%	0.044%
214	16.728	16.702	16.784	VV	3464	57926	1.32%	0.131%
215	16.835	16.784	16.874	VV	709	23988	0.54%	0.054%
216	16.911	16.874	16.992	VV	555	23855	0.54%	0.054%
217	17.074	16.992	17.129	VV	856	41662	0.95%	0.094%
218	17.193	17.129	17.231	VV	257543	3541300	80.43%	7.983%
219	17.243	17.231	17.266	VV	1405	19560	0.44%	0.044%
220	17.283	17.266	17.384	VV	997	20767	0.47%	0.047%
221	17.406	17.384	17.436	PV	155	2266	0.05%	0.005%
222	17.462	17.436	17.482	PV	186	2475	0.06%	0.006%
					Sum of corrected areas:		44359673	

FF052125.M Thu Jun 05 03:46:18 2025

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q2074-05		FF015884.D	FF052125	TETRACOSANE-d50 (SURROGA	mohammad	5/23/2025 5:16:29 AM	Peak Integrated by Software incorrectly
Q2074-07		FF015886.D	FF052125	TETRACOSANE-d50 (SURROGA	mohammad	5/23/2025 5:16:29 AM	Peak Integrated by Software incorrectly
.BLK		FF015888.D	FF052125	TETRACOSANE-d50 (SURROGA	mohammad	5/23/2025 5:16:29 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q2176-06		FF015905.D	FF060425	TETRACOSANE-d50 (SURROGA	mohammad	6/6/2025 2:02:03 AM	Peak Integrated by Software incorrectly
Q2176-06		FF015910.D	FF060425	TETRACOSANE-d50 (SURROGA	mohammad	6/6/2025 2:02:03 AM	Peak Integrated by Software incorrectly
Q2176-08		FF015911.D	FF060425	TETRACOSANE-d50 (SURROGA	mohammad	6/6/2025 2:02:03 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
5 TRPH STD		FG015890.D	FG052225	N-TETRACONTANE	mohammad	5/23/2025 5:16:45 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q2150-08		FG015927.D	FG060425	TETRACOSANE-d50 (SURROGA	mohammad	6/6/2025 2:02:10 AM	Peak Integrated by Software incorrectly

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF052125

Review By	yogesh	Review On	5/21/2025 1:57:54 PM
Supervise By	mohammad	Supervise On	5/23/2025 5:16:29 AM
SubDirectory	FF052125	HP Acquire Method	HP Processing Method FF052125
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	FF015872.D	21 May 2025 09:21	YP\AJ	Ok
2	I.BLK	FF015873.D	21 May 2025 09:50	YP\AJ	Ok
3	100 TRPH STD	FF015874.D	21 May 2025 10:19	YP\AJ	Ok
4	50 TRPH STD	FF015875.D	21 May 2025 10:48	YP\AJ	Ok
5	20 TRPH STD	FF015876.D	21 May 2025 11:18	YP\AJ	Ok
6	10 TRPH STD	FF015877.D	21 May 2025 11:47	YP\AJ	Ok
7	5 TRPH STD	FF015878.D	21 May 2025 12:16	YP\AJ	Ok
8	FF052125ICV	FF015879.D	21 May 2025 12:45	YP\AJ	Ok
9	I.BLK	FF015880.D	21 May 2025 13:15	YP\AJ	Ok
10	50 PPM TRPH STD	FF015881.D	21 May 2025 13:44	YP\AJ	Ok
11	RT MARKER	FF015882.D	21 May 2025 14:13	YP\AJ	Ok
12	Q2074-04	FF015883.D	21 May 2025 14:43	YP\AJ	Ok
13	Q2074-05	FF015884.D	21 May 2025 15:12	YP\AJ	Ok,M
14	Q2074-06	FF015885.D	21 May 2025 15:41	YP\AJ	Ok
15	Q2074-07	FF015886.D	21 May 2025 16:10	YP\AJ	Ok,M
16	Q2074-08	FF015887.D	21 May 2025 16:40	YP\AJ	Ok
17	I.BLK	FF015888.D	21 May 2025 17:09	YP\AJ	Ok,M
18	50 PPM TRPH STD	FF015889.D	21 May 2025 17:38	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF060425

Review By	yogesh	Review On	6/4/2025 1:00:09 PM
Supervise By	mohammad	Supervise On	6/6/2025 2:02:03 AM
SubDirectory	FF060425	HP Acquire Method	HP Processing Method FF052125
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	FF015893.D	04 Jun 2025 10:47	YP\AJ	Ok
2	I.BLK	FF015894.D	04 Jun 2025 11:16	YP\AJ	Ok
3	50 PPM TRPH STD	FF015895.D	04 Jun 2025 11:46	YP\AJ	Ok
4	RT MARKER	FF015896.D	04 Jun 2025 12:15	YP\AJ	Ok
5	Q2150-09	FF015897.D	04 Jun 2025 12:48	YP\AJ	Ok
6	Q2150-09MS	FF015898.D	04 Jun 2025 13:17	YP\AJ	Ok
7	Q2150-09MSD	FF015899.D	04 Jun 2025 13:47	YP\AJ	Ok
8	Q2176-01	FF015900.D	04 Jun 2025 14:16	YP\AJ	Ok
9	Q2176-02	FF015901.D	04 Jun 2025 14:46	YP\AJ	Ok
10	Q2176-03	FF015902.D	04 Jun 2025 15:15	YP\AJ	Ok
11	Q2176-04	FF015903.D	04 Jun 2025 15:45	YP\AJ	Ok
12	Q2176-05	FF015904.D	04 Jun 2025 16:48	YP\AJ	Ok
13	Q2176-06	FF015905.D	04 Jun 2025 17:18	YP\AJ	Ok,M
14	Q2176-07	FF015906.D	04 Jun 2025 17:47	YP\AJ	Ok
15	Q2176-08	FF015907.D	04 Jun 2025 18:17	YP\AJ	Ok
16	I.BLK	FF015908.D	04 Jun 2025 18:46	YP\AJ	Ok
17	50 PPM TRPH STD	FF015909.D	04 Jun 2025 19:16	YP\AJ	Ok
18	Q2176-06	FF015910.D	04 Jun 2025 20:15	YP\AJ	Not Ok
19	Q2176-08	FF015911.D	04 Jun 2025 20:45	YP\AJ	Not Ok
20	I.BLK	FF015912.D	04 Jun 2025 21:14	YP\AJ	Ok
21	50 PPM TRPH STD	FF015913.D	04 Jun 2025 21:44	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG052225

Review By	yogesh	Review On	5/21/2025 1:58:58 PM
Supervise By	mohammad	Supervise On	5/23/2025 5:16:45 AM
SubDirectory	FG052225	HP Acquire Method	HP Processing Method FG052225
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	FG015884.D	21 May 2025 20:34	YP\AJ	Ok
2	I.BLK	FG015885.D	21 May 2025 21:03	YP\AJ	Ok
3	100 TRPH STD	FG015886.D	21 May 2025 21:33	YP\AJ	Ok
4	50 TRPH STD	FG015887.D	21 May 2025 22:02	YP\AJ	Ok
5	20 TRPH STD	FG015888.D	21 May 2025 22:31	YP\AJ	Ok
6	10 TRPH STD	FG015889.D	21 May 2025 23:00	YP\AJ	Ok
7	5 TRPH STD	FG015890.D	21 May 2025 23:30	YP\AJ	Ok,M
8	FG052225ICV	FG015891.D	21 May 2025 23:59	YP\AJ	Ok
9	PP24596	FG015892.D	22 May 2025 00:58	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG060425

Review By	yogesh	Review On	6/4/2025 1:01:13 PM
Supervise By	mohammad	Supervise On	6/6/2025 2:02:10 AM
SubDirectory	FG060425	HP Acquire Method	HP Processing Method FG052225
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	FG015908.D	04 Jun 2025 10:47	YP\AJ	Ok
2	I.BLK	FG015909.D	04 Jun 2025 11:16	YP\AJ	Ok
3	50 PPM TRPH STD	FG015910.D	04 Jun 2025 11:46	YP\AJ	Ok
4	RT MARKER	FG015911.D	04 Jun 2025 12:15	YP\AJ	Ok
5	PB168274BL	FG015912.D	04 Jun 2025 12:48	YP\AJ	Ok
6	PB168274BS	FG015913.D	04 Jun 2025 13:17	YP\AJ	Ok
7	Q2150-01	FG015914.D	04 Jun 2025 13:47	YP\AJ	Ok
8	Q2150-02	FG015915.D	04 Jun 2025 14:16	YP\AJ	Ok
9	Q2150-03	FG015916.D	04 Jun 2025 14:46	YP\AJ	Ok
10	Q2150-04	FG015917.D	04 Jun 2025 15:15	YP\AJ	Ok
11	Q2150-05	FG015918.D	04 Jun 2025 15:45	YP\AJ	Ok
12	Q2150-06	FG015919.D	04 Jun 2025 16:48	YP\AJ	Ok
13	Q2150-07	FG015920.D	04 Jun 2025 17:18	YP\AJ	Ok
14	Q2150-08	FG015921.D	04 Jun 2025 17:47	YP\AJ	Ok
15	Q2150-10	FG015922.D	04 Jun 2025 18:17	YP\AJ	Ok
16	I.BLK	FG015923.D	04 Jun 2025 18:46	YP\AJ	Ok
17	50 PPM TRPH STD	FG015924.D	04 Jun 2025 19:16	YP\AJ	Ok
18	Q2150-01	FG015925.D	04 Jun 2025 20:15	YP\AJ	Not Ok
19	Q2150-06	FG015926.D	04 Jun 2025 20:45	YP\AJ	Not Ok
20	Q2150-08	FG015927.D	04 Jun 2025 21:14	YP\AJ	Not Ok
21	I.BLK	FG015928.D	04 Jun 2025 21:44	YP\AJ	Ok

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG060425

Review By	yogesh	Review On	6/4/2025 1:01:13 PM
Supervise By	mohammad	Supervise On	6/6/2025 2:02:10 AM
SubDirectory	FG060425	HP Acquire Method	HP Processing Method FG052225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM	PP24469		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

22	50 PPM TRPH STD	FG015929.D	04 Jun 2025 22:13	YP\AJ	Ok
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M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF052125

Review By	yogesh	Review On	5/21/2025 1:57:54 PM
Supervise By	mohammad	Supervise On	5/23/2025 5:16:29 AM
SubDirectory	FF052125	HP Acquire Method	HP Processing Method
			FF052125
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		FF015872.D	21 May 2025 09:21		YPIAJ	Ok
2	I.BLK		FF015873.D	21 May 2025 09:50		YPIAJ	Ok
3	100 TRPH STD		FF015874.D	21 May 2025 10:19		YPIAJ	Ok
4	50 TRPH STD		FF015875.D	21 May 2025 10:48		YPIAJ	Ok
5	20 TRPH STD		FF015876.D	21 May 2025 11:18		YPIAJ	Ok
6	10 TRPH STD		FF015877.D	21 May 2025 11:47		YPIAJ	Ok
7	5 TRPH STD		FF015878.D	21 May 2025 12:16		YPIAJ	Ok
8	FF052125ICV		FF015879.D	21 May 2025 12:45		YPIAJ	Ok
9	I.BLK		FF015880.D	21 May 2025 13:15		YPIAJ	Ok
10	50 PPM TRPH STD		FF015881.D	21 May 2025 13:44		YPIAJ	Ok
11	RT MARKER		FF015882.D	21 May 2025 14:13		YPIAJ	Ok
12	Q2074-04		FF015883.D	21 May 2025 14:43		YPIAJ	Ok
13	Q2074-05		FF015884.D	21 May 2025 15:12		YPIAJ	Ok,M
14	Q2074-06		FF015885.D	21 May 2025 15:41		YPIAJ	Ok
15	Q2074-07		FF015886.D	21 May 2025 16:10		YPIAJ	Ok,M
16	Q2074-08		FF015887.D	21 May 2025 16:40		YPIAJ	Ok
17	I.BLK		FF015888.D	21 May 2025 17:09		YPIAJ	Ok,M
18	50 PPM TRPH STD		FF015889.D	21 May 2025 17:38		YPIAJ	Ok

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF052125

Review By	yogesh	Review On	5/21/2025 1:57:54 PM	
Supervise By	mohammad	Supervise On	5/23/2025 5:16:29 AM	
SubDirectory	FF052125	HP Acquire Method	HP Processing Method	FF052125
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			

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF060425

Review By	yogesh	Review On	6/4/2025 1:00:09 PM
Supervise By	mohammad	Supervise On	6/6/2025 2:02:03 AM
SubDirectory	FF060425	HP Acquire Method	HP Processing Method FF052125

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	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF015893.D	04 Jun 2025 10:47		YP\AJ	Ok
2	I.BLK		FF015894.D	04 Jun 2025 11:16		YP\AJ	Ok
3	50 PPM TRPH STD		FF015895.D	04 Jun 2025 11:46		YP\AJ	Ok
4	RT MARKER		FF015896.D	04 Jun 2025 12:15		YP\AJ	Ok
5	Q2150-09		FF015897.D	04 Jun 2025 12:48		YP\AJ	Ok
6	Q2150-09MS		FF015898.D	04 Jun 2025 13:17		YP\AJ	Ok
7	Q2150-09MSD		FF015899.D	04 Jun 2025 13:47		YP\AJ	Ok
8	Q2176-01		FF015900.D	04 Jun 2025 14:16		YP\AJ	Ok
9	Q2176-02		FF015901.D	04 Jun 2025 14:46		YP\AJ	Ok
10	Q2176-03		FF015902.D	04 Jun 2025 15:15		YP\AJ	Ok
11	Q2176-04		FF015903.D	04 Jun 2025 15:45		YP\AJ	Ok
12	Q2176-05		FF015904.D	04 Jun 2025 16:48		YP\AJ	Ok
13	Q2176-06		FF015905.D	04 Jun 2025 17:18		YP\AJ	Ok,M
14	Q2176-07		FF015906.D	04 Jun 2025 17:47		YP\AJ	Ok
15	Q2176-08		FF015907.D	04 Jun 2025 18:17		YP\AJ	Ok
16	I.BLK		FF015908.D	04 Jun 2025 18:46		YP\AJ	Ok
17	50 PPM TRPH STD		FF015909.D	04 Jun 2025 19:16		YP\AJ	Ok
18	Q2176-06		FF015910.D	04 Jun 2025 20:15	not required	YP\AJ	Not Ok

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF060425

Review By	yogesh	Review On	6/4/2025 1:00:09 PM
Supervise By	mohammad	Supervise On	6/6/2025 2:02:03 AM
SubDirectory	FF060425	HP Acquire Method	HP Processing Method FF052125

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472
CCC Internal Standard/PEM	PP24469
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473

19	Q2176-08		FF015911.D	04 Jun 2025 20:45	not required	YP\AJ	Not Ok
20	I.BLK		FF015912.D	04 Jun 2025 21:14		YP\AJ	Ok
21	50 PPM TRPH STD		FF015913.D	04 Jun 2025 21:44		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG052225

Review By	yogesh	Review On	5/21/2025 1:58:58 PM
Supervise By	mohammad	Supervise On	5/23/2025 5:16:45 AM
SubDirectory	FG052225	HP Acquire Method	HP Processing Method FG052225

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		FG015884.D	21 May 2025 20:34		YP\AJ	Ok
2	I.BLK		FG015885.D	21 May 2025 21:03		YP\AJ	Ok
3	100 TRPH STD		FG015886.D	21 May 2025 21:33		YP\AJ	Ok
4	50 TRPH STD		FG015887.D	21 May 2025 22:02		YP\AJ	Ok
5	20 TRPH STD		FG015888.D	21 May 2025 22:31		YP\AJ	Ok
6	10 TRPH STD		FG015889.D	21 May 2025 23:00		YP\AJ	Ok
7	5 TRPH STD		FG015890.D	21 May 2025 23:30		YP\AJ	Ok,M
8	FG052225ICV		FG015891.D	21 May 2025 23:59		YP\AJ	Ok
9	PP24596		FG015892.D	22 May 2025 00:58		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG060425

Review By	yogesh	Review On	6/4/2025 1:01:13 PM
Supervise By	mohammad	Supervise On	6/6/2025 2:02:10 AM
SubDirectory	FG060425	HP Acquire Method	HP Processing Method FG052225

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472
CCC Internal Standard/PEM	PP24469
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		FG015908.D	04 Jun 2025 10:47		YPIAJ	Ok
2	I.BLK		FG015909.D	04 Jun 2025 11:16		YPIAJ	Ok
3	50 PPM TRPH STD		FG015910.D	04 Jun 2025 11:46		YPIAJ	Ok
4	RT MARKER		FG015911.D	04 Jun 2025 12:15		YPIAJ	Ok
5	PB168274BL		FG015912.D	04 Jun 2025 12:48		YPIAJ	Ok
6	PB168274BS		FG015913.D	04 Jun 2025 13:17		YPIAJ	Ok
7	Q2150-01		FG015914.D	04 Jun 2025 13:47		YPIAJ	Ok
8	Q2150-02		FG015915.D	04 Jun 2025 14:16		YPIAJ	Ok
9	Q2150-03		FG015916.D	04 Jun 2025 14:46		YPIAJ	Ok
10	Q2150-04		FG015917.D	04 Jun 2025 15:15		YPIAJ	Ok
11	Q2150-05		FG015918.D	04 Jun 2025 15:45		YPIAJ	Ok
12	Q2150-06		FG015919.D	04 Jun 2025 16:48		YPIAJ	Ok
13	Q2150-07		FG015920.D	04 Jun 2025 17:18		YPIAJ	Ok
14	Q2150-08		FG015921.D	04 Jun 2025 17:47		YPIAJ	Ok
15	Q2150-10		FG015922.D	04 Jun 2025 18:17		YPIAJ	Ok
16	I.BLK		FG015923.D	04 Jun 2025 18:46		YPIAJ	Ok
17	50 PPM TRPH STD		FG015924.D	04 Jun 2025 19:16		YPIAJ	Ok
18	Q2150-01		FG015925.D	04 Jun 2025 20:15	not required	YPIAJ	Not Ok

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG060425

Review By	yogesh	Review On	6/4/2025 1:01:13 PM
Supervise By	mohammad	Supervise On	6/6/2025 2:02:10 AM
SubDirectory	FG060425	HP Acquire Method	HP Processing Method FG052225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM	PP24469		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

19	Q2150-06		FG015926.D	04 Jun 2025 20:45	not required	YP\AJ	Not Ok
20	Q2150-08		FG015927.D	04 Jun 2025 21:14	not required	YP\AJ	Not Ok
21	I.BLK		FG015928.D	04 Jun 2025 21:44		YP\AJ	Ok
22	50 PPM TRPH STD		FG015929.D	04 Jun 2025 22:13		YP\AJ	Ok

M : Manual Integration

PERCENT SOLID

Supervisor: Sohil
Analyst: jignesh
Date: 6/3/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:10
In Date: 06/02/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 06/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135973

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q2125-07	GSB3	25	1.14	10.44	11.58	10.36	88.3	
Q2167-01	52225	1	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2168-01	SAN-A1-A3	2	1.15	10.00	11.15	11.1	99.5	
Q2168-03	A3	3	1.19	10.12	11.31	11.27	99.6	
Q2168-05	SAN-B1-B3	4	1.19	10.16	11.35	11.31	99.6	
Q2168-07	B3	5	1.16	10.33	11.49	11.44	99.5	
Q2168-09	SAN-C1-C2	6	1.13	10.24	11.37	11.3	99.3	
Q2168-11	C2	7	1.17	10.38	11.55	11.31	97.7	
Q2171-01	5-28-25-A	8	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2171-02	5-28-25-B	9	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2171-03	51925	10	1.00	1.00	2.00	2.00	100.0	wipe sample
Q2175-01	32525	11	1.00	1.00	2.00	2.00	100.0	debris
Q2175-02	52725	12	1.00	1.00	2.00	2.00	100.0	oil sample
Q2176-01	TP-46	13	1.19	10.63	11.82	10.09	83.7	
Q2176-02	TP-56	14	1.15	10.59	11.74	10.28	86.2	
Q2176-03	TP-25	15	1.16	10.29	11.45	9.98	85.7	
Q2176-04	TP-26	16	1.12	10.84	11.96	10.36	85.2	
Q2176-05	TP-28	17	1.18	10.51	11.69	10.69	90.5	
Q2176-06	TP-27	18	1.18	10.12	11.3	9.59	83.1	
Q2176-07	TP-31	19	1.18	10.64	11.82	10.42	86.8	
Q2176-08	TP-65	20	1.19	10.27	11.46	10.16	87.3	
Q2177-01	B-187-SB00	21	1.17	10.43	11.6	10.47	89.2	
Q2177-02	B-187-SB01	22	1.16	10.50	11.66	10.00	84.2	
Q2177-04	B-187-SB02	23	1.17	10.55	11.72	7.8	62.8	
Q2177-06	B-202-SB01	24	1.19	10.41	11.6	10.08	85.4	
Q2178-01	RT2929	26	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q2179-01	D3	27	1.15	9.96	11.11	10.47	93.6	
Q2179-02	D4	28	1.19	10.03	11.22	10.38	91.6	

PERCENT SOLID

Supervisor: Sohil
Analyst: jignesh
Date: 6/3/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:10
In Date: 06/02/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 06/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135973

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q2179-03	D5	29	1.18	10.26	11.44	10.8	93.8	
Q2179-04	D6	30	1.16	10.80	11.96	11.54	96.1	
Q2183-01	BC205321-3-1	31	1.00	1.00	2.00	2.00	100.0	pilc
Q2183-02	BC205321-3-2	32	1.00	1.00	2.00	2.00	100.0	pilc
Q2183-03	BC205321-4-1	33	1.00	1.00	2.00	2.00	100.0	pilc
Q2183-04	BC205321-4-2	34	1.00	1.00	2.00	2.00	100.0	pilc
Q2183-05	BC205321-5-1	35	1.00	1.00	2.00	2.00	100.0	pilc
Q2183-06	BC205321-5-2	36	1.00	1.00	2.00	2.00	100.0	pilc
Q2183-07	BC205321-6-1	37	1.00	1.00	2.00	2.00	100.0	pilc
Q2183-08	BC205321-6-2	38	1.00	1.00	2.00	2.00	100.0	pilc
Q2184-01	245F54-1-1	39	1.00	1.00	2.00	2.00	100.0	pilc
Q2184-02	245F54-1-2	40	1.00	1.00	2.00	2.00	100.0	pilc
Q2184-03	BC226595-1-1	41	1.00	1.00	2.00	2.00	100.0	pilc
Q2184-04	BC226595-1-2	42	1.00	1.00	2.00	2.00	100.0	pilc
Q2185-01	TP02-MHB-WC	43	1.15	10.68	11.83	10.28	85.5	
Q2185-02	TP02-MHB-VOC	44	1.13	10.62	11.75	10.58	89.0	
Q2185-03	TP02-MHB-EPH	45	1.15	10.26	11.41	10.00	86.3	
Q2185-05	TP01-MHB-WC	46	1.18	10.69	11.87	10.57	87.8	
Q2185-06	TP01-MHB-VOC	47	1.19	10.76	11.95	10.84	89.7	
Q2185-07	TP01-MHB-EPH	48	1.19	10.25	11.44	10.28	88.7	

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

WORKLIST(Hardcopy Internal Chain)

8735973

WorkList Name : %1-060225

WorkList ID : 189853

Department : Wet-Chemistry

Date : 06-02-2025 08:16:03

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2125-07	GSB3	Solid	Percent Solids	Cool 4 deg C	GENV01	L31	05/23/2025	Chemtech -SO
Q2167-01	52225	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2168-01	SAN-A1-A3	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2168-03	A3	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2168-05	SAN-B1-B3	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2168-07	B3	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2168-09	SAN-C1-C2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2168-11	C2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2171-01	5-28-25-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2171-02	5-28-25-B	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2171-03	51925	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2175-01	32525	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2175-02	52725	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2176-01	TP-46	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/30/2025	Chemtech -SO
Q2176-02	TP-56	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/28/2025	Chemtech -SO
Q2176-03	TP-25	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/29/2025	Chemtech -SO
Q2176-04	TP-26	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/29/2025	Chemtech -SO
Q2176-05	TP-28	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/29/2025	Chemtech -SO
Q2176-06	TP-27	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/29/2025	Chemtech -SO
Q2176-07	TP-31	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/29/2025	Chemtech -SO
Q2176-08	TP-65	Solid	Percent Solids	Cool 4 deg C	CAMP02	L41	05/30/2025	Chemtech -SO

Date/Time 06/02/25 15:13
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Date/Time 06/02/25 17:25
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

135913

WorkList Name : %1-060225 WorkList ID : 189853 Department : Wet-Chemistry Date : 06-02-2025 08:16:03

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2177-01	B-187-SB00	Solid	Percent Solids	Cool 4 deg C	PORT06	L41	05/31/2025	Chemtech -SO
Q2177-02	B-187-SB01	Solid	Percent Solids	Cool 4 deg C	PORT06	L41	05/31/2025	Chemtech -SO
Q2177-04	B-187-SB02	Solid	Percent Solids	Cool 4 deg C	PORT06	L41	05/31/2025	Chemtech -SO
Q2177-06	B-202-SB01	Solid	Percent Solids	Cool 4 deg C	PORT06	L41	05/31/2025	Chemtech -SO
Q2178-01	RT2929	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	06/02/2025	Chemtech -SO
Q2179-01	D3	Solid	Percent Solids	Cool 4 deg C	GENV01	N11	06/02/2025	Chemtech -SO
Q2179-02	D4	Solid	Percent Solids	Cool 4 deg C	GENV01	N11	06/02/2025	Chemtech -SO
Q2179-03	D5	Solid	Percent Solids	Cool 4 deg C	GENV01	N11	06/02/2025	Chemtech -SO
Q2179-04	D6	Solid	Percent Solids	Cool 4 deg C	GENV01	N11	06/02/2025	Chemtech -SO
Q2183-01	BC205321-3-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2183-02	BC205321-3-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2183-03	BC205321-4-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2183-04	BC205321-4-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2183-05	BC205321-5-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2183-06	BC205321-5-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2183-07	BC205321-6-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2183-08	BC205321-6-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2184-01	245F54-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2184-02	245F54-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2184-03	BC226595-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO
Q2184-04	BC226595-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	N12	06/02/2025	Chemtech -SO

Date/Time 06/02/25 Date/Time 06/02/25
 Raw Sample Received by: SPW Raw Sample Received by: SPW
 Raw Sample Relinquished by: SPW Raw Sample Relinquished by: SPW

WORKLIST(Hardcopy Internal Chain)

135973

WorkList Name : %1-060225

WorkList ID : 189853

Department : Wet-Chemistry

Date : 06-02-2025 08:16:03

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2185-01	TP02-MHB-WC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	06/02/2025	Chemtech -SO
Q2185-02	TP02-MHB-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	06/02/2025	Chemtech -SO
Q2185-03	TP02-MHB-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	06/02/2025	Chemtech -SO
Q2185-05	TP01-MHB-WC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	06/02/2025	Chemtech -SO
Q2185-06	TP01-MHB-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	06/02/2025	Chemtech -SO
Q2185-07	TP01-MHB-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	06/02/2025	Chemtech -SO

Date/Time 06/02/25 15:15

Raw Sample Received by: JSU

Raw Sample Relinquished by: JSU

Date/Time 06/02/25 17:15

Raw Sample Received by: JSU

Raw Sample Relinquished by: JSU

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: N/A

Extraction Start Date : 06/04/2025

Matrix : Solid

Extraction Start Time : 08:30

Weigh By: EH

Extraction By: RJ

Extraction End Date : 06/04/2025

Balance check: RJ

Filter By: RJ

Extraction End Time : 11:40

Balance ID: EX-SC-2

pH Meter ID: N/A

Concentration By: EH

pH Strip Lot#: N/A

Hood ID: 3,7

Supervisor By : RUPESH

Extraction Method: ☐ Separatory Funnel

☐ Continous Liquid/Liquid

☐ Sonication

☐ Waste Dilution

☒ Soxhlet

Standard Name	MLS USED	Concentration ug/mL	STD REF. # FROM LOG
Spike Sol 1	1.0ML	20 PPM	PP24162
Surrogate	1.0ML	20 PPM	PP24596
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
MeCl2/Acetone/1:1	N/A	EP2612
Baked Na2SO4	N/A	EP2620
Sand	N/A	E2865
Methylene Chloride	N/A	E3939
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210673.

KD Bath ID: N/A

Envap ID: NEVAP-02

KD Bath Temperature: N/A

Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
6/4/25	RS (Ext Lab)	Y.P. Pestil PG.
11:45	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 06/04/2025

Sample ID	Client Sample ID	Test	g/ mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB168274BL	PB168274BL	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1			U2-1
PB168274BS	PB168274BS	Diesel Range Organics	30.02	N/A	ritesh	Evelyn	1			2
Q2150-01	TP-44	Diesel Range Organics	30.07	N/A	ritesh	Evelyn	1	E		3
Q2150-02	TP-42	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	E		4
Q2150-03	TP-39	Diesel Range Organics	30.08	N/A	ritesh	Evelyn	1	E		5
Q2150-04	TP-48	Diesel Range Organics	30.05	N/A	ritesh	Evelyn	1	E		6
Q2150-05	TP-47	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1	E		U3-1
Q2150-06	TP-50	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	E		2
Q2150-07	TP-51	Diesel Range Organics	30.04	N/A	ritesh	Evelyn	1	E		3
Q2150-08	TP-52	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1	E		4
Q2150-09	TP-54	Diesel Range Organics	30.03	N/A	ritesh	Evelyn	1	E		5
Q2150-09MS	TP-54MS	Diesel Range Organics	30.08	N/A	ritesh	Evelyn	1	E		6
Q2150-09MS D	TP-54MSD	Diesel Range Organics	30.03	N/A	ritesh	Evelyn	1	E		U6-1
Q2150-10	TP-53	Diesel Range Organics	30.01	N/A	ritesh	Evelyn	1	E		2
Q2176-01	TP-46	Diesel Range Organics	30.04	N/A	ritesh	Evelyn	1	E		3
Q2176-02	TP-56	Diesel Range Organics	30.07	N/A	ritesh	Evelyn	1	E		4
Q2176-03	TP-25	Diesel Range Organics	30.05	N/A	ritesh	Evelyn	1	E		5
Q2176-04	TP-26	Diesel Range Organics	30.02	N/A	ritesh	Evelyn	1	E		6
Q2176-05	TP-28	Diesel Range Organics	30.05	N/A	ritesh	Evelyn	1	E		U1-1
Q2176-06	TP-27	Diesel Range Organics	30.06	N/A	ritesh	Evelyn	1	E		2
Q2176-07	TP-31	Diesel Range Organics	30.07	N/A	ritesh	Evelyn	1	E		3
Q2176-08	TP-65	Diesel Range Organics	30.03	N/A	ritesh	Evelyn	1	E		4

* Extracts relinquished on the same date as received.



1682741
09-30

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q2176D WorkList ID : 189909 Department : Extraction Date : 06-04-2025 08:25:24

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2150-01	TP-44	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/27/2025	8015D
Q2150-02	TP-42	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/27/2025	8015D
Q2150-03	TP-39	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/27/2025	8015D
Q2150-04	TP-48	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/27/2025	8015D
Q2150-05	TP-47	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/27/2025	8015D
Q2150-06	TP-50	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/27/2025	8015D
Q2150-07	TP-51	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/27/2025	8015D
Q2150-08	TP-52	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/28/2025	8015D
Q2150-09	TP-54	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/28/2025	8015D
Q2150-10	TP-53	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/28/2025	8015D
Q2176-01	TP-46	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/28/2025	8015D
Q2176-02	TP-56	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/29/2025	8015D
Q2176-03	TP-25	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/29/2025	8015D
Q2176-04	TP-26	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/29/2025	8015D
Q2176-05	TP-28	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/29/2025	8015D
Q2176-06	TP-27	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/29/2025	8015D
Q2176-07	TP-31	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/29/2025	8015D
Q2176-08	TP-65	Solid	Diesel Range Organics	Cool 4 deg C	CAMP02	L41	05/30/2025	8015D

Date/Time 06/04/25 8:25
Raw Sample Received by: RS LKFA-1061
Raw Sample Relinquished by: SDCSM

Date/Time 06/04/25 9:00
Raw Sample Received by: JP CSM
Raw Sample Relinquished by: RS LKFA-1061

Prep Standard - Chemical Standard Summary

Order ID : Q2176

Test : Diesel Range Organics

Prepbatch ID : PB168274,

Sequence ID/Qc Batch ID: FG060425,FF060425,

Standard ID :

EP2612,EP2620,PP24162,PP24467,PP24468,PP24469,PP24470,PP24471,PP24472,PP24473,PP24596,

Chemical ID :

E2865,E3551,E3874,E3926,E3930,E3931,E3932,E3939,P11951,P11952,P11955,P11956,P13106,P13108,P13477,P13479,P13483,P13484,P13485,P13486,

Extractions STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2017	1:1 ACETONE/METHYLENE CHLORIDE	EP2612	05/09/2025	11/05/2025	RUPESHKUMAR SHAH	None	None	Riteshkumar Patel
05/09/2025								

FROM 8000.00000ml of E3930 + 8000.00000ml of E3932 = Final Quantity: 16000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2620	05/30/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2	None	Riteshkumar Patel
(EX-SC-2)								

FROM 4000.00000gram of E3551 = Final Quantity: 4000.000 gram

Pest/Pcb STANDARD PREPARATION LOG

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

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

<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



<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
<u>FROM</u> 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 #
Seidler Chemical	BA-3382-05 / Sand, Purified (cs/4x2.5kg)	0000243821	06/30/2025	04/30/2020 / RAJESH	04/28/2020 / RAJESH	E2865

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	PC19631-100 / SODIUM SULFATE, ANHYDROUS, PEST GRADE, 1	313201	12/04/2025	01/03/2024 / Rajesh	07/20/2023 / Rajesh	E3551

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H1462005	11/05/2025	05/05/2025 / RUPESH	04/23/2025 / RUPESH	E3932

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)	25A2862010	11/22/2025	05/22/2025 / RUPESH	02/28/2025 / RUPESH	E3939

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

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	A0186840	07/31/2025	01/31/2025 / yogesh	07/11/2022 / Yogesh	P11955

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	31266 / Florida TRPH Standard	A0204859	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

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

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	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

Sand
Purified
Washed and Ignited



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

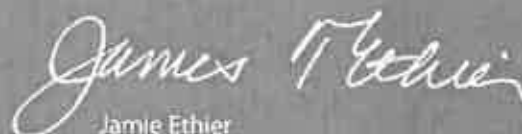
Certificate of Analysis

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

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

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

E 2865


Jamie Ethier
Vice President Global Quality

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

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



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

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

CERTIFICATE OF ANALYSIS

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

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

COMMENTS

QC: PhC Irma Belmares

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

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

RC-02-01, Ed. 3

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_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	99.9%
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02\%$	$< 0.01\%$

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

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

E 3874

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

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

avantor



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

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH_2Cl_2) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	99.9%
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid ($\mu\text{eq/g}$)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02\%$	$< 0.01\%$

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

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

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)



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

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8 \%$	99.9 %
Color (APHA)	≤ 10	10
Residue after Evaporation	≤ 1.0 ppm	0.8 ppm
Titration Acid (μ eq/g)	≤ 0.3	< 0.1
Chloride (Cl)	≤ 10 ppm	< 5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	$< 0.01 \%$

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

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

E3930

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H1462005

Manufactured Date: 2024-05-24

Expiration Date: 2027-05-24

Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay ((CH ₃) ₂ CO) (by GC, corrected for water)	>= 99.4 %	99.8 %
Color (APHA)	<= 10	5
Residue after Evaporation	<= 1.0 ppm	0.2 ppm
Substances Reducing Permanganate	Passes Test	Passes Test
Titration Acid (μeq/g)	<= 0.3	0.2
Titration Base (μeq/g)	<= 0.6	<0.1
Water (H ₂ O)	<= 0.5 %	0.2 %
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	<= 5	<1
ECD Sensitive Impurities (as Heptachlor Epoxide) Single Peak (pg/mL)	<= 10	1

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

RS

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3932

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

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



Material No.: 9266-A4
Batch No.: 25A2862010
Manufactured Date: 2024-12-18
Expiration Date: 2026-03-19
Revision No.: 0

Certificate of Analysis

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

E3939

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

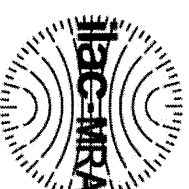
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

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

P11948 } 7.8
P11962 } 07/11/16

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

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

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

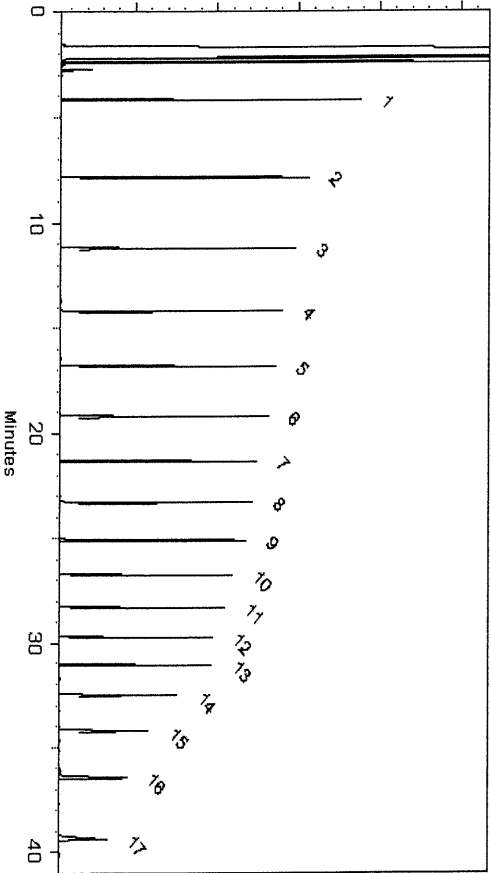
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

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

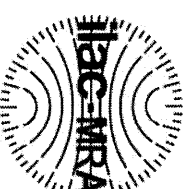
Belleville, PA 16823-8812

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:

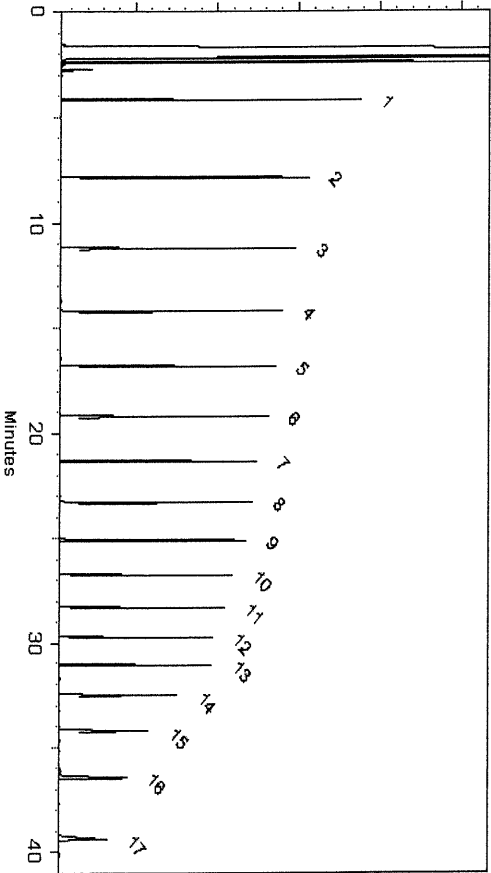
250°C

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:

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CERTIFIED REFERENCE MATERIAL

110 Benner Circle

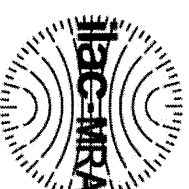
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

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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

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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
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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

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Solvent: Hexane
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Purity 99%

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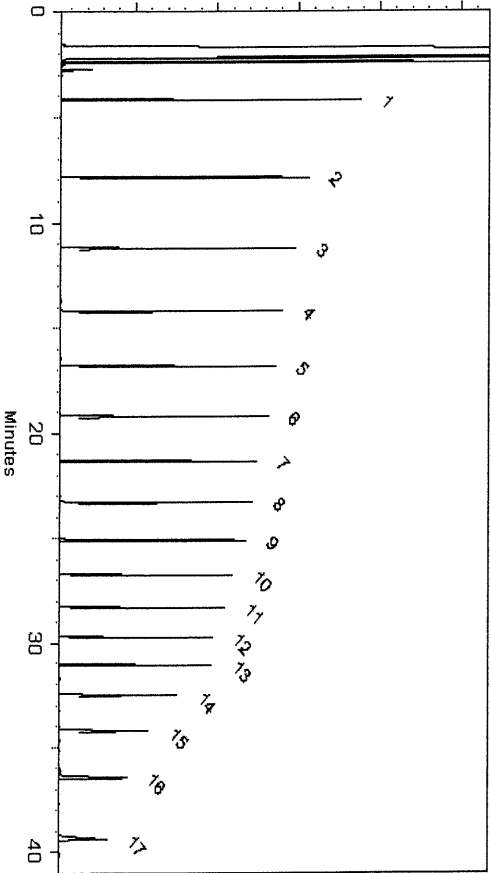
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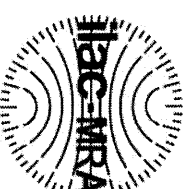
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P11948 } 7.8
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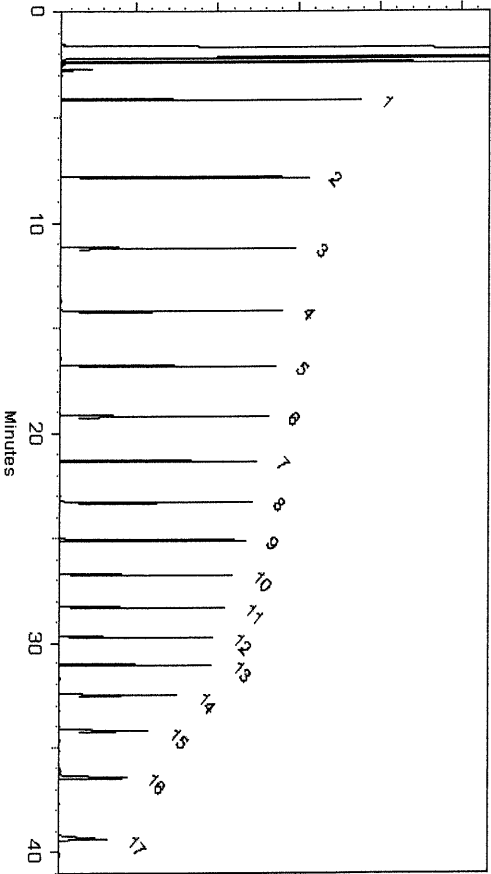
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- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL 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.



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.:** 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.)

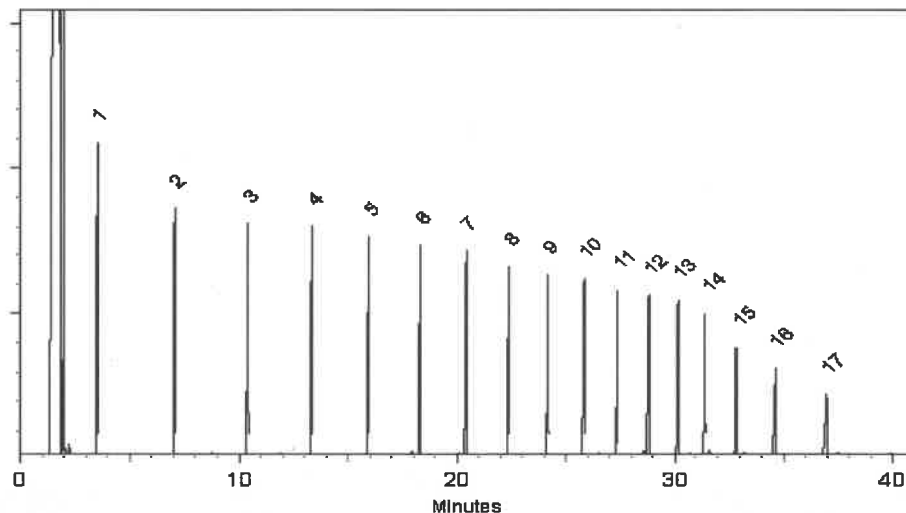
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

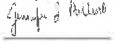


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


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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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.)

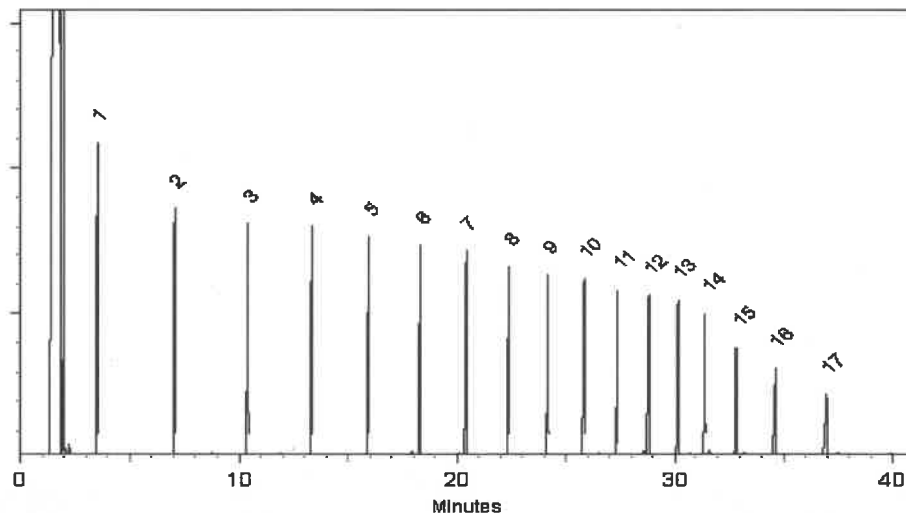
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

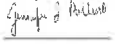
Inj. Vol
1µl



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-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	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

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

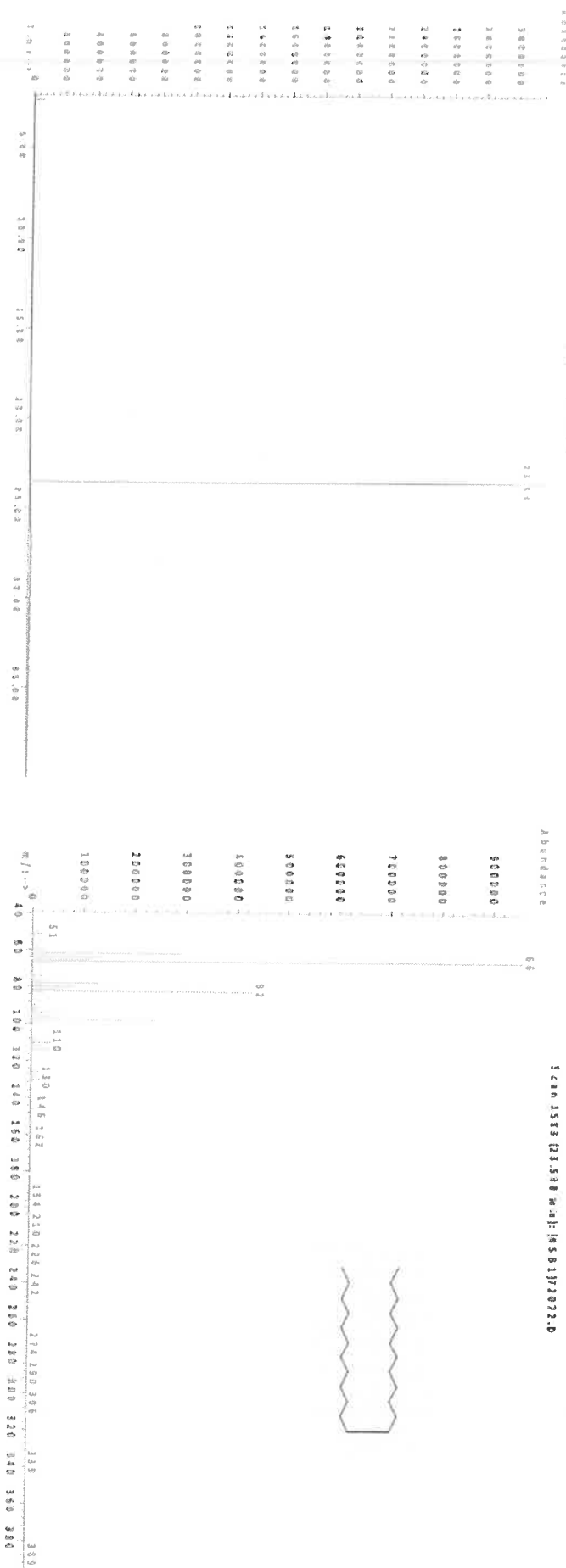
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
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).

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	en-ra 500mg/kg	
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	en-ra 400mg/kg	
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	en-ra 500mg/kg	
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04136	4000.8	15.4	1517-25-2	N/A	N/A	
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A	
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04156	4001.2	15.4	1503-58-3	N/A	N/A	

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

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

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	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

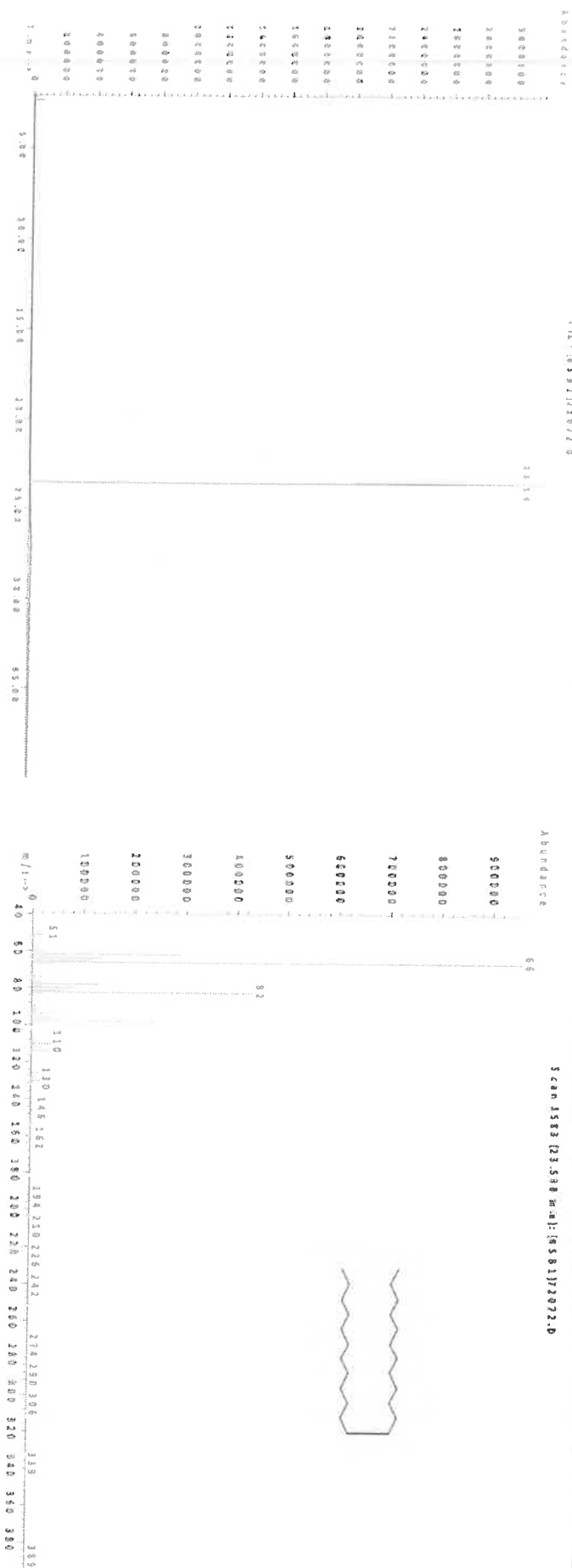
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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 (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
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1. n-Tetracosane-d50 2072 PR-26606 1000 98.7 0.2 99.0 0.20471 0.20482 1000.6 4.1 16416-32-3 N/A
Method GC8MSD-3.M: Column:SPB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (9min.), Rate = 10°C/min., Injector B = 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Candice Warren.



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (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 070716

Part Number: 10009R
Lot Number: 070716
Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date:
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-rat 500mg/kg
2. Naphthalene-d8	222	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	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

Qualitative Quantitative

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

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





CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

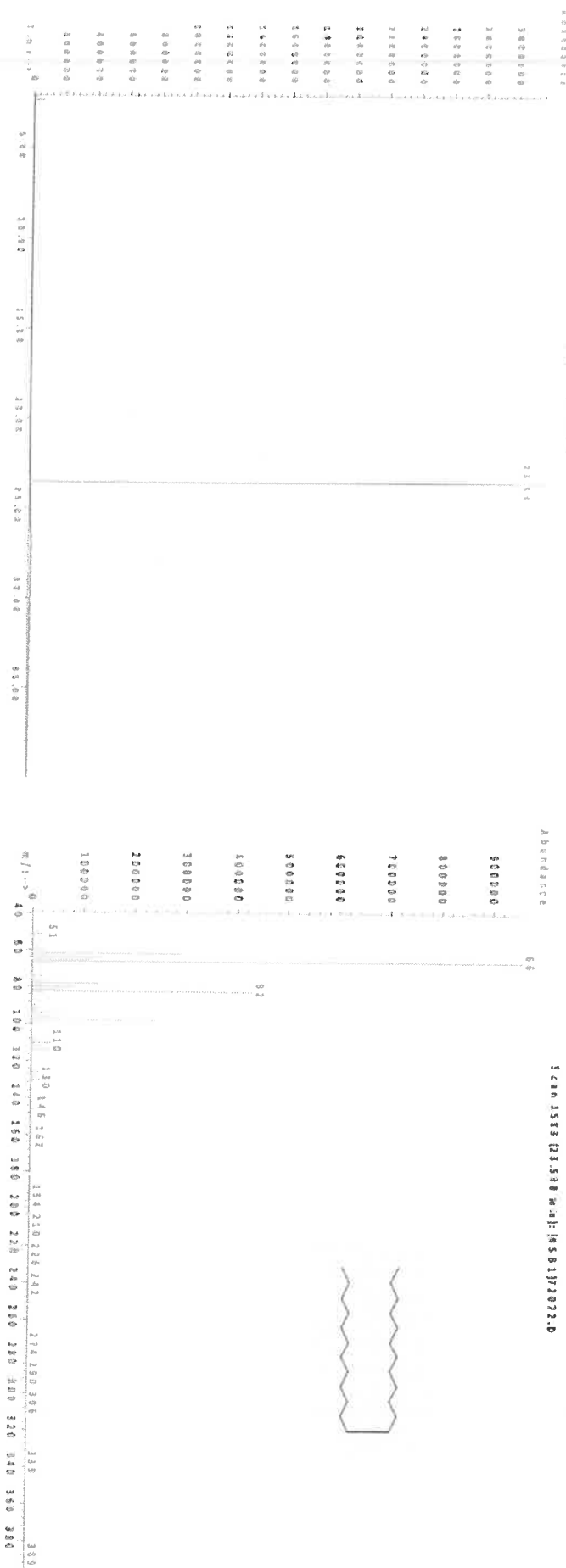
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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

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



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 070716

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

Solvent(s): Methylene chloride
Lot# 78782

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

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	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

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

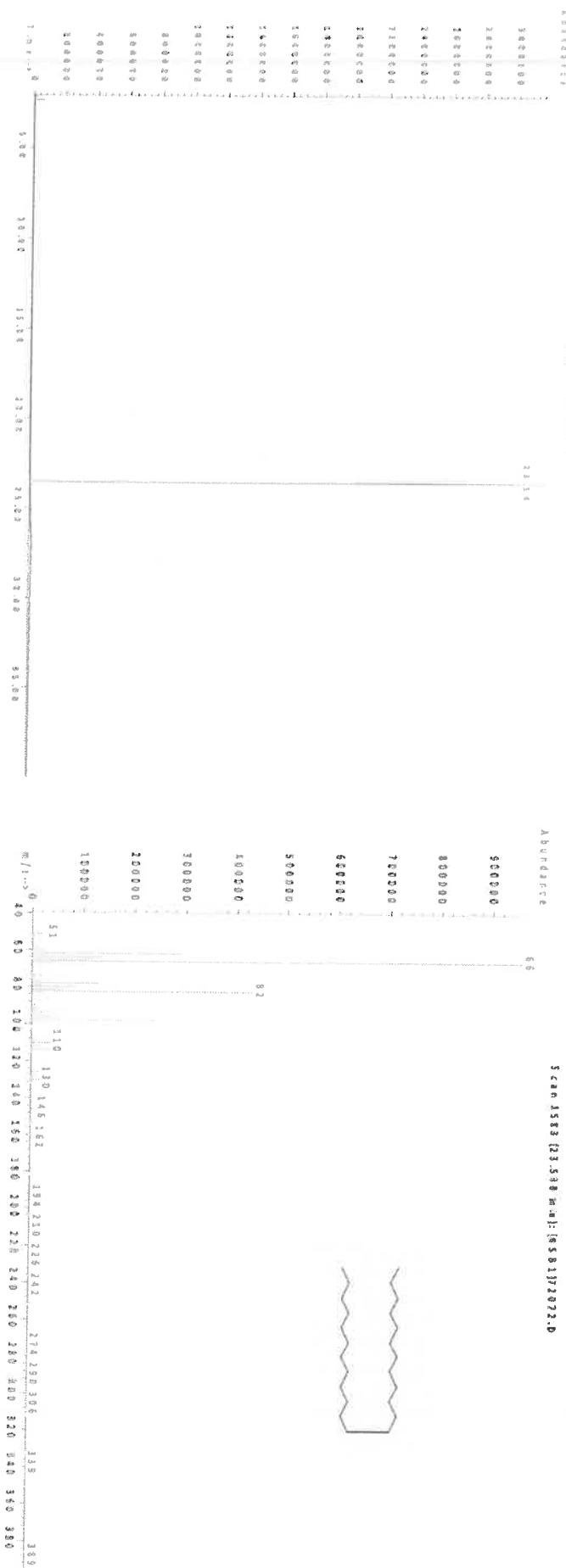
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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



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 070716

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

Solvent(s): Methylene chloride
Lot# 78782

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

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty (%)	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	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

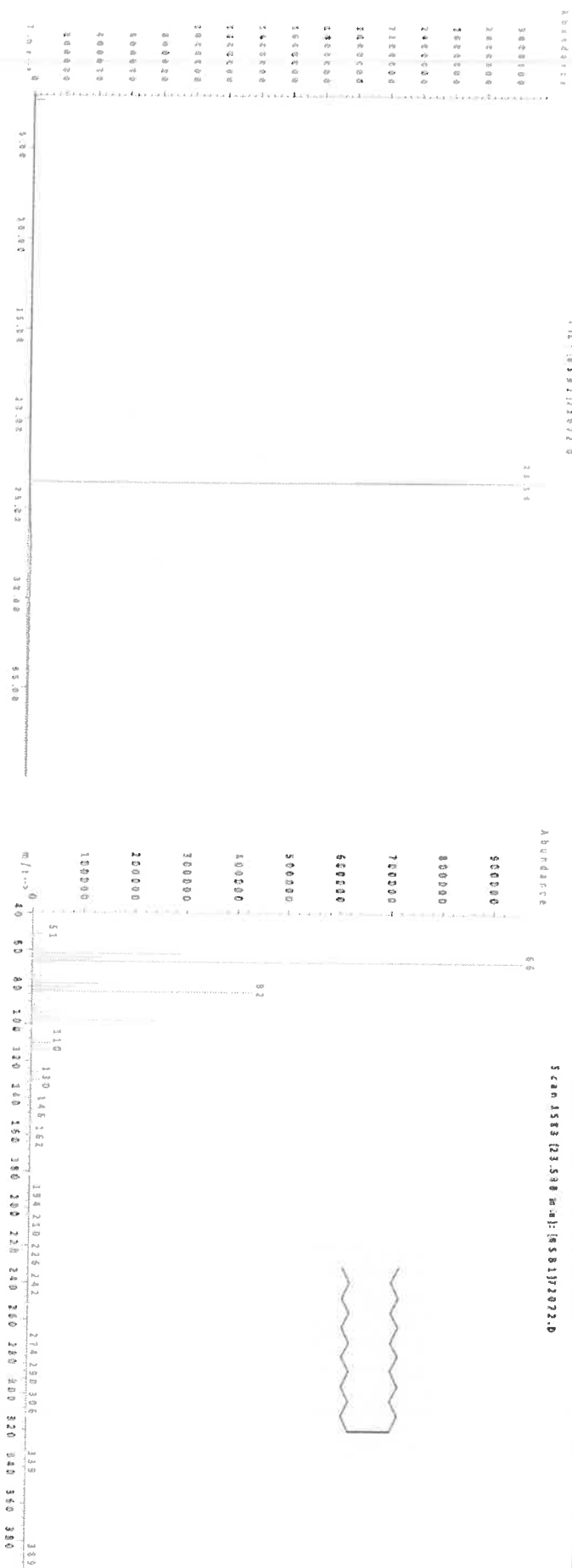
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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

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

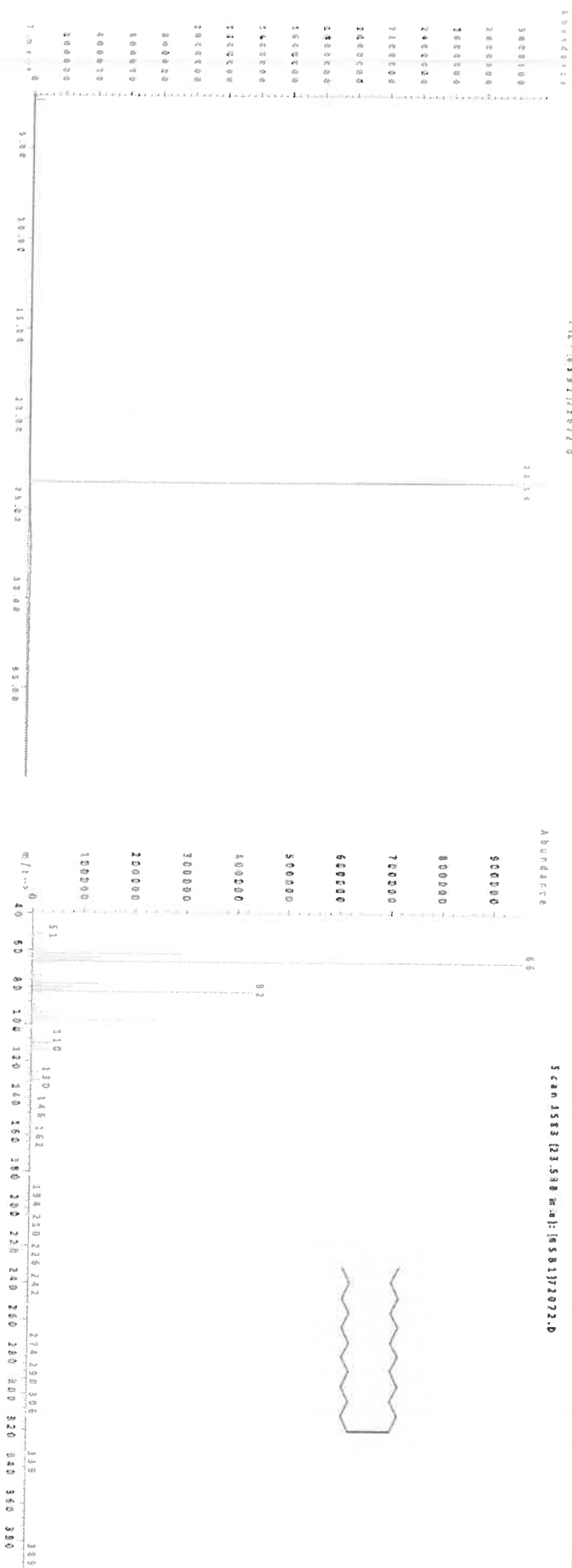
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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).



SHIPPING DOCUMENTS

CLIENT INFORMATION

CLIENT PROJECT INFORMATION

CLIENT BILLING INFORMATION

REPORT TO BE SENT TO:

COMPANY: CDM SMITH
ADDRESS: 110 FIELDCREST AVE #8 6TH FLOOR
CITY EDISON STATE: NJ ZIP: 08837
ATTENTION: MARCIE ENCINAS
PHONE: 732 590 4679 FAX: 732 225 7851

PROJECT NAME: SOUTH RIVER WM REPLACEMENT
PROJECT NO. 302781 LOCATION: SOUTH RIVER, NJ
PROJECT MANAGER: MARCIE ENCINAS
e-mail: ENCINASMA@CDMSMITH.COM
PHONE: 732 590 4679 FAX: 732 225 7851

BILL TO: CDM SMITH PO#:
ADDRESS: 110 FIELDCREST AVE #8 6TH FLOOR
CITY EDISON STATE: NJ ZIP: 08837
ATTENTION: MARCIE ENCINAS PHONE: 732 590 4679

ANALYSIS

DATA TURNAROUND INFORMATION

DATA DELIVERABLE INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☒ Level 2 (Results + QC) ☒ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B
+ Raw Data ☐ Other _____
☐ EDD FORMAT

TCL VOC
TCL SVOC
METALS
PCB
PESTICIDE
HERBICIDE
DRO/GRO

PRESERVATIVES

COMMENTS

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES										← Specify Preservatives A-HCl B-HNO3 C-H2SO4 D-NaOH E-ICE F-OTHER
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	TP-46	SOIL		X	5/28/25	1515	6	X	X	X	X	X	X	X			E
2.	TP-56	SOIL		X	5/29/25	0835	6	X	X	X	X	X	X	X			E
3.	TP-25	SOIL		X	5/29/25	0925	6	X	X	X	X	X	X	X			E
4.	TP-26	SOIL		X	5/29/25	1040	6	X	X	X	X	X	X	X			E
5.	TP-28	SOIL		X	5/29/25	1120	6	X	X	X	X	X	X	X			E
6.	TP-27	SOIL		X	5/29/25	1200	6	X	X	X	X	X	X	X			E
7.	TP-31	SOIL		X	5/29/25	1340	6	X	X	X	X	X	X	X			E
8.	TP-65	SOIL		X	5/30/25	1405	6	X	X	X	X	X	X	X			E
9.																	
10.																	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <i>[Signature]</i>	DATE/TIME: 5/30/25 1600	RECEIVED BY: 1. <i>[Signature]</i>	1600	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.1 °C
RELINQUISHED BY SAMPLER: 2. <i>[Signature]</i>	DATE/TIME:	RECEIVED BY: 2. <i>[Signature]</i>	5:30 25	Comments:
RELINQUISHED BY SAMPLER: 3. <i>[Signature]</i>	DATE/TIME: 1653 5-30-25	RECEIVED BY: 3. <i>[Signature]</i>		Page ____ of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete
☐ YES ☐ NO

Laboratory Certification

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2176	CAMP02	Order Date : 5/30/2025 4:04:00 PM	Project Mgr :
Client Name : CDM Smith		Project Name : South River WM Replacem	Report Type : Level 1 NJ Reduce
Client Contact : Marcie Ann Encinas		Receive DateTime : 5/30/2025 12:00:00 AM	EDD Type : EXCEL NOCLEANUP
Invoice Name : CDM Smith		Purchase Order : 16:43	Hard Copy Date :
Invoice Contact : Marcie Ann Encinas			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2176-01	TP-46	Solid	05/28/2025	15:15	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2176-02	TP-56	Solid	05/29/2025	08:35	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2176-03	TP-25	Solid	05/29/2025	09:25	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2176-04	TP-26	Solid	05/29/2025	10:40	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2176-05	TP-28	Solid	05/29/2025	11:20	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2176-06	TP-27	Solid	05/29/2025	12:00	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2176-07	TP-31	Solid	05/29/2025	13:40	VOC-TCLVOA-10		8260D	10 Bus. Days	
Q2176-08	TP-65	Solid	05/30/2025	14:05	VOC-TCLVOA-10		8260D	10 Bus. Days	

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2176	CAMP02	Order Date : 5/30/2025 4:04:00 PM	Project Mgr :
Client Name : CDM Smith		Project Name : South River WM Replacem	Report Type : Level 1 ^{NJ} Reduce
Client Contact : Marcie Ann Encinas		Receive DateTime : 5/30/2025 12:00:00 AM	EDD Type : EXCEL NOCLEANUP
Invoice Name : CDM Smith		Purchase Order : 16:43	Hard Copy Date :
Invoice Contact : Marcie Ann Encinas			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOC-TCLVOA-10		8260D		10 Bus. Days

Relinquished By : 
Date / Time : 6/2/25 1125

Received By : 
Date / Time : 6/2/25 1125

Storage Area : VOA Refridgerator Room