

Cover Page

Order ID : Q1936

Project ID : Stan Hope

Client : Saxton Falls Sand and Gravel Co. Inc.

Lab Sample Number

Q1936-01
Q1936-02
Q1936-03
Q1936-04
Q1936-05
Q1936-06
Q1936-07
Q1936-08

Client Sample Number

SMALL-PILE-A
SMALL-PILE-A
SMALL-PILE-B
SMALL-PILE-B
SMALL-PILE-C
SMALL-PILE-C
SMALL-PILE-D
SMALL-PILE-D

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: 5/8/2025

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 #: Q1936

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: NILESH PRAJAPATI

Date: 05/08/2025

LAB CHRONICLE

OrderID:	Q1936	OrderDate:	5/1/2025 2:00:17 PM
Client:	Saxton Falls Sand and Gravel Co. Inc.	Project:	Stan Hope
Contact:	Rich Schindelar	Location:	L51,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1936-01	SMALL-PILE-A	SOIL			05/01/25			05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1936-02	SMALL-PILE-A	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1936-03	SMALL-PILE-B	SOIL			05/01/25			05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1936-04	SMALL-PILE-B	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1936-05	SMALL-PILE-C	SOIL			05/01/25			05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1936-06	SMALL-PILE-C	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	
Q1936-07	SMALL-PILE-D	SOIL			05/01/25			05/01/25
			PCB	8082A		05/05/25	05/05/25	
			Pesticide-TCL	8081B		05/05/25	05/05/25	
			TPH GC	8015D		05/07/25	05/07/25	
Q1936-08	SMALL-PILE-D	Solid			05/01/25			05/01/25
			EPH_NF	NJEPH		05/05/25	05/05/25	



QC SUMMARY

SOIL TPH GC SURROGATE RECOVERY

Lab Name: Chemtech Client: Saxton Falls Sand and Gravel Co. Inc.
Lab Code: CHEM Case No.: Q1936 SAS No.: Q1936 SDG No.: Q1936

EPA SAMPLE NO.	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF015793.D	83				0
PIBLK-FF015804.D	86				0
PB167887BL	67				0
PB167887BS	89				0
SMALL-PILE-A	48				0
SMALL-PILE-AMS	40				0
SMALL-PILE-AMSD	37				0
SMALL-PILE-B	61				0
SMALL-PILE-C	55				0
SMALL-PILE-D	63				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 TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Saxton Falls Sand and Gravel Co. Inc.
Lab Code: CHEM **Cas No:** Q1936 **SAS No :** Q1936 **SDG No:** Q1936
Client SampleID : SMALL-PILE-AMS **Datafile:** FF015799.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
Petroleum Hydrocarbons	12457	4830	12617	62%	*	68-131

SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Saxton Falls Sand and Gravel Co. Inc.
Lab Code: CHEM **Cas No:** Q1936 **SAS No :** Q1936 **SDG No:** Q1936
Client SampleID : SMALL-PILE-AMSD **Datafile:** FF015800.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS
Petroleum Hydrocarbons	12465	4830	11943	57%	*	68-131

MS/MSD % Recovery RPD : 9

SOIL TPH GC LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATE RECOVERY

Lab Name: Chemtech **Client:** Saxton Falls Sand and Gravel Co. Inc.
Lab Code: CHEM **Cas No:** Q1936 **SAS No :** Q1936 **SDG No:** Q1936
Matrix Spike - EPA Sample No : PB167887BS **Datafile:** FF015797.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
Petroleum Hydrocarbons	11322	0	11247	99	68-131

4B
METHOD BLANK SUMMARY

EPA SAMPLE NO.

PB167887BL

Lab Name: CHEMTECH

Contract: SAXT01

Lab Code: CHEM Case No.: Q1936

SAS No.: Q1936 SDG NO.: Q1936

Lab File ID: FF015796.D

Lab Sample ID: PB167887BL

Instrument ID: FF

Date Extracted: 05/07/2025

Matrix: (soil/water) Soil

Date Analyzed: 05/07/25

Level: (low/med) low

Time Analyzed: 12:47

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PB167887BS	PB167887BS	FF015797.D	05/07/25
SMALL-PILE-A	Q1936-01	FF015798.D	05/07/25
SMALL-PILE-AMS	Q1936-01MS	FF015799.D	05/07/25
SMALL-PILE-AMSD	Q1936-01MSD	FF015800.D	05/07/25
SMALL-PILE-B	Q1936-03	FF015801.D	05/07/25
SMALL-PILE-C	Q1936-05	FF015802.D	05/07/25
SMALL-PILE-D	Q1936-07	FF015803.D	05/07/25

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	SMALL-PILE-A	SDG No.:	Q1936
Lab Sample ID:	Q1936-01	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	90.8
Sample Wt/Vol:	30.07	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015798.D	1	05/07/25 09:00	05/07/25 13:45	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	4830		422	3110	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	9.62		37 - 130	48%	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\FF050725\
Data File : FF015798.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 13:45
Operator : YP\AJ
Sample : Q1936-01
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-A

Integration File: autoint1.e
Quant Time: May 08 03:11:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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	1085902	9.623 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

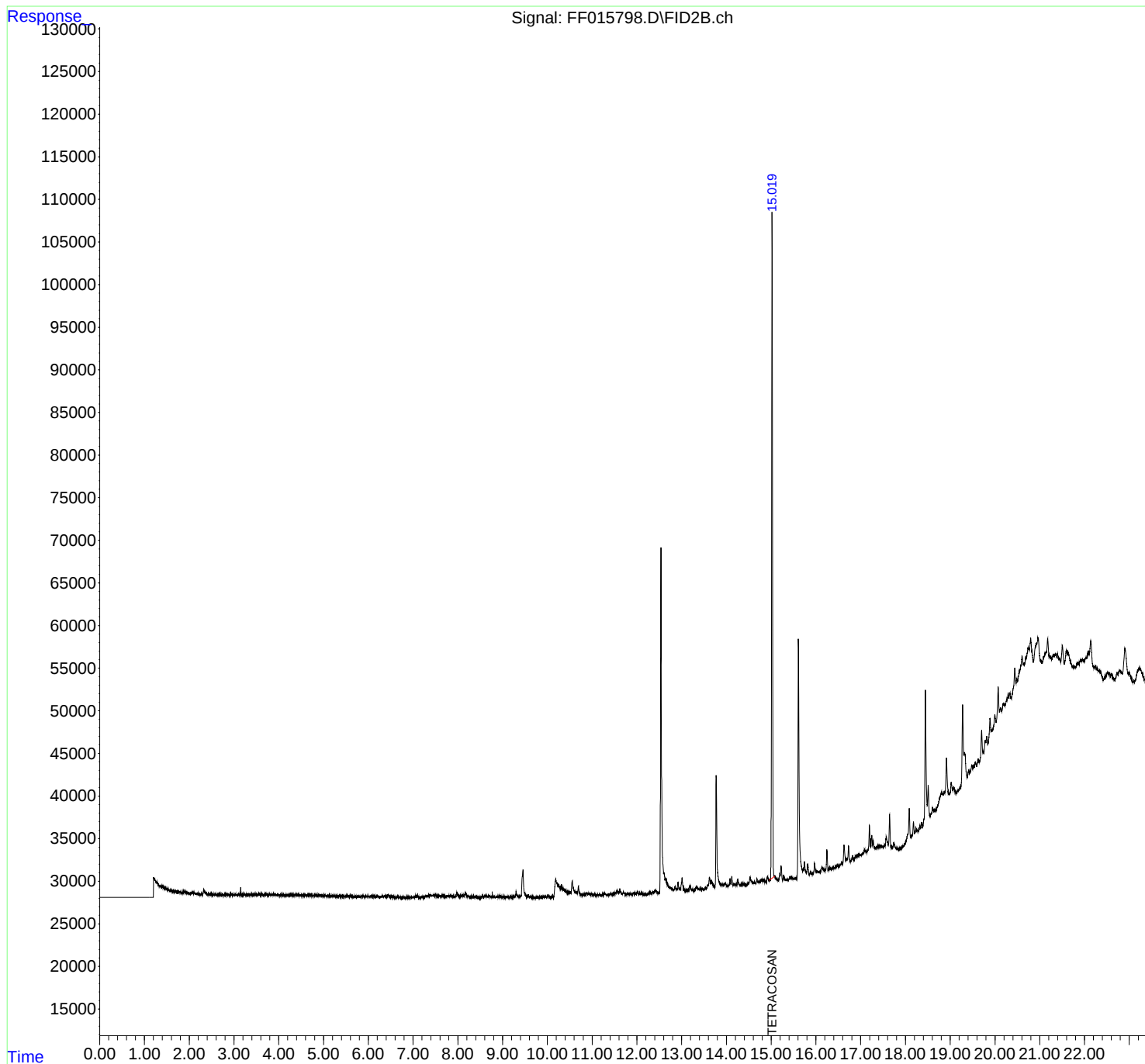
(m)=manual int.

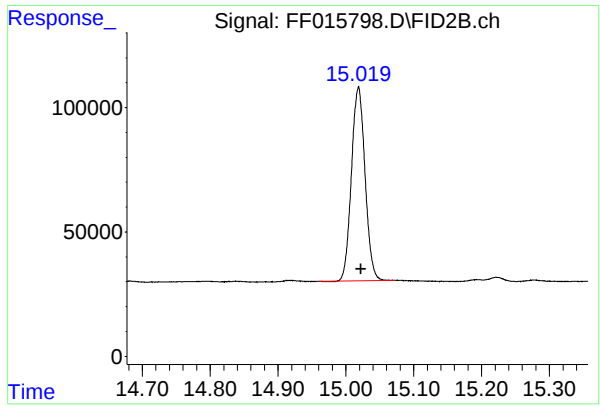
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015798.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 13:45
Operator : YP\AJ
Sample : Q1936-01
Misc :
ALS Vial : 73 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-A

Integration File: autoint1.e
Quant Time: May 08 03:11:48 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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.: 15.019 min
Delta R.T.: -0.004 min
Response: 1085902
Conc: 9.62 ug/ml

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-A

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015798.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 13:45
Sample : Q1936-01
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.032	2.006	2.047	BV	73	483	0.04%	0.003%
2	2.051	2.047	2.058	VV	145	300	0.03%	0.002%
3	2.065	2.058	2.076	PV	121	734	0.06%	0.005%
4	2.079	2.076	2.090	VV	151	679	0.06%	0.004%
5	2.092	2.090	2.109	VV	134	1078	0.10%	0.007%
6	2.113	2.109	2.136	VV	131	1753	0.15%	0.012%
7	2.147	2.136	2.152	VV	111	660	0.06%	0.004%
8	2.158	2.152	2.185	VV	113	1432	0.13%	0.009%
9	2.191	2.185	2.202	VV	129	968	0.09%	0.006%
10	2.208	2.202	2.232	VV	169	1687	0.15%	0.011%
11	2.239	2.232	2.246	PV	99	761	0.07%	0.005%
12	2.250	2.246	2.257	VV	150	385	0.03%	0.003%
13	2.264	2.257	2.284	VV	117	1380	0.12%	0.009%
14	2.324	2.284	2.347	VV	697	11897	1.05%	0.078%
15	2.359	2.347	2.395	VV	388	6938	0.61%	0.046%
16	2.398	2.395	2.415	VV	125	1413	0.12%	0.009%
17	2.427	2.415	2.457	VV	193	2718	0.24%	0.018%
18	2.459	2.457	2.463	VV	117	349	0.03%	0.002%
19	2.478	2.463	2.483	VV	180	1332	0.12%	0.009%
20	2.496	2.483	2.509	VV	188	1820	0.16%	0.012%
21	2.512	2.509	2.522	VV	165	858	0.08%	0.006%
22	2.524	2.522	2.528	VV	168	400	0.04%	0.003%
23	2.538	2.528	2.554	VV	147	1647	0.15%	0.011%
24	2.557	2.554	2.564	VV	100	407	0.04%	0.003%
25	2.577	2.564	2.589	PV	148	1465	0.13%	0.010%
26	2.598	2.589	2.605	VV	152	1055	0.09%	0.007%
27	2.608	2.605	2.617	VV	152	740	0.07%	0.005%
28	2.618	2.617	2.623	VV	101	304	0.03%	0.002%
29	2.639	2.623	2.654	VV	149	1811	0.16%	0.012%
30	2.668	2.654	2.674	VV	193	1577	0.14%	0.010%
31	2.678	2.674	2.694	VV	119	1272	0.11%	0.008%
32	2.697	2.694	2.701	VV	108	422	0.04%	0.003%
33	2.730	2.701	2.751	VV	180	2969	0.26%	0.020%
34	2.756	2.751	2.777	VV	194	1473	0.13%	0.010%
35	2.796	2.777	2.816	VV	178	2393	0.21%	0.016%
36	2.828	2.816	2.838	VV	176	1471	0.13%	0.010%

					rteres				
37	2.844	2.838	2.853	VV	157	1190	0.10%	0.008%	
38	2.865	2.853	2.887	VV	171	2504	0.22%	0.016%	
39	2.893	2.887	2.901	VV	144	848	0.07%	0.006%	
40	2.913	2.901	2.935	VV	168	2434	0.21%	0.016%	
41	2.943	2.935	2.954	VV	195	1595	0.14%	0.011%	
42	2.959	2.954	2.970	VV	164	1151	0.10%	0.008%	
43	3.003	2.970	3.008	VV	171	2490	0.22%	0.016%	
44	3.012	3.008	3.036	VV	198	2200	0.19%	0.014%	
45	3.039	3.036	3.047	VV	194	861	0.08%	0.006%	
46	3.050	3.047	3.058	VV	179	905	0.08%	0.006%	
47	3.063	3.058	3.080	VV	173	1827	0.16%	0.012%	
48	3.095	3.080	3.108	VV	182	2260	0.20%	0.015%	
49	3.113	3.108	3.122	VV	150	1045	0.09%	0.007%	
50	3.150	3.122	3.162	VV	869	3731	0.33%	0.025%	
51	3.167	3.162	3.172	VV	148	656	0.06%	0.004%	
52	3.186	3.172	3.191	VV	190	1585	0.14%	0.010%	
53	3.202	3.191	3.232	VV	223	3843	0.34%	0.025%	
54	3.242	3.232	3.260	VV	234	2502	0.22%	0.016%	
55	3.270	3.260	3.275	VV	217	1268	0.11%	0.008%	
56	3.292	3.275	3.320	VV	202	4375	0.39%	0.029%	
57	3.325	3.320	3.329	VV	200	797	0.07%	0.005%	
58	3.342	3.329	3.354	VV	196	2365	0.21%	0.016%	
59	3.360	3.354	3.364	VV	155	849	0.07%	0.006%	
60	3.369	3.364	3.373	VV	161	788	0.07%	0.005%	
61	3.377	3.373	3.397	VV	195	2255	0.20%	0.015%	
62	3.417	3.397	3.433	VV	267	3577	0.32%	0.024%	
63	3.467	3.433	3.475	VV	259	4636	0.41%	0.031%	
64	3.486	3.475	3.495	VV	263	2259	0.20%	0.015%	
65	3.498	3.495	3.506	VV	218	1239	0.11%	0.008%	
66	3.510	3.506	3.520	VV	185	1492	0.13%	0.010%	
67	3.524	3.520	3.535	VV	219	1648	0.15%	0.011%	
68	3.545	3.535	3.561	VV	231	2874	0.25%	0.019%	
69	3.564	3.561	3.602	VV	218	4888	0.43%	0.032%	
70	3.604	3.602	3.608	VV	242	704	0.06%	0.005%	
71	3.612	3.608	3.618	VV	275	1289	0.11%	0.008%	
72	3.625	3.618	3.649	VV	227	3635	0.32%	0.024%	
73	3.668	3.649	3.680	VV	216	3332	0.29%	0.022%	
74	3.696	3.680	3.721	VV	262	5079	0.45%	0.033%	
75	3.729	3.721	3.744	VV	251	3024	0.27%	0.020%	
76	3.748	3.744	3.766	VV	216	2345	0.21%	0.015%	
77	3.770	3.766	3.777	VV	210	1234	0.11%	0.008%	
78	3.791	3.777	3.796	VV	220	2072	0.18%	0.014%	
79	3.802	3.796	3.811	VV	201	1611	0.14%	0.011%	
80	3.818	3.811	3.827	VV	222	1782	0.16%	0.012%	
81	3.830	3.827	3.839	VV	205	1453	0.13%	0.010%	
82	3.841	3.839	3.849	VV	212	1068	0.09%	0.007%	
83	3.861	3.849	3.871	VV	269	2551	0.23%	0.017%	
84	3.875	3.871	3.889	VV	274	2142	0.19%	0.014%	
85	3.893	3.889	3.902	VV	192	1299	0.11%	0.009%	
86	3.908	3.902	3.934	VV	252	3193	0.28%	0.021%	
87	3.940	3.934	3.947	VV	175	1232	0.11%	0.008%	
88	3.954	3.947	3.982	VV	235	3751	0.33%	0.025%	
89	3.984	3.982	4.001	VV	223	1798	0.16%	0.012%	

					rteres			
90	4.005	4.001	4.028	VV	210	2510	0.22%	0.017%
91	4.043	4.028	4.060	VV	217	3213	0.28%	0.021%
92	4.092	4.060	4.102	VV	223	4103	0.36%	0.027%
93	4.106	4.102	4.124	VV	227	2386	0.21%	0.016%
94	4.128	4.124	4.134	VV	195	933	0.08%	0.006%
95	4.150	4.134	4.175	VV	196	3858	0.34%	0.025%
96	4.194	4.175	4.199	VV	189	2198	0.19%	0.014%
97	4.206	4.199	4.210	VV	221	1173	0.10%	0.008%
98	4.216	4.210	4.238	VV	208	2710	0.24%	0.018%
99	4.246	4.238	4.260	VV	214	1943	0.17%	0.013%
100	4.279	4.260	4.292	VV	213	2941	0.26%	0.019%
101	4.304	4.292	4.311	VV	206	1778	0.16%	0.012%
102	4.314	4.311	4.326	VV	184	1556	0.14%	0.010%
103	4.330	4.326	4.334	VV	184	747	0.07%	0.005%
104	4.339	4.334	4.343	VV	176	748	0.07%	0.005%
105	4.350	4.343	4.358	VV	245	1455	0.13%	0.010%
106	4.362	4.358	4.379	VV	225	2308	0.20%	0.015%
107	4.382	4.379	4.442	VV	180	7072	0.62%	0.047%
108	4.448	4.442	4.469	VV	203	2634	0.23%	0.017%
109	4.485	4.469	4.503	VV	209	3346	0.30%	0.022%
110	4.522	4.503	4.561	VV	200	5519	0.49%	0.036%
111	4.569	4.561	4.580	VV	132	1669	0.15%	0.011%
112	4.605	4.580	4.620	VV	199	3753	0.33%	0.025%
113	4.631	4.620	4.652	VV	187	3084	0.27%	0.020%
114	4.687	4.652	4.724	VV	340	8247	0.73%	0.054%
115	4.732	4.724	4.745	VV	200	1879	0.17%	0.012%
116	4.801	4.745	4.873	VV	268	13608	1.20%	0.090%
117	4.882	4.873	4.999	VV	245	13620	1.20%	0.090%
118	5.018	4.999	5.137	VV	195	12057	1.06%	0.079%
119	5.153	5.137	5.182	VV	196	3441	0.30%	0.023%
120	5.189	5.182	5.216	VV	202	2475	0.22%	0.016%
121	5.234	5.216	5.245	VV	142	2071	0.18%	0.014%
122	5.253	5.245	5.308	VV	122	4254	0.38%	0.028%
123	5.315	5.308	5.324	VV	190	1115	0.10%	0.007%
124	5.331	5.324	5.348	VV	127	1398	0.12%	0.009%
125	5.357	5.348	5.390	VV	124	2382	0.21%	0.016%
126	5.404	5.390	5.414	VV	145	1337	0.12%	0.009%
127	5.435	5.414	5.477	VV	124	3940	0.35%	0.026%
128	5.488	5.477	5.532	VV	131	3704	0.33%	0.024%
129	5.539	5.532	5.605	VV	132	5067	0.45%	0.033%
130	5.614	5.605	5.627	VV	143	1455	0.13%	0.010%
131	5.642	5.627	5.664	VV	177	2403	0.21%	0.016%
132	5.675	5.664	5.703	VV	138	2241	0.20%	0.015%
133	5.710	5.703	5.749	VV	160	2295	0.20%	0.015%
134	5.762	5.749	5.798	VV	152	2888	0.25%	0.019%
135	5.805	5.798	5.849	VV	156	3035	0.27%	0.020%
136	5.856	5.849	5.869	VV	142	1338	0.12%	0.009%
137	5.876	5.869	5.889	VV	136	1472	0.13%	0.010%
138	5.897	5.889	5.940	VV	163	3828	0.34%	0.025%
139	5.947	5.940	5.957	VV	157	1227	0.11%	0.008%
140	5.960	5.957	5.973	VV	149	1112	0.10%	0.007%
141	5.985	5.973	5.999	VV	157	1937	0.17%	0.013%

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142	6.009	5.999	6.027	VV	233	2634	0.23%	0.017%	
143	6.034	6.027	6.111	VV	185	7421	0.65%	0.049%	
144	6.120	6.111	6.133	VV	189	1644	0.15%	0.011%	
145	6.143	6.133	6.155	VV	123	1557	0.14%	0.010%	
146	6.175	6.155	6.204	VV	191	3968	0.35%	0.026%	
147	6.209	6.204	6.232	VV	153	2069	0.18%	0.014%	
148	6.240	6.232	6.257	VV	149	1774	0.16%	0.012%	
149	6.262	6.257	6.279	VV	160	1478	0.13%	0.010%	
150	6.307	6.279	6.347	VV	189	6371	0.56%	0.042%	
151	6.368	6.347	6.415	VV	236	5982	0.53%	0.039%	
152	6.444	6.415	6.508	VV	388	9771	0.86%	0.064%	
153	6.524	6.508	6.541	VV	204	2893	0.26%	0.019%	
154	6.552	6.541	6.577	VV	151	2560	0.23%	0.017%	
155	6.584	6.577	6.605	VV	129	1484	0.13%	0.010%	
156	6.614	6.605	6.629	VV	129	1408	0.12%	0.009%	
157	6.635	6.629	6.675	VV	142	2761	0.24%	0.018%	
158	6.684	6.675	6.726	VV	108	2483	0.22%	0.016%	
159	6.745	6.726	6.754	VV	119	1314	0.12%	0.009%	
160	6.765	6.754	6.777	VV	80	695	0.06%	0.005%	
161	6.790	6.777	6.812	PV	123	1068	0.09%	0.007%	
162	6.826	6.812	6.834	VV	83	918	0.08%	0.006%	
163	6.872	6.834	6.896	VV	125	2891	0.26%	0.019%	
164	6.922	6.896	6.964	VV	152	3615	0.32%	0.024%	
165	6.971	6.964	6.980	VV	99	769	0.07%	0.005%	
166	7.002	6.980	7.010	VV	136	1691	0.15%	0.011%	
167	7.062	7.010	7.084	VV	323	6539	0.58%	0.043%	
168	7.102	7.084	7.144	VV	411	5999	0.53%	0.040%	
169	7.170	7.144	7.184	VV	123	1937	0.17%	0.013%	
170	7.204	7.184	7.220	PV	128	1987	0.18%	0.013%	
171	7.350	7.220	7.359	VV	306	15895	1.40%	0.105%	
172	7.380	7.359	7.427	VV	383	12411	1.09%	0.082%	
173	7.465	7.427	7.481	VV	385	9788	0.86%	0.064%	
174	7.489	7.481	7.587	VV	298	17043	1.50%	0.112%	
175	7.595	7.587	7.635	VV	282	7093	0.63%	0.047%	
176	7.650	7.635	7.693	VV	283	8325	0.73%	0.055%	
177	7.713	7.693	7.722	VV	258	3811	0.34%	0.025%	
178	7.729	7.722	7.734	VV	246	1607	0.14%	0.011%	
179	7.758	7.734	7.790	VV	271	7846	0.69%	0.052%	
180	7.813	7.790	7.867	VV	268	10175	0.90%	0.067%	
181	7.883	7.867	7.915	VV	221	5663	0.50%	0.037%	
182	7.930	7.915	7.940	VV	189	2550	0.22%	0.017%	
183	7.982	7.940	8.068	VV	626	22673	2.00%	0.149%	
184	8.100	8.068	8.133	VV	398	10841	0.96%	0.071%	
185	8.168	8.133	8.221	VV	648	18759	1.65%	0.124%	
186	8.237	8.221	8.285	VV	235	6497	0.57%	0.043%	
187	8.291	8.285	8.305	VV	150	1827	0.16%	0.012%	
188	8.354	8.305	8.507	VV	224	14208	1.25%	0.094%	
189	8.550	8.507	8.577	VV	307	7125	0.63%	0.047%	
190	8.616	8.577	8.670	VV	245	10420	0.92%	0.069%	
191	8.710	8.670	8.735	VV	219	6836	0.60%	0.045%	
192	8.745	8.735	8.758	VV	208	2167	0.19%	0.014%	
193	8.770	8.758	8.840	VV	238	6130	0.54%	0.040%	
194	8.882	8.840	8.918	VV	176	4978	0.44%	0.033%	

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195	8.943	8.918	8.984	VV	229	5377	0.47%	0.035%
196	9.003	8.984	9.051	VV	188	4197	0.37%	0.028%
197	9.074	9.051	9.088	VV	159	2239	0.20%	0.015%
198	9.094	9.088	9.145	VV	143	3833	0.34%	0.025%
199	9.156	9.145	9.171	VV	118	1511	0.13%	0.010%
200	9.193	9.171	9.218	VV	155	3358	0.30%	0.022%
201	9.228	9.218	9.234	VV	127	957	0.08%	0.006%
202	9.304	9.234	9.359	VV	715	17462	1.54%	0.115%
203	9.368	9.359	9.394	VV	174	3089	0.27%	0.020%
204	9.457	9.394	9.547	VV	3302	90843	8.01%	0.598%
205	9.571	9.547	9.684	VV	372	12279	1.08%	0.081%
206	9.695	9.684	9.718	VV	84	877	0.08%	0.006%
207	9.780	9.718	9.808	VV	96	2509	0.22%	0.017%
208	9.842	9.808	9.862	PV	118	2424	0.21%	0.016%
209	9.870	9.862	9.885	VV	74	827	0.07%	0.005%
210	9.890	9.885	9.894	VV	76	344	0.03%	0.002%
211	9.905	9.894	9.915	VV	95	1023	0.09%	0.007%
212	9.925	9.915	9.940	VV	107	1234	0.11%	0.008%
213	9.950	9.940	9.991	VV	104	2064	0.18%	0.014%
214	10.012	9.991	10.034	PV	338	4298	0.38%	0.028%
215	10.045	10.034	10.105	VV	107	2451	0.22%	0.016%
216	10.122	10.105	10.143	VV	89	1177	0.10%	0.008%
217	10.188	10.143	10.381	VV	2064	173871	15.34%	1.145%
218	10.390	10.381	10.491	VV	867	40844	3.60%	0.269%
219	10.515	10.491	10.530	VV	583	12275	1.08%	0.081%
220	10.556	10.530	10.641	VV	1839	61601	5.43%	0.406%
221	10.645	10.641	10.652	VV	504	2998	0.26%	0.020%
222	10.660	10.652	10.674	VV	493	6143	0.54%	0.040%
223	10.696	10.674	10.794	VV	1280	33063	2.92%	0.218%
224	10.807	10.794	10.817	VV	216	2908	0.26%	0.019%
225	10.838	10.817	10.857	VV	301	6307	0.56%	0.042%
226	10.884	10.857	10.902	VV	435	8873	0.78%	0.058%
227	10.921	10.902	10.955	VV	355	9035	0.80%	0.060%
228	10.979	10.955	11.014	VV	316	7933	0.70%	0.052%
229	11.067	11.014	11.111	VV	255	10164	0.90%	0.067%
230	11.125	11.111	11.140	VV	193	2528	0.22%	0.017%
231	11.159	11.140	11.218	VV	233	5555	0.49%	0.037%
232	11.277	11.218	11.351	VV	255	12905	1.14%	0.085%
233	11.420	11.351	11.461	VV	264	10539	0.93%	0.069%
234	11.553	11.461	11.595	VV	511	25262	2.23%	0.166%
235	11.618	11.595	11.681	VV	793	20064	1.77%	0.132%
236	11.701	11.681	11.765	VV	415	11312	1.00%	0.075%
237	11.783	11.765	11.796	VV	187	2861	0.25%	0.019%
238	11.815	11.796	11.835	VV	255	4223	0.37%	0.028%
239	11.929	11.835	11.984	VV	269	13611	1.20%	0.090%
240	12.017	11.984	12.044	VV	411	8634	0.76%	0.057%
241	12.065	12.044	12.079	VV	212	3329	0.29%	0.022%
242	12.107	12.079	12.161	VV	346	6358	0.56%	0.042%
243	12.172	12.161	12.185	VV	112	451	0.04%	0.003%
244	12.208	12.185	12.238	PV	61	1706	0.15%	0.011%
245	12.288	12.238	12.310	VV	282	6542	0.58%	0.043%
246	12.360	12.310	12.371	VV	259	6181	0.55%	0.041%

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247	12.413	12.371	12.468	VV	422	15998	1.41%	0.105%
248	12.491	12.468	12.507	VV	168	2768	0.24%	0.018%
249	12.538	12.507	12.821	VV	40587	758779	66.94%	4.998%
250	12.855	12.821	12.885	VV	624	16227	1.43%	0.107%
251	12.922	12.885	12.949	VV	1191	22781	2.01%	0.150%
252	12.959	12.949	12.971	VV	366	4458	0.39%	0.029%
253	13.009	12.971	13.120	VV	1642	41450	3.66%	0.273%
254	13.135	13.120	13.155	VV	203	2970	0.26%	0.020%
255	13.185	13.155	13.265	VV	615	17133	1.51%	0.113%
256	13.335	13.265	13.395	PV	487	14897	1.31%	0.098%
257	13.428	13.395	13.453	VV	222	5334	0.47%	0.035%
258	13.465	13.453	13.518	VV	185	3222	0.28%	0.021%
259	13.535	13.518	13.552	PV	288	3841	0.34%	0.025%
260	13.585	13.552	13.595	VV	515	8900	0.79%	0.059%
261	13.622	13.595	13.648	VV	1384	30372	2.68%	0.200%
262	13.657	13.648	13.671	VV	875	11160	0.98%	0.074%
263	13.679	13.671	13.745	VV	819	19492	1.72%	0.128%
264	13.772	13.745	13.897	VV	13237	246485	21.74%	1.624%
265	13.907	13.897	13.932	VV	385	7256	0.64%	0.048%
266	13.942	13.932	13.948	VV	350	2973	0.26%	0.020%
267	13.979	13.948	14.018	VV	533	14119	1.25%	0.093%
268	14.028	14.018	14.055	VV	180	3773	0.33%	0.025%
269	14.079	14.055	14.099	VV	977	14966	1.32%	0.099%
270	14.120	14.099	14.147	VV	1191	18726	1.65%	0.123%
271	14.180	14.147	14.202	VV	332	7938	0.70%	0.052%
272	14.213	14.202	14.224	VV	207	2403	0.21%	0.016%
273	14.254	14.224	14.318	VV	779	17042	1.50%	0.112%
274	14.345	14.318	14.407	VV	223	8085	0.71%	0.053%
275	14.424	14.407	14.461	VV	121	2365	0.21%	0.016%
276	14.527	14.461	14.612	PV	850	30925	2.73%	0.204%
277	14.636	14.612	14.660	VV	226	4602	0.41%	0.030%
278	14.682	14.660	14.707	VV	607	9044	0.80%	0.060%
279	14.766	14.707	14.778	VV	320	10607	0.94%	0.070%
280	14.794	14.778	14.816	VV	443	8071	0.71%	0.053%
281	14.839	14.816	14.867	VV	417	8206	0.72%	0.054%
282	14.919	14.867	14.952	VV	704	17250	1.52%	0.114%
283	14.960	14.952	14.971	VV	347	3348	0.30%	0.022%
284	15.018	14.971	15.161	VV	77993	1133533	100.00%	7.466%
285	15.222	15.161	15.252	VV	1791	39749	3.51%	0.262%
286	15.278	15.252	15.331	VV	636	11297	1.00%	0.074%
287	15.358	15.331	15.367	PV	115	1281	0.11%	0.008%
288	15.422	15.367	15.441	VV	352	6875	0.61%	0.045%
289	15.462	15.441	15.498	VV	257	5467	0.48%	0.036%
290	15.502	15.498	15.509	VV	103	426	0.04%	0.003%
291	15.516	15.509	15.522	PV	104	451	0.04%	0.003%
292	15.538	15.522	15.565	PV	158	2077	0.18%	0.014%
293	15.607	15.565	15.711	VV	27857	497370	43.88%	3.276%
294	15.743	15.711	15.787	VV	1729	41607	3.67%	0.274%
295	15.817	15.787	15.853	VV	1361	25926	2.29%	0.171%
296	15.878	15.853	15.902	VV	339	6357	0.56%	0.042%
297	15.911	15.902	15.918	VV	128	1170	0.10%	0.008%
298	15.926	15.918	15.940	VV	127	1132	0.10%	0.007%
299	15.969	15.940	16.006	VV	1243	20761	1.83%	0.137%

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300	16.038	16.006	16.055	VV	231	5137	0.45%	0.034%
301	16.073	16.055	16.095	VV	113	1906	0.17%	0.013%
302	16.134	16.095	16.161	VV	598	11365	1.00%	0.075%
303	16.170	16.161	16.195	VV	262	3533	0.31%	0.023%
304	16.244	16.195	16.288	VV	2431	35042	3.09%	0.231%
305	16.315	16.288	16.331	VV	243	3351	0.30%	0.022%
306	16.380	16.331	16.404	PV	245	4660	0.41%	0.031%
307	16.477	16.404	16.499	VV	191	6522	0.58%	0.043%
308	16.568	16.499	16.586	VV	372	10219	0.90%	0.067%
309	16.627	16.586	16.675	VV	2387	56263	4.96%	0.371%
310	16.694	16.675	16.704	VV	663	11138	0.98%	0.073%
311	16.727	16.704	16.775	VV	2118	39184	3.46%	0.258%
312	16.818	16.775	16.851	VV	789	22856	2.02%	0.151%
313	16.891	16.851	16.909	VV	780	20169	1.78%	0.133%
314	16.949	16.909	16.981	VV	785	29750	2.62%	0.196%
315	16.993	16.981	17.006	VV	656	9511	0.84%	0.063%
316	17.088	17.006	17.134	VV	1129	65195	5.75%	0.429%
317	17.195	17.134	17.225	VV	3808	91743	8.09%	0.604%
318	17.247	17.225	17.265	VV	2595	45411	4.01%	0.299%
319	17.278	17.265	17.311	VV	1927	40085	3.54%	0.264%
320	17.399	17.311	17.411	VV	1076	59973	5.29%	0.395%
321	17.440	17.411	17.475	VV	1123	37877	3.34%	0.249%
322	17.492	17.475	17.505	VV	864	15111	1.33%	0.100%
323	17.532	17.505	17.545	VV	966	21852	1.93%	0.144%
324	17.569	17.545	17.617	VV	1930	58532	5.16%	0.386%
325	17.645	17.617	17.703	VV	4328	81103	7.15%	0.534%
326	17.740	17.703	17.808	VV	1023	29273	2.58%	0.193%
327	17.823	17.808	17.845	VV	126	1997	0.18%	0.013%
328	17.923	17.845	17.937	PV	154	2348	0.21%	0.015%
329	18.083	17.937	18.113	PV	3781	90049	7.94%	0.593%
330	18.134	18.113	18.151	VV	503	8492	0.75%	0.056%
331	18.178	18.151	18.205	VV	1808	29964	2.64%	0.197%
332	18.235	18.205	18.298	VV	744	23695	2.09%	0.156%
333	18.321	18.298	18.338	VV	666	10419	0.92%	0.069%
334	18.359	18.338	18.382	VV	841	13916	1.23%	0.092%
335	18.445	18.382	18.486	VV	15708	300324	26.49%	1.978%
336	18.507	18.486	18.548	VV	4455	88500	7.81%	0.583%
337	18.606	18.548	18.655	VV	1319	58863	5.19%	0.388%
338	18.802	18.655	18.837	VV	2191	152984	13.50%	1.008%
339	18.872	18.837	18.881	VV	1916	47004	4.15%	0.310%
340	18.915	18.881	18.980	VV	5643	158609	13.99%	1.045%
341	19.022	18.980	19.058	VV	2286	71534	6.31%	0.471%
342	19.078	19.058	19.141	VV	1498	48121	4.25%	0.317%
343	19.276	19.141	19.304	VV	10096	237192	20.93%	1.562%
344	19.315	19.304	19.380	VV	4302	128377	11.33%	0.846%
345	19.414	19.380	19.433	VV	1608	46133	4.07%	0.304%
346	19.484	19.433	19.498	VV	2002	62889	5.55%	0.414%
347	19.518	19.498	19.538	VV	1689	38491	3.40%	0.254%
348	19.563	19.538	19.593	VV	1993	56019	4.94%	0.369%
349	19.623	19.593	19.641	VV	2010	50061	4.42%	0.330%
350	19.701	19.641	19.749	VV	4998	171707	15.15%	1.131%
351	19.780	19.749	19.791	VV	3388	73042	6.44%	0.481%

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352	19.816	19.791	19.843	VV	3708	101512	8.96%	0.669%	
353	19.889	19.843	19.921	VV	5469	189899	16.75%	1.251%	
354	19.996	19.921	20.023	VV	5365	268286	23.67%	1.767%	
355	20.071	20.023	20.098	VV	8223	268424	23.68%	1.768%	
356	20.120	20.098	20.153	VV	5488	176821	15.60%	1.165%	
357	20.194	20.153	20.225	VV	5684	234004	20.64%	1.541%	
358	20.295	20.225	20.311	VV	6451	304388	26.85%	2.005%	
359	20.331	20.311	20.358	VV	6263	167172	14.75%	1.101%	
360	20.442	20.358	20.468	VV	8614	441978	38.99%	2.911%	
361	20.485	20.468	20.505	VV	7124	153352	13.53%	1.010%	
362	20.606	20.505	20.631	VV	9221	612821	54.06%	4.037%	
363	20.646	20.631	20.658	VV	8239	131782	11.63%	0.868%	
364	20.739	20.658	20.766	VV	9563	571712	50.44%	3.766%	
365	20.797	20.766	20.861	VV	10442	511920	45.16%	3.372%	
366	20.963	20.861	21.057	VV	9607	946773	83.52%	6.236%	
367	21.176	21.057	21.221	VV	8403	686185	60.54%	4.520%	
368	21.234	21.221	21.265	VV	6125	154440	13.62%	1.017%	
369	21.304	21.265	21.325	VV	5952	208363	18.38%	1.372%	
370	21.344	21.325	21.370	VV	5871	153693	13.56%	1.012%	
371	21.386	21.370	21.430	VV	5613	191490	16.89%	1.261%	
372	21.444	21.430	21.465	VV	4906	98878	8.72%	0.651%	
373	21.505	21.465	21.545	VV	6038	234244	20.66%	1.543%	
374	21.595	21.545	21.618	VV	4983	194708	17.18%	1.283%	
375	21.632	21.618	21.754	VV	4592	272821	24.07%	1.797%	
376	21.779	21.754	21.803	VV	2225	63907	5.64%	0.421%	
377	21.834	21.803	21.875	VV	2448	93621	8.26%	0.617%	
378	21.911	21.875	21.932	VV	2333	74537	6.58%	0.491%	
379	21.953	21.932	21.989	VV	2213	70971	6.26%	0.467%	
380	22.089	21.989	22.107	VV	2425	144456	12.74%	0.952%	
381	22.138	22.107	22.201	VBA	3415	130859	11.54%	0.862%	
			Sum of corrected areas:				15181775		

FF042225.M Thu May 08 06:00:29 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	SMALL-PILE-B	SDG No.:	Q1936
Lab Sample ID:	Q1936-03	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	93.8
Sample Wt/Vol:	30.05	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015801.D	1	05/07/25 09:00	05/07/25 15:13	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	10800		409	3020	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	12.2		37 - 130	61%	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\FF050725\
Data File : FF015801.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 15:13
Operator : YP\AJ
Sample : Q1936-03
Misc :
ALS Vial : 76 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-B

Integration File: autoint1.e
Quant Time: May 08 03:12:37 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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	1376869	12.201 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

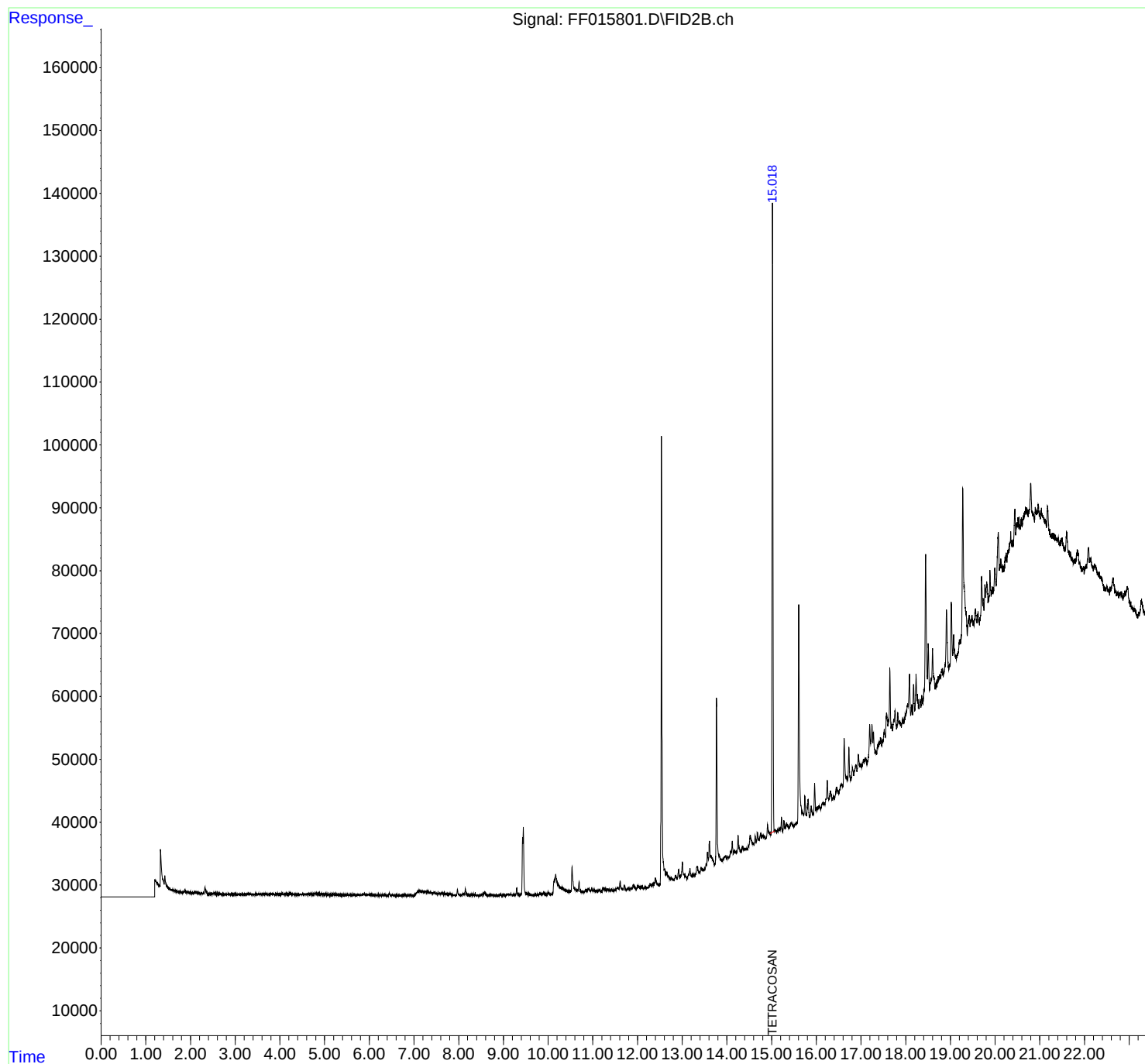
(m)=manual int.

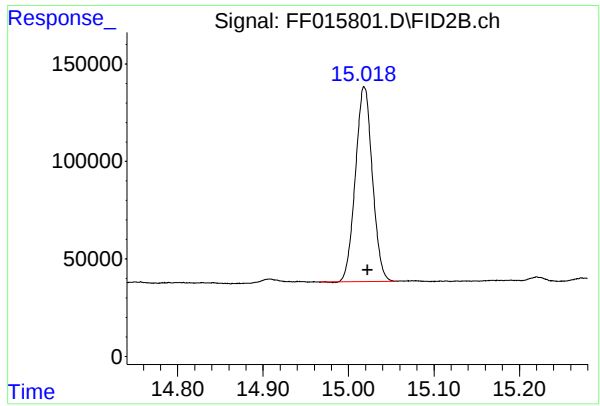
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015801.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 15:13
Operator : YP\AJ
Sample : Q1936-03
Misc :
ALS Vial : 76 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-B

Integration File: autoint1.e
Quant Time: May 08 03:12:37 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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.: 15.019 min
Delta R.T.: -0.004 min
Response: 1376869
Conc: 12.20 ug/ml

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-B

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015801.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 15:13
 Sample : Q1936-03
 Misc :
 ALS Vial : 76 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.012	2.000	2.022	BV	51	87	0.01%	0.000%
2	2.029	2.022	2.043	PV	68	545	0.04%	0.002%
3	2.049	2.043	2.055	VV	85	415	0.03%	0.001%
4	2.060	2.055	2.070	VV	136	571	0.04%	0.002%
5	2.093	2.070	2.098	VV	139	1111	0.08%	0.003%
6	2.111	2.098	2.134	VV	195	2535	0.18%	0.007%
7	2.138	2.134	2.148	VV	147	729	0.05%	0.002%
8	2.151	2.148	2.166	VV	112	831	0.06%	0.002%
9	2.172	2.166	2.178	VV	133	662	0.05%	0.002%
10	2.182	2.178	2.204	VV	136	1267	0.09%	0.004%
11	2.209	2.204	2.219	VV	90	613	0.04%	0.002%
12	2.230	2.219	2.242	VV	145	941	0.07%	0.003%
13	2.249	2.242	2.260	VV	190	1059	0.07%	0.003%
14	2.265	2.260	2.274	VV	114	709	0.05%	0.002%
15	2.323	2.274	2.351	VV	1130	19458	1.37%	0.057%
16	2.357	2.351	2.389	VV	417	5630	0.40%	0.017%
17	2.393	2.389	2.426	VV	140	2172	0.15%	0.006%
18	2.435	2.426	2.441	PV	100	607	0.04%	0.002%
19	2.449	2.441	2.452	VV	127	494	0.03%	0.001%
20	2.458	2.452	2.462	VV	146	740	0.05%	0.002%
21	2.467	2.462	2.507	VV	181	3686	0.26%	0.011%
22	2.511	2.507	2.540	VV	211	2892	0.20%	0.009%
23	2.551	2.540	2.559	VV	157	1369	0.10%	0.004%
24	2.569	2.559	2.578	VV	203	1308	0.09%	0.004%
25	2.582	2.578	2.591	VV	215	961	0.07%	0.003%
26	2.600	2.591	2.616	VV	219	2019	0.14%	0.006%
27	2.622	2.616	2.629	VV	154	880	0.06%	0.003%
28	2.645	2.629	2.652	VV	147	1349	0.09%	0.004%
29	2.655	2.652	2.663	VV	133	770	0.05%	0.002%
30	2.665	2.663	2.679	VV	152	1082	0.08%	0.003%
31	2.683	2.679	2.703	VV	130	1390	0.10%	0.004%
32	2.715	2.703	2.721	VV	158	1057	0.07%	0.003%
33	2.726	2.721	2.740	VV	208	1233	0.09%	0.004%
34	2.747	2.740	2.753	VV	139	775	0.05%	0.002%
35	2.756	2.753	2.764	VV	159	609	0.04%	0.002%
36	2.790	2.764	2.804	VV	128	2195	0.15%	0.006%

					rteres			
37	2.813	2.804	2.826	VV	129	1219	0.09%	0.004%
38	2.830	2.826	2.864	VV	145	2193	0.15%	0.006%
39	2.878	2.864	2.891	VV	136	1577	0.11%	0.005%
40	2.894	2.891	2.903	VV	117	688	0.05%	0.002%
41	2.915	2.903	2.929	VV	185	1757	0.12%	0.005%
42	2.932	2.929	2.938	VV	102	490	0.03%	0.001%
43	2.948	2.938	2.968	PV	159	1915	0.13%	0.006%
44	2.971	2.968	2.982	VV	161	932	0.07%	0.003%
45	2.990	2.982	3.003	VV	179	1378	0.10%	0.004%
46	3.007	3.003	3.027	VV	152	1629	0.11%	0.005%
47	3.034	3.027	3.050	VV	133	1251	0.09%	0.004%
48	3.054	3.050	3.058	VV	95	450	0.03%	0.001%
49	3.069	3.058	3.072	VV	136	877	0.06%	0.003%
50	3.077	3.072	3.096	VV	157	1805	0.13%	0.005%
51	3.102	3.096	3.142	VV	199	3365	0.24%	0.010%
52	3.153	3.142	3.161	VV	166	1205	0.08%	0.004%
53	3.165	3.161	3.191	VV	196	2231	0.16%	0.007%
54	3.198	3.191	3.226	VV	167	2995	0.21%	0.009%
55	3.228	3.226	3.242	VV	181	1157	0.08%	0.003%
56	3.262	3.242	3.268	VV	189	2148	0.15%	0.006%
57	3.271	3.268	3.283	VV	191	1262	0.09%	0.004%
58	3.287	3.283	3.314	VV	183	2814	0.20%	0.008%
59	3.329	3.314	3.350	VV	227	3506	0.25%	0.010%
60	3.353	3.350	3.374	VV	218	2172	0.15%	0.006%
61	3.378	3.374	3.403	VV	193	2824	0.20%	0.008%
62	3.407	3.403	3.412	VV	225	855	0.06%	0.003%
63	3.418	3.412	3.431	VV	212	1980	0.14%	0.006%
64	3.460	3.431	3.483	VV	229	4900	0.34%	0.014%
65	3.491	3.483	3.497	VV	201	1333	0.09%	0.004%
66	3.506	3.497	3.510	VV	213	1310	0.09%	0.004%
67	3.523	3.510	3.533	VV	261	2326	0.16%	0.007%
68	3.555	3.533	3.559	VV	228	2930	0.21%	0.009%
69	3.566	3.559	3.574	VV	225	1696	0.12%	0.005%
70	3.579	3.574	3.607	VV	209	3488	0.24%	0.010%
71	3.612	3.607	3.622	VV	241	1639	0.12%	0.005%
72	3.641	3.622	3.650	VV	214	3052	0.21%	0.009%
73	3.654	3.650	3.663	VV	166	1254	0.09%	0.004%
74	3.666	3.663	3.670	VV	241	833	0.06%	0.002%
75	3.679	3.670	3.685	VV	221	1527	0.11%	0.004%
76	3.696	3.685	3.727	VV	222	4095	0.29%	0.012%
77	3.732	3.727	3.736	VV	217	944	0.07%	0.003%
78	3.740	3.736	3.771	VV	223	3414	0.24%	0.010%
79	3.776	3.771	3.781	VV	209	933	0.07%	0.003%
80	3.791	3.781	3.803	VV	215	2291	0.16%	0.007%
81	3.807	3.803	3.816	VV	180	1286	0.09%	0.004%
82	3.819	3.816	3.825	VV	184	950	0.07%	0.003%
83	3.827	3.825	3.838	VV	211	1311	0.09%	0.004%
84	3.849	3.838	3.875	VV	258	4093	0.29%	0.012%
85	3.880	3.875	3.885	VV	178	851	0.06%	0.003%
86	3.889	3.885	3.896	VV	180	931	0.07%	0.003%
87	3.910	3.896	3.915	VV	199	1849	0.13%	0.005%
88	3.920	3.915	3.933	VV	259	2099	0.15%	0.006%
89	3.938	3.933	3.943	VV	234	1227	0.09%	0.004%

					rteres			
90	3.948	3.943	3.956	VV	237	1300	0.09%	0.004%
91	3.964	3.956	3.978	VV	215	2103	0.15%	0.006%
92	3.981	3.978	3.992	VV	187	1219	0.09%	0.004%
93	3.997	3.992	4.011	VV	180	1553	0.11%	0.005%
94	4.016	4.011	4.020	VV	196	892	0.06%	0.003%
95	4.035	4.020	4.045	VV	252	3039	0.21%	0.009%
96	4.062	4.045	4.075	VV	266	3386	0.24%	0.010%
97	4.084	4.075	4.092	VV	224	1728	0.12%	0.005%
98	4.097	4.092	4.122	VV	211	3239	0.23%	0.010%
99	4.126	4.122	4.135	VV	183	1323	0.09%	0.004%
100	4.141	4.135	4.178	VV	279	5215	0.37%	0.015%
101	4.180	4.178	4.192	VV	224	1599	0.11%	0.005%
102	4.208	4.192	4.214	VV	256	2501	0.18%	0.007%
103	4.229	4.214	4.263	VV	304	5782	0.41%	0.017%
104	4.274	4.263	4.281	VV	248	2147	0.15%	0.006%
105	4.291	4.281	4.302	VV	241	2280	0.16%	0.007%
106	4.305	4.302	4.331	VV	199	3102	0.22%	0.009%
107	4.336	4.331	4.343	VV	196	1354	0.10%	0.004%
108	4.351	4.343	4.377	VV	237	3720	0.26%	0.011%
109	4.389	4.377	4.395	VV	212	1931	0.14%	0.006%
110	4.413	4.395	4.435	VV	260	5044	0.35%	0.015%
111	4.438	4.435	4.444	VV	225	994	0.07%	0.003%
112	4.450	4.444	4.464	VV	205	2200	0.15%	0.006%
113	4.483	4.464	4.500	VV	238	4209	0.30%	0.012%
114	4.508	4.500	4.525	VV	243	2768	0.19%	0.008%
115	4.532	4.525	4.558	VV	234	3468	0.24%	0.010%
116	4.565	4.558	4.574	VV	161	1342	0.09%	0.004%
117	4.579	4.574	4.589	VV	170	1598	0.11%	0.005%
118	4.593	4.589	4.602	VV	253	1735	0.12%	0.005%
119	4.614	4.602	4.633	VV	268	3902	0.27%	0.011%
120	4.641	4.633	4.651	VV	202	1996	0.14%	0.006%
121	4.690	4.651	4.742	VV	375	11389	0.80%	0.034%
122	4.746	4.742	4.761	VV	214	2008	0.14%	0.006%
123	4.781	4.761	4.787	VV	327	4190	0.29%	0.012%
124	4.802	4.787	4.837	VV	402	8956	0.63%	0.026%
125	4.844	4.837	4.863	VV	281	3901	0.27%	0.011%
126	4.867	4.863	4.879	VV	293	2362	0.17%	0.007%
127	4.882	4.879	4.902	VV	322	3252	0.23%	0.010%
128	4.919	4.902	4.932	VV	295	4276	0.30%	0.013%
129	4.948	4.932	4.954	VV	261	2723	0.19%	0.008%
130	4.958	4.954	4.960	VV	223	797	0.06%	0.002%
131	4.964	4.960	4.967	VV	235	847	0.06%	0.002%
132	4.971	4.967	4.992	VV	257	2807	0.20%	0.008%
133	5.003	4.992	5.024	VV	245	3787	0.27%	0.011%
134	5.039	5.024	5.128	VV	261	10983	0.77%	0.032%
135	5.153	5.128	5.205	VV	211	6499	0.46%	0.019%
136	5.211	5.205	5.222	VV	186	1182	0.08%	0.003%
137	5.255	5.222	5.300	VV	217	6699	0.47%	0.020%
138	5.320	5.300	5.366	VV	185	4738	0.33%	0.014%
139	5.388	5.366	5.402	VV	127	2178	0.15%	0.006%
140	5.426	5.402	5.473	VV	172	4417	0.31%	0.013%
141	5.485	5.473	5.496	VV	160	1243	0.09%	0.004%

					rteres			
142	5.567	5.496	5.582	VV	175	5830	0.41%	0.017%
143	5.587	5.582	5.622	VV	187	3202	0.22%	0.009%
144	5.628	5.622	5.664	VV	191	2801	0.20%	0.008%
145	5.669	5.664	5.706	VV	205	3131	0.22%	0.009%
146	5.717	5.706	5.751	VV	183	3896	0.27%	0.011%
147	5.759	5.751	5.795	VV	144	3832	0.27%	0.011%
148	5.849	5.795	5.867	VV	258	7693	0.54%	0.023%
149	5.877	5.867	5.886	VV	252	2489	0.17%	0.007%
150	5.898	5.886	5.949	VV	267	6898	0.48%	0.020%
151	5.970	5.949	5.984	VV	231	3616	0.25%	0.011%
152	5.990	5.984	6.009	VV	226	2990	0.21%	0.009%
153	6.024	6.009	6.080	VV	187	6134	0.43%	0.018%
154	6.085	6.080	6.106	VV	100	1510	0.11%	0.004%
155	6.127	6.106	6.139	VV	120	1839	0.13%	0.005%
156	6.142	6.139	6.149	VV	162	550	0.04%	0.002%
157	6.176	6.149	6.202	VV	176	3146	0.22%	0.009%
158	6.211	6.202	6.222	VV	109	1052	0.07%	0.003%
159	6.228	6.222	6.272	VV	134	2497	0.18%	0.007%
160	6.296	6.272	6.315	VV	178	3628	0.25%	0.011%
161	6.322	6.315	6.361	VV	170	3229	0.23%	0.009%
162	6.369	6.361	6.403	VV	146	2523	0.18%	0.007%
163	6.445	6.403	6.485	VV	486	9318	0.65%	0.027%
164	6.519	6.485	6.547	VV	161	4080	0.29%	0.012%
165	6.558	6.547	6.570	VV	95	1080	0.08%	0.003%
166	6.579	6.570	6.595	PV	148	1273	0.09%	0.004%
167	6.615	6.595	6.630	VV	165	1729	0.12%	0.005%
168	6.646	6.630	6.688	VV	130	2690	0.19%	0.008%
169	6.707	6.688	6.729	VV	165	2026	0.14%	0.006%
170	6.787	6.729	6.874	VV	211	10969	0.77%	0.032%
171	6.906	6.874	6.917	VV	140	2645	0.19%	0.008%
172	6.932	6.917	6.964	VV	143	2540	0.18%	0.007%
173	6.968	6.964	7.004	VV	79	987	0.07%	0.003%
174	7.103	7.004	7.110	VV	776	29413	2.07%	0.087%
175	7.117	7.110	7.152	VV	822	19245	1.35%	0.057%
176	7.158	7.152	7.179	VV	758	11694	0.82%	0.034%
177	7.192	7.179	7.249	VV	757	28487	2.00%	0.084%
178	7.261	7.249	7.350	VV	714	37187	2.61%	0.109%
179	7.368	7.350	7.444	VV	624	27792	1.95%	0.082%
180	7.457	7.444	7.519	VV	549	19022	1.34%	0.056%
181	7.537	7.519	7.573	VV	418	11495	0.81%	0.034%
182	7.590	7.573	7.604	VV	396	6350	0.45%	0.019%
183	7.617	7.604	7.625	VV	426	4508	0.32%	0.013%
184	7.634	7.625	7.659	VV	421	7236	0.51%	0.021%
185	7.665	7.659	7.685	VV	356	4990	0.35%	0.015%
186	7.696	7.685	7.707	VV	359	4262	0.30%	0.013%
187	7.716	7.707	7.746	VV	360	7415	0.52%	0.022%
188	7.754	7.746	7.791	VV	322	7234	0.51%	0.021%
189	7.802	7.791	7.889	VV	297	11022	0.77%	0.032%
190	7.914	7.889	7.944	VV	191	3937	0.28%	0.012%
191	7.973	7.944	8.022	VV	1076	18925	1.33%	0.056%
192	8.043	8.022	8.065	VV	183	3393	0.24%	0.010%
193	8.098	8.065	8.114	VV	358	6900	0.48%	0.020%
194	8.151	8.114	8.199	VV	1124	21702	1.52%	0.064%

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195	8.208	8.199	8.219	VV	163	1603	0.11%	0.005%
196	8.234	8.219	8.269	VV	157	3376	0.24%	0.010%
197	8.275	8.269	8.284	VV	134	990	0.07%	0.003%
198	8.313	8.284	8.329	VV	229	4176	0.29%	0.012%
199	8.344	8.329	8.365	VV	268	4370	0.31%	0.013%
200	8.369	8.365	8.469	VV	337	5808	0.41%	0.017%
201	8.503	8.469	8.510	VV	133	2643	0.19%	0.008%
202	8.542	8.510	8.557	VV	427	7199	0.51%	0.021%
203	8.578	8.557	8.660	VV	515	16474	1.16%	0.048%
204	8.676	8.660	8.688	VV	220	2947	0.21%	0.009%
205	8.697	8.688	8.704	VV	188	1616	0.11%	0.005%
206	8.712	8.704	8.794	VV	229	7433	0.52%	0.022%
207	8.807	8.794	8.872	VV	155	3241	0.23%	0.010%
208	8.885	8.872	8.904	VV	141	1186	0.08%	0.003%
209	8.934	8.904	8.973	PV	321	4871	0.34%	0.014%
210	9.005	8.973	9.039	VV	160	3122	0.22%	0.009%
211	9.106	9.039	9.133	PV	315	9484	0.67%	0.028%
212	9.146	9.133	9.154	VV	251	2921	0.21%	0.009%
213	9.166	9.154	9.213	VV	218	6065	0.43%	0.018%
214	9.236	9.213	9.275	VV	189	4332	0.30%	0.013%
215	9.299	9.275	9.378	VV	1268	20871	1.47%	0.061%
216	9.447	9.378	9.550	VV	10909	250212	17.58%	0.736%
217	9.574	9.550	9.594	VV	411	7059	0.50%	0.021%
218	9.603	9.594	9.619	VV	145	1764	0.12%	0.005%
219	9.631	9.619	9.667	VV	103	1915	0.13%	0.006%
220	9.681	9.667	9.709	VV	117	1940	0.14%	0.006%
221	9.774	9.709	9.788	PV	184	4404	0.31%	0.013%
222	9.818	9.788	9.875	VV	343	9717	0.68%	0.029%
223	9.900	9.875	9.938	VV	528	10054	0.71%	0.030%
224	9.951	9.938	9.985	VV	213	3586	0.25%	0.011%
225	10.007	9.985	10.039	VV	429	6844	0.48%	0.020%
226	10.046	10.039	10.069	VV	136	1307	0.09%	0.004%
227	10.094	10.069	10.101	PV	142	1584	0.11%	0.005%
228	10.172	10.101	10.299	VV	3200	197976	13.91%	0.582%
229	10.319	10.299	10.425	VV	1119	55698	3.91%	0.164%
230	10.438	10.425	10.480	VV	451	12571	0.88%	0.037%
231	10.486	10.480	10.492	VV	335	2220	0.16%	0.007%
232	10.537	10.492	10.635	VV	4269	109471	7.69%	0.322%
233	10.653	10.635	10.674	VV	566	11568	0.81%	0.034%
234	10.693	10.674	10.754	VV	1872	31914	2.24%	0.094%
235	10.781	10.754	10.805	VV	292	6228	0.44%	0.018%
236	10.834	10.805	10.849	VV	518	8935	0.63%	0.026%
237	10.909	10.849	10.951	VV	718	27300	1.92%	0.080%
238	10.981	10.951	11.012	VV	552	14147	0.99%	0.042%
239	11.027	11.012	11.077	VV	436	11587	0.81%	0.034%
240	11.094	11.077	11.106	VV	285	3786	0.27%	0.011%
241	11.150	11.106	11.202	VV	352	11899	0.84%	0.035%
242	11.232	11.202	11.275	PV	667	18292	1.28%	0.054%
243	11.280	11.275	11.310	VV	434	6099	0.43%	0.018%
244	11.327	11.310	11.347	VV	414	7343	0.52%	0.022%
245	11.362	11.347	11.400	VV	383	6963	0.49%	0.020%
246	11.415	11.400	11.454	VV	355	6139	0.43%	0.018%

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247	11.550	11.454	11.585	VV	538	20974	1.47%	0.062%
248	11.612	11.585	11.640	VV	1515	25353	1.78%	0.075%
249	11.649	11.640	11.675	VV	448	6165	0.43%	0.018%
250	11.702	11.675	11.749	VV	825	15303	1.07%	0.045%
251	11.809	11.749	11.830	VV	408	9824	0.69%	0.029%
252	11.856	11.830	11.880	PV	360	5747	0.40%	0.017%
253	11.902	11.880	11.982	VV	766	22186	1.56%	0.065%
254	12.007	11.982	12.040	VV	552	13087	0.92%	0.038%
255	12.055	12.040	12.075	VV	313	5505	0.39%	0.016%
256	12.101	12.075	12.150	VV	378	8006	0.56%	0.024%
257	12.177	12.150	12.204	PV	189	2640	0.19%	0.008%
258	12.281	12.204	12.307	VV	585	12371	0.87%	0.036%
259	12.317	12.307	12.330	VV	269	3173	0.22%	0.009%
260	12.346	12.330	12.365	VV	619	8670	0.61%	0.026%
261	12.396	12.365	12.467	VV	1298	33351	2.34%	0.098%
262	12.488	12.467	12.505	PV	210	2270	0.16%	0.007%
263	12.536	12.505	12.598	PV	70745	953297	66.96%	2.804%
264	12.606	12.598	12.629	VV	2417	37368	2.62%	0.110%
265	12.648	12.629	12.727	VV	1780	72571	5.10%	0.213%
266	12.743	12.727	12.765	VV	683	14125	0.99%	0.042%
267	12.775	12.765	12.790	VV	603	7387	0.52%	0.022%
268	12.800	12.790	12.814	VV	363	4850	0.34%	0.014%
269	12.853	12.814	12.877	VV	973	22893	1.61%	0.067%
270	12.919	12.877	12.949	VV	1782	37253	2.62%	0.110%
271	13.004	12.949	13.030	VV	2836	65479	4.60%	0.193%
272	13.038	13.030	13.109	VV	878	21654	1.52%	0.064%
273	13.139	13.109	13.153	PV	680	10023	0.70%	0.029%
274	13.172	13.153	13.209	VV	1498	25168	1.77%	0.074%
275	13.249	13.209	13.267	VV	249	6875	0.48%	0.020%
276	13.334	13.267	13.390	PV	1331	39516	2.78%	0.116%
277	13.421	13.390	13.470	VV	860	22628	1.59%	0.067%
278	13.532	13.470	13.545	VV	1132	23854	1.68%	0.070%
279	13.563	13.545	13.583	VV	2847	44827	3.15%	0.132%
280	13.608	13.583	13.723	VV	4362	149001	10.47%	0.438%
281	13.766	13.723	13.864	VV	26757	416669	29.27%	1.226%
282	13.874	13.864	13.904	VV	507	9895	0.70%	0.029%
283	13.975	13.904	13.997	VV	775	31565	2.22%	0.093%
284	14.023	13.997	14.045	VV	582	10765	0.76%	0.032%
285	14.083	14.045	14.097	VV	1084	21657	1.52%	0.064%
286	14.119	14.097	14.140	VV	2655	40325	2.83%	0.119%
287	14.160	14.140	14.188	VV	992	22673	1.59%	0.067%
288	14.200	14.188	14.222	VV	730	11865	0.83%	0.035%
289	14.249	14.222	14.299	VV	3068	60791	4.27%	0.179%
290	14.306	14.299	14.315	VV	358	3374	0.24%	0.010%
291	14.353	14.315	14.379	VV	1058	23723	1.67%	0.070%
292	14.389	14.379	14.404	VV	572	6895	0.48%	0.020%
293	14.415	14.404	14.434	VV	530	6611	0.46%	0.019%
294	14.448	14.434	14.459	VV	386	4059	0.29%	0.012%
295	14.523	14.459	14.589	VV	2169	77947	5.48%	0.229%
296	14.631	14.589	14.660	VV	1694	39448	2.77%	0.116%
297	14.682	14.660	14.707	VV	2065	35441	2.49%	0.104%
298	14.752	14.707	14.777	VV	1544	47220	3.32%	0.139%
299	14.791	14.777	14.820	VV	1221	27418	1.93%	0.081%

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300	14.831	14.820	14.865	VV	970	19916	1.40%	0.059%
301	14.908	14.865	14.985	VV	2531	81413	5.72%	0.239%
302	15.018	14.985	15.065	VV	100657	1423624	100.00%	4.188%
303	15.078	15.065	15.100	VV	1121	19080	1.34%	0.056%
304	15.189	15.100	15.204	VV	968	50478	3.55%	0.148%
305	15.221	15.204	15.247	VV	2601	35654	2.50%	0.105%
306	15.274	15.247	15.297	VV	1824	30347	2.13%	0.089%
307	15.333	15.297	15.360	VV	1340	31281	2.20%	0.092%
308	15.367	15.360	15.390	VV	662	9252	0.65%	0.027%
309	15.432	15.390	15.499	VV	949	38126	2.68%	0.112%
310	15.605	15.499	15.717	PV	34865	657356	46.17%	1.934%
311	15.742	15.717	15.775	VV	3882	64210	4.51%	0.189%
312	15.816	15.775	15.844	VV	2860	60927	4.28%	0.179%
313	15.885	15.844	15.930	PV	1654	27230	1.91%	0.080%
314	15.961	15.930	15.994	VV	4761	66385	4.66%	0.195%
315	16.009	15.994	16.020	VV	764	8415	0.59%	0.025%
316	16.048	16.020	16.059	VV	774	13085	0.92%	0.038%
317	16.065	16.059	16.102	VV	594	9211	0.65%	0.027%
318	16.133	16.102	16.147	PV	899	14382	1.01%	0.042%
319	16.157	16.147	16.169	VV	600	7223	0.51%	0.021%
320	16.176	16.169	16.194	VV	643	6922	0.49%	0.020%
321	16.245	16.194	16.290	VV	3827	83419	5.86%	0.245%
322	16.315	16.290	16.355	VV	1775	41718	2.93%	0.123%
323	16.388	16.355	16.409	VV	446	9789	0.69%	0.029%
324	16.458	16.409	16.487	PV	1584	40807	2.87%	0.120%
325	16.496	16.487	16.504	VV	722	5308	0.37%	0.016%
326	16.562	16.504	16.597	VV	1402	55929	3.93%	0.165%
327	16.622	16.597	16.685	VV	8205	182578	12.82%	0.537%
328	16.692	16.685	16.702	VV	1655	15191	1.07%	0.045%
329	16.727	16.702	16.775	VV	6132	113354	7.96%	0.333%
330	16.808	16.775	16.839	VV	2495	60130	4.22%	0.177%
331	16.886	16.839	16.912	VV	2428	80222	5.64%	0.236%
332	16.940	16.912	16.972	VV	3668	87304	6.13%	0.257%
333	16.989	16.972	17.017	VV	1847	42661	3.00%	0.125%
334	17.054	17.017	17.070	VV	2067	54798	3.85%	0.161%
335	17.106	17.070	17.139	VV	1961	69071	4.85%	0.203%
336	17.194	17.139	17.214	VV	6841	150342	10.56%	0.442%
337	17.245	17.214	17.264	VV	6526	143167	10.06%	0.421%
338	17.277	17.264	17.312	VV	4834	96584	6.78%	0.284%
339	17.336	17.312	17.346	VV	1757	32152	2.26%	0.095%
340	17.439	17.346	17.466	VV	3061	165094	11.60%	0.486%
341	17.520	17.466	17.544	VV	3829	133103	9.35%	0.392%
342	17.570	17.544	17.605	VV	6246	177620	12.48%	0.522%
343	17.645	17.605	17.670	VV	12903	265486	18.65%	0.781%
344	17.685	17.670	17.709	VV	3658	76329	5.36%	0.225%
345	17.731	17.709	17.742	VV	4269	73415	5.16%	0.216%
346	17.760	17.742	17.794	VV	5303	128607	9.03%	0.378%
347	17.824	17.794	17.852	VV	4651	118863	8.35%	0.350%
348	17.867	17.852	17.904	VV	3119	84036	5.90%	0.247%
349	17.941	17.904	17.958	VV	3068	84110	5.91%	0.247%
350	18.039	17.958	18.054	VV	4678	200183	14.06%	0.589%
351	18.084	18.054	18.110	VV	9227	194639	13.67%	0.573%

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352	18.135	18.110	18.153	VV	3940	79459	5.58%	0.234%
353	18.175	18.153	18.199	VV	6975	129325	9.08%	0.380%
354	18.231	18.199	18.295	VV	8133	254222	17.86%	0.748%
355	18.317	18.295	18.339	VV	3709	80357	5.64%	0.236%
356	18.359	18.339	18.385	VV	3996	84553	5.94%	0.249%
357	18.445	18.385	18.484	VV	25867	616927	43.33%	1.815%
358	18.504	18.484	18.534	VV	11324	228567	16.06%	0.672%
359	18.600	18.534	18.655	VV	9903	413097	29.02%	1.215%
360	18.680	18.655	18.691	VV	4108	78137	5.49%	0.230%
361	18.722	18.691	18.733	VV	4745	101507	7.13%	0.299%
362	18.776	18.733	18.785	VV	4735	137045	9.63%	0.403%
363	18.815	18.785	18.839	VV	5493	152142	10.69%	0.448%
364	18.912	18.839	18.965	VV	13859	535316	37.60%	1.575%
365	18.980	18.965	18.990	VV	5093	70098	4.92%	0.206%
366	19.020	18.990	19.051	VV	14693	336820	23.66%	0.991%
367	19.072	19.051	19.133	VV	8813	320006	22.48%	0.941%
368	19.200	19.133	19.214	VV	7186	291771	20.49%	0.858%
369	19.223	19.214	19.228	VV	7391	61199	4.30%	0.180%
370	19.276	19.228	19.377	VV	30871	1272836	89.41%	3.744%
371	19.421	19.377	19.439	VV	9949	334516	23.50%	0.984%
372	19.483	19.439	19.504	VV	9585	345859	24.29%	1.017%
373	19.516	19.504	19.530	VV	8468	127701	8.97%	0.376%
374	19.559	19.530	19.592	VV	10136	334528	23.50%	0.984%
375	19.619	19.592	19.649	VV	9219	282306	19.83%	0.830%
376	19.698	19.649	19.720	VV	14050	441251	30.99%	1.298%
377	19.731	19.720	19.752	VV	10458	187870	13.20%	0.553%
378	19.773	19.752	19.791	VV	12588	266327	18.71%	0.783%
379	19.815	19.791	19.845	VV	12676	368142	25.86%	1.083%
380	19.885	19.845	19.908	VV	14213	420986	29.57%	1.238%
381	19.936	19.908	19.947	VV	11134	246901	17.34%	0.726%
382	19.993	19.947	20.024	VV	13692	542091	38.08%	1.595%
383	20.072	20.024	20.099	VV	19053	686433	48.22%	2.019%
384	20.108	20.099	20.120	VV	13567	173940	12.22%	0.512%
385	20.129	20.120	20.179	VV	14427	457646	32.15%	1.346%
386	20.247	20.179	20.264	VV	14768	680614	47.81%	2.002%
387	20.349	20.264	20.369	VV	17354	952831	66.93%	2.803%
388	20.396	20.369	20.410	VV	15807	380156	26.70%	1.118%
389	20.440	20.410	20.462	VV	20399	552263	38.79%	1.625%
390	20.486	20.462	20.495	VV	18052	349751	24.57%	1.029%
391	20.513	20.495	20.534	VV	18514	410899	28.86%	1.209%
392	20.538	20.534	20.565	VV	18256	323623	22.73%	0.952%
393	20.588	20.565	20.607	VV	18251	431266	30.29%	1.269%
394	20.644	20.607	20.655	VV	18273	515427	36.21%	1.516%
395	20.679	20.655	20.739	VV	18935	917335	64.44%	2.698%
396	20.797	20.739	20.835	VV	22049	1101615	77.38%	3.241%
397	20.840	20.835	20.878	VV	17401	427661	30.04%	1.258%
398	20.898	20.878	20.924	VV	17761	462867	32.51%	1.362%
399	20.966	20.924	21.012	VV	17741	883043	62.03%	2.598%
400	21.035	21.012	21.112	VV	16767	919609	64.60%	2.705%
401	21.118	21.112	21.147	VV	14416	292295	20.53%	0.860%
402	21.173	21.147	21.265	VV	16216	913636	64.18%	2.688%
403	21.277	21.265	21.314	VV	11245	312578	21.96%	0.919%
404	21.327	21.314	21.337	VV	10792	144700	10.16%	0.426%

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405	21.351	21.337	21.400	VV	10398	366706	25.76%	1.079%
406	21.415	21.400	21.447	VV	9703	254427	17.87%	0.748%
407	21.454	21.447	21.465	VV	9104	96141	6.75%	0.283%
408	21.494	21.465	21.560	VV	8927	455772	32.01%	1.341%
409	21.599	21.560	21.670	VV	9428	467715	32.85%	1.376%
410	21.687	21.670	21.709	VV	5527	115520	8.11%	0.340%
411	21.721	21.709	21.750	VV	4607	104029	7.31%	0.306%
412	21.778	21.750	21.801	VV	3930	111319	7.82%	0.327%
413	21.844	21.801	21.882	VV	4977	194157	13.64%	0.571%
414	21.890	21.882	21.955	VV	2708	78504	5.51%	0.231%
415	21.975	21.955	21.990	VV	1534	24451	1.72%	0.072%
416	22.015	21.990	22.024	VV	1385	19042	1.34%	0.056%
417	22.085	22.024	22.109	VV	3620	109300	7.68%	0.322%
418	22.143	22.109	22.200	VBA	1751	72647	5.10%	0.214%
					Sum of corrected areas:		33995225	

FF042225.M Thu May 08 06:05:18 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	SMALL-PILE-C	SDG No.:	Q1936
Lab Sample ID:	Q1936-05	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	97.2
Sample Wt/Vol:	30.01	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015802.D	1	05/07/25 09:00	05/07/25 15:42	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	9610		395	2910	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	11.0		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\FF050725\
Data File : FF015802.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 15:42
Operator : YP\AJ
Sample : Q1936-05
Misc :
ALS Vial : 77 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-C

Integration File: autoint1.e
Quant Time: May 08 03:12:52 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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	1238830	10.978 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

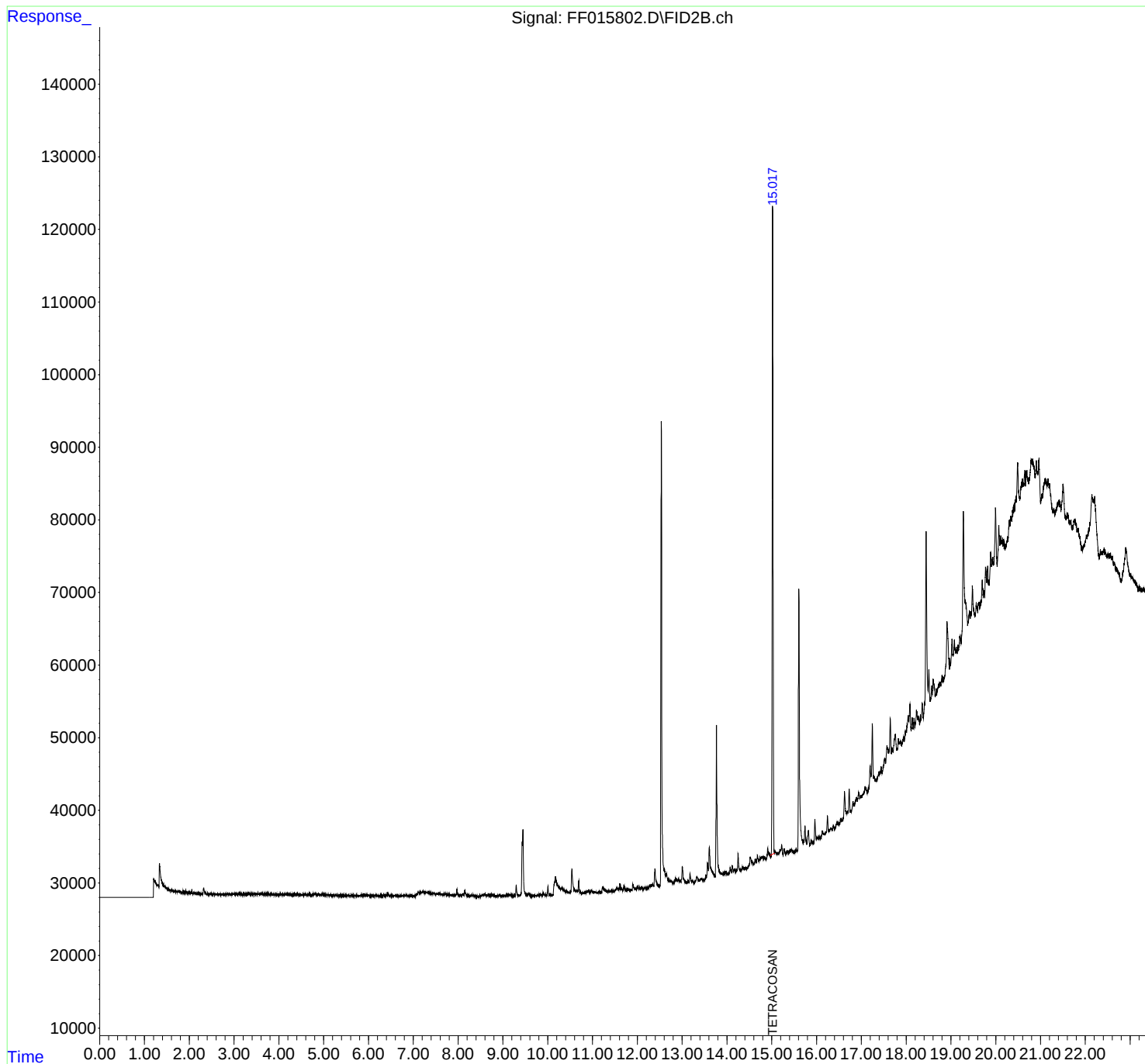
(m)=manual int.

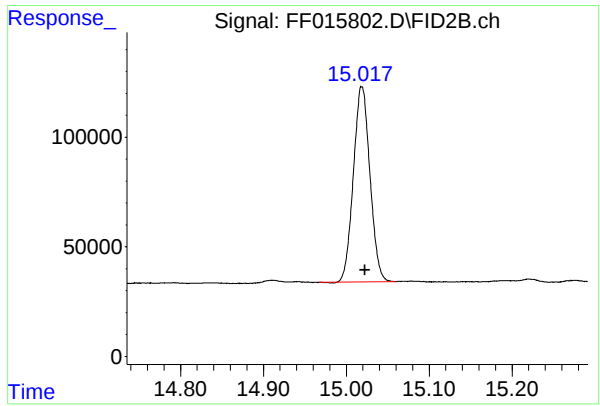
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015802.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 15:42
Operator : YP\AJ
Sample : Q1936-05
Misc :
ALS Vial : 77 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-C

Integration File: autoint1.e
Quant Time: May 08 03:12:52 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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.: 15.019 min
Delta R.T.: -0.004 min
Response: 1238830
Conc: 10.98 ug/ml

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-C

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015802.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 15:42
 Sample : Q1936-05
 Misc :
 ALS Vial : 77 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.012	2.000	2.017	BV	92	222	0.01%	0.001%
2	2.023	2.017	2.046	PV	47	599	0.03%	0.002%
3	2.058	2.046	2.068	VV	514	1258	0.07%	0.004%
4	2.071	2.068	2.082	PV	60	340	0.02%	0.001%
5	2.086	2.082	2.107	VV	139	1076	0.06%	0.003%
6	2.121	2.107	2.129	VV	183	1365	0.07%	0.004%
7	2.135	2.129	2.144	VV	99	603	0.03%	0.002%
8	2.150	2.144	2.158	PV	97	360	0.02%	0.001%
9	2.168	2.158	2.177	VV	146	848	0.05%	0.003%
10	2.182	2.177	2.192	VV	101	532	0.03%	0.002%
11	2.195	2.192	2.200	VV	80	337	0.02%	0.001%
12	2.214	2.200	2.223	VV	109	811	0.04%	0.003%
13	2.226	2.223	2.250	PV	56	658	0.04%	0.002%
14	2.255	2.250	2.260	PV	130	357	0.02%	0.001%
15	2.288	2.260	2.303	VV	160	2006	0.11%	0.006%
16	2.323	2.303	2.347	VV	895	13782	0.74%	0.044%
17	2.355	2.347	2.411	VV	319	6102	0.33%	0.020%
18	2.413	2.411	2.420	VV	88	368	0.02%	0.001%
19	2.434	2.420	2.452	VV	125	1327	0.07%	0.004%
20	2.481	2.452	2.495	VV	147	1645	0.09%	0.005%
21	2.501	2.495	2.518	VV	95	915	0.05%	0.003%
22	2.524	2.518	2.528	VV	139	367	0.02%	0.001%
23	2.536	2.528	2.544	VV	94	544	0.03%	0.002%
24	2.557	2.544	2.568	VV	117	902	0.05%	0.003%
25	2.571	2.568	2.584	VV	90	699	0.04%	0.002%
26	2.597	2.584	2.604	VV	109	1013	0.05%	0.003%
27	2.606	2.604	2.638	VV	102	1443	0.08%	0.005%
28	2.644	2.638	2.661	PV	122	1160	0.06%	0.004%
29	2.667	2.661	2.693	VV	129	1636	0.09%	0.005%
30	2.705	2.693	2.718	VV	151	1065	0.06%	0.003%
31	2.722	2.718	2.737	VV	156	1014	0.05%	0.003%
32	2.744	2.737	2.748	VV	153	758	0.04%	0.002%
33	2.752	2.748	2.761	VV	133	724	0.04%	0.002%
34	2.769	2.761	2.783	VV	160	1394	0.08%	0.004%
35	2.789	2.783	2.812	VV	115	1632	0.09%	0.005%
36	2.832	2.812	2.838	VV	144	1646	0.09%	0.005%

					rteres			
37	2.845	2.838	2.853	VV	174	1035	0.06%	0.003%
38	2.858	2.853	2.870	VV	178	1104	0.06%	0.004%
39	2.889	2.870	2.899	VV	146	1964	0.11%	0.006%
40	2.903	2.899	2.932	VV	139	2096	0.11%	0.007%
41	2.943	2.932	2.948	VV	161	1097	0.06%	0.004%
42	2.961	2.948	2.990	VV	189	2727	0.15%	0.009%
43	2.994	2.990	3.006	VV	156	1134	0.06%	0.004%
44	3.014	3.006	3.019	VV	172	1097	0.06%	0.004%
45	3.023	3.019	3.028	VV	165	736	0.04%	0.002%
46	3.033	3.028	3.038	VV	169	919	0.05%	0.003%
47	3.044	3.038	3.057	VV	161	1547	0.08%	0.005%
48	3.063	3.057	3.076	VV	186	1485	0.08%	0.005%
49	3.083	3.076	3.088	VV	176	1150	0.06%	0.004%
50	3.095	3.088	3.102	VV	201	1343	0.07%	0.004%
51	3.111	3.102	3.146	VV	214	4427	0.24%	0.014%
52	3.150	3.146	3.174	VV	176	2372	0.13%	0.008%
53	3.176	3.174	3.207	VV	163	2381	0.13%	0.008%
54	3.238	3.207	3.264	VV	208	4848	0.26%	0.016%
55	3.269	3.264	3.272	VV	155	595	0.03%	0.002%
56	3.279	3.272	3.285	VV	173	1124	0.06%	0.004%
57	3.302	3.285	3.311	VV	222	2587	0.14%	0.008%
58	3.319	3.311	3.336	VV	197	2747	0.15%	0.009%
59	3.346	3.336	3.361	VV	225	2494	0.13%	0.008%
60	3.368	3.361	3.376	VV	226	1513	0.08%	0.005%
61	3.394	3.376	3.402	VV	221	2703	0.15%	0.009%
62	3.410	3.402	3.424	VV	196	2190	0.12%	0.007%
63	3.431	3.424	3.437	VV	182	1334	0.07%	0.004%
64	3.443	3.437	3.445	VV	168	723	0.04%	0.002%
65	3.457	3.445	3.493	VV	228	5628	0.30%	0.018%
66	3.508	3.493	3.514	VV	255	2436	0.13%	0.008%
67	3.517	3.514	3.521	VV	229	867	0.05%	0.003%
68	3.529	3.521	3.557	VV	228	3991	0.21%	0.013%
69	3.592	3.557	3.610	VV	306	6840	0.37%	0.022%
70	3.614	3.610	3.620	VV	295	1378	0.07%	0.004%
71	3.626	3.620	3.637	VV	236	2093	0.11%	0.007%
72	3.642	3.637	3.650	VV	227	1553	0.08%	0.005%
73	3.657	3.650	3.670	VV	241	2506	0.13%	0.008%
74	3.676	3.670	3.700	VV	250	3619	0.19%	0.012%
75	3.706	3.700	3.717	VV	261	1963	0.11%	0.006%
76	3.720	3.717	3.730	VV	195	1372	0.07%	0.004%
77	3.747	3.730	3.770	VV	245	4548	0.24%	0.015%
78	3.776	3.770	3.779	VV	245	1173	0.06%	0.004%
79	3.783	3.779	3.795	VV	242	1801	0.10%	0.006%
80	3.807	3.795	3.817	VV	207	2237	0.12%	0.007%
81	3.828	3.817	3.839	VV	209	2224	0.12%	0.007%
82	3.841	3.839	3.865	VV	235	2767	0.15%	0.009%
83	3.877	3.865	3.892	VV	211	2575	0.14%	0.008%
84	3.896	3.892	3.958	VV	177	5955	0.32%	0.019%
85	3.972	3.958	3.996	VV	215	3585	0.19%	0.011%
86	4.012	3.996	4.033	VV	216	3891	0.21%	0.012%
87	4.041	4.033	4.075	VV	206	4338	0.23%	0.014%
88	4.091	4.075	4.098	VV	219	2282	0.12%	0.007%
89	4.112	4.098	4.142	VV	241	4682	0.25%	0.015%

					rteres			
90	4.152	4.142	4.242	VV	229	10549	0.57%	0.034%
91	4.261	4.242	4.299	VV	167	4848	0.26%	0.016%
92	4.312	4.299	4.324	VV	194	2404	0.13%	0.008%
93	4.343	4.324	4.362	VV	223	3723	0.20%	0.012%
94	4.404	4.362	4.425	VV	224	6864	0.37%	0.022%
95	4.431	4.425	4.450	VV	194	2500	0.13%	0.008%
96	4.458	4.450	4.480	VV	178	2852	0.15%	0.009%
97	4.494	4.480	4.560	VV	175	7199	0.39%	0.023%
98	4.583	4.560	4.599	VV	193	3652	0.20%	0.012%
99	4.616	4.599	4.634	VV	217	3446	0.19%	0.011%
100	4.643	4.634	4.669	VV	213	3230	0.17%	0.010%
101	4.684	4.669	4.722	VV	343	6317	0.34%	0.020%
102	4.736	4.722	4.749	VV	199	2538	0.14%	0.008%
103	4.795	4.749	4.822	VV	300	10218	0.55%	0.033%
104	4.829	4.822	4.847	VV	274	3460	0.19%	0.011%
105	4.855	4.847	4.874	VV	255	3434	0.18%	0.011%
106	4.881	4.874	4.904	VV	207	3302	0.18%	0.011%
107	4.918	4.904	4.935	VV	261	3734	0.20%	0.012%
108	4.972	4.935	4.989	VV	255	6162	0.33%	0.020%
109	4.998	4.989	5.007	VV	208	1961	0.11%	0.006%
110	5.016	5.007	5.055	VV	233	5017	0.27%	0.016%
111	5.073	5.055	5.130	VV	227	6957	0.37%	0.022%
112	5.137	5.130	5.157	VV	174	2177	0.12%	0.007%
113	5.161	5.157	5.170	VV	146	1022	0.06%	0.003%
114	5.178	5.170	5.189	VV	119	1366	0.07%	0.004%
115	5.200	5.189	5.235	VV	216	3187	0.17%	0.010%
116	5.268	5.235	5.309	VV	160	5267	0.28%	0.017%
117	5.317	5.309	5.334	VV	118	1413	0.08%	0.005%
118	5.347	5.334	5.357	VV	132	1153	0.06%	0.004%
119	5.372	5.357	5.424	PV	177	4021	0.22%	0.013%
120	5.430	5.424	5.442	VV	104	965	0.05%	0.003%
121	5.463	5.442	5.482	VV	158	2180	0.12%	0.007%
122	5.493	5.482	5.504	VV	120	1086	0.06%	0.003%
123	5.524	5.504	5.544	VV	133	2189	0.12%	0.007%
124	5.557	5.544	5.572	VV	142	1757	0.09%	0.006%
125	5.582	5.572	5.603	VV	115	1502	0.08%	0.005%
126	5.617	5.603	5.632	VV	91	1214	0.07%	0.004%
127	5.656	5.632	5.678	VV	113	2241	0.12%	0.007%
128	5.735	5.678	5.777	VV	148	4564	0.25%	0.015%
129	5.784	5.777	5.795	VV	76	638	0.03%	0.002%
130	5.831	5.795	5.851	VV	124	3335	0.18%	0.011%
131	5.862	5.851	5.892	VV	157	3103	0.17%	0.010%
132	5.897	5.892	5.936	VV	213	3135	0.17%	0.010%
133	5.944	5.936	5.962	VV	136	1490	0.08%	0.005%
134	5.983	5.962	6.043	VV	173	5589	0.30%	0.018%
135	6.053	6.043	6.097	VV	159	3297	0.18%	0.011%
136	6.106	6.097	6.120	VV	121	1295	0.07%	0.004%
137	6.148	6.120	6.160	PV	127	1911	0.10%	0.006%
138	6.170	6.160	6.207	VV	149	2279	0.12%	0.007%
139	6.217	6.207	6.234	VV	92	919	0.05%	0.003%
140	6.241	6.234	6.264	VV	100	1151	0.06%	0.004%
141	6.292	6.264	6.315	VV	175	2792	0.15%	0.009%

					rteres			
142	6.328	6.315	6.337	VV	138	1215	0.07%	0.004%
143	6.341	6.337	6.379	VV	331	2542	0.14%	0.008%
144	6.386	6.379	6.397	VV	110	1140	0.06%	0.004%
145	6.403	6.397	6.427	VV	153	2352	0.13%	0.008%
146	6.445	6.427	6.467	VV	377	5127	0.28%	0.016%
147	6.475	6.467	6.497	VV	136	2035	0.11%	0.007%
148	6.510	6.497	6.565	VV	156	4191	0.23%	0.013%
149	6.573	6.565	6.591	VV	122	1375	0.07%	0.004%
150	6.598	6.591	6.618	VV	124	1300	0.07%	0.004%
151	6.646	6.618	6.678	VV	159	2577	0.14%	0.008%
152	6.698	6.678	6.715	VV	128	1515	0.08%	0.005%
153	6.772	6.715	6.905	VV	176	14006	0.75%	0.045%
154	6.909	6.905	6.941	VV	174	2156	0.12%	0.007%
155	6.950	6.941	6.965	PV	112	815	0.04%	0.003%
156	6.978	6.965	6.990	VV	98	971	0.05%	0.003%
157	7.009	6.990	7.029	VV	110	1596	0.09%	0.005%
158	7.105	7.029	7.115	VV	564	15636	0.84%	0.050%
159	7.158	7.115	7.180	VV	628	22209	1.20%	0.071%
160	7.207	7.180	7.272	VV	659	32652	1.76%	0.105%
161	7.278	7.272	7.419	VV	645	45487	2.45%	0.146%
162	7.436	7.419	7.444	VV	489	6711	0.36%	0.022%
163	7.453	7.444	7.477	VV	534	9178	0.49%	0.029%
164	7.483	7.477	7.518	VV	422	9890	0.53%	0.032%
165	7.530	7.518	7.550	VV	420	7481	0.40%	0.024%
166	7.556	7.550	7.574	VV	433	5274	0.28%	0.017%
167	7.582	7.574	7.623	VV	409	10586	0.57%	0.034%
168	7.638	7.623	7.671	VV	384	9548	0.51%	0.031%
169	7.700	7.671	7.729	VV	366	11417	0.61%	0.037%
170	7.735	7.729	7.795	VV	385	11655	0.63%	0.037%
171	7.813	7.795	7.830	VV	322	5306	0.29%	0.017%
172	7.851	7.830	7.880	VV	240	6202	0.33%	0.020%
173	7.891	7.880	7.945	VV	227	7089	0.38%	0.023%
174	7.973	7.945	8.045	VV	1015	21076	1.13%	0.068%
175	8.092	8.045	8.132	VV	338	11892	0.64%	0.038%
176	8.151	8.132	8.220	VV	883	19041	1.03%	0.061%
177	8.231	8.220	8.270	VV	174	3572	0.19%	0.011%
178	8.311	8.270	8.332	VV	163	5022	0.27%	0.016%
179	8.340	8.332	8.410	VV	226	5917	0.32%	0.019%
180	8.418	8.410	8.440	PV	85	881	0.05%	0.003%
181	8.449	8.440	8.467	VV	90	844	0.05%	0.003%
182	8.490	8.467	8.502	VV	157	1689	0.09%	0.005%
183	8.541	8.502	8.557	VV	347	6194	0.33%	0.020%
184	8.580	8.557	8.641	VV	389	12957	0.70%	0.042%
185	8.674	8.641	8.687	VV	229	4964	0.27%	0.016%
186	8.696	8.687	8.711	VV	250	3013	0.16%	0.010%
187	8.731	8.711	8.761	VV	228	5415	0.29%	0.017%
188	8.799	8.761	8.857	VV	168	6581	0.35%	0.021%
189	8.889	8.857	8.905	VV	167	2505	0.13%	0.008%
190	8.935	8.905	8.974	VV	234	5200	0.28%	0.017%
191	9.004	8.974	9.016	VV	169	2814	0.15%	0.009%
192	9.026	9.016	9.054	VV	118	1903	0.10%	0.006%
193	9.081	9.054	9.092	VV	176	3583	0.19%	0.011%
194	9.109	9.092	9.141	VV	287	6363	0.34%	0.020%

					rteres			
195	9.159	9.141	9.184	VV	260	5092	0.27%	0.016%
196	9.188	9.184	9.224	VV	207	3128	0.17%	0.010%
197	9.253	9.224	9.264	VV	148	2756	0.15%	0.009%
198	9.299	9.264	9.384	VV	1583	27054	1.46%	0.087%
199	9.449	9.384	9.547	VV	9249	215668	11.61%	0.692%
200	9.572	9.547	9.633	VV	423	9441	0.51%	0.030%
201	9.642	9.633	9.655	PV	95	803	0.04%	0.003%
202	9.661	9.655	9.673	VV	80	636	0.03%	0.002%
203	9.685	9.673	9.704	VV	95	1021	0.05%	0.003%
204	9.772	9.704	9.776	VV	135	3065	0.16%	0.010%
205	9.782	9.776	9.796	VV	157	1002	0.05%	0.003%
206	9.828	9.796	9.847	VV	223	5353	0.29%	0.017%
207	9.855	9.847	9.879	VV	203	3081	0.17%	0.010%
208	9.900	9.879	9.935	VV	404	8317	0.45%	0.027%
209	9.954	9.935	9.974	VV	191	2976	0.16%	0.010%
210	10.007	9.974	10.038	VV	1359	16731	0.90%	0.054%
211	10.047	10.038	10.079	VV	158	1813	0.10%	0.006%
212	10.174	10.079	10.287	PV	2638	147014	7.91%	0.471%
213	10.319	10.287	10.428	VV	993	58860	3.17%	0.189%
214	10.435	10.428	10.479	VV	456	11300	0.61%	0.036%
215	10.541	10.479	10.632	VV	3499	97807	5.27%	0.314%
216	10.693	10.632	10.800	VV	1863	46438	2.50%	0.149%
217	10.836	10.800	10.857	VV	366	7149	0.38%	0.023%
218	10.883	10.857	10.899	VV	423	7581	0.41%	0.024%
219	10.912	10.899	10.951	VV	533	10983	0.59%	0.035%
220	10.975	10.951	11.013	VV	501	11789	0.63%	0.038%
221	11.042	11.013	11.101	VV	288	9206	0.50%	0.030%
222	11.130	11.101	11.144	VV	235	3996	0.22%	0.013%
223	11.160	11.144	11.184	VV	234	3817	0.21%	0.012%
224	11.227	11.184	11.269	PV	792	22937	1.23%	0.074%
225	11.278	11.269	11.316	VV	476	9407	0.51%	0.030%
226	11.328	11.316	11.345	VV	239	3309	0.18%	0.011%
227	11.365	11.345	11.400	VV	322	6293	0.34%	0.020%
228	11.416	11.400	11.452	VV	329	6587	0.35%	0.021%
229	11.550	11.452	11.577	VV	555	23578	1.27%	0.076%
230	11.612	11.577	11.639	VV	1170	23209	1.25%	0.074%
231	11.653	11.639	11.675	VV	506	7548	0.41%	0.024%
232	11.703	11.675	11.748	VV	844	18465	0.99%	0.059%
233	11.781	11.748	11.799	VV	341	7082	0.38%	0.023%
234	11.811	11.799	11.837	VV	342	4943	0.27%	0.016%
235	11.856	11.837	11.873	PV	222	3450	0.19%	0.011%
236	11.900	11.873	11.979	VV	966	25736	1.39%	0.083%
237	12.005	11.979	12.039	VV	552	12723	0.68%	0.041%
238	12.054	12.039	12.082	VV	379	6967	0.38%	0.022%
239	12.103	12.082	12.129	VV	401	6944	0.37%	0.022%
240	12.169	12.129	12.197	PV	341	6915	0.37%	0.022%
241	12.213	12.197	12.235	VV	147	3204	0.17%	0.010%
242	12.283	12.235	12.299	VV	554	11365	0.61%	0.036%
243	12.315	12.299	12.334	VV	537	9052	0.49%	0.029%
244	12.347	12.334	12.366	VV	698	9475	0.51%	0.030%
245	12.394	12.366	12.471	VV	2662	62511	3.37%	0.200%
246	12.489	12.471	12.504	VV	372	5574	0.30%	0.018%

					rteres			
247	12.536	12.504	12.597	VV	64031	874923	47.10%	2.806%
248	12.607	12.597	12.628	VV	2502	38097	2.05%	0.122%
249	12.644	12.628	12.730	VV	1768	71004	3.82%	0.228%
250	12.744	12.730	12.814	VV	746	27556	1.48%	0.088%
251	12.854	12.814	12.872	VV	998	23694	1.28%	0.076%
252	12.885	12.872	12.900	VV	727	11251	0.61%	0.036%
253	12.920	12.900	12.947	VV	990	18674	1.01%	0.060%
254	12.954	12.947	12.972	VV	541	7181	0.39%	0.023%
255	13.005	12.972	13.110	VV	2400	64448	3.47%	0.207%
256	13.137	13.110	13.154	VV	339	6186	0.33%	0.020%
257	13.176	13.154	13.269	VV	1362	29384	1.58%	0.094%
258	13.329	13.269	13.397	PV	781	24269	1.31%	0.078%
259	13.417	13.397	13.467	VV	354	9542	0.51%	0.031%
260	13.477	13.467	13.505	VV	158	2467	0.13%	0.008%
261	13.533	13.505	13.545	VV	570	7603	0.41%	0.024%
262	13.567	13.545	13.585	VV	2230	35534	1.91%	0.114%
263	13.609	13.585	13.723	VV	4342	126012	6.78%	0.404%
264	13.767	13.723	13.902	VV	20939	333992	17.98%	1.071%
265	13.915	13.902	13.927	VV	290	3803	0.20%	0.012%
266	13.977	13.927	14.012	VV	487	14234	0.77%	0.046%
267	14.031	14.012	14.044	VV	190	2074	0.11%	0.007%
268	14.076	14.044	14.100	PV	848	13021	0.70%	0.042%
269	14.120	14.100	14.142	VV	1017	16156	0.87%	0.052%
270	14.160	14.142	14.204	VV	496	11437	0.62%	0.037%
271	14.249	14.204	14.309	VV	2499	42313	2.28%	0.136%
272	14.349	14.309	14.377	PV	467	11061	0.60%	0.035%
273	14.392	14.377	14.409	VV	252	3866	0.21%	0.012%
274	14.420	14.409	14.437	VV	243	2826	0.15%	0.009%
275	14.446	14.437	14.457	VV	130	970	0.05%	0.003%
276	14.522	14.457	14.551	VV	1489	39058	2.10%	0.125%
277	14.561	14.551	14.600	VV	893	17175	0.92%	0.055%
278	14.632	14.600	14.656	VV	991	19866	1.07%	0.064%
279	14.682	14.656	14.704	VV	1455	25737	1.39%	0.083%
280	14.755	14.704	14.772	VV	966	31460	1.69%	0.101%
281	14.792	14.772	14.809	VV	989	19057	1.03%	0.061%
282	14.839	14.809	14.867	VV	844	23819	1.28%	0.076%
283	14.911	14.867	14.934	VV	1852	41248	2.22%	0.132%
284	14.940	14.934	14.985	VV	1111	26180	1.41%	0.084%
285	15.019	14.985	15.060	VV	89822	1278029	68.80%	4.099%
286	15.078	15.060	15.129	VV	1072	34995	1.88%	0.112%
287	15.143	15.129	15.161	VV	712	12830	0.69%	0.041%
288	15.192	15.161	15.203	VV	1083	22700	1.22%	0.073%
289	15.221	15.203	15.250	VV	1753	28905	1.56%	0.093%
290	15.276	15.250	15.307	VV	1056	20129	1.08%	0.065%
291	15.347	15.307	15.394	VV	602	20408	1.10%	0.065%
292	15.423	15.394	15.435	VV	569	11344	0.61%	0.036%
293	15.452	15.435	15.502	VV	558	11337	0.61%	0.036%
294	15.546	15.502	15.567	PV	298	5610	0.30%	0.018%
295	15.605	15.567	15.719	PV	35976	629008	33.86%	2.017%
296	15.742	15.719	15.787	VV	2999	57719	3.11%	0.185%
297	15.817	15.787	15.855	VV	2158	42155	2.27%	0.135%
298	15.882	15.855	15.934	PV	653	12199	0.66%	0.039%
299	15.962	15.934	15.990	PV	3132	44065	2.37%	0.141%

					rteres			
300	16.004	15.990	16.019	VV	477	6697	0.36%	0.021%
301	16.054	16.019	16.095	VV	292	11551	0.62%	0.037%
302	16.130	16.095	16.175	VV	857	20640	1.11%	0.066%
303	16.244	16.175	16.281	VV	2501	48060	2.59%	0.154%
304	16.320	16.281	16.334	VV	516	12485	0.67%	0.040%
305	16.338	16.334	16.353	VV	391	3942	0.21%	0.013%
306	16.380	16.353	16.405	VV	665	11086	0.60%	0.036%
307	16.459	16.405	16.482	PV	654	16446	0.89%	0.053%
308	16.503	16.482	16.515	VV	211	3515	0.19%	0.011%
309	16.546	16.515	16.567	VV	581	9931	0.53%	0.032%
310	16.625	16.567	16.665	VV	3854	75166	4.05%	0.241%
311	16.728	16.665	16.759	VV	3515	64681	3.48%	0.207%
312	16.770	16.759	16.780	VV	212	1739	0.09%	0.006%
313	16.814	16.780	16.837	PV	1207	23066	1.24%	0.074%
314	16.888	16.837	16.910	VV	1193	33759	1.82%	0.108%
315	16.942	16.910	16.965	VV	1595	34567	1.86%	0.111%
316	16.996	16.965	17.017	VV	685	18641	1.00%	0.060%
317	17.085	17.017	17.144	VV	1372	54343	2.93%	0.174%
318	17.195	17.144	17.216	VV	3380	69192	3.72%	0.222%
319	17.245	17.216	17.327	VV	8925	173499	9.34%	0.556%
320	17.335	17.327	17.345	VV	623	5834	0.31%	0.019%
321	17.416	17.345	17.427	VV	1160	40731	2.19%	0.131%
322	17.444	17.427	17.462	VV	1470	24656	1.33%	0.079%
323	17.522	17.462	17.544	VV	2153	70856	3.81%	0.227%
324	17.571	17.544	17.607	VV	3571	104071	5.60%	0.334%
325	17.646	17.607	17.669	VV	6735	142269	7.66%	0.456%
326	17.688	17.669	17.709	VV	2393	50769	2.73%	0.163%
327	17.760	17.709	17.804	VV	3827	149445	8.05%	0.479%
328	17.827	17.804	17.855	VV	2757	64394	3.47%	0.207%
329	17.882	17.855	17.900	VV	2036	49858	2.68%	0.160%
330	17.948	17.900	17.960	VV	2175	65097	3.50%	0.209%
331	18.043	17.960	18.058	VV	4389	175422	9.44%	0.563%
332	18.084	18.058	18.114	VV	5758	133165	7.17%	0.427%
333	18.135	18.114	18.155	VV	3392	68126	3.67%	0.218%
334	18.176	18.155	18.194	VV	3112	57316	3.09%	0.184%
335	18.231	18.194	18.267	VV	3627	121962	6.57%	0.391%
336	18.278	18.267	18.302	VV	2669	44689	2.41%	0.143%
337	18.319	18.302	18.329	VV	2640	34914	1.88%	0.112%
338	18.360	18.329	18.384	VV	3949	89587	4.82%	0.287%
339	18.445	18.384	18.490	VV	26962	603268	32.48%	1.935%
340	18.507	18.490	18.537	VV	7469	145135	7.81%	0.465%
341	18.571	18.537	18.585	VV	4783	109410	5.89%	0.351%
342	18.602	18.585	18.648	VV	5472	168678	9.08%	0.541%
343	18.675	18.648	18.685	VV	3575	71165	3.83%	0.228%
344	18.729	18.685	18.740	VV	3966	119283	6.42%	0.383%
345	18.758	18.740	18.777	VV	3931	83712	4.51%	0.268%
346	18.798	18.777	18.839	VV	4766	150082	8.08%	0.481%
347	18.914	18.839	18.969	VV	11260	504514	27.16%	1.618%
348	18.978	18.969	18.992	VV	5548	69916	3.76%	0.224%
349	19.023	18.992	19.048	VV	8116	213938	11.52%	0.686%
350	19.077	19.048	19.120	VV	7520	272975	14.70%	0.875%
351	19.129	19.120	19.140	VV	6275	69941	3.77%	0.224%

					rters			
352	19.155	19.140	19.167	VV	6348	98008	5.28%	0.314%
353	19.201	19.167	19.230	VV	7184	248633	13.38%	0.797%
354	19.277	19.230	19.373	VV	23651	1042758	56.13%	3.344%
355	19.412	19.373	19.432	VV	9271	301765	16.24%	0.968%
356	19.479	19.432	19.533	VV	12255	561640	30.23%	1.801%
357	19.564	19.533	19.597	VV	9369	323977	17.44%	1.039%
358	19.627	19.597	19.640	VV	8977	228708	12.31%	0.734%
359	19.697	19.640	19.724	VV	11551	469518	25.28%	1.506%
360	19.735	19.724	19.753	VV	9840	164308	8.85%	0.527%
361	19.775	19.753	19.799	VV	12756	314078	16.91%	1.007%
362	19.819	19.799	19.850	VV	12537	345847	18.62%	1.109%
363	19.886	19.850	19.905	VV	14025	402364	21.66%	1.290%
364	19.933	19.905	19.949	VV	12802	324916	17.49%	1.042%
365	19.996	19.949	20.031	VV	19456	711874	38.32%	2.283%
366	20.070	20.031	20.100	VV	16565	577660	31.10%	1.853%
367	20.114	20.100	20.125	VV	14543	213553	11.50%	0.685%
368	20.152	20.125	20.162	VV	14196	298758	16.08%	0.958%
369	20.175	20.162	20.210	VV	13608	377369	20.31%	1.210%
370	20.262	20.210	20.277	VV	13549	521775	28.09%	1.673%
371	20.339	20.277	20.360	VV	15800	753179	40.55%	2.416%
372	20.486	20.360	20.535	VV	21798	1857600	100.00%	5.958%
373	20.601	20.535	20.611	VV	19271	828309	44.59%	2.657%
374	20.651	20.611	20.665	VV	19953	610929	32.89%	1.959%
375	20.680	20.665	20.692	VV	19742	306119	16.48%	0.982%
376	20.696	20.692	20.744	VV	19699	570137	30.69%	1.829%
377	20.796	20.744	20.814	VV	20498	815945	43.92%	2.617%
378	20.823	20.814	20.884	VV	20233	799667	43.05%	2.565%
379	20.905	20.884	20.940	VV	19545	619360	33.34%	1.986%
380	20.963	20.940	21.006	VV	19417	659109	35.48%	2.114%
381	21.025	21.006	21.045	VV	14030	324146	17.45%	1.040%
382	21.103	21.045	21.120	VV	15832	676035	36.39%	2.168%
383	21.127	21.120	21.159	VV	15240	340348	18.32%	1.092%
384	21.167	21.159	21.192	VV	15294	290359	15.63%	0.931%
385	21.202	21.192	21.281	VV	14219	642512	34.59%	2.061%
386	21.290	21.281	21.319	VV	10101	221526	11.93%	0.710%
387	21.421	21.319	21.457	VV	10554	823950	44.36%	2.643%
388	21.502	21.457	21.575	VV	11969	659620	35.51%	2.116%
389	21.602	21.575	21.639	VV	7488	262334	14.12%	0.841%
390	21.651	21.639	21.663	VV	6126	87310	4.70%	0.280%
391	21.679	21.663	21.723	VV	6008	188077	10.12%	0.603%
392	21.760	21.723	21.934	VV	5571	418530	22.53%	1.342%
393	22.022	21.934	22.037	PV	696	17099	0.92%	0.055%
394	22.147	22.037	22.187	PV	2228	38130	2.05%	0.122%
					Sum of corrected areas:	31180333		

FF042225.M Thu May 08 06:08:20 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	SMALL-PILE-D	SDG No.:	Q1936
Lab Sample ID:	Q1936-07	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	94.2
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015803.D	1	05/07/25 09:00	05/07/25 16:11	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	9300		407	3000	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	12.7		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\FF050725\
Data File : FF015803.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:11
Operator : YP\AJ
Sample : Q1936-07
Misc :
ALS Vial : 78 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-D

Integration File: autoint1.e
Quant Time: May 08 03:13:07 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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	1429299	12.666 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

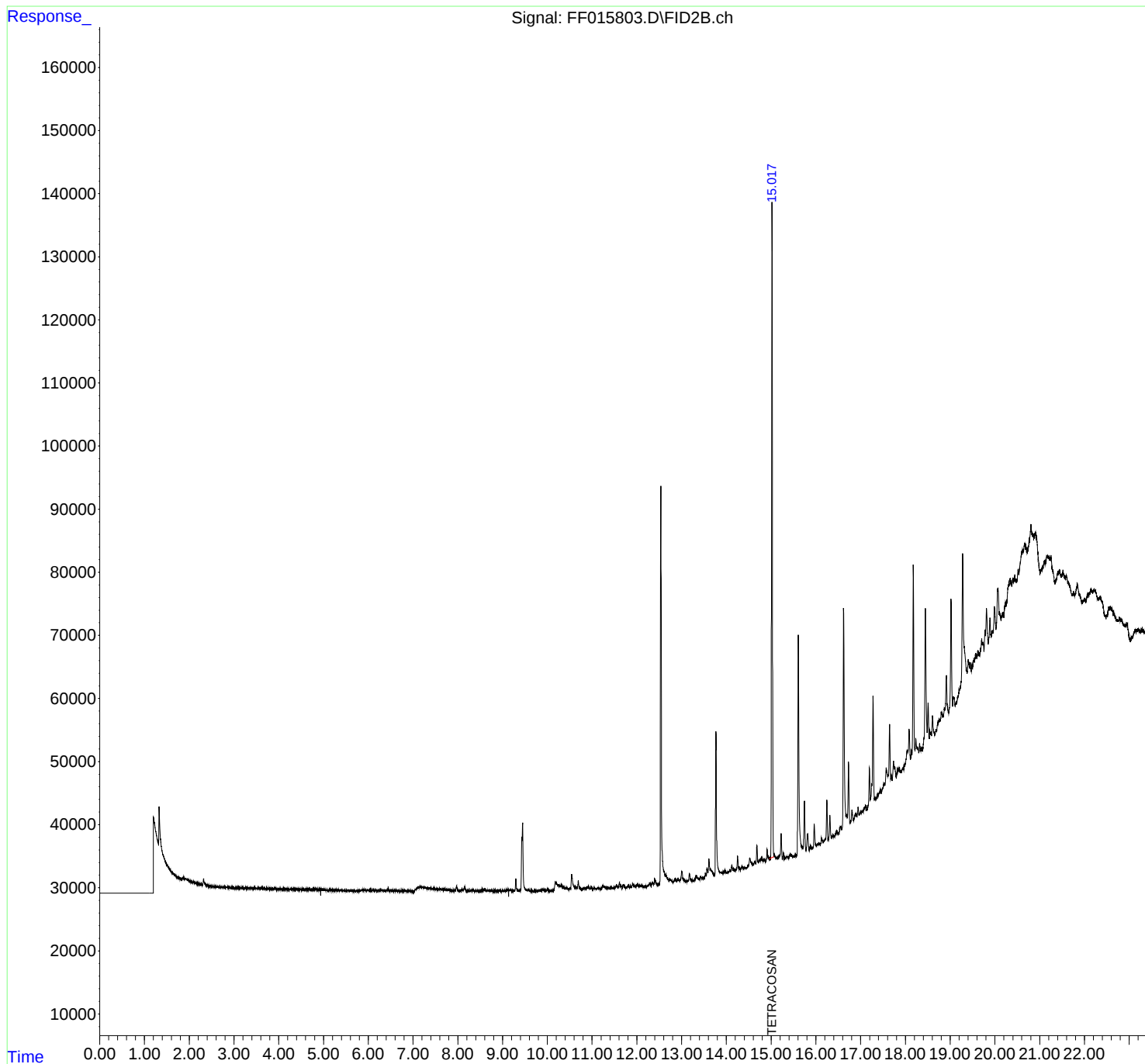
(m)=manual int.

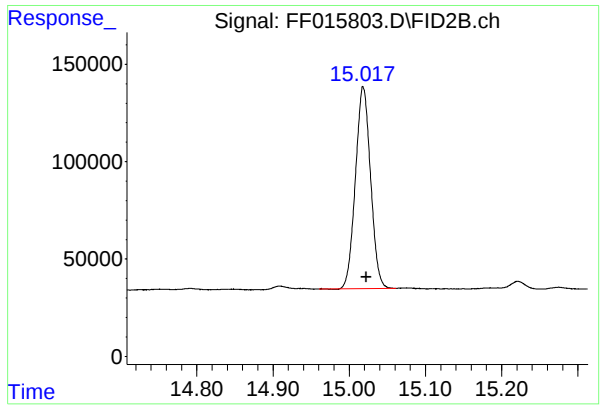
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015803.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:11
Operator : YP\AJ
Sample : Q1936-07
Misc :
ALS Vial : 78 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-D

Integration File: autoint1.e
Quant Time: May 08 03:13:07 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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.: -0.004 min
Response: 1429299
Conc: 12.67 ug/ml

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-D

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015803.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:11
Sample : Q1936-07
Misc :
ALS Vial : 78 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.018	2.000	2.032	BV	65	250	0.01%	0.001%
2	2.037	2.032	2.062	VV	70	531	0.03%	0.002%
3	2.069	2.062	2.096	VV	82	1215	0.07%	0.004%
4	2.102	2.096	2.151	PV	156	3212	0.19%	0.011%
5	2.158	2.151	2.181	VV	101	1080	0.06%	0.004%
6	2.185	2.181	2.226	PV	133	1468	0.09%	0.005%
7	2.229	2.226	2.245	VV	134	631	0.04%	0.002%
8	2.252	2.245	2.263	PV	139	912	0.05%	0.003%
9	2.267	2.263	2.279	VV	391	1170	0.07%	0.004%
10	2.284	2.279	2.295	VV	160	812	0.05%	0.003%
11	2.320	2.295	2.380	VV	1055	21279	1.24%	0.072%
12	2.384	2.380	2.410	VV	165	1930	0.11%	0.007%
13	2.413	2.410	2.426	VV	132	688	0.04%	0.002%
14	2.432	2.426	2.445	PV	127	795	0.05%	0.003%
15	2.449	2.445	2.480	VV	103	1503	0.09%	0.005%
16	2.484	2.480	2.489	VV	144	331	0.02%	0.001%
17	2.493	2.489	2.499	VV	151	427	0.02%	0.001%
18	2.503	2.499	2.538	VV	120	1599	0.09%	0.005%
19	2.544	2.538	2.572	VV	103	1152	0.07%	0.004%
20	2.578	2.572	2.589	VV	117	748	0.04%	0.003%
21	2.594	2.589	2.625	VV	153	1487	0.09%	0.005%
22	2.637	2.625	2.643	VV	101	714	0.04%	0.002%
23	2.645	2.643	2.663	VV	109	386	0.02%	0.001%
24	2.667	2.663	2.696	VV	76	1023	0.06%	0.003%
25	2.702	2.696	2.715	VV	135	641	0.04%	0.002%
26	2.733	2.715	2.741	PV	95	734	0.04%	0.002%
27	2.749	2.741	2.768	VV	122	1045	0.06%	0.004%
28	2.773	2.768	2.792	VV	83	825	0.05%	0.003%
29	2.816	2.792	2.830	VV	135	1890	0.11%	0.006%
30	2.833	2.830	2.843	VV	117	620	0.04%	0.002%
31	2.858	2.843	2.867	VV	126	976	0.06%	0.003%
32	2.886	2.867	2.894	VV	168	1216	0.07%	0.004%
33	2.899	2.894	2.915	VV	166	1006	0.06%	0.003%
34	2.918	2.915	2.928	VV	123	544	0.03%	0.002%
35	2.942	2.928	2.977	PV	146	2369	0.14%	0.008%
36	2.981	2.977	2.993	VV	104	623	0.04%	0.002%

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37	2.997	2.993	3.005	VV	117	530	0.03%	0.002%
38	3.013	3.005	3.019	VV	101	591	0.03%	0.002%
39	3.026	3.019	3.045	VV	133	1063	0.06%	0.004%
40	3.047	3.045	3.052	VV	118	274	0.02%	0.001%
41	3.058	3.052	3.070	VV	146	800	0.05%	0.003%
42	3.074	3.070	3.083	VV	135	594	0.03%	0.002%
43	3.091	3.083	3.118	VV	136	1825	0.11%	0.006%
44	3.127	3.118	3.143	VV	139	1451	0.08%	0.005%
45	3.147	3.143	3.162	VV	159	960	0.06%	0.003%
46	3.167	3.162	3.216	VV	155	2374	0.14%	0.008%
47	3.220	3.216	3.225	VV	79	381	0.02%	0.001%
48	3.231	3.225	3.245	VV	116	946	0.06%	0.003%
49	3.248	3.245	3.281	VV	167	2305	0.13%	0.008%
50	3.286	3.281	3.311	VV	135	1765	0.10%	0.006%
51	3.316	3.311	3.320	VV	191	661	0.04%	0.002%
52	3.324	3.320	3.342	VV	140	1248	0.07%	0.004%
53	3.350	3.342	3.358	VV	162	1292	0.08%	0.004%
54	3.361	3.358	3.370	VV	160	924	0.05%	0.003%
55	3.375	3.370	3.383	VV	144	902	0.05%	0.003%
56	3.389	3.383	3.395	VV	156	872	0.05%	0.003%
57	3.406	3.395	3.411	VV	174	1215	0.07%	0.004%
58	3.416	3.411	3.431	VV	173	1231	0.07%	0.004%
59	3.437	3.431	3.442	PV	89	537	0.03%	0.002%
60	3.445	3.442	3.462	VV	148	1277	0.07%	0.004%
61	3.467	3.462	3.476	VV	184	870	0.05%	0.003%
62	3.480	3.476	3.485	VV	179	581	0.03%	0.002%
63	3.488	3.485	3.494	VV	161	622	0.04%	0.002%
64	3.501	3.494	3.511	VV	190	1408	0.08%	0.005%
65	3.520	3.511	3.527	VV	164	1156	0.07%	0.004%
66	3.537	3.527	3.546	VV	173	1477	0.09%	0.005%
67	3.549	3.546	3.552	VV	181	554	0.03%	0.002%
68	3.556	3.552	3.596	VV	172	3084	0.18%	0.010%
69	3.599	3.596	3.603	VV	158	547	0.03%	0.002%
70	3.607	3.603	3.621	VV	199	1366	0.08%	0.005%
71	3.623	3.621	3.632	VV	203	960	0.06%	0.003%
72	3.650	3.632	3.658	VV	189	2380	0.14%	0.008%
73	3.668	3.658	3.679	VV	203	1782	0.10%	0.006%
74	3.681	3.679	3.687	VV	193	627	0.04%	0.002%
75	3.692	3.687	3.696	VV	154	843	0.05%	0.003%
76	3.706	3.696	3.715	VV	189	1699	0.10%	0.006%
77	3.727	3.715	3.740	VV	243	2163	0.13%	0.007%
78	3.742	3.740	3.753	VV	172	897	0.05%	0.003%
79	3.759	3.753	3.763	VV	184	699	0.04%	0.002%
80	3.769	3.763	3.775	VV	155	815	0.05%	0.003%
81	3.783	3.775	3.809	VV	158	2541	0.15%	0.009%
82	3.813	3.809	3.824	VV	153	986	0.06%	0.003%
83	3.829	3.824	3.834	PV	110	564	0.03%	0.002%
84	3.839	3.834	3.853	VV	140	1206	0.07%	0.004%
85	3.858	3.853	3.862	VV	141	609	0.04%	0.002%
86	3.868	3.862	3.876	VV	166	994	0.06%	0.003%
87	3.879	3.876	3.885	VV	148	604	0.04%	0.002%
88	3.888	3.885	3.899	VV	163	952	0.06%	0.003%
89	3.913	3.899	3.942	VV	194	2635	0.15%	0.009%

90	3.946	3.942	3.962	VV	93	927	0.05%	0.003%
91	3.967	3.962	3.978	VV	160	774	0.05%	0.003%
92	3.982	3.978	3.992	VV	106	460	0.03%	0.002%
93	4.009	3.992	4.027	VV	149	1896	0.11%	0.006%
94	4.032	4.027	4.066	VV	182	2105	0.12%	0.007%
95	4.079	4.066	4.113	VV	174	2230	0.13%	0.008%
96	4.117	4.113	4.122	VV	182	649	0.04%	0.002%
97	4.124	4.122	4.136	VV	191	715	0.04%	0.002%
98	4.140	4.136	4.145	VV	97	435	0.03%	0.001%
99	4.150	4.145	4.161	VV	137	623	0.04%	0.002%
100	4.164	4.161	4.190	VV	191	1695	0.10%	0.006%
101	4.198	4.190	4.212	VV	163	1154	0.07%	0.004%
102	4.216	4.212	4.222	VV	143	721	0.04%	0.002%
103	4.225	4.222	4.237	VV	170	917	0.05%	0.003%
104	4.246	4.237	4.255	VV	147	1116	0.07%	0.004%
105	4.268	4.255	4.282	VV	181	2051	0.12%	0.007%
106	4.284	4.282	4.309	VV	173	1759	0.10%	0.006%
107	4.316	4.309	4.367	VV	148	2841	0.17%	0.010%
108	4.377	4.367	4.390	VV	129	1252	0.07%	0.004%
109	4.408	4.390	4.422	VV	188	2583	0.15%	0.009%
110	4.438	4.422	4.463	VV	138	2771	0.16%	0.009%
111	4.509	4.463	4.530	VV	171	3859	0.23%	0.013%
112	4.539	4.530	4.544	VV	156	807	0.05%	0.003%
113	4.555	4.544	4.570	VV	192	1908	0.11%	0.006%
114	4.574	4.570	4.597	VV	137	1990	0.12%	0.007%
115	4.602	4.597	4.620	VV	171	1628	0.09%	0.006%
116	4.626	4.620	4.629	VV	145	697	0.04%	0.002%
117	4.632	4.629	4.652	VV	182	1786	0.10%	0.006%
118	4.657	4.652	4.662	VV	130	712	0.04%	0.002%
119	4.688	4.662	4.709	VV	334	5254	0.31%	0.018%
120	4.716	4.709	4.720	VV	152	870	0.05%	0.003%
121	4.726	4.720	4.733	VV	160	1001	0.06%	0.003%
122	4.770	4.733	4.776	VV	237	3774	0.22%	0.013%
123	4.781	4.776	4.790	VV	235	1802	0.11%	0.006%
124	4.794	4.790	4.856	VV	269	7852	0.46%	0.027%
125	4.863	4.856	4.886	VV	198	2828	0.16%	0.010%
126	4.896	4.886	4.976	VV	322	8761	0.51%	0.030%
127	5.010	4.976	5.026	VV	255	3896	0.23%	0.013%
128	5.034	5.026	5.046	VV	219	1437	0.08%	0.005%
129	5.052	5.046	5.059	VV	113	704	0.04%	0.002%
130	5.065	5.059	5.094	VV	128	1891	0.11%	0.006%
131	5.106	5.094	5.215	VV	170	5754	0.34%	0.019%
132	5.243	5.215	5.309	PV	175	5868	0.34%	0.020%
133	5.324	5.309	5.357	VV	131	2322	0.14%	0.008%
134	5.368	5.357	5.479	VV	111	4304	0.25%	0.015%
135	5.511	5.479	5.542	VV	88	1666	0.10%	0.006%
136	5.552	5.542	5.627	VV	79	2565	0.15%	0.009%
137	5.643	5.627	5.656	PV	71	852	0.05%	0.003%
138	5.659	5.656	5.710	VV	84	1420	0.08%	0.005%
139	5.737	5.710	5.810	VV	89	3611	0.21%	0.012%
140	5.886	5.810	5.906	VV	207	7874	0.46%	0.027%
141	5.912	5.906	5.969	VV	200	5190	0.30%	0.018%

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142	5.980	5.969	5.990	VV	171	1686	0.10%	0.006%
143	5.996	5.990	6.081	VV	181	7510	0.44%	0.025%
144	6.087	6.081	6.164	VV	148	5683	0.33%	0.019%
145	6.177	6.164	6.203	VV	151	2656	0.15%	0.009%
146	6.216	6.203	6.230	VV	136	1526	0.09%	0.005%
147	6.260	6.230	6.273	VV	155	2953	0.17%	0.010%
148	6.289	6.273	6.327	VV	200	4887	0.29%	0.017%
149	6.410	6.327	6.423	VV	177	7469	0.44%	0.025%
150	6.444	6.423	6.513	VV	454	9515	0.56%	0.032%
151	6.531	6.513	6.548	VV	138	2368	0.14%	0.008%
152	6.556	6.548	6.568	VV	146	1055	0.06%	0.004%
153	6.588	6.568	6.606	VV	130	2136	0.12%	0.007%
154	6.613	6.606	6.626	VV	101	1118	0.07%	0.004%
155	6.631	6.626	6.637	VV	131	627	0.04%	0.002%
156	6.649	6.637	6.664	VV	151	1442	0.08%	0.005%
157	6.675	6.664	6.690	VV	90	994	0.06%	0.003%
158	6.699	6.690	6.730	VV	119	1524	0.09%	0.005%
159	6.754	6.730	6.766	PV	130	1959	0.11%	0.007%
160	6.780	6.766	6.803	VV	122	2608	0.15%	0.009%
161	6.814	6.803	6.867	VV	171	4211	0.25%	0.014%
162	6.896	6.867	6.956	VV	137	4934	0.29%	0.017%
163	6.965	6.956	7.017	VV	121	1916	0.11%	0.006%
164	7.103	7.017	7.126	PV	726	25545	1.49%	0.086%
165	7.156	7.126	7.331	VV	709	78173	4.56%	0.264%
166	7.341	7.331	7.348	VV	519	5483	0.32%	0.019%
167	7.374	7.348	7.426	VV	567	23481	1.37%	0.079%
168	7.459	7.426	7.512	VV	527	21429	1.25%	0.072%
169	7.524	7.512	7.557	VV	363	8932	0.52%	0.030%
170	7.593	7.557	7.610	VV	385	10790	0.63%	0.036%
171	7.620	7.610	7.650	VV	350	7505	0.44%	0.025%
172	7.660	7.650	7.678	VV	368	5425	0.32%	0.018%
173	7.702	7.678	7.713	VV	332	6364	0.37%	0.022%
174	7.722	7.713	7.780	VV	358	11376	0.66%	0.038%
175	7.797	7.780	7.827	VV	288	6435	0.38%	0.022%
176	7.836	7.827	7.846	VV	223	2231	0.13%	0.008%
177	7.851	7.846	7.933	VV	215	8567	0.50%	0.029%
178	7.973	7.933	8.048	VV	899	19422	1.13%	0.066%
179	8.099	8.048	8.120	VV	344	8544	0.50%	0.029%
180	8.152	8.120	8.217	VV	837	17852	1.04%	0.060%
181	8.234	8.217	8.272	VV	155	3444	0.20%	0.012%
182	8.341	8.272	8.376	PV	298	10076	0.59%	0.034%
183	8.386	8.376	8.420	VV	154	2333	0.14%	0.008%
184	8.440	8.420	8.479	VV	149	2188	0.13%	0.007%
185	8.543	8.479	8.560	VV	382	6957	0.41%	0.024%
186	8.582	8.560	8.649	VV	327	11721	0.68%	0.040%
187	8.675	8.649	8.809	VV	188	12073	0.70%	0.041%
188	8.819	8.809	8.829	VV	115	903	0.05%	0.003%
189	8.849	8.829	8.869	VV	120	1765	0.10%	0.006%
190	8.885	8.869	8.916	VV	118	1609	0.09%	0.005%
191	8.932	8.916	8.979	VV	239	4276	0.25%	0.014%
192	9.005	8.979	9.020	VV	184	2567	0.15%	0.009%
193	9.033	9.020	9.047	VV	111	1449	0.08%	0.005%
194	9.082	9.047	9.092	VV	161	3147	0.18%	0.011%

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195	9.107	9.092	9.146	VV	265	6098	0.36%	0.021%
196	9.159	9.146	9.173	VV	182	2844	0.17%	0.010%
197	9.188	9.173	9.269	VV	202	7481	0.44%	0.025%
198	9.299	9.269	9.350	VV	2008	28167	1.64%	0.095%
199	9.356	9.350	9.369	VV	92	1162	0.07%	0.004%
200	9.449	9.369	9.544	VV	10880	248541	14.50%	0.841%
201	9.570	9.544	9.618	VV	407	9170	0.53%	0.031%
202	9.624	9.618	9.666	VV	106	2165	0.13%	0.007%
203	9.675	9.666	9.703	VV	60	993	0.06%	0.003%
204	9.717	9.703	9.726	PV	69	584	0.03%	0.002%
205	9.743	9.726	9.754	VV	82	1036	0.06%	0.004%
206	9.771	9.754	9.797	VV	90	1841	0.11%	0.006%
207	9.837	9.797	9.872	VV	176	5774	0.34%	0.020%
208	9.900	9.872	9.983	VV	370	10645	0.62%	0.036%
209	10.006	9.983	10.029	VV	408	5691	0.33%	0.019%
210	10.040	10.029	10.136	VV	120	4840	0.28%	0.016%
211	10.181	10.136	10.300	PV	1494	85001	4.96%	0.287%
212	10.322	10.300	10.481	VV	855	54277	3.17%	0.184%
213	10.511	10.481	10.523	VV	399	8112	0.47%	0.027%
214	10.546	10.523	10.639	VV	2555	70589	4.12%	0.239%
215	10.657	10.639	10.673	VV	500	8850	0.52%	0.030%
216	10.693	10.673	10.765	VV	1519	28457	1.66%	0.096%
217	10.783	10.765	10.796	VV	194	3130	0.18%	0.011%
218	10.834	10.796	10.854	VV	299	7262	0.42%	0.025%
219	10.882	10.854	10.895	VV	408	7125	0.42%	0.024%
220	10.915	10.895	10.956	VV	564	12799	0.75%	0.043%
221	10.980	10.956	11.008	VV	368	8199	0.48%	0.028%
222	11.017	11.008	11.022	VV	177	1279	0.07%	0.004%
223	11.055	11.022	11.096	VV	238	7261	0.42%	0.025%
224	11.130	11.096	11.146	VV	351	6006	0.35%	0.020%
225	11.155	11.146	11.200	VV	230	4500	0.26%	0.015%
226	11.234	11.200	11.266	PV	489	12467	0.73%	0.042%
227	11.279	11.266	11.319	VV	405	8871	0.52%	0.030%
228	11.330	11.319	11.344	VV	194	2186	0.13%	0.007%
229	11.361	11.344	11.400	VV	232	5210	0.30%	0.018%
230	11.418	11.400	11.453	VV	259	5480	0.32%	0.019%
231	11.549	11.453	11.586	VV	493	19882	1.16%	0.067%
232	11.613	11.586	11.643	VV	944	17333	1.01%	0.059%
233	11.650	11.643	11.674	VV	308	4331	0.25%	0.015%
234	11.704	11.674	11.762	VV	514	11192	0.65%	0.038%
235	11.811	11.762	11.837	VV	493	9048	0.53%	0.031%
236	11.857	11.837	11.878	PV	285	3862	0.23%	0.013%
237	11.909	11.878	11.978	VV	618	17353	1.01%	0.059%
238	12.009	11.978	12.033	VV	515	10505	0.61%	0.036%
239	12.054	12.033	12.075	VV	316	6274	0.37%	0.021%
240	12.102	12.075	12.153	VV	261	6683	0.39%	0.023%
241	12.175	12.153	12.200	PV	115	1876	0.11%	0.006%
242	12.219	12.200	12.232	VV	70	891	0.05%	0.003%
243	12.285	12.232	12.306	VV	570	9751	0.57%	0.033%
244	12.350	12.306	12.378	VV	592	14498	0.85%	0.049%
245	12.402	12.378	12.482	VV	1038	26411	1.54%	0.089%
246	12.494	12.482	12.505	VV	182	1572	0.09%	0.005%

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247	12.537	12.505	12.629	VV	63422	903699	52.72%	3.057%
248	12.643	12.629	12.730	VV	1565	62749	3.66%	0.212%
249	12.748	12.730	12.817	VV	717	25062	1.46%	0.085%
250	12.850	12.817	12.876	VV	767	18878	1.10%	0.064%
251	12.889	12.876	12.900	VV	481	6445	0.38%	0.022%
252	12.920	12.900	12.949	VV	768	15500	0.90%	0.052%
253	13.006	12.949	13.111	VV	1754	55695	3.25%	0.188%
254	13.136	13.111	13.153	VV	267	4170	0.24%	0.014%
255	13.176	13.153	13.246	VV	1262	26373	1.54%	0.089%
256	13.252	13.246	13.268	VV	153	1291	0.08%	0.004%
257	13.333	13.268	13.402	PV	822	25716	1.50%	0.087%
258	13.424	13.402	13.463	VV	448	9272	0.54%	0.031%
259	13.483	13.463	13.495	VV	152	2114	0.12%	0.007%
260	13.532	13.495	13.547	VV	769	11659	0.68%	0.039%
261	13.568	13.547	13.586	VV	1540	23768	1.39%	0.080%
262	13.611	13.586	13.733	VV	2922	95775	5.59%	0.324%
263	13.767	13.733	13.895	VV	22874	359558	20.97%	1.216%
264	13.977	13.895	14.003	VV	459	17160	1.00%	0.058%
265	14.026	14.003	14.049	VV	142	2110	0.12%	0.007%
266	14.075	14.049	14.095	VV	477	6440	0.38%	0.022%
267	14.120	14.095	14.143	VV	1075	15654	0.91%	0.053%
268	14.161	14.143	14.203	VV	390	9486	0.55%	0.032%
269	14.250	14.203	14.313	VV	2321	40366	2.35%	0.137%
270	14.353	14.313	14.373	VV	488	10255	0.60%	0.035%
271	14.420	14.373	14.437	VV	175	6501	0.38%	0.022%
272	14.522	14.437	14.609	VV	1552	60004	3.50%	0.203%
273	14.632	14.609	14.655	VV	881	16104	0.94%	0.054%
274	14.682	14.655	14.713	VV	3278	51082	2.98%	0.173%
275	14.751	14.713	14.769	VV	906	25970	1.51%	0.088%
276	14.791	14.769	14.818	VV	1278	26196	1.53%	0.089%
277	14.847	14.818	14.870	VV	790	20437	1.19%	0.069%
278	14.909	14.870	14.983	VV	2252	63908	3.73%	0.216%
279	15.018	14.983	15.061	VV	104183	1466776	85.56%	4.961%
280	15.075	15.061	15.160	VV	1011	37056	2.16%	0.125%
281	15.221	15.160	15.253	VV	4143	76253	4.45%	0.258%
282	15.275	15.253	15.319	VV	1071	16668	0.97%	0.056%
283	15.355	15.319	15.379	VV	331	7535	0.44%	0.025%
284	15.394	15.379	15.399	VV	223	1888	0.11%	0.006%
285	15.421	15.399	15.434	VV	514	7544	0.44%	0.026%
286	15.447	15.434	15.474	VV	551	8305	0.48%	0.028%
287	15.485	15.474	15.503	VV	119	2071	0.12%	0.007%
288	15.552	15.503	15.569	VV	256	5769	0.34%	0.020%
289	15.605	15.569	15.710	PV	34872	607457	35.44%	2.055%
290	15.742	15.710	15.780	VV	8178	128188	7.48%	0.434%
291	15.815	15.780	15.852	VV	2753	54629	3.19%	0.185%
292	15.883	15.852	15.910	VV	678	10717	0.63%	0.036%
293	15.922	15.910	15.933	VV	201	1905	0.11%	0.006%
294	15.961	15.933	15.995	VV	3801	55939	3.26%	0.189%
295	16.009	15.995	16.019	VV	336	4433	0.26%	0.015%
296	16.037	16.019	16.046	VV	331	4509	0.26%	0.015%
297	16.066	16.046	16.098	VV	419	7255	0.42%	0.025%
298	16.129	16.098	16.165	PV	1005	19931	1.16%	0.067%
299	16.207	16.165	16.216	VV	557	11211	0.65%	0.038%

					rteres			
300	16.244	16.216	16.280	VV	6476	93315	5.44%	0.316%
301	16.311	16.280	16.360	VV	3830	60457	3.53%	0.204%
302	16.377	16.360	16.401	VV	519	7018	0.41%	0.024%
303	16.460	16.401	16.500	PV	672	16327	0.95%	0.055%
304	16.547	16.500	16.576	VV	877	21284	1.24%	0.072%
305	16.618	16.576	16.675	VV	34611	588956	34.36%	1.992%
306	16.688	16.675	16.703	VV	1946	29829	1.74%	0.101%
307	16.728	16.703	16.776	VV	9943	147705	8.62%	0.500%
308	16.806	16.776	16.836	VV	1842	34650	2.02%	0.117%
309	16.889	16.836	16.912	VV	949	25226	1.47%	0.085%
310	16.942	16.912	16.976	VV	1597	29043	1.69%	0.098%
311	17.000	16.976	17.012	VV	632	8975	0.52%	0.030%
312	17.108	17.012	17.135	VV	930	35991	2.10%	0.122%
313	17.195	17.135	17.223	PV	6287	103911	6.06%	0.351%
314	17.276	17.223	17.350	VV	17076	305328	17.81%	1.033%
315	17.443	17.350	17.460	VV	1253	51949	3.03%	0.176%
316	17.570	17.460	17.604	VV	3718	157614	9.19%	0.533%
317	17.645	17.604	17.673	VV	10069	188815	11.01%	0.639%
318	17.685	17.673	17.704	VV	1775	27408	1.60%	0.093%
319	17.733	17.704	17.795	VV	3706	121109	7.06%	0.410%
320	17.824	17.795	17.837	VV	1847	37062	2.16%	0.125%
321	17.867	17.837	17.884	VV	1768	43702	2.55%	0.148%
322	17.892	17.884	17.903	VV	1108	11217	0.65%	0.038%
323	17.948	17.903	17.963	VV	1280	39361	2.30%	0.133%
324	18.082	17.963	18.111	VV	6433	256426	14.96%	0.867%
325	18.134	18.111	18.146	VV	2716	45627	2.66%	0.154%
326	18.175	18.146	18.211	VV	31356	473056	27.60%	1.600%
327	18.232	18.211	18.296	VV	3885	129530	7.56%	0.438%
328	18.317	18.296	18.343	VV	2553	50675	2.96%	0.171%
329	18.361	18.343	18.381	VV	1663	32590	1.90%	0.110%
330	18.444	18.381	18.484	VV	23214	488306	28.49%	1.652%
331	18.506	18.484	18.531	VV	7782	140213	8.18%	0.474%
332	18.545	18.531	18.560	VV	3219	46438	2.71%	0.157%
333	18.572	18.560	18.582	VV	2783	33363	1.95%	0.113%
334	18.605	18.582	18.660	VV	5094	139847	8.16%	0.473%
335	18.690	18.660	18.700	VV	2332	51995	3.03%	0.176%
336	18.749	18.700	18.763	VV	3594	117058	6.83%	0.396%
337	18.812	18.763	18.846	VV	4312	183652	10.71%	0.621%
338	18.913	18.846	18.965	VV	9196	363893	21.23%	1.231%
339	19.019	18.965	19.053	VV	20888	450759	26.29%	1.525%
340	19.071	19.053	19.112	VV	4999	151800	8.86%	0.513%
341	19.278	19.112	19.377	VV	26075	1319123	76.95%	4.462%
342	19.408	19.377	19.438	VV	8615	286168	16.69%	0.968%
343	19.450	19.438	19.467	VV	7813	122938	7.17%	0.416%
344	19.480	19.467	19.493	VV	7265	104964	6.12%	0.355%
345	19.530	19.493	19.540	VV	7865	208546	12.17%	0.705%
346	19.587	19.540	19.596	VV	8213	265507	15.49%	0.898%
347	19.622	19.596	19.638	VV	8437	208576	12.17%	0.705%
348	19.651	19.638	19.659	VV	7952	98536	5.75%	0.333%
349	19.703	19.659	19.754	VV	9847	494481	28.85%	1.672%
350	19.780	19.754	19.788	VV	10825	198809	11.60%	0.672%
351	19.811	19.788	19.847	VV	13975	399701	23.32%	1.352%

						rters		
352	19.889	19.847	19.914	VV	11964	393618	22.96%	1.331%
353	19.987	19.914	20.024	VV	13086	682777	39.83%	2.309%
354	20.066	20.024	20.139	VV	15404	832654	48.57%	2.816%
355	20.171	20.139	20.195	VV	10899	355743	20.75%	1.203%
356	20.240	20.195	20.250	VV	12138	373278	21.78%	1.263%
357	20.339	20.250	20.376	VV	15026	1055321	61.56%	3.569%
358	20.444	20.376	20.470	VV	15051	808710	47.18%	2.735%
359	20.477	20.470	20.487	VV	14061	141953	8.28%	0.480%
360	20.518	20.487	20.531	VV	15450	394119	22.99%	1.333%
361	20.617	20.531	20.630	VV	17808	986677	57.56%	3.337%
362	20.659	20.630	20.723	VV	18612	986816	57.57%	3.338%
363	20.805	20.723	20.876	VV	20535	1714249	100.00%	5.798%
364	20.904	20.876	21.006	VV	18712	1249012	72.86%	4.225%
365	21.104	21.006	21.128	VV	12865	890515	51.95%	3.012%
366	21.175	21.128	21.190	VV	13220	473312	27.61%	1.601%
367	21.203	21.190	21.229	VV	12935	301809	17.61%	1.021%
368	21.251	21.229	21.355	VV	12533	762981	44.51%	2.581%
369	21.440	21.355	21.483	VV	9191	655342	38.23%	2.217%
370	21.521	21.483	21.569	VV	8485	400045	23.34%	1.353%
371	21.599	21.569	21.738	VV	7185	543551	31.71%	1.838%
372	21.749	21.738	21.778	VV	3732	77595	4.53%	0.262%
373	21.838	21.778	21.951	VV	4313	267696	15.62%	0.905%
374	21.973	21.951	21.983	VV	792	12896	0.75%	0.044%
375	22.007	21.983	22.031	VV	751	15727	0.92%	0.053%
376	22.155	22.031	22.203	PBA	613	92788	5.41%	0.314%
			Sum of corrected areas:			29565872		

FF042225.M Thu May 08 06:09:30 2025



CALIBRATION SUMMARY

TPH GC INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: SAXT01
 ProjectID: Stan Hope
 Lab Code: CHEM Case No.: Q1936 SAS No.: Q1936 SDG No.: Q1936

Calibration Sequence : FF042225		Test : TPH GC	
Concentration (PPM)	Area Count	Reference Factor	File ID
1700	171154261	100679	FF015786.D
850	88482232	104097	FF015787.D
340	33178146	97583	FF015788.D
170	17736847	104334	FF015789.D
85	10850659	127655	FF015790.D
AVG RF : 106870		% RSD : 11.177	AVG RT : 15.02

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: SAXT01
ProjectID: Stan Hope
Lab Code: CHEM Case No.: Q1936 SAS No.: Q1936 SDG No.: Q1936
DataFile: FF015794.D Analyst Name: YP\AJ Analyst Date: 05-07-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	86352682	101591	106870	4.94

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015794.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 11:48
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 53 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 05/08/2025
 Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
 Quant Time: May 08 03:10:46 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 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	5172553	45.837 ug/ml
Target Compounds			
1) N-OCTANE	2.020	4769849	42.075 ug/ml
2) N-DECANE	4.560	5285734	51.798 ug/ml
3) N-DODECANE	6.730	5486360	50.106 ug/ml
4) N-TETRADECANE	8.558	5467806	47.373 ug/ml
5) N-HEXADECANE	10.166	5549138	47.019 ug/ml
6) N-OCTADECANE	11.610	5746666	45.682 ug/ml
7) N-EICOSANE	12.921	5779288	44.300 ug/ml
8) N-DOCOSANE	14.121	5699852	44.747 ug/ml
10) N-TETRACOSANE	15.225	5716581	45.446 ug/ml
11) N-HEXACOSANE	16.248	5621592	46.117 ug/ml
12) N-OCTACOSANE	17.199	5595943	47.291 ug/ml
13) N-TRIACONTANE	18.087	5687356	48.256 ug/ml
14) N-DOTRIACONTANE	18.920	5459819	47.924 ug/ml
15) N-TETRATRIACONTANE	19.704	4606703	46.175 ug/ml
16) N-HEXATRIACONTANE	20.442	3696512	46.331 ug/ml
17) N-OCTATRIACONTANE	21.179	3190825	56.190 ug/ml
18) N-TETRACONTANE	22.088f	2992658	73.593 ug/mlm

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015794.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 11:48
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

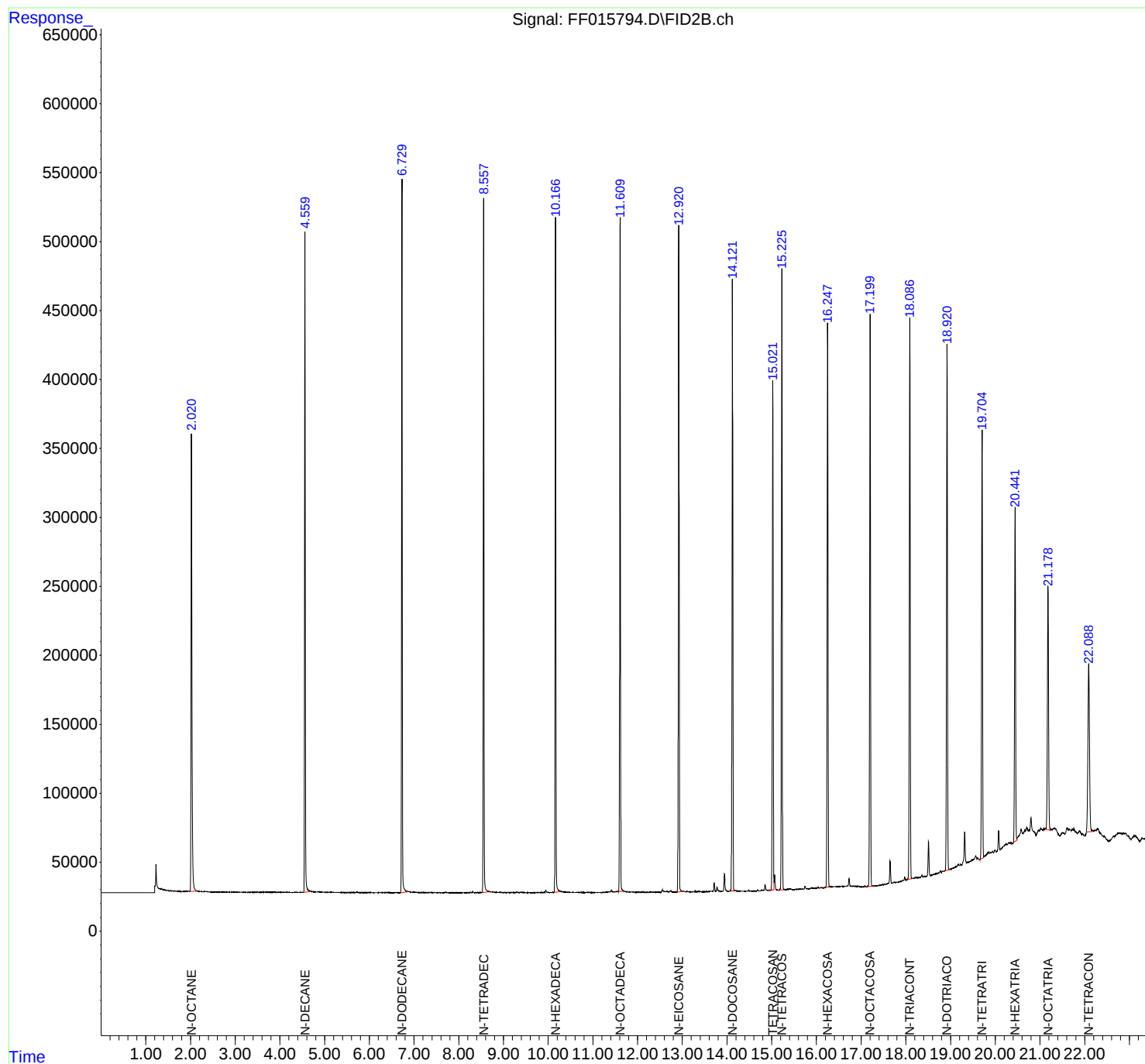
Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
Quant Time: May 08 03:10:46 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Instrument :
FID_F
LabSampleId :
50 PPM TRPH STD
Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF05072
Data File : FF015794.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 11:48
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.020	1.979	2.156	BB	331909	4769849	82.53%	5.210%
2	4.560	4.526	4.694	BB	478995	5285734	91.46%	5.774%
3	6.730	6.694	6.866	BB	517796	5486360	94.93%	5.993%
4	8.558	8.524	8.676	BB	502228	5467806	94.61%	5.973%
5	10.166	10.131	10.284	BB	487929	5549138	96.02%	6.061%
6	11.610	11.556	11.709	BB	488223	5746666	99.44%	6.277%
7	12.921	12.882	13.007	BB	482792	5779288	100.00%	6.313%
8	14.121	14.085	14.194	VB	442906	5699852	98.63%	6.226%
9	15.021	14.917	15.052	BV	369099	5172553	89.50%	5.650%
10	15.225	15.146	15.291	BB	451290	5716581	98.91%	6.244%
11	16.248	16.181	16.314	BB	408134	5621592	97.27%	6.141%
12	17.199	17.116	17.271	BB	413528	5595943	96.83%	6.113%
13	18.087	18.017	18.151	BB	405921	5687356	98.41%	6.212%
14	18.920	18.831	18.979	BB	380740	5459819	94.47%	5.964%
15	19.704	19.641	19.740	BV	310594	4606703	79.71%	5.032%
16	20.442	20.391	20.481	BV	241814	3696512	63.96%	4.038%
17	21.179	21.091	21.235	BV	176389	3190825	55.21%	3.485%
18	22.088	21.961	22.194	BV	122756	3015351	52.18%	3.294%
Sum of corrected areas:						91547928		

FF042225.M Thu May 08 05:54:29 2025

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Chemtech Contract: SAXT01
ProjectID: Stan Hope
Lab Code: CHEM Case No.: Q1936 SAS No.: Q1936 SDG No.: Q1936
DataFile: FF015805.D Analyst Name: YP\AJ Analyst Date: 05-07-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	86867776	102197	106870	4.373

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
 Data File : FF015805.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 17:39
 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: May 08 03:13:36 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 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	5247649	46.502 ug/ml
Target Compounds			
1) N-OCTANE	2.025	4753852	41.934 ug/ml
2) N-DECANE	4.564	5296970	51.908 ug/ml
3) N-DODECANE	6.732	5559617	50.775 ug/ml
4) N-TETRADECANE	8.560	5565709	48.221 ug/ml
5) N-HEXADECANE	10.167	5658787	47.948 ug/ml
6) N-OCTADECANE	11.611	5852822	46.526 ug/ml
7) N-EICOSANE	12.921	5854801	44.879 ug/ml
8) N-DOCOSANE	14.121	5760069	45.220 ug/ml
10) N-TETRACOSANE	15.225	5763753	45.821 ug/ml
11) N-HEXACOSANE	16.248	5656519	46.404 ug/ml
12) N-OCTACOSANE	17.198	5625989	47.545 ug/ml
13) N-TRIACONTANE	18.087	5703776	48.395 ug/ml
14) N-DOTRIACONTANE	18.919	5477525	48.080 ug/ml
15) N-TETRATRIACONTANE	19.702	4623484	46.343 ug/ml
16) N-HEXATRIACONTANE	20.440	3697042	46.338 ug/ml
17) N-OCTATRIACONTANE	21.176	3137937	55.259 ug/ml
18) N-TETRACONTANE	22.085f	2879124	70.801 ug/ml

(f)=RT Delta > 1/2 Window

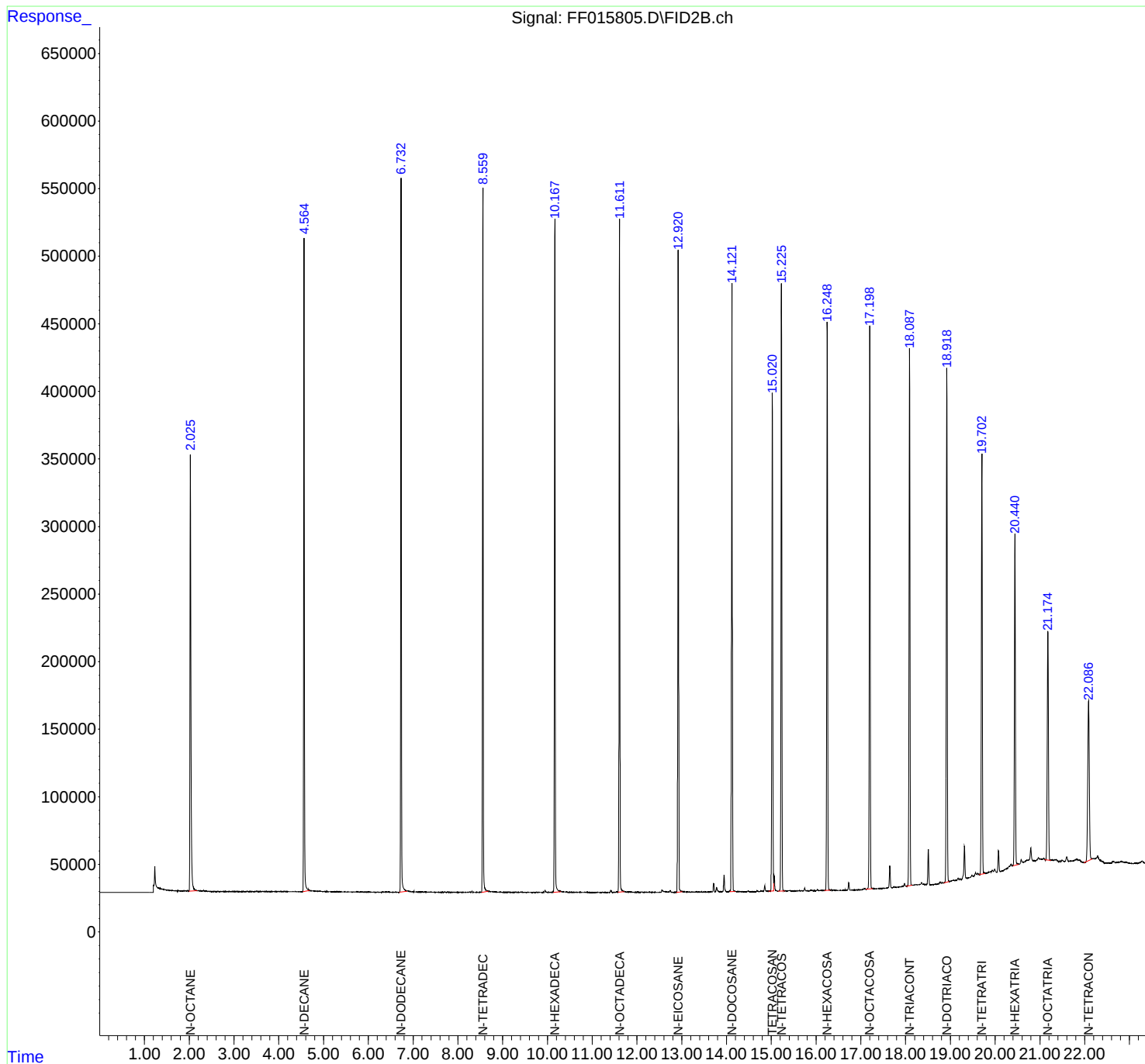
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015805.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 17:39
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: May 08 03:13:36 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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\FF050725\
Data File : FF015805.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 17:39
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 53 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.025	1.991	2.181	BB	322749	4753852	81.20%	5.161%
2	4.564	4.536	4.691	BB	483078	5296970	90.47%	5.750%
3	6.732	6.699	6.869	BB	527642	5559617	94.96%	6.035%
4	8.560	8.526	8.682	BB	520333	5565709	95.06%	6.042%
5	10.167	10.131	10.304	BB	498375	5658787	96.65%	6.143%
6	11.611	11.576	11.717	BB	496163	5852822	99.97%	6.354%
7	12.921	12.879	13.016	BB	475877	5854801	100.00%	6.356%
8	14.121	14.085	14.196	VB	450600	5760069	98.38%	6.253%
9	15.021	14.939	15.052	BV	367696	5247649	89.63%	5.697%
10	15.225	15.149	15.302	BB	447785	5763753	98.44%	6.257%
11	16.248	16.182	16.317	BB	420561	5656519	96.61%	6.141%
12	17.198	17.109	17.264	BB	415157	5625989	96.09%	6.108%
13	18.087	18.012	18.146	BB	398371	5703776	97.42%	6.192%
14	18.919	18.849	18.972	BB	379985	5477525	93.56%	5.946%
15	19.702	19.641	19.777	BB	310288	4623484	78.97%	5.019%
16	20.440	20.391	20.524	BB	245447	3697042	63.15%	4.013%
17	21.176	21.109	21.249	BV	168930	3137937	53.60%	3.407%
18	22.085	21.989	22.164	BV	118411	2879124	49.18%	3.126%
Sum of corrected areas:							92115424	

FF042225.M Thu May 08 05:58:36 2025

Analytical Sequence

Client: Saxton Falls Sand and Gravel Co. Inc.

SDG No.: Q1936

Project: Stan Hope

Instrument ID: FID_F

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

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

MEAN SUROGATE RT FROM INITIAL CALIBRATION 15.02					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	07 May 2025 10:46	FF015793.D	15.022	
50 PPM TRPH STD	50 PPM TRPH STD	07 May 2025 11:48	FF015794.D	15.021	
PB167887BL	PB167887BL	07 May 2025 12:47	FF015796.D	15.021	
PB167887BS	PB167887BS	07 May 2025 13:16	FF015797.D	15.019	
SMALL-PILE-A	Q1936-01	07 May 2025 13:45	FF015798.D	14.960	
SMALL-PILE-AMS	Q1936-01MS	07 May 2025 14:14	FF015799.D	14.952	
SMALL-PILE-AMSD	Q1936-01MSD	07 May 2025 14:44	FF015800.D	14.960	
SMALL-PILE-B	Q1936-03	07 May 2025 15:13	FF015801.D	15.018	
SMALL-PILE-C	Q1936-05	07 May 2025 15:42	FF015802.D	14.940	
SMALL-PILE-D	Q1936-07	07 May 2025 16:11	FF015803.D	15.018	
PIBLK02	LBLK02	07 May 2025 16:41	FF015804.D	15.021	
50 PPM TRPH STD	50 PPM TRPH STD	07 May 2025 17:39	FF015805.D	15.021	



QC SAMPLE DATA

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	
Project:	Stan Hope	Date Received:	
Client Sample ID:	PB167887BL	SDG No.:	Q1936
Lab Sample ID:	PB167887BL	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	100
Sample Wt/Vol:	30.02	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		Test:	TPH GC
Prep Method :	SW3541	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015796.D	1	05/07/25 09:00	05/07/25 12:47	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	384	U	384	2830	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	13.4		37 - 130	67%	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\FF050725\
Data File : FF015796.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 12:47
Operator : YP\AJ
Sample : PB167887BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167887BL

Integration File: autoint1.e
Quant Time: May 08 03:11:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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	1511508	13.394 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

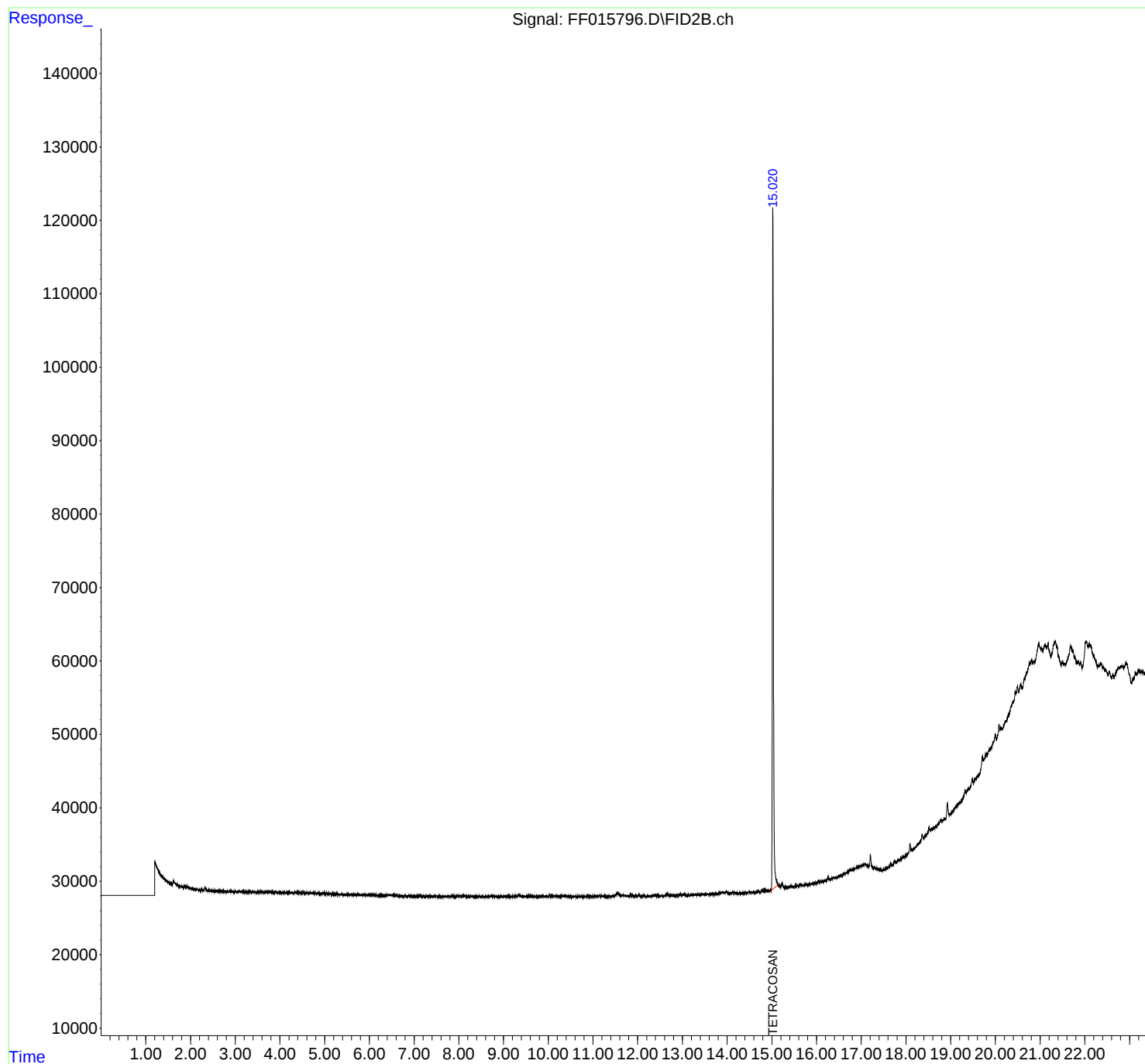
(m)=manual int.

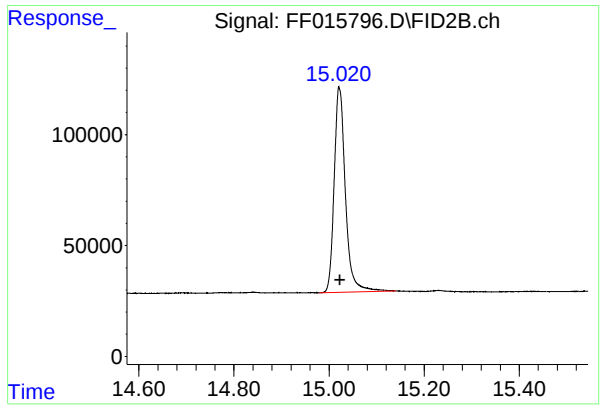
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015796.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 12:47
Operator : YP\AJ
Sample : PB167887BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167887BL

Integration File: autoint1.e
Quant Time: May 08 03:11:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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.: -0.001 min
Response: 1511508
Conc: 13.39 ug/ml

Instrument :
FID_F
ClientSampleId :
PB167887BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015796.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 12:47
Sample : PB167887BL
Misc :
ALS Vial : 71 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.021	14.979	15.141	BB	92730	1511508	100.00%	100.000%
Sum of corrected areas:						1511508		

FF042225.M Thu May 08 05:56:36 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/07/25
Project:	Stan Hope	Date Received:	05/07/25
Client Sample ID:	PIBLK-FF015793.D	SDG No.:	Q1936
Lab Sample ID:	I.BLK-FF015793.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Final Vol:	1 mL
Soil Aliquot Vol:	uL	Test:	TPH GC
Extraction Type:		Injection Volume :	
GPC Factor :	PH :		
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015793.D	1		05/07/25	FF050725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	16.5		29 - 130	83%	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\FF050725\
Data File : FF015793.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 10:46
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: May 08 03:10:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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...	15.022	1865384	16.530 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

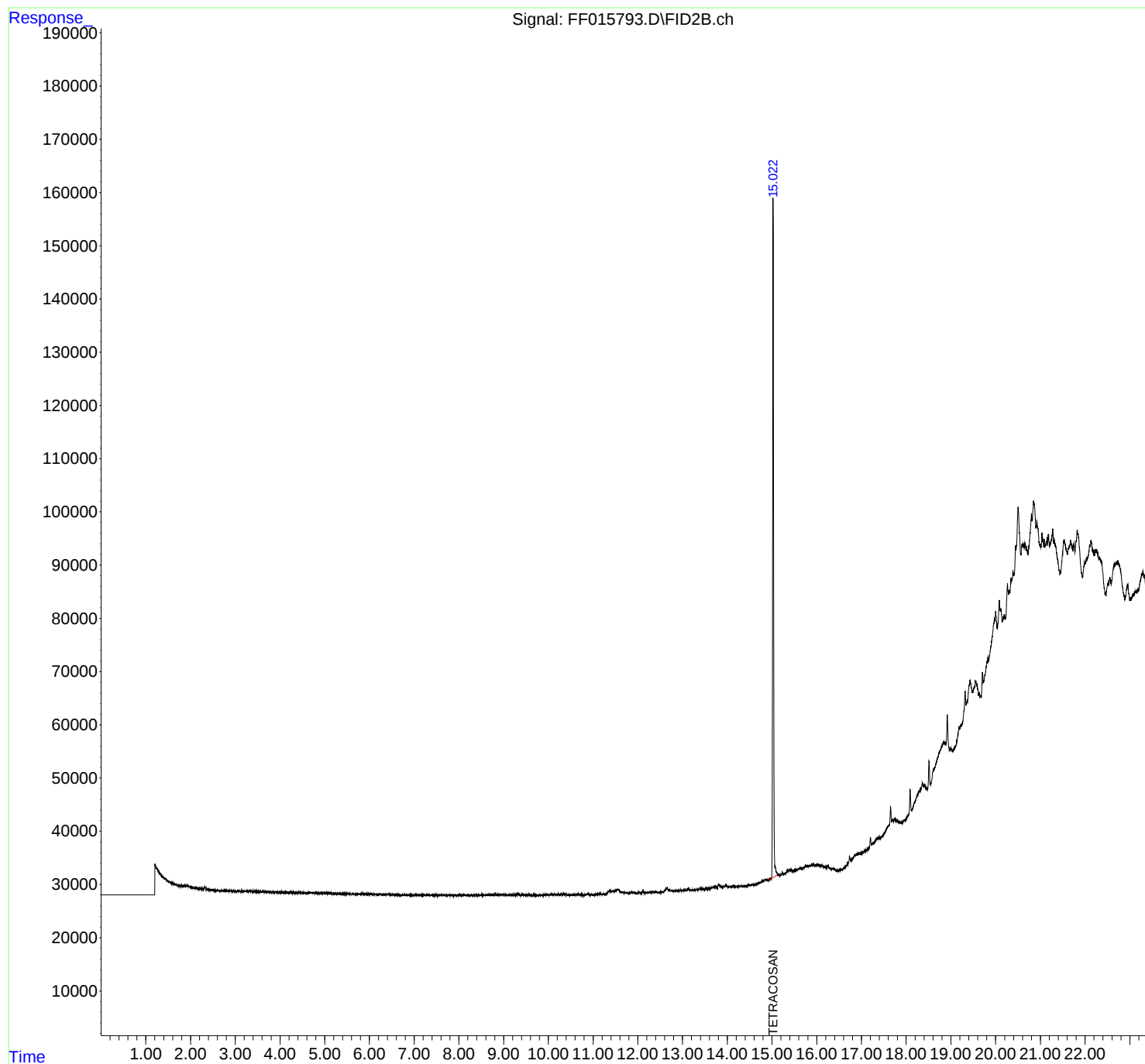
(m)=manual int.

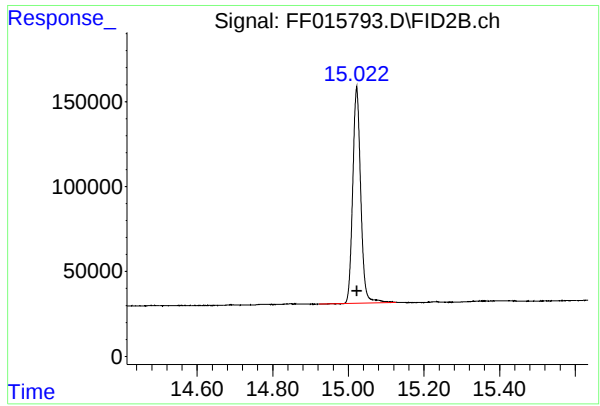
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015793.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 10:46
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 08 03:10:33 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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.: 15.022 min
Delta R.T.: 0.000 min
Response: 1865384
Conc: 16.53 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015793.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 10:46
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.022	14.922	15.126	BB	127545	1865384	100.00%	100.000%
Sum of corrected areas:						1865384		

FF042225.M Thu May 08 05:53:10 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/07/25
Project:	Stan Hope	Date Received:	05/07/25
Client Sample ID:	PIBLK-FF015804.D	SDG No.:	Q1936
Lab Sample ID:	I.BLK-FF015804.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000	Units:	mL
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015804.D	1		05/07/25	FF050725

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
PHC	Petroleum Hydrocarbons	12.0	U	12.0	85.0	ug/L
SURROGATES						
16416-32-3	TETRACOSANE-d50	17.1		29 - 130	86%	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\FF050725\
Data File : FF015804.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:41
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: May 08 03:13:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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	1933407	17.133 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

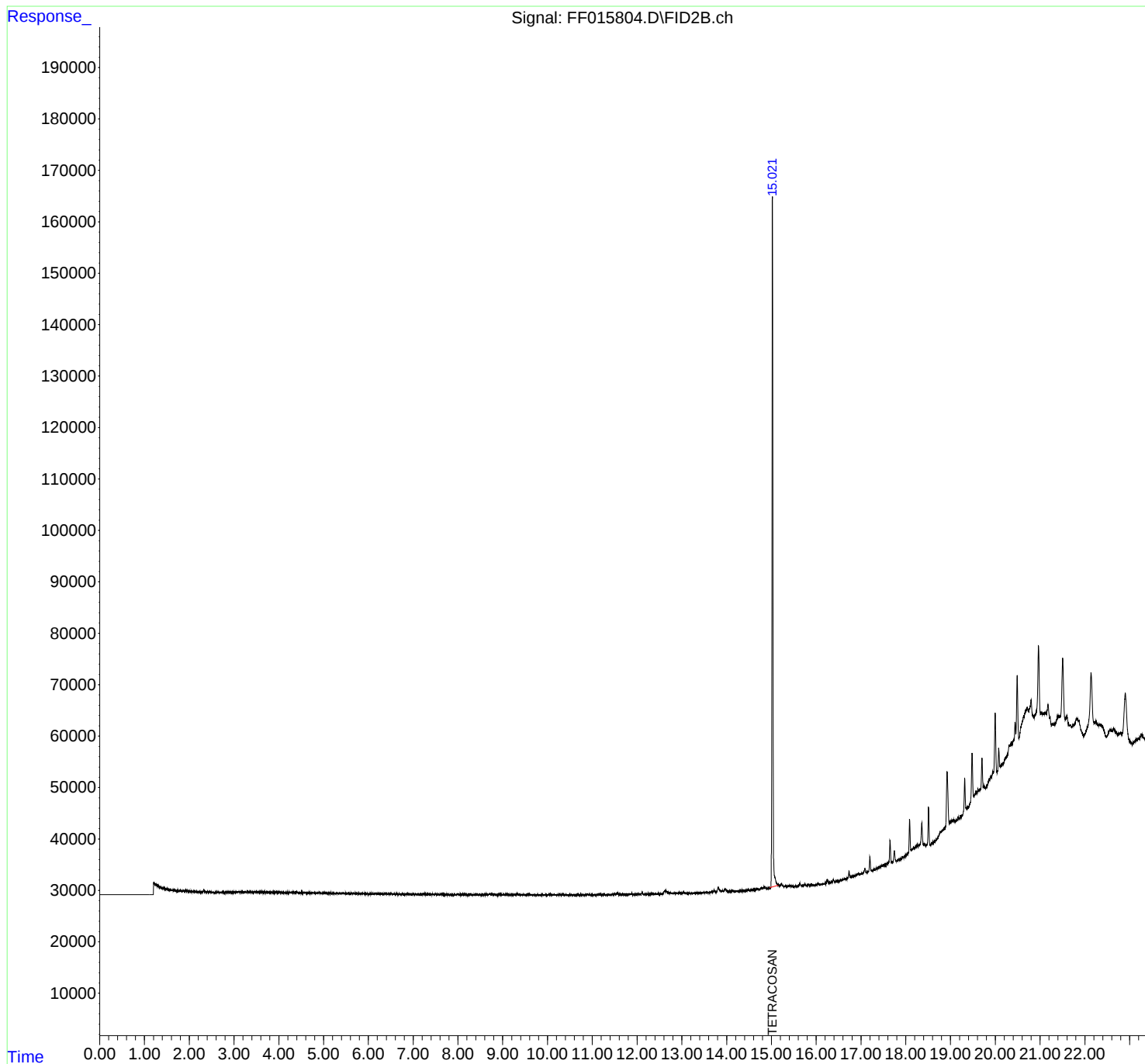
(m)=manual int.

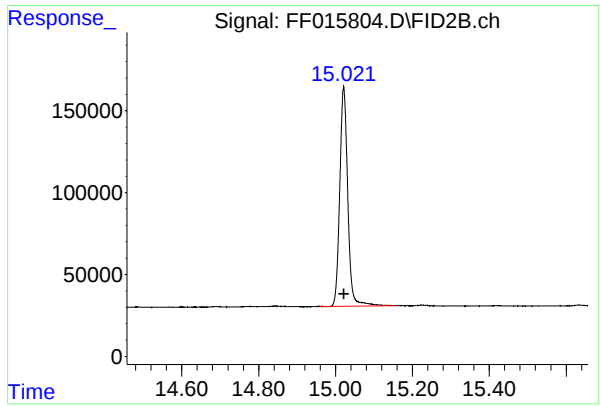
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015804.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:41
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: May 08 03:13:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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.: -0.001 min
Response: 1933407
Conc: 17.13 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015804.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 16:41
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.021	14.957	15.157	BB	133513	1933407	100.00%	100.000%
Sum of corrected areas:						1933407		

FF042225.M Thu May 08 05:57:51 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	
Project:	Stan Hope	Date Received:	
Client Sample ID:	PB167887BS	SDG No.:	Q1936
Lab Sample ID:	PB167887BS	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	100
Sample Wt/Vol:	30.03	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Final Vol:	1
GPC Factor :		Test:	TPH GC
Prep Method :	SW3541	Injection Volume :	

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015797.D	1	05/07/25 09:00	05/07/25 13:16	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	11200		384	2830	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	17.8		37 - 130	89%	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\FF050725\
 Data File : FF015797.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 13:16
 Operator : YP\AJ
 Sample : PB167887BS
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 PB167887BS

Integration File: autoint1.e
 Quant Time: May 08 05:35:31 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 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	2004447	17.762 ug/ml
Target Compounds			
1) N-OCTANE	2.026	2020750	17.825 ug/ml
2) N-DECANE	4.564	2055625	20.144 ug/ml
3) N-DODECANE	6.731	2113939	19.306 ug/ml
4) N-TETRADECANE	8.559	2129234	18.448 ug/ml
5) N-HEXADECANE	10.166	2125826	18.013 ug/ml
6) N-OCTADECANE	11.609	2213815	17.598 ug/ml
7) N-EICOSANE	12.920	2285256	17.517 ug/ml
8) N-DOCOSANE	14.119	2234340	17.541 ug/ml
10) N-TETRACOSANE	15.223	2244989	17.847 ug/ml
11) N-HEXACOSANE	16.245	2223179	18.238 ug/ml
12) N-OCTACOSANE	17.196	2200437	18.596 ug/ml
13) N-TRIACONTANE	18.084	2217798	18.817 ug/ml
14) N-DOTRIACONTANE	18.917	2321371	20.376 ug/ml
15) N-TETRATRIACONTANE	19.701	2048487	20.533 ug/ml
16) N-HEXATRIACONTANE	20.441	1915038	24.003 ug/ml
17) N-OCTATRIACONTANE	21.176	1787753	31.482 ug/ml
18) N-TETRACONTANE	22.086	1958029	48.150 ug/ml

(f)=RT Delta > 1/2 Window

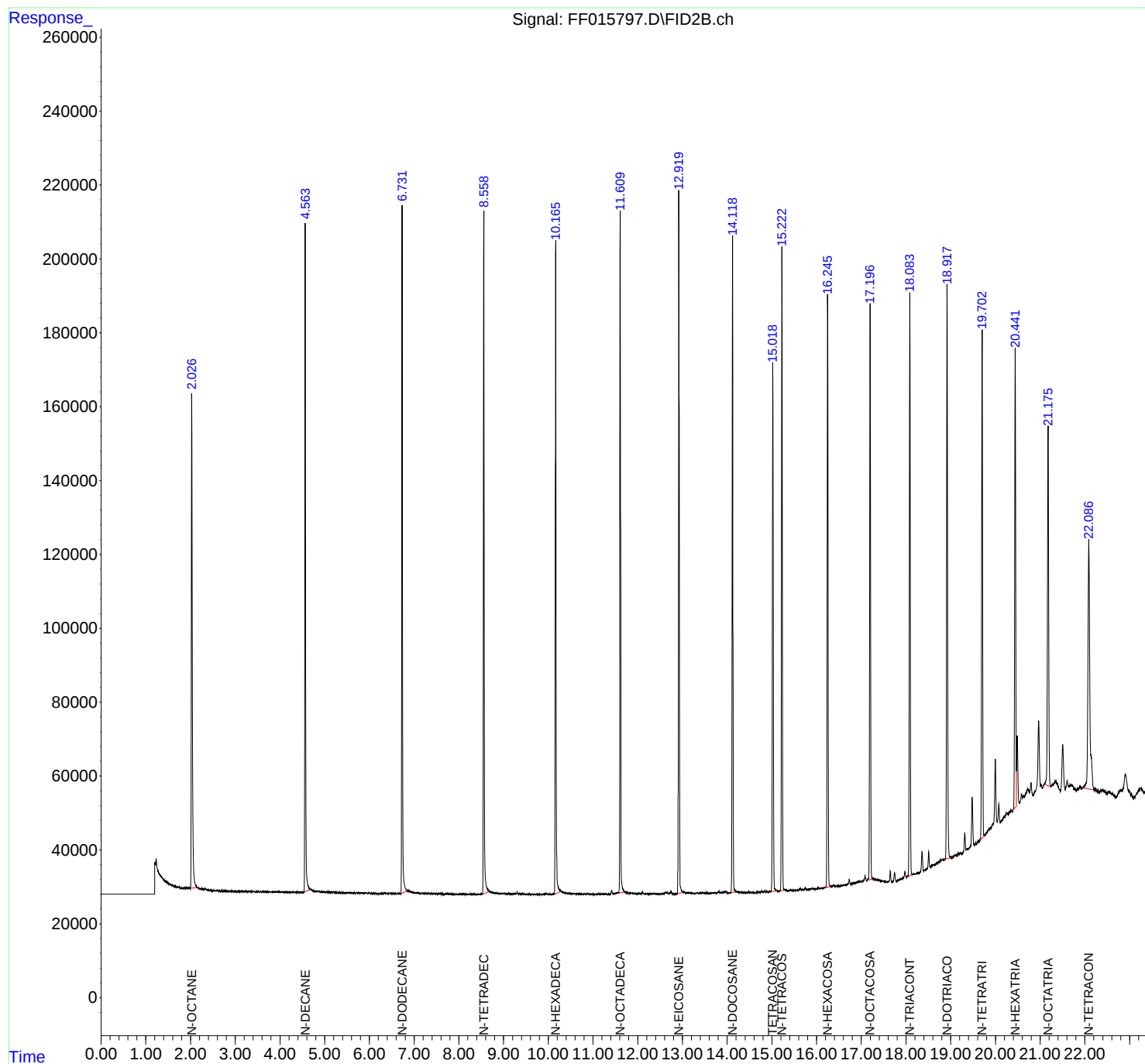
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015797.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 13:16
Operator : YP\AJ
Sample : PB167887BS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
PB167887BS

Integration File: autoint1.e
Quant Time: May 08 05:35:31 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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\FF050725\
 Data File : FF015797.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 13:16
 Sample : PB167887BS
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.026	1.980	2.157	BB	133917	2020750	87.05%	5.304%
2	4.564	4.532	4.679	BB	180938	2055625	88.55%	5.395%
3	6.731	6.699	6.850	BB	186088	2113939	91.06%	5.548%
4	8.559	8.529	8.687	BB	184645	2129234	91.72%	5.588%
5	10.166	10.130	10.280	BB	177163	2125826	91.58%	5.580%
6	11.609	11.575	11.717	BB	184445	2213815	95.37%	5.810%
7	12.920	12.884	13.015	BB	189857	2285256	98.44%	5.998%
8	14.119	14.079	14.194	BB	177505	2234340	96.25%	5.864%
9	15.019	14.979	15.094	BB	143111	2004447	86.35%	5.261%
10	15.223	15.184	15.294	BB	174391	2244989	96.71%	5.892%
11	16.245	16.185	16.319	BB	160025	2223179	95.77%	5.835%
12	17.196	17.120	17.267	BB	155163	2200437	94.79%	5.775%
13	18.084	18.015	18.145	BB	157844	2217798	95.54%	5.821%
14	18.917	18.859	19.002	BB	155222	2321371	100.00%	6.093%
15	19.701	19.640	19.762	BB	138004	2048487	88.24%	5.377%
16	20.441	20.390	20.468	BV	123542	1915038	82.50%	5.026%
17	21.176	21.090	21.240	BV	97318	1787753	77.01%	4.692%
18	22.086	21.960	22.210	BV	67540	1958029	84.35%	5.139%
Sum of corrected areas:							38100313	

FF042225.M Thu May 08 05:57:16 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	SMALL-PILE-AMS	SDG No.:	Q1936
Lab Sample ID:	Q1936-01MS	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	90.8
Sample Wt/Vol:	30.06	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015799.D	1	05/07/25 09:00	05/07/25 14:14	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	12600		422	3110	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	7.95		37 - 130	40%	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\FF050725\
 Data File : FF015799.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 14:14
 Operator : YP\AJ
 Sample : Q1936-01MS
 Misc :
 ALS Vial : 74 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 SMALL-PILE-AMS

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 05/08/2025
 Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
 Quant Time: May 08 05:37:15 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 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	897685	7.955 ug/ml
Target Compounds			
1) N-OCTANE	2.028	1475763	13.018 ug/ml
2) N-DECANE	4.565	1596942	15.649 ug/ml
3) N-DODECANE	6.732	1710321	15.620 ug/ml
4) N-TETRADECANE	8.558	1689403	14.637 ug/ml
5) N-HEXADECANE	10.165	1813192	15.364 ug/ml
6) N-OCTADECANE	11.609	1845067	14.667 ug/ml
7) N-EICOSANE	12.919	1853836	14.210 ug/ml
8) N-DOCOSANE	14.118	1868903	14.672 ug/ml
10) N-TETRACOSANE	15.221	1867834	14.849 ug/ml
11) N-HEXACOSANE	16.244	1847308	15.155 ug/ml
12) N-OCTACOSANE	17.194	1792889	15.152 ug/ml
13) N-TRIACONTANE	18.083	1765479	14.980 ug/ml
14) N-DOTRIACONTANE	18.915	1480375	12.994 ug/ml
15) N-TETRATRIACONTANE	19.699	883174	8.852 ug/ml
16) N-HEXATRIACONTANE	20.440	565995	7.094 ug/ml
17) N-OCTATRIACONTANE	21.174	441781	7.780 ug/mlm
18) N-TETRACONTANE	22.085	422995	10.402 ug/mlm

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015799.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 14:14
Operator : YP\AJ
Sample : Q1936-01MS
Misc :
ALS Vial : 74 Sample Multiplier: 1

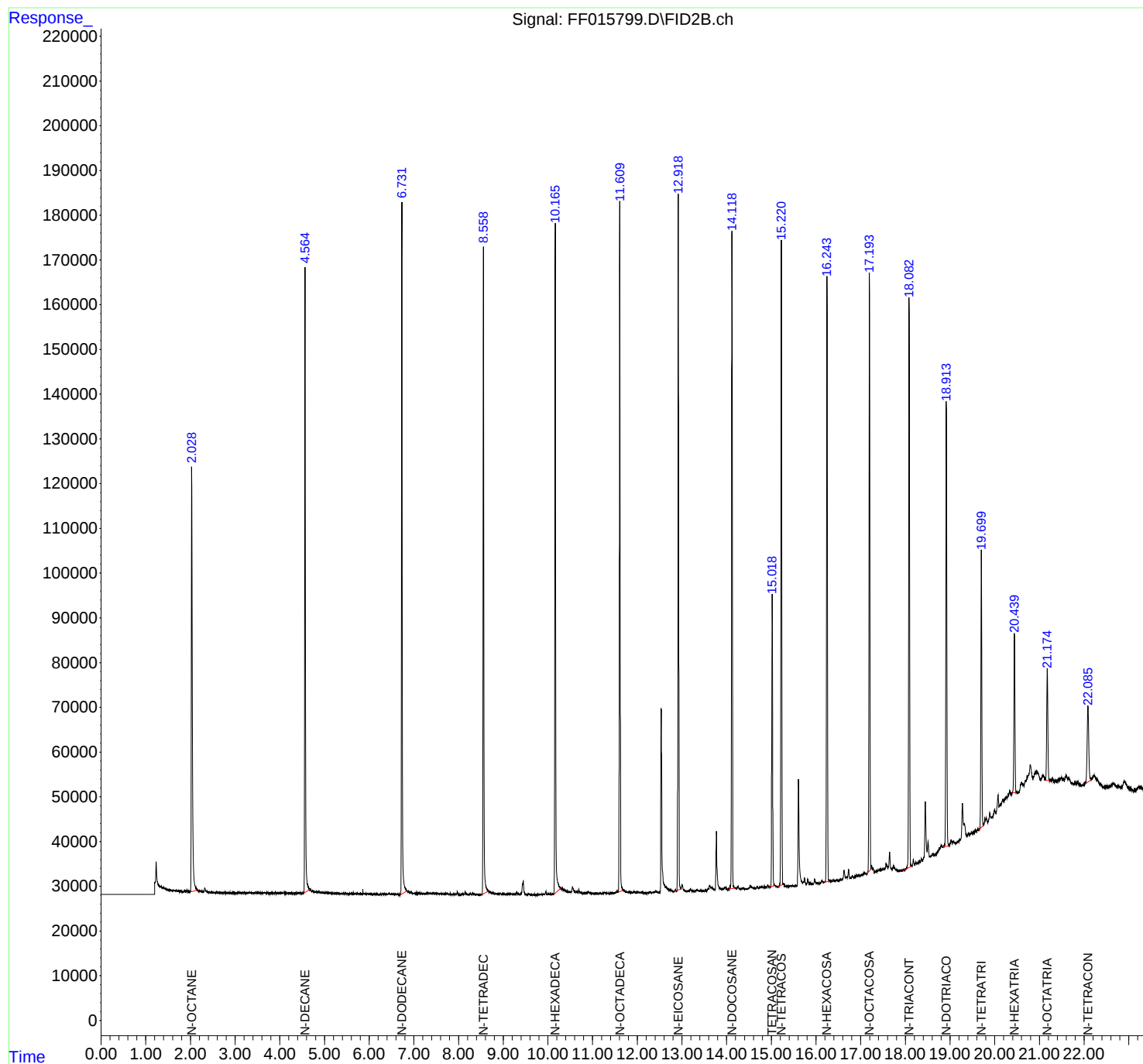
Instrument :
FID_F
ClientSampleId :
SMALL-PILE-AMS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

Integration File: autoint1.e
Quant Time: May 08 05:37:15 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Instrument :

FID_F

ClientSampleId :

SMALL-PILE-AMS

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF05072
Data File : FF015799.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 14:14
Sample : Q1936-01MS
Misc :
ALS Vial : 74 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.028	2.000	2.186	BV	94935	1499564	75.85%	3.978%
2	2.191	2.186	2.207	VV	308	3163	0.16%	0.008%
3	2.215	2.207	2.230	VV	290	3052	0.15%	0.008%
4	2.238	2.230	2.272	VV	264	4980	0.25%	0.013%
5	2.274	2.272	2.284	VV	207	1160	0.06%	0.003%
6	2.288	2.284	2.302	VV	221	1477	0.07%	0.004%
7	2.323	2.302	2.347	VV	928	14205	0.72%	0.038%
8	2.351	2.347	2.390	VV	344	6117	0.31%	0.016%
9	2.395	2.390	2.415	VV	196	1652	0.08%	0.004%
10	2.419	2.415	2.427	VV	150	584	0.03%	0.002%
11	2.431	2.427	2.450	VV	118	924	0.05%	0.002%
12	2.455	2.450	2.462	VV	106	453	0.02%	0.001%
13	2.466	2.462	2.473	VV	131	449	0.02%	0.001%
14	2.480	2.473	2.483	VV	76	477	0.02%	0.001%
15	2.490	2.483	2.508	VV	121	1280	0.06%	0.003%
16	2.539	2.508	2.576	VV	124	3246	0.16%	0.009%
17	2.579	2.576	2.583	VV	122	384	0.02%	0.001%
18	2.589	2.583	2.612	VV	122	1557	0.08%	0.004%
19	2.616	2.612	2.640	VV	141	1473	0.07%	0.004%
20	2.653	2.640	2.665	PV	139	1389	0.07%	0.004%
21	2.673	2.665	2.691	VV	145	1304	0.07%	0.003%
22	2.708	2.691	2.721	VV	132	1632	0.08%	0.004%
23	2.725	2.721	2.733	VV	100	584	0.03%	0.002%
24	2.750	2.733	2.759	VV	160	1528	0.08%	0.004%
25	2.768	2.759	2.787	VV	129	1625	0.08%	0.004%
26	2.791	2.787	2.798	VV	177	804	0.04%	0.002%
27	2.801	2.798	2.807	VV	145	597	0.03%	0.002%
28	2.811	2.807	2.815	VV	129	494	0.02%	0.001%
29	2.820	2.815	2.833	VV	159	1083	0.05%	0.003%
30	2.841	2.833	2.859	VV	174	1896	0.10%	0.005%
31	2.867	2.859	2.882	VV	179	1522	0.08%	0.004%
32	2.884	2.882	2.894	VV	199	852	0.04%	0.002%
33	2.901	2.894	2.920	VV	167	1802	0.09%	0.005%
34	2.926	2.920	2.934	VV	194	1213	0.06%	0.003%
35	2.939	2.934	2.945	VV	140	761	0.04%	0.002%
36	2.953	2.945	2.963	VV	168	1278	0.06%	0.003%

37	2.965	2.963	2.977	VV	160	808	0.04%	0.002%
38	2.984	2.977	2.994	PV	189	1228	0.06%	0.003%
39	2.998	2.994	3.008	VV	153	1245	0.05%	0.003%
40	3.013	3.008	3.025	VV	164	1308	0.06%	0.003%
41	3.029	3.025	3.041	VV	199	1349	0.06%	0.003%
42	3.045	3.041	3.062	VV	155	1655	0.06%	0.003%
43	3.074	3.062	3.096	VV	197	3084	0.16%	0.008%
44	3.098	3.096	3.109	VV	171	1198	0.06%	0.003%
45	3.124	3.109	3.139	VV	216	2975	0.15%	0.008%
46	3.142	3.139	3.156	VV	236	1677	0.08%	0.004%
47	3.161	3.156	3.178	VV	219	2078	0.11%	0.006%
48	3.180	3.178	3.194	VV	189	1240	0.06%	0.003%
49	3.205	3.194	3.211	VV	167	1459	0.07%	0.004%
50	3.213	3.211	3.225	VV	223	1324	0.07%	0.004%
51	3.238	3.225	3.249	VV	174	2151	0.11%	0.006%
52	3.263	3.249	3.279	VV	196	2782	0.14%	0.007%
53	3.285	3.279	3.295	VV	198	1571	0.08%	0.004%
54	3.297	3.295	3.317	VV	218	2233	0.11%	0.006%
55	3.334	3.317	3.350	VV	266	3431	0.17%	0.009%
56	3.354	3.350	3.360	VV	177	1006	0.05%	0.003%
57	3.363	3.360	3.368	VV	237	779	0.04%	0.002%
58	3.376	3.368	3.397	VV	217	2532	0.13%	0.007%
59	3.400	3.397	3.405	VV	166	846	0.04%	0.002%
60	3.422	3.405	3.448	VV	225	4498	0.23%	0.012%
61	3.452	3.448	3.465	VV	239	1995	0.10%	0.005%
62	3.471	3.465	3.479	VV	217	1562	0.08%	0.004%
63	3.483	3.479	3.508	VV	209	2940	0.15%	0.008%
64	3.514	3.508	3.541	VV	237	3608	0.18%	0.010%
65	3.544	3.541	3.551	VV	232	1152	0.06%	0.003%
66	3.558	3.551	3.562	VV	180	1097	0.06%	0.003%
67	3.574	3.562	3.580	VV	257	2124	0.11%	0.006%
68	3.589	3.580	3.597	VV	230	1764	0.09%	0.005%
69	3.632	3.597	3.648	VV	251	5758	0.29%	0.015%
70	3.651	3.648	3.667	VV	192	1879	0.10%	0.005%
71	3.670	3.667	3.681	VV	205	1481	0.07%	0.004%
72	3.700	3.681	3.720	VV	277	4333	0.22%	0.011%
73	3.737	3.720	3.754	VV	181	3255	0.16%	0.009%
74	3.757	3.754	3.790	VV	206	3339	0.17%	0.009%
75	3.796	3.790	3.803	VV	205	1309	0.07%	0.003%
76	3.811	3.803	3.827	VV	189	2091	0.11%	0.006%
77	3.829	3.827	3.834	VV	203	620	0.03%	0.002%
78	3.844	3.834	3.849	VV	217	1355	0.07%	0.004%
79	3.856	3.849	3.875	VV	206	2681	0.14%	0.007%
80	3.886	3.875	3.890	VV	217	1529	0.08%	0.004%
81	3.898	3.890	3.905	VV	238	1591	0.08%	0.004%
82	3.911	3.905	3.923	VV	233	1667	0.08%	0.004%
83	3.932	3.923	3.969	VV	230	4838	0.24%	0.013%
84	3.973	3.969	3.976	VV	183	737	0.04%	0.002%
85	4.003	3.976	4.027	VV	243	5885	0.30%	0.016%
86	4.032	4.027	4.049	VV	197	2245	0.11%	0.006%
87	4.056	4.049	4.077	VV	213	2719	0.14%	0.007%
88	4.084	4.077	4.091	VV	229	1411	0.07%	0.004%
89	4.100	4.091	4.109	VV	232	1952	0.10%	0.005%

Instrument :

FID_F

ClientSampleId :

SMALL-PILE-AMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

90	4.112	4.109	4.118	VV	236	1148	0.06%	0.003%
91	4.128	4.118	4.132	VV	233	1644		
92	4.136	4.132	4.139	VV	189	766		
93	4.143	4.139	4.158	VV	234	2127		
94	4.166	4.158	4.219	VV	212	6495		
95	4.225	4.219	4.230	VV	203	1225		
96	4.235	4.230	4.244	VV	237	1498	0.08%	0.004%
97	4.252	4.244	4.282	VV	220	3748	0.19%	0.010%
98	4.288	4.282	4.300	VV	224	1681	0.09%	0.004%
99	4.306	4.300	4.322	VV	227	2517	0.13%	0.007%
100	4.327	4.322	4.350	VV	202	2747	0.14%	0.007%
101	4.360	4.350	4.365	VV	180	1528	0.08%	0.004%
102	4.370	4.365	4.415	VV	257	5814	0.29%	0.015%
103	4.420	4.415	4.447	VV	268	3713	0.19%	0.010%
104	4.452	4.447	4.485	VV	206	4211	0.21%	0.011%
105	4.492	4.485	4.498	VV	177	1300	0.07%	0.003%
106	4.520	4.498	4.527	VV	237	2795	0.14%	0.007%
107	4.565	4.527	4.729	VV	139652	1674119	84.67%	4.441%
108	4.733	4.729	4.746	VV	639	6176	0.31%	0.016%
109	4.749	4.746	4.754	VV	574	2640	0.13%	0.007%
110	4.756	4.754	4.770	VV	590	5223	0.26%	0.014%
111	4.777	4.770	4.796	VV	607	8623	0.44%	0.023%
112	4.801	4.796	4.823	VV	626	8419	0.43%	0.022%
113	4.827	4.823	4.846	VV	555	6275	0.32%	0.017%
114	4.857	4.846	4.927	VV	527	20389	1.03%	0.054%
115	4.937	4.927	4.956	VV	392	6197	0.31%	0.016%
116	4.960	4.956	4.974	VV	392	3825	0.19%	0.010%
117	4.979	4.974	4.985	VV	347	2093	0.11%	0.006%
118	4.990	4.985	4.994	VV	363	1638	0.08%	0.004%
119	5.026	4.994	5.038	VV	366	7959	0.40%	0.021%
120	5.056	5.038	5.124	VV	332	14369	0.73%	0.038%
121	5.127	5.124	5.159	VV	279	5406	0.27%	0.014%
122	5.171	5.159	5.179	VV	249	2820	0.14%	0.007%
123	5.188	5.179	5.201	VV	276	3118	0.16%	0.008%
124	5.221	5.201	5.237	VV	295	4964	0.25%	0.013%
125	5.248	5.237	5.267	VV	265	4277	0.22%	0.011%
126	5.290	5.267	5.310	VV	273	5929	0.30%	0.016%
127	5.317	5.310	5.370	VV	283	7074	0.36%	0.019%
128	5.377	5.370	5.397	VV	215	2768	0.14%	0.007%
129	5.425	5.397	5.447	VV	239	5596	0.28%	0.015%
130	5.453	5.447	5.468	VV	188	2135	0.11%	0.006%
131	5.479	5.468	5.509	VV	202	3765	0.19%	0.010%
132	5.514	5.509	5.531	VV	207	1988	0.10%	0.005%
133	5.542	5.531	5.572	VV	158	3559	0.18%	0.009%
134	5.580	5.572	5.611	VV	201	3664	0.19%	0.010%
135	5.618	5.611	5.635	VV	179	2083	0.11%	0.006%
136	5.643	5.635	5.664	VV	311	2397	0.12%	0.006%
137	5.672	5.664	5.707	VV	163	3439	0.17%	0.009%
138	5.744	5.707	5.769	VV	191	5142	0.26%	0.014%
139	5.795	5.769	5.804	VV	228	3418	0.17%	0.009%
140	5.814	5.804	5.834	VV	202	2631	0.13%	0.007%
141	5.859	5.834	5.897	VV	796	6803	0.34%	0.018%

Instrument :

FID_F

ClientSampleId :

SMALL-PILE-AMS

0.06% 0.003%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

					rters			
142	5.904	5.897	5.913	VV	169	1440	0.07%	0.004%
143	5.930	5.913	5.952	VV	197	3336		
144	5.974	5.952	6.000	VV	201	3690		
145	6.020	6.000	6.082	VV	191	6488		
146	6.100	6.082	6.135	VV	155	3629		
147	6.144	6.135	6.152	VV	149	1142		
148	6.176	6.152	6.194	VV	122	2457	0.12%	0.007%
149	6.201	6.194	6.237	VV	114	2458	0.12%	0.007%
150	6.248	6.237	6.267	VV	131	1837	0.09%	0.005%
151	6.314	6.267	6.364	VV	181	7054	0.36%	0.019%
152	6.377	6.364	6.385	VV	150	1467	0.07%	0.004%
153	6.415	6.385	6.426	VV	183	3307	0.17%	0.009%
154	6.444	6.426	6.492	VV	320	6514	0.33%	0.017%
155	6.527	6.492	6.549	VV	168	4032	0.20%	0.011%
156	6.556	6.549	6.575	VV	147	1305	0.07%	0.003%
157	6.625	6.575	6.638	VV	165	3149	0.16%	0.008%
158	6.650	6.638	6.682	VV	159	2072	0.10%	0.005%
159	6.694	6.682	6.700	VV	57	651	0.03%	0.002%
160	6.732	6.700	7.044	PV	154565	1810365	91.57%	4.802%
161	7.060	7.044	7.085	VV	568	9858	0.50%	0.026%
162	7.101	7.085	7.155	VV	481	13178	0.67%	0.035%
163	7.272	7.155	7.286	VV	402	23158	1.17%	0.061%
164	7.297	7.286	7.320	VV	349	7455	0.38%	0.020%
165	7.330	7.320	7.359	VV	406	8114	0.41%	0.022%
166	7.377	7.359	7.404	VV	396	9010	0.46%	0.024%
167	7.414	7.404	7.447	VV	368	8450	0.43%	0.022%
168	7.454	7.447	7.504	VV	356	10546	0.53%	0.028%
169	7.521	7.504	7.569	VV	317	10388	0.53%	0.028%
170	7.571	7.569	7.582	VV	272	1878	0.10%	0.005%
171	7.591	7.582	7.655	VV	368	11619	0.59%	0.031%
172	7.698	7.655	7.802	VV	397	22483	1.14%	0.060%
173	7.818	7.802	7.843	VV	342	4487	0.23%	0.012%
174	7.849	7.843	7.855	VV	203	1137	0.06%	0.003%
175	7.865	7.855	7.904	VV	189	4308	0.22%	0.011%
176	7.920	7.904	7.938	VV	155	2001	0.10%	0.005%
177	7.972	7.938	8.024	VV	670	12938	0.65%	0.034%
178	8.030	8.024	8.059	VV	147	2418	0.12%	0.006%
179	8.099	8.059	8.126	VV	345	7921	0.40%	0.021%
180	8.148	8.126	8.200	VV	761	14509	0.73%	0.038%
181	8.214	8.200	8.238	VV	150	2739	0.14%	0.007%
182	8.258	8.238	8.288	VV	347	6430	0.33%	0.017%
183	8.313	8.288	8.392	VV	496	12296	0.62%	0.033%
184	8.416	8.392	8.451	VV	127	2649	0.13%	0.007%
185	8.477	8.451	8.504	PV	119	2858	0.14%	0.008%
186	8.558	8.504	8.737	VV	144897	1761335	89.09%	4.672%
187	8.744	8.737	8.871	VV	583	29212	1.48%	0.077%
188	8.890	8.871	8.906	VV	243	5094	0.26%	0.014%
189	8.933	8.906	8.985	VV	410	12009	0.61%	0.032%
190	9.003	8.985	9.024	VV	312	5377	0.27%	0.014%
191	9.031	9.024	9.057	VV	217	3456	0.17%	0.009%
192	9.082	9.057	9.091	VV	254	4297	0.22%	0.011%
193	9.101	9.091	9.132	VV	269	5373	0.27%	0.014%
194	9.155	9.132	9.183	VV	296	7129	0.36%	0.019%

Instrument :

FID_F

ClientSampleId :

SMALL-PILE-AMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

195	9.192	9.183	9.269	VV	241	9489	0.48%	0.025%
196	9.300	9.269	9.377	VV	669	18157		
197	9.397	9.377	9.409	VV	375	5510		
198	9.449	9.409	9.542	VV	3072	76538		
199	9.570	9.542	9.605	VV	344	6819		
200	9.616	9.605	9.657	VV	106	1624		
201	9.667	9.657	9.709	VV	100	1885	0.10%	0.005%
202	9.714	9.709	9.733	VV	138	569	0.03%	0.002%
203	9.765	9.733	9.800	PV	184	3236	0.16%	0.009%
204	9.816	9.800	9.832	VV	235	2241	0.11%	0.006%
205	9.835	9.832	9.856	VV	127	1329	0.07%	0.004%
206	9.904	9.856	9.929	VV	236	5754	0.29%	0.015%
207	9.951	9.929	9.982	VV	602	9604	0.49%	0.025%
208	10.007	9.982	10.030	VV	377	5333	0.27%	0.014%
209	10.038	10.030	10.057	VV	116	1610	0.08%	0.004%
210	10.062	10.057	10.079	VV	179	1186	0.06%	0.003%
211	10.106	10.079	10.126	VV	219	3857	0.20%	0.010%
212	10.165	10.126	10.434	VV	149431	1977115	100.00%	5.244%
213	10.437	10.434	10.494	VV	701	21267	1.08%	0.056%
214	10.506	10.494	10.527	VV	640	11553	0.58%	0.031%
215	10.551	10.527	10.638	VV	1642	58216	2.94%	0.154%
216	10.662	10.638	10.672	VV	562	10020	0.51%	0.027%
217	10.694	10.672	10.795	VV	1126	32951	1.67%	0.087%
218	10.833	10.795	10.859	VV	285	9492	0.48%	0.025%
219	10.882	10.859	10.896	VV	407	7171	0.36%	0.019%
220	10.911	10.896	10.955	VV	551	11475	0.58%	0.030%
221	10.980	10.955	11.002	VV	265	5629	0.28%	0.015%
222	11.012	11.002	11.025	VV	155	1796	0.09%	0.005%
223	11.064	11.025	11.109	VV	233	7685	0.39%	0.020%
224	11.125	11.109	11.143	VV	203	2864	0.14%	0.008%
225	11.159	11.143	11.207	VV	193	4310	0.22%	0.011%
226	11.279	11.207	11.339	VV	331	14847	0.75%	0.039%
227	11.366	11.339	11.399	VV	188	4630	0.23%	0.012%
228	11.423	11.399	11.452	VV	269	5545	0.28%	0.015%
229	11.550	11.452	11.575	VV	528	22216	1.12%	0.059%
230	11.609	11.575	11.685	VV	155099	1882111	95.19%	4.992%
231	11.694	11.685	11.761	VV	916	26289	1.33%	0.070%
232	11.769	11.761	11.779	VV	375	3714	0.19%	0.010%
233	11.789	11.779	11.807	VV	360	5521	0.28%	0.015%
234	11.812	11.807	11.834	VV	350	4764	0.24%	0.013%
235	11.854	11.834	11.885	VV	288	7460	0.38%	0.020%
236	11.924	11.885	11.987	VV	394	16098	0.81%	0.043%
237	12.014	11.987	12.040	VV	400	8656	0.44%	0.023%
238	12.061	12.040	12.087	VV	269	6042	0.31%	0.016%
239	12.104	12.087	12.159	VV	363	6725	0.34%	0.018%
240	12.165	12.159	12.203	PV	59	814	0.04%	0.002%
241	12.241	12.203	12.252	PV	123	1448	0.07%	0.004%
242	12.284	12.252	12.315	VV	352	6731	0.34%	0.018%
243	12.324	12.315	12.332	VV	129	1131	0.06%	0.003%
244	12.376	12.332	12.386	VV	291	6321	0.32%	0.017%
245	12.418	12.386	12.471	VV	452	12636	0.64%	0.034%
246	12.492	12.471	12.508	VV	184	2595	0.13%	0.007%

Instrument :

FID_F

ClientSampleId :

SMALL-PILE-AMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

							Instrument : FID_F	
							ClientSampleId : SMALL-PILE-AMS	
rteres							31.82%	1.669%
247	12.536	12.508	12.631	VV	41208	629150	2	Manual IntegrationsAPPROVED
248	12.642	12.631	12.727	VV	1336	49754	2	
249	12.745	12.727	12.827	VV	551	20672	1	
250	12.856	12.827	12.879	VV	522	10551	0	
251	12.919	12.879	12.975	VV	155516	1882708	95	Reviewed By :Yogesh Patel 05/08/2025
252	13.006	12.975	13.120	VV	1619	49706	2	Supervised By :mohammad ahmed 05/09/2025
253	13.135	13.120	13.159	VV	188	3669	0.19%	0.010%
254	13.188	13.159	13.266	VV	557	16655	0.84%	0.044%
255	13.332	13.266	13.398	PV	439	15317	0.77%	0.041%
256	13.422	13.398	13.451	VV	202	4402	0.22%	0.012%
257	13.464	13.451	13.509	VV	134	2692	0.14%	0.007%
258	13.534	13.509	13.555	PV	390	4750	0.24%	0.013%
259	13.587	13.555	13.597	VV	487	8787	0.44%	0.023%
260	13.620	13.597	13.655	VV	1224	30517	1.54%	0.081%
261	13.663	13.655	13.730	VV	796	23015	1.16%	0.061%
262	13.770	13.730	13.895	VV	13256	232198	11.74%	0.616%
263	13.918	13.895	13.929	VV	332	5965	0.30%	0.016%
264	13.960	13.929	14.006	VV	753	20449	1.03%	0.054%
265	14.019	14.006	14.044	VV	199	3574	0.18%	0.009%
266	14.076	14.044	14.085	VV	1070	13020	0.66%	0.035%
267	14.118	14.085	14.225	VV	147269	1897863	95.99%	5.034%
268	14.252	14.225	14.313	VV	749	18827	0.95%	0.050%
269	14.335	14.313	14.410	VV	291	10831	0.55%	0.029%
270	14.417	14.410	14.455	VV	159	2431	0.12%	0.006%
271	14.526	14.455	14.617	PV	853	29749	1.50%	0.079%
272	14.634	14.617	14.655	VV	236	3756	0.19%	0.010%
273	14.684	14.655	14.703	VV	518	7936	0.40%	0.021%
274	14.764	14.703	14.774	VV	275	8725	0.44%	0.023%
275	14.793	14.774	14.822	VV	375	8344	0.42%	0.022%
276	14.838	14.822	14.864	VV	351	6374	0.32%	0.017%
277	14.918	14.864	14.945	VV	708	14250	0.72%	0.038%
278	14.952	14.945	14.982	VV	279	4797	0.24%	0.013%
279	15.018	14.982	15.060	VV	65637	915670	46.31%	2.429%
280	15.076	15.060	15.117	VV	522	12820	0.65%	0.034%
281	15.124	15.117	15.154	VV	186	2823	0.14%	0.007%
282	15.221	15.154	15.260	VV	141980	1890345	95.61%	5.014%
283	15.275	15.260	15.359	VV	818	16608	0.84%	0.044%
284	15.360	15.359	15.372	VV	127	424	0.02%	0.001%
285	15.391	15.372	15.400	VV	146	1064	0.05%	0.003%
286	15.425	15.400	15.442	VV	254	4215	0.21%	0.011%
287	15.455	15.442	15.514	VV	196	4722	0.24%	0.013%
288	15.543	15.514	15.570	PV	127	2598	0.13%	0.007%
289	15.606	15.570	15.714	PV	23780	426022	21.55%	1.130%
290	15.742	15.714	15.790	VV	1665	35323	1.79%	0.094%
291	15.815	15.790	15.860	VV	1269	22760	1.15%	0.060%
292	15.880	15.860	15.901	VV	297	4475	0.23%	0.012%
293	15.921	15.901	15.945	VV	153	2658	0.13%	0.007%
294	15.966	15.945	16.022	VV	1177	21585	1.09%	0.057%
295	16.035	16.022	16.049	VV	178	2274	0.12%	0.006%
296	16.057	16.049	16.085	VV	149	1832	0.09%	0.005%
297	16.133	16.085	16.180	PV	621	14170	0.72%	0.038%
298	16.244	16.180	16.295	VV	134843	1859473	94.05%	4.932%
299	16.312	16.295	16.360	VV	376	8195	0.41%	0.022%

					riteres				
300	16.384	16.360	16.418	VV	264	5017	0.25%	0.013%	
301	16.484	16.418	16.517	VV	145	4889			
302	16.569	16.517	16.592	PV	244	6874			
303	16.626	16.592	16.672	VV	2155	46168			
304	16.692	16.672	16.702	VV	568	9102			
305	16.728	16.702	16.777	VV	2214	36784			
306	16.814	16.777	16.855	VV	569	15058	0.76%	0.040%	
307	16.897	16.855	16.918	VV	536	14266	0.72%	0.038%	
308	16.954	16.918	16.980	VV	585	17309	0.88%	0.046%	
309	17.029	16.980	17.039	VV	525	14599	0.74%	0.039%	
310	17.083	17.039	17.130	VV	874	34702	1.76%	0.092%	
311	17.194	17.130	17.230	VV	134884	1855928	93.87%	4.923%	
312	17.246	17.230	17.263	VV	2168	35311	1.79%	0.094%	
313	17.278	17.263	17.320	VV	1616	38539	1.95%	0.102%	
314	17.441	17.320	17.465	VV	1071	76890	3.89%	0.204%	
315	17.569	17.465	17.619	VV	2063	117022	5.92%	0.310%	
316	17.645	17.619	17.710	VV	4683	104232	5.27%	0.276%	
317	17.737	17.710	17.915	VV	1330	59289	3.00%	0.157%	
318	17.974	17.915	17.995	PV	247	3124	0.16%	0.008%	
319	18.083	17.995	18.124	PV	127050	1774678	89.76%	4.707%	
320	18.134	18.124	18.148	VV	367	4094	0.21%	0.011%	
321	18.177	18.148	18.202	VV	1559	23344	1.18%	0.062%	
322	18.234	18.202	18.272	VV	502	12572	0.64%	0.033%	
323	18.320	18.272	18.337	VV	493	11984	0.61%	0.032%	
324	18.359	18.337	18.384	VV	820	13260	0.67%	0.035%	
325	18.444	18.384	18.484	VV	13123	255025	12.90%	0.676%	
326	18.506	18.484	18.546	VV	3907	75276	3.81%	0.200%	
327	18.571	18.546	18.582	VV	418	7477	0.38%	0.020%	
328	18.606	18.582	18.654	VV	659	18926	0.96%	0.050%	
329	18.800	18.654	18.839	VV	1616	92005	4.65%	0.244%	
330	18.915	18.839	18.989	VV	99319	1565559	79.18%	4.153%	
331	19.021	18.989	19.055	VV	1851	53570	2.71%	0.142%	
332	19.074	19.055	19.119	VV	1225	38076	1.93%	0.101%	
333	19.132	19.119	19.140	VV	667	8450	0.43%	0.022%	
334	19.275	19.140	19.375	VV	8855	346991	17.55%	0.920%	
335	19.414	19.375	19.444	VV	1421	49697	2.51%	0.132%	
336	19.483	19.444	19.497	VV	1326	37469	1.90%	0.099%	
337	19.564	19.497	19.587	VV	1421	63945	3.23%	0.170%	
338	19.623	19.587	19.649	VV	1559	45787	2.32%	0.121%	
339	19.699	19.649	19.752	VV	63460	973226	49.22%	2.581%	
340	19.780	19.752	19.795	VV	2921	62743	3.17%	0.166%	
341	19.811	19.795	19.844	VV	3113	76208	3.85%	0.202%	
342	19.888	19.844	19.919	VV	3797	124832	6.31%	0.331%	
343	19.996	19.919	20.022	VV	3905	188847	9.55%	0.501%	
344	20.073	20.022	20.100	VV	6850	222593	11.26%	0.590%	
345	20.176	20.100	20.204	VV	5311	296365	14.99%	0.786%	
346	20.297	20.204	20.308	VV	5881	339015	17.15%	0.899%	
347	20.336	20.308	20.364	VV	6357	200771	10.15%	0.533%	
348	20.440	20.364	20.477	VV	41252	954728	48.29%	2.532%	
349	20.488	20.477	20.523	VV	5647	151224	7.65%	0.401%	
350	20.609	20.523	20.627	VV	7008	388388	19.64%	1.030%	
351	20.642	20.627	20.660	VV	6573	129985	6.57%	0.345%	

Instrument :

FID_F

ClientSampleId :

SMALL-PILE-AMS

0.25% 0.013%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025

Supervised By :mohammad ahmed 05/09/2025

					rters			
352	20.683	20.660	20.697	VV	7212	152852	7.73%	0.405%
353	20.796	20.697	20.857	VV	10146	790290	39.07%	0.405%
354	20.907	20.857	20.947	VV	8062	414923	20.07%	0.405%
355	20.958	20.947	21.030	VV	7811	340499	17.73%	0.405%
356	21.076	21.030	21.135	VV	6393	380508	19.07%	0.405%
357	21.175	21.135	21.244	VV	29869	759429	38.07%	0.405%
358	21.249	21.244	21.263	VV	4619	52981	2.68%	0.141%
359	21.294	21.263	21.324	VV	4702	159501	8.07%	0.423%
360	21.345	21.324	21.360	VV	4090	88957	4.50%	0.236%
361	21.373	21.360	21.389	VV	4010	66140	3.35%	0.175%
362	21.421	21.389	21.442	VV	4007	123617	6.25%	0.328%
363	21.489	21.442	21.539	VV	4057	216426	10.95%	0.574%
364	21.545	21.539	21.555	VV	3389	33172	1.68%	0.088%
365	21.593	21.555	21.642	VV	3988	184063	9.31%	0.488%
366	21.657	21.642	21.719	VV	3365	118844	6.01%	0.315%
367	21.732	21.719	21.761	VV	1700	39844	2.02%	0.106%
368	21.792	21.761	21.822	VV	1540	50707	2.56%	0.134%
369	21.860	21.822	21.940	VV	1300	55882	2.83%	0.148%
370	21.960	21.940	21.989	VV	157	2745	0.14%	0.007%
371	22.085	21.989	22.164	PV	17023	425053	21.50%	1.127%
Sum of corrected areas:						37701030		

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-AMS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 05/08/2025
Supervised By :mohammad ahmed 05/09/2025

FF042225.M Thu May 08 06:02:56 2025

Report of Analysis

Client:	Saxton Falls Sand and Gravel Co. Inc.	Date Collected:	05/01/25
Project:	Stan Hope	Date Received:	05/01/25
Client Sample ID:	SMALL-PILE-AMSD	SDG No.:	Q1936
Lab Sample ID:	Q1936-01MSD	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	90.8
Sample Wt/Vol:	30.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	TPH GC
GPC Factor :		Injection Volume :	
Prep Method :	SW3541		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF015800.D	1	05/07/25 09:00	05/07/25 14:44	PB167887

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	11900		422	3120	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	7.46		37 - 130	37%	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\FF050725\
 Data File : FF015800.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 14:44
 Operator : YP\AJ
 Sample : Q1936-01MSD
 Misc :
 ALS Vial : 75 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 SMALL-PILE-AMSD

Integration File: autoint1.e
 Quant Time: May 08 05:39:29 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Quant Title :
 QLast Update : Tue Apr 22 11:27:50 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	841519	7.457 ug/ml
Target Compounds			
1) N-OCTANE	2.028	1363835	12.030 ug/ml
2) N-DECANE	4.564	1482575	14.529 ug/ml
3) N-DODECANE	6.731	1579816	14.428 ug/ml
4) N-TETRADECANE	8.559	1574444	13.641 ug/ml
5) N-HEXADECANE	10.166	1678552	14.223 ug/ml
6) N-OCTADECANE	11.608	1725689	13.718 ug/ml
7) N-EICOSANE	12.919	1745008	13.376 ug/ml
8) N-DOCOSANE	14.118	1763019	13.841 ug/ml
10) N-TETRACOSANE	15.221	1764010	14.024 ug/ml
11) N-HEXACOSANE	16.244	1741694	14.288 ug/ml
12) N-OCTACOSANE	17.195	1697304	14.344 ug/ml
13) N-TRIACONTANE	18.083	1673054	14.195 ug/ml
14) N-DOTRIACONTANE	18.916	1418132	12.448 ug/ml
15) N-TETRATRIACONTANE	19.699	843412	8.454 ug/ml
16) N-HEXATRIACONTANE	20.439	524036	6.568 ug/ml
17) N-OCTATRIACONTANE	21.175	422584	7.442 ug/ml
18) N-TETRACONTANE	22.084	425724	10.469 ug/ml

(f)=RT Delta > 1/2 Window

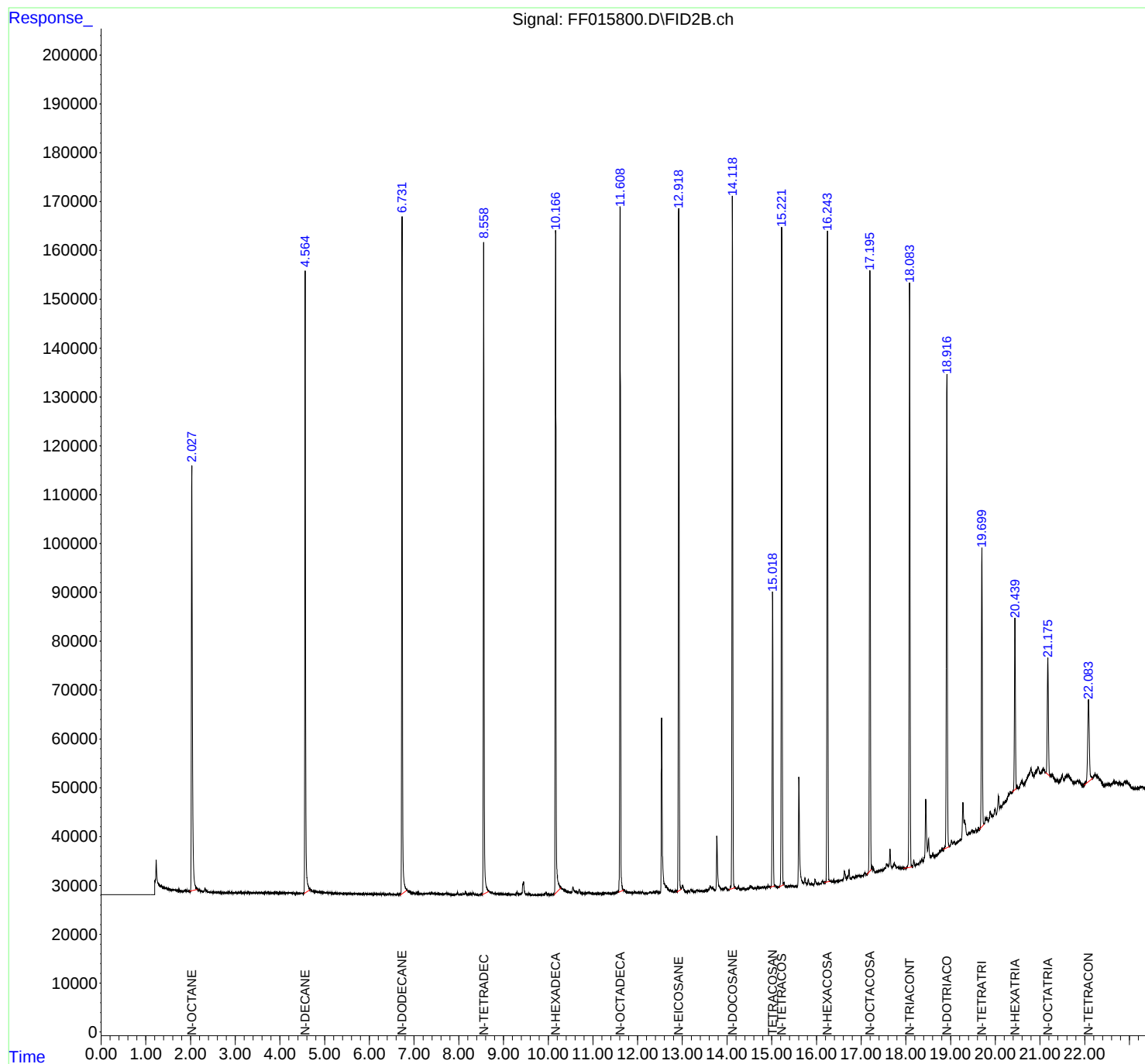
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF050725\
Data File : FF015800.D
Signal(s) : FID2B.ch
Acq On : 07 May 2025 14:44
Operator : YP\AJ
Sample : Q1936-01MSD
Misc :
ALS Vial : 75 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
SMALL-PILE-AMSD

Integration File: autoint1.e
Quant Time: May 08 05:39:29 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
Quant Title :
QLast Update : Tue Apr 22 11:27:50 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\FF050725\
 Data File : FF015800.D
 Signal(s) : FID2B.ch
 Acq On : 07 May 2025 14:44
 Sample : Q1936-01MSD
 Misc :
 ALS Vial : 75 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF042225.M
 Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.028	2.000	2.169	BV	87049	1398914	75.09%	3.923%
2	2.173	2.169	2.187	VV	379	3709	0.20%	0.010%
3	2.192	2.187	2.219	VV	367	5669	0.30%	0.016%
4	2.223	2.219	2.232	VV	220	1601	0.09%	0.004%
5	2.238	2.232	2.247	VV	245	1806	0.10%	0.005%
6	2.251	2.247	2.276	VV	256	3164	0.17%	0.009%
7	2.279	2.276	2.293	VV	199	1738	0.09%	0.005%
8	2.298	2.293	2.303	VV	160	748	0.04%	0.002%
9	2.322	2.303	2.398	VV	850	20543	1.10%	0.058%
10	2.401	2.398	2.415	VV	103	1119	0.06%	0.003%
11	2.433	2.415	2.454	VV	101	1554	0.08%	0.004%
12	2.465	2.454	2.481	VV	84	906	0.05%	0.003%
13	2.489	2.481	2.493	PV	122	528	0.03%	0.001%
14	2.496	2.493	2.518	VV	148	1377	0.07%	0.004%
15	2.521	2.518	2.536	VV	110	782	0.04%	0.002%
16	2.546	2.536	2.567	VV	127	1640	0.09%	0.005%
17	2.572	2.567	2.582	VV	92	595	0.03%	0.002%
18	2.603	2.582	2.644	VV	149	3355	0.18%	0.009%
19	2.650	2.644	2.661	VV	130	898	0.05%	0.003%
20	2.666	2.661	2.681	VV	131	771	0.04%	0.002%
21	2.685	2.681	2.691	VV	108	397	0.02%	0.001%
22	2.697	2.691	2.702	VV	152	706	0.04%	0.002%
23	2.710	2.702	2.731	VV	148	1514	0.08%	0.004%
24	2.735	2.731	2.740	PV	141	526	0.03%	0.001%
25	2.744	2.740	2.758	VV	91	717	0.04%	0.002%
26	2.761	2.758	2.767	VV	134	476	0.03%	0.001%
27	2.780	2.767	2.787	VV	123	1039	0.06%	0.003%
28	2.789	2.787	2.814	VV	158	1850	0.10%	0.005%
29	2.818	2.814	2.830	VV	157	1188	0.06%	0.003%
30	2.841	2.830	2.862	VV	187	2253	0.12%	0.006%
31	2.872	2.862	2.879	VV	182	1338	0.07%	0.004%
32	2.895	2.879	2.923	VV	208	2862	0.15%	0.008%
33	2.935	2.923	2.941	VV	156	1252	0.07%	0.004%
34	2.952	2.941	2.962	VV	119	1229	0.07%	0.003%
35	2.987	2.962	3.004	VV	156	2572	0.14%	0.007%
36	3.035	3.004	3.049	VV	143	2528	0.14%	0.007%

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37	3.054	3.049	3.057	VV	138	427	0.02%	0.001%
38	3.070	3.057	3.087	VV	154	1913	0.10%	0.005%
39	3.093	3.087	3.097	VV	190	672	0.04%	0.002%
40	3.106	3.097	3.142	VV	174	3544	0.19%	0.010%
41	3.153	3.142	3.175	VV	186	2284	0.12%	0.006%
42	3.184	3.175	3.214	VV	161	2742	0.15%	0.008%
43	3.233	3.214	3.264	VV	167	3732	0.20%	0.010%
44	3.266	3.264	3.277	VV	164	939	0.05%	0.003%
45	3.316	3.277	3.325	VV	213	3948	0.21%	0.011%
46	3.332	3.325	3.339	VV	158	969	0.05%	0.003%
47	3.344	3.339	3.355	VV	128	1144	0.06%	0.003%
48	3.358	3.355	3.371	VV	143	1071	0.06%	0.003%
49	3.382	3.371	3.397	VV	169	1841	0.10%	0.005%
50	3.400	3.397	3.407	VV	152	685	0.04%	0.002%
51	3.430	3.407	3.435	VV	213	2346	0.13%	0.007%
52	3.439	3.435	3.443	VV	156	557	0.03%	0.002%
53	3.449	3.443	3.454	VV	153	932	0.05%	0.003%
54	3.458	3.454	3.473	VV	185	1544	0.08%	0.004%
55	3.485	3.473	3.492	VV	139	1279	0.07%	0.004%
56	3.496	3.492	3.505	VV	146	994	0.05%	0.003%
57	3.534	3.505	3.546	VV	194	3380	0.18%	0.009%
58	3.551	3.546	3.578	VV	194	2817	0.15%	0.008%
59	3.583	3.578	3.587	VV	173	899	0.05%	0.003%
60	3.591	3.587	3.597	VV	199	882	0.05%	0.002%
61	3.602	3.597	3.608	VV	187	985	0.05%	0.003%
62	3.611	3.608	3.621	VV	184	1027	0.06%	0.003%
63	3.642	3.621	3.682	VV	230	5460	0.29%	0.015%
64	3.692	3.682	3.704	VV	162	1878	0.10%	0.005%
65	3.709	3.704	3.715	VV	148	849	0.05%	0.002%
66	3.723	3.715	3.733	VV	209	1599	0.09%	0.004%
67	3.767	3.733	3.772	VV	211	3487	0.19%	0.010%
68	3.787	3.772	3.837	VV	219	5772	0.31%	0.016%
69	3.851	3.837	3.860	VV	181	2123	0.11%	0.006%
70	3.868	3.860	3.880	VV	213	1783	0.10%	0.005%
71	3.884	3.880	3.904	VV	149	1936	0.10%	0.005%
72	3.912	3.904	3.920	VV	193	1574	0.08%	0.004%
73	3.922	3.920	3.926	VV	158	466	0.03%	0.001%
74	3.937	3.926	3.950	VV	175	1844	0.10%	0.005%
75	3.960	3.950	3.971	VV	215	1671	0.09%	0.005%
76	3.975	3.971	3.987	VV	172	1215	0.07%	0.003%
77	3.997	3.987	4.009	VV	189	1563	0.08%	0.004%
78	4.021	4.009	4.040	VV	163	2218	0.12%	0.006%
79	4.042	4.040	4.056	VV	158	987	0.05%	0.003%
80	4.061	4.056	4.065	VV	162	623	0.03%	0.002%
81	4.099	4.065	4.118	VV	192	4030	0.22%	0.011%
82	4.123	4.118	4.131	VV	184	1163	0.06%	0.003%
83	4.147	4.131	4.156	VV	200	2219	0.12%	0.006%
84	4.172	4.156	4.180	VV	192	1953	0.10%	0.005%
85	4.187	4.180	4.199	VV	183	1694	0.09%	0.005%
86	4.215	4.199	4.242	VV	218	4108	0.22%	0.012%
87	4.246	4.242	4.251	VV	165	735	0.04%	0.002%
88	4.255	4.251	4.260	VV	160	772	0.04%	0.002%
89	4.262	4.260	4.274	VV	172	868	0.05%	0.002%

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90	4.290	4.274	4.312	VV	181	3036	0.16%	0.009%
91	4.323	4.312	4.341	VV	141	1922	0.10%	0.005%
92	4.346	4.341	4.361	VV	115	1072	0.06%	0.003%
93	4.367	4.361	4.374	VV	146	822	0.04%	0.002%
94	4.394	4.374	4.404	VV	164	2293	0.12%	0.006%
95	4.416	4.404	4.437	VV	189	2760	0.15%	0.008%
96	4.440	4.437	4.446	VV	122	444	0.02%	0.001%
97	4.475	4.446	4.494	VV	188	3466	0.19%	0.010%
98	4.503	4.494	4.519	VV	160	1554	0.08%	0.004%
99	4.522	4.519	4.529	VV	103	568	0.03%	0.002%
100	4.564	4.529	4.671	VV	127486	1521760	81.68%	4.268%
101	4.679	4.671	4.717	VV	946	21106	1.13%	0.059%
102	4.722	4.717	4.743	VV	663	8844	0.47%	0.025%
103	4.747	4.743	4.755	VV	560	3847	0.21%	0.011%
104	4.759	4.755	4.774	VV	551	5308	0.28%	0.015%
105	4.784	4.774	4.791	VV	472	4371	0.23%	0.012%
106	4.796	4.791	4.799	VV	473	2231	0.12%	0.006%
107	4.808	4.799	4.853	VV	492	14265	0.77%	0.040%
108	4.855	4.853	4.872	VV	411	4624	0.25%	0.013%
109	4.877	4.872	4.894	VV	408	4730	0.25%	0.013%
110	4.897	4.894	4.935	VV	393	8636	0.46%	0.024%
111	4.940	4.935	4.951	VV	385	3181	0.17%	0.009%
112	4.956	4.951	4.976	VV	401	4702	0.25%	0.013%
113	4.988	4.976	4.995	VV	336	3493	0.19%	0.010%
114	5.000	4.995	5.009	VV	310	2473	0.13%	0.007%
115	5.028	5.009	5.050	VV	337	6724	0.36%	0.019%
116	5.059	5.050	5.087	VV	308	5749	0.31%	0.016%
117	5.094	5.087	5.099	VV	289	1716	0.09%	0.005%
118	5.104	5.099	5.122	VV	259	3422	0.18%	0.010%
119	5.131	5.122	5.149	VV	266	3631	0.19%	0.010%
120	5.162	5.149	5.194	VV	312	5698	0.31%	0.016%
121	5.201	5.194	5.228	VV	230	3690	0.20%	0.010%
122	5.237	5.228	5.258	VV	221	3427	0.18%	0.010%
123	5.278	5.258	5.294	VV	244	3797	0.20%	0.011%
124	5.303	5.294	5.309	VV	206	1527	0.08%	0.004%
125	5.317	5.309	5.327	VV	243	1986	0.11%	0.006%
126	5.334	5.327	5.359	VV	235	3106	0.17%	0.009%
127	5.369	5.359	5.377	VV	164	1725	0.09%	0.005%
128	5.381	5.377	5.387	VV	185	885	0.05%	0.002%
129	5.395	5.387	5.407	VV	198	1684	0.09%	0.005%
130	5.413	5.407	5.434	VV	191	2365	0.13%	0.007%
131	5.446	5.434	5.456	VV	200	2112	0.11%	0.006%
132	5.478	5.456	5.483	VV	205	2417	0.13%	0.007%
133	5.493	5.483	5.500	VV	194	1421	0.08%	0.004%
134	5.512	5.500	5.519	VV	195	1444	0.08%	0.004%
135	5.524	5.519	5.562	VV	147	3122	0.17%	0.009%
136	5.568	5.562	5.575	VV	169	1049	0.06%	0.003%
137	5.579	5.575	5.584	VV	154	632	0.03%	0.002%
138	5.589	5.584	5.609	VV	139	1789	0.10%	0.005%
139	5.614	5.609	5.629	VV	154	1121	0.06%	0.003%
140	5.633	5.629	5.642	VV	177	916	0.05%	0.003%
141	5.646	5.642	5.670	VV	155	2005	0.11%	0.006%

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142	5.680	5.670	5.689	VV	179	1128	0.06%	0.003%
143	5.693	5.689	5.700	VV	109	610	0.03%	0.002%
144	5.723	5.700	5.736	VV	144	2289	0.12%	0.006%
145	5.742	5.736	5.772	VV	127	2085	0.11%	0.006%
146	5.780	5.772	5.809	VV	158	2281	0.12%	0.006%
147	5.818	5.809	5.847	VV	180	2018	0.11%	0.006%
148	5.862	5.847	5.867	VV	183	1281	0.07%	0.004%
149	5.875	5.867	5.894	VV	162	1755	0.09%	0.005%
150	5.918	5.894	5.952	VV	144	3540	0.19%	0.010%
151	5.999	5.952	6.057	VV	154	5553	0.30%	0.016%
152	6.064	6.057	6.115	VV	130	2884	0.15%	0.008%
153	6.119	6.115	6.126	VV	148	485	0.03%	0.001%
154	6.133	6.126	6.279	VV	145	7647	0.41%	0.021%
155	6.293	6.279	6.319	VV	174	2847	0.15%	0.008%
156	6.324	6.319	6.345	VV	207	1836	0.10%	0.005%
157	6.366	6.345	6.413	VV	171	4403	0.24%	0.012%
158	6.444	6.413	6.468	VV	225	4641	0.25%	0.013%
159	6.477	6.468	6.509	VV	87	2337	0.13%	0.007%
160	6.516	6.509	6.602	VV	114	4199	0.23%	0.012%
161	6.623	6.602	6.635	VV	90	1369	0.07%	0.004%
162	6.645	6.635	6.699	VV	150	2867	0.15%	0.008%
163	6.731	6.699	6.979	PV	137883	1667482	89.50%	4.676%
164	6.985	6.979	7.035	VV	385	10538	0.57%	0.030%
165	7.058	7.035	7.082	VV	479	9503	0.51%	0.027%
166	7.099	7.082	7.192	VV	466	16253	0.87%	0.046%
167	7.203	7.192	7.221	VV	249	3933	0.21%	0.011%
168	7.236	7.221	7.245	VV	276	3350	0.18%	0.009%
169	7.284	7.245	7.294	VV	312	7960	0.43%	0.022%
170	7.318	7.294	7.344	VV	325	8702	0.47%	0.024%
171	7.383	7.344	7.445	VV	374	17837	0.96%	0.050%
172	7.457	7.445	7.500	VV	394	8637	0.46%	0.024%
173	7.508	7.500	7.529	VV	248	3594	0.19%	0.010%
174	7.535	7.529	7.550	VV	245	2710	0.15%	0.008%
175	7.566	7.550	7.574	VV	248	2910	0.16%	0.008%
176	7.590	7.574	7.613	VV	276	5067	0.27%	0.014%
177	7.637	7.613	7.670	VV	260	7429	0.40%	0.021%
178	7.706	7.670	7.794	VV	337	17107	0.92%	0.048%
179	7.807	7.794	7.900	VV	202	8888	0.48%	0.025%
180	7.915	7.900	7.925	VV	182	1616	0.09%	0.005%
181	7.973	7.925	8.029	VV	563	14004	0.75%	0.039%
182	8.036	8.029	8.047	VV	136	1316	0.07%	0.004%
183	8.097	8.047	8.114	VV	312	7338	0.39%	0.021%
184	8.149	8.114	8.207	VV	706	15467	0.83%	0.043%
185	8.221	8.207	8.239	VV	216	2750	0.15%	0.008%
186	8.258	8.239	8.294	VV	361	6469	0.35%	0.018%
187	8.314	8.294	8.401	VV	492	12663	0.68%	0.036%
188	8.421	8.401	8.452	VV	158	3198	0.17%	0.009%
189	8.559	8.452	8.827	VV	133300	1664675	89.35%	4.669%
190	8.837	8.827	8.846	VV	322	3408	0.18%	0.010%
191	8.852	8.846	8.877	VV	323	5067	0.27%	0.014%
192	8.884	8.877	8.914	VV	324	5646	0.30%	0.016%
193	8.933	8.914	8.976	VV	356	9976	0.54%	0.028%
194	9.002	8.976	9.050	VV	333	9633	0.52%	0.027%

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195	9.075	9.050	9.132	VV	272	9268	0.50%	0.026%
196	9.180	9.132	9.217	VV	238	9773	0.52%	0.027%
197	9.249	9.217	9.282	VV	230	6794	0.36%	0.019%
198	9.301	9.282	9.357	VV	655	14306	0.77%	0.040%
199	9.364	9.357	9.382	VV	235	2737	0.15%	0.008%
200	9.450	9.382	9.546	VV	2833	79728	4.28%	0.224%
201	9.571	9.546	9.630	VV	409	10566	0.57%	0.030%
202	9.652	9.630	9.671	VV	155	2862	0.15%	0.008%
203	9.677	9.671	9.710	VV	158	2263	0.12%	0.006%
204	9.720	9.710	9.745	PV	85	1804	0.10%	0.005%
205	9.767	9.745	9.795	VV	164	3483	0.19%	0.010%
206	9.816	9.795	9.832	VV	201	2823	0.15%	0.008%
207	9.904	9.832	9.923	VV	238	8163	0.44%	0.023%
208	9.949	9.923	9.982	VV	666	11349	0.61%	0.032%
209	10.004	9.982	10.039	VV	359	6937	0.37%	0.019%
210	10.048	10.039	10.059	VV	136	1479	0.08%	0.004%
211	10.069	10.059	10.079	VV	178	1351	0.07%	0.004%
212	10.101	10.079	10.131	VV	202	4606	0.25%	0.013%
213	10.166	10.131	10.504	VV	136232	1863079	100.00%	5.225%
214	10.510	10.504	10.526	VV	599	7299	0.39%	0.020%
215	10.554	10.526	10.634	VV	1571	55107	2.96%	0.155%
216	10.645	10.634	10.675	VV	513	12195	0.65%	0.034%
217	10.694	10.675	10.717	VV	1050	17880	0.96%	0.050%
218	10.729	10.717	10.795	VV	394	13537	0.73%	0.038%
219	10.840	10.795	10.862	VV	349	10897	0.58%	0.031%
220	10.882	10.862	10.899	VV	457	7841	0.42%	0.022%
221	10.912	10.899	10.953	VV	552	10985	0.59%	0.031%
222	10.978	10.953	11.025	VV	306	8718	0.47%	0.024%
223	11.072	11.025	11.109	VV	239	8598	0.46%	0.024%
224	11.118	11.109	11.139	VV	209	3487	0.19%	0.010%
225	11.146	11.139	11.151	VV	195	1100	0.06%	0.003%
226	11.164	11.151	11.191	VV	200	3717	0.20%	0.010%
227	11.277	11.191	11.351	VV	298	16544	0.89%	0.046%
228	11.362	11.351	11.395	VV	174	3827	0.21%	0.011%
229	11.415	11.395	11.428	VV	259	3475	0.19%	0.010%
230	11.431	11.428	11.471	VV	247	3867	0.21%	0.011%
231	11.548	11.471	11.561	VV	510	17638	0.95%	0.049%
232	11.564	11.561	11.578	VV	511	4465	0.24%	0.013%
233	11.608	11.578	11.684	VV	140386	1762561	94.60%	4.943%
234	11.697	11.684	11.841	VV	891	42342	2.27%	0.119%
235	11.865	11.841	11.905	VV	278	8478	0.46%	0.024%
236	11.927	11.905	11.982	VV	370	11688	0.63%	0.033%
237	12.014	11.982	12.040	VV	379	8967	0.48%	0.025%
238	12.064	12.040	12.085	VV	263	6113	0.33%	0.017%
239	12.106	12.085	12.145	VV	400	7537	0.40%	0.021%
240	12.153	12.145	12.182	VV	53	976	0.05%	0.003%
241	12.219	12.182	12.227	PV	90	1568	0.08%	0.004%
242	12.285	12.227	12.309	VV	339	7912	0.42%	0.022%
243	12.352	12.309	12.387	VV	274	9252	0.50%	0.026%
244	12.420	12.387	12.481	VV	396	12991	0.70%	0.036%
245	12.490	12.481	12.507	VV	120	1775	0.10%	0.005%
246	12.536	12.507	12.629	VV	35146	570886	30.64%	1.601%

rteres								
247	12.641	12.629	12.731	VV	1249	50224	2.70%	0.141%
248	12.744	12.731	12.830	VV	513	16889	0.91%	0.047%
249	12.855	12.830	12.877	VV	414	8237	0.44%	0.023%
250	12.919	12.877	12.977	VV	139977	1767292	94.86%	4.956%
251	13.007	12.977	13.121	VV	1428	42754	2.29%	0.120%
252	13.138	13.121	13.158	VV	178	2377	0.13%	0.007%
253	13.188	13.158	13.286	VV	519	14570	0.78%	0.041%
254	13.331	13.286	13.401	PV	352	12471	0.67%	0.035%
255	13.424	13.401	13.442	VV	188	3139	0.17%	0.009%
256	13.485	13.442	13.505	VV	115	2857	0.15%	0.008%
257	13.534	13.505	13.551	PV	325	4276	0.23%	0.012%
258	13.625	13.551	13.741	VV	1020	51969	2.79%	0.146%
259	13.771	13.741	13.895	VV	11132	202489	10.87%	0.568%
260	13.961	13.895	14.021	VV	665	23574	1.27%	0.066%
261	14.028	14.021	14.048	VV	130	1782	0.10%	0.005%
262	14.118	14.048	14.221	VV	141142	1792774	96.23%	5.028%
263	14.253	14.221	14.315	VV	579	15071	0.81%	0.042%
264	14.361	14.315	14.463	VV	184	8719	0.47%	0.024%
265	14.482	14.463	14.497	VV	182	2316	0.12%	0.006%
266	14.527	14.497	14.610	VV	669	21193	1.14%	0.059%
267	14.631	14.610	14.660	VV	243	3529	0.19%	0.010%
268	14.683	14.660	14.715	PV	413	6505	0.35%	0.018%
269	14.791	14.715	14.817	VV	305	11044	0.59%	0.031%
270	14.836	14.817	14.861	VV	287	5187	0.28%	0.015%
271	14.916	14.861	14.952	VV	503	11869	0.64%	0.033%
272	14.960	14.952	14.980	VV	219	2885	0.15%	0.008%
273	15.018	14.980	15.061	VV	60619	855534	45.92%	2.399%
274	15.074	15.061	15.157	VV	456	12037	0.65%	0.034%
275	15.221	15.157	15.262	VV	134273	1782681	95.68%	5.000%
276	15.274	15.262	15.380	VV	824	15907	0.85%	0.045%
277	15.425	15.380	15.439	VV	212	4301	0.23%	0.012%
278	15.455	15.439	15.511	VV	161	4053	0.22%	0.011%
279	15.536	15.511	15.563	VV	93	1272	0.07%	0.004%
280	15.606	15.563	15.718	PV	22016	401079	21.53%	1.125%
281	15.742	15.718	15.785	VV	1581	31869	1.71%	0.089%
282	15.817	15.785	15.856	VV	1210	22150	1.19%	0.062%
283	15.878	15.856	15.938	VV	308	6222	0.33%	0.017%
284	15.967	15.938	16.023	VV	1045	19307	1.04%	0.054%
285	16.038	16.023	16.055	VV	109	1321	0.07%	0.004%
286	16.134	16.055	16.164	PV	467	9996	0.54%	0.028%
287	16.178	16.164	16.195	VV	182	2468	0.13%	0.007%
288	16.244	16.195	16.295	VV	133946	1753846	94.14%	4.919%
289	16.313	16.295	16.338	VV	351	6160	0.33%	0.017%
290	16.348	16.338	16.360	VV	127	1329	0.07%	0.004%
291	16.381	16.360	16.415	VV	298	4437	0.24%	0.012%
292	16.475	16.415	16.515	VV	157	4657	0.25%	0.013%
293	16.556	16.515	16.587	PV	193	5467	0.29%	0.015%
294	16.626	16.587	16.674	VV	1844	41630	2.23%	0.117%
295	16.727	16.674	16.777	VV	1980	39557	2.12%	0.111%
296	16.818	16.777	16.844	VV	452	9156	0.49%	0.026%
297	16.889	16.844	16.910	VV	371	8068	0.43%	0.023%
298	16.955	16.910	17.007	VV	377	15485	0.83%	0.043%
299	17.083	17.007	17.135	VV	690	27814	1.49%	0.078%

					rteres			
300	17.195	17.135	17.230	VV	123402	1741500	93.47%	4.884%
301	17.244	17.230	17.263	VV	1830	27930	1.50%	0.078%
302	17.279	17.263	17.313	VV	1261	24864	1.33%	0.070%
303	17.444	17.313	17.481	VV	667	51241	2.75%	0.144%
304	17.571	17.481	17.604	VV	1682	74581	4.00%	0.209%
305	17.644	17.604	17.701	VV	4602	105705	5.67%	0.296%
306	17.739	17.701	17.911	VV	1480	86404	4.64%	0.242%
307	17.937	17.911	17.951	VV	233	4142	0.22%	0.012%
308	17.972	17.951	17.996	VV	234	3061	0.16%	0.009%
309	18.083	17.996	18.150	PV	118653	1678423	90.09%	4.707%
310	18.176	18.150	18.211	PV	1395	18903	1.01%	0.053%
311	18.236	18.211	18.251	PV	293	4365	0.23%	0.012%
312	18.321	18.251	18.334	VV	446	8600	0.46%	0.024%
313	18.359	18.334	18.383	VV	842	14793	0.79%	0.041%
314	18.444	18.383	18.484	VV	12522	246858	13.25%	0.692%
315	18.506	18.484	18.545	VV	4260	80772	4.34%	0.227%
316	18.603	18.545	18.658	VV	709	24508	1.32%	0.069%
317	18.809	18.658	18.845	VV	903	48844	2.62%	0.137%
318	18.916	18.845	18.971	VV	97155	1466730	78.73%	4.113%
319	19.020	18.971	19.050	VV	1734	50569	2.71%	0.142%
320	19.079	19.050	19.115	VV	1154	36278	1.95%	0.102%
321	19.125	19.115	19.138	VV	634	8638	0.46%	0.024%
322	19.276	19.138	19.299	VV	8339	219164	11.76%	0.615%
323	19.313	19.299	19.377	VV	4542	135525	7.27%	0.380%
324	19.413	19.377	19.441	VV	1553	54152	2.91%	0.152%
325	19.479	19.441	19.498	VV	1891	52735	2.83%	0.148%
326	19.517	19.498	19.538	VV	1427	32374	1.74%	0.091%
327	19.561	19.538	19.586	VV	1576	38981	2.09%	0.109%
328	19.621	19.586	19.641	VV	1520	43091	2.31%	0.121%
329	19.699	19.641	19.747	VV	58489	938468	50.37%	2.632%
330	19.780	19.747	19.795	VV	2876	68842	3.70%	0.193%
331	19.811	19.795	19.844	VV	2965	75318	4.04%	0.211%
332	19.889	19.844	19.931	VV	3925	153884	8.26%	0.432%
333	19.941	19.931	19.952	VV	2708	32702	1.76%	0.092%
334	19.995	19.952	20.023	VV	3885	135697	7.28%	0.381%
335	20.070	20.023	20.098	VV	6221	192035	10.31%	0.539%
336	20.119	20.098	20.134	VV	3882	81618	4.38%	0.229%
337	20.296	20.134	20.308	VV	5649	466830	25.06%	1.309%
338	20.337	20.308	20.362	VV	5978	185668	9.97%	0.521%
339	20.439	20.362	20.473	VV	40950	910557	48.87%	2.554%
340	20.488	20.473	20.520	VV	6481	173704	9.32%	0.487%
341	20.605	20.520	20.631	VV	6994	430230	23.09%	1.207%
342	20.796	20.631	20.865	VV	8770	1012945	54.37%	2.841%
343	20.905	20.865	20.915	VV	7555	219281	11.77%	0.615%
344	20.963	20.915	20.997	VV	8264	378254	20.30%	1.061%
345	21.075	20.997	21.138	VV	7319	582683	31.28%	1.634%
346	21.175	21.138	21.225	VV	29620	721825	38.74%	2.024%
347	21.239	21.225	21.256	VV	5374	100549	5.40%	0.282%
348	21.272	21.256	21.350	VV	5315	260311	13.97%	0.730%
349	21.370	21.350	21.413	VV	3886	139012	7.46%	0.390%
350	21.497	21.413	21.535	VV	4132	263859	14.16%	0.740%
351	21.602	21.535	21.621	VV	3774	181739	9.75%	0.510%

					rteres				
352	21.638	21.621	21.761	VV	3616	216981	11.65%	0.609%	
353	21.795	21.761	21.803	VV	1494	36524	1.96%	0.102%	
354	21.837	21.803	21.858	VV	1650	50307	2.70%	0.141%	
355	21.875	21.858	21.973	VV	1392	51261	2.75%	0.144%	
356	22.085	21.973	22.177	PV	16732	434615	23.33%	1.219%	
					Sum of corrected areas:	35656676			

FF042225.M Thu May 08 06:03:39 2025

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
5 TRPH STD		FF015790.D	FF042225	N-TETRACONTANE	mohammad	4/24/2025 6:33:56 AM	Peak Integrated by Software incorrectly

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
50 PPM TRPH STD		FF015794.D	FF050725	N-TETRACONTANE	 	 	Peak Integrated by Software incorrectly
RT MARKER		FF015795.D	FF050725	N-DODECANE	 	 	Peak Integrated by Software incorrectly
Q1936-01MS		FF015799.D	FF050725	N-OCTATRIACONTANE	 	 	Peak Integrated by Software incorrectly
Q1936-01MS		FF015799.D	FF050725	N-TETRACONTANE	 	 	Peak Integrated by Software incorrectly

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF042225

Review By	yogesh	Review On	4/22/2025 1:28:06 PM
Supervise By	mohammad	Supervise On	4/24/2025 6:33:56 AM
SubDirectory	FF042225	HP Acquire Method	HP Processing Method FF042225
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	FF015784.D	22 Apr 2025 08:12	YP\AJ	Ok
2	I.BLK	FF015785.D	22 Apr 2025 08:42	YP\AJ	Ok
3	100 TRPH STD	FF015786.D	22 Apr 2025 09:11	YP\AJ	Ok
4	50 TRPH STD	FF015787.D	22 Apr 2025 09:40	YP\AJ	Ok
5	20 TRPH STD	FF015788.D	22 Apr 2025 10:09	YP\AJ	Ok
6	10 TRPH STD	FF015789.D	22 Apr 2025 10:39	YP\AJ	Ok
7	5 TRPH STD	FF015790.D	22 Apr 2025 11:08	YP\AJ	Ok,M
8	FF042225ICV	FF015791.D	22 Apr 2025 11:39	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF050725

Review By	yogesh	Review On	5/7/2025 12:23:09 PM
Supervise By		Supervise On	
SubDirectory	FF050725	HP Acquire Method	HP Processing Method FF042225
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	FF015792.D	07 May 2025 10:17	YP\AJ	Ok
2	I.BLK	FF015793.D	07 May 2025 10:46	YP\AJ	Ok
3	50 PPM TRPH STD	FF015794.D	07 May 2025 11:48	YP\AJ	Ok,NS
4	RT MARKER	FF015795.D	07 May 2025 12:17	YP\AJ	Ok,NS
5	PB167887BL	FF015796.D	07 May 2025 12:47	YP\AJ	Ok
6	PB167887BS	FF015797.D	07 May 2025 13:16	YP\AJ	Ok
7	Q1936-01	FF015798.D	07 May 2025 13:45	YP\AJ	Ok
8	Q1936-01MS	FF015799.D	07 May 2025 14:14	YP\AJ	Ok,NS
9	Q1936-01MSD	FF015800.D	07 May 2025 14:44	YP\AJ	Ok
10	Q1936-03	FF015801.D	07 May 2025 15:13	YP\AJ	Ok
11	Q1936-05	FF015802.D	07 May 2025 15:42	YP\AJ	Ok
12	Q1936-07	FF015803.D	07 May 2025 16:11	YP\AJ	Ok
13	I.BLK	FF015804.D	07 May 2025 16:41	YP\AJ	Ok
14	50 PPM TRPH STD	FF015805.D	07 May 2025 17:39	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF042225

Review By	yogesh	Review On	4/22/2025 1:28:06 PM
Supervise By	mohammad	Supervise On	4/24/2025 6:33:56 AM
SubDirectory	FF042225	HP Acquire Method	HP Processing Method FF042225
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		FF015784.D	22 Apr 2025 08:12		YP\AJ	Ok
2	I.BLK		FF015785.D	22 Apr 2025 08:42		YP\AJ	Ok
3	100 TRPH STD		FF015786.D	22 Apr 2025 09:11		YP\AJ	Ok
4	50 TRPH STD		FF015787.D	22 Apr 2025 09:40		YP\AJ	Ok
5	20 TRPH STD		FF015788.D	22 Apr 2025 10:09		YP\AJ	Ok
6	10 TRPH STD		FF015789.D	22 Apr 2025 10:39		YP\AJ	Ok
7	5 TRPH STD		FF015790.D	22 Apr 2025 11:08		YP\AJ	Ok,M
8	FF042225ICV		FF015791.D	22 Apr 2025 11:39		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF050725

Review By	yogesh	Review On	5/7/2025 12:23:09 PM
Supervise By		Supervise On	
SubDirectory	FF050725	HP Acquire Method	HP Processing Method FF042225
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM			
ICV/I.BLK	PP24468,PP24473		
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF015792.D	07 May 2025 10:17		YPIAJ	Ok
2	I.BLK		FF015793.D	07 May 2025 10:46		YPIAJ	Ok
3	50 PPM TRPH STD		FF015794.D	07 May 2025 11:48		YPIAJ	Ok,NS
4	RT MARKER		FF015795.D	07 May 2025 12:17		YPIAJ	Ok,NS
5	PB167887BL		FF015796.D	07 May 2025 12:47		YPIAJ	Ok
6	PB167887BS		FF015797.D	07 May 2025 13:16		YPIAJ	Ok
7	Q1936-01		FF015798.D	07 May 2025 13:45		YPIAJ	Ok
8	Q1936-01MS		FF015799.D	07 May 2025 14:14		YPIAJ	Ok,NS
9	Q1936-01MSD		FF015800.D	07 May 2025 14:44		YPIAJ	Ok
10	Q1936-03		FF015801.D	07 May 2025 15:13		YPIAJ	Ok
11	Q1936-05		FF015802.D	07 May 2025 15:42		YPIAJ	Ok
12	Q1936-07		FF015803.D	07 May 2025 16:11		YPIAJ	Ok
13	I.BLK		FF015804.D	07 May 2025 16:41		YPIAJ	Ok
14	50 PPM TRPH STD		FF015805.D	07 May 2025 17:39		YPIAJ	Ok

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 05/02/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:25
Out Date: 05/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135646

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
Q1913-01	WC-12-S-202504	1	1.18	10.32	11.5	9.49	80.5	
Q1913-03	WC-13-S-202504	2	1.19	10.37	11.56	9.83	83.3	
Q1936-01	SMALL-PILE-A	33	1.15	9.94	11.09	10.18	90.8	
Q1936-02	SMALL-PILE-A	34	1.17	9.94	11.11	10.22	91.0	
Q1936-03	SMALL-PILE-B	35	1.18	10.39	11.57	10.93	93.8	
Q1936-04	SMALL-PILE-B	36	1.18	9.88	11.06	10.44	93.7	
Q1936-05	SMALL-PILE-C	37	1.15	10.03	11.18	10.9	97.2	
Q1936-06	SMALL-PILE-C	38	1.15	10.25	11.4	11.01	96.2	
Q1936-07	SMALL-PILE-D	39	1.16	10.41	11.57	10.97	94.2	
Q1936-08	SMALL-PILE-D	40	1.18	9.96	11.14	10.55	94.1	
Q1937-01	LARGE-PILE-A	41	1.15	10.13	11.28	10.7	94.3	
Q1937-02	LARGE-PILE-A	42	1.18	9.58	10.76	10.2	94.2	
Q1937-03	LARGE-PILE-B	43	1.15	10.03	11.18	10.82	96.4	
Q1937-04	LARGE-PILE-B	44	1.17	10.04	11.21	10.72	95.1	
Q1937-05	LARGE-PILE-C	45	1.16	10.19	11.35	10.83	94.9	
Q1937-06	LARGE-PILE-C	46	1.19	10.06	11.25	10.63	93.8	
Q1937-07	LARGE-PILE-D	47	1.18	10.33	11.51	10.95	94.6	
Q1937-08	LARGE-PILE-D	48	1.17	9.75	10.92	10.33	93.9	
Q1937-09	LARGE-PILE-E	49	1.16	10.14	11.3	10.52	92.3	
Q1937-10	LARGE-PILE-E	50	1.18	10.30	11.48	10.76	93.0	
Q1937-11	LARGE-PILE-F	51	1.18	10.48	11.66	10.58	89.7	
Q1937-12	LARGE-PILE-F	52	1.18	10.25	11.43	10.44	90.3	
Q1938-01	LOWER-WALL-PILE-A	53	1.15	10.33	11.48	10.77	93.1	
Q1938-02	LOWER-WALL-PILE-A	54	1.17	10.50	11.67	10.71	90.9	
Q1938-03	LOWER-WALL-PILE-B	55	1.14	10.15	11.29	10.94	96.6	
Q1938-04	LOWER-WALL-PILE-B	56	1.18	9.90	11.08	10.68	96.0	
Q1938-05	LOWER-WALL-PILE-C	57	1.17	10.23	11.4	11.07	96.8	
Q1938-06	LOWER-WALL-PILE-C	58	1.12	9.82	10.94	10.7	97.6	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 05/02/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:25
Out Date: 05/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135646

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
Q1938-07	LOWER-WALL-PILE-D	59	1.19	10.01	11.2	10.7	95.0	
Q1938-08	LOWER-WALL-PILE-D	60	1.17	10.23	11.4	10.86	94.7	
Q1942-05	SVOC-GPC-BLANK	3	1.00	1.00	2.00	2.00	100.0	
Q1942-06	PEST-GPC-BLANK	4	1.00	1.00	2.00	2.00	100.0	
Q1942-07	PEST-GPC-BLANK-SPIKE	5	1.00	1.00	2.00	2.00	100.0	
Q1942-08	PCB-GPC-BLANK	6	1.00	1.00	2.00	2.00	100.0	
Q1942-09	PCB-GPC-BLANK-SPIKE	7	1.00	1.00	2.00	2.00	100.0	
Q1942-10	SVOC-GPC2-BLANK	8	1.00	1.00	2.00	2.00	100.0	
Q1942-11	PEST-GPC2-BLANK	9	1.00	1.00	2.00	2.00	100.0	
Q1942-12	PEST-GPC2-BLANK-SPIKE	10	1.00	1.00	2.00	2.00	100.0	
Q1942-13	PCB-GPC2-BLANK	11	1.00	1.00	2.00	2.00	100.0	
Q1942-14	PCB-GCP2-BLANK-SPIKE	12	1.00	1.00	2.00	2.00	100.0	
Q1944-01	MELTED-RUBBER-SAMPLE	13	1.00	1.00	2.00	2.00	100.0	MELTED-RUBBER-SAMPLE
Q1946-01	BB-CONCRETE	14	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1946-02	BB-CONCRETE	15	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
Q1947-01	MH-P	16	1.18	10.19	11.37	9.28	79.5	
Q1947-02	MH-P-EPH	17	1.15	10.84	11.99	10.64	87.5	
Q1947-03	MH-P-VOC	18	1.16	10.71	11.87	10.5	87.2	
Q1947-05	MH-O	19	1.14	10.59	11.73	10.52	88.6	
Q1947-06	MH-O-EPH	20	1.12	10.00	11.12	9.91	87.9	
Q1947-07	MH-O-VOC	21	1.17	10.00	11.17	9.95	87.8	
Q1951-01	MH-KK	22	1.18	10.40	11.58	10.01	84.9	
Q1951-02	MH-KK-EPH	23	1.16	10.29	11.45	9.91	85.0	
Q1951-03	MH-KK-VOC	24	1.17	10.25	11.42	9.86	84.8	
Q1952-01	CLEAN-FILL	25	1.18	10.49	11.67	8.98	74.4	
Q1952-02	CLEAN-FILL-E2	26	1.13	10.10	11.23	8.47	72.7	
Q1953-01	AUD-25-0075	27	1.00	1.00	2.00	2.00	100.0	pile
Q1953-02	AUD-25-0076	28	1.00	1.00	2.00	2.00	100.0	pile



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 5/5/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 05/02/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:25
Out Date: 05/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB135646

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
Q1953-03	AUD-25-0077	29	1.00	1.00	2.00	2.00	100.0	oilc
Q1954-01	BC260874-1-1	30	1.00	1.00	2.00	2.00	100.0	oilc
Q1954-02	BC260874-1-2	31	1.00	1.00	2.00	2.00	100.0	oilc
Q1955-01	LAW-25-0066	32	1.00	1.00	2.00	2.00	100.0	stone sample, 100 % solids

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

WORKLIST(Hardcopy Internal Chain)

173546

WorkList Name : %1-050225

WorkList ID : 189289

Department : Wet-Chemistry

Date : 05-02-2025 14:36:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1913-01	WC-12-S-202504	Solid	Percent Solids	Cool 4 deg C	AECO02	L21	04/29/2025	Chemtech -SO
Q1913-03	WC-13-S-202504	Solid	Percent Solids	Cool 4 deg C	AECO02	L21	04/29/2025	Chemtech -SO
Q1936-01	SMALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-02	SMALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-03	SMALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-04	SMALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-05	SMALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-06	SMALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-07	SMALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1936-08	SMALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L51	05/01/2025	Chemtech -SO
Q1937-01	LARGE-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-02	LARGE-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-03	LARGE-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-04	LARGE-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-05	LARGE-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-06	LARGE-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-07	LARGE-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-08	LARGE-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-09	LARGE-PILE-E	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-10	LARGE-PILE-E	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1937-11	LARGE-PILE-F	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO

Date/Time 05/02/25 15:10

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

Date/Time 05/02/25 17:10

Raw Sample Received by: [Signature]

Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

172546

WorkList Name : %1-050225

WorkList ID : 189289

Department : Wet-Chemistry

Date : 05-02-2025 14:36:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1937-12	LARGE-PILE-F	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-01	LOWER-WALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-02	LOWER-WALL-PILE-A	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-03	LOWER-WALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-04	LOWER-WALL-PILE-B	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-05	LOWER-WALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-06	LOWER-WALL-PILE-C	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-07	LOWER-WALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1938-08	LOWER-WALL-PILE-D	Solid	Percent Solids	Cool 4 deg C	SAXT01	L41	05/01/2025	Chemtech -SO
Q1942-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	05/01/2025	Chemtech -SO
Q1942-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-10	SVOC-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-11	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-12	PEST-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1942-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	L41	04/25/2025	Chemtech -SO
Q1944-01	MELTED-RUBBER-SAMPLE	Solid	Percent Solids	Cool 4 deg C	METE01	L41	05/02/2025	Chemtech -SO
Q1946-01	BB-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO

Date/Time 05/02/25 15:10

Raw Sample Received by: *Se Lee*

Raw Sample Relinquished by: *Se Lee*

Date/Time 05/02/25

Raw Sample Received by: *Se Lee*

Raw Sample Relinquished by: *Se Lee*

WORKLIST(Hardcopy Internal Chain)

8/23/25

WorkList Name : %1-050225

WorkList ID : 189289

Department : Wet-Chemistry

Date : 05-02-2025 14:36:21

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1946-02	BB-CONCRETE	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-01	MH-P	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-02	MH-P-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-03	MH-P-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-05	MH-O	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-06	MH-O-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1947-07	MH-O-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1951-01	MH-KK	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/02/2025	Chemtech -SO
Q1951-02	MH-KK-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/02/2025	Chemtech -SO
Q1951-03	MH-KK-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	L31	05/02/2025	Chemtech -SO
Q1952-01	CLEAN-FILL	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	05/02/2025	Chemtech -SO
Q1952-02	CLEAN-FILL-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L21	05/02/2025	Chemtech -SO
Q1953-01	AUD-25-0075	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1953-02	AUD-25-0076	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1953-03	AUD-25-0077	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1954-01	BC260874-1-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1954-02	BC260874-1-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO
Q1955-01	LAW-25-0066	Solid	Percent Solids	Cool 4 deg C	PSEG03	L41	05/02/2025	Chemtech -SO

Date/Time 05/02/25 15:10

Raw Sample Received by: 88 WOC,

Raw Sample Relinquished by: 88 WOC,

Date/Time 05/02/25

Raw Sample Received by: 88 WOC,

Raw Sample Relinquished by: 88 WOC,

SOP ID: M3541-ASE Extraction-14

Clean Up SOP #: N/A

Extraction Start Date : 05/07/2025

Matrix : Solid

Extraction Start Time : 09:00

Weigh By: EH

Extraction By: RJ

Extraction End Date : 05/07/2025

Balance check: RJ

Filter By: RJ

Extraction End Time : 12:00

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

☐ Continious 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	PP24180
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	EP2600
Baked Na2SO4	N/A	EP2607
Sand	N/A	E2865
Methylene Chloride	N/A	E3930
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210673.

KD Bath ID: N/A

Envap ID: NEVAP-02

KD Bath Temperature: N/A

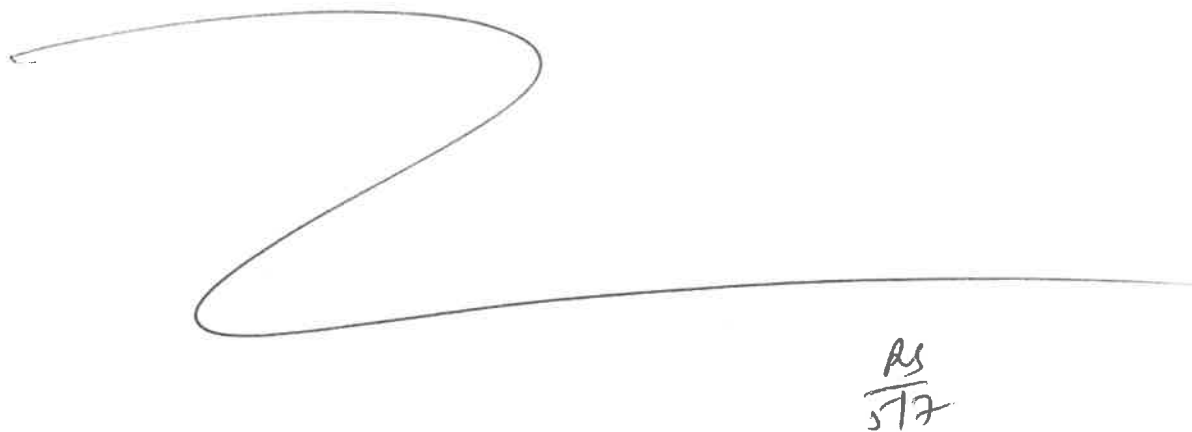
Envap Temperature: 40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
5/7/25	RS (Ext Lab)	Y.P. Pest IP CB
12:05	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 05/07/2025

Sample ID	Client Sample ID	Test	g/ mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB167887BL	PB167887BL	TPH GC	30.02	N/A	ritesh	Evelyn	1			U1-1
PB167887BS	PB167887BS	TPH GC	30.03	N/A	ritesh	Evelyn	1			2
Q1936-01	SMALL-PILE-A	TPH GC	30.07	N/A	ritesh	Evelyn	1	A		3
Q1936-01MS	SMALL-PILE-AMS	TPH GC	30.06	N/A	ritesh	Evelyn	1	A		4
Q1936-01MS D	SMALL-PILE-AMSD	TPH GC	30.04	N/A	ritesh	Evelyn	1	A		5
Q1936-03	SMALL-PILE-B	TPH GC	30.05	N/A	ritesh	Evelyn	1	C		6
Q1936-05	SMALL-PILE-C	TPH GC	30.01	N/A	ritesh	Evelyn	1	A		U2-1
Q1936-07	SMALL-PILE-D	TPH GC	30.06	N/A	ritesh	Evelyn	1	D		2
Q1937-01	LARGE-PILE-A	TPH GC	30.03	N/A	ritesh	Evelyn	1	C		3
Q1937-03	LARGE-PILE-B	TPH GC	30.06	N/A	ritesh	Evelyn	1	C		4
Q1937-05	LARGE-PILE-C	TPH GC	30.04	N/A	ritesh	Evelyn	1	A		5
Q1937-07	LARGE-PILE-D	TPH GC	30.08	N/A	ritesh	Evelyn	1	D		6
Q1937-09	LARGE-PILE-E	TPH GC	30.03	N/A	ritesh	Evelyn	1	C		U3-1
Q1937-11	LARGE-PILE-F	TPH GC	30.01	N/A	ritesh	Evelyn	1	C		2
Q1938-01	LOWER-WALL-PILE-A	TPH GC	30.02	N/A	ritesh	Evelyn	1	A		3
Q1938-03	LOWER-WALL-PILE-B	TPH GC	30.06	N/A	ritesh	Evelyn	1	D		4
Q1938-05	LOWER-WALL-PILE-C	TPH GC	30.07	N/A	ritesh	Evelyn	1	B		5
Q1938-07	LOWER-WALL-PILE-D	TPH GC	30.05	N/A	ritesh	Evelyn	1	B		6



CP: 6
t. 88491

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q1936T WorkList ID : 189357 Department : Extraction Date : 05-07-2025 08:38:03

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1936-01	SMALL-PILE-A	Solid	TPH GC	Cool 4 deg C	SAXT01	L51	05/01/2025	8015D
Q1936-03	SMALL-PILE-B	Solid	TPH GC	Cool 4 deg C	SAXT01	L51	05/01/2025	8015D
Q1936-05	SMALL-PILE-C	Solid	TPH GC	Cool 4 deg C	SAXT01	L51	05/01/2025	8015D
Q1936-07	SMALL-PILE-D	Solid	TPH GC	Cool 4 deg C	SAXT01	L51	05/01/2025	8015D
Q1937-01	LARGE-PILE-A	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-03	LARGE-PILE-B	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-05	LARGE-PILE-C	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-07	LARGE-PILE-D	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-09	LARGE-PILE-E	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1937-11	LARGE-PILE-F	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1938-01	LOWER-WALL-PILE-A	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1938-03	LOWER-WALL-PILE-B	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1938-05	LOWER-WALL-PILE-C	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D
Q1938-07	LOWER-WALL-PILE-D	Solid	TPH GC	Cool 4 deg C	SAXT01	L41	05/01/2025	8015D

Date/Time 05/07/25 8:55
Raw Sample Received by: RJ LEEH-lab
Raw Sample Relinquished by: CP SM

Date/Time 05/07/25 9:20
Raw Sample Received by: CP SM
Raw Sample Relinquished by: RJ LEEH-lab

Prep Standard - Chemical Standard Summary

Order ID : Q1936

Test : TPH GC

Prepbatch ID : PB167887,

Sequence ID/Qc Batch ID: FF050725,

Standard ID :

EP2600,EP2607,PP24162,PP24180,PP24467,PP24468,PP24469,PP24470,PP24471,PP24472,PP24473,

Chemical ID :

E2865,E3551,E3874,E3904,E3917,E3926,E3930,P11951,P11952,P11955,P11956,P13106,P13108,P13477,P13479,P13487,P13488,P13489,P13490,

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	EP2600	04/07/2025	10/03/2025	Rajesh Parikh	None	None	Riteshkumar Patel
								04/07/2025

FROM 8000.00000ml of E3904 + 8000.00000ml of E3917 = 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	EP2607	04/25/2025	07/01/2025	RUPESHKUMAR SHAH	Extraction_SC ALE_2 (EX-SC-2)	None	Riteshkumar Patel
								04/25/2025

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>
147	20 PPM DRO Surrogate Spike Solution	PP24180	02/03/2025	07/30/2025	Yogesh Patel	None	None	Ankita Jodhani
								02/03/2025

FROM 1.00000ml of P13487 + 1.00000ml of P13488 + 1.00000ml of P13489 + 1.00000ml of P13490 + 196.00000ml of E3874 = Final Quantity: 200.000 ml

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
433	100/100 PPM DRO (Restek)	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

<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

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
435	50 PPM ICC DRO STD (Restek)	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

<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

Pest/Pcb STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
438	10 PPM ICC DRO STD (Restek)	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

<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

CHEMICAL RECEIPT LOG BOOK

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-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)	24K1762005	01/07/2026	03/13/2025 /	12/27/2024 / RUPESH	E3904

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9254-03 / Acetone, Ultra Resi (cs/4x4L)	24H2762008	10/03/2025	04/03/2025 / Rajesh	03/31/2025 / Rajesh	E3917

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

CHEMICAL RECEIPT LOG BOOK

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

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

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	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	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13487

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	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13488

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	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13489

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	08/03/2025	02/03/2025 / yogesh	07/24/2024 / yogesh	P13490

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

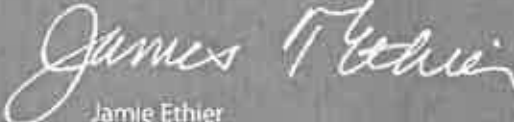
Certificate of Analysis

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

Acetone

BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H2762008

Manufactured Date: 2024-04-18

Expiration Date: 2027-04-18

Revision No.: 0

Certificate of Analysis

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

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

Recd by RP on 03/31/25

E3917

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)

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 (μeq/g)	≤ 0.3	<0.1
Chloride (Cl)	≤ 10 ppm	<5 ppm
Water (by KF, coulometric)	$\leq 0.02 \%$	<0.01 %

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

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

E 3926

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

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

avantor



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

Certificate of Analysis

Test	Specification	Result
FID-Sensitive Impurities (as 2-Octanol) Single Impurity Peak (ng/mL)	≤ 5	1
ECD Sensitive Impurities (as HeptachlorEpoxide) Single Peak (pg/mL)	≤ 10	4
Assay (CH ₂ Cl ₂) (by GC, exclusive of preservative, corrected for water)	$\geq 99.8\%$	99.9%
Color (APHA)	≤ 10	10
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



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

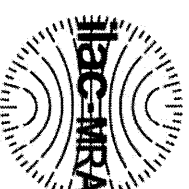
Bellefonte, PA 16823-8812

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:

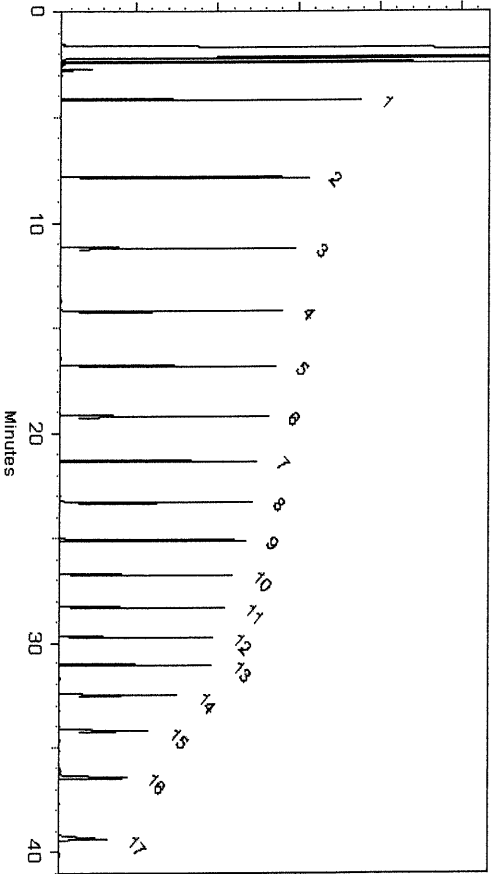
250°C

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

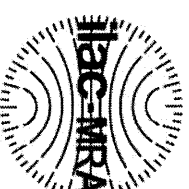
Bellefonte, PA 16823-8812

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:

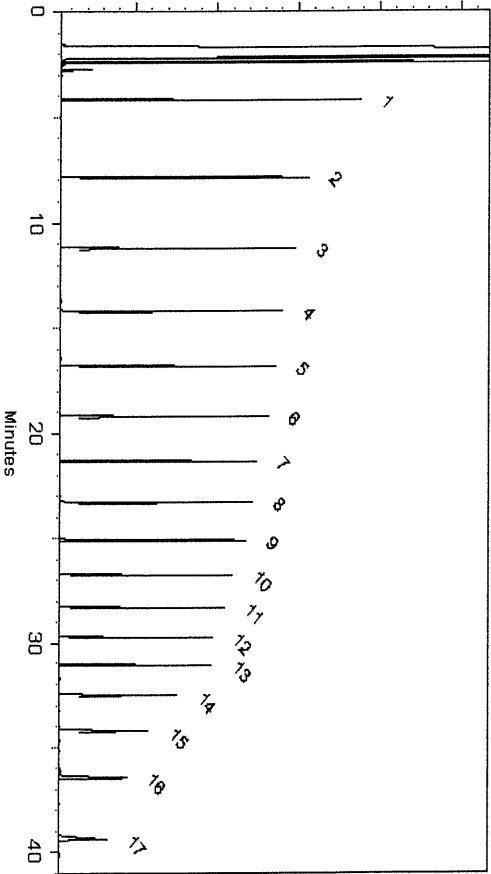
250°C

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:

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CERTIFIED REFERENCE MATERIAL

110 Benner Circle

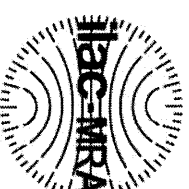
Bellefonte, PA 16823-8812

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Certificate of Analysis



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

Catalog No. : 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:

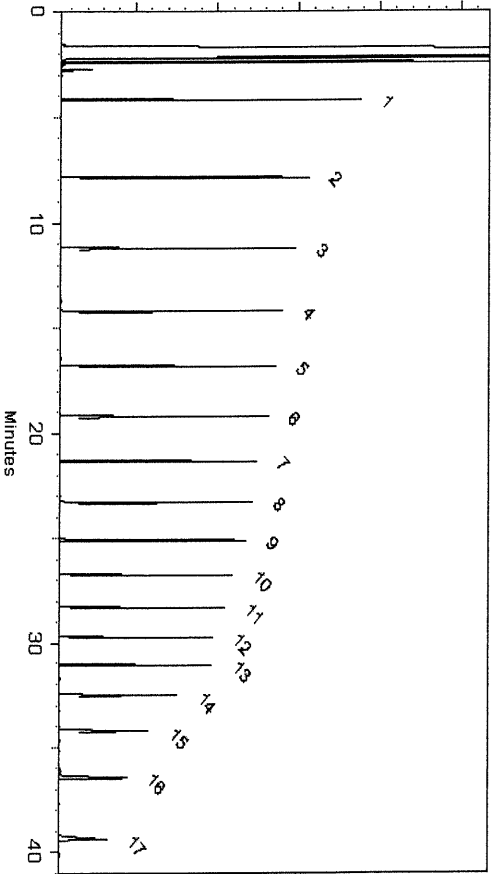
250°C

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:

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

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.
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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.
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Manufacturing Notes:

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Handling Notes:

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CERTIFIED REFERENCE MATERIAL

110 Benner Circle

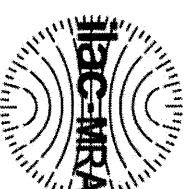
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Certificate of Analysis



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

Catalog No. : 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:

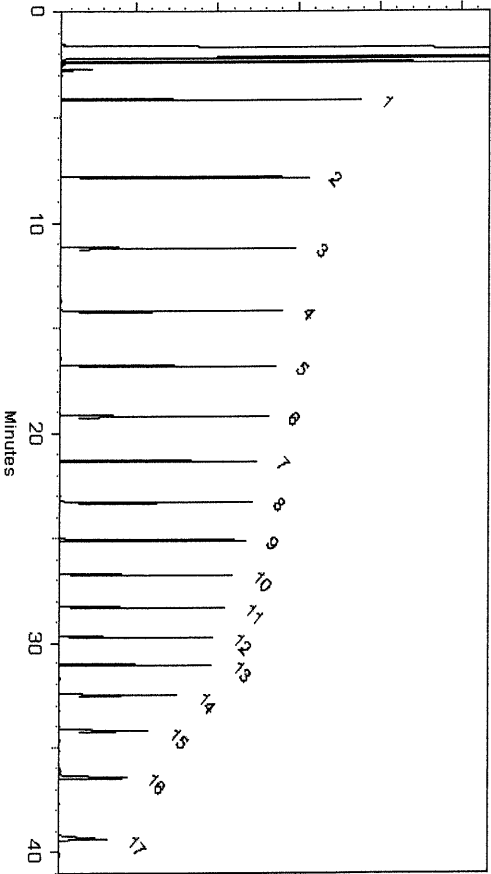
250°C

Det. Temp:

330°C

Det. Type:

FID



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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.
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- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified 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.



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	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.)

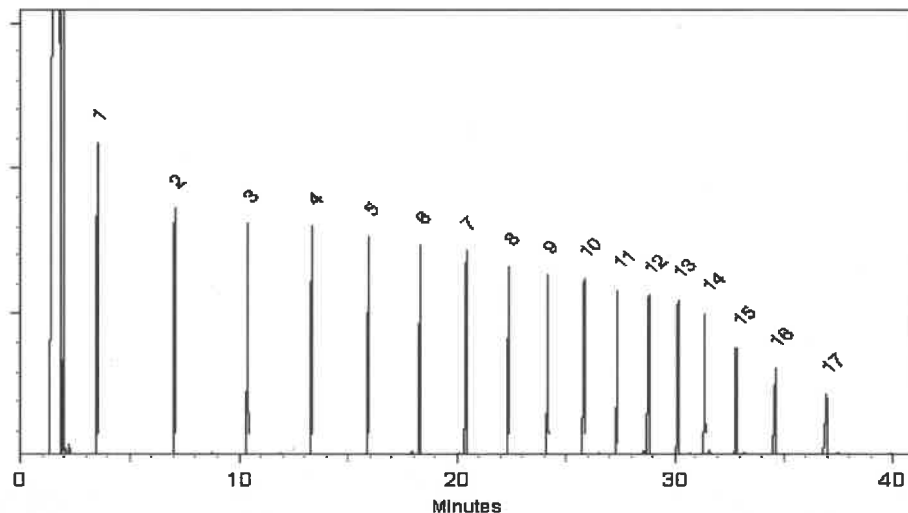
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

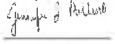


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


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.



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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
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5	n-Hexadecane (C16)	544-76-3	SHBP8192	99%	504.0 µg/mL	+/- 13.0201
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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
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15	n-Hexatriacontane (C36)	630-06-8	Z27H018	99%	504.0 µg/mL	+/- 13.0201
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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.)

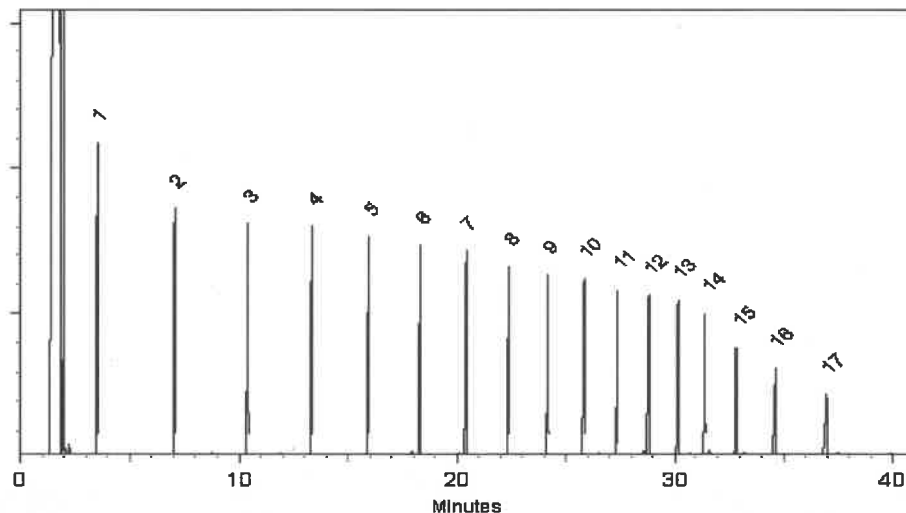
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

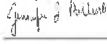


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


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#	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	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04159	4001.3	15.4	1719-03-5	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04158	4001.2	15.4	1503-58-3	N/A	N/A

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

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

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	8.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

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

Part # 10009R Lot # 041219

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

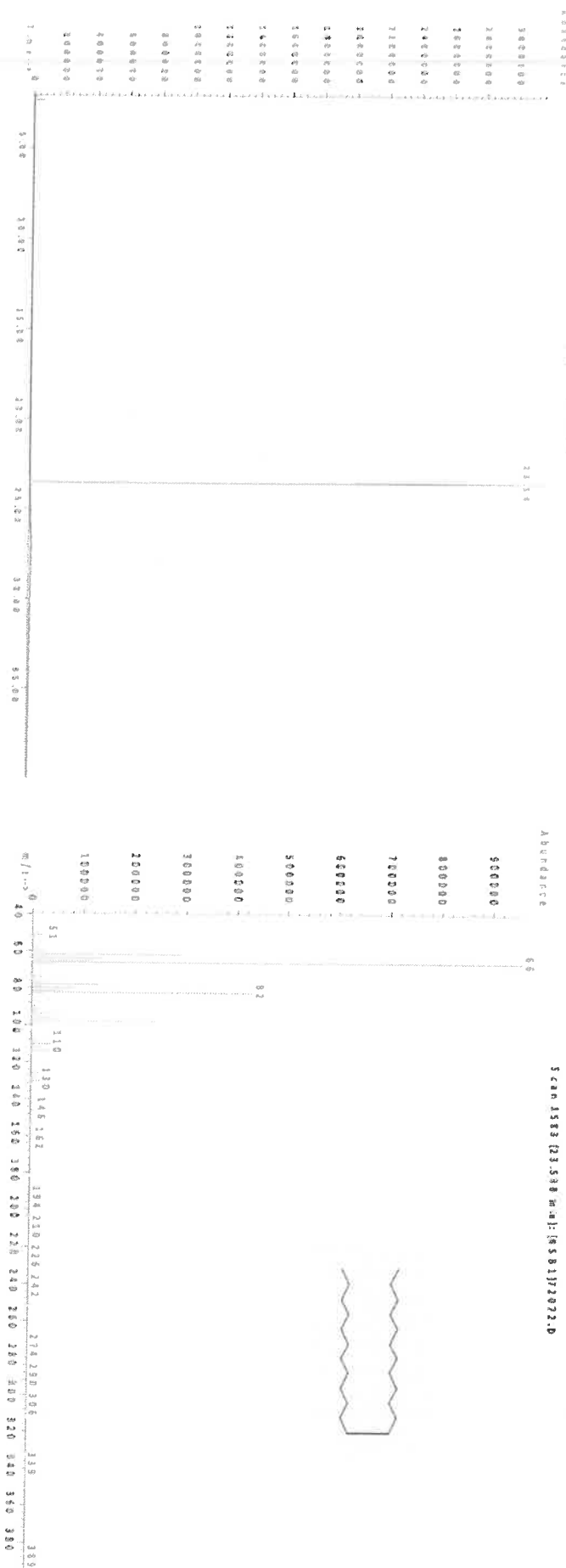
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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
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



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 Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-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	2.04136	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	2.04159	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	2.04156	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 = aDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

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

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

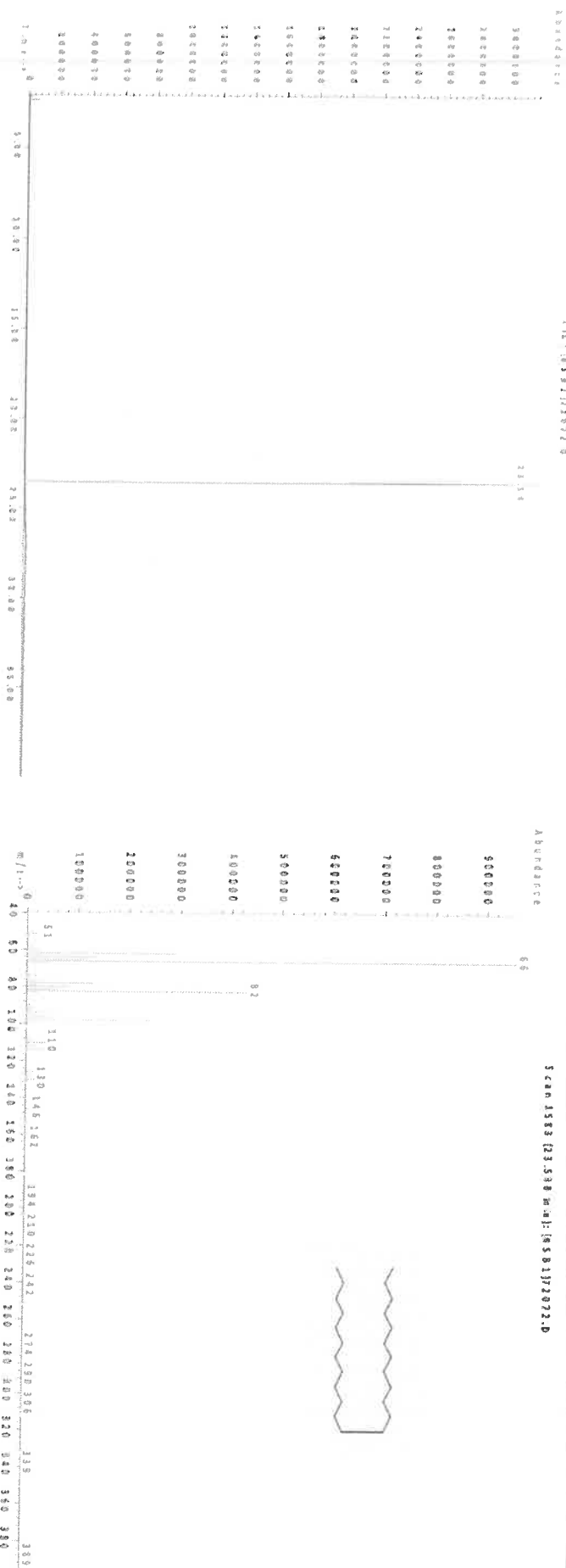
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
DATE		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
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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 References: 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 Description: CLP Priority Pollutant Internal Standards
GC/MS Calibration - 6 components
070721
Expiration Date: Ambient (20 °C)
Recommended Storage: 4000
Nominal Concentration (µg/mL): 822-275872-11
NIST Test ID#: 5E-05 Balance Uncertainty
0.058 Mass Uncertainty

Solvent(s): Methylene chloride
Lot# 78782

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

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	N/A	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A	N/A

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

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

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	8.34
2	Naphthalene-d8	8.98
3	Acenaphthene-d10	12.97
4	Phenanthrene-d10	16.37
5	Chrysene-d12	22.62
6	Perylene-d12	25.75

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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

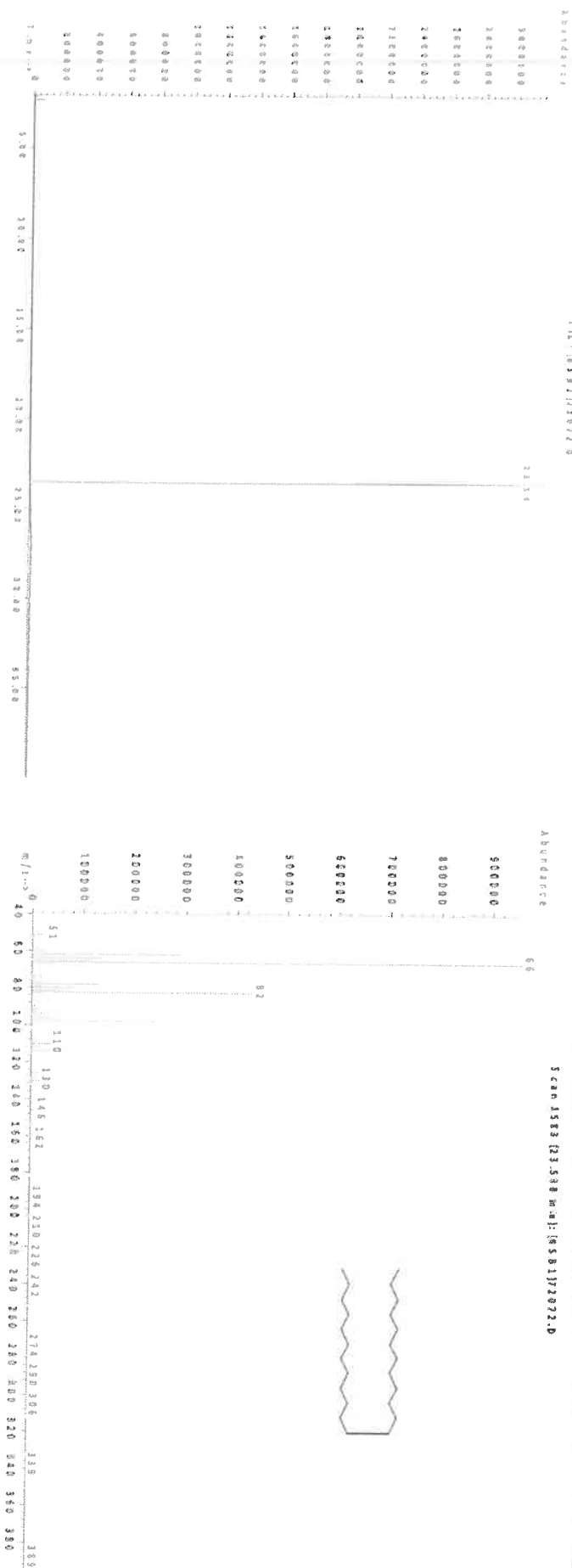
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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

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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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www.absolutestandards.com

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

Part # 10009R
Lot # 070716
Shelf Life 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	2.04136	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	2.04159	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	2.04156	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

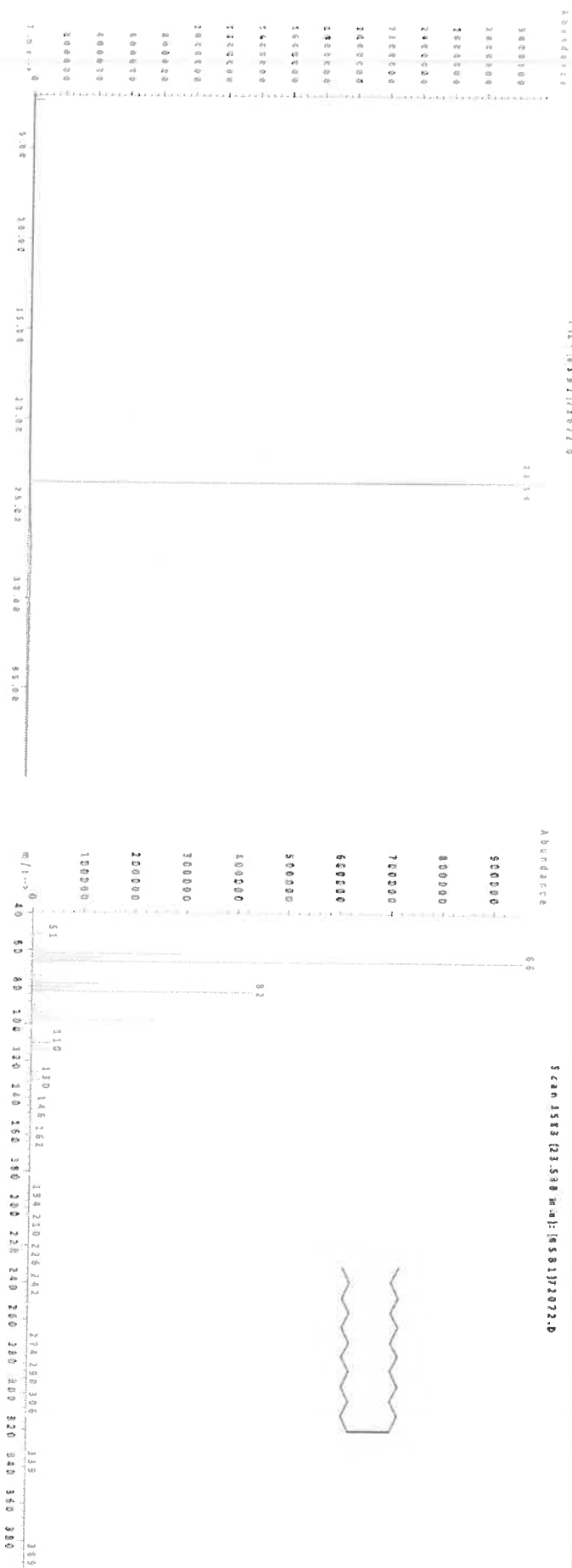
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
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
----------	-----	------------	----------------------	------------	------------------------	-----------	------------------	------------------	---------------------	------------------------------------	--	------

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 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

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**

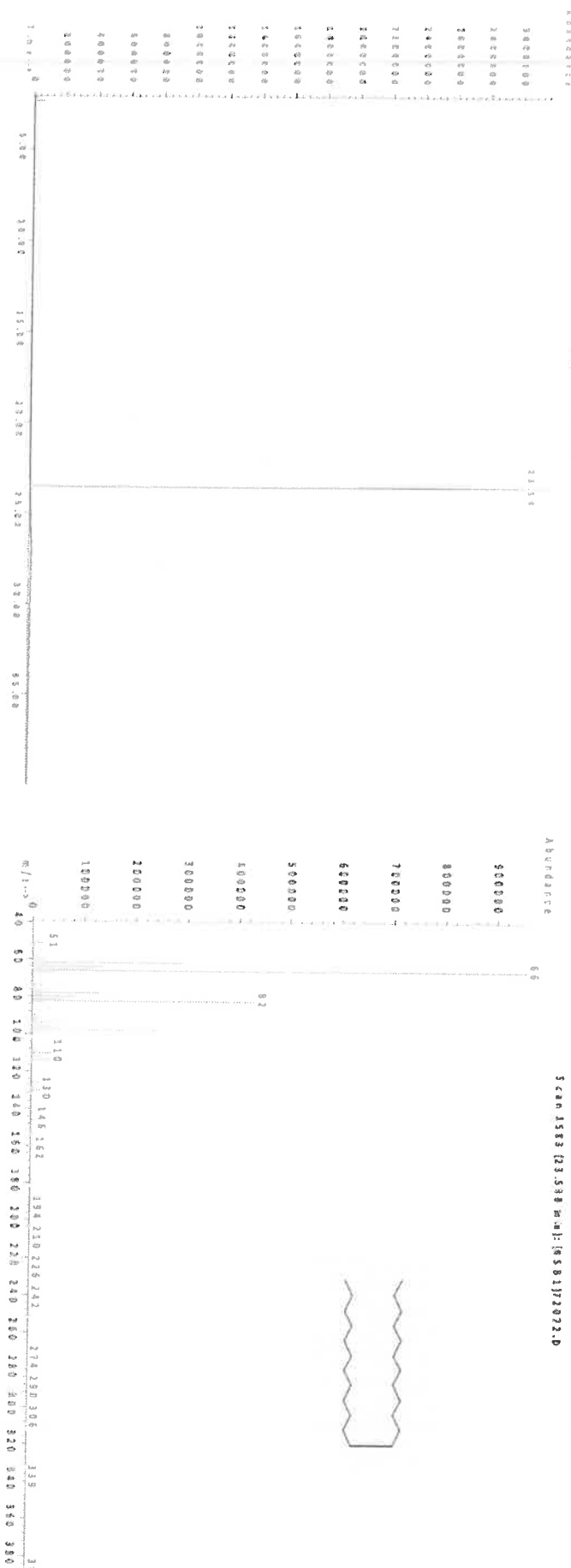
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

Formulated By:	<i>Prashant Chauhan</i>	101122
Reviewed By:	<i>Pedro L. Rentas</i>	101122
DATE		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 Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.)	CAS#	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-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

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

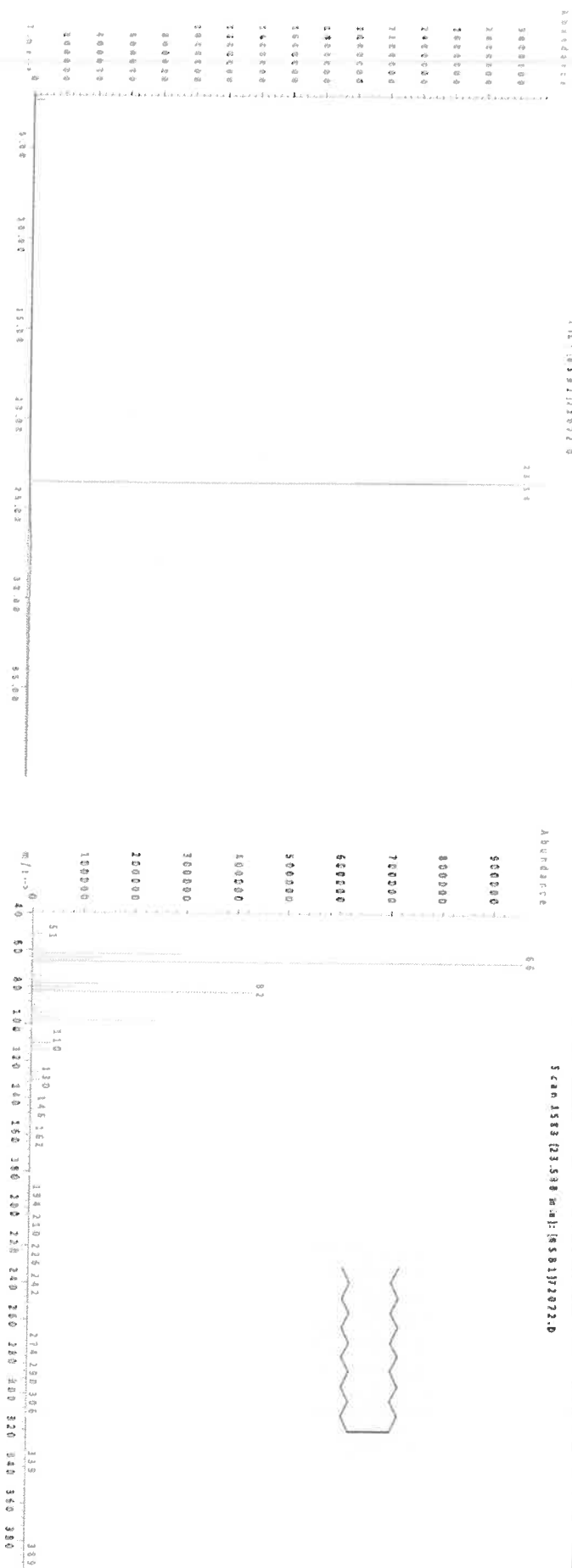
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13496
07/24/24
X.F.

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%D)	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, (1994).



SHIPPING DOCUMENTS

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: **DAKTON FALL sand Gravel**
ADDRESS: **3000 International Drive**
CITY **Budd Lake** STATE: **N.J.** ZIP:
ATTENTION: **Rich Schindelar**
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: **Stan Hope**
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY **same** STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: DAYS*

*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

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

1. Hex Chrom
2. PCB
3. SVOC-TCL BWA-20
4. TPH GC
5. Trivalent Chromium
6. Cyanide
7. VOC-TCL VOA-10
8. EPH
9.

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HNO3 E-ICE
C-H2SO4 F-OTHER

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9	
1.	Small Pile - A	BOL	X		5-1-25	10:50	4	X	X	X	X	X	X				PID=0.0
2.	A			X		10:52	5							X	X		
3.	B		X			11:00	4	X	X	X	X	X	X				
4.	B			X		11:04	5							X	X		
5.	C		X			11:10	4	X	X	X	X	X	X				
6.	C			X		11:12	5							X	X		
7.	D		X			11:16	4	X	X	X	X	X	X				
8.	D			X		11:18	5							X	X		
9.																	
10.																	

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

RELINQUISHED BY SAMPLER:	DATE/TIME: 1410	RECEIVED BY:	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☒ COOLER TEMP 4.1°C
1. [Signature]	5-1-2025	1. [Signature]	Comments: PID Meter Calibrated 5-1-2025
RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	Equal volume of soil added, 5:1 composite
2. [Signature]		2. [Signature]	
RELINQUISHED BY SAMPLER:	DATE/TIME: 1540	RECEIVED BY:	
3. [Signature]	5-1-2025	3. [Signature]	

CHEMTECH

Environmental Laboratory

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

Project Name: Stan Hope

Chemtech Order ID: _____

Service Order #: _____

Sampler Name: Laurence Palka

Work Order #: _____

Client Project Coordinator & Phone: _____

Labor WBS #: _____

Page #: 1 of 1

Facility/Site: _____

Date: 5.1.2025

Site Address: 3000 International

Arrive Time: 0830

Driver Budd Lake, NY.

Depart Time: 1410

Waste Stream (circle one): drum / roll-off / soil pile / in-situ / linear construction / frac-tank

Sample Matrices (circle all that apply): Water / Solid / NAPL / Concrete / Wipe

Collection Depths: _____

Dimensions/CY: _____

Temp (range): _____ °C

PID Readings (range): _____

PPM _____

Odor: Y / N

Color: Y / N

Sample Description: Brown soil, Rocks.

Field Observations: Sample 6, small pile, large pile, however well pile.

Grid/Area Composite Map: _____

QA Control # A3041134

See

Attached

Sampler Signature: [Signature] 5.1.2025

Supervisor Review/Date: _____

Client Signature: _____

Date/Time Arrived at Lab: _____

EXHIBIT 1

Soil Piles for Sampling

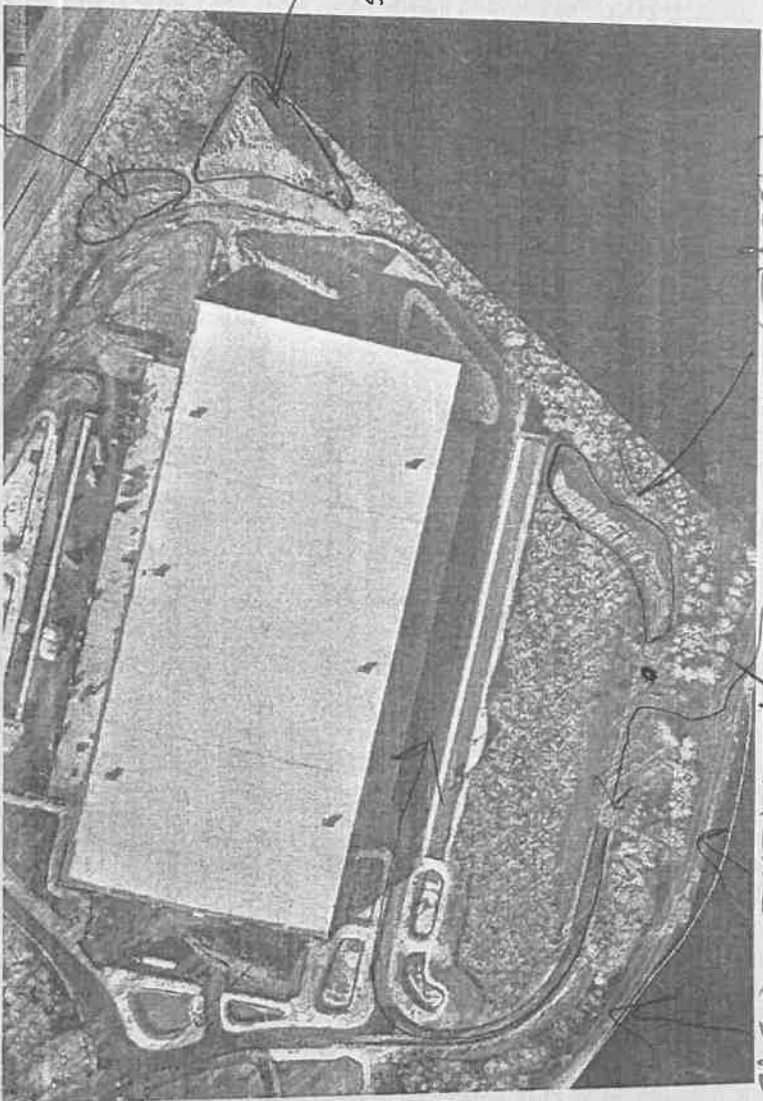
Piles for sampling are circled in red

4 tests

Lower Wall
Pile

4 Samples 25" #

Contenetal Dr.



6 Samples

Large Pile
30" #

4 Samples

Small pile
20" #

Total 14 Samples.

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 : Q1936	SAXT01	Order Date : 5/1/2025 2:00:17 PM	Project Mgr :
Client Name : Saxton Falls Sand and Grav		Project Name : Stan Hope	Report Type : Level 1
Client Contact : Rich Schindelar		Receive DateTime : 5/1/2025 12:00:00 AM	EDD Type : Excel NJ
Invoice Name : Saxton Falls Sand and Grav		Purchase Order : 15:40	Hard Copy Date :
Invoice Contact : Rich Schindelar			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1936-02	SMALL-PILE-A	Solid	05/01/2025	10:52					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1936-04	SMALL-PILE-B	Solid	05/01/2025	11:04					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1936-06	SMALL-PILE-C	Solid	05/01/2025	11:12					
					VOC-TCLVOA-10		8260D	10 Bus. Days	
Q1936-08	SMALL-PILE-D	Solid	05/01/2025	11:18					
					VOC-TCLVOA-10		8260D	10 Bus. Days	

Relinquished By :

L.C

Date / Time :

5-1-2025 1650

Received By :

W. N. Adach

Date / Time :

5-1-25

16:50

Storage Area : VOA Refridgerator Room

Toracoles

Stored in rot
Fr 02, Extract in
set #06