

Cover Page

Order ID : Q2504

Project ID : 98 Morse Ave Nutley

Client : Sciacca General Contractors, LLC

Lab Sample Number

Q2504-01
Q2504-02
Q2504-03
Q2504-04
Q2504-05
Q2504-06
Q2504-07

Client Sample Number

WASTE
VOC
1
2
3
4
5

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: 7/14/2025

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 #: Q2504

Completed

For thorough review, the report must have the following:

GENERAL:

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

✓

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

✓

Is the chain of custody signed and complete

✓

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

✓

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

✓

COVER PAGE:

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

✓

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

✓

CHAIN OF CUSTODY:

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

✓

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

✓

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

✓

Were the samples received within hold time

✓

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

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: PRADIP PRAJAPATI

Date: 07/14/2025

LAB CHRONICLE

OrderID:	Q2504	OrderDate:	7/3/2025 11:59:00 AM
Client:	Sciacca General Contractors, LLC	Project:	98 Morse Ave Nutley
Contact:	Rosanne Scirica	Location:	O12,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q2504-01	WASTE	SOIL	TPH GC	8015D	07/02/25	07/10/25	07/10/25	07/03/25
Q2504-03	1	Solid	EPH_F2	NJEPH	07/02/25	07/08/25	07/08/25	07/03/25
Q2504-04	2	Solid	EPH_F2	NJEPH	07/02/25	07/08/25	07/08/25	07/03/25
Q2504-05	3	Solid	EPH_F2	NJEPH	07/02/25	07/08/25	07/08/25	07/03/25
Q2504-06	4	Solid	EPH_F2	NJEPH	07/02/25	07/08/25	07/08/25	07/03/25
Q2504-07	5	Solid	EPH_F2	NJEPH	07/02/25	07/08/25	07/08/25	07/03/25



QC SUMMARY

SOIL TPH GC SURROGATE RECOVERY

Lab Name: Alliance

Client: Sciacca General Contractors, LLC

Lab Code: ACE

SDG No.: Q2504

CLIENT ID	S1 TETRACOSANE-d50	S2	S3	S4	TOT OUT
PIBLK-FF016136.D	101				0
PIBLK-FF016144.D	107				0
PIBLK-FG016271.D	95				0
PIBLK-FG016271.D	96				0
PIBLK-FG016280.D	96				0
PB168785BL	93				0
PB168785BS	94				0
PIT#4MS	62				0
PIT#4MSD	62				0
WASTE	61				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: Alliance

Client: Sciacca General Contractors, LLC

Lab Code: ACE

SDG No: Q2504

Client Sample ID : PIT#4MS

Datafile: FF016140.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS(%)
Petroleum Hydrocarbons	12475	17300	26567	74%		68-131

SOIL TPH GC MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Alliance

Client: Sciacca General Contractors, LLC

Lab Code: ACE

SDG No: Q2504

Client Sample ID : PIT#4MSD

Datafile: FF016141.D

COMPOUND	SPIKE ADDED ug/kg	SAMPLE CONCENTRATION ug/kg	MS/MSD CONCENTRATION ug/kg	% REC	Qual	QC LIMITS(%)
Petroleum Hydrocarbons	12487	17300	27090	78%		68-131

MS/MSD % Recovery RPD : 5.4

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

Lab Name: Alliance

Client: Sciacca General Contractors, LLC

Lab Code: ACE

SDG No: Q2504

Client Sample ID : PB168785BS

Datafile: FG016275.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS (%)
Petroleum Hydrocarbons	11330	0	9997	88	68-131

4B
METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

PB168785BL

Lab Name: Alliance

Contract: SCIA01

Lab Code: ACE

SDG NO.: Q2504

Lab File ID: FG016274.D

Lab Sample ID: PB168785BL

Instrument ID: FG

Date Extracted: 07/10/2025

Matrix: (soil/water) Soil

Date Analyzed: 07/10/25

Level: (low/med) low

Time Analyzed: 13:43

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

CLIENT SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
PIT#4MS	Q2473-04MS	FF016140.D	07/10/25
PIT#4MSD	Q2473-04MSD	FF016141.D	07/10/25
WASTE	Q2504-01	FF016143.D	07/10/25
PB168785BS	PB168785BS	FG016275.D	07/10/25

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	Sciacca General Contractors, LLC		Date Collected:	07/02/25	
Project:	98 Morse Ave Nutley		Date Received:	07/03/25	
Client Sample ID:	WASTE		SDG No.:	Q2504	
Lab Sample ID:	Q2504-01		Matrix:	SOIL	
Analytical Method:	8015D TPH		% Solid:	84.1	Decanted:
Sample Wt/Vol:	30.07	Units: g	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	TPH GC	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF016143.D	1	07/10/25 09:00	07/10/25 18:12	PB168785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	26000		456	3360	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\FF071025\
Data File : FF016143.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 18:12
Operator : YP\AJ
Sample : Q2504-01
Misc :
ALS Vial : 75 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
WASTE

Integration File: autoint1.e
Quant Time: Jul 11 02:58:44 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 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...	15.097	1191807	12.239 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

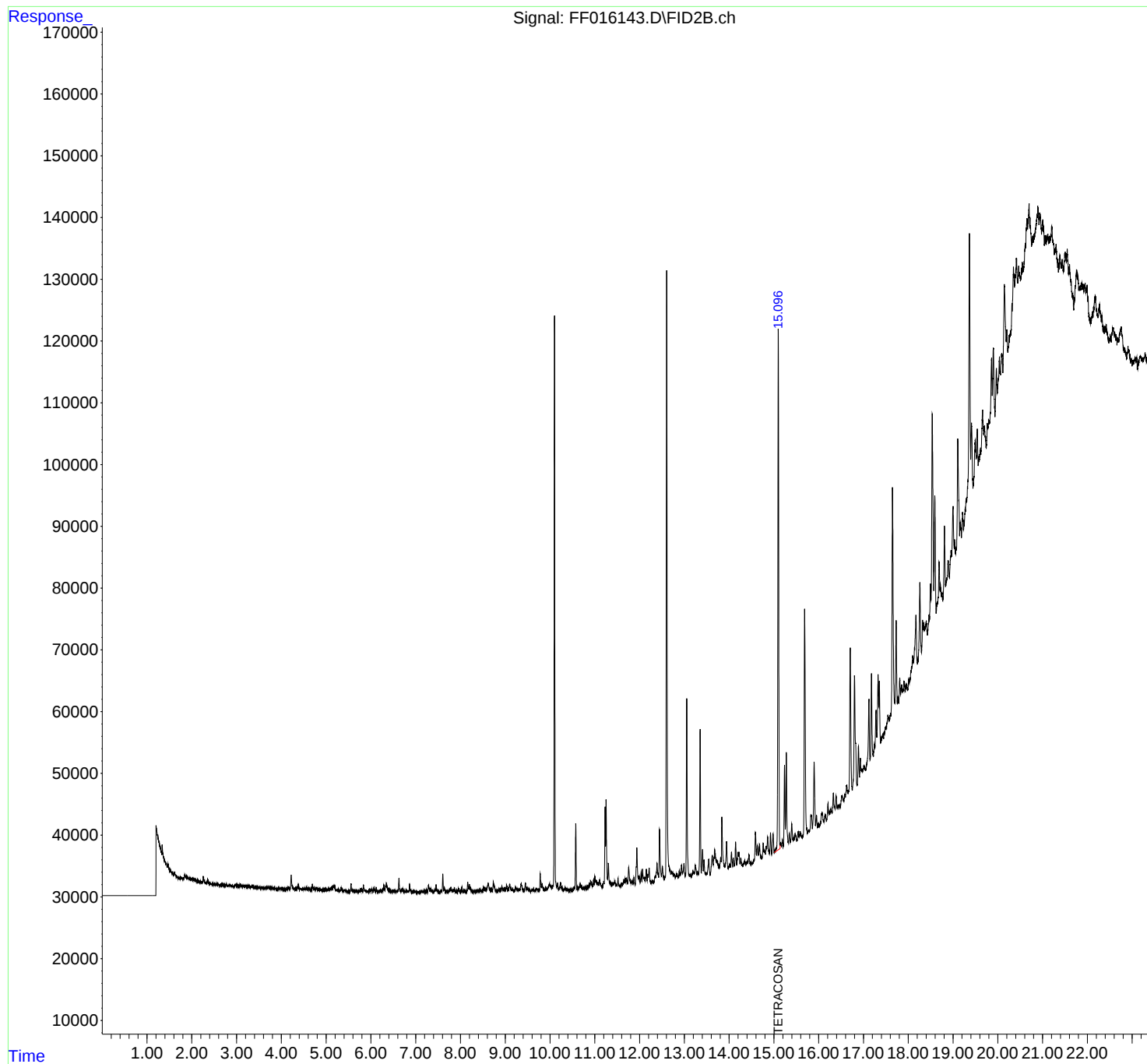
(m)=manual int.

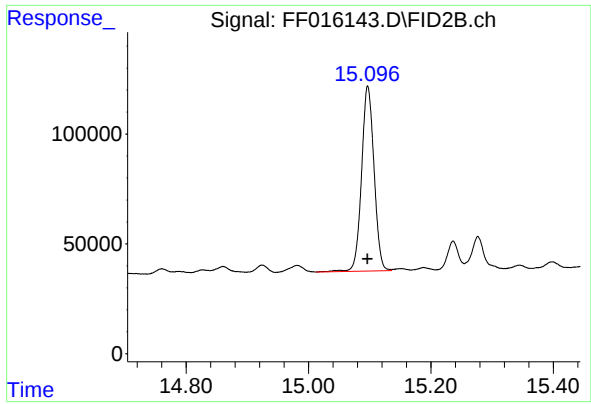
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
Data File : FF016143.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 18:12
Operator : YP\AJ
Sample : Q2504-01
Misc :
ALS Vial : 75 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
WASTE

Integration File: autoint1.e
Quant Time: Jul 11 02:58:44 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 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.: 15.097 min
Delta R.T.: 0.000 min
Response: 1191807
Conc: 12.24 ug/ml

Instrument :
FID_F
ClientSampleId :
WASTE

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
Data File : FF016143.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 18:12
Sample : Q2504-01
Misc :
ALS Vial : 75 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.205	1.197	1.332	BV	11210	684795	36.85%	0.961%
2	1.338	1.332	1.425	VV	8160	344177	18.52%	0.483%
3	1.432	1.425	1.463	VV	5185	111485	6.00%	0.156%
4	1.471	1.463	1.518	VV	5158	146056	7.86%	0.205%
5	1.522	1.518	1.550	VV	4031	76509	4.12%	0.107%
6	1.555	1.550	1.603	VV	3750	111575	6.00%	0.157%
7	1.613	1.603	1.673	VV	3704	138475	7.45%	0.194%
8	1.674	1.673	1.707	VV	3024	58599	3.15%	0.082%
9	1.721	1.707	1.724	VV	2811	28349	1.53%	0.040%
10	1.729	1.724	1.733	VV	2789	14271	0.77%	0.020%
11	1.741	1.733	1.773	VV	2913	68216	3.67%	0.096%
12	1.778	1.773	1.801	VV	2815	46916	2.52%	0.066%
13	1.806	1.801	1.822	VV	2760	33968	1.83%	0.048%
14	1.842	1.822	1.870	VV	3340	88120	4.74%	0.124%
15	1.879	1.870	1.886	VV	2906	27208	1.46%	0.038%
16	1.897	1.886	1.937	VV	2991	87168	4.69%	0.122%
17	1.945	1.937	1.950	VV	2747	21098	1.14%	0.030%
18	1.954	1.950	1.964	VV	2766	21767	1.17%	0.031%
19	1.969	1.964	1.989	VV	2709	39447	2.12%	0.055%
20	1.990	1.989	2.002	VV	2626	20592	1.11%	0.029%
21	2.008	2.002	2.047	VV	2602	67900	3.65%	0.095%
22	2.056	2.047	2.113	VV	2505	95096	5.12%	0.133%
23	2.117	2.113	2.124	VV	2385	15311	0.82%	0.021%
24	2.135	2.124	2.182	VV	2372	77976	4.20%	0.109%
25	2.187	2.182	2.209	VV	2255	34161	1.84%	0.048%
26	2.229	2.209	2.241	VV	2172	40861	2.20%	0.057%
27	2.256	2.241	2.333	VV	3068	120560	6.49%	0.169%
28	2.354	2.333	2.387	VV	2494	68647	3.69%	0.096%
29	2.400	2.387	2.413	VV	1950	29320	1.58%	0.041%
30	2.418	2.413	2.431	VV	1900	20210	1.09%	0.028%
31	2.440	2.431	2.482	VV	1870	54442	2.93%	0.076%
32	2.487	2.482	2.494	VV	1839	13260	0.71%	0.019%
33	2.500	2.494	2.531	VV	1844	38105	2.05%	0.053%
34	2.536	2.531	2.554	VV	1730	23473	1.26%	0.033%
35	2.562	2.554	2.575	VV	1846	22138	1.19%	0.031%
36	2.577	2.575	2.635	VV	1820	59715	3.21%	0.084%

					rteres			
37	2.649	2.635	2.666	VV	1690	29769	1.60%	0.042%
38	2.674	2.666	2.680	VV	1677	13772	0.74%	0.019%
39	2.684	2.680	2.693	VV	1593	11880	0.64%	0.017%
40	2.700	2.693	2.719	VV	1642	24031	1.29%	0.034%
41	2.760	2.719	2.807	VV	1676	81492	4.39%	0.114%
42	2.850	2.807	2.862	VV	1616	50137	2.70%	0.070%
43	2.866	2.862	2.874	VV	1493	11036	0.59%	0.015%
44	2.880	2.874	2.910	VV	1538	30866	1.66%	0.043%
45	2.913	2.910	2.920	VV	1417	9027	0.49%	0.013%
46	2.923	2.920	2.933	VV	1453	10414	0.56%	0.015%
47	2.938	2.933	2.943	VV	1414	8707	0.47%	0.012%
48	2.981	2.943	3.021	VV	1750	70880	3.81%	0.099%
49	3.035	3.021	3.057	VV	1505	29995	1.61%	0.042%
50	3.082	3.057	3.102	VV	1716	39930	2.15%	0.056%
51	3.105	3.102	3.135	VV	1413	26456	1.42%	0.037%
52	3.140	3.135	3.164	VV	1380	23130	1.24%	0.032%
53	3.166	3.164	3.175	VV	1332	8715	0.47%	0.012%
54	3.194	3.175	3.210	VV	1461	28066	1.51%	0.039%
55	3.215	3.210	3.232	VV	1381	18209	0.98%	0.026%
56	3.261	3.232	3.323	VV	1498	71025	3.82%	0.100%
57	3.363	3.323	3.387	VV	1419	48658	2.62%	0.068%
58	3.391	3.387	3.416	VV	1205	19894	1.07%	0.028%
59	3.425	3.416	3.430	VV	1168	9024	0.49%	0.013%
60	3.434	3.430	3.446	VV	1130	11111	0.60%	0.016%
61	3.451	3.446	3.467	VV	1132	14012	0.75%	0.020%
62	3.473	3.467	3.490	VV	1201	15714	0.85%	0.022%
63	3.494	3.490	3.507	VV	1131	10574	0.57%	0.015%
64	3.526	3.507	3.534	VV	1120	18208	0.98%	0.026%
65	3.541	3.534	3.573	VV	1155	24930	1.34%	0.035%
66	3.575	3.573	3.586	VV	1113	8587	0.46%	0.012%
67	3.591	3.586	3.599	VV	1024	7511	0.40%	0.011%
68	3.602	3.599	3.608	VV	1059	5481	0.29%	0.008%
69	3.630	3.608	3.640	VV	1109	19974	1.07%	0.028%
70	3.650	3.640	3.681	VV	1078	25202	1.36%	0.035%
71	3.700	3.681	3.723	VV	1188	27171	1.46%	0.038%
72	3.742	3.723	3.763	VV	1103	24201	1.30%	0.034%
73	3.767	3.763	3.775	VV	995	7209	0.39%	0.010%
74	3.803	3.775	3.832	VV	1084	33672	1.81%	0.047%
75	3.838	3.832	3.851	VV	1016	10738	0.58%	0.015%
76	3.854	3.851	3.871	VV	920	11024	0.59%	0.015%
77	3.882	3.871	3.898	VV	1001	14515	0.78%	0.020%
78	3.901	3.898	3.910	VV	939	6342	0.34%	0.009%
79	3.934	3.910	3.969	VV	959	31603	1.70%	0.044%
80	3.973	3.969	3.984	VV	880	7862	0.42%	0.011%
81	3.986	3.984	4.016	VV	916	16639	0.90%	0.023%
82	4.031	4.016	4.041	VV	869	12347	0.66%	0.017%
83	4.055	4.041	4.083	VV	904	20735	1.12%	0.029%
84	4.091	4.083	4.105	VV	839	10836	0.58%	0.015%
85	4.108	4.105	4.119	VV	847	6385	0.34%	0.009%
86	4.148	4.119	4.157	VV	1052	20568	1.11%	0.029%
87	4.164	4.157	4.199	VV	1036	23136	1.25%	0.032%
88	4.220	4.199	4.276	VV	3128	71707	3.86%	0.101%
89	4.284	4.276	4.296	VV	919	10401	0.56%	0.015%

					rteres			
90	4.330	4.296	4.348	VV	1010	27884	1.50%	0.039%
91	4.375	4.348	4.397	VV	1583	33705	1.81%	0.047%
92	4.403	4.397	4.434	VV	924	18682	1.01%	0.026%
93	4.436	4.434	4.470	VV	789	16851	0.91%	0.024%
94	4.481	4.470	4.508	VV	798	17181	0.92%	0.024%
95	4.525	4.508	4.541	VV	929	16376	0.88%	0.023%
96	4.546	4.541	4.551	VV	874	5100	0.27%	0.007%
97	4.563	4.551	4.591	VV	1053	20424	1.10%	0.029%
98	4.608	4.591	4.638	VV	925	22298	1.20%	0.031%
99	4.642	4.638	4.675	VV	838	16318	0.88%	0.023%
100	4.692	4.675	4.725	VV	1571	33425	1.80%	0.047%
101	4.734	4.725	4.758	VV	876	15984	0.86%	0.022%
102	4.778	4.758	4.829	VV	1025	32798	1.76%	0.046%
103	4.847	4.829	4.885	VV	810	23577	1.27%	0.033%
104	4.887	4.885	4.911	VV	664	10132	0.55%	0.014%
105	4.920	4.911	4.932	VV	678	7836	0.42%	0.011%
106	4.935	4.932	4.942	VV	660	3704	0.20%	0.005%
107	4.979	4.942	5.002	VV	785	24344	1.31%	0.034%
108	5.019	5.002	5.025	VV	724	9352	0.50%	0.013%
109	5.079	5.025	5.090	VV	797	28310	1.52%	0.040%
110	5.094	5.090	5.099	VV	818	4368	0.24%	0.006%
111	5.133	5.099	5.143	VV	955	22626	1.22%	0.032%
112	5.168	5.143	5.173	VV	1121	18649	1.00%	0.026%
113	5.185	5.173	5.190	VV	1177	11463	0.62%	0.016%
114	5.195	5.190	5.219	VV	1259	15883	0.85%	0.022%
115	5.228	5.219	5.235	VV	547	5210	0.28%	0.007%
116	5.267	5.235	5.294	VV	712	19852	1.07%	0.028%
117	5.308	5.294	5.314	VV	491	5679	0.31%	0.008%
118	5.333	5.314	5.389	VV	1035	28471	1.53%	0.040%
119	5.397	5.389	5.401	VV	510	3461	0.19%	0.005%
120	5.413	5.401	5.422	VV	607	6447	0.35%	0.009%
121	5.432	5.422	5.450	VV	586	8219	0.44%	0.012%
122	5.455	5.450	5.490	VV	498	9985	0.54%	0.014%
123	5.501	5.490	5.516	VV	438	5969	0.32%	0.008%
124	5.520	5.516	5.537	VV	365	4204	0.23%	0.006%
125	5.557	5.537	5.579	VV	1631	21410	1.15%	0.030%
126	5.594	5.579	5.633	VV	583	15274	0.82%	0.021%
127	5.637	5.633	5.651	VV	466	4348	0.23%	0.006%
128	5.656	5.651	5.663	VV	405	2426	0.13%	0.003%
129	5.665	5.663	5.676	VV	388	2706	0.15%	0.004%
130	5.684	5.676	5.695	VV	383	3882	0.21%	0.005%
131	5.703	5.695	5.722	VV	421	5370	0.29%	0.008%
132	5.754	5.722	5.772	VV	528	11424	0.61%	0.016%
133	5.784	5.772	5.809	VV	827	12461	0.67%	0.017%
134	5.833	5.809	5.874	VV	1385	25859	1.39%	0.036%
135	5.879	5.874	5.895	VV	445	4945	0.27%	0.007%
136	5.909	5.895	5.919	VV	461	5030	0.27%	0.007%
137	5.923	5.919	5.931	VV	359	2507	0.13%	0.004%
138	5.952	5.931	5.961	VV	428	6271	0.34%	0.009%
139	5.967	5.961	5.978	VV	664	3467	0.19%	0.005%
140	5.994	5.978	6.003	VV	459	5765	0.31%	0.008%
141	6.021	6.003	6.050	VV	691	13368	0.72%	0.019%

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142	6.068	6.050	6.099	VV	969	16095	0.87%	0.023%
143	6.118	6.099	6.149	VV	882	14747	0.79%	0.021%
144	6.183	6.149	6.207	VV	406	11371	0.61%	0.016%
145	6.217	6.207	6.236	VV	400	6363	0.34%	0.009%
146	6.243	6.236	6.247	VV	371	2302	0.12%	0.003%
147	6.264	6.247	6.273	VV	663	7758	0.42%	0.011%
148	6.288	6.273	6.310	VV	1392	19750	1.06%	0.028%
149	6.346	6.310	6.383	VV	1673	43414	2.34%	0.061%
150	6.397	6.383	6.427	VV	833	13799	0.74%	0.019%
151	6.436	6.427	6.460	VV	389	6227	0.34%	0.009%
152	6.464	6.460	6.468	VV	316	1233	0.07%	0.002%
153	6.475	6.468	6.479	VV	372	1985	0.11%	0.003%
154	6.507	6.479	6.522	VV	510	9206	0.50%	0.013%
155	6.528	6.522	6.534	VV	404	2034	0.11%	0.003%
156	6.538	6.534	6.553	VV	312	2809	0.15%	0.004%
157	6.581	6.553	6.598	VV	375	7865	0.42%	0.011%
158	6.626	6.598	6.659	VV	2374	32937	1.77%	0.046%
159	6.676	6.659	6.688	VV	426	5914	0.32%	0.008%
160	6.701	6.688	6.745	VV	768	15318	0.82%	0.021%
161	6.750	6.745	6.775	VV	285	4060	0.22%	0.006%
162	6.793	6.775	6.827	VV	424	9373	0.50%	0.013%
163	6.828	6.827	6.840	VV	240	1512	0.08%	0.002%
164	6.862	6.840	6.878	VV	1457	16553	0.89%	0.023%
165	6.882	6.878	6.930	VV	488	8367	0.45%	0.012%
166	6.941	6.930	6.961	VV	301	3816	0.21%	0.005%
167	6.965	6.961	6.970	VV	153	669	0.04%	0.001%
168	6.984	6.970	6.990	VV	208	1668	0.09%	0.002%
169	6.997	6.990	7.010	VV	194	1866	0.10%	0.003%
170	7.015	7.010	7.025	VV	128	801	0.04%	0.001%
171	7.029	7.025	7.032	VV	109	263	0.01%	0.000%
172	7.048	7.032	7.061	VV	261	2838	0.15%	0.004%
173	7.066	7.061	7.085	VV	216	1865	0.10%	0.003%
174	7.089	7.085	7.094	VV	122	384	0.02%	0.001%
175	7.116	7.094	7.158	VV	245	6416	0.35%	0.009%
176	7.163	7.158	7.167	VV	169	686	0.04%	0.001%
177	7.185	7.167	7.211	VV	352	5036	0.27%	0.007%
178	7.248	7.211	7.265	VV	516	8200	0.44%	0.012%
179	7.285	7.265	7.311	VV	1239	19460	1.05%	0.027%
180	7.326	7.311	7.350	VV	674	11784	0.63%	0.017%
181	7.357	7.350	7.376	VV	383	4576	0.25%	0.006%
182	7.378	7.376	7.396	VV	261	2065	0.11%	0.003%
183	7.426	7.396	7.438	VV	471	7572	0.41%	0.011%
184	7.455	7.438	7.482	VV	1352	16551	0.89%	0.023%
185	7.485	7.482	7.503	VV	272	2156	0.12%	0.003%
186	7.512	7.503	7.524	VV	228	1731	0.09%	0.002%
187	7.529	7.524	7.551	VV	145	1290	0.07%	0.002%
188	7.565	7.551	7.584	VV	435	5103	0.27%	0.007%
189	7.605	7.584	7.628	VV	3035	33527	1.80%	0.047%
190	7.641	7.628	7.674	VV	808	11337	0.61%	0.016%
191	7.685	7.674	7.708	VV	232	3496	0.19%	0.005%
192	7.744	7.708	7.754	PV	324	5290	0.28%	0.007%
193	7.767	7.754	7.792	VV	666	11092	0.60%	0.016%
194	7.796	7.792	7.811	VV	475	4651	0.25%	0.007%

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195	7.815	7.811	7.840	VV	316	4466	0.24%	0.006%
196	7.861	7.840	7.894	VV	573	9929	0.53%	0.014%
197	7.914	7.894	7.921	VV	230	2312	0.12%	0.003%
198	7.926	7.921	7.940	VV	187	1950	0.10%	0.003%
199	7.955	7.940	8.007	VV	699	10574	0.57%	0.015%
200	8.029	8.007	8.063	VV	801	11164	0.60%	0.016%
201	8.085	8.063	8.097	VV	323	3959	0.21%	0.006%
202	8.103	8.097	8.114	VV	244	1695	0.09%	0.002%
203	8.120	8.114	8.125	VV	188	1078	0.06%	0.002%
204	8.128	8.125	8.134	VV	137	850	0.05%	0.001%
205	8.162	8.134	8.184	VV	1645	23995	1.29%	0.034%
206	8.200	8.184	8.214	VV	1254	15819	0.85%	0.022%
207	8.224	8.214	8.273	VV	689	10836	0.58%	0.015%
208	8.277	8.273	8.296	VV	106	759	0.04%	0.001%
209	8.303	8.296	8.312	VV	133	545	0.03%	0.001%
210	8.344	8.312	8.366	VV	243	4511	0.24%	0.006%
211	8.412	8.366	8.434	VV	343	9225	0.50%	0.013%
212	8.442	8.434	8.472	VV	415	5362	0.29%	0.008%
213	8.515	8.472	8.537	VV	804	15029	0.81%	0.021%
214	8.552	8.537	8.567	VV	543	7657	0.41%	0.011%
215	8.620	8.567	8.651	VV	1388	38689	2.08%	0.054%
216	8.657	8.651	8.671	VV	426	4392	0.24%	0.006%
217	8.681	8.671	8.691	VV	389	4130	0.22%	0.006%
218	8.697	8.691	8.711	VV	357	3191	0.17%	0.004%
219	8.734	8.711	8.747	VV	1592	19891	1.07%	0.028%
220	8.754	8.747	8.782	VV	1069	13904	0.75%	0.020%
221	8.788	8.782	8.816	VV	250	3373	0.18%	0.005%
222	8.821	8.816	8.832	VV	99	721	0.04%	0.001%
223	8.852	8.832	8.864	VV	451	4896	0.26%	0.007%
224	8.874	8.864	8.884	VV	436	3779	0.20%	0.005%
225	8.897	8.884	8.909	VV	388	4409	0.24%	0.006%
226	8.923	8.909	8.965	VV	774	16224	0.87%	0.023%
227	8.990	8.965	9.006	VV	532	9793	0.53%	0.014%
228	9.030	9.006	9.049	VV	975	15559	0.84%	0.022%
229	9.058	9.049	9.074	VV	467	5692	0.31%	0.008%
230	9.098	9.074	9.146	VV	1224	26750	1.44%	0.038%
231	9.162	9.146	9.197	VV	440	9639	0.52%	0.014%
232	9.231	9.197	9.263	VV	763	16094	0.87%	0.023%
233	9.280	9.263	9.294	VV	391	6457	0.35%	0.009%
234	9.307	9.294	9.328	VV	500	7365	0.40%	0.010%
235	9.354	9.328	9.411	VV	1220	29986	1.61%	0.042%
236	9.412	9.411	9.416	VV	138	320	0.02%	0.000%
237	9.450	9.416	9.474	VV	1448	21535	1.16%	0.030%
238	9.485	9.474	9.500	VV	516	6249	0.34%	0.009%
239	9.507	9.500	9.539	VV	423	6700	0.36%	0.009%
240	9.547	9.539	9.579	VV	302	3509	0.19%	0.005%
241	9.603	9.579	9.618	PV	286	3372	0.18%	0.005%
242	9.635	9.618	9.657	VV	339	5143	0.28%	0.007%
243	9.663	9.657	9.670	VV	165	918	0.05%	0.001%
244	9.696	9.670	9.732	VV	354	9942	0.54%	0.014%
245	9.737	9.732	9.764	VV	276	3525	0.19%	0.005%
246	9.781	9.764	9.806	VV	2830	34914	1.88%	0.049%

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247	9.823	9.806	9.857	VV	1233	22491	1.21%	0.032%
248	9.869	9.857	9.883	VV	315	4259	0.23%	0.006%
249	9.903	9.883	9.929	VV	518	10342	0.56%	0.015%
250	9.987	9.929	10.051	VV	1282	54038	2.91%	0.076%
251	10.067	10.051	10.074	VV	1016	11346	0.61%	0.016%
252	10.100	10.074	10.148	VV	93469	971131	52.26%	1.363%
253	10.166	10.148	10.191	VV	1324	21347	1.15%	0.030%
254	10.233	10.191	10.287	VV	1405	34739	1.87%	0.049%
255	10.291	10.287	10.295	VV	255	900	0.05%	0.001%
256	10.305	10.295	10.314	VV	257	2418	0.13%	0.003%
257	10.337	10.314	10.368	VV	631	11298	0.61%	0.016%
258	10.377	10.368	10.430	VV	278	6277	0.34%	0.009%
259	10.462	10.430	10.476	PV	215	2545	0.14%	0.004%
260	10.490	10.476	10.495	VV	177	1579	0.08%	0.002%
261	10.502	10.495	10.509	VV	164	1007	0.05%	0.001%
262	10.536	10.509	10.551	VV	510	7095	0.38%	0.010%
263	10.575	10.551	10.607	VV	10850	119680	6.44%	0.168%
264	10.619	10.607	10.641	VV	526	7718	0.42%	0.011%
265	10.680	10.641	10.739	VV	851	28733	1.55%	0.040%
266	10.787	10.739	10.803	VV	399	9506	0.51%	0.013%
267	10.819	10.803	10.839	VV	375	6132	0.33%	0.009%
268	10.876	10.839	10.889	VV	979	16458	0.89%	0.023%
269	10.905	10.889	10.917	VV	1434	17012	0.92%	0.024%
270	10.928	10.917	10.949	VV	1105	14816	0.80%	0.021%
271	10.973	10.949	10.988	VV	1472	20505	1.10%	0.029%
272	11.001	10.988	11.017	VV	2068	25578	1.38%	0.036%
273	11.032	11.017	11.057	VV	1394	24765	1.33%	0.035%
274	11.073	11.057	11.089	VV	978	14600	0.79%	0.020%
275	11.107	11.089	11.161	VV	1404	30883	1.66%	0.043%
276	11.167	11.161	11.178	VV	342	2873	0.15%	0.004%
277	11.198	11.178	11.207	VV	1043	12005	0.65%	0.017%
278	11.230	11.207	11.240	VV	13119	134053	7.21%	0.188%
279	11.251	11.240	11.287	VV	14301	184765	9.94%	0.259%
280	11.304	11.287	11.391	VV	3957	78406	4.22%	0.110%
281	11.401	11.391	11.417	VV	651	8931	0.48%	0.013%
282	11.444	11.417	11.470	VV	1002	19911	1.07%	0.028%
283	11.475	11.470	11.500	VV	412	4712	0.25%	0.007%
284	11.519	11.500	11.575	VV	1379	18360	0.99%	0.026%
285	11.609	11.575	11.629	PV	466	9162	0.49%	0.013%
286	11.647	11.629	11.662	VV	1094	15481	0.83%	0.022%
287	11.679	11.662	11.691	VV	1254	15614	0.84%	0.022%
288	11.703	11.691	11.732	VV	1246	21557	1.16%	0.030%
289	11.756	11.732	11.815	VV	2960	62327	3.35%	0.087%
290	11.838	11.815	11.854	VV	730	11262	0.61%	0.016%
291	11.874	11.854	11.900	VV	1297	17354	0.93%	0.024%
292	11.939	11.900	11.976	VV	5984	110036	5.92%	0.154%
293	11.989	11.976	12.013	VV	1240	21194	1.14%	0.030%
294	12.035	12.013	12.050	VV	1972	24520	1.32%	0.034%
295	12.067	12.050	12.096	VV	2456	36753	1.98%	0.052%
296	12.099	12.096	12.117	VV	1012	10290	0.55%	0.014%
297	12.152	12.117	12.168	VV	2345	36261	1.95%	0.051%
298	12.185	12.168	12.195	VV	1503	17446	0.94%	0.024%
299	12.213	12.195	12.245	VV	2497	38839	2.09%	0.055%

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300	12.291	12.245	12.317	VV	401	7197	0.39%	0.010%
301	12.349	12.317	12.362	PV	1172	17957	0.97%	0.025%
302	12.391	12.362	12.426	VV	3080	66293	3.57%	0.093%
303	12.445	12.426	12.492	VV	8555	135503	7.29%	0.190%
304	12.510	12.492	12.551	VV	2443	47083	2.53%	0.066%
305	12.606	12.551	12.699	VV	98534	1327306	71.43%	1.863%
306	12.713	12.699	12.751	VV	1409	35380	1.90%	0.050%
307	12.759	12.751	12.766	VV	913	7518	0.40%	0.011%
308	12.779	12.766	12.806	VV	902	16321	0.88%	0.023%
309	12.827	12.806	12.866	VV	915	21342	1.15%	0.030%
310	12.888	12.866	12.904	VV	1432	20328	1.09%	0.029%
311	12.937	12.904	12.957	VV	2225	41813	2.25%	0.059%
312	12.991	12.957	13.025	VV	2444	50752	2.73%	0.071%
313	13.054	13.025	13.104	VV	29060	370308	19.93%	0.520%
314	13.115	13.104	13.126	VV	588	6417	0.35%	0.009%
315	13.146	13.126	13.151	VV	376	4712	0.25%	0.007%
316	13.154	13.151	13.157	VV	352	1094	0.06%	0.002%
317	13.191	13.157	13.208	VV	1005	18258	0.98%	0.026%
318	13.215	13.208	13.224	VV	739	6312	0.34%	0.009%
319	13.244	13.224	13.282	VV	1857	39385	2.12%	0.055%
320	13.297	13.282	13.310	VV	736	9532	0.51%	0.013%
321	13.353	13.310	13.381	VV	23886	282651	15.21%	0.397%
322	13.407	13.381	13.426	VV	4258	64656	3.48%	0.091%
323	13.441	13.426	13.471	VV	2561	31460	1.69%	0.044%
324	13.491	13.471	13.511	VV	406	7679	0.41%	0.011%
325	13.545	13.511	13.579	VV	2556	46645	2.51%	0.065%
326	13.623	13.579	13.642	PV	3037	62582	3.37%	0.088%
327	13.677	13.642	13.714	VV	3894	114793	6.18%	0.161%
328	13.728	13.714	13.769	VV	2039	50411	2.71%	0.071%
329	13.811	13.769	13.823	VV	2315	48560	2.61%	0.068%
330	13.837	13.823	13.901	VV	8851	148426	7.99%	0.208%
331	13.943	13.901	13.974	VV	4737	85364	4.59%	0.120%
332	14.011	13.974	14.027	VV	854	17831	0.96%	0.025%
333	14.052	14.027	14.074	VV	2780	41252	2.22%	0.058%
334	14.094	14.074	14.114	VV	1781	23912	1.29%	0.034%
335	14.145	14.114	14.168	VV	4289	64094	3.45%	0.090%
336	14.198	14.168	14.208	VV	2490	38816	2.09%	0.054%
337	14.222	14.208	14.242	VV	2480	34575	1.86%	0.049%
338	14.261	14.242	14.288	VV	1436	22028	1.19%	0.031%
339	14.294	14.288	14.304	VV	323	2281	0.12%	0.003%
340	14.346	14.304	14.368	VV	833	16653	0.90%	0.023%
341	14.375	14.368	14.384	VV	385	2702	0.15%	0.004%
342	14.403	14.384	14.417	VV	697	9946	0.54%	0.014%
343	14.443	14.417	14.467	VV	1608	25919	1.39%	0.036%
344	14.479	14.467	14.496	VV	370	3555	0.19%	0.005%
345	14.532	14.496	14.537	PV	137	1249	0.07%	0.002%
346	14.587	14.537	14.612	VV	4861	81902	4.41%	0.115%
347	14.630	14.612	14.653	VV	2566	41145	2.21%	0.058%
348	14.677	14.653	14.702	VV	2575	44547	2.40%	0.063%
349	14.705	14.702	14.731	VV	515	6033	0.32%	0.008%
350	14.760	14.731	14.782	VV	2444	35954	1.93%	0.050%
351	14.789	14.782	14.808	VV	1117	13039	0.70%	0.018%

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352	14.827	14.808	14.839	VV	1684	23062	1.24%	0.032%
353	14.861	14.839	14.899	VV	3103	54722	2.94%	0.077%
354	14.924	14.899	14.946	VV	3497	46157	2.48%	0.065%
355	14.982	14.946	15.012	VV	3146	51813	2.79%	0.073%
356	15.051	15.012	15.059	VV	662	9889	0.53%	0.014%
357	15.097	15.059	15.135	VV	84360	1190312	64.05%	1.671%
358	15.152	15.135	15.167	VV	1050	15667	0.84%	0.022%
359	15.188	15.167	15.207	VV	1445	20043	1.08%	0.028%
360	15.236	15.207	15.255	VV	13308	166762	8.97%	0.234%
361	15.277	15.255	15.322	VV	15242	220149	11.85%	0.309%
362	15.345	15.322	15.365	VV	1921	28138	1.51%	0.039%
363	15.399	15.365	15.428	VV	3236	56499	3.04%	0.079%
364	15.443	15.428	15.454	VV	890	10465	0.56%	0.015%
365	15.475	15.454	15.513	VV	1355	26949	1.45%	0.038%
366	15.536	15.513	15.560	PV	1400	20862	1.12%	0.029%
367	15.581	15.560	15.631	VV	1287	26718	1.44%	0.037%
368	15.686	15.631	15.749	PV	36742	610178	32.84%	0.856%
369	15.782	15.749	15.789	VV	577	9914	0.53%	0.014%
370	15.825	15.789	15.834	VV	2791	37905	2.04%	0.053%
371	15.838	15.834	15.859	VV	2731	26445	1.42%	0.037%
372	15.898	15.859	15.933	VV	11049	192739	10.37%	0.271%
373	15.951	15.933	15.979	VV	2119	31136	1.68%	0.044%
374	15.996	15.979	16.009	VV	583	5948	0.32%	0.008%
375	16.074	16.009	16.116	PV	2075	54513	2.93%	0.077%
376	16.147	16.116	16.171	VV	1219	22610	1.22%	0.032%
377	16.207	16.171	16.229	PV	2546	38237	2.06%	0.054%
378	16.242	16.229	16.251	VV	878	9487	0.51%	0.013%
379	16.272	16.251	16.302	VV	1295	24655	1.33%	0.035%
380	16.328	16.302	16.350	VV	3349	52180	2.81%	0.073%
381	16.358	16.350	16.366	VV	993	7545	0.41%	0.011%
382	16.388	16.366	16.420	VV	2485	41355	2.23%	0.058%
383	16.426	16.420	16.431	VV	448	2615	0.14%	0.004%
384	16.454	16.431	16.471	VV	566	8748	0.47%	0.012%
385	16.478	16.471	16.482	PV	218	752	0.04%	0.001%
386	16.514	16.482	16.521	VV	1488	17513	0.94%	0.025%
387	16.524	16.521	16.551	VV	1416	15600	0.84%	0.022%
388	16.554	16.551	16.563	VV	620	3371	0.18%	0.005%
389	16.584	16.563	16.597	VV	1096	15266	0.82%	0.021%
390	16.629	16.597	16.652	VV	2219	44894	2.42%	0.063%
391	16.705	16.652	16.750	VV	23650	402144	21.64%	0.564%
392	16.801	16.750	16.856	VV	18265	374846	20.17%	0.526%
393	16.889	16.856	16.912	PV	5972	84802	4.56%	0.119%
394	16.931	16.912	16.955	VV	3378	48892	2.63%	0.069%
395	16.966	16.955	16.991	VV	1310	23296	1.25%	0.033%
396	17.006	16.991	17.016	VV	1364	15152	0.82%	0.021%
397	17.022	17.016	17.048	VV	1021	10665	0.57%	0.015%
398	17.122	17.048	17.151	PV	10575	177787	9.57%	0.250%
399	17.180	17.151	17.221	VV	14025	197995	10.65%	0.278%
400	17.244	17.221	17.253	VV	1642	19852	1.07%	0.028%
401	17.281	17.253	17.299	VV	6755	100243	5.39%	0.141%
402	17.327	17.299	17.342	VV	11884	188326	10.13%	0.264%
403	17.356	17.342	17.386	VV	10453	133352	7.18%	0.187%
404	17.432	17.386	17.451	VV	944	20839	1.12%	0.029%

					rteres			
405	17.469	17.451	17.474	PV	878	8382	0.45%	0.012%
406	17.491	17.474	17.501	VV	1219	17293	0.93%	0.024%
407	17.513	17.501	17.517	VV	1220	10717	0.58%	0.015%
408	17.546	17.517	17.572	VV	2471	58910	3.17%	0.083%
409	17.576	17.572	17.580	VV	1504	6436	0.35%	0.009%
410	17.649	17.580	17.695	VV	37773	726344	39.09%	1.019%
411	17.731	17.695	17.758	VV	15410	259190	13.95%	0.364%
412	17.769	17.758	17.787	VV	2561	35807	1.93%	0.050%
413	17.811	17.787	17.831	VV	5077	84809	4.56%	0.119%
414	17.854	17.831	17.875	VV	3412	71847	3.87%	0.101%
415	17.886	17.875	17.891	VV	2270	20906	1.13%	0.029%
416	17.910	17.891	17.932	VV	3259	57590	3.10%	0.081%
417	17.956	17.932	17.987	VV	2266	53882	2.90%	0.076%
418	18.009	17.987	18.024	VV	2169	33387	1.80%	0.047%
419	18.035	18.024	18.039	VV	2000	16547	0.89%	0.023%
420	18.058	18.039	18.062	VV	3014	32589	1.75%	0.046%
421	18.099	18.062	18.117	VV	4800	122152	6.57%	0.171%
422	18.170	18.117	18.207	VV	10504	314271	16.91%	0.441%
423	18.260	18.207	18.295	VV	14667	333724	17.96%	0.468%
424	18.320	18.295	18.339	VV	7678	146622	7.89%	0.206%
425	18.350	18.339	18.363	VV	6810	88783	4.78%	0.125%
426	18.403	18.363	18.427	VV	6605	221659	11.93%	0.311%
427	18.463	18.427	18.472	VV	6763	141639	7.62%	0.199%
428	18.496	18.472	18.509	VV	11275	199120	10.72%	0.279%
429	18.535	18.509	18.571	VV	38396	836588	45.02%	1.174%
430	18.593	18.571	18.622	VV	24267	455087	24.49%	0.639%
431	18.689	18.622	18.707	VV	12363	394578	21.23%	0.554%
432	18.717	18.707	18.744	VV	8309	161137	8.67%	0.226%
433	18.756	18.744	18.770	VV	6487	91777	4.94%	0.129%
434	18.808	18.770	18.836	VV	16673	371925	20.01%	0.522%
435	18.863	18.836	18.867	VV	7462	132353	7.12%	0.186%
436	18.892	18.867	18.921	VV	9904	267168	14.38%	0.375%
437	18.955	18.921	18.971	VV	10727	280673	15.10%	0.394%
438	19.002	18.971	19.027	VV	17317	453943	24.43%	0.637%
439	19.035	19.027	19.056	VV	11386	172635	9.29%	0.242%
440	19.067	19.056	19.074	VV	9580	103408	5.56%	0.145%
441	19.106	19.074	19.147	VV	26744	739143	39.78%	1.037%
442	19.164	19.147	19.188	VV	12523	279977	15.07%	0.393%
443	19.214	19.188	19.232	VV	13302	318714	17.15%	0.447%
444	19.246	19.232	19.252	VV	11762	126160	6.79%	0.177%
445	19.293	19.252	19.302	VV	14756	402897	21.68%	0.565%
446	19.366	19.302	19.395	VV	56665	1541821	82.97%	2.164%
447	19.413	19.395	19.446	VV	25338	626917	33.74%	0.880%
448	19.496	19.446	19.520	VV	21421	809458	43.56%	1.136%
449	19.542	19.520	19.562	VV	22753	503668	27.10%	0.707%
450	19.578	19.562	19.585	VV	17761	235006	12.65%	0.330%
451	19.606	19.585	19.610	VV	18443	265476	14.29%	0.373%
452	19.615	19.610	19.622	VV	18659	127453	6.86%	0.179%
453	19.660	19.622	19.685	VV	24292	798928	42.99%	1.121%
454	19.693	19.685	19.699	VV	21071	171152	9.21%	0.240%
455	19.705	19.699	19.742	VV	21083	490422	26.39%	0.688%
456	19.765	19.742	19.777	VV	20744	400688	21.56%	0.562%

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457	19.794	19.777	19.806	VV	20971	353918	19.05%	0.497%
458	19.813	19.806	19.818	VV	20321	136388	7.34%	0.191%
459	19.860	19.818	19.876	VV	30144	855611	46.04%	1.201%
460	19.901	19.876	19.937	VV	31115	949123	51.08%	1.332%
461	19.968	19.937	19.988	VV	26984	720092	38.75%	1.011%
462	20.036	19.988	20.060	VV	27911	1083061	58.28%	1.520%
463	20.091	20.060	20.113	VV	27731	835779	44.98%	1.173%
464	20.146	20.113	20.187	VV	38166	1424672	76.67%	2.000%
465	20.202	20.187	20.229	VV	30182	715846	38.52%	1.005%
466	20.249	20.229	20.254	VV	28495	411353	22.14%	0.577%
467	20.282	20.254	20.292	VV	28948	651974	35.09%	0.915%
468	20.316	20.292	20.321	VV	32836	529699	28.50%	0.743%
469	20.350	20.321	20.357	VV	38375	762492	41.03%	1.070%
470	20.359	20.357	20.372	VV	37198	325602	17.52%	0.457%
471	20.414	20.372	20.437	VV	38937	1421768	76.51%	1.996%
472	20.445	20.437	20.449	VV	35215	253572	13.65%	0.356%
473	20.466	20.449	20.486	VV	36892	783929	42.19%	1.100%
474	20.489	20.486	20.512	VV	35709	548710	29.53%	0.770%
475	20.529	20.512	20.534	VV	35813	457480	24.62%	0.642%
476	20.548	20.534	20.566	VV	36530	689932	37.13%	0.968%
477	20.615	20.566	20.622	VV	38778	1228781	66.13%	1.725%
478	20.652	20.622	20.667	VV	42324	1083443	58.30%	1.521%
479	20.698	20.667	20.712	VV	44067	1156797	62.25%	1.624%
480	20.720	20.712	20.754	VV	41388	971098	52.26%	1.363%
481	20.760	20.754	20.768	VV	37537	305514	16.44%	0.429%
482	20.790	20.768	20.796	VV	37562	636298	34.24%	0.893%
483	20.821	20.796	20.826	VV	37581	656063	35.31%	0.921%
484	20.834	20.826	20.839	VV	37956	292716	15.75%	0.411%
485	20.873	20.839	20.882	VV	39850	1021174	54.95%	1.433%
486	20.893	20.882	20.920	VV	41140	887635	47.77%	1.246%
487	20.935	20.920	20.943	VV	39324	532568	28.66%	0.747%
488	20.948	20.943	20.976	VV	39071	752808	40.51%	1.057%
489	21.004	20.976	21.022	VV	37471	1014345	54.59%	1.424%
490	21.026	21.022	21.040	VV	36115	365122	19.65%	0.512%
491	21.056	21.040	21.064	VV	34012	478631	25.76%	0.672%
492	21.077	21.064	21.083	VV	33924	384257	20.68%	0.539%
493	21.095	21.083	21.107	VV	33421	464440	24.99%	0.652%
494	21.118	21.107	21.142	VV	33555	705571	37.97%	0.990%
495	21.158	21.142	21.164	VV	32719	426804	22.97%	0.599%
496	21.201	21.164	21.262	VV	33825	1858267	100.00%	2.608%
497	21.286	21.262	21.295	VV	29147	567264	30.53%	0.796%
498	21.302	21.295	21.336	VV	29553	668651	35.98%	0.938%
499	21.344	21.336	21.354	VV	26641	279038	15.02%	0.392%
500	21.361	21.354	21.367	VV	25609	208353	11.21%	0.292%
501	21.389	21.367	21.421	VV	26609	824901	44.39%	1.158%
502	21.425	21.421	21.429	VV	24464	112558	6.06%	0.158%
503	21.439	21.429	21.463	VV	25314	498669	26.84%	0.700%
504	21.471	21.463	21.477	VV	23474	195144	10.50%	0.274%
505	21.496	21.477	21.501	VV	25465	344596	18.54%	0.484%
506	21.506	21.501	21.532	VV	25588	468545	25.21%	0.658%
507	21.551	21.532	21.579	VV	25489	662730	35.66%	0.930%
508	21.585	21.579	21.593	VV	21890	183205	9.86%	0.257%
509	21.603	21.593	21.664	VV	22268	828773	44.60%	1.163%

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510	21.674	21.664	21.694	VV	16670	282212	15.19%	0.396%
511	21.758	21.694	21.766	VV	19454	724212	38.97%	1.016%
512	21.771	21.766	21.785	VV	18835	210111	11.31%	0.295%
513	21.791	21.785	21.817	VV	17889	321822	17.32%	0.452%
514	21.822	21.817	21.828	VV	15926	101793	5.48%	0.143%
515	21.834	21.828	21.838	VV	15579	85962	4.63%	0.121%
516	21.843	21.838	21.851	VV	15686	121408	6.53%	0.170%
517	21.866	21.851	21.870	VV	15766	182276	9.81%	0.256%
518	21.876	21.870	21.888	VV	15751	162171	8.73%	0.228%
519	21.896	21.888	21.901	VV	15405	113239	6.09%	0.159%
520	21.906	21.901	21.922	VV	15157	180596	9.72%	0.253%
521	21.937	21.922	21.944	VV	14564	194297	10.46%	0.273%
522	21.950	21.944	21.963	VV	14838	156809	8.44%	0.220%
523	21.968	21.963	21.976	VV	13811	103962	5.59%	0.146%
524	21.994	21.976	22.009	VV	13852	259340	13.96%	0.364%
525	22.016	22.009	22.032	VV	11614	140679	7.57%	0.197%
526	22.039	22.032	22.067	VV	8611	160834	8.66%	0.226%
527	22.079	22.067	22.086	VV	7530	78451	4.22%	0.110%
528	22.105	22.086	22.111	VV	7433	107310	5.77%	0.151%
529	22.118	22.111	22.128	VV	7912	77197	4.15%	0.108%
530	22.137	22.128	22.145	VV	8339	81605	4.39%	0.115%
531	22.166	22.145	22.171	VV	9748	140392	7.56%	0.197%
532	22.178	22.171	22.204	VV	9656	169526	9.12%	0.238%
533	22.208	22.204	22.245	VV	7150	149547	8.05%	0.210%
534	22.270	22.245	22.309	VV	7154	225041	12.11%	0.316%
535	22.319	22.309	22.344	VV	4697	82230	4.43%	0.115%
536	22.349	22.344	22.357	VV	2792	18226	0.98%	0.026%
537	22.365	22.357	22.377	VV	2179	20943	1.13%	0.029%
538	22.391	22.377	22.397	VV	2002	20804	1.12%	0.029%
539	22.403	22.397	22.408	VV	1588	8362	0.45%	0.012%
540	22.422	22.408	22.442	VV	1926	21973	1.18%	0.031%

Sum of corrected areas: 71248336

FF071025.M Fri Jul 11 03:40:56 2025



CALIBRATION SUMMARY

TPH GC INITIAL CALIBRATION SUMMARY

Lab Name: Alliance

Contract: SCIA01

ProjectID: 98 Morse Ave Nutley

Lab Code: ACE

SDG No.: Q2504

Calibration Sequence : FF071025		Test : TPH GC	
Concentration (PPM)	Area Count	Reference Factor	File ID
1700	164684190	96873	FF016130.D
850	89059595	104776	FF016131.D
340	36559731	107529	FF016132.D
170	19906477	117097	FF016133.D
85	9088990	106929	FF016134.D
AVG RF : 106641		% RSD : 6.78	AVG RT : 15.1002

TPH GC INITIAL CALIBRATION SUMMARY

Lab Name: Alliance

Contract: SCIA01

ProjectID: 98 Morse Ave Nutley

Lab Code: ACE

SDG No.: Q2504

Calibration Sequence : FG070925		Test : TPH GC	
Concentration (PPM)	Area Count	Reference Factor	File ID
1700	164717398	96893	FG016264.D
850	83171210	97848	FG016265.D
340	35101863	103241	FG016266.D
170	18639349	109643	FG016267.D
85	9352448	110029	FG016268.D
AVG RF : 103531		% RSD : 6.032	AVG RT : 15.201

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: SCIA01
ProjectID: 98 Morse Ave Nutley
Lab Code: ACE SDG No.: Q2504
DataFile: FF016137.D Analyst Name: YP\AJ Analyst Date: 07-10-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	80684234	94923	106641	10.988

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
 Data File : FF016137.D
 Signal(s) : FID2B.ch
 Acq On : 10 Jul 2025 15:12
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 31 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Jul 10 15:21:42 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
 Quant Title :
 QLast Update : Thu Jul 10 12:51:11 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...	15.100	4476503	45.972 ug/ml
Target Compounds			
1) N-OCTANE	2.072	5600933	44.903 ug/ml
2) N-DECANE	4.615	5504135	44.226 ug/ml
3) N-DODECANE	6.792	5375794	44.116 ug/ml
4) N-TETRADECANE	8.627	5301276	44.096 ug/ml
5) N-HEXADECANE	10.236	5198169	44.687 ug/ml
6) N-OCTADECANE	11.683	5248847	45.168 ug/ml
7) N-EICOSANE	12.997	5332189	45.593 ug/ml
8) N-DOCOSANE	14.197	5149455	45.926 ug/ml
10) N-TETRACOSANE	15.304	5098979	45.974 ug/ml
11) N-HEXACOSANE	16.330	4935128	45.961 ug/ml
12) N-OCTACOSANE	17.281	4933660	45.880 ug/ml
13) N-TRIACONTANE	18.172	4922480	45.448 ug/ml
14) N-DOTRIACONTANE	19.008	4728411	45.091 ug/ml
15) N-TETRATRIACONTANE	19.795	4256379	44.366 ug/ml
16) N-HEXATRIACONTANE	20.536	3468512	41.578 ug/ml
17) N-OCTATRIACONTANE	21.302	2970700	40.338 ug/ml
18) N-TETRACONTANE	22.267	2659187	39.095 ug/ml

(f)=RT Delta > 1/2 Window

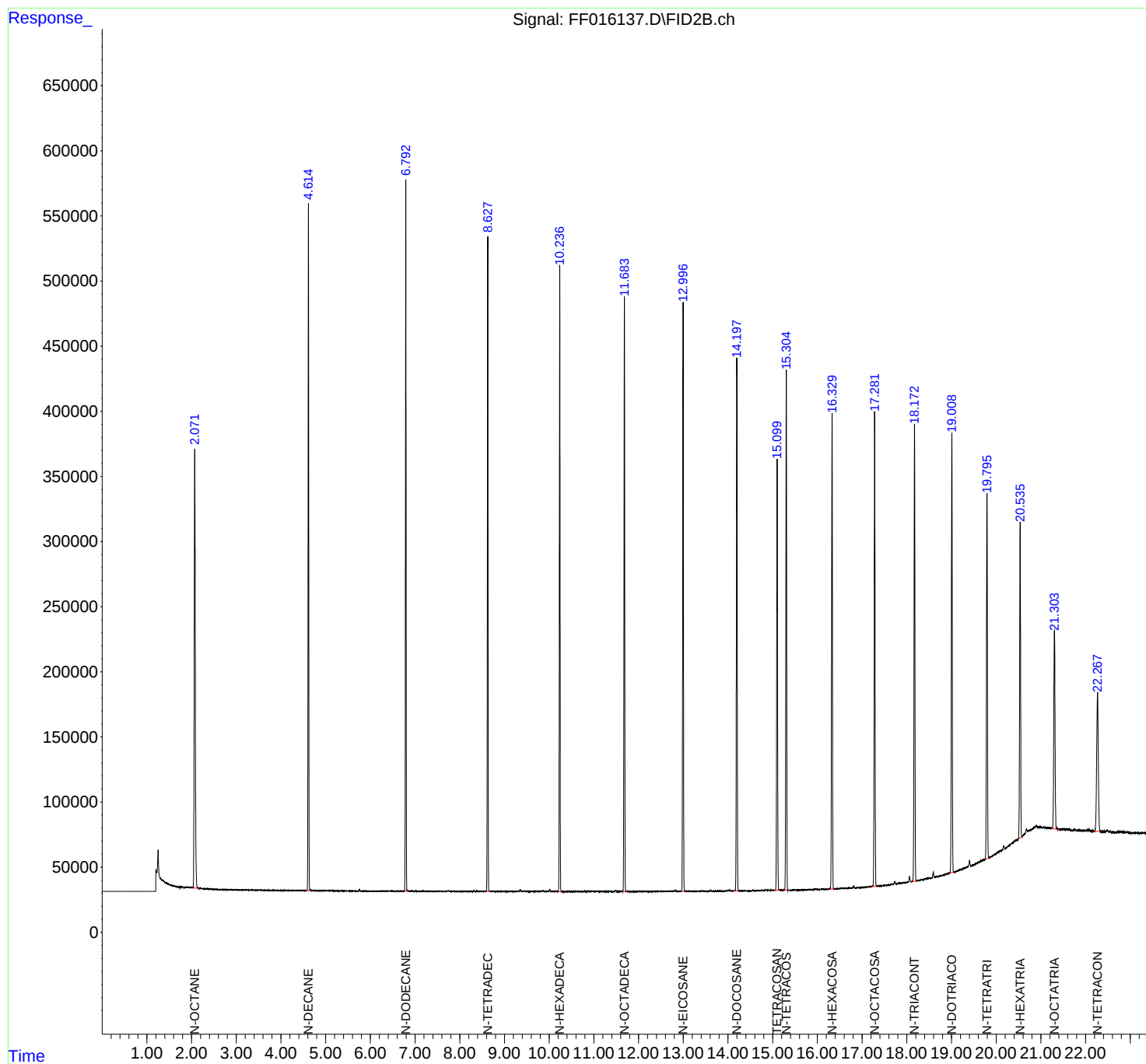
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
Data File : FF016137.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 15:12
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 31 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jul 10 15:21:42 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 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\FF071025\
Data File : FF016137.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 15:12
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.072	2.032	2.169	VB	336931	5600933	100.00%	6.577%
2	4.615	4.574	4.674	BB	526909	5504135	98.27%	6.463%
3	6.792	6.757	6.847	BB	546179	5375794	95.98%	6.313%
4	8.627	8.584	8.679	BB	504282	5301276	94.65%	6.225%
5	10.236	10.201	10.286	BB	480815	5198169	92.81%	6.104%
6	11.683	11.644	11.737	BB	455452	5248847	93.71%	6.163%
7	12.997	12.957	13.044	BB	453636	5332189	95.20%	6.261%
8	14.197	14.122	14.236	BB	408726	5149455	91.94%	6.047%
9	15.100	15.039	15.167	BV	331001	4476503	79.92%	5.257%
10	15.304	15.241	15.349	BB	399961	5098979	91.04%	5.987%
11	16.330	16.264	16.376	BB	365115	4935128	88.11%	5.795%
12	17.281	17.201	17.336	BB	363136	4933660	88.09%	5.793%
13	18.172	18.099	18.217	BV	351038	4922480	87.89%	5.780%
14	19.008	18.951	19.054	BB	336629	4728411	84.42%	5.552%
15	19.795	19.751	19.851	BB	279519	4256379	75.99%	4.998%
16	20.536	20.481	20.572	BV	242278	3468512	61.93%	4.073%
17	21.302	21.229	21.414	BB	151846	2970700	53.04%	3.488%
18	22.267	22.179	22.340	BBA	106676	2659187	47.48%	3.123%
Sum of corrected areas:							85160736	

FF071025.M Fri Jul 11 03:28:33 2025

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: SCIA01
ProjectID: 98 Morse Ave Nutley
Lab Code: ACE SDG No.: Q2504
DataFile: FF016145.D Analyst Name: YP\AJ Analyst Date: 07-10-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	99480292	117036	106641	9.748

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
 Data File : FF016145.D
 Signal(s) : FID2B.ch
 Acq On : 10 Jul 2025 20:11
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Jul 11 03:15:19 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
 Quant Title :
 QLast Update : Thu Jul 10 12:51:11 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...	15.099	5207912	53.483 ug/ml
Target Compounds			
1) N-OCTANE	2.067	6785547	54.400 ug/ml
2) N-DECANE	4.614	7042755	56.589 ug/ml
3) N-DODECANE	6.793	6980159	57.282 ug/ml
4) N-TETRADECANE	8.627	6761123	56.239 ug/ml
5) N-HEXADECANE	10.236	6549222	56.302 ug/ml
6) N-OCTADECANE	11.683	6461155	55.600 ug/ml
7) N-EICOSANE	12.996	6311078	53.963 ug/ml
8) N-DOCOSANE	14.198	6033303	53.809 ug/ml
10) N-TETRACOSANE	15.305	5960941	53.746 ug/ml
11) N-HEXACOSANE	16.328	5878610	54.748 ug/ml
12) N-OCTACOSANE	17.283	5791434	53.857 ug/ml
13) N-TRIACONTANE	18.173	5843543	53.952 ug/ml
14) N-DOTRIACONTANE	19.008	5672157	54.091 ug/ml
15) N-TETRATRIACONTANE	19.795	5102878	53.189 ug/ml
16) N-HEXATRIACONTANE	20.536	4438561	53.206 ug/ml
17) N-OCTATRIACONTANE	21.305	4001940	54.340 ug/ml
18) N-TETRACONTANE	22.267	3865886	56.836 ug/ml

(f)=RT Delta > 1/2 Window

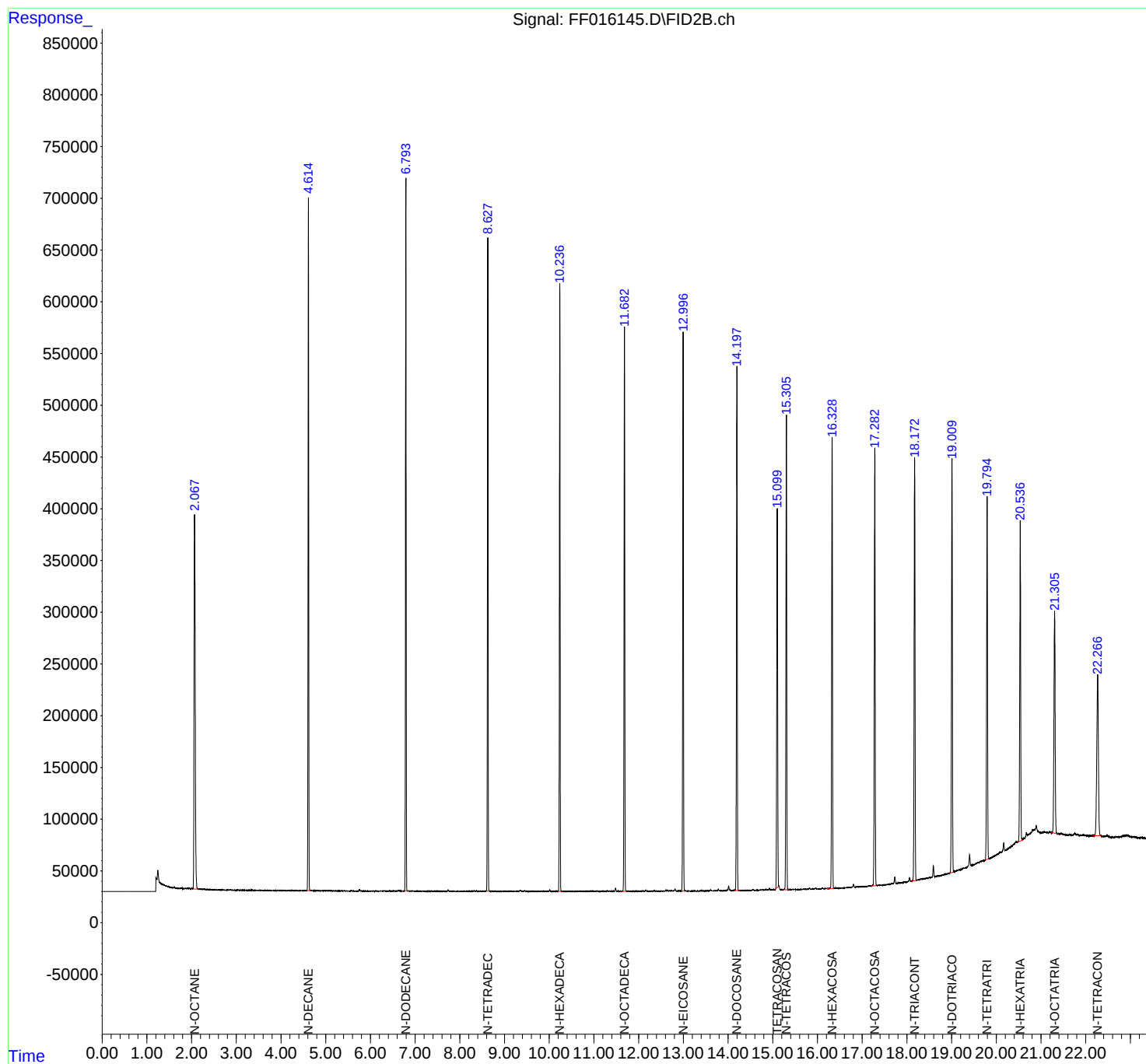
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
Data File : FF016145.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 20:11
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jul 11 03:15:19 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 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\FF071025\
Data File : FF016145.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 20:11
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.067	2.032	2.154	BB	361847	6785547	96.35%	6.482%
2	4.614	4.574	4.672	BB	670096	7042755	100.00%	6.727%
3	6.793	6.757	6.842	BB	688729	6980159	99.11%	6.668%
4	8.627	8.590	8.672	BB	632095	6761123	96.00%	6.458%
5	10.236	10.197	10.289	BB	584290	6549222	92.99%	6.256%
6	11.683	11.585	11.734	BB	544535	6461155	91.74%	6.172%
7	12.996	12.954	13.045	BB	540631	6311078	89.61%	6.028%
8	14.198	14.160	14.244	VB	507205	6033303	85.67%	5.763%
9	15.099	15.037	15.132	BV	366046	5207912	73.95%	4.975%
10	15.305	15.214	15.364	BB	459220	5960941	84.64%	5.694%
11	16.328	16.212	16.372	BB	435448	5878610	83.47%	5.615%
12	17.283	17.200	17.318	BB	423642	5791434	82.23%	5.532%
13	18.173	18.094	18.211	PV	408016	5843543	82.97%	5.582%
14	19.008	18.950	19.052	BV	399951	5672157	80.54%	5.418%
15	19.795	19.750	19.834	BV	349941	5102878	72.46%	4.874%
16	20.536	20.480	20.582	BV	308116	4438561	63.02%	4.240%
17	21.305	21.220	21.394	BB	214746	4001940	56.82%	3.823%
18	22.267	22.160	22.340	BBA	155313	3865886	54.89%	3.693%
Sum of corrected areas:						104688205		

FF071025.M Fri Jul 11 03:29:44 2025

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: SCIA01
ProjectID: 98 Morse Ave Nutley
Lab Code: ACE SDG No.: Q2504
DataFile: FG016272.D Analyst Name: YP\AJ Analyst Date: 07-10-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	98219150	115552	103531	11.611

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
 Data File : FG016272.D
 Signal(s) : FID1A.ch
 Acq On : 10 Jul 2025 12:44
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 3 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Jul 11 04:13:38 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
 Quant Title :
 QLast Update : Wed Jul 09 12:46:24 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...	15.201	5662704	56.635 ug/ml
Target Compounds			
1) N-OCTANE	2.122	6045410	53.536 ug/ml
2) N-DECANE	4.670	6312590	54.809 ug/ml
3) N-DODECANE	6.853	6429401	55.454 ug/ml
4) N-TETRADECANE	8.694	6459611	54.727 ug/ml
5) N-HEXADECANE	10.313	6502514	56.218 ug/ml
6) N-OCTADECANE	11.767	6634538	56.522 ug/ml
7) N-EICOSANE	13.088	6652231	55.606 ug/ml
8) N-DOCOSANE	14.294	6442817	55.908 ug/ml
10) N-TETRACOSANE	15.406	6377951	55.823 ug/ml
11) N-HEXACOSANE	16.434	6252906	56.824 ug/ml
12) N-OCTACOSANE	17.390	6086870	55.972 ug/ml
13) N-TRIACONTANE	18.283	6026952	56.400 ug/ml
14) N-DOTRIACONTANE	19.121	5718485	56.551 ug/ml
15) N-TETRATRIACONTANE	19.908	5046325	55.462 ug/ml
16) N-HEXATRIACONTANE	20.651	4214901	55.968 ug/ml
17) N-OCTATRIACONTANE	21.441	3670360	56.396 ug/ml
18) N-TETRACONTANE	22.441	3345288	58.043 ug/ml

(f)=RT Delta > 1/2 Window

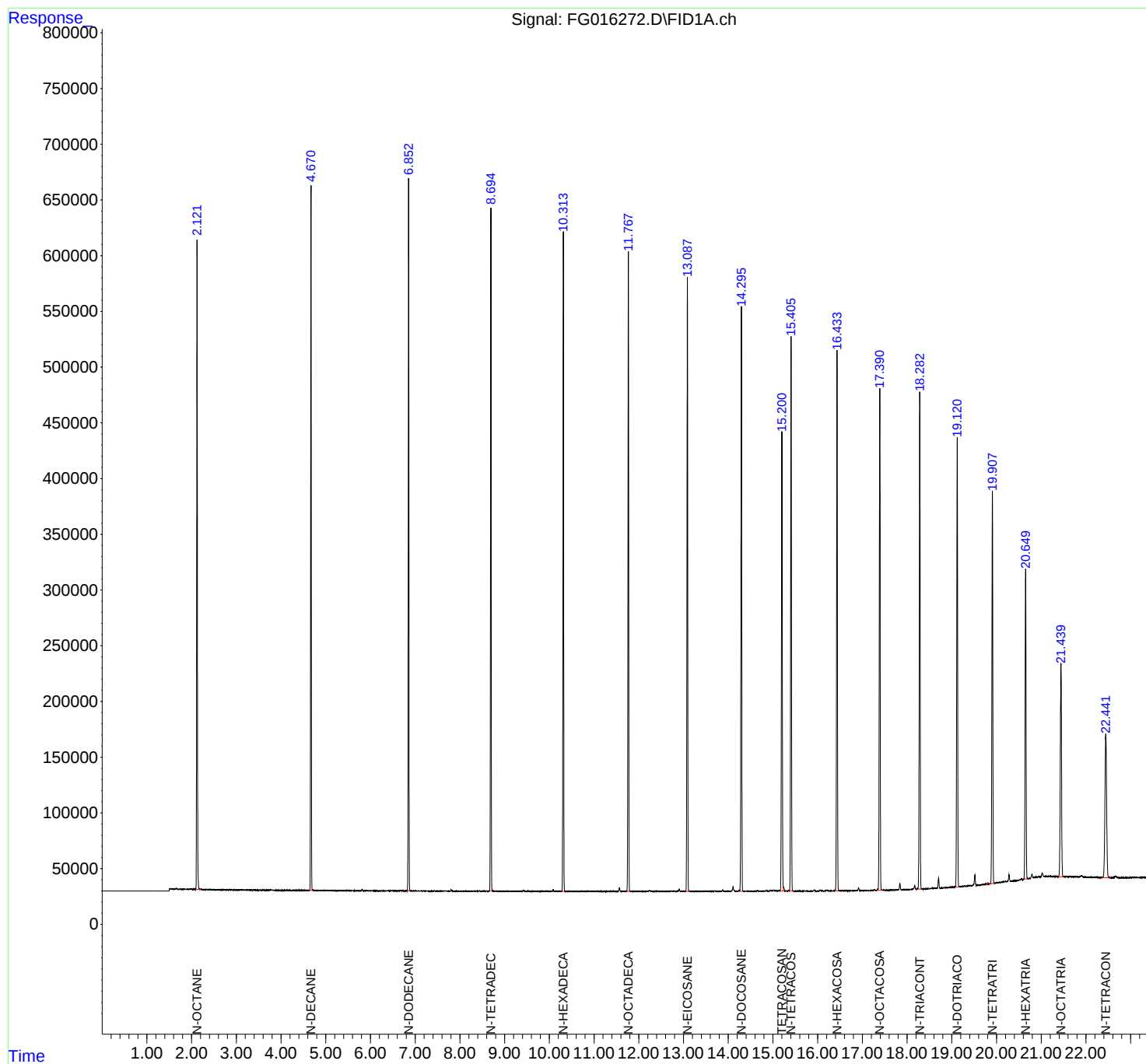
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016272.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 12:44
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jul 11 04:13:38 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Quant Title :
QLast Update : Wed Jul 09 12:46:24 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016272.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 12:44
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 3 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.122	2.085	2.202	BB	583226	6045410	90.88%	5.820%
2	4.670	4.629	4.724	BB	632179	6312590	94.89%	6.077%
3	6.853	6.815	6.892	BB	639272	6429401	96.65%	6.189%
4	8.694	8.655	8.734	BB	611795	6459611	97.10%	6.218%
5	10.313	10.264	10.360	BB	592703	6502514	97.75%	6.260%
6	11.767	11.716	11.822	BB	573775	6634538	99.73%	6.387%
7	13.088	13.040	13.150	BB	551330	6652231	100.00%	6.404%
8	14.294	14.256	14.342	VB	521454	6442817	96.85%	6.202%
9	15.201	15.155	15.233	BV	411364	5662704	85.12%	5.451%
10	15.406	15.330	15.460	BB	495961	6377951	95.88%	6.140%
11	16.434	16.373	16.491	BB	483607	6252906	94.00%	6.019%
12	17.390	17.313	17.451	BB	448755	6086870	91.50%	5.859%
13	18.283	18.210	18.339	BB	445200	6026952	90.60%	5.802%
14	19.121	19.057	19.178	BB	402553	5718485	85.96%	5.505%
15	19.908	19.790	19.950	PB	351710	5046325	75.86%	4.858%
16	20.651	20.600	20.695	BB	276917	4214901	63.36%	4.057%
17	21.441	21.370	21.516	BB	190300	3670360	55.17%	3.533%
18	22.441	22.352	22.556	BB	128779	3345288	50.29%	3.220%
Sum of corrected areas:						103881853		

FG070925.M Fri Jul 11 04:49:22 2025

TPH GC CONTINUING CALIBRATION SUMMARY

50 PPM TRPH STD

Lab Name: Alliane Contract: SCIA01
ProjectID: 98 Morse Ave Nutley
Lab Code: ACE SDG No.: Q2504
DataFile: FG016281.D Analyst Name: YP\AJ Analyst Date: 07-10-2025

Conc. (PPM)	Area Count	RF	Average RF	%D
850	80120065	94259	103531	8.956

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
 Data File : FG016281.D
 Signal(s) : FID1A.ch
 Acq On : 10 Jul 2025 18:41
 Operator : YP\AJ
 Sample : 50 PPM TRPH STD
 Misc :
 ALS Vial : 31 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 50 PPM TRPH STD

Integration File: autoint1.e
 Quant Time: Jul 11 04:15:29 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
 Quant Title :
 QLast Update : Wed Jul 09 12:46:24 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...	15.210	4556753	45.574 ug/ml
Target Compounds			
1) N-OCTANE	2.125	5038476	44.619 ug/ml
2) N-DECANE	4.675	5182339	44.996 ug/ml
3) N-DODECANE	6.858	5241097	45.205 ug/ml
4) N-TETRADECANE	8.700	5280313	44.736 ug/ml
5) N-HEXADECANE	10.319	5254815	45.431 ug/ml
6) N-OCTADECANE	11.774	5350508	45.583 ug/ml
7) N-EICOSANE	13.096	5455724	45.604 ug/ml
8) N-DOCOSANE	14.304	5262067	45.662 ug/ml
10) N-TETRACOSANE	15.417	5189250	45.419 ug/ml
11) N-HEXACOSANE	16.445	4975914	45.219 ug/ml
12) N-OCTACOSANE	17.400	5005735	46.030 ug/mlm
13) N-TRIACONTANE	18.295	4940798	46.236 ug/ml
14) N-DOTRIACONTANE	19.134	4664192	46.125 ug/ml
15) N-TETRATRIACONTANE	19.923	4148407	45.593 ug/ml
16) N-HEXATRIACONTANE	20.665	3553557	47.186 ug/ml
17) N-OCTATRIACONTANE	21.460	3053518	46.918 ug/ml
18) N-TETRACONTANE	22.472	2523355	43.782 ug/ml

(f)=RT Delta > 1/2 Window

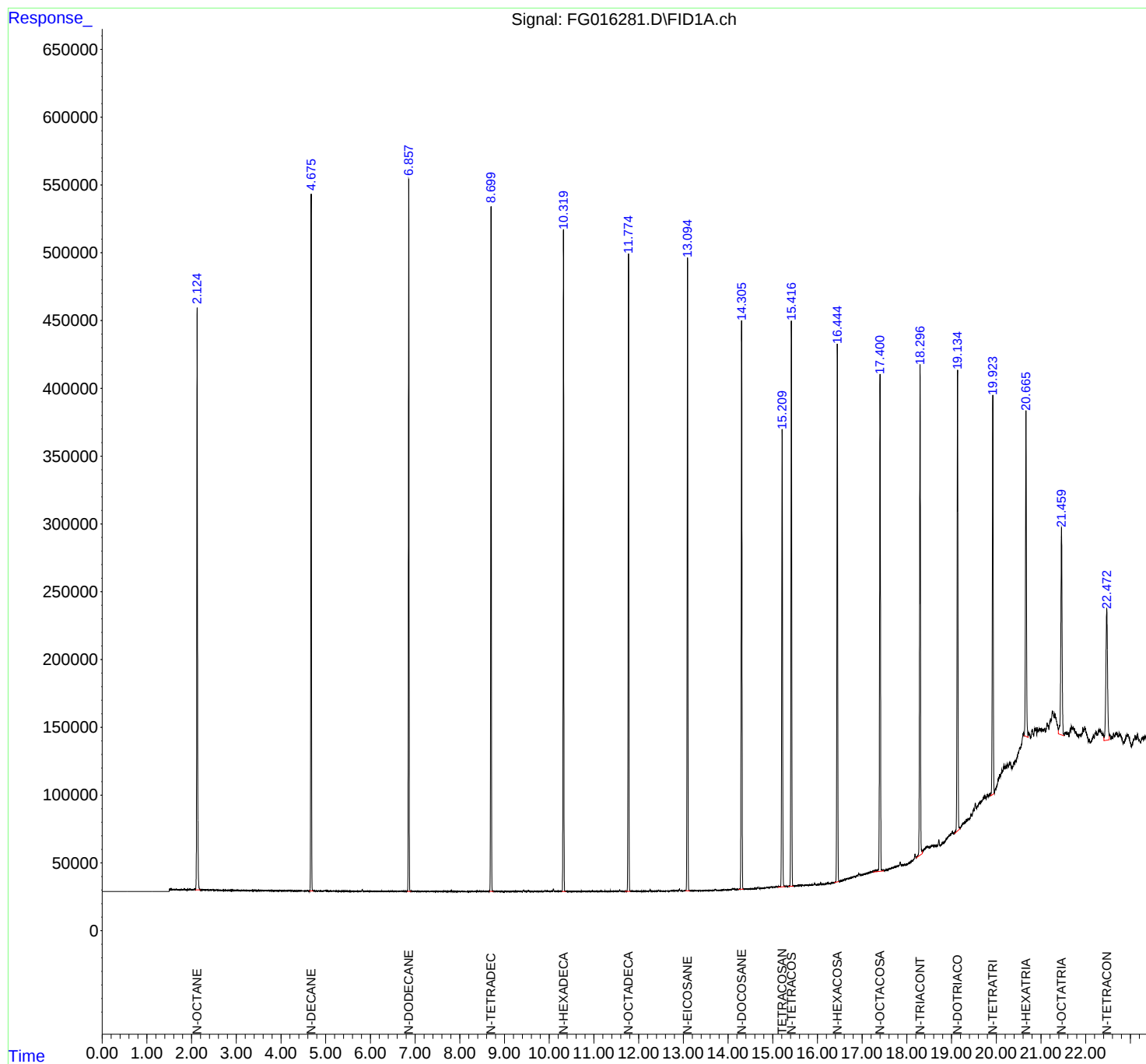
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016281.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 18:41
Operator : YP\AJ
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 31 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
50 PPM TRPH STD

Integration File: autoint1.e
Quant Time: Jul 11 04:15:29 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Quant Title :
QLast Update : Wed Jul 09 12:46:24 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016281.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 18:41
Sample : 50 PPM TRPH STD
Misc :
ALS Vial : 31 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.125	2.085	2.201	VB	429265	5038476	92.35%	5.948%
2	4.675	4.633	4.723	BB	513111	5182339	94.99%	6.117%
3	6.858	6.823	6.910	BB	523302	5241097	96.07%	6.187%
4	8.700	8.661	8.757	BB	503968	5280313	96.78%	6.233%
5	10.319	10.283	10.375	BB	487720	5254815	96.32%	6.203%
6	11.774	11.693	11.818	BB	470199	5350508	98.07%	6.316%
7	13.096	13.045	13.148	BB	465486	5455724	100.00%	6.440%
8	14.304	14.236	14.348	BB	416357	5262067	96.45%	6.212%
9	15.210	15.112	15.286	BB	336911	4556753	83.52%	5.379%
10	15.417	15.344	15.465	BB	416690	5189250	95.12%	6.126%
11	16.445	16.378	16.483	BB	393891	4975914	91.21%	5.874%
12	17.401	16.990	17.464	BB	361713	5043524	92.44%	5.954%
13	18.295	18.208	18.345	PV	361499	4940798	90.56%	5.832%
14	19.134	19.063	19.197	PV	338051	4664192	85.49%	5.506%
15	19.923	19.881	19.957	VV	294004	4148407	76.04%	4.897%
16	20.665	20.620	20.711	PV	239883	3553557	65.13%	4.195%
17	21.460	21.389	21.520	VV	151753	3053518	55.97%	3.604%
18	22.472	22.408	22.528	VV	96779	2523355	46.25%	2.979%
Sum of corrected areas:							84714607	

FG070925.M Fri Jul 11 04:52:36 2025

Analytical Sequence

Client: Sciacca General Contractors, LLC

SDG No.: Q2504

Project: 98 Morse Ave Nutley

Instrument ID: FID_G

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

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

MEAN SUROGATE RT FROM INITIAL CALIBRATION 15.1002					
CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
PIBLK01	LBLK01	10 Jul 2025 13:43	FF016136.D	15.097	
50 PPM TRPH STD	50 PPM TRPH STD	10 Jul 2025 15:12	FF016137.D	15.100	
PIT#4MS	Q2473-04MS	10 Jul 2025 16:42	FF016140.D	15.045	
PIT#4MSD	Q2473-04MSD	10 Jul 2025 17:12	FF016141.D	15.046	
WASTE	Q2504-01	10 Jul 2025 18:12	FF016143.D	15.051	
PIBLK02	LBLK02	10 Jul 2025 18:41	FF016144.D	15.098	
50 PPM TRPH STD	50 PPM TRPH STD	10 Jul 2025 20:11	FF016145.D	15.099	
PIBLK03	LBLK03	10 Jul 2025 10:45	FG016271.D	15.198	
50 PPM TRPH STD	50 PPM TRPH STD	10 Jul 2025 12:44	FG016272.D	15.201	
PB168785BL	PB168785BL	10 Jul 2025 13:43	FG016274.D	15.197	
PB168785BS	PB168785BS	10 Jul 2025 14:13	FG016275.D	15.197	
PIBLK04	LBLK04	10 Jul 2025 17:12	FG016280.D	15.211	
50 PPM TRPH STD	50 PPM TRPH STD	10 Jul 2025 18:41	FG016281.D	15.210	



QC SAMPLE DATA

Report of Analysis

Client:	Sciacca General Contractors, LLC		Date Collected:		
Project:	98 Morse Ave Nutley		Date Received:		
Client Sample ID:	PB168785BL		SDG No.:	Q2504	
Lab Sample ID:	PB168785BL		Matrix:	SOIL	
Analytical Method:	8015D TPH		% Solid:	100	Decanted:
Sample Wt/Vol:	30.02	Units: g	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	TPH GC	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016274.D	1	07/10/25 09:00	07/10/25 13:43	PB168785

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	18.5		37 - 130	93%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016274.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 13:43
Operator : YP\AJ
Sample : PB168785BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB168785BL

Integration File: autoint1.e
Quant Time: Jul 11 04:14:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Quant Title :
QLast Update : Wed Jul 09 12:46:24 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...	15.197	1852718	18.530 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

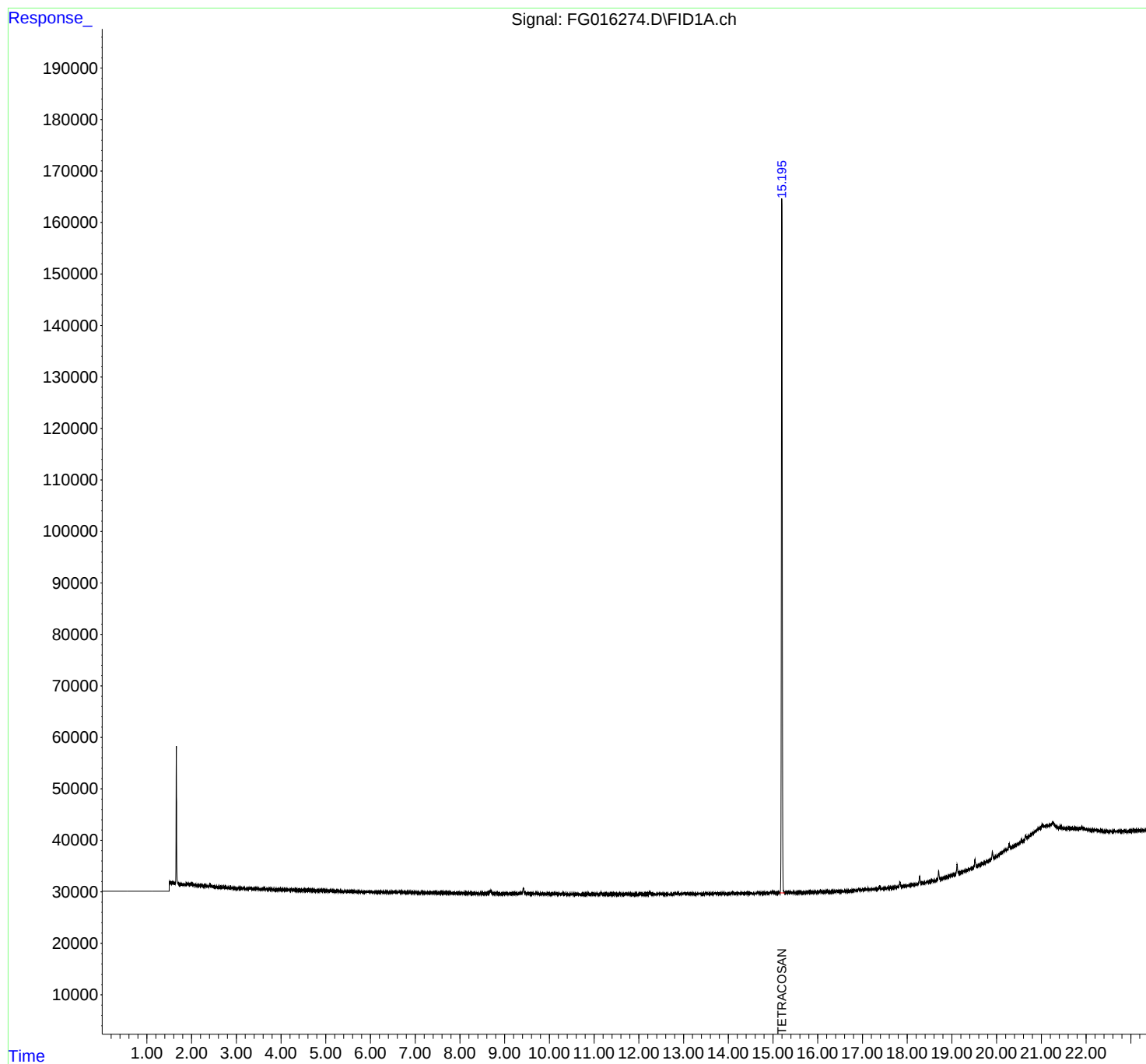
(m)=manual int.

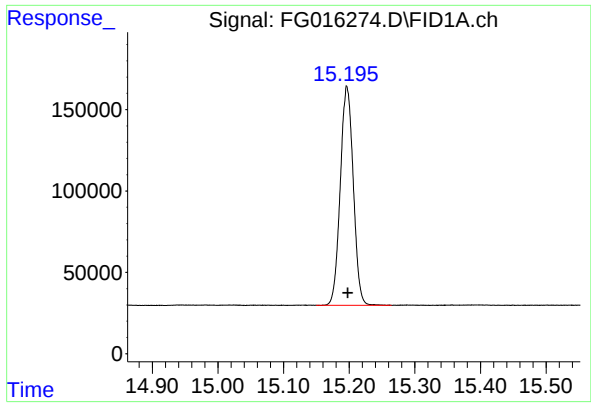
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016274.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 13:43
Operator : YP\AJ
Sample : PB168785BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB168785BL

Integration File: autoint1.e
Quant Time: Jul 11 04:14:02 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Quant Title :
QLast Update : Wed Jul 09 12:46:24 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.: 15.197 min
Delta R.T.: 0.000 min
Response: 1852718
Conc: 18.53 ug/ml

Instrument :
FID_G
ClientSampleId :
PB168785BL

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016274.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 13:43
Sample : PB168785BL
Misc :
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.197	15.150	15.265	BB	134432	1852718	100.00%	100.000%
Sum of corrected areas:						1852718		

FG070925.M Fri Jul 11 04:50:04 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC		Date Collected:	07/10/25	
Project:	98 Morse Ave Nutley		Date Received:	07/10/25	
Client Sample ID:	PIBLK-FF016136.D		SDG No.:	Q2504	
Lab Sample ID:	I.BLK-FF016136.D		Matrix:	Water	
Analytical Method:	8015D TPH		% Solid:	0	Decanted:
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
FF016136.D	1		07/10/25	FF071025

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	20.2		29 - 130	101%	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\FF071025\
Data File : FF016136.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 13:43
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: Jul 10 13:56:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 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...	15.097	1966887	20.199 ug/ml

Target Compounds

(f)=RT Delta > 1/2 Window

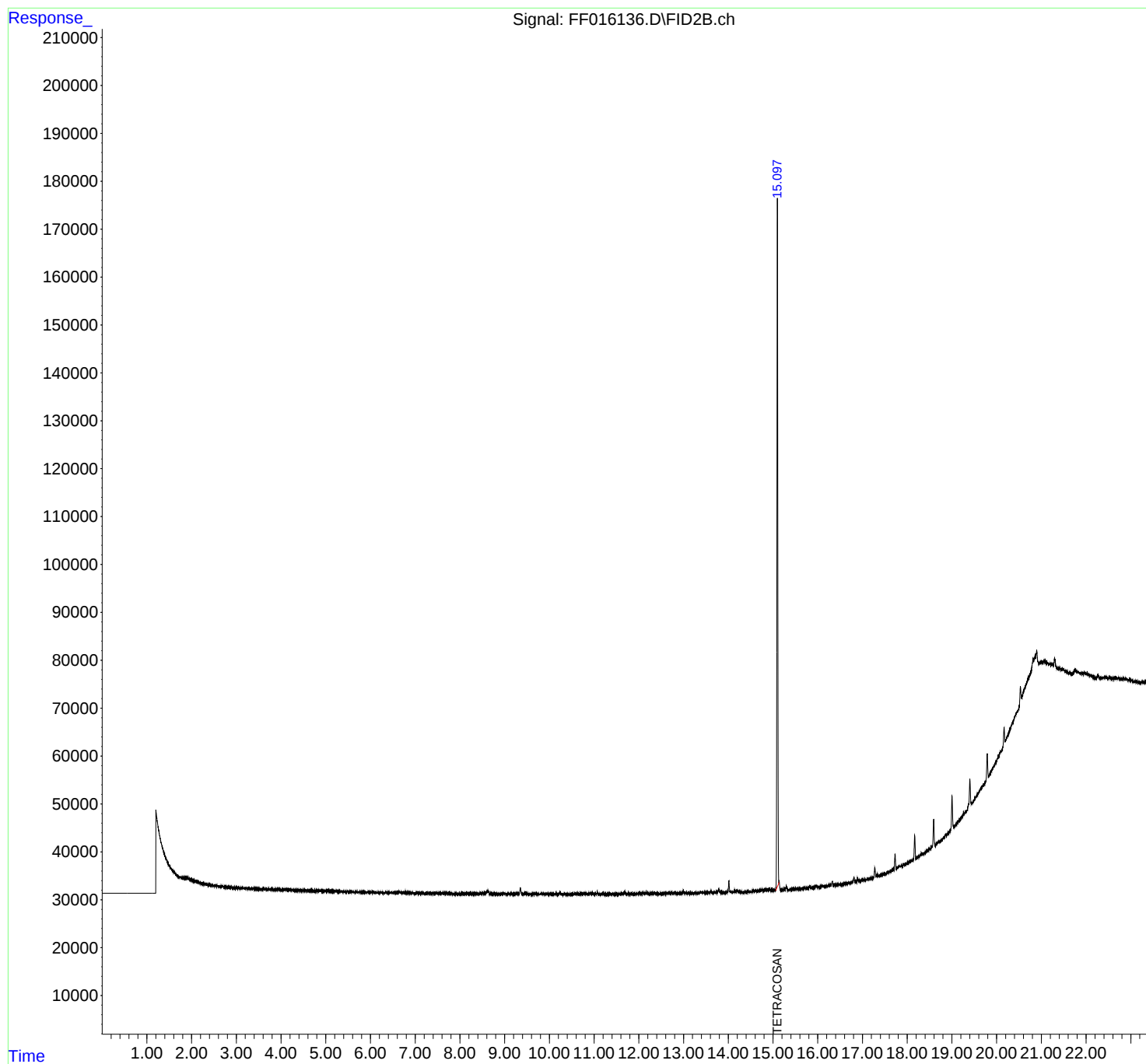
(m)=manual int.

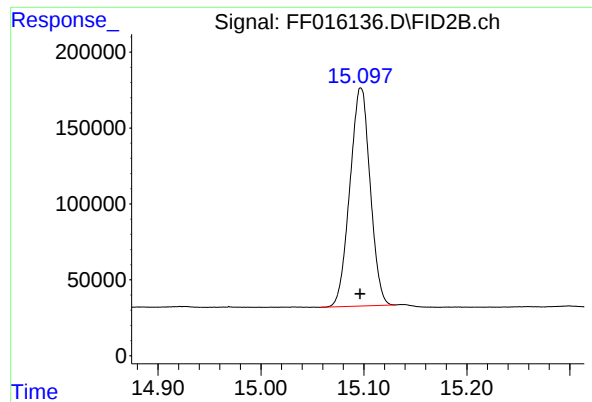
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
Data File : FF016136.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 13:43
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jul 10 13:56:20 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 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.: 15.097 min
Delta R.T.: 0.000 min
Response: 1966887
Conc: 20.20 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
Data File : FF016136.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 13:43
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.097	15.057	15.131	BV	143579	1966887	100.00%	100.000%
Sum of corrected areas:						1966887		

FF071025.M Fri Jul 11 03:28:08 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	07/10/25
Project:	98 Morse Ave Nutley	Date Received:	07/10/25
Client Sample ID:	PIBLK-FF016144.D	SDG No.:	Q2504
Lab Sample ID:	I.BLK-FF016144.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	TPH GC
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF016144.D	1		07/10/25	FF071025

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	21.3		29 - 130	107%	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\FF071025\
Data File : FF016144.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 18:41
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

Instrument :
FID_F
ClientSampleId :
I.BLK

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 07/11/2025
Supervised By :mohammad ahmed 07/11/2025

Integration File: autoint1.e
Quant Time: Jul 11 02:58:55 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 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...	15.097	2077417	21.334 ug/mlm
Target Compounds			

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
Data File : FF016144.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 18:41
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 52 Sample Multiplier: 1

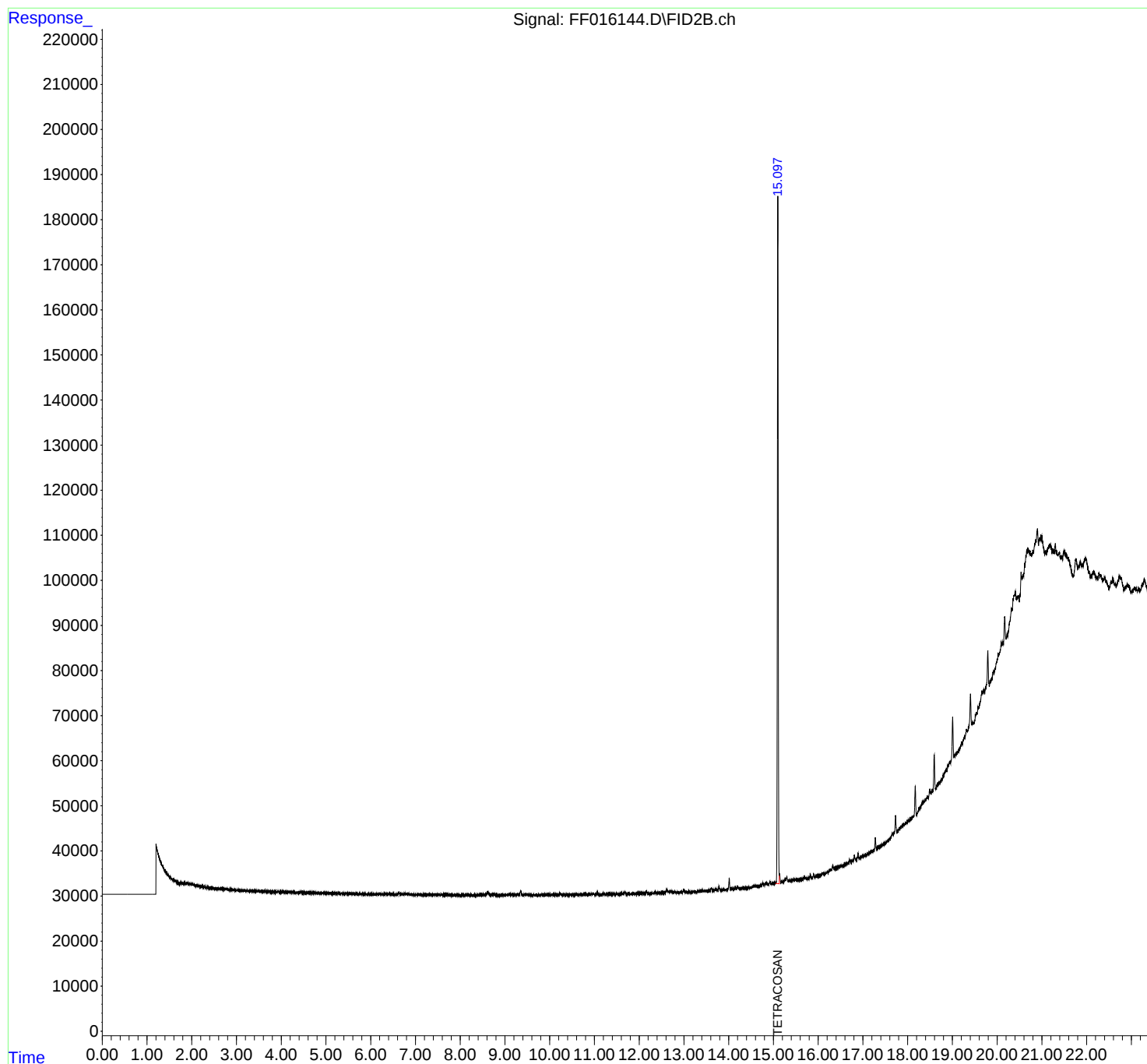
Instrument :
FID_F
ClientSampleId :
I.BLK

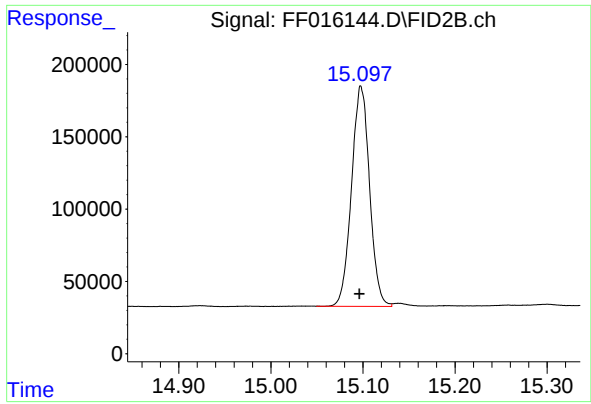
Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 07/11/2025
Supervised By :mohammad ahmed 07/11/2025

Integration File: autoint1.e
Quant Time: Jul 11 02:58:55 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 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.: 15.097 min
Delta R.T.: 0.000 min
Response: 2077417
Conc: 21.33 ug/ml

Instrument :
FID_F
ClientSampleId :
I.BLK

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 07/11/2025
Supervised By :mohammad ahmed 07/11/2025

rteres

Instrument :

FID_F

LabSampleId :

I.BLK

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025

Data File : FF016144.D

Signal(s) : FID2B.ch

Acq On : 10 Jul 2025 18:41

Sample : I.BLK

Misc :

ALS Vial : 52 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M

Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.098	15.034	15.131	BV	151507	2019918	100.00%	100.000%
Sum of corrected areas:						2019918		

FF071025.M Fri Jul 11 03:29:10 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	07/10/25
Project:	98 Morse Ave Nutley	Date Received:	07/10/25
Client Sample ID:	PIBLK-FG016271.D	SDG No.:	Q2504
Lab Sample ID:	I.BLK-FG016271.D	Matrix:	Water
Analytical Method:	8015D TPH	% Solid:	0
Sample Wt/Vol:	1000 Units: mL	Decanted:	
Soil Aliquot Vol:	uL	Final Vol:	1 mL
Extraction Type:		Test:	TPH GC
GPC Factor :	PH :	Injection Volume :	
Prep Method :	SW3510		

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016271.D	1		07/10/25	FG071025

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	18.9		29 - 130	95%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016271.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 10:45
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jul 11 05:46:59 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Quant Title :
QLast Update : Wed Jul 09 12:46:24 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...	15.198	1913798	19.141 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

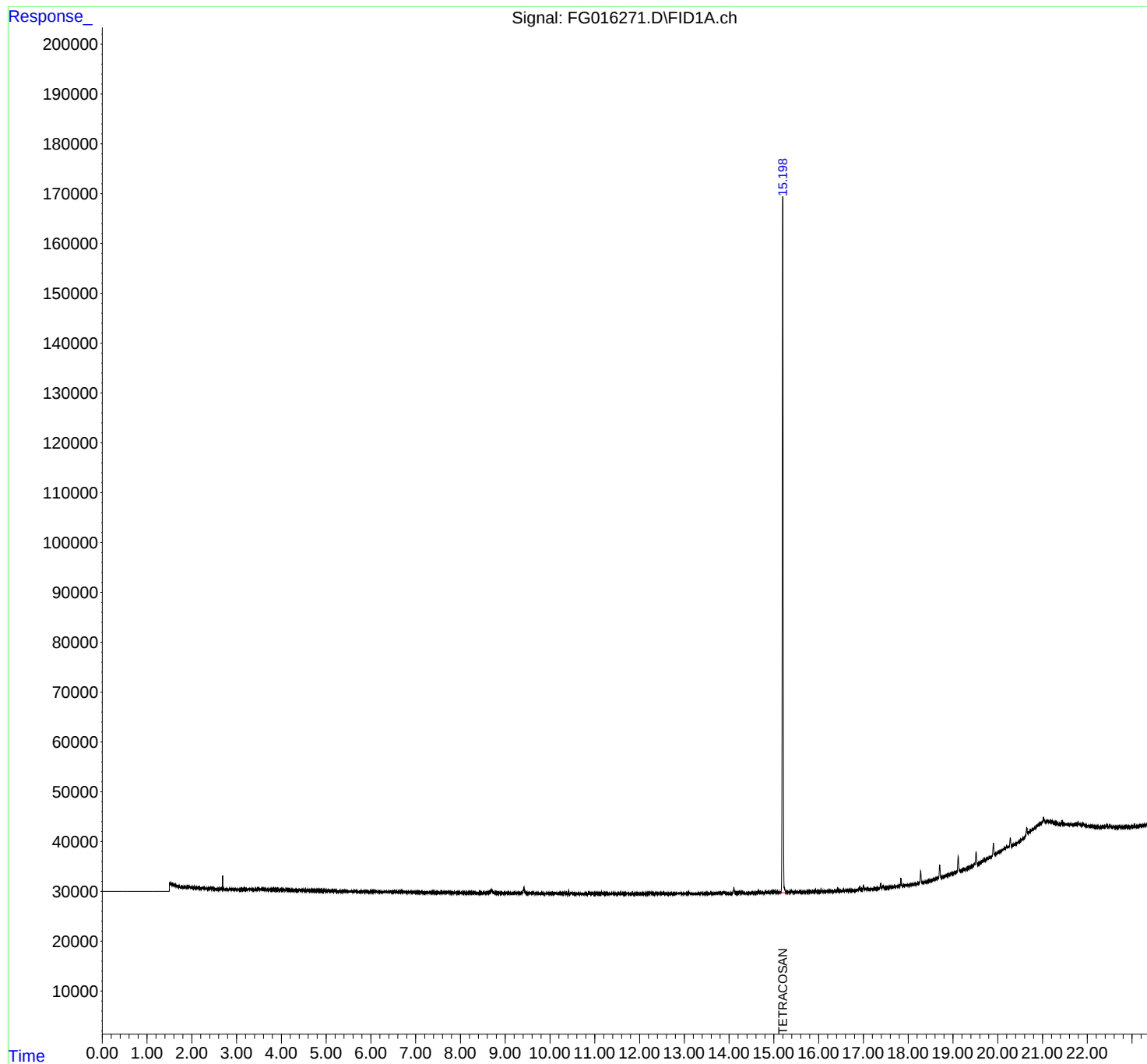
(m)=manual int.

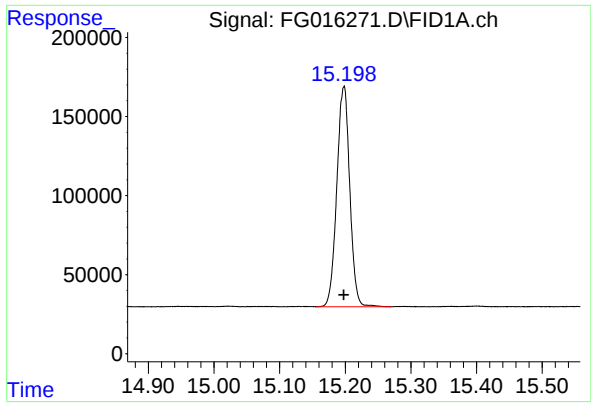
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016271.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 10:45
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jul 11 05:46:59 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Quant Title :
QLast Update : Wed Jul 09 12:46:24 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.: 15.198 min
Delta R.T.: 0.000 min
Response: 1913798
Conc: 19.14 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016271.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 10:45
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.198	15.156	15.271	BB	139458	1913798	100.00%	100.000%
Sum of corrected areas:						1913798		

FG070925.M Fri Jul 11 05:48:52 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	07/10/25
Project:	98 Morse Ave Nutley	Date Received:	07/10/25
Client Sample ID:	PIBLK-FG016280.D	SDG No.:	Q2504
Lab Sample ID:	I.BLK-FG016280.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
FG016280.D	1		07/10/25	FG071025

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	19.1		29 - 130	96%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016280.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 17:12
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jul 11 04:15:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Quant Title :
QLast Update : Wed Jul 09 12:46:24 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...	15.211	1914229	19.145 ug/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

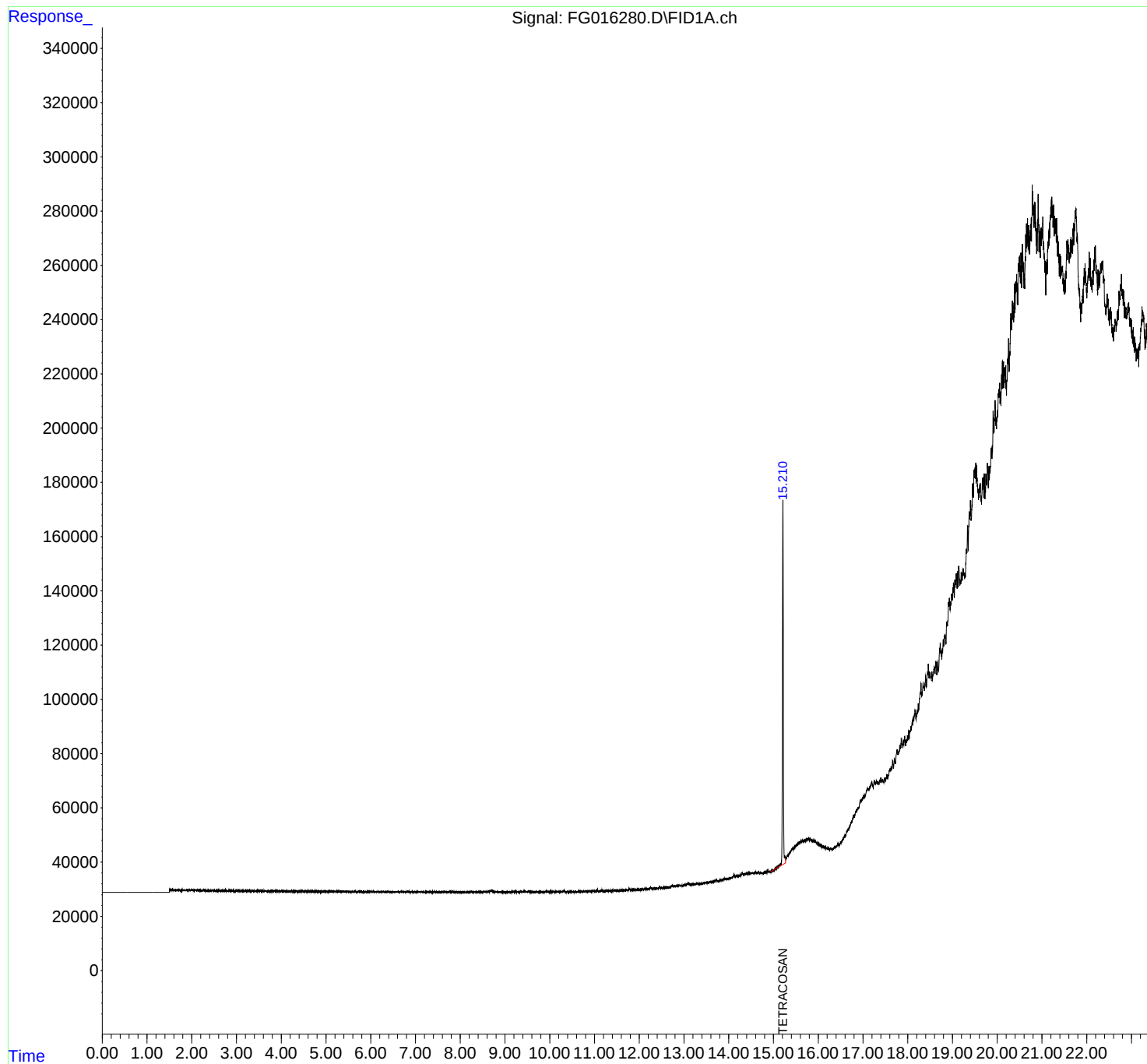
(m)=manual int.

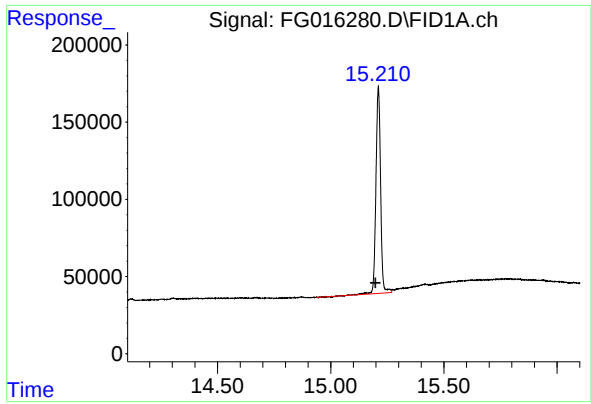
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016280.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 17:12
Operator : YP\AJ
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
I.BLK

Integration File: autoint1.e
Quant Time: Jul 11 04:15:17 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Quant Title :
QLast Update : Wed Jul 09 12:46:24 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.: 15.211 min
Delta R.T.: 0.013 min
Response: 1914229
Conc: 19.14 ug/ml

Instrument :
FID_G
ClientSampleId :
I.BLK

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016280.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 17:12
Sample : I.BLK
Misc :
ALS Vial : 2 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	15.211	14.936	15.269	BV	134432	1914229	100.00%	100.000%
Sum of corrected areas:						1914229		

FG070925.M Fri Jul 11 04:50:47 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC		Date Collected:		
Project:	98 Morse Ave Nutley		Date Received:		
Client Sample ID:	PB168785BS		SDG No.:	Q2504	
Lab Sample ID:	PB168785BS		Matrix:	SOIL	
Analytical Method:	8015D TPH		% Solid:	100	Decanted:
Sample Wt/Vol:	30.01	Units: g	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	TPH GC	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FG016275.D	1	07/10/25 09:00	07/10/25 14:13	PB168785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	10000		384	2830	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	18.8		37 - 130	94%	SPK: 20

Comments:

U = Not Detected

LOQ = Limit of Quantitation

MDL = Method Detection Limit

LOD = Limit of Detection

E = Value Exceeds Calibration Range

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

Q = indicates LCS control criteria did not meet requirements

M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value

B = Analyte Found in Associated Method Blank

N = Presumptive Evidence of a Compound

* = Values outside of QC limits

D = Dilution

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

() = Laboratory InHouse Limit

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
 Data File : FG016275.D
 Signal(s) : FID1A.ch
 Acq On : 10 Jul 2025 14:13
 Operator : YP\AJ
 Sample : PB168785BS
 Misc :
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 FID_G
 ClientSampleId :
 PB168785BS

Integration File: autoint1.e
 Quant Time: Jul 11 04:14:12 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
 Quant Title :
 QLast Update : Wed Jul 09 12:46:24 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...	15.197	1880042	18.803 ug/ml
Target Compounds			
1) N-OCTANE	2.122	1620740	14.353 ug/ml
2) N-DECANE	4.668	1931765	16.773 ug/ml
3) N-DODECANE	6.850	1985022	17.121 ug/ml
4) N-TETRADECANE	8.690	2017051	17.089 ug/ml
5) N-HEXADECANE	10.310	2015694	17.427 ug/ml
6) N-OCTADECANE	11.763	2058479	17.537 ug/ml
7) N-EICOSANE	13.083	2105192	17.597 ug/ml
8) N-DOCOSANE	14.291	2035381	17.662 ug/ml
10) N-TETRACOSANE	15.402	2021094	17.690 ug/ml
11) N-HEXACOSANE	16.430	1944445	17.670 ug/ml
12) N-OCTACOSANE	17.386	1922719	17.680 ug/ml
13) N-TRIACONTANE	18.279	1890617	17.692 ug/ml
14) N-DOTRIACONTANE	19.117	1783094	17.633 ug/ml
15) N-TETRATRIACONTANE	19.906	1606348	17.655 ug/ml
16) N-HEXATRIACONTANE	20.650	1410995	18.736 ug/ml
17) N-OCTATRIACONTANE	21.439	1361864	20.925 ug/ml
18) N-TETRACONTANE	22.442	1350559	23.433 ug/ml

(f)=RT Delta > 1/2 Window

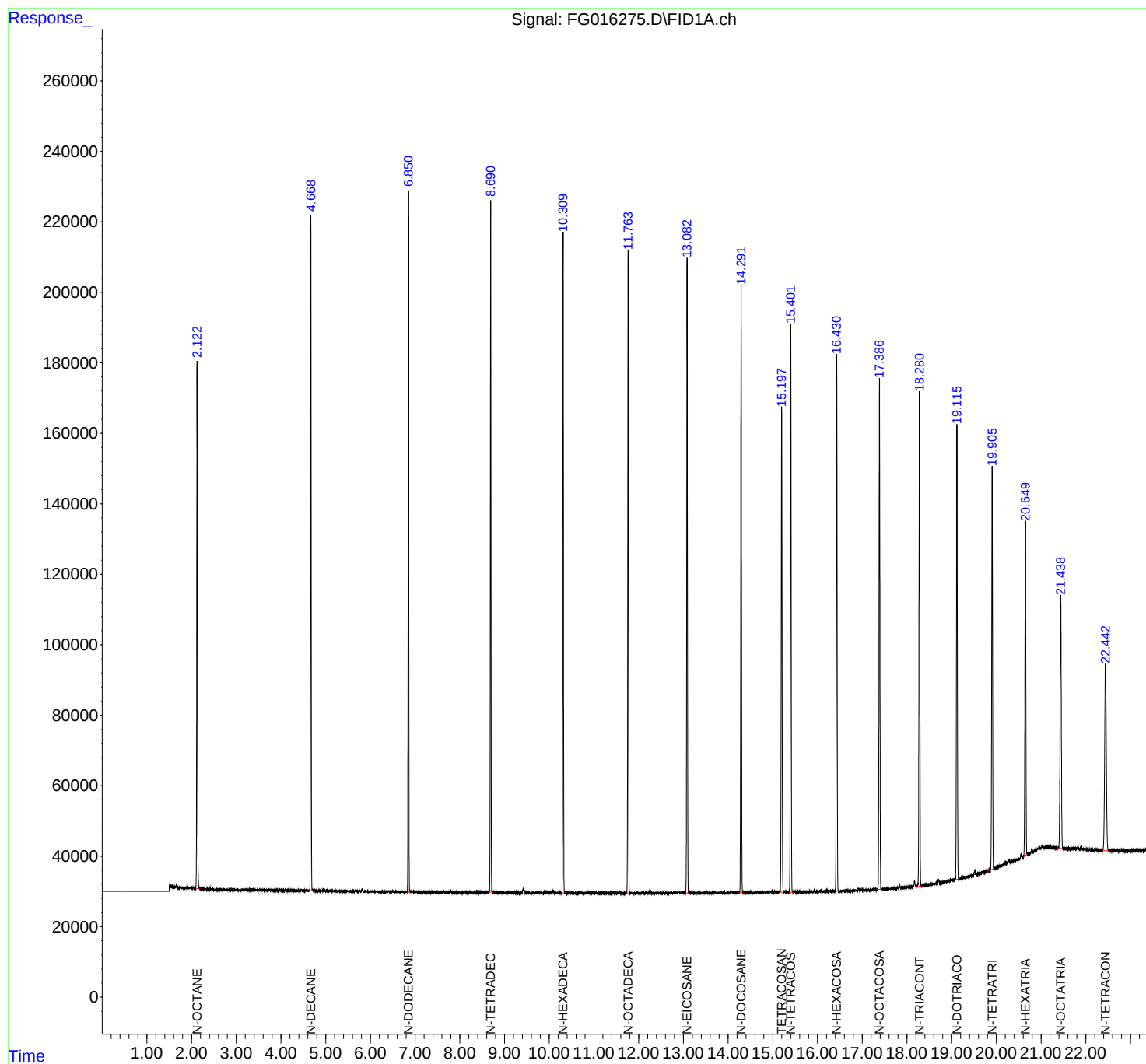
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016275.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 14:13
Operator : YP\AJ
Sample : PB168785BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Instrument :
FID_G
ClientSampleId :
PB168785BS

Integration File: autoint1.e
Quant Time: Jul 11 04:14:12 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Quant Title :
QLast Update : Wed Jul 09 12:46:24 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_G\Data\FG071025\
Data File : FG016275.D
Signal(s) : FID1A.ch
Acq On : 10 Jul 2025 14:13
Sample : PB168785BS
Misc :
ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_G\Method\FG070925.M
Title :

Signal : FID1A.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	2.122	2.091	2.196	BB	149626	1620740	76.99%	4.920%
2	4.668	4.639	4.712	BB	191711	1931765	91.76%	5.864%
3	6.850	6.818	6.897	BB	199150	1985022	94.29%	6.026%
4	8.690	8.645	8.742	BB	196233	2017051	95.81%	6.123%
5	10.310	10.267	10.359	BB	187517	2015694	95.75%	6.119%
6	11.763	11.727	11.797	BB	181784	2058479	97.78%	6.249%
7	13.083	13.040	13.132	BB	179965	2105192	100.00%	6.391%
8	14.291	14.241	14.340	BB	172389	2035381	96.68%	6.179%
9	15.197	15.154	15.257	BB	137543	1880042	89.30%	5.707%
10	15.402	15.365	15.454	BB	159767	2021094	96.01%	6.135%
11	16.430	16.390	16.485	BB	151787	1944445	92.36%	5.903%
12	17.386	17.324	17.423	BB	144987	1922719	91.33%	5.837%
13	18.279	18.220	18.335	BB	140079	1890617	89.81%	5.739%
14	19.117	19.062	19.173	BB	127347	1783094	84.70%	5.413%
15	19.906	19.779	19.945	BB	114242	1606348	76.30%	4.876%
16	20.650	20.600	20.691	BB	94885	1410995	67.02%	4.283%
17	21.439	21.375	21.512	BB	71938	1361864	64.69%	4.134%
18	22.442	22.358	22.528	BB	53051	1350559	64.15%	4.100%
Sum of corrected areas:							32941101	

FG070925.M Fri Jul 11 04:50:19 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	07/01/25
Project:	98 Morse Ave Nutley	Date Received:	07/01/25
Client Sample ID:	PIT#4MS	SDG No.:	Q2504
Lab Sample ID:	Q2473-04MS	Matrix:	SOIL
Analytical Method:	8015D TPH	% Solid:	90.7
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
FF016140.D	1	07/10/25 09:00	07/10/25 16:42	PB168785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	26600		423	3120	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	12.4		37 - 130	62%	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\FF071025\
 Data File : FF016140.D
 Signal(s) : FID2B.ch
 Acq On : 10 Jul 2025 16:42
 Operator : YP\AJ
 Sample : Q2473-04MS
 Misc :
 ALS Vial : 72 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 PIT#4MS

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 07/11/2025
 Supervised By :mohammad ahmed 07/11/2025

Integration File: autoint1.e
 Quant Time: Jul 11 02:58:03 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
 Quant Title :
 QLast Update : Thu Jul 10 12:51:11 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...	15.096	1203313	12.358 ug/ml
Target Compounds			
1) N-OCTANE	2.075	1591323	12.758 ug/ml
2) N-DECANE	4.614	1885880	15.153 ug/ml
3) N-DODECANE	6.791	1968893	16.158 ug/ml
4) N-TETRADECANE	8.624	2038025	16.952 ug/ml
5) N-HEXADECANE	10.234	2088900	17.958 ug/ml
6) N-OCTADECANE	11.680	2115830	18.207 ug/ml
7) N-EICOSANE	12.993	2185547	18.687 ug/ml
8) N-DOCOSANE	14.195	2141926	19.103 ug/ml
10) N-TETRACOSANE	15.302	2403976	21.675 ug/ml
11) N-HEXACOSANE	16.326	2059185	19.177 ug/ml
12) N-OCTACOSANE	17.277	2128719	19.796 ug/mlm
13) N-TRIACONTANE	18.170	2123106	19.602 ug/ml
14) N-DOTRIACONTANE	19.005	1913180	18.244 ug/ml
15) N-TETRATRIACONTANE	19.791	1660958	17.313 ug/ml
16) N-HEXATRIACONTANE	20.534	1345700	16.131 ug/ml
17) N-OCTATRIACONTANE	21.300	1285843	17.460 ug/ml
18) N-TETRACONTANE	22.265	1308721	19.241 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
Data File : FF016140.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 16:42
Operator : YP\AJ
Sample : Q2473-04MS
Misc :
ALS Vial : 72 Sample Multiplier: 1

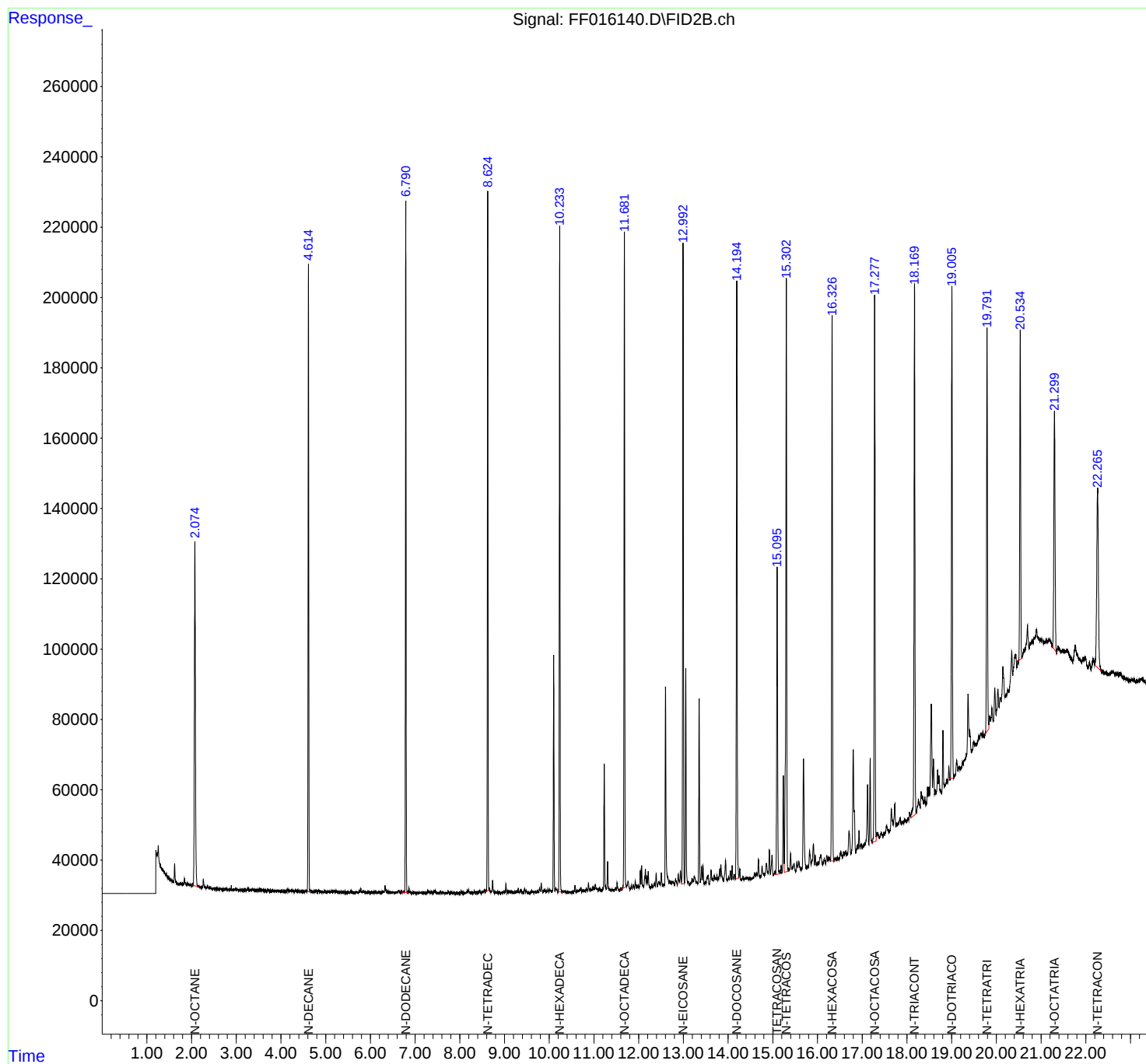
Instrument :
FID_F
ClientSampleId :
PIT#4MS

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 07/11/2025
Supervised By :mohammad ahmed 07/11/2025

Integration File: autoint1.e
Quant Time: Jul 11 02:58:03 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Instrument :

FID_F

ClientSampleId :

PIT#4MS

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025.M
Data File : FF016140.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 16:42
Sample : Q2473-04MS
Misc :
ALS Vial : 72 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.205	1.197	1.230	BV	12033	195053	8.03%	0.249%
2	1.256	1.230	1.339	VV	13620	607836	25.02%	0.775%
3	1.346	1.339	1.428	VV	7013	318956	13.13%	0.407%
4	1.437	1.428	1.527	VV	5857	267540	11.01%	0.341%
5	1.532	1.527	1.593	VV	3833	138349	5.69%	0.176%
6	1.621	1.593	1.709	VV	8403	258000	10.62%	0.329%
7	1.728	1.709	1.746	VV	2644	57206	2.35%	0.073%
8	1.754	1.746	1.771	VV	2714	39354	1.62%	0.050%
9	1.777	1.771	1.817	VV	2592	68450	2.82%	0.087%
10	1.843	1.817	1.882	VV	4176	113518	4.67%	0.145%
11	1.894	1.882	1.930	VV	2672	71140	2.93%	0.091%
12	1.932	1.930	1.938	VV	2439	11801	0.49%	0.015%
13	1.954	1.938	1.979	VV	2397	55952	2.30%	0.071%
14	1.984	1.979	1.991	VV	2253	16131	0.66%	0.021%
15	2.005	1.991	2.034	VV	2293	54921	2.26%	0.070%
16	2.075	2.034	2.172	VV	99748	1748717	71.98%	2.230%
17	2.174	2.172	2.182	VV	1722	9762	0.40%	0.012%
18	2.189	2.182	2.199	VV	1648	16091	0.66%	0.021%
19	2.205	2.199	2.218	VV	1632	18362	0.76%	0.023%
20	2.227	2.218	2.248	VV	1608	27554	1.13%	0.035%
21	2.262	2.248	2.320	VV	3669	87001	3.58%	0.111%
22	2.323	2.320	2.340	VV	1411	16480	0.68%	0.021%
23	2.355	2.340	2.384	VV	1939	40488	1.67%	0.052%
24	2.409	2.384	2.450	VV	1551	51736	2.13%	0.066%
25	2.454	2.450	2.468	VV	1117	11504	0.47%	0.015%
26	2.474	2.468	2.478	VV	1117	5780	0.24%	0.007%
27	2.481	2.478	2.485	VV	1127	4967	0.20%	0.006%
28	2.499	2.485	2.533	VV	1105	29654	1.22%	0.038%
29	2.534	2.533	2.574	VV	1062	24175	1.00%	0.031%
30	2.579	2.574	2.610	VV	994	19457	0.80%	0.025%
31	2.612	2.610	2.619	VV	961	4868	0.20%	0.006%
32	2.626	2.619	2.639	VV	958	11088	0.46%	0.014%
33	2.648	2.639	2.672	VV	966	17407	0.72%	0.022%
34	2.675	2.672	2.706	VV	902	17078	0.70%	0.022%
35	2.715	2.706	2.748	VV	864	20396	0.84%	0.026%
36	2.768	2.748	2.809	VV	1033	31131	1.28%	0.040%

37	2.812	2.809	2.818	VV	738	3924	0.16%	0.005%
38	2.821	2.818	2.825	VV	747	3170		
39	2.848	2.825	2.855	VV	835	13587		
40	2.860	2.855	2.879	VV	797	10262		
41	2.888	2.879	2.907	VV	1550	12704		
42	2.916	2.907	2.922	VV	713	5742		
43	2.925	2.922	2.940	VV	690	7005	0.29%	0.009%
44	2.944	2.940	2.948	VV	645	2727	0.11%	0.003%
45	2.958	2.948	2.970	VV	656	8476	0.35%	0.011%
46	2.991	2.970	3.031	VV	1056	27580	1.14%	0.035%
47	3.044	3.031	3.069	VV	744	13984	0.58%	0.018%
48	3.081	3.069	3.097	VV	660	10383	0.43%	0.013%
49	3.102	3.097	3.107	VV	608	3308	0.14%	0.004%
50	3.114	3.107	3.119	VV	552	3533	0.15%	0.005%
51	3.131	3.119	3.160	VV	566	12457	0.51%	0.016%
52	3.165	3.160	3.176	VV	557	4673	0.19%	0.006%
53	3.185	3.176	3.196	VV	535	5918	0.24%	0.008%
54	3.203	3.196	3.216	VV	560	5945	0.24%	0.008%
55	3.220	3.216	3.225	VV	484	2284	0.09%	0.003%
56	3.231	3.225	3.236	VV	496	3114	0.13%	0.004%
57	3.254	3.236	3.289	VV	1029	22004	0.91%	0.028%
58	3.293	3.289	3.305	VV	472	4230	0.17%	0.005%
59	3.317	3.305	3.325	VV	483	5589	0.23%	0.007%
60	3.332	3.325	3.345	VV	527	5532	0.23%	0.007%
61	3.359	3.345	3.393	VV	855	17972	0.74%	0.023%
62	3.401	3.393	3.419	VV	512	6849	0.28%	0.009%
63	3.428	3.419	3.441	VV	422	5216	0.21%	0.007%
64	3.446	3.441	3.451	VV	441	2622	0.11%	0.003%
65	3.455	3.451	3.459	VV	478	1876	0.08%	0.002%
66	3.465	3.459	3.482	VV	458	5867	0.24%	0.007%
67	3.486	3.482	3.497	VV	464	3773	0.16%	0.005%
68	3.500	3.497	3.506	VV	435	2335	0.10%	0.003%
69	3.525	3.506	3.533	VV	548	7098	0.29%	0.009%
70	3.535	3.533	3.555	VV	550	6656	0.27%	0.008%
71	3.580	3.555	3.612	VV	588	14526	0.60%	0.019%
72	3.616	3.612	3.625	VV	328	1875	0.08%	0.002%
73	3.632	3.625	3.645	VV	304	2956	0.12%	0.004%
74	3.655	3.645	3.678	VV	275	4735	0.19%	0.006%
75	3.699	3.678	3.710	VV	442	5840	0.24%	0.007%
76	3.721	3.710	3.735	VV	358	4146	0.17%	0.005%
77	3.742	3.735	3.751	VV	256	2165	0.09%	0.003%
78	3.763	3.751	3.767	VV	229	1767	0.07%	0.002%
79	3.773	3.767	3.784	VV	216	1610	0.07%	0.002%
80	3.798	3.784	3.833	VV	273	5092	0.21%	0.006%
81	3.855	3.833	3.860	VV	183	2209	0.09%	0.003%
82	3.866	3.860	3.875	VV	161	1188	0.05%	0.002%
83	3.879	3.875	3.900	VV	163	1553	0.06%	0.002%
84	3.916	3.900	3.930	VV	193	2367	0.10%	0.003%
85	3.932	3.930	3.948	VV	133	847	0.03%	0.001%
86	3.951	3.948	3.961	VV	138	418	0.02%	0.001%
87	3.975	3.961	3.991	VV	95	523	0.02%	0.001%
88	4.011	3.995	4.026	BV	38	181	0.01%	0.000%
89	4.043	4.026	4.055	PV	136	1491	0.06%	0.002%

Instrument :

FID_F

ClientSampleId :

PIT#4MS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

					rters			
90	4.068	4.055	4.072	VV	159	993	0.04%	0.001%
91	4.076	4.072	4.107	VV	159	2123		
92	4.118	4.107	4.123	PV	171	864		
93	4.149	4.123	4.198	VV	683	14659		
94	4.216	4.198	4.231	VV	459	6850		
95	4.236	4.231	4.296	VV	378	9170		
96	4.319	4.296	4.324	VV	415	4945	0.20%	0.006%
97	4.332	4.324	4.346	VV	422	4579	0.19%	0.006%
98	4.354	4.346	4.372	VV	380	4605	0.19%	0.006%
99	4.380	4.372	4.405	VV	382	4658	0.19%	0.006%
100	4.408	4.405	4.418	VV	203	1388	0.06%	0.002%
101	4.425	4.418	4.472	VV	266	5208	0.21%	0.007%
102	4.488	4.472	4.510	VV	193	3010	0.12%	0.004%
103	4.538	4.510	4.553	VV	189	3772	0.16%	0.005%
104	4.568	4.553	4.585	VV	304	4334	0.18%	0.006%
105	4.614	4.585	4.671	VV	178516	1896389	78.06%	2.418%
106	4.674	4.671	4.681	VV	232	1327	0.05%	0.002%
107	4.697	4.681	4.712	VV	275	3949	0.16%	0.005%
108	4.715	4.712	4.724	VV	202	1284	0.05%	0.002%
109	4.742	4.724	4.759	VV	278	3578	0.15%	0.005%
110	4.779	4.759	4.815	VV	754	10993	0.45%	0.014%
111	4.820	4.815	4.825	VV	198	906	0.04%	0.001%
112	4.839	4.825	4.874	VV	532	9147	0.38%	0.012%
113	4.901	4.874	4.909	VV	281	3498	0.14%	0.004%
114	4.924	4.909	4.947	VV	246	3712	0.15%	0.005%
115	4.961	4.947	4.966	VV	226	1698	0.07%	0.002%
116	4.978	4.966	5.014	VV	376	5726	0.24%	0.007%
117	5.020	5.014	5.024	VV	226	920	0.04%	0.001%
118	5.042	5.024	5.051	VV	221	2463	0.10%	0.003%
119	5.075	5.051	5.092	VV	236	4324	0.18%	0.006%
120	5.123	5.092	5.128	VV	304	4798	0.20%	0.006%
121	5.135	5.128	5.151	VV	354	3534	0.15%	0.005%
122	5.167	5.151	5.175	VV	399	4382	0.18%	0.006%
123	5.188	5.175	5.192	VV	417	3875	0.16%	0.005%
124	5.195	5.192	5.204	VV	402	2389	0.10%	0.003%
125	5.206	5.204	5.211	VV	374	1586	0.07%	0.002%
126	5.224	5.211	5.245	VV	491	6471	0.27%	0.008%
127	5.250	5.245	5.257	VV	235	1553	0.06%	0.002%
128	5.274	5.257	5.313	VV	289	4455	0.18%	0.006%
129	5.334	5.313	5.353	PV	287	4300	0.18%	0.005%
130	5.371	5.353	5.386	VV	230	3100	0.13%	0.004%
131	5.408	5.386	5.422	VV	290	3494	0.14%	0.004%
132	5.437	5.422	5.463	VV	291	3198	0.13%	0.004%
133	5.474	5.463	5.490	VV	110	1120	0.05%	0.001%
134	5.498	5.490	5.513	VV	170	1347	0.06%	0.002%
135	5.515	5.513	5.524	VV	110	510	0.02%	0.001%
136	5.556	5.524	5.580	VV	626	8464	0.35%	0.011%
137	5.590	5.580	5.608	VV	200	2101	0.09%	0.003%
138	5.634	5.608	5.644	VV	158	2364	0.10%	0.003%
139	5.647	5.644	5.665	VV	76	699	0.03%	0.001%
140	5.692	5.665	5.736	VV	381	5674	0.23%	0.007%
141	5.756	5.736	5.771	PV	698	8508	0.35%	0.011%

Instrument :

FID_F

ClientSampleId :

PIT#4MS

0.04% 0.001%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

					rters			
142	5.786	5.771	5.819	VV	1168	14042	0.58%	0.018%
143	5.833	5.819	5.841	VV	668	6175		
144	5.851	5.841	5.886	VV	623	8638		
145	5.888	5.886	5.894	VV	169	598		
146	5.899	5.894	5.912	VV	176	1233		
147	5.918	5.912	5.925	VV	179	705		
148	5.948	5.925	5.967	VV	204	3122	0.13%	0.004%
149	5.990	5.967	6.002	VV	218	3006	0.12%	0.004%
150	6.021	6.002	6.041	VV	314	4348	0.18%	0.006%
151	6.067	6.041	6.085	VV	364	4496	0.19%	0.006%
152	6.094	6.085	6.099	VV	180	1069	0.04%	0.001%
153	6.120	6.099	6.154	VV	357	5324	0.22%	0.007%
154	6.171	6.154	6.184	VV	261	2675	0.11%	0.003%
155	6.192	6.184	6.201	VV	236	2066	0.09%	0.003%
156	6.206	6.201	6.215	VV	169	1271	0.05%	0.002%
157	6.223	6.215	6.251	VV	220	3298	0.14%	0.004%
158	6.255	6.251	6.269	VV	192	1598	0.07%	0.002%
159	6.290	6.269	6.308	VV	400	6378	0.26%	0.008%
160	6.328	6.308	6.386	VV	2152	36734	1.51%	0.047%
161	6.396	6.386	6.420	VV	496	6270	0.26%	0.008%
162	6.437	6.420	6.443	VV	306	2607	0.11%	0.003%
163	6.445	6.443	6.463	VV	211	1657	0.07%	0.002%
164	6.479	6.463	6.486	VV	200	2217	0.09%	0.003%
165	6.505	6.486	6.535	VV	428	6719	0.28%	0.009%
166	6.560	6.535	6.587	VV	299	6499	0.27%	0.008%
167	6.591	6.587	6.602	VV	265	1773	0.07%	0.002%
168	6.627	6.602	6.667	VV	794	16439	0.68%	0.021%
169	6.678	6.667	6.695	VV	365	5202	0.21%	0.007%
170	6.706	6.695	6.727	VV	466	7051	0.29%	0.009%
171	6.736	6.727	6.761	VV	467	6957	0.29%	0.009%
172	6.791	6.761	6.844	VV	196704	1977840	81.41%	2.522%
173	6.862	6.844	6.900	VV	1560	19248	0.79%	0.025%
174	6.903	6.900	6.913	VV	253	1358	0.06%	0.002%
175	6.920	6.913	6.930	VV	200	1399	0.06%	0.002%
176	6.946	6.930	6.972	VV	247	3831	0.16%	0.005%
177	6.976	6.972	6.981	VV	147	648	0.03%	0.001%
178	6.986	6.981	7.010	VV	189	1684	0.07%	0.002%
179	7.017	7.010	7.024	VV	112	750	0.03%	0.001%
180	7.042	7.024	7.062	VV	189	2458	0.10%	0.003%
181	7.065	7.062	7.070	VV	204	599	0.02%	0.001%
182	7.075	7.070	7.088	VV	210	1051	0.04%	0.001%
183	7.113	7.088	7.154	VV	204	4938	0.20%	0.006%
184	7.158	7.154	7.168	VV	153	694	0.03%	0.001%
185	7.194	7.168	7.207	VV	176	2487	0.10%	0.003%
186	7.211	7.207	7.220	VV	154	689	0.03%	0.001%
187	7.230	7.220	7.235	VV	164	1052	0.04%	0.001%
188	7.239	7.235	7.254	VV	195	1400	0.06%	0.002%
189	7.260	7.254	7.266	VV	100	674	0.03%	0.001%
190	7.287	7.266	7.314	VV	749	12675	0.52%	0.016%
191	7.321	7.314	7.334	VV	397	4048	0.17%	0.005%
192	7.338	7.334	7.346	VV	315	1811	0.07%	0.002%
193	7.359	7.346	7.398	VV	334	6642	0.27%	0.008%
194	7.427	7.398	7.442	VV	907	12158	0.50%	0.016%

Instrument :

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ClientSampleId :

PIT#4MS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

					rters			
195	7.455	7.442	7.499	VV	686	10850	0.45%	0.014%
196	7.514	7.499	7.526	VV	251	2783		
197	7.540	7.526	7.545	VV	151	1007		
198	7.567	7.545	7.594	VV	864	10607		
199	7.608	7.594	7.622	PV	309	3283		
200	7.626	7.622	7.647	VV	235	2674		
201	7.654	7.647	7.667	VV	273	1846	0.08%	0.002%
202	7.685	7.667	7.713	VV	261	4618	0.19%	0.006%
203	7.741	7.713	7.772	VV	785	12135	0.50%	0.015%
204	7.799	7.772	7.819	VV	382	5148	0.21%	0.007%
205	7.826	7.819	7.831	VV	179	885	0.04%	0.001%
206	7.842	7.831	7.862	VV	225	2965	0.12%	0.004%
207	7.869	7.862	7.886	VV	248	2203	0.09%	0.003%
208	7.923	7.886	7.939	VV	231	4323	0.18%	0.006%
209	7.956	7.939	7.969	VV	195	2509	0.10%	0.003%
210	7.980	7.969	8.005	VV	159	2332	0.10%	0.003%
211	8.029	8.005	8.059	PV	668	10280	0.42%	0.013%
212	8.070	8.059	8.080	VV	155	1220	0.05%	0.002%
213	8.088	8.080	8.095	VV	126	1010	0.04%	0.001%
214	8.112	8.095	8.118	VV	152	1422	0.06%	0.002%
215	8.133	8.118	8.148	VV	250	2631	0.11%	0.003%
216	8.167	8.148	8.183	VV	819	10900	0.45%	0.014%
217	8.198	8.183	8.215	VV	946	12201	0.50%	0.016%
218	8.222	8.215	8.246	VV	313	4682	0.19%	0.006%
219	8.251	8.246	8.269	VV	219	2232	0.09%	0.003%
220	8.272	8.269	8.295	VV	216	1948	0.08%	0.002%
221	8.320	8.295	8.341	VV	493	8094	0.33%	0.010%
222	8.346	8.341	8.359	VV	303	2287	0.09%	0.003%
223	8.374	8.359	8.389	VV	374	4459	0.18%	0.006%
224	8.400	8.389	8.413	VV	276	2859	0.12%	0.004%
225	8.444	8.413	8.476	VV	653	14651	0.60%	0.019%
226	8.481	8.476	8.491	VV	235	1974	0.08%	0.003%
227	8.513	8.491	8.525	VV	503	7409	0.30%	0.009%
228	8.548	8.525	8.562	VV	1188	16111	0.66%	0.021%
229	8.577	8.562	8.588	VV	734	9294	0.38%	0.012%
230	8.624	8.588	8.651	VV	199694	2064404	84.98%	2.632%
231	8.660	8.651	8.688	VV	1589	19660	0.81%	0.025%
232	8.702	8.688	8.709	VV	551	5430	0.22%	0.007%
233	8.733	8.709	8.798	VV	3731	53903	2.22%	0.069%
234	8.803	8.798	8.808	VV	183	883	0.04%	0.001%
235	8.826	8.808	8.842	VV	304	4235	0.17%	0.005%
236	8.847	8.842	8.866	VV	251	2552	0.11%	0.003%
237	8.872	8.866	8.885	VV	175	1439	0.06%	0.002%
238	8.901	8.885	8.910	VV	160	1431	0.06%	0.002%
239	8.914	8.910	8.928	VV	135	710	0.03%	0.001%
240	8.947	8.928	8.959	VV	268	3493	0.14%	0.004%
241	8.972	8.959	8.978	VV	290	2753	0.11%	0.004%
242	8.985	8.978	9.011	VV	457	6575	0.27%	0.008%
243	9.031	9.011	9.061	VV	2610	30430	1.25%	0.039%
244	9.098	9.061	9.123	VV	546	15877	0.65%	0.020%
245	9.127	9.123	9.135	VV	377	2363	0.10%	0.003%
246	9.140	9.135	9.147	VV	378	2582	0.11%	0.003%

Instrument :

FID_F

ClientSampleId :

PIT#4MS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

							Instrument : FID_F	
							ClientSampleId : PIT#4MS	
rteres							Manual IntegrationsAPPROVED	
247	9.156	9.147	9.196	VV	479	8902	0.37%	0.011%
248	9.200	9.196	9.206	VV	185	912		
249	9.229	9.206	9.250	VV	441	7016		
250	9.275	9.250	9.291	VV	665	10398		
251	9.306	9.291	9.332	VV	1388	15916		
252	9.373	9.332	9.418	VV	992	23905		
253	9.449	9.418	9.468	VV	1336	18424	0.76%	0.023%
254	9.486	9.468	9.532	VV	731	11216	0.46%	0.014%
255	9.541	9.532	9.573	PV	144	2107	0.09%	0.003%
256	9.575	9.573	9.581	VV	65	343	0.01%	0.000%
257	9.601	9.581	9.618	VV	633	7009	0.29%	0.009%
258	9.633	9.618	9.659	VV	624	7609	0.31%	0.010%
259	9.686	9.659	9.700	VV	454	5708	0.23%	0.007%
260	9.738	9.700	9.762	VV	529	9924	0.41%	0.013%
261	9.783	9.762	9.803	VV	1253	17900	0.74%	0.023%
262	9.822	9.803	9.858	VV	2713	39691	1.63%	0.051%
263	9.873	9.858	9.888	VV	612	7564	0.31%	0.010%
264	9.903	9.888	9.929	VV	792	13257	0.55%	0.017%
265	9.944	9.929	9.954	VV	459	5008	0.21%	0.006%
266	9.972	9.954	9.992	VV	1174	15924	0.66%	0.020%
267	10.012	9.992	10.025	VV	1015	13436	0.55%	0.017%
268	10.034	10.025	10.052	VV	600	7204	0.30%	0.009%
269	10.100	10.052	10.128	VV	67634	700665	28.84%	0.893%
270	10.146	10.128	10.198	VV	1322	32599	1.34%	0.042%
271	10.234	10.198	10.290	VV	189730	2101583	86.51%	2.680%
272	10.308	10.290	10.322	VV	408	5120	0.21%	0.007%
273	10.341	10.322	10.375	VV	422	6706	0.28%	0.009%
274	10.393	10.375	10.398	VV	194	1603	0.07%	0.002%
275	10.409	10.398	10.432	VV	186	2346	0.10%	0.003%
276	10.461	10.432	10.491	PV	166	2711	0.11%	0.003%
277	10.494	10.491	10.498	PV	25	88	0.00%	0.000%
278	10.512	10.498	10.524	PV	141	1113	0.05%	0.001%
279	10.575	10.524	10.601	VV	1994	26444	1.09%	0.034%
280	10.623	10.601	10.642	VV	542	7018	0.29%	0.009%
281	10.681	10.642	10.694	VV	776	13494	0.56%	0.017%
282	10.710	10.694	10.733	VV	1063	14740	0.61%	0.019%
283	10.750	10.733	10.773	VV	682	8671	0.36%	0.011%
284	10.786	10.773	10.805	VV	415	5511	0.23%	0.007%
285	10.828	10.805	10.859	VV	887	17180	0.71%	0.022%
286	10.876	10.859	10.896	VV	2482	30163	1.24%	0.038%
287	10.900	10.896	10.912	VV	635	5710	0.24%	0.007%
288	10.931	10.912	10.950	VV	851	12965	0.53%	0.017%
289	10.974	10.950	10.985	VV	1205	18066	0.74%	0.023%
290	10.996	10.985	11.010	VV	1150	13338	0.55%	0.017%
291	11.031	11.010	11.051	VV	2004	32447	1.34%	0.041%
292	11.059	11.051	11.068	VV	906	7949	0.33%	0.010%
293	11.073	11.068	11.093	VV	743	8485	0.35%	0.011%
294	11.101	11.093	11.115	VV	494	5539	0.23%	0.007%
295	11.127	11.115	11.149	VV	735	9642	0.40%	0.012%
296	11.165	11.149	11.179	VV	372	4971	0.20%	0.006%
297	11.198	11.179	11.207	VV	919	10025	0.41%	0.013%
298	11.230	11.207	11.279	VV	36233	401411	16.52%	0.512%
299	11.304	11.279	11.369	VV	8450	108337	4.46%	0.138%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025
Supervised By :mohammad ahmed 07/11/2025

Client Sampled : PIT#4MS							Manual Integration	
300	11.376	11.369	11.385	VV	255	2169	0.09%	0.003%
301	11.405	11.385	11.411	VV	346	4737	0.09%	0.003%
302	11.415	11.411	11.446	VV	330	4802	0.09%	0.003%
303	11.454	11.446	11.459	VV	168	1105	0.09%	0.003%
304	11.482	11.459	11.500	VV	879	12538	0.09%	0.003%
305	11.517	11.500	11.563	VV	2316	31177	1.14%	0.014%
306	11.610	11.563	11.625	PV	509	10914	0.45%	0.014%
307	11.680	11.625	11.731	VV	186678	2165461	89.14%	2.761%
308	11.763	11.731	11.800	VV	2473	57937	2.38%	0.074%
309	11.835	11.800	11.855	VV	1312	20464	0.84%	0.026%
310	11.879	11.855	11.902	VV	1285	23447	0.97%	0.030%
311	11.924	11.902	11.950	VV	2451	35807	1.47%	0.046%
312	11.952	11.950	11.972	VV	847	9326	0.38%	0.012%
313	11.989	11.972	12.009	VV	1043	16086	0.66%	0.021%
314	12.036	12.009	12.050	VV	5248	63039	2.59%	0.080%
315	12.066	12.050	12.112	VV	6743	91209	3.75%	0.116%
316	12.151	12.112	12.170	VV	5623	101268	4.17%	0.129%
317	12.184	12.170	12.198	VV	3695	44487	1.83%	0.057%
318	12.214	12.198	12.250	VV	4922	67653	2.78%	0.086%
319	12.254	12.250	12.270	VV	469	4189	0.17%	0.005%
320	12.294	12.270	12.322	VV	791	17143	0.71%	0.022%
321	12.351	12.322	12.369	VV	1570	27592	1.14%	0.035%
322	12.391	12.369	12.414	VV	4187	55839	2.30%	0.071%
323	12.451	12.414	12.482	VV	1722	49543	2.04%	0.063%
324	12.507	12.482	12.531	VV	4329	63409	2.61%	0.081%
325	12.537	12.531	12.553	VV	907	10657	0.44%	0.014%
326	12.565	12.553	12.579	VV	930	12716	0.52%	0.016%
327	12.601	12.579	12.675	VV	57122	754647	31.06%	0.962%
328	12.682	12.675	12.699	VV	1684	21596	0.89%	0.028%
329	12.710	12.699	12.730	VV	1642	25320	1.04%	0.032%
330	12.738	12.730	12.745	VV	1316	11954	0.49%	0.015%
331	12.758	12.745	12.777	VV	1636	26459	1.09%	0.034%
332	12.780	12.777	12.801	VV	1303	13846	0.57%	0.018%
333	12.825	12.801	12.841	VV	2176	36112	1.49%	0.046%
334	12.846	12.841	12.865	VV	1518	15142	0.62%	0.019%
335	12.885	12.865	12.916	VV	3618	63007	2.59%	0.080%
336	12.936	12.916	12.956	VV	4453	66330	2.73%	0.085%
337	12.993	12.956	13.026	VV	182799	2218905	91.34%	2.829%
338	13.054	13.026	13.092	VV	61934	717014	29.51%	0.914%
339	13.107	13.092	13.134	VV	1345	23496	0.97%	0.030%
340	13.157	13.134	13.162	VV	731	9278	0.38%	0.012%
341	13.191	13.162	13.203	VV	1931	29833	1.23%	0.038%
342	13.211	13.203	13.227	VV	1648	20856	0.86%	0.027%
343	13.243	13.227	13.285	VV	2755	65600	2.70%	0.084%
344	13.291	13.285	13.325	VV	1098	19249	0.79%	0.025%
345	13.353	13.325	13.380	VV	53198	597616	24.60%	0.762%
346	13.409	13.380	13.425	VV	5292	77249	3.18%	0.099%
347	13.440	13.425	13.473	VV	5460	68408	2.82%	0.087%
348	13.497	13.473	13.506	VV	737	10622	0.44%	0.014%
349	13.526	13.506	13.537	VV	2248	27219	1.12%	0.035%
350	13.551	13.537	13.579	VV	2732	36552	1.50%	0.047%
351	13.620	13.579	13.645	PV	4082	75937	3.13%	0.097%

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025
Supervised By :mohammad ahmed 07/11/2025

rteres							entecanple : PIT#4MS	
352	13.652	13.645	13.669	VV	1408	17711	0.73%	0.023%
353	13.688	13.669	13.709	VV	2431	44259	Manual Integrat	
354	13.725	13.709	13.737	VV	1641	24575		
355	13.751	13.737	13.768	VV	2378	32394		
356	13.783	13.768	13.788	VV	1550	16560		
357	13.814	13.788	13.827	VV	4120	65570	2	Reviewed By :Yog Supervised By :m
358	13.839	13.827	13.894	VV	5250	100434	4.13%	0.128%
359	13.943	13.894	13.975	VV	6393	130954	5.39%	0.167%
360	14.012	13.975	14.030	VV	1554	31207	1.28%	0.040%
361	14.052	14.030	14.072	VV	3288	47713	1.96%	0.061%
362	14.091	14.072	14.116	VV	4680	57635	2.37%	0.073%
363	14.140	14.116	14.162	VV	2006	38454	1.58%	0.049%
364	14.195	14.162	14.242	VV	170666	2180505	89.76%	2.780%
365	14.263	14.242	14.300	VV	3464	50804	2.09%	0.065%
366	14.336	14.300	14.355	VV	1087	19324	0.80%	0.025%
367	14.373	14.355	14.386	VV	583	7655	0.32%	0.010%
368	14.403	14.386	14.414	VV	658	8529	0.35%	0.011%
369	14.426	14.414	14.450	VV	739	11409	0.47%	0.015%
370	14.453	14.450	14.461	VV	452	2317	0.10%	0.003%
371	14.475	14.461	14.495	VV	578	6091	0.25%	0.008%
372	14.501	14.495	14.514	VV	209	1479	0.06%	0.002%
373	14.529	14.514	14.545	PV	191	2802	0.12%	0.004%
374	14.555	14.545	14.572	VV	407	3922	0.16%	0.005%
375	14.591	14.572	14.609	VV	1783	24214	1.00%	0.031%
376	14.639	14.609	14.659	VV	1358	32702	1.35%	0.042%
377	14.680	14.659	14.736	VV	5364	77481	3.19%	0.099%
378	14.759	14.736	14.819	VV	3280	66297	2.73%	0.085%
379	14.857	14.819	14.880	VV	3777	78029	3.21%	0.099%
380	14.886	14.880	14.897	VV	1202	11640	0.48%	0.015%
381	14.923	14.897	14.945	VV	7489	103352	4.25%	0.132%
382	14.981	14.945	15.010	VV	5956	99856	4.11%	0.127%
383	15.045	15.010	15.062	VV	953	17169	0.71%	0.022%
384	15.096	15.062	15.140	VV	87333	1203938	49.56%	1.535%
385	15.151	15.140	15.167	VV	971	12635	0.52%	0.016%
386	15.186	15.167	15.206	VV	2455	29525	1.22%	0.038%
387	15.235	15.206	15.255	VV	27936	329812	13.58%	0.421%
388	15.302	15.255	15.336	VV	169259	2417783	99.52%	3.083%
389	15.343	15.336	15.361	VV	1151	13664	0.56%	0.017%
390	15.398	15.361	15.426	VV	5472	88158	3.63%	0.112%
391	15.442	15.426	15.456	VV	1348	21878	0.90%	0.028%
392	15.474	15.456	15.512	VV	2329	41362	1.70%	0.053%
393	15.538	15.512	15.559	PV	2633	38390	1.58%	0.049%
394	15.577	15.559	15.634	VV	2639	55789	2.30%	0.071%
395	15.686	15.634	15.747	VV	31547	550229	22.65%	0.702%
396	15.754	15.747	15.764	VV	485	3606	0.15%	0.005%
397	15.782	15.764	15.797	VV	585	8892	0.37%	0.011%
398	15.823	15.797	15.856	VV	4928	94333	3.88%	0.120%
399	15.909	15.856	15.931	VV	6553	139586	5.75%	0.178%
400	15.949	15.931	15.970	VV	3223	41148	1.69%	0.052%
401	15.993	15.970	16.009	VV	803	13644	0.56%	0.017%
402	16.018	16.009	16.023	VV	661	5184	0.21%	0.007%
403	16.074	16.023	16.107	VV	3027	82102	3.38%	0.105%
404	16.149	16.107	16.178	VV	1545	29604	1.22%	0.038%

					rters			
405	16.205	16.178	16.223	PV	2141	31688	1.30%	0.040%
406	16.236	16.223	16.252	VV	1434	20664		
407	16.268	16.252	16.288	VV	1545	24115		
408	16.326	16.288	16.370	VV	155198	2069750	85	
409	16.393	16.370	16.408	PV	733	9947		
410	16.416	16.408	16.421	VV	438	2383		
411	16.449	16.421	16.474	VV	525	10528	0.43%	0.013%
412	16.521	16.474	16.539	PV	2182	36877	1.52%	0.047%
413	16.546	16.539	16.561	VV	807	7364	0.30%	0.009%
414	16.581	16.561	16.598	VV	1686	19031	0.78%	0.024%
415	16.621	16.598	16.625	VV	1401	15778	0.65%	0.020%
416	16.631	16.625	16.647	VV	1396	12767	0.53%	0.016%
417	16.662	16.647	16.672	VV	932	9026	0.37%	0.012%
418	16.704	16.672	16.748	VV	6799	149437	6.15%	0.191%
419	16.799	16.748	16.821	VV	29563	486198	20.01%	0.620%
420	16.823	16.821	16.854	VV	12023	112470	4.63%	0.143%
421	16.889	16.854	16.907	PV	1719	30257	1.25%	0.039%
422	16.928	16.907	16.953	VV	5730	74340	3.06%	0.095%
423	16.970	16.953	17.002	VV	1540	28656	1.18%	0.037%
424	17.057	17.002	17.065	VV	949	25137	1.03%	0.032%
425	17.120	17.065	17.147	VV	17413	273179	11.24%	0.348%
426	17.178	17.147	17.224	VV	24264	304996	12.55%	0.389%
427	17.278	17.224	17.314	PV	155690	2132991	87.80%	2.720%
428	17.330	17.314	17.341	VV	2276	30039	1.24%	0.038%
429	17.352	17.341	17.376	VV	2049	26615	1.10%	0.034%
430	17.424	17.376	17.431	VV	1386	27214	1.12%	0.035%
431	17.432	17.431	17.462	VV	1287	12418	0.51%	0.016%
432	17.485	17.462	17.502	VV	975	11389	0.47%	0.015%
433	17.547	17.502	17.577	VV	2354	60489	2.49%	0.077%
434	17.582	17.577	17.597	VV	1050	9781	0.40%	0.012%
435	17.603	17.597	17.609	VV	614	3432	0.14%	0.004%
436	17.653	17.609	17.691	VV	6402	137855	5.67%	0.176%
437	17.729	17.691	17.752	VV	7020	133782	5.51%	0.171%
438	17.770	17.752	17.785	VV	1591	21793	0.90%	0.028%
439	17.810	17.785	17.817	VV	1347	21415	0.88%	0.027%
440	17.841	17.817	17.869	VV	2411	50484	2.08%	0.064%
441	17.881	17.869	17.886	VV	975	7853	0.32%	0.010%
442	17.891	17.886	17.895	VV	902	4188	0.17%	0.005%
443	17.904	17.895	17.924	VV	924	12143	0.50%	0.015%
444	17.961	17.924	17.984	VV	1087	25458	1.05%	0.032%
445	17.999	17.984	18.003	PV	611	3935	0.16%	0.005%
446	18.026	18.003	18.038	VV	855	11987	0.49%	0.015%
447	18.064	18.038	18.083	VV	2245	35263	1.45%	0.045%
448	18.170	18.083	18.203	VV	151291	2150698	88.53%	2.742%
449	18.208	18.203	18.211	VV	963	3516	0.14%	0.004%
450	18.257	18.211	18.297	VV	4154	118813	4.89%	0.152%
451	18.320	18.297	18.341	VV	5507	101399	4.17%	0.129%
452	18.347	18.341	18.377	VV	3976	60095	2.47%	0.077%
453	18.401	18.377	18.422	VV	3385	58955	2.43%	0.075%
454	18.460	18.422	18.476	VV	5662	89958	3.70%	0.115%
455	18.493	18.476	18.507	VV	5242	79258	3.26%	0.101%
456	18.545	18.507	18.572	VV	28379	590473	24.31%	0.753%

Instrument :

FID_F

ClientSampleId :

PIT#4MS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

					rters				
457	18.592	18.572	18.620	VV	12285	211173	8.69%	0.269%	
458	18.634	18.620	18.647	VV	3059	40528			
459	18.685	18.647	18.701	VV	8206	148225			
460	18.716	18.701	18.740	VV	6417	104669			
461	18.746	18.740	18.776	VV	2234	33111			
462	18.805	18.776	18.836	VV	18453	262945	10.15%	0.047%	
463	18.856	18.836	18.862	VV	2563	36466	1.50%	0.047%	
464	18.889	18.862	18.908	VV	3792	81886	3.37%	0.104%	
465	18.938	18.908	18.961	VV	6824	130676	5.38%	0.167%	
466	19.005	18.961	19.050	VV	142376	2071160	85.25%	2.641%	
467	19.067	19.050	19.076	VV	3192	43339	1.78%	0.055%	
468	19.114	19.076	19.146	VV	6763	202488	8.33%	0.258%	
469	19.167	19.146	19.190	VV	4786	113284	4.66%	0.144%	
470	19.211	19.190	19.224	VV	4037	77637	3.20%	0.099%	
471	19.241	19.224	19.262	VV	5135	104401	4.30%	0.133%	
472	19.290	19.262	19.295	VV	5511	105064	4.32%	0.134%	
473	19.301	19.295	19.305	VV	5443	32121	1.32%	0.041%	
474	19.366	19.305	19.392	VV	23363	607049	24.99%	0.774%	
475	19.406	19.392	19.439	VV	12707	278092	11.45%	0.355%	
476	19.450	19.439	19.456	VV	6857	64448	2.65%	0.082%	
477	19.488	19.456	19.506	VV	8504	226577	9.33%	0.289%	
478	19.513	19.506	19.525	VV	7946	89755	3.69%	0.114%	
479	19.541	19.525	19.561	VV	7848	155167	6.39%	0.198%	
480	19.604	19.561	19.620	VV	9302	286298	11.78%	0.365%	
481	19.648	19.620	19.659	VV	9618	212111	8.73%	0.270%	
482	19.664	19.659	19.689	VV	9429	157091	6.47%	0.200%	
483	19.700	19.689	19.722	VV	9633	171335	7.05%	0.218%	
484	19.728	19.722	19.735	VV	8044	60091	2.47%	0.077%	
485	19.748	19.735	19.753	VV	8443	88006	3.62%	0.112%	
486	19.791	19.753	19.831	VV	123025	2074904	85.41%	2.646%	
487	19.855	19.831	19.870	VV	12436	269341	11.09%	0.343%	
488	19.900	19.870	19.935	VV	14417	466085	19.19%	0.594%	
489	19.965	19.935	19.993	VV	19414	515424	21.22%	0.657%	
490	20.035	19.993	20.061	VV	18429	600513	24.72%	0.766%	
491	20.084	20.061	20.107	VV	15754	407837	16.79%	0.520%	
492	20.147	20.107	20.192	VV	23848	940412	38.71%	1.199%	
493	20.202	20.192	20.207	VV	14767	132800	5.47%	0.169%	
494	20.221	20.207	20.227	VV	14985	179366	7.38%	0.229%	
495	20.255	20.227	20.265	VV	16035	348844	14.36%	0.445%	
496	20.268	20.265	20.284	VV	15720	174040	7.16%	0.222%	
497	20.344	20.284	20.367	VV	26099	1018256	41.91%	1.298%	
498	20.414	20.367	20.425	VV	24612	778794	32.06%	0.993%	
499	20.434	20.425	20.455	VV	24469	413346	17.01%	0.527%	
500	20.483	20.455	20.494	VV	22177	500042	20.58%	0.638%	
501	20.534	20.494	20.576	VV	115860	2429393	100.00%	3.098%	
502	20.612	20.576	20.621	VV	24350	630526	25.95%	0.804%	
503	20.625	20.621	20.627	VV	23727	88559	3.65%	0.113%	
504	20.650	20.627	20.653	VV	24382	378612	15.58%	0.483%	
505	20.697	20.653	20.735	VV	30375	1280153	52.69%	1.632%	
506	20.754	20.735	20.768	VV	24772	488465	20.11%	0.623%	
507	20.793	20.768	20.797	VV	24721	415006	17.08%	0.529%	
508	20.810	20.797	20.822	VV	25004	375721	15.47%	0.479%	
509	20.842	20.822	20.860	VV	25363	559382	23.03%	0.713%	

Instrument :

FID_F

ClientSampleId :

PIT#4MS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

Instrument :

FID_F

ClientSampleId :

PIT#4MS

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

510	20.896	20.860	20.922	VV	27175	974229	40.10%	1.242%
511	20.927	20.922	20.948	VV	24860	380915	15.86%	0.305%
512	20.955	20.948	20.969	VV	24375	297056	12.28%	0.240%
513	20.973	20.969	20.983	VV	23411	201373	8.78%	0.197%
514	20.991	20.983	21.004	VV	23699	287229	12.35%	0.292%
515	21.024	21.004	21.042	VV	23312	519763	22.44%	0.317%
516	21.047	21.042	21.056	VV	22464	183875	7.57%	0.305%
517	21.067	21.056	21.074	VV	22224	239453	9.86%	0.240%
518	21.079	21.074	21.088	VV	21982	188087	7.74%	0.661%
519	21.112	21.088	21.128	VV	22247	518654	21.35%	0.292%
520	21.136	21.128	21.146	VV	21533	229342	9.44%	0.317%
521	21.155	21.146	21.165	VV	21628	248643	10.23%	0.325%
522	21.177	21.165	21.185	VV	21629	254537	10.48%	0.914%
523	21.200	21.185	21.243	VV	21489	716754	29.50%	0.197%
524	21.248	21.243	21.257	VV	19146	154303	6.35%	2.939%
525	21.300	21.257	21.354	VV	85271	2304863	94.87%	0.613%
526	21.380	21.354	21.401	VV	17856	480466	19.78%	0.150%
527	21.405	21.401	21.412	VV	17013	117954	4.86%	0.423%
528	21.417	21.412	21.447	VV	16655	331573	13.65%	0.199%
529	21.452	21.447	21.464	VV	15755	155986	6.42%	0.573%
530	21.480	21.464	21.512	VV	15959	449087	18.49%	0.273%
531	21.527	21.512	21.536	VV	15221	214361	8.82%	0.125%
532	21.542	21.536	21.547	VV	14727	98053	4.04%	0.166%
533	21.554	21.547	21.562	VV	14760	130316	5.36%	0.176%
534	21.571	21.562	21.577	VV	14928	138237	5.69%	0.186%
535	21.589	21.577	21.594	VV	14981	145609	5.99%	0.446%
536	21.599	21.594	21.637	VV	14637	349854	14.40%	0.317%
537	21.646	21.637	21.672	VV	12436	248530	10.23%	0.126%
538	21.679	21.672	21.686	VV	11679	99027	4.08%	0.167%
539	21.690	21.686	21.707	VV	10959	130915	5.39%	0.125%
540	21.715	21.707	21.722	VV	10960	98175	4.04%	0.748%
541	21.764	21.722	21.799	VV	14518	586845	24.16%	0.391%
542	21.810	21.799	21.847	VV	11667	306275	12.61%	0.153%
543	21.854	21.847	21.867	VV	9744	119767	4.93%	0.273%
544	21.871	21.867	21.908	VV	9480	214144	8.81%	0.292%
545	21.938	21.908	21.952	VV	9217	229240	9.44%	0.508%
546	21.991	21.952	22.038	VV	9126	398412	16.40%	0.053%
547	22.042	22.038	22.051	VV	5384	41378	1.70%	0.285%
548	22.081	22.051	22.119	VV	6673	223832	9.21%	0.346%
549	22.168	22.119	22.200	VV	6656	270965	11.15%	2.042%
550	22.265	22.200	22.372	VV	54426	1601670	65.93%	0.020%
551	22.383	22.372	22.406	VV	1074	15864	0.65%	0.001%
552	22.411	22.406	22.415	VV	301	860	0.04%	0.003%
553	22.424	22.415	22.429	PV	407	1965	0.08%	0.002%
554	22.436	22.429	22.441	VV	253	1205	0.05%	

Sum of corrected areas: 78421838

FF071025.M Fri Jul 11 03:37:01 2025

Report of Analysis

Client:	Sciacca General Contractors, LLC		Date Collected:	07/01/25	
Project:	98 Morse Ave Nutley		Date Received:	07/01/25	
Client Sample ID:	PIT#4MSD		SDG No.:	Q2504	
Lab Sample ID:	Q2473-04MSD		Matrix:	SOIL	
Analytical Method:	8015D TPH		% Solid:	90.7	Decanted:
Sample Wt/Vol:	30.02	Units: g	Final Vol:	1	mL
Soil Aliquot Vol:		uL	Test:	TPH GC	
Extraction Type:			Injection Volume :		
GPC Factor :		PH :			
Prep Method :	SW3541				

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
FF016141.D	1	07/10/25 09:00	07/10/25 17:12	PB168785

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
PHC	Petroleum Hydrocarbons	27100		423	3120	ug/kg
SURROGATES						
16416-32-3	TETRACOSANE-d50	12.5		37 - 130	62%	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\FF071025\
 Data File : FF016141.D
 Signal(s) : FID2B.ch
 Acq On : 10 Jul 2025 17:12
 Operator : YP\AJ
 Sample : Q2473-04MSD
 Misc :
 ALS Vial : 73 Sample Multiplier: 1

Instrument :
 FID_F
 ClientSampleId :
 PIT#4MSD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 07/11/2025
 Supervised By :mohammad ahmed 07/11/2025

Integration File: autoint1.e
 Quant Time: Jul 11 02:58:19 2025
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
 Quant Title :
 QLast Update : Thu Jul 10 12:51:11 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...	15.097	1213604	12.463 ug/ml
Target Compounds			
1) N-OCTANE	2.075	1639039	13.140 ug/ml
2) N-DECANE	4.613	1935325	15.551 ug/ml
3) N-DODECANE	6.790	2007243	16.472 ug/ml
4) N-TETRADECANE	8.624	2067707	17.199 ug/ml
5) N-HEXADECANE	10.234	2117632	18.205 ug/ml
6) N-OCTADECANE	11.680	2154512	18.540 ug/ml
7) N-EICOSANE	12.993	2212363	18.917 ug/ml
8) N-DOCOSANE	14.195	2183379	19.473 ug/ml
10) N-TETRACOSANE	15.302	2432129	21.929 ug/ml
11) N-HEXACOSANE	16.326	2103317	19.588 ug/ml
12) N-OCTACOSANE	17.279	2175161	20.228 ug/mlm
13) N-TRIACONTANE	18.171	2130974	19.675 ug/ml
14) N-DOTRIACONTANE	19.005	1912980	18.242 ug/ml
15) N-TETRATRIACONTANE	19.792	1666913	17.375 ug/ml
16) N-HEXATRIACONTANE	20.535	1410097	16.903 ug/mlm
17) N-OCTATRIACONTANE	21.301	1302802	17.690 ug/ml
18) N-TETRACONTANE	22.263	1307784	19.227 ug/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025\
Data File : FF016141.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 17:12
Operator : YP\AJ
Sample : Q2473-04MSD
Misc :
ALS Vial : 73 Sample Multiplier: 1

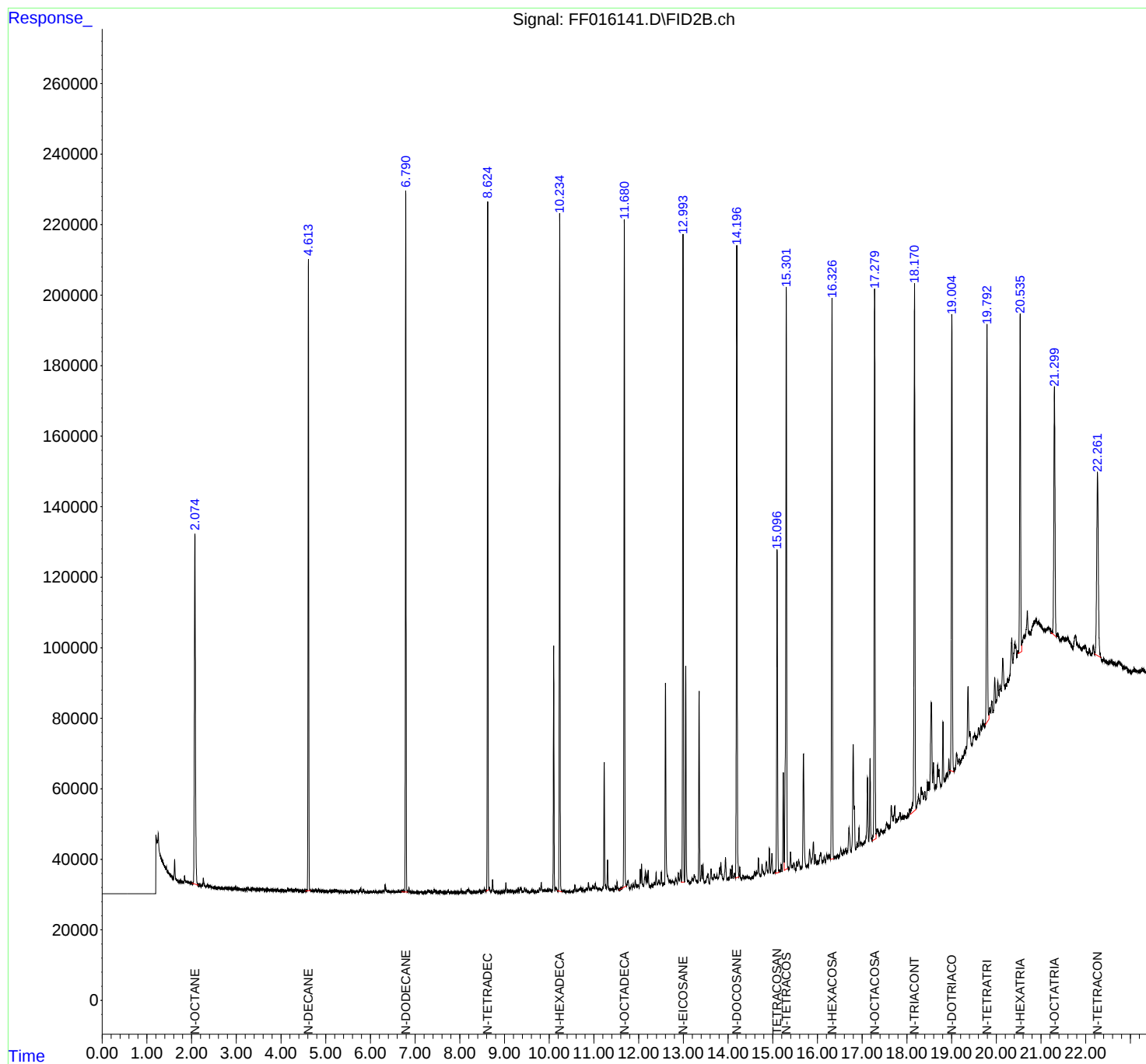
Instrument :
FID_F
ClientSampleId :
PIT#4MSD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 07/11/2025
Supervised By :mohammad ahmed 07/11/2025

Integration File: autoint1.e
Quant Time: Jul 11 02:58:19 2025
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Quant Title :
QLast Update : Thu Jul 10 12:51:11 2025
Response via : Initial Calibration
Integrator: ChemStation

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



rteres

Instrument :

FID_F

ClientSampleId :

PIT#4MSD

Area Percent Report

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_F\Data\FF071025.M
Data File : FF016141.D
Signal(s) : FID2B.ch
Acq On : 10 Jul 2025 17:12
Sample : Q2473-04MSD
Misc :
ALS Vial : 73 Sample Multiplier: 1

Integration File: Sample.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_F\Method\FF071025.M
Title :

Signal : FID2B.ch

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	1.346	1.339	1.429	VV	9434	435727	17.61%	0.546%
2	1.437	1.429	1.595	VV	7663	543483	21.97%	0.680%
3	1.622	1.595	1.717	VV	9632	335094	13.54%	0.420%
4	1.725	1.717	1.740	VV	3389	47098	1.90%	0.059%
5	1.753	1.740	1.773	VV	3481	63832	2.58%	0.080%
6	1.775	1.773	1.779	VV	3193	12697	0.51%	0.016%
7	1.785	1.779	1.811	VV	3280	59596	2.41%	0.075%
8	1.816	1.811	1.822	VV	3071	19897	0.80%	0.025%
9	1.843	1.822	1.883	VV	4871	132859	5.37%	0.166%
10	1.895	1.883	1.945	VV	3240	113662	4.59%	0.142%
11	1.950	1.945	1.994	VV	3047	83682	3.38%	0.105%
12	2.002	1.994	2.007	VV	2795	20054	0.81%	0.025%
13	2.013	2.007	2.036	VV	2838	46681	1.89%	0.058%
14	2.075	2.036	2.155	VV	101765	1810337	73.17%	2.267%
15	2.159	2.155	2.170	VV	2190	20004	0.81%	0.025%
16	2.175	2.170	2.183	VV	2173	15432	0.62%	0.019%
17	2.188	2.183	2.206	VV	2155	28400	1.15%	0.036%
18	2.207	2.206	2.212	VV	2016	7664	0.31%	0.010%
19	2.235	2.212	2.241	VV	2072	33564	1.36%	0.042%
20	2.243	2.241	2.248	VV	1947	8683	0.35%	0.011%
21	2.263	2.248	2.337	VV	4095	118738	4.80%	0.149%
22	2.356	2.337	2.393	VV	2254	62027	2.51%	0.078%
23	2.408	2.393	2.449	VV	1880	54451	2.20%	0.068%
24	2.453	2.449	2.478	VV	1454	23430	0.95%	0.029%
25	2.480	2.478	2.490	VV	1408	10158	0.41%	0.013%
26	2.494	2.490	2.517	VV	1424	21648	0.88%	0.027%
27	2.522	2.517	2.531	VV	1365	10627	0.43%	0.013%
28	2.533	2.531	2.543	VV	1290	9530	0.39%	0.012%
29	2.549	2.543	2.565	VV	1274	16249	0.66%	0.020%
30	2.569	2.565	2.593	VV	1248	20570	0.83%	0.026%
31	2.595	2.593	2.629	VV	1253	24594	0.99%	0.031%
32	2.637	2.629	2.643	VV	1219	9627	0.39%	0.012%
33	2.657	2.643	2.675	VV	1239	22307	0.90%	0.028%
34	2.679	2.675	2.710	VV	1170	22427	0.91%	0.028%
35	2.716	2.710	2.721	VV	1076	6859	0.28%	0.009%
36	2.725	2.721	2.745	VV	1101	15224	0.62%	0.019%

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37	2.763	2.745	2.793	VV	1218	31713	1.28%	0.040%
38	2.796	2.793	2.808	VV	996	8179		
39	2.811	2.808	2.825	VV	978	9486		
40	2.850	2.825	2.882	VV	1060	32235		
41	2.895	2.882	2.915	VV	991	17482		
42	2.917	2.915	2.940	VV	927	12363		
43	2.956	2.940	2.963	VV	934	11547	0.47%	0.014%
44	2.991	2.963	3.029	VV	1210	37500	1.52%	0.047%
45	3.043	3.029	3.065	VV	933	17440	0.70%	0.022%
46	3.084	3.065	3.113	VV	860	20488	0.83%	0.026%
47	3.116	3.113	3.129	VV	703	6731	0.27%	0.008%
48	3.137	3.129	3.152	VV	672	8464	0.34%	0.011%
49	3.159	3.152	3.180	VV	608	9940	0.40%	0.012%
50	3.201	3.180	3.228	VV	681	17274	0.70%	0.022%
51	3.255	3.228	3.298	VV	1072	29988	1.21%	0.038%
52	3.303	3.298	3.308	VV	578	3288	0.13%	0.004%
53	3.316	3.308	3.333	VV	580	7880	0.32%	0.010%
54	3.341	3.333	3.346	VV	602	4534	0.18%	0.006%
55	3.360	3.346	3.390	VV	981	19803	0.80%	0.025%
56	3.393	3.390	3.424	VV	628	11078	0.45%	0.014%
57	3.433	3.424	3.440	VV	561	5054	0.20%	0.006%
58	3.448	3.440	3.458	VV	603	5787	0.23%	0.007%
59	3.468	3.458	3.473	VV	555	4665	0.19%	0.006%
60	3.478	3.473	3.491	VV	536	5576	0.23%	0.007%
61	3.493	3.491	3.509	VV	583	5495	0.22%	0.007%
62	3.513	3.509	3.523	VV	554	4677	0.19%	0.006%
63	3.527	3.523	3.540	VV	591	5329	0.22%	0.007%
64	3.545	3.540	3.555	VV	593	5063	0.20%	0.006%
65	3.569	3.555	3.576	VV	621	7264	0.29%	0.009%
66	3.580	3.576	3.634	VV	597	16489	0.67%	0.021%
67	3.645	3.634	3.663	VV	428	6050	0.24%	0.008%
68	3.666	3.663	3.672	VV	395	2042	0.08%	0.003%
69	3.697	3.672	3.707	VV	533	8134	0.33%	0.010%
70	3.721	3.707	3.748	VV	441	8911	0.36%	0.011%
71	3.752	3.748	3.761	VV	309	1878	0.08%	0.002%
72	3.766	3.761	3.785	VV	308	3558	0.14%	0.004%
73	3.795	3.785	3.818	VV	356	5493	0.22%	0.007%
74	3.832	3.818	3.838	VV	223	2176	0.09%	0.003%
75	3.845	3.838	3.855	VV	146	1663	0.07%	0.002%
76	3.867	3.855	3.900	VV	264	5117	0.21%	0.006%
77	3.922	3.900	3.932	VV	272	4170	0.17%	0.005%
78	3.935	3.932	3.962	VV	246	2943	0.12%	0.004%
79	3.965	3.962	3.978	VV	141	1068	0.04%	0.001%
80	3.986	3.978	3.995	PBA	119	840	0.03%	0.001%
81	4.037	3.995	4.042	BV	157	751	0.03%	0.001%
82	4.044	4.042	4.067	VV	148	1081	0.04%	0.001%
83	4.070	4.067	4.074	PV	74	322	0.01%	0.000%
84	4.087	4.074	4.097	VV	119	1020	0.04%	0.001%
85	4.101	4.097	4.110	VV	85	468	0.02%	0.001%
86	4.149	4.110	4.186	PV	713	13463	0.54%	0.017%
87	4.189	4.186	4.200	VV	288	1817	0.07%	0.002%
88	4.217	4.200	4.235	VV	622	8597	0.35%	0.011%
89	4.239	4.235	4.243	VV	316	1443	0.06%	0.002%

Instrument :

FID_F

ClientSampleId :

PIT#4MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

							Instrument : FID_F	
							ClientSampleId : PIT#4MSD	
90	4.247	4.243	4.296	VV	343	6453	0.26%	0.008%
91	4.321	4.296	4.348	VV	425	9704	Manual IntegrationsAPPROVED	
92	4.357	4.348	4.362	VV	363	2493		
93	4.377	4.362	4.397	VV	376	5023		
94	4.417	4.397	4.470	VV	224	6324		
95	4.481	4.470	4.510	VV	172	2291		
96	4.525	4.510	4.533	VV	181	1727	0.07%	0.002%
97	4.537	4.533	4.548	VV	213	1227	0.05%	0.002%
98	4.565	4.548	4.586	VV	374	5661	0.23%	0.007%
99	4.613	4.586	4.674	VV	179284	1944926	78.61%	2.435%
100	4.684	4.674	4.692	VV	309	2743	0.11%	0.003%
101	4.698	4.692	4.728	VV	285	4376	0.18%	0.005%
102	4.740	4.728	4.754	VV	257	3113	0.13%	0.004%
103	4.779	4.754	4.815	VV	821	12268	0.50%	0.015%
104	4.844	4.815	4.877	VV	529	10801	0.44%	0.014%
105	4.882	4.877	4.886	VV	163	758	0.03%	0.001%
106	4.899	4.886	4.913	VV	278	2729	0.11%	0.003%
107	4.923	4.913	4.950	VV	301	3361	0.14%	0.004%
108	4.976	4.950	4.999	VV	239	4697	0.19%	0.006%
109	5.008	4.999	5.018	VV	175	1575	0.06%	0.002%
110	5.021	5.018	5.052	VV	154	2207	0.09%	0.003%
111	5.069	5.052	5.076	VV	190	1890	0.08%	0.002%
112	5.081	5.076	5.097	VV	218	1592	0.06%	0.002%
113	5.117	5.097	5.124	VV	237	2867	0.12%	0.004%
114	5.129	5.124	5.138	VV	279	1759	0.07%	0.002%
115	5.158	5.138	5.171	VV	288	4616	0.19%	0.006%
116	5.176	5.171	5.189	VV	308	2767	0.11%	0.003%
117	5.195	5.189	5.200	VV	322	1981	0.08%	0.002%
118	5.205	5.200	5.212	VV	387	2247	0.09%	0.003%
119	5.232	5.212	5.253	VV	481	8024	0.32%	0.010%
120	5.267	5.253	5.290	VV	300	4143	0.17%	0.005%
121	5.295	5.290	5.311	VV	150	978	0.04%	0.001%
122	5.331	5.311	5.345	VV	267	3691	0.15%	0.005%
123	5.348	5.345	5.353	VV	157	701	0.03%	0.001%
124	5.356	5.353	5.359	VV	197	547	0.02%	0.001%
125	5.368	5.359	5.397	VV	200	2738	0.11%	0.003%
126	5.420	5.397	5.425	VV	209	2525	0.10%	0.003%
127	5.431	5.425	5.449	VV	268	2378	0.10%	0.003%
128	5.453	5.449	5.469	VV	118	1084	0.04%	0.001%
129	5.475	5.469	5.482	VV	70	402	0.02%	0.001%
130	5.499	5.482	5.527	VV	152	2357	0.10%	0.003%
131	5.532	5.527	5.537	VV	88	443	0.02%	0.001%
132	5.557	5.537	5.581	VV	674	7911	0.32%	0.010%
133	5.591	5.581	5.614	VV	250	2662	0.11%	0.003%
134	5.623	5.614	5.660	VV	161	2316	0.09%	0.003%
135	5.689	5.660	5.707	VV	462	5728	0.23%	0.007%
136	5.712	5.707	5.728	VV	134	1025	0.04%	0.001%
137	5.756	5.728	5.769	PV	750	8366	0.34%	0.010%
138	5.786	5.769	5.816	VV	1217	13457	0.54%	0.017%
139	5.832	5.816	5.841	VV	756	6560	0.27%	0.008%
140	5.847	5.841	5.880	VV	586	7745	0.31%	0.010%
141	5.891	5.880	5.900	VV	157	1335	0.05%	0.002%

142	5.946	5.900	5.971	VV	199	4279	0.17%	0.005%
143	5.979	5.971	5.985	VV	161	1025		
144	5.991	5.985	5.997	VV	161	796		
145	6.001	5.997	6.008	VV	184	1078		
146	6.020	6.008	6.036	VV	287	3046		
147	6.041	6.036	6.052	VV	140	1000		
148	6.072	6.052	6.103	VV	315	5659	0.23%	0.007%
149	6.122	6.103	6.161	VV	406	5590	0.23%	0.007%
150	6.196	6.161	6.249	PV	283	9719	0.39%	0.012%
151	6.290	6.249	6.308	VV	521	9592	0.39%	0.012%
152	6.328	6.308	6.384	VV	2262	37455	1.51%	0.047%
153	6.399	6.384	6.423	VV	512	7492	0.30%	0.009%
154	6.435	6.423	6.458	VV	257	3632	0.15%	0.005%
155	6.504	6.458	6.537	VV	448	11279	0.46%	0.014%
156	6.564	6.537	6.567	VV	250	3805	0.15%	0.005%
157	6.572	6.567	6.575	VV	282	1144	0.05%	0.001%
158	6.580	6.575	6.603	VV	293	3788	0.15%	0.005%
159	6.625	6.603	6.658	VV	701	12393	0.50%	0.016%
160	6.682	6.658	6.695	VV	337	5393	0.22%	0.007%
161	6.704	6.695	6.720	VV	423	5145	0.21%	0.006%
162	6.734	6.720	6.758	VV	489	7692	0.31%	0.010%
163	6.790	6.758	6.840	VV	199123	2012962	81.36%	2.520%
164	6.862	6.840	6.889	VV	1495	17800	0.72%	0.022%
165	6.893	6.889	6.900	VV	249	1236	0.05%	0.002%
166	6.904	6.900	6.930	VV	225	3185	0.13%	0.004%
167	6.940	6.930	6.968	VV	305	4331	0.18%	0.005%
168	6.979	6.968	7.011	VV	208	2412	0.10%	0.003%
169	7.038	7.011	7.070	PV	136	3216	0.13%	0.004%
170	7.074	7.070	7.078	VV	133	541	0.02%	0.001%
171	7.083	7.078	7.097	VV	162	1088	0.04%	0.001%
172	7.108	7.097	7.113	VV	194	1314	0.05%	0.002%
173	7.124	7.113	7.158	VV	206	3409	0.14%	0.004%
174	7.161	7.158	7.165	VV	101	385	0.02%	0.000%
175	7.167	7.165	7.171	VV	140	343	0.01%	0.000%
176	7.195	7.171	7.216	VV	163	3118	0.13%	0.004%
177	7.234	7.216	7.248	VV	212	2572	0.10%	0.003%
178	7.251	7.248	7.265	VV	230	1180	0.05%	0.001%
179	7.284	7.265	7.344	VV	852	20937	0.85%	0.026%
180	7.357	7.344	7.387	VV	338	6193	0.25%	0.008%
181	7.390	7.387	7.397	VV	150	817	0.03%	0.001%
182	7.426	7.397	7.443	VV	1023	13032	0.53%	0.016%
183	7.456	7.443	7.477	VV	746	8537	0.35%	0.011%
184	7.481	7.477	7.488	VV	255	1219	0.05%	0.002%
185	7.489	7.488	7.499	VV	222	816	0.03%	0.001%
186	7.513	7.499	7.545	VV	224	3348	0.14%	0.004%
187	7.566	7.545	7.591	VV	853	9933	0.40%	0.012%
188	7.606	7.591	7.628	VV	325	4091	0.17%	0.005%
189	7.641	7.628	7.648	VV	203	1900	0.08%	0.002%
190	7.654	7.648	7.666	VV	206	1624	0.07%	0.002%
191	7.672	7.666	7.675	VV	165	844	0.03%	0.001%
192	7.681	7.675	7.707	VV	216	2583	0.10%	0.003%
193	7.740	7.707	7.770	VV	772	11792	0.48%	0.015%
194	7.798	7.770	7.812	VV	385	4941	0.20%	0.006%

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195	7.829	7.812	7.838	VV	222	2288	0.09%	0.003%
196	7.871	7.838	7.880	VV	239	3744		
197	7.914	7.880	7.935	VV	231	4391		
198	7.960	7.935	7.978	VV	189	3148		
199	7.987	7.978	7.995	PV	131	631		
200	8.029	7.995	8.074	VV	748	11489		
201	8.082	8.074	8.095	VV	146	1537	0.06%	0.002%
202	8.100	8.095	8.111	VV	142	821	0.03%	0.001%
203	8.166	8.111	8.183	VV	926	15828	0.64%	0.020%
204	8.199	8.183	8.219	VV	1001	13233	0.53%	0.017%
205	8.223	8.219	8.254	VV	347	5047	0.20%	0.006%
206	8.258	8.254	8.264	VV	129	768	0.03%	0.001%
207	8.270	8.264	8.294	VV	213	2331	0.09%	0.003%
208	8.318	8.294	8.338	VV	441	7493	0.30%	0.009%
209	8.341	8.338	8.355	VV	255	2169	0.09%	0.003%
210	8.372	8.355	8.385	VV	267	3966	0.16%	0.005%
211	8.398	8.385	8.407	VV	262	2834	0.11%	0.004%
212	8.444	8.407	8.479	VV	634	15735	0.64%	0.020%
213	8.515	8.479	8.530	VV	515	10298	0.42%	0.013%
214	8.548	8.530	8.563	VV	1163	14960	0.60%	0.019%
215	8.577	8.563	8.590	VV	727	9880	0.40%	0.012%
216	8.624	8.590	8.650	VV	195988	2093149	84.60%	2.621%
217	8.661	8.650	8.688	VV	1616	20485	0.83%	0.026%
218	8.733	8.688	8.804	VV	3789	59670	2.41%	0.075%
219	8.822	8.804	8.834	VV	360	4173	0.17%	0.005%
220	8.837	8.834	8.848	VV	237	1451	0.06%	0.002%
221	8.856	8.848	8.888	VV	234	3367	0.14%	0.004%
222	8.908	8.888	8.920	VV	115	1287	0.05%	0.002%
223	8.952	8.920	8.961	VV	263	4011	0.16%	0.005%
224	8.981	8.961	9.011	VV	443	9628	0.39%	0.012%
225	9.031	9.011	9.057	VV	2799	31352	1.27%	0.039%
226	9.099	9.057	9.122	VV	562	16808	0.68%	0.021%
227	9.130	9.122	9.145	VV	416	5114	0.21%	0.006%
228	9.165	9.145	9.204	VV	458	10067	0.41%	0.013%
229	9.209	9.204	9.215	VV	191	1039	0.04%	0.001%
230	9.231	9.215	9.251	VV	375	5859	0.24%	0.007%
231	9.274	9.251	9.289	VV	654	8977	0.36%	0.011%
232	9.307	9.289	9.326	VV	1378	16105	0.65%	0.020%
233	9.357	9.326	9.413	VV	1190	34390	1.39%	0.043%
234	9.419	9.413	9.421	VV	152	615	0.02%	0.001%
235	9.450	9.421	9.470	VV	1367	19156	0.77%	0.024%
236	9.484	9.470	9.526	VV	721	11307	0.46%	0.014%
237	9.538	9.526	9.565	VV	152	2280	0.09%	0.003%
238	9.600	9.565	9.618	VV	635	7763	0.31%	0.010%
239	9.634	9.618	9.663	VV	687	9166	0.37%	0.011%
240	9.685	9.663	9.707	VV	402	5821	0.24%	0.007%
241	9.739	9.707	9.763	VV	563	9034	0.37%	0.011%
242	9.783	9.763	9.802	VV	1378	16892	0.68%	0.021%
243	9.822	9.802	9.860	VV	2738	40597	1.64%	0.051%
244	9.870	9.860	9.883	VV	521	5907	0.24%	0.007%
245	9.900	9.883	9.931	VV	684	13362	0.54%	0.017%
246	9.946	9.931	9.953	VV	421	4331	0.18%	0.005%

Instrument :

FID_F

ClientSampleId :

PIT#4MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

Instrument : FID_F									
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Manual IntegrationsAPPROVED									
Reviewed By :Yogesh Patel 07/11/2025									
Supervised By :mohammad ahmed 07/11/2025									
					rters				
247	9.972	9.953	9.993	VV	1198	16060	0.65%	0.020%	
248	10.011	9.993	10.027	VV	1064	13697			
249	10.033	10.027	10.055	VV	583	7242			
250	10.100	10.055	10.129	VV	69851	712754	28		
251	10.147	10.129	10.159	VV	1338	17988			
252	10.166	10.159	10.201	VV	1014	14063			
253	10.234	10.201	10.295	VV	191969	2130391	86.11%	2.667%	
254	10.308	10.295	10.318	VV	372	3874	0.16%	0.005%	
255	10.324	10.318	10.327	VV	223	990	0.04%	0.001%	
256	10.338	10.327	10.364	VV	425	5477	0.22%	0.007%	
257	10.367	10.364	10.380	PV	61	341	0.01%	0.000%	
258	10.384	10.380	10.387	VV	124	324	0.01%	0.000%	
259	10.405	10.387	10.419	VV	241	2974	0.12%	0.004%	
260	10.421	10.419	10.442	VV	179	917	0.04%	0.001%	
261	10.448	10.442	10.454	VV	116	578	0.02%	0.001%	
262	10.460	10.454	10.475	VV	122	822	0.03%	0.001%	
263	10.479	10.475	10.495	VV	75	447	0.02%	0.001%	
264	10.506	10.495	10.524	VV	119	1222	0.05%	0.002%	
265	10.575	10.524	10.604	PV	1966	26638	1.08%	0.033%	
266	10.622	10.604	10.640	VV	534	6878	0.28%	0.009%	
267	10.680	10.640	10.691	VV	770	13848	0.56%	0.017%	
268	10.710	10.691	10.734	VV	1153	16293	0.66%	0.020%	
269	10.749	10.734	10.767	VV	627	8119	0.33%	0.010%	
270	10.772	10.767	10.777	VV	263	1316	0.05%	0.002%	
271	10.791	10.777	10.806	VV	378	4814	0.19%	0.006%	
272	10.827	10.806	10.855	VV	970	17460	0.71%	0.022%	
273	10.876	10.855	10.895	VV	2483	32038	1.29%	0.040%	
274	10.902	10.895	10.915	VV	713	7349	0.30%	0.009%	
275	10.928	10.915	10.945	VV	889	12059	0.49%	0.015%	
276	10.975	10.945	10.986	VV	1285	21989	0.89%	0.028%	
277	10.996	10.986	11.010	VV	1240	13343	0.54%	0.017%	
278	11.031	11.010	11.054	VV	2104	35236	1.42%	0.044%	
279	11.060	11.054	11.091	VV	894	15518	0.63%	0.019%	
280	11.099	11.091	11.109	VV	546	4818	0.19%	0.006%	
281	11.128	11.109	11.145	VV	755	10522	0.43%	0.013%	
282	11.158	11.145	11.180	VV	351	4892	0.20%	0.006%	
283	11.196	11.180	11.205	VV	950	9285	0.38%	0.012%	
284	11.229	11.205	11.278	VV	36435	410942	16.61%	0.514%	
285	11.304	11.278	11.374	VV	8700	112653	4.55%	0.141%	
286	11.405	11.374	11.446	VV	391	11331	0.46%	0.014%	
287	11.450	11.446	11.457	VV	173	958	0.04%	0.001%	
288	11.479	11.457	11.499	VV	955	13283	0.54%	0.017%	
289	11.517	11.499	11.566	VV	2381	31761	1.28%	0.040%	
290	11.607	11.566	11.625	PV	562	11241	0.45%	0.014%	
291	11.680	11.625	11.731	VV	190011	2197481	88.82%	2.751%	
292	11.766	11.731	11.804	VV	2427	60660	2.45%	0.076%	
293	11.836	11.804	11.854	VV	1291	19947	0.81%	0.025%	
294	11.875	11.854	11.904	VV	1292	24482	0.99%	0.031%	
295	11.925	11.904	11.943	VV	2510	33121	1.34%	0.041%	
296	11.954	11.943	11.971	VV	908	13073	0.53%	0.016%	
297	11.988	11.971	12.008	VV	1055	16368	0.66%	0.020%	
298	12.035	12.008	12.049	VV	5472	64044	2.59%	0.080%	
299	12.066	12.049	12.110	VV	6912	93652	3.79%	0.117%	

300	12.151	12.110	12.169	VV	4845	93073	3.76%	0.117%
301	12.184	12.169	12.197	VV	3752	44674		
302	12.214	12.197	12.252	VV	5022	68469		
303	12.256	12.252	12.271	VV	464	4121		
304	12.291	12.271	12.319	VV	848	15938		
305	12.353	12.319	12.369	VV	1431	27692		
306	12.391	12.369	12.416	VV	4213	57670	2.33%	0.072%
307	12.449	12.416	12.485	VV	1748	51739	2.09%	0.065%
308	12.508	12.485	12.557	VV	4269	74054	2.99%	0.093%
309	12.567	12.557	12.580	VV	882	10820	0.44%	0.014%
310	12.601	12.580	12.673	VV	57822	779587	31.51%	0.976%
311	12.683	12.673	12.698	VV	1687	22718	0.92%	0.028%
312	12.710	12.698	12.727	VV	1579	24456	0.99%	0.031%
313	12.737	12.727	12.746	VV	1322	13655	0.55%	0.017%
314	12.758	12.746	12.771	VV	1618	21306	0.86%	0.027%
315	12.780	12.771	12.800	VV	1284	17211	0.70%	0.022%
316	12.827	12.800	12.865	VV	2089	50352	2.04%	0.063%
317	12.886	12.865	12.915	VV	3643	61085	2.47%	0.076%
318	12.938	12.915	12.956	VV	4448	68424	2.77%	0.086%
319	12.993	12.956	13.026	VV	184253	2252061	91.03%	2.820%
320	13.054	13.026	13.093	VV	62244	733159	29.63%	0.918%
321	13.109	13.093	13.135	VV	1482	24550	0.99%	0.031%
322	13.153	13.135	13.169	VV	688	11049	0.45%	0.014%
323	13.192	13.169	13.204	VV	1783	26567	1.07%	0.033%
324	13.214	13.204	13.227	VV	1687	20048	0.81%	0.025%
325	13.243	13.227	13.282	VV	2875	64568	2.61%	0.081%
326	13.291	13.282	13.325	VV	1176	21854	0.88%	0.027%
327	13.353	13.325	13.379	VV	54514	610438	24.67%	0.764%
328	13.409	13.379	13.425	VV	5466	78596	3.18%	0.098%
329	13.441	13.425	13.475	VV	5523	69430	2.81%	0.087%
330	13.494	13.475	13.508	VV	778	10965	0.44%	0.014%
331	13.527	13.508	13.536	VV	2129	25103	1.01%	0.031%
332	13.551	13.536	13.579	VV	2707	38251	1.55%	0.048%
333	13.620	13.579	13.642	PV	4158	72697	2.94%	0.091%
334	13.649	13.642	13.669	VV	1363	19847	0.80%	0.025%
335	13.690	13.669	13.713	VV	2506	48909	1.98%	0.061%
336	13.725	13.713	13.737	VV	1646	20866	0.84%	0.026%
337	13.751	13.737	13.770	VV	2268	33411	1.35%	0.042%
338	13.814	13.770	13.827	VV	4158	78669	3.18%	0.098%
339	13.838	13.827	13.890	VV	5560	102576	4.15%	0.128%
340	13.896	13.890	13.899	VV	855	4130	0.17%	0.005%
341	13.943	13.899	13.982	VV	6911	134384	5.43%	0.168%
342	14.012	13.982	14.027	VV	1144	21783	0.88%	0.027%
343	14.054	14.027	14.073	VV	3255	51152	2.07%	0.064%
344	14.091	14.073	14.111	VV	4403	54498	2.20%	0.068%
345	14.142	14.111	14.161	VV	1924	39362	1.59%	0.049%
346	14.195	14.161	14.242	VV	179965	2222173	89.82%	2.782%
347	14.263	14.242	14.300	VV	3637	52199	2.11%	0.065%
348	14.335	14.300	14.358	VV	1215	19969	0.81%	0.025%
349	14.373	14.358	14.382	VV	569	6475	0.26%	0.008%
350	14.401	14.382	14.419	VV	744	11402	0.46%	0.014%
351	14.433	14.419	14.460	VV	714	12454	0.50%	0.016%

Instrument :

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Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

					rters			
352	14.476	14.460	14.495	VV	603	6904	0.28%	0.009%
353	14.501	14.495	14.515	PV	199	1225		
354	14.530	14.515	14.542	PV	362	3254		
355	14.557	14.542	14.566	VV	371	4034		
356	14.590	14.566	14.615	VV	1788	30312		
357	14.639	14.615	14.657	VV	1513	30089		
358	14.679	14.657	14.737	VV	5506	83774	3.39%	0.105%
359	14.760	14.737	14.782	VV	3471	50997	2.06%	0.064%
360	14.789	14.782	14.814	VV	1284	16631	0.67%	0.021%
361	14.860	14.814	14.897	VV	3987	94880	3.83%	0.119%
362	14.924	14.897	14.946	VV	7689	106831	4.32%	0.134%
363	14.981	14.946	15.013	VV	6099	104723	4.23%	0.131%
364	15.046	15.013	15.062	VV	1125	19472	0.79%	0.024%
365	15.097	15.062	15.137	VV	91919	1228007	49.63%	1.537%
366	15.154	15.137	15.167	VV	918	13341	0.54%	0.017%
367	15.188	15.167	15.208	VV	2478	32743	1.32%	0.041%
368	15.235	15.208	15.256	VV	28451	339995	13.74%	0.426%
369	15.302	15.256	15.338	VV	165109	2474076	100.00%	3.098%
370	15.347	15.338	15.359	VV	1259	12677	0.51%	0.016%
371	15.397	15.359	15.421	VV	5623	89455	3.62%	0.112%
372	15.441	15.421	15.450	VV	1388	20753	0.84%	0.026%
373	15.472	15.450	15.512	VV	2256	48727	1.97%	0.061%
374	15.538	15.512	15.562	PV	2402	40733	1.65%	0.051%
375	15.579	15.562	15.636	VV	2589	54472	2.20%	0.068%
376	15.687	15.636	15.752	VV	32375	563625	22.78%	0.706%
377	15.761	15.752	15.765	VV	400	2528	0.10%	0.003%
378	15.783	15.765	15.794	VV	374	5287	0.21%	0.007%
379	15.824	15.794	15.858	VV	4938	91325	3.69%	0.114%
380	15.910	15.858	15.932	VV	6737	136282	5.51%	0.171%
381	15.949	15.932	15.982	VV	2966	41562	1.68%	0.052%
382	15.995	15.982	16.015	VV	681	9505	0.38%	0.012%
383	16.024	16.015	16.029	VV	629	4362	0.18%	0.005%
384	16.056	16.029	16.060	VV	2320	27051	1.09%	0.034%
385	16.073	16.060	16.108	VV	2955	50308	2.03%	0.063%
386	16.127	16.108	16.132	VV	470	4251	0.17%	0.005%
387	16.152	16.132	16.177	VV	1665	22692	0.92%	0.028%
388	16.205	16.177	16.224	PV	2059	31376	1.27%	0.039%
389	16.234	16.224	16.252	VV	1483	19695	0.80%	0.025%
390	16.266	16.252	16.290	VV	1669	24174	0.98%	0.030%
391	16.326	16.290	16.365	VV	158787	2113178	85.41%	2.646%
392	16.370	16.365	16.373	VV	252	1171	0.05%	0.001%
393	16.388	16.373	16.412	VV	663	10191	0.41%	0.013%
394	16.424	16.412	16.430	VV	395	3705	0.15%	0.005%
395	16.441	16.430	16.461	VV	660	9069	0.37%	0.011%
396	16.466	16.461	16.480	VV	354	2525	0.10%	0.003%
397	16.521	16.480	16.545	PV	2277	43405	1.75%	0.054%
398	16.550	16.545	16.564	VV	771	5789	0.23%	0.007%
399	16.580	16.564	16.600	VV	1459	19247	0.78%	0.024%
400	16.626	16.600	16.650	VV	1463	28762	1.16%	0.036%
401	16.705	16.650	16.750	VV	7144	156018	6.31%	0.195%
402	16.800	16.750	16.819	VV	30290	474802	19.19%	0.594%
403	16.824	16.819	16.855	VV	12639	128364	5.19%	0.161%
404	16.887	16.855	16.905	PV	1528	25304	1.02%	0.032%

Instrument :

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Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

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405	16.930	16.905	16.951	VV	5790	73500	2.97%	0.092%
406	16.970	16.951	17.005	VV	1438	29587		
407	17.022	17.005	17.027	VV	759	7310		
408	17.049	17.027	17.062	VV	1100	14985		
409	17.120	17.062	17.144	VV	18620	284657	11.11%	0.352%
410	17.178	17.144	17.221	VV	23884	321860	13.33%	0.425%
411	17.279	17.221	17.312	PV	156069	2178067	88.04%	2.727%
412	17.329	17.312	17.346	VV	2615	41200	1.67%	0.052%
413	17.354	17.346	17.383	VV	1989	24524	0.99%	0.031%
414	17.422	17.383	17.462	VV	1649	40217	1.63%	0.050%
415	17.487	17.462	17.507	VV	818	10677	0.43%	0.013%
416	17.552	17.507	17.575	VV	2327	57371	2.32%	0.072%
417	17.580	17.575	17.588	VV	961	6930	0.28%	0.009%
418	17.595	17.588	17.605	VV	1094	7771	0.31%	0.010%
419	17.652	17.605	17.694	VV	6449	147812	5.97%	0.185%
420	17.730	17.694	17.750	VV	5685	111405	4.50%	0.139%
421	17.766	17.750	17.780	VV	1757	21886	0.88%	0.027%
422	17.809	17.780	17.822	VV	1568	29291	1.18%	0.037%
423	17.843	17.822	17.869	VV	2776	50501	2.04%	0.063%
424	17.906	17.869	17.921	VV	1286	24363	0.98%	0.031%
425	17.962	17.921	17.987	VV	954	20657	0.83%	0.026%
426	18.026	17.987	18.041	VV	641	10187	0.41%	0.013%
427	18.059	18.041	18.081	PV	1930	28699	1.16%	0.036%
428	18.126	18.081	18.131	VV	2618	51390	2.08%	0.064%
429	18.171	18.131	18.207	VV	149342	2102330	84.97%	2.632%
430	18.260	18.207	18.292	VV	3948	107148	4.33%	0.134%
431	18.321	18.292	18.337	VV	5569	92967	3.76%	0.116%
432	18.352	18.337	18.379	VV	3546	67784	2.74%	0.085%
433	18.399	18.379	18.430	VV	3478	67419	2.73%	0.084%
434	18.460	18.430	18.475	VV	5610	91412	3.69%	0.114%
435	18.491	18.475	18.508	VV	5325	81662	3.30%	0.102%
436	18.546	18.508	18.575	VV	27273	608849	24.61%	0.762%
437	18.594	18.575	18.624	VV	9702	170022	6.87%	0.213%
438	18.638	18.624	18.664	VV	3055	57152	2.31%	0.072%
439	18.687	18.664	18.705	VV	8140	136756	5.53%	0.171%
440	18.717	18.705	18.770	VV	6342	132206	5.34%	0.166%
441	18.807	18.770	18.855	VV	19115	303234	12.26%	0.380%
442	18.897	18.855	18.913	VV	3600	100435	4.06%	0.126%
443	18.939	18.913	18.960	VV	7226	128828	5.21%	0.161%
444	19.005	18.960	19.059	VV	132516	2101804	84.95%	2.631%
445	19.110	19.059	19.144	VV	7118	239231	9.67%	0.300%
446	19.165	19.144	19.184	VV	5000	104175	4.21%	0.130%
447	19.240	19.184	19.254	VV	5127	177196	7.16%	0.222%
448	19.288	19.254	19.308	VV	6282	174638	7.06%	0.219%
449	19.326	19.308	19.339	VV	7084	114902	4.64%	0.144%
450	19.367	19.339	19.396	VV	23411	508213	20.54%	0.636%
451	19.412	19.396	19.458	VV	10434	296404	11.98%	0.371%
452	19.515	19.458	19.529	VV	8685	323439	13.07%	0.405%
453	19.539	19.529	19.554	VV	7861	110804	4.48%	0.139%
454	19.600	19.554	19.628	VV	9476	353742	14.30%	0.443%
455	19.658	19.628	19.676	VV	9461	251477	10.16%	0.315%
456	19.700	19.676	19.737	VV	10537	339609	13.73%	0.425%

Instrument :

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ClientSampleId :

PIT#4MSD

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 07/11/2025

Supervised By :mohammad ahmed 07/11/2025

							Instrument : FID_F	
							ClientSampleId : 12	
							PIT#4MSD	
rteres							Manual Integration	
457	19.792	19.737	19.835	VV	122156	2207733	89.23%	2.764%
458	19.856	19.835	19.879	VV	12814	305819	12.28%	0.382%
459	19.900	19.879	19.932	VV	14175	393671	15.78%	0.489%
460	19.966	19.932	19.994	VV	19945	561106	22.28%	0.382%
							Reviewed By :Yogesh	
							Supervised By :m	
461	20.034	19.994	20.062	VV	18438	622784	25.26%	1.557%
462	20.088	20.062	20.110	VV	16732	454712	18.35%	1.002%
463	20.145	20.110	20.197	VV	23582	947134	38.28%	1.186%
464	20.219	20.197	20.230	VV	15977	305327	12.34%	0.382%
465	20.258	20.230	20.270	VV	16925	390290	15.78%	0.489%
466	20.346	20.270	20.371	VV	27568	1243519	50.26%	1.557%
467	20.416	20.371	20.429	VV	25690	800464	32.35%	1.002%
468	20.436	20.429	20.459	VV	24461	414385	16.75%	0.519%
469	20.482	20.459	20.494	VV	22592	462221	18.68%	0.579%
470	20.535	20.494	20.567	VV	117710	2357593	95.29%	2.952%
471	20.614	20.567	20.642	VV	25464	1106802	44.74%	1.386%
472	20.695	20.642	20.745	VV	31502	1657646	67.00%	2.075%
473	20.754	20.745	20.769	VV	25340	358941	14.51%	0.449%
474	20.848	20.769	20.872	VV	27297	1617735	65.39%	2.025%
475	20.892	20.872	20.938	VV	27518	1051809	42.51%	1.317%
476	20.956	20.938	20.982	VV	26098	673070	27.20%	0.843%
477	20.994	20.982	21.077	VV	24849	1340044	54.16%	1.678%
478	21.098	21.077	21.105	VV	22375	377240	15.25%	0.472%
479	21.160	21.105	21.244	VV	22394	1788293	72.28%	2.239%
480	21.301	21.244	21.346	VV	89022	2455555	99.25%	3.074%
481	21.365	21.346	21.422	VV	18730	804939	32.53%	1.008%
482	21.436	21.422	21.462	VV	16217	382366	15.45%	0.479%
483	21.484	21.462	21.530	VV	16558	645664	26.10%	0.808%
484	21.537	21.530	21.547	VV	15262	153769	6.22%	0.193%
485	21.555	21.547	21.566	VV	15057	168635	6.82%	0.211%
486	21.576	21.566	21.587	VV	15113	185199	7.49%	0.232%
487	21.599	21.587	21.644	VV	15121	489609	19.79%	0.613%
488	21.650	21.644	21.685	VV	13246	310939	12.57%	0.389%
489	21.697	21.685	21.711	VV	11838	177515	7.18%	0.222%
490	21.772	21.711	21.800	VV	14048	669407	27.06%	0.838%
491	21.809	21.800	21.845	VV	11561	293445	11.86%	0.367%
492	21.860	21.845	21.896	VV	10306	293604	11.87%	0.368%
493	21.904	21.896	21.914	VV	9171	93002	3.76%	0.116%
494	21.939	21.914	21.969	VV	9067	287562	11.62%	0.360%
495	21.979	21.969	21.986	VV	8818	92395	3.73%	0.116%
496	21.995	21.986	22.047	VV	8872	270074	10.92%	0.338%
497	22.082	22.047	22.115	VV	7267	254045	10.27%	0.318%
498	22.128	22.115	22.136	VV	5211	61717	2.49%	0.077%
499	22.172	22.136	22.197	VV	7112	209883	8.48%	0.263%
500	22.263	22.197	22.367	VV	55244	1608514	65.01%	2.014%
501	22.403	22.367	22.430	VV	1037	24066	0.97%	0.030%
Sum of corrected areas:							79873270	

Manual Integration Report

Sample ID	ClientID ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
Q2473-04MS		FF016140.D	FF071025	N-OCTACOSANE	mohammad	7/11/2025 9:10:05 AM	Peak Integrated by Software incorrectly
Q2473-04MSD		FF016141.D	FF071025	N-HEXATRIACONTANE	mohammad	7/11/2025 9:10:05 AM	Peak Integrated by Software incorrectly
Q2473-04MSD		FF016141.D	FF071025	N-OCTACOSANE	mohammad	7/11/2025 9:10:05 AM	Peak Integrated by Software incorrectly
Q2486-01		FF016142.D	FF071025	TETRACOSANE-d50 (SURROGA	mohammad	7/11/2025 9:10:05 AM	Peak Integrated by Software incorrectly
.BLK		FF016144.D	FF071025	TETRACOSANE-d50 (SURROGA	mohammad	7/11/2025 9:10:05 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		FG016281.D	FG071025	N-OCTACOSANE	 	 	Peak Integrated by Software incorrectly
50 PPM TRPH STD		FG016283.D	FG071025	N-OCTACOSANE	 	 	Peak Integrated by Software incorrectly

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF071025

Review By	yogesh	Review On	7/10/2025 3:10:07 PM
Supervise By	mohammad	Supervise On	7/11/2025 9:10:05 AM
SubDirectory	FF071025	HP Acquire Method	HP Processing Method FF071025
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	FF016128.D	10 Jul 2025 08:46	YP\AJ	Ok
2	I.BLK	FF016129.D	10 Jul 2025 09:16	YP\AJ	Ok
3	100 TRPH STD	FF016130.D	10 Jul 2025 09:46	YP\AJ	Ok
4	50 TRPH STD	FF016131.D	10 Jul 2025 10:15	YP\AJ	Ok
5	20 TRPH STD	FF016132.D	10 Jul 2025 10:45	YP\AJ	Ok
6	10 TRPH STD	FF016133.D	10 Jul 2025 11:15	YP\AJ	Ok
7	5 TRPH STD	FF016134.D	10 Jul 2025 12:44	YP\AJ	Ok
8	FF071025ICV	FF016135.D	10 Jul 2025 13:13	YP\AJ	Ok
9	I.BLK	FF016136.D	10 Jul 2025 13:43	YP\AJ	Ok
10	50 PPM TRPH STD	FF016137.D	10 Jul 2025 15:12	YP\AJ	Ok
11	RT MARKER	FF016138.D	10 Jul 2025 15:42	YP\AJ	Ok
12	Q2473-04	FF016139.D	10 Jul 2025 16:12	YP\AJ	Ok
13	Q2473-04MS	FF016140.D	10 Jul 2025 16:42	YP\AJ	Ok,M
14	Q2473-04MSD	FF016141.D	10 Jul 2025 17:12	YP\AJ	Ok,M
15	Q2486-01	FF016142.D	10 Jul 2025 17:42	YP\AJ	Ok,M
16	Q2504-01	FF016143.D	10 Jul 2025 18:12	YP\AJ	Ok
17	I.BLK	FF016144.D	10 Jul 2025 18:41	YP\AJ	Ok,M
18	50 PPM TRPH STD	FF016145.D	10 Jul 2025 20:11	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG070925

Review By	yogesh	Review On	7/9/2025 12:27:07 PM
Supervise By	mohammad	Supervise On	7/11/2025 1:37:09 AM
SubDirectory	FG070925	HP Acquire Method	HP Processing Method FG070925
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	FG016262.D	09 Jul 2025 09:03	YP\AJ	Ok
2	I.BLK	FG016263.D	09 Jul 2025 09:32	YP\AJ	Ok
3	100 TRPH STD	FG016264.D	09 Jul 2025 10:02	YP\AJ	Ok
4	50 TRPH STD	FG016265.D	09 Jul 2025 11:05	YP\AJ	Ok
5	20 TRPH STD	FG016266.D	09 Jul 2025 11:34	YP\AJ	Ok
6	10 TRPH STD	FG016267.D	09 Jul 2025 12:04	YP\AJ	Ok
7	5 TRPH STD	FG016268.D	09 Jul 2025 12:34	YP\AJ	Ok
8	FG070925ICV	FG016269.D	09 Jul 2025 13:04	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG071025

Review By	yogesh	Review On	7/10/2025 3:09:15 PM
Supervise By		Supervise On	
SubDirectory	FG071025	HP Acquire Method	HP Processing Method FG070925
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM	PP24469		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	MECL2	FG016270.D	10 Jul 2025 08:46	YP\AJ	Ok
2	I.BLK	FG016271.D	10 Jul 2025 10:45	YP\AJ	Ok
3	50 PPM TRPH STD	FG016272.D	10 Jul 2025 12:44	YP\AJ	Ok
4	RT MARKER	FG016273.D	10 Jul 2025 13:13	YP\AJ	Ok
5	PB168785BL	FG016274.D	10 Jul 2025 13:43	YP\AJ	Ok
6	PB168785BS	FG016275.D	10 Jul 2025 14:13	YP\AJ	Ok
7	Q2473-01	FG016276.D	10 Jul 2025 14:43	YP\AJ	Dilution
8	Q2473-01	FG016277.D	10 Jul 2025 15:42	YP\AJ	Ok
9	Q2473-02	FG016278.D	10 Jul 2025 16:12	YP\AJ	Dilution
10	Q2473-03	FG016279.D	10 Jul 2025 16:42	YP\AJ	Dilution
11	I.BLK	FG016280.D	10 Jul 2025 17:12	YP\AJ	Ok
12	50 PPM TRPH STD	FG016281.D	10 Jul 2025 18:41	YP\AJ	Ok,NS
13	I.BLK	FG016282.D	10 Jul 2025 19:11	YP\AJ	Ok
14	50 PPM TRPH STD	FG016283.D	10 Jul 2025 19:41	YP\AJ	Ok,NS
15	RT MARKER	FG016284.D	10 Jul 2025 20:41	YP\AJ	Ok
16	PB168751BS	FG016285.D	10 Jul 2025 21:11	YP\AJ	Ok
17	I.BLK	FG016286.D	10 Jul 2025 21:41	YP\AJ	Ok
18	50 PPM TRPH STD	FG016287.D	10 Jul 2025 22:10	YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF071025

Review By	yogesh	Review On	7/10/2025 3:10:07 PM
Supervise By	mohammad	Supervise On	7/11/2025 9:10:05 AM
SubDirectory	FF071025	HP Acquire Method	HP Processing Method FF071025
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC	PP24469		
Internal Standard/PEM	PP24468,PP24473		
ICV/I.BLK			
Surrogate Standard			
MS/MSD Standard			
LCS Standard			

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	MECL2		FF016128.D	10 Jul 2025 08:46		YPIAJ	Ok
2	I.BLK		FF016129.D	10 Jul 2025 09:16		YPIAJ	Ok
3	100 TRPH STD		FF016130.D	10 Jul 2025 09:46		YPIAJ	Ok
4	50 TRPH STD		FF016131.D	10 Jul 2025 10:15		YPIAJ	Ok
5	20 TRPH STD		FF016132.D	10 Jul 2025 10:45		YPIAJ	Ok
6	10 TRPH STD		FF016133.D	10 Jul 2025 11:15		YPIAJ	Ok
7	5 TRPH STD		FF016134.D	10 Jul 2025 12:44		YPIAJ	Ok
8	FF071025ICV		FF016135.D	10 Jul 2025 13:13		YPIAJ	Ok
9	I.BLK		FF016136.D	10 Jul 2025 13:43		YPIAJ	Ok
10	50 PPM TRPH STD		FF016137.D	10 Jul 2025 15:12		YPIAJ	Ok
11	RT MARKER		FF016138.D	10 Jul 2025 15:42		YPIAJ	Ok
12	Q2473-04		FF016139.D	10 Jul 2025 16:12		YPIAJ	Ok
13	Q2473-04MS		FF016140.D	10 Jul 2025 16:42		YPIAJ	Ok,M
14	Q2473-04MSD		FF016141.D	10 Jul 2025 17:12		YPIAJ	Ok,M
15	Q2486-01		FF016142.D	10 Jul 2025 17:42		YPIAJ	Ok,M
16	Q2504-01		FF016143.D	10 Jul 2025 18:12		YPIAJ	Ok
17	I.BLK		FF016144.D	10 Jul 2025 18:41		YPIAJ	Ok,M
18	50 PPM TRPH STD		FF016145.D	10 Jul 2025 20:11		YPIAJ	Ok

Instrument ID: FID_F

Daily Analysis Runlog For Sequence/QC Batch ID # FF071025

Review By	yogesh	Review On	7/10/2025 3:10:07 PM	
Supervise By	mohammad	Supervise On	7/11/2025 9:10:05 AM	
SubDirectory	FF071025	HP Acquire Method	HP Processing Method	FF071025
STD. NAME	STD REF.#			
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472			
CCC Internal Standard/PEM	PP24469			
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473			

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG070925

Review By	yogesh	Review On	7/9/2025 12:27:07 PM
Supervise By	mohammad	Supervise On	7/11/2025 1:37:09 AM
SubDirectory	FG070925	HP Acquire Method	HP Processing Method FG070925
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		FG016262.D	09 Jul 2025 09:03		YP\AJ	Ok
2	I.BLK		FG016263.D	09 Jul 2025 09:32		YP\AJ	Ok
3	100 TRPH STD		FG016264.D	09 Jul 2025 10:02		YP\AJ	Ok
4	50 TRPH STD		FG016265.D	09 Jul 2025 11:05		YP\AJ	Ok
5	20 TRPH STD		FG016266.D	09 Jul 2025 11:34		YP\AJ	Ok
6	10 TRPH STD		FG016267.D	09 Jul 2025 12:04		YP\AJ	Ok
7	5 TRPH STD		FG016268.D	09 Jul 2025 12:34		YP\AJ	Ok
8	FG070925ICV		FG016269.D	09 Jul 2025 13:04		YP\AJ	Ok

M : Manual Integration

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG071025

Review By	yogesh	Review On	7/10/2025 3:09:15 PM
Supervise By		Supervise On	
SubDirectory	FG071025	HP Acquire Method	HP Processing Method FG070925
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		FG016270.D	10 Jul 2025 08:46		YPIAJ	Ok
2	I.BLK		FG016271.D	10 Jul 2025 10:45		YPIAJ	Ok
3	50 PPM TRPH STD		FG016272.D	10 Jul 2025 12:44		YPIAJ	Ok
4	RT MARKER		FG016273.D	10 Jul 2025 13:13		YPIAJ	Ok
5	PB168785BL		FG016274.D	10 Jul 2025 13:43		YPIAJ	Ok
6	PB168785BS		FG016275.D	10 Jul 2025 14:13		YPIAJ	Ok
7	Q2473-01		FG016276.D	10 Jul 2025 14:43	need 10x dilution	YPIAJ	Dilution
8	Q2473-01		FG016277.D	10 Jul 2025 15:42		YPIAJ	Ok
9	Q2473-02		FG016278.D	10 Jul 2025 16:12	need 10x dilution	YPIAJ	Dilution
10	Q2473-03		FG016279.D	10 Jul 2025 16:42	need 5x dilution	YPIAJ	Dilution
11	I.BLK		FG016280.D	10 Jul 2025 17:12		YPIAJ	Ok
12	50 PPM TRPH STD		FG016281.D	10 Jul 2025 18:41		YPIAJ	Ok,NS
13	I.BLK		FG016282.D	10 Jul 2025 19:11		YPIAJ	Ok
14	50 PPM TRPH STD		FG016283.D	10 Jul 2025 19:41		YPIAJ	Ok,NS
15	RT MARKER		FG016284.D	10 Jul 2025 20:41		YPIAJ	Ok
16	PB168751BS		FG016285.D	10 Jul 2025 21:11		YPIAJ	Ok
17	I.BLK		FG016286.D	10 Jul 2025 21:41		YPIAJ	Ok
18	50 PPM TRPH STD		FG016287.D	10 Jul 2025 22:10		YPIAJ	Ok

Instrument ID: FID_G

Daily Analysis Runlog For Sequence/QC Batch ID # FG071025

Review By	yogesh	Review On	7/10/2025 3:09:15 PM
Supervise By		Supervise On	
SubDirectory	FG071025	HP Acquire Method	HP Processing Method FG070925
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP24467,PP24469,PP24470,PP24471,PP24472		
CCC Internal Standard/PEM	PP24469		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP24468,PP24473		

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 7/7/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:30
In Date: 07/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:37
Out Date: 07/04/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB136368

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
Q2487-01	G4 (1.5)	1	1.15	10.21	11.36	10.14	88.1	
Q2487-02	G4 (10)	2	1.19	10.38	11.57	8.76	72.9	
Q2487-03	G3 (9)	3	1.15	10.66	11.81	7.38	58.4	
Q2487-04	G3 (3)	4	1.15	10.80	11.95	10.8	89.4	
Q2487-05	G2 (2.5)	5	1.17	10.00	11.17	10.48	93.1	
Q2487-06	G2 (9)	6	1.16	10.26	11.42	8.00	66.7	
Q2487-07	G1 (4.5)	7	1.19	10.11	11.3	7.8	65.4	
Q2487-08	G1 (10)	8	1.16	9.96	11.12	6.65	55.1	
Q2487-09	G4 (0-6)	9	1.18	10.26	11.44	10.12	87.1	
Q2487-10	G4 (6-12)	10	1.16	10.14	11.3	8.52	72.6	
Q2487-11	G3 (0-6)	11	1.18	10.42	11.6	10.68	91.2	
Q2487-12	G3 (6-12)	12	1.18	10.41	11.59	8.49	70.2	
Q2487-13	G2 (0-6)	13	1.17	9.95	11.12	10.11	89.8	
Q2487-14	G2 (6-12)	14	1.16	10.68	11.84	8.39	67.7	
Q2487-15	G1 (0-6)	15	1.17	10.55	11.72	9.68	80.7	
Q2487-16	G1 (6-12)	16	1.13	10.24	11.37	10.68	93.3	
Q2501-05	SVOC-GPC-BLANK	17	1.00	1.00	2.00	2.00	100.0	
Q2501-06	PEST-GPC-BLANK	18	1.00	1.00	2.00	2.00	100.0	
Q2501-07	PEST-GPC-BLANK-SPIKE	19	1.00	1.00	2.00	2.00	100.0	
Q2501-08	PCB-GPC-BLANK	20	1.00	1.00	2.00	2.00	100.0	
Q2501-09	PCB-GPC-BLANK-SPIKE	21	1.00	1.00	2.00	2.00	100.0	
Q2501-10	SVOC-GPC-BLANK	22	1.00	1.00	2.00	2.00	100.0	
Q2501-11	PEST-GPC-BLANK	23	1.00	1.00	2.00	2.00	100.0	
Q2501-12	PEST-GPC-BLANK-SPIKE	24	1.00	1.00	2.00	2.00	100.0	
Q2501-13	PCB-GPC2-BLANK	25	1.00	1.00	2.00	2.00	100.0	
Q2501-14	PCB-GPC2-BLANK-SPIKE	26	1.00	1.00	2.00	2.00	100.0	
Q2503-03	GCAP2	27	1.18	10.65	11.83	8.76	71.2	
Q2503-04	GCAP3	28	1.18	10.64	11.82	8.16	65.6	

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 7/7/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:30
In Date: 07/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:37
Out Date: 07/04/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB136368

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
Q2503-05	GCAP2A	29	1.18	10.30	11.48	9.11	77.0	
Q2504-01	WASTE	30	1.14	10.73	11.87	10.16	84.1	
Q2504-02	VOC	31	1.18	10.81	11.99	10.45	85.8	
Q2504-03	1	32	1.14	10.84	11.98	10.36	85.1	
Q2504-04	2	33	1.19	10.41	11.6	9.91	83.8	
Q2504-05	3	34	1.13	10.75	11.88	10.22	84.6	
Q2504-06	4	35	1.14	10.52	11.66	10.03	84.5	
Q2504-07	5	36	1.12	10.87	11.99	10.16	83.2	
Q2505-01	#62825	37	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2505-02	#62525	38	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2505-03	#2008	39	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2507-01	SU-04-7.3-2025	40	1.17	10.26	11.43	10.1	87.0	
Q2507-02	SU-04-7.3-2025-EPH	41	1.18	10.30	11.48	9.99	85.5	
Q2507-03	SU-04-7.3-2025-VOC	42	1.13	10.45	11.58	9.95	84.4	
Q2508-01	AUD-25-0105	43	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2508-02	AUD-25-0106	44	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2508-03	AUD-25-0107	45	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q2509-02	AUD-25-0112	46	1.00	1.00	2.00	2.00	100.0	oilly-debris
Q2510-01	#63025-A	47	1.15	11.63	12.78	10.79	82.9	
Q2510-02	#63025-A-VOC	48	1.18	10.19	11.37	9.86	85.2	
Q2513-01	HR-2-070325	49	1.18	9.89	11.07	10.51	94.3	
Q2513-02	HR-2-070325-E2	50	1.18	10.25	11.43	10.68	92.7	
Q2513-03	HR-3-070325	51	1.18	10.27	11.45	10.88	94.4	
Q2513-04	HR-3-070325-E2	52	1.14	10.67	11.81	11.23	94.6	
Q2514-01	TP-92	53	1.14	10.78	11.92	10.56	87.4	
Q2514-02	TP-93	54	1.19	10.71	11.9	10.58	87.7	
Q2514-03	TP-94	55	1.13	10.86	11.99	10.7	88.1	
Q2514-04	TP-96	56	1.14	11.10	12.24	10.66	85.8	



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 7/7/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:30
In Date: 07/03/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 104
Time OUT: 08:37
Out Date: 07/04/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID-OVEN

QC:LB136368

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
Q2514-05	TP-97	57	1.16	10.02	11.18	9.68	85.0	
Q2514-06	TP-103	58	1.18	10.22	11.4	10.02	86.5	
Q2514-07	TP-36	59	1.15	10.78	11.93	10.88	90.3	
Q2514-08	TP-78	60	1.13	9.99	11.12	9.75	86.3	
Q2514-09	TP-81	61	1.16	10.50	11.66	10.22	86.3	
Q2514-10	TP-90	62	1.18	10.43	11.61	10.73	91.6	
Q2515-01	wc-1	63	1.15	10.31	11.46	10.17	87.5	

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

WORKLIST(Hardcopy Internal Chain)

WorkList Name : %1-070325

WorkList ID : 190533

Department : Wet-Chemistry

Date : 07-03-2025 08:34:29

136368

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2487-01	G4(1.5)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-02	G4(10)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-03	G3(9)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-04	G3(3)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-05	G2(2.5)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-06	G2(9)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-07	G1(4.5)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-08	G1(10)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-09	G4(0-6)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-10	G4(6-12)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-11	G3(0-6)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-12	G3(6-12)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-13	G2(0-6)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-14	G2(6-12)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-15	G1(0-6)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2487-16	G1(6-12)	Solid	Percent Solids	Cool 4 deg C	WALS01	A22	07/01/2025	Chemtech -SO
Q2501-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO
Q2501-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO
Q2501-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO
Q2501-08	PCB-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO
Q2501-09	PCB-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO

Date/Time 07/03/25 15:15

Raw Sample Received by: JDC

Raw Sample Relinquished by: JDC

Date/Time 07/03/25

Raw Sample Received by: JDC

Raw Sample Relinquished by: JDC

WORKLIST(Hardcopy Internal Chain)

136318

WorkList Name : %1-070325

WorkList ID : 190533

Department : Wet-Chemistry

Date : 07-03-2025 08:34:29

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2501-10	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO
Q2501-11	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO
Q2501-12	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO
Q2501-13	PCB-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO
Q2501-14	PCB-GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	CHEM02	D31	06/27/2025	Chemtech -SO
Q2503-03	GCAP2	Solid	Percent Solids	Cool 4 deg C	GENV01	O11	06/27/2025	Chemtech -SO
Q2503-04	GCAP3	Solid	Percent Solids	Cool 4 deg C	GENV01	O11	07/02/2025	Chemtech -SO
Q2503-05	GCAP2A	Solid	Percent Solids	Cool 4 deg C	GENV01	O11	07/02/2025	Chemtech -SO
Q2504-01	WASTE	Solid	Percent Solids	Cool 4 deg C	SCIA01	O12	07/02/2025	Chemtech -SO
Q2504-02	VOC	Solid	Percent Solids	Cool 4 deg C	SCIA01	O12	07/02/2025	Chemtech -SO
Q2504-03	1	Solid	Percent Solids	Cool 4 deg C	SCIA01	O12	07/02/2025	Chemtech -SO
Q2504-04	2	Solid	Percent Solids	Cool 4 deg C	SCIA01	O12	07/02/2025	Chemtech -SO
Q2504-05	3	Solid	Percent Solids	Cool 4 deg C	SCIA01	O12	07/02/2025	Chemtech -SO
Q2504-06	4	Solid	Percent Solids	Cool 4 deg C	SCIA01	O12	07/02/2025	Chemtech -SO
Q2504-07	5	Solid	Percent Solids	Cool 4 deg C	SCIA01	O12	07/02/2025	Chemtech -SO
Q2505-01	#62825	Solid	Percent Solids	Cool 4 deg C	PSEG03	O13	07/03/2025	Chemtech -SO
Q2505-02	#62525	Solid	Percent Solids	Cool 4 deg C	PSEG03	O13	07/03/2025	Chemtech -SO
Q2505-03	#2008	Solid	Percent Solids	Cool 4 deg C	PSEG03	O13	07/03/2025	Chemtech -SO
Q2507-01	SU-04-7.3-2025	Solid	Percent Solids	Cool 4 deg C	PSEG03	O12	07/04/2025	Chemtech -SO
Q2507-02	SU-04-7.3-2025-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	O12	07/04/2025	Chemtech -SO
Q2507-03	SU-04-7.3-2025-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	O12	07/04/2025	Chemtech -SO

Date/Time 07/03/25 15:15
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Date/Time 07/03/25 17:15
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

WORKLIST(Hardcopy Internal Chain)

136368

WorkList Name : %1-070325

WorkList ID : 190533

Department : Wet-Chemistry

Date : 07-03-2025 08:34:29

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2508-01	AUD-25-0105	Solid	Percent Solids	Cool 4 deg C	PSEG03	O11	07/03/2025	Chemtech -SO
Q2508-02	AUD-25-0106	Solid	Percent Solids	Cool 4 deg C	PSEG03	O11	07/03/2025	Chemtech -SO
Q2508-03	AUD-25-0107	Solid	Percent Solids	Cool 4 deg C	PSEG03	O11	07/03/2025	Chemtech -SO
Q2509-02	AUD-25-0112	Solid	Percent Solids	Cool 4 deg C	PSEG03	O22	07/03/2025	Chemtech -SO
Q2510-01	#63025-A	Solid	Percent Solids	Cool 4 deg C	PSEG05	O22	07/03/2025	Chemtech -SO
Q2510-02	#63025-A-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG05	O22	07/03/2025	Chemtech -SO
Q2513-01	HR-2-070325	Solid	Percent Solids	Cool 4 deg C	PSEG05	O21	07/03/2025	Chemtech -SO
Q2513-02	HR-2-070325-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	O21	07/03/2025	Chemtech -SO
Q2513-03	HR-3-070325	Solid	Percent Solids	Cool 4 deg C	PSEG05	O21	07/03/2025	Chemtech -SO
Q2513-04	HR-3-070325-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	O21	07/03/2025	Chemtech -SO
Q2514-01	TP-92	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/02/2025	Chemtech -SO
Q2514-02	TP-93	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/02/2025	Chemtech -SO
Q2514-03	TP-94	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/02/2025	Chemtech -SO
Q2514-04	TP-96	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/02/2025	Chemtech -SO
Q2514-05	TP-97	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/02/2025	Chemtech -SO
Q2514-06	TP-103	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/02/2025	Chemtech -SO
Q2514-07	TP-36	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/02/2025	Chemtech -SO
Q2514-08	TP-78	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/03/2025	Chemtech -SO
Q2514-09	TP-81	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/03/2025	Chemtech -SO
Q2514-10	TP-90	Solid	Percent Solids	Cool 4 deg C	CAMP02	O21	07/03/2025	Chemtech -SO
Q2515-01	wc-1	Solid	Percent Solids	Cool 4 deg C	ENVO01	O23	07/03/2025	Chemtech -SO

Date/Time 07/03/25 1515
 Raw Sample Received by: [Signature]
 Raw Sample Relinquished by: [Signature]

Date/Time

Raw Sample Received by:

SOP ID:	M3541-ASE Extraction-14		
Clean Up SOP #:	N/A	Extraction Start Date :	07/10/2025
Matrix :	Solid	Extraction Start Time :	09:00
Weigh By:	EH	Extraction By:	RJ
Balance check:	RJ	Filter By:	RJ
Balance ID:	EX-SC-2	pH Meter ID:	N/A
pH Strip Lot#:	N/A	Hood ID:	3,7
Extraction Method:	☐ Separatory Funnel	☐ Continuous Liquid/Liquid	☐ Sonication
		☐ Waste Dilution	☒ Soxhlet
		Extraction End Date :	07/10/2025
		Extraction End Time :	12:00
		Concentration By:	EH
		Supervisor By :	RUPESH

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

Chemical Used	ML/SAMPLE USED	Lot Number
MeCl2/Acetone/1:1	N/A	EP2612
Baked Na2SO4	N/A	EP2624
Methylene Chloride	N/A	E3943
Sand	N/A	E3951
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

1.5 ML Vial lot# 2210673.

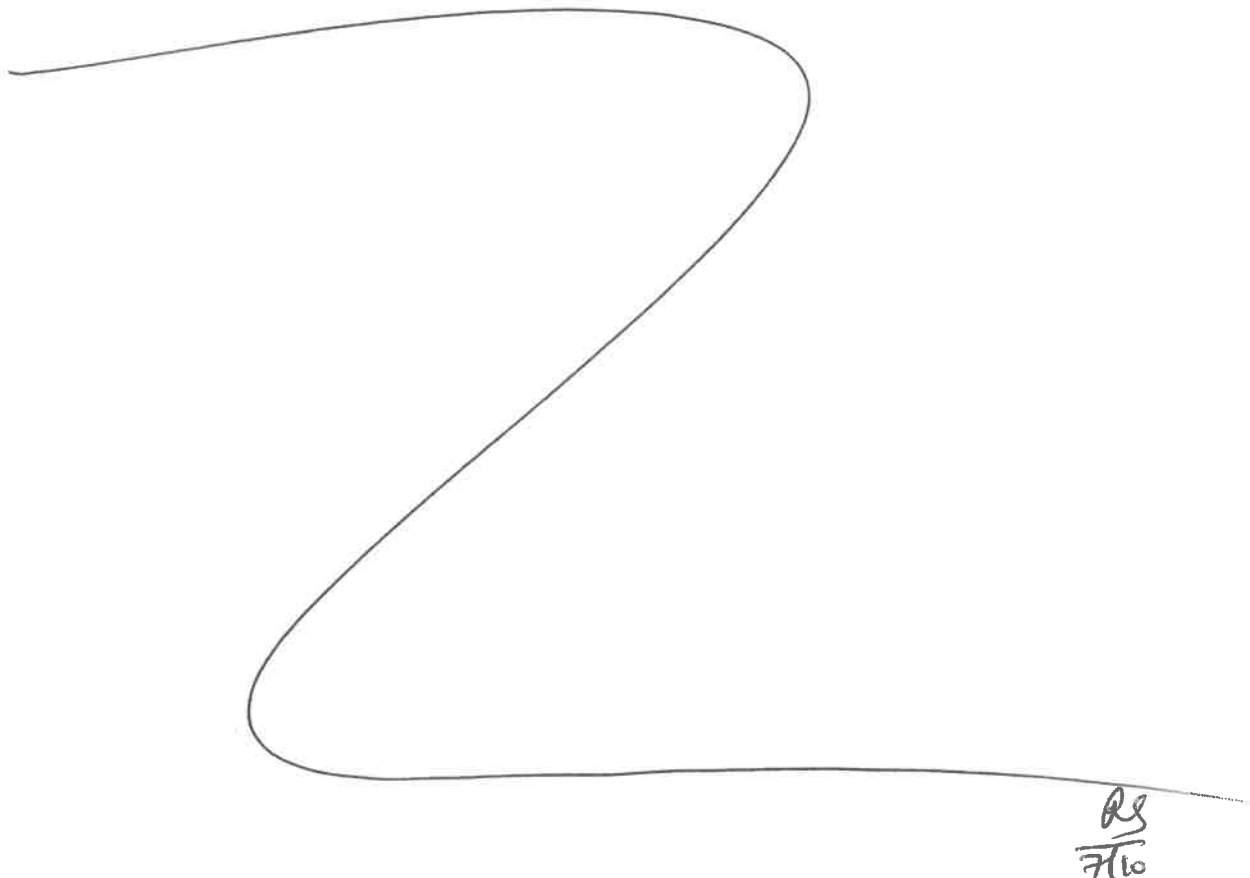
KD Bath ID:	N/A	Envap ID:	NEVAP-02
KD Bath Temperature:	N/A	Envap Temperature:	40 °C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
7/10/25	RS (Ext Lab)	Y-P-pest/PCB
12:05	Preparation Group	Analysis Group

Analytical Method: M3541-ASE Extraction-14

Concentration Date: 07/10/2025

Sample ID	Client Sample ID	Test	g / mL	PH	Surr/Spike By:		Final Vol. (mL)	JarID	Comments	Prep Pos
					AddedBy	VerifiedBy				
PB168785BL	PB168785BL	TPH GC	30.02	N/A	ritesh	Evelyn	1			U7-1
PB168785BS	PB168785BS	TPH GC	30.01	N/A	ritesh	Evelyn	1			2
Q2473-01	PIT#1	TPH GC	30.05	N/A	ritesh	Evelyn	1	E		3
Q2473-02	PIT#2	TPH GC	30.06	N/A	ritesh	Evelyn	1	E		4
Q2473-03	PIT#3	TPH GC	30.08	N/A	ritesh	Evelyn	1	E		5
Q2473-04	PIT#4	TPH GC	30.03	N/A	ritesh	Evelyn	1	E		6
Q2473-04MS	PIT#4MS	TPH GC	30.05	N/A	ritesh	Evelyn	1	E		U1-1
Q2473-04MS D	PIT#4MSD	TPH GC	30.02	N/A	ritesh	Evelyn	1	E		2
Q2486-01	WASTE	TPH GC	30.04	N/A	ritesh	Evelyn	1			3
Q2504-01	WASTE	TPH GC	30.07	N/A	ritesh	Evelyn	1			4



168785
9:00-9:10

WORKLIST(Hardcopy Internal Chain)

WorkList Name : Q2804 WorkList ID : 190632 Department : Extraction Date : 07-10-2025 08:48:14

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q2473-01	PIT#1	Solid	TPH GC	Cool 4 deg C	JPCL01	--Sele	07/01/2025	8015D
Q2473-02	PIT#2	Solid	TPH GC	Cool 4 deg C	JPCL01	--Sele	07/01/2025	8015D
Q2473-03	PIT#3	Solid	TPH GC	Cool 4 deg C	JPCL01	--Sele	07/01/2025	8015D
Q2473-04	PIT#4	Solid	TPH GC	Cool 4 deg C	JPCL01	--Sele	07/01/2025	8015D
Q2486-01	WASTE	Solid	TPH GC	Cool 4 deg C	SCIA01	A61	07/01/2025	8015D
Q2504-01	WASTE	Solid	TPH GC	Cool 4 deg C	SCIA01	O12	07/02/2025	8015D

Date/Time 07/10/25 8:55
Raw Sample Received by: RS (FFA-Lab)
Raw Sample Relinquished by: CP

Date/Time 07/10/25 9:10
Raw Sample Received by: CP
Raw Sample Relinquished by: RS (FFA-Lab)

Prep Standard - Chemical Standard Summary

Order ID : Q2504

Test : TPH GC

Prepbatch ID : PB168785,

Sequence ID/Qc Batch ID: FF071025,FG071025,

Standard ID :

EP2612,EP2624,PP24467,PP24468,PP24469,PP24470,PP24471,PP24472,PP24473,PP24583,PP24596,

Chemical ID :

E3551,E3926,E3930,E3931,E3932,E3943,E3951,P11951,P11952,P13106,P13108,P13477,P13479,P13483,P13484,P13485,P13486,P13938,P13945,

Extractions STANDARD PREPARATION LOG

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

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

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3923	Baked Sodium Sulfate	EP2624	06/26/2025	12/04/2025	RUPESEKUMA R SHAH	Extraction_SC ALE_2 (EX-SC-2)	None	Riteshkumar Patel 06/26/2025

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>
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

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>
3608	50 PPM ICV DRO STD (RESTEK)	PP24473	04/22/2025	10/08/2025	Yogesh Patel	None	None	Abdul Mirza
								05/08/2025

FROM 0.50000ml of E3926 + 0.50000ml of PP24468 = Final Quantity: 1.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3609	20 PPM DRO SPIKE SOLUTION (RESTEK)	PP24583	05/16/2025	11/16/2025	Rahul Chavli	None	None	Yogesh Patel
								05/22/2025

FROM 0.70000ml of P13945 + 1.30000ml of P13938 + 48.00000ml of E3930 = Final Quantity: 50.000 ml



<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
147	20 PPM DRO Surrogate Spike Solution	PP24596	05/20/2025	11/20/2025	Abdul Mirza	None	None	Yogesh Patel 05/22/2025
<u>FROM</u> 1.00000ml of P13483 + 1.00000ml of P13484 + 1.00000ml of P13485 + 1.00000ml of P13486 + 196.00000ml of E3931 = Final Quantity: 200.000 ml								

CHEMICAL RECEIPT LOG BOOK

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A0262002	10/08/2025	04/08/2025 / Rajesh	02/07/2025 / Rajesh	E3926

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9644-A4 / Methylene Chloride,U-Resi, Cycle-Tainer (215L)	25A2862010	12/13/2025	06/13/2025 / Rajesh	02/28/2025 / Rajesh	E3943

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

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

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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	72072 / n-Tetracosane-d50, 1000 ug/ml	101122	10/22/2025	04/22/2025 / yogesh	07/24/2024 / yogesh	P13477

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

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

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

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

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

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

CHEMICAL RECEIPT LOG BOOK

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



**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)

avantor



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

Certificate of Analysis

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

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

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

E 3926

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

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

avantor



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

Certificate of Analysis

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

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

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

E3930

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

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

avantor



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

Certificate of Analysis

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

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

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

E3930

J. Croak

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials, LLC

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

Acetone
BAKER RESI-ANALYZED® Reagent
For Organic Residue Analysis

avantor™



Material No.: 9254-03

Batch No.: 24H1462005

Manufactured Date: 2024-05-24

Expiration Date: 2027-05-24

Revision No.: 0

Certificate of Analysis

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

For Laboratory, Research, or Manufacturing Use

MEETS SPECIFICATIONS WITHIN THE EXPIRATION PERIOD

RS

Country of Origin: United States

Packaging Site: Phillipsburg Mfg Ctr & DC

E 3932

Jamie Croak
Director Quality Operations, Bioscience Production

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

Avantor Performance Materials LLC

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

avantor™



Material No.: 9266-A4

Batch No.: 25A2862010

Manufactured Date: 2024-12-18

Expiration Date: 2026-03-19

Revision No.: 0

Certificate of Analysis

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

E3942

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



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

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

Received on 1/12/25.

E3951

Internal ID #: 793

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



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

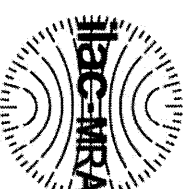
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

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

P11948 } 7.8
P11962 } 07/11/16

8	n-Docosane (C22) CAS # 629-97-0 Purity 99%	(Lot MKCL8918)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	n-Tetracosane (C24) CAS # 646-31-1 Purity 99%	(Lot MKCN2863)	503.5 µg/mL	+/- 2.9906 +/- 12.5092 +/- 14.9944	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
10	n-Hexacosane (C26) CAS # 630-01-3 Purity 99%	(Lot MKCD4540)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
11	n-Octacosane (C28) CAS # 630-02-4 Purity 99%	(Lot BCCG0084)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
12	n-Triacontane (C30) CAS # 638-68-6 Purity 99%	(Lot MKCN9321)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
13	n-Dotriacontane (C32) CAS # 544-85-4 Purity 99%	(Lot BCBW0661)	505.0 µg/mL	+/- 2.9995 +/- 12.5465 +/- 15.0390	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
14	n-Tetratriacontane (C34) CAS # 14167-59-0 Purity 99%	(Lot OML4N)	504.5 µg/mL	+/- 2.9966 +/- 12.5340 +/- 15.0241	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
15	n-Hexatriacontane (C36) CAS # 630-06-8 Purity 99%	(Lot U25B014)	504.0 µg/mL	+/- 2.9936 +/- 12.5216 +/- 15.0093	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
16	n-Octatriacontane (C38) CAS # 7194-85-6 Purity 97%	(Lot 0000127235)	504.4 µg/mL	+/- 2.9960 +/- 12.5316 +/- 15.0212	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
17	n-Tetracontane (C40) CAS # 4181-95-7 Purity 98%	(Lot PADGI)	504.7 µg/mL	+/- 2.9978 +/- 12.5390 +/- 15.0301	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
Solvent: Hexane						
CAS # 110-54-3						
Purity 99%						

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

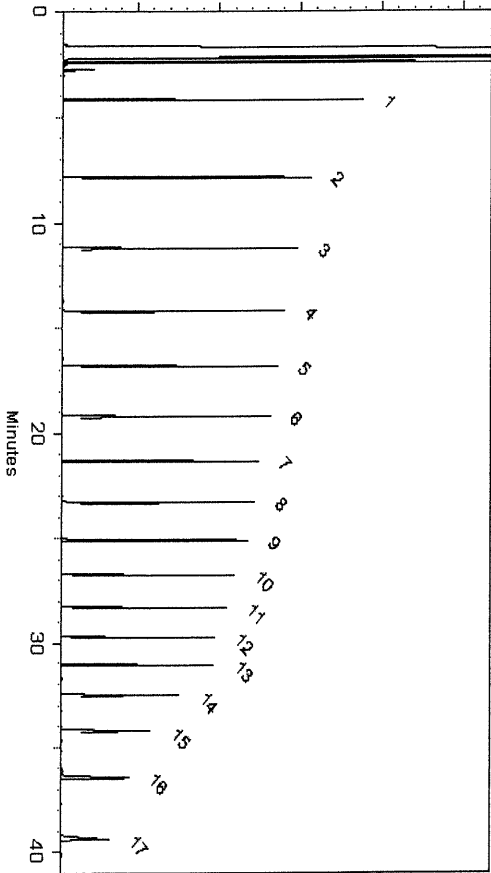
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



CERTIFIED REFERENCE MATERIAL

110 Benner Circle

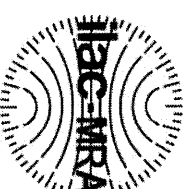
Bellefonte, PA 16823-8812

Tel: (800)356-1688

Fax: (814)353-1309

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0186840

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : July 31, 2029

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

CERTIFIED VALUES

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

P11948 } 7.8
P11962 } 07/11/16

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

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

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

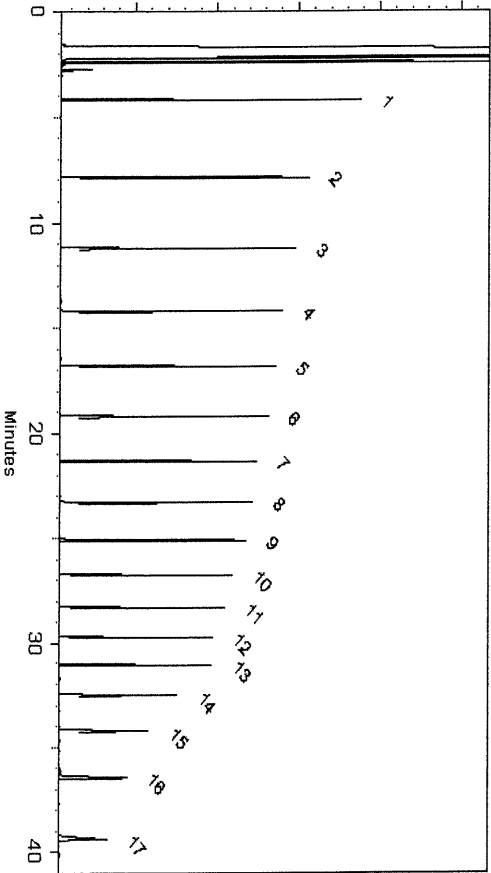
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Brittany Federinko

Brittany Federinko - Operations Tech I

Date Mixed: 29-Jun-2022

Balance: 1128360905

Christie Mills

Christie Mills - Operations Tech II - ARM QC

Date Passed: 01-Jul-2022

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266 **Lot No.:** A0204859

Description : Florida TRPH Standard

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

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

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

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

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

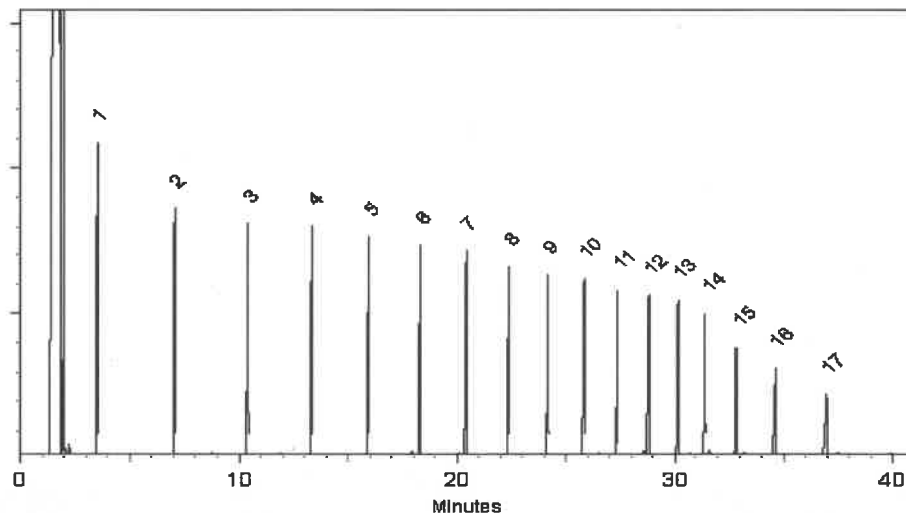
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

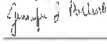


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



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www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266 **Lot No.:** A0204859

Description : Florida TRPH Standard

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

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

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

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

P13103 } Y.P.
↓
P13112 } 01/12/2024

CERTIFIED VALUES

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

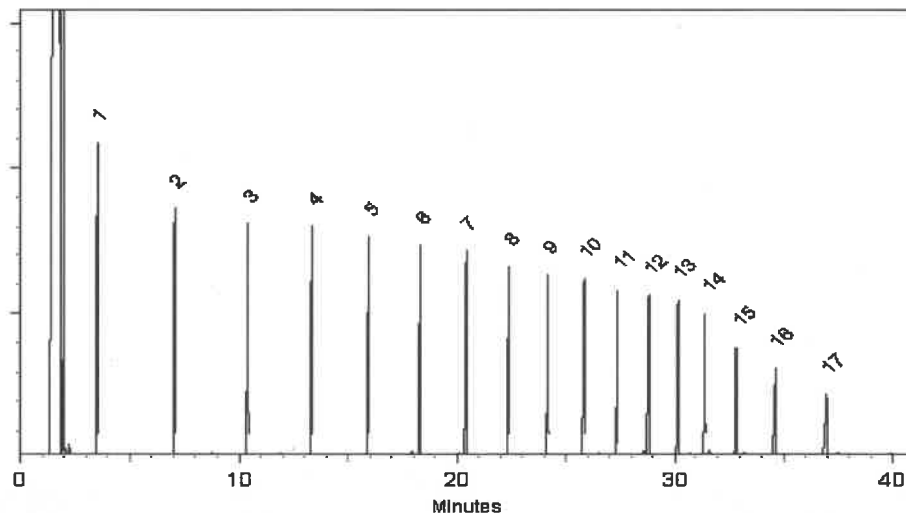
Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID

Split Vent:
2 ml/min.

Inj. Vol
1µl

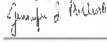


This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.


Dakota Parson - Operations Technician I

Date Mixed: 29-Nov-2023

Balance Serial # B442140311


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 01-Dec-2023

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot# 78782

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

070716
070716

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

Compound	SMW	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (µg)	Actual Weight (µg)	Actual Conc (µg/mL)	Expanded Uncertainty (µg/mL)	CAS#	MSDS Information (Solvent Safety Info. On Attached pg.)	OSHA PEL (TWA)	LD50
1. 1,4-Dichlorobenzene-d4	118	PR-1845M07287CB1	4000	98	0.2	2.04093	2.04335	4004.7	15.4	2055-02-1	N/A	N/A	or-rat 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	N/A	or-rat 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-rat 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04136	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

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

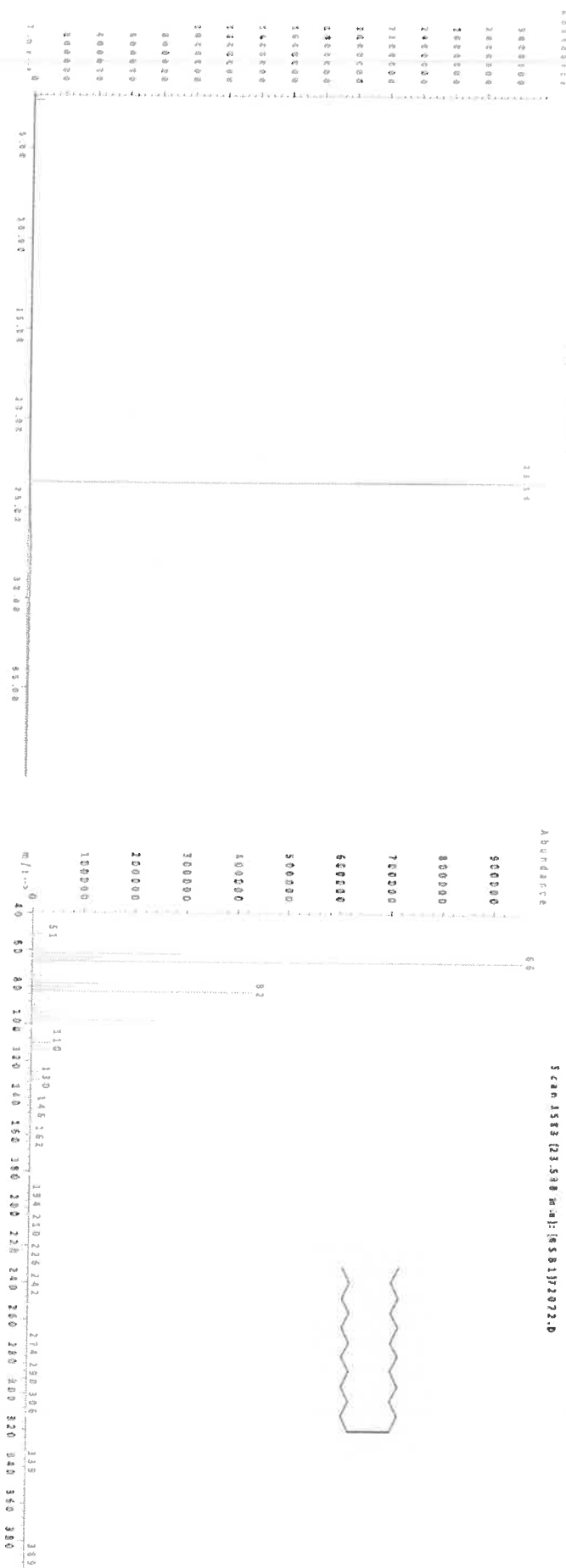
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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 (%)	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-nr 500mg/kg
2. Naphthalene-d8	223	PR-2339M031612HP1	4000	99	0.2	2.02032	2.02084	4001.0	15.2	1146-85-2	10 ppm (50mg/m3/8h)	N/A	or-nr 400mg/kg
3. Acenaphthene-d10	2	PR-25444	4000	99	0.2	2.02032	2.02245	4004.2	15.2	15067-28-2	N/A	N/A	or-nr 500mg/kg
4. Phenanthrene-d10	248	PR-2305M081711PM1	4000	98	0.2	2.04093	2.04135	4000.8	15.4	1517-25-2	N/A	N/A	N/A
5. Chrysene-d12	92	I-19290	4000	98	0.2	2.04093	2.04150	4001.3	15.4	1719-03-5	N/A	N/A	N/A
6. Perylene-d12	247	PR-24113	4000	98	0.2	2.04093	2.04155	4001.2	15.4	1503-58-3	N/A	N/A	N/A

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"

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

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

Peak No. Name FID RT (min)

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

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

Formulator
Reviewer

Actual
Concentration

Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

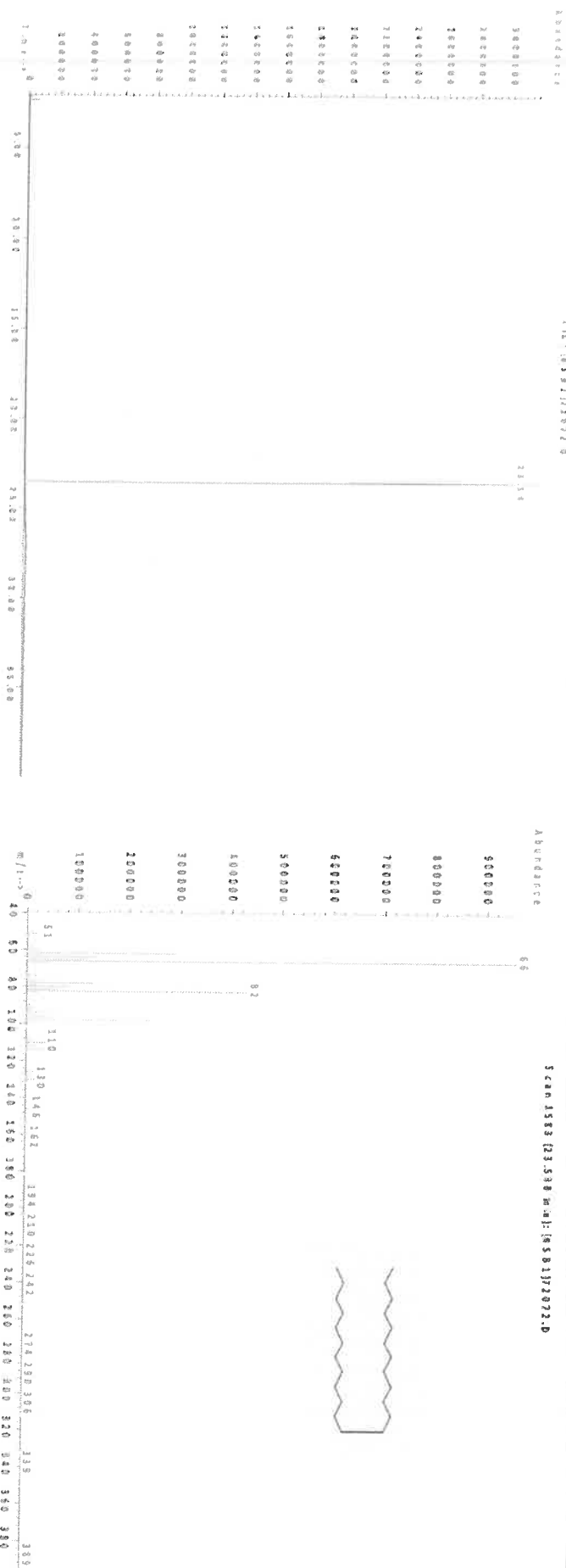
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A

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



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

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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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

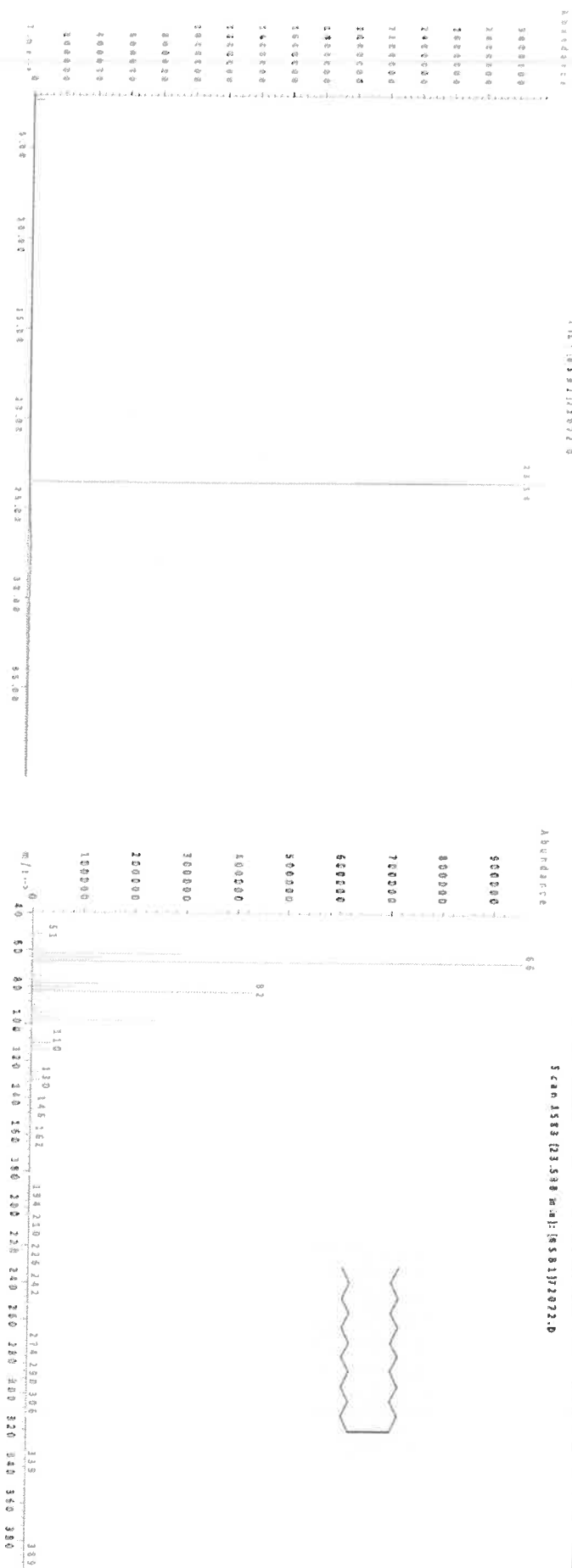
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

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



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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot# 78782

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

070716
070716

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

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

Run 35, "P10009R L070716 [4000µg/mL in MeCl2]"

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

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

Peak No. Name FID RT (min)

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

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

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

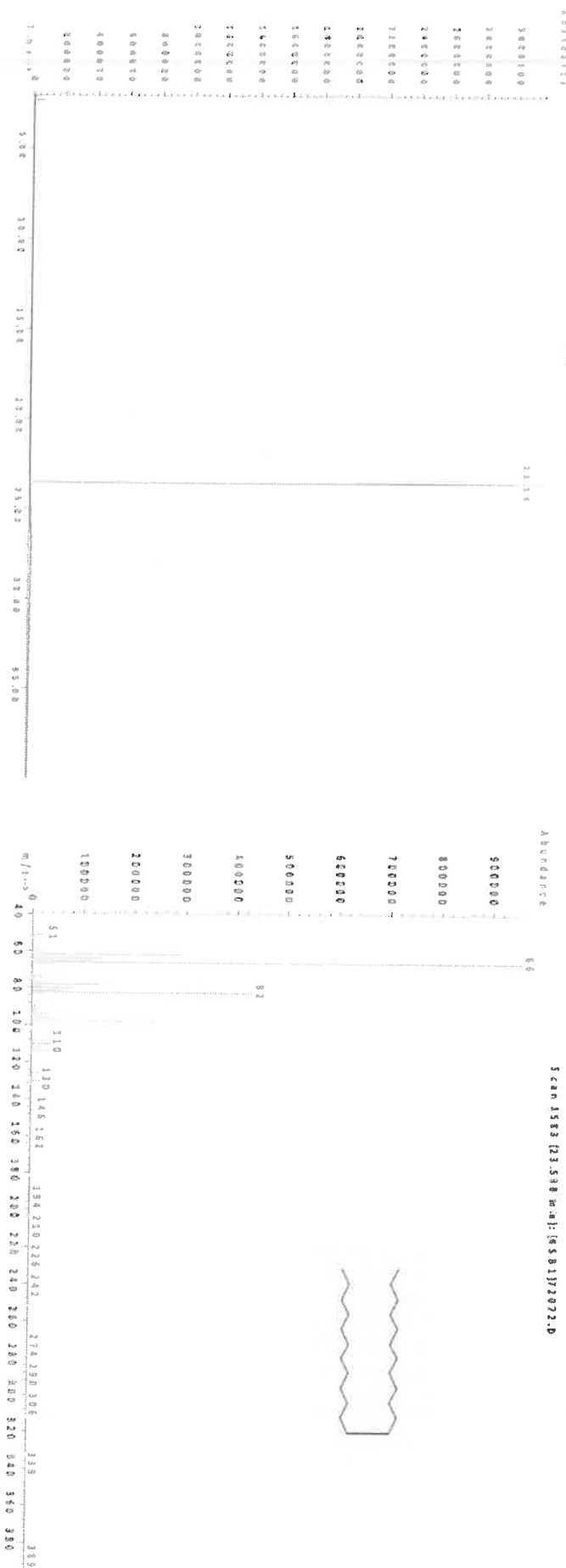
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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 (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A

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



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1996).

ABSOLUTE STANDARDS, INC.

ISO - 17034



Certificate of Analysis



Certified Reference Material (CRM)

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

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

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

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

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

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

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

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

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

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

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

Minimum Sample Size: 0.5 uL for analytical applications.

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

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

Page 1 of 2



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



ABSOLUTE STANDARDS, INC.

ISO - 17034

Understanding the Certified Weight Report

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

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

Certified Reference Material CRM

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

CERTIFIED WEIGHT REPORT

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

Solvent(s): Methylene chloride
Lot# 78782

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

070716
070716

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

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

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

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

Peak No. Name FID RT (min)

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

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

Formulator
Reviewer

Actual
Concentration
Uncertainty
Values

Health &
Safety

3rd Party
Comparison

For More Information, Contact:

StephenArpie@AbsoluteStandards.com

Page 2 of 2



CERTIFIED WEIGHT REPORT

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

Solvent(s):
Methylene chloride
Lot#
105345

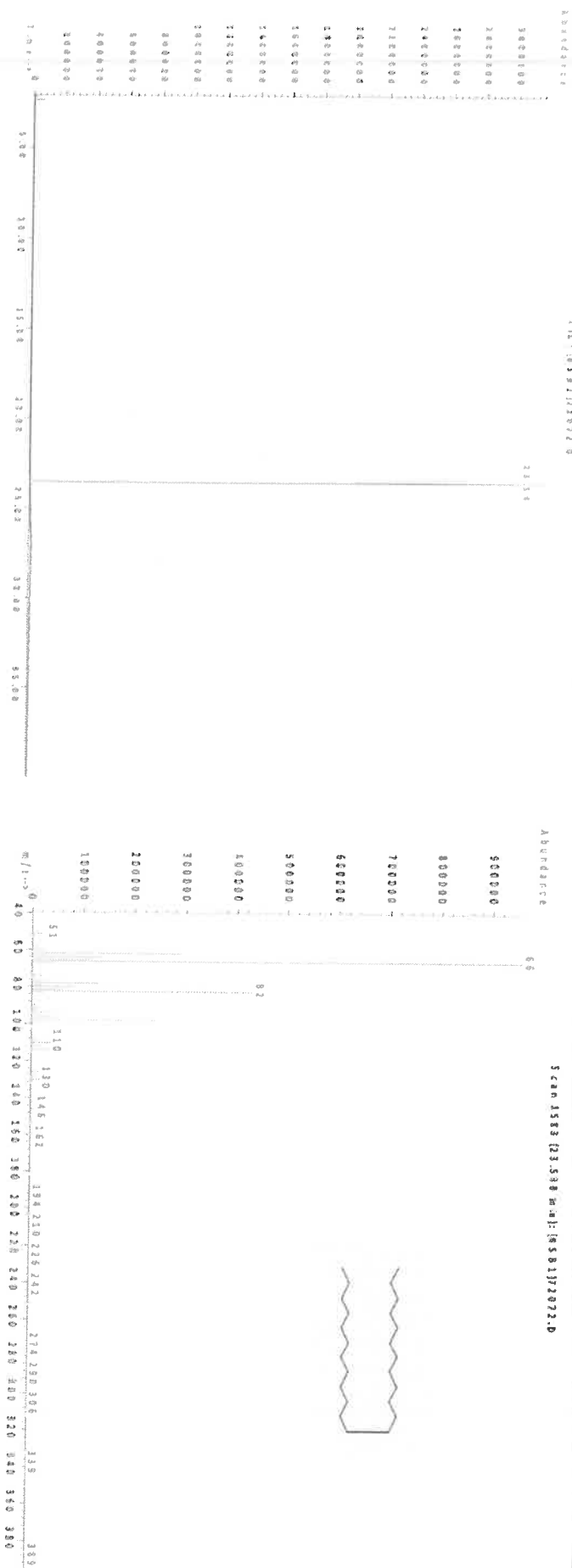
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

P13437
13436
07/24/24
X.F.

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

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A

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



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (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 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/MS2", Method "GC-MS2".
Analyzed using Method "GC-MS2".

Comments:
GC-MS2 Analysis by Melissa Siciric
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates: Total Flow = 300 mL/min, Helium (carrier) = 0.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) = 300 mL, Oven Temp 1 = 50°C (1 min).
Rise = 10°C/min, Oven Temp 2 = 300°C (14 min). Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = sData Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 µL, Range = 4

Peak No. Name FID RT (min)

1	1,4-Dichlorobenzene-d4	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

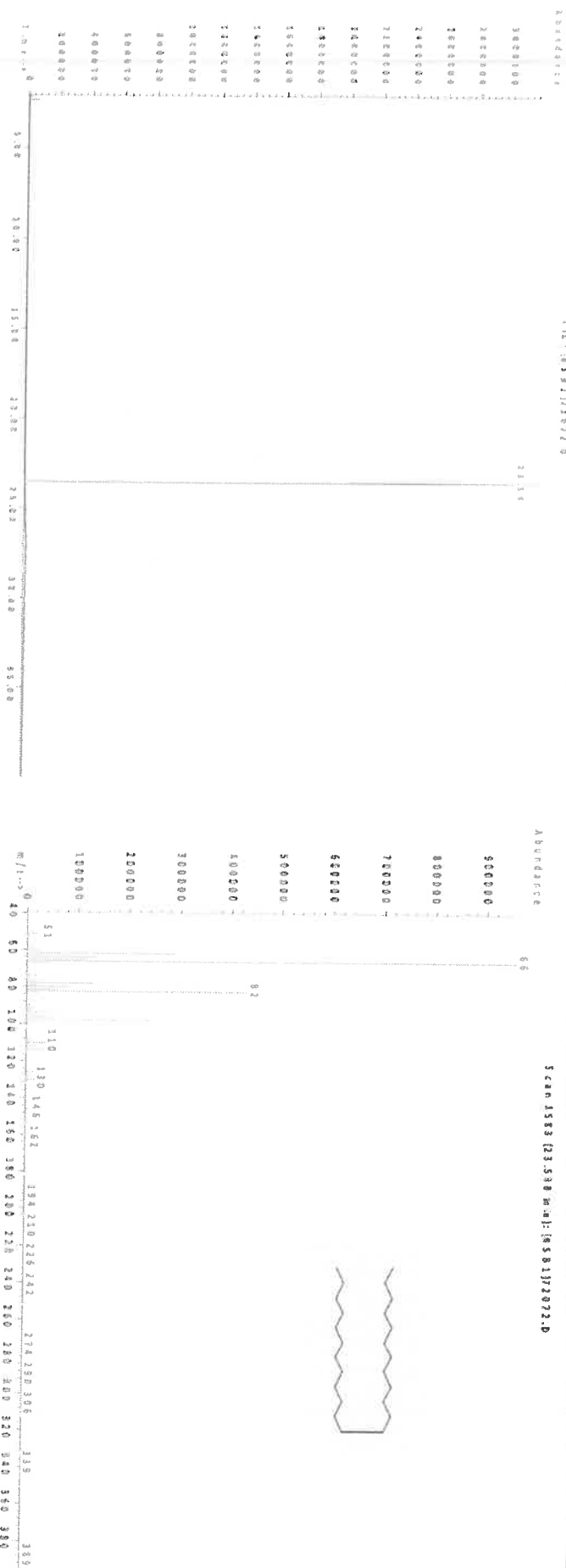
Expiration Date: **101132**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test ID#: **6UB3**
Weight(s) shown below were combined and diluted to (mL): **200.0**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

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 (%D)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	LD50
1. n-Tetracosane-d50	2072	PR-26606	1000	98.7	0.2	99.0	0.20471	0.20482	1000.6	4.1	16416-32-3	N/A

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



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N., and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1996).



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0217113

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : October 31, 2031

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

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

CERTIFIED VALUES

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

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

Quality Confirmation Test

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

Carrier Gas:
hydrogen-constant pressure 10 psi.

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

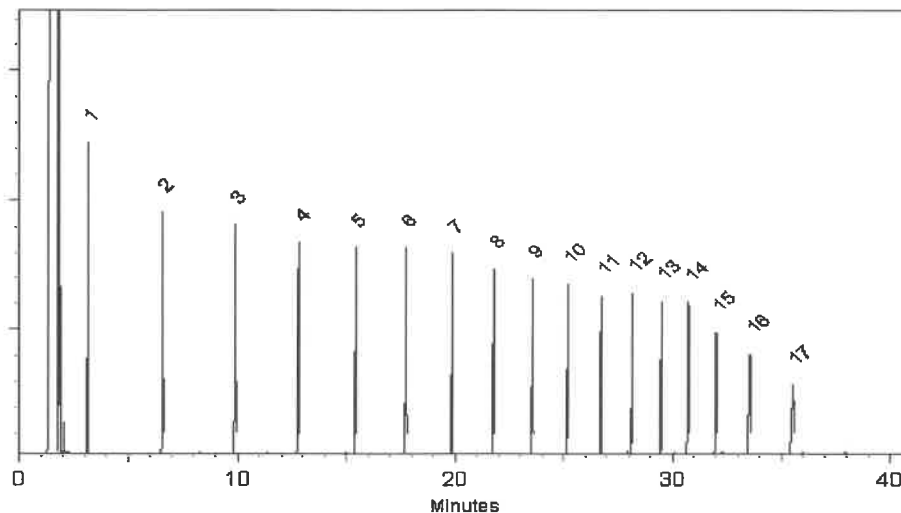
Inj. Temp:
250°C

Det. Temp:
330°C

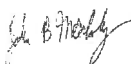
Det. Type:
FID

Split Vent:
2 ml/min.

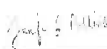
Inj. Vol
1µl



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


Josh McCloskey - Operations Technician I

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


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2024

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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



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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

chromatographic plus



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31266

Lot No.: A0217113

Description : Florida TRPH Standard

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

Container Size : 2 mL

Pkg Amt: > 1 mL

Expiration Date : October 31, 2031

Storage: 25°C nominal

Handling: Sonicate prior to use.

Ship: Ambient

P031937
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9	n-Tetracosane (C24)	646-31-1	MKCS9978	99%	500.5 µg/mL	+/- 12.9297
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Solvent: Hexane
CAS # 110-54-3
Purity 99%

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

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hydrogen-constant pressure 10 psi.

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

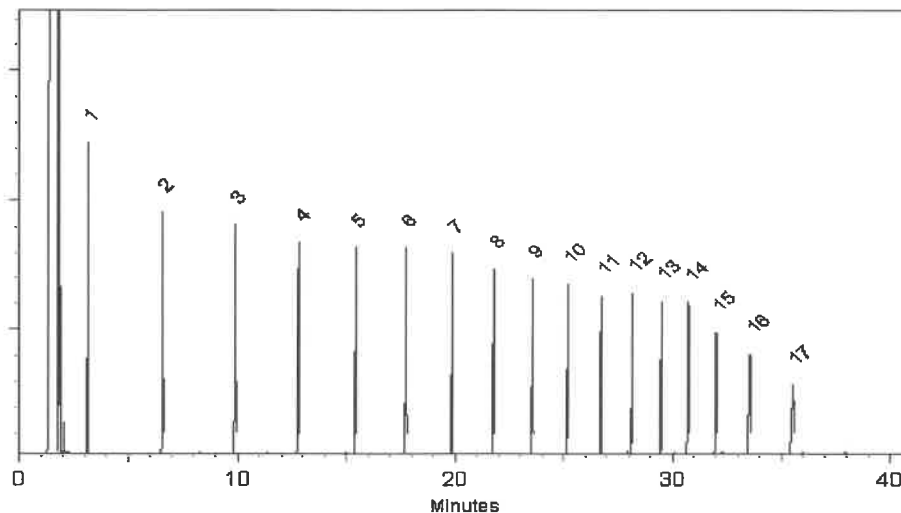
Inj. Temp:
250°C

Det. Temp:
330°C

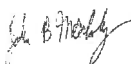
Det. Type:
FID

Split Vent:
2 ml/min.

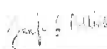
Inj. Vol
1µl



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


Josh McCloskey - Operations Technician I

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


Jennifer Pollino - Operations Tech III - ARM QC

Date Passed: 10-Oct-2024

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

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



SHIPPING DOCUMENTS

CHEMTECH

CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number

COC Number

10 Hemlock Drive
Franklin Boro

CLIENT INFORMATION			PROJECT INFORMATION			BILLING INFORMATION												
Report to be sent to:			PROJECT NAME:			BILL TO:												
COMPANY:			PROJECT #:			PO#												
ADDRESS:			LOCATION:			ADDRESS:												
CITY:			PROJECT MANAGER:			CITY:												
STATE:			E-MAIL:			STATE:												
ZIP:			PHONE:			ZIP:												
ATTENTION:			FAX:			ATTENTION:												
PHONE:						PHONE:												
DATA TURNAROUND INFORMATION			DATA DELIVERABLE INFORMATION			ANALYSIS												
FAX (RUSH) _____ DAYS*			☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data) ☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA GLP ☐ Level 3 (Results + QC + Raw Data) ☐ NYS ASP A ☐ NYS ASP B ☐ EDD: _____ DAYS* ☐ Other _____ ☐ EDD FORMAT _____			TPH-GC VOC EPA-F2												
TO BE APPROVED BY CHEMTECH																		
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS																		
CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# of Bottles	PRESERVATIVES									COMMENTS ←Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER	
			COMP	GRAB	DATE	TIME		1	2	3	4	5	6	7	8	9		
1.	WASTE				12-3		1	X										
2.	VOC				3:45		1		X									
3.	1				4:1		1			X								
4.	2				4:45		1			X								
5.	3				4:45		1			X								
6.	4				5:1		1			X								
7.	5				4:30		1			X								
8.																		
9.																		
10.																		

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

RELINQUISHED BY SAMPLER	DATE/TIME 4/47 7-3-25	RECEIVED BY 1. [Signature] 7-3-25	Conditions of bottles or collars at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 3.46
RELINQUISHED BY	DATE/TIME	RECEIVED BY	Comments:
RELINQUISHED BY	DATE/TIME 4/12 7-3-25	RECEIVED FOR LAB BY	
Page _____ of _____	CLIENT: ☐ Hand Delivered ☐ Other: _____	Shipment Complete ☐ YES ☐ NO	

10/2012

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT

YELLOW - CHEMTECH COPY

PINK - SAMPLER COPY

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



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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q2504	SCIA01	Order Date : 7/3/2025 11:59:00 AM	Project Mgr :
Client Name : Sciacca General Contractor		Project Name : 98 Morse Ave Nutley	Report Type : Results Only
Client Contact : Rosanne Scirica		Receive DateTime : 7/3/2025 3:00:00 PM	EDD Type : EXCEL NJCLEANUP
Invoice Name : Sciacca General Contractor		Purchase Order : 212	Hard Copy Date :
Invoice Contact : Rosanne Scirica			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q2504-02	VOC	Solid	07/02/2025	15:45	VOC-TCLVOA-10		8260D		10 Bus. Days

Relinquished By :

Date / Time : 7/3/25 1430

Received By :

Date / Time :

Storage Area : VOA Refridgerator Room