

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

LAB CHRONICLE

OrderID:	P5147	OrderDate:	12/5/2024 2:58:00 PM
Client:	ENTACT	Project:	North Point
Contact:	Wyatt Seel	Location:	L41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5147-01	EX-8-TPH-1	SOIL			12/05/24	12/06/24	12/09/24	12/05/24
			Diesel Range Organics	8015D				
			Gasoline Range Organics	8015D				
P5147-02	EX-8-TPH-2	SOIL			12/05/24	12/06/24	12/09/24	12/05/24
			Diesel Range Organics	8015D				
			Gasoline Range Organics	8015D				



QC SUMMARY

SOIL GASOLINE RANGE ORGANICS SURROGATE RECOVERY

Lab Name: Chemtech Client: ENTACT
Lab Code: CHEM Case No.: P5147 SAS No.: P5147 SDG No.: P5147

EPA SAMPLE NO.	S1 AAA-TFT	S2	S3	S4	TOT OUT
VBFI209S2	82				0
BSFI209S1	99				0
EX-8-TPH-1	359 *				1
EX-8-TPH-2	204 *				1
BSFI209S2	100				0

QC LIMITS

AAA-TFT

For Water : 50-150
For Soil : 50-150

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate Diluted Out

SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATION

Lab Name: Chemtech **Client:** ENTACT
Lab Code: CHEM **Cas No:** P5147 **SAS No :** P5147 **SDG No:** P5147
Matrix Spike - EPA Sample No : BSF1209S1 **Datafile:** FB031277.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	134	74	50-150

SOIL GASOLINE RANGE ORGANICS LABORATORY CONTROL SPIKE/LABORATORY CONTROL SPIKE DUPLICATION

Lab Name: Chemtech **Client:** ENTACT
Lab Code: CHEM **Cas No:** P5147 **SAS No :** P5147 **SDG No:** P5147
Matrix Spike - EPA Sample No : BSF1209S2 **Datafile:** FB031283.D

COMPOUND	SPIKE ADDED ug/kg	CONCENTRATION ug/kg	LCS/LCSD CONCENTRATION ug/kg	% REC	QC LIMITS
GRO	180	0	137	76	50-150

LCS/LCSD % Recovery RPD : 2.3

METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBF1209S2

Lab Name: CHEMTECH

Contract: ENTA05

Lab Code: CHEM Case No.: P5147

SAS No.: P5147 SDG NO.: P5147

Lab File ID: FB031276.D

Lab Sample ID: VBF1209S2

Date Analyzed: 12/09/24

Time Analyzed: 11:17

GC Column: RTX-502.2 ID: 0.53 (mm)

Heated Purge: (Y/N) Y

Instrument ID: FB

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
20 PPB GRO STD	20 PPB GRO STD	FB031274.D	12/09/24
BSF1209S1	BSF1209S1	FB031277.D	12/09/24
EX-8-TPH-1	P5147-01	FB031281.D	12/09/24
EX-8-TPH-2	P5147-02	FB031282.D	12/09/24
BSF1209S2	BSF1209S2	FB031283.D	12/09/24
20 PPB GRO STD	20 PPB GRO STD	FB031284.D	12/09/24

COMMENTS: _____



SAMPLE DATA

Report of Analysis

Client:	ENTACT	Date Collected:	12/05/24
Project:	North Point	Date Received:	12/05/24
Client Sample ID:	EX-8-TPH-1	SDG No.:	P5147
Lab Sample ID:	P5147-01	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	81
Sample Wt/Vol:	7.37	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Gasoline Range Organics
GPC Factor :		Injection Volume :	
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031281.D	500	12/09/24 13:43	FB120924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	270000		3230	18800	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	71.8	*	50 - 150	359%	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_B\Data\FB120924\
Data File : FB031281.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 13:43
Operator : YP/AJ
Sample : P5147-01 500X
Misc : 7.37G/5.00 ML MEOH
ALS Vial : 8 Sample Multiplier: 1

Instrument :
FID_B
ClientSampleId :
EX-8-TPH-1

Integration File: Calibration.e
Quant Time: Dec 10 00:48:10 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.828	2019549	71.749 ng/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

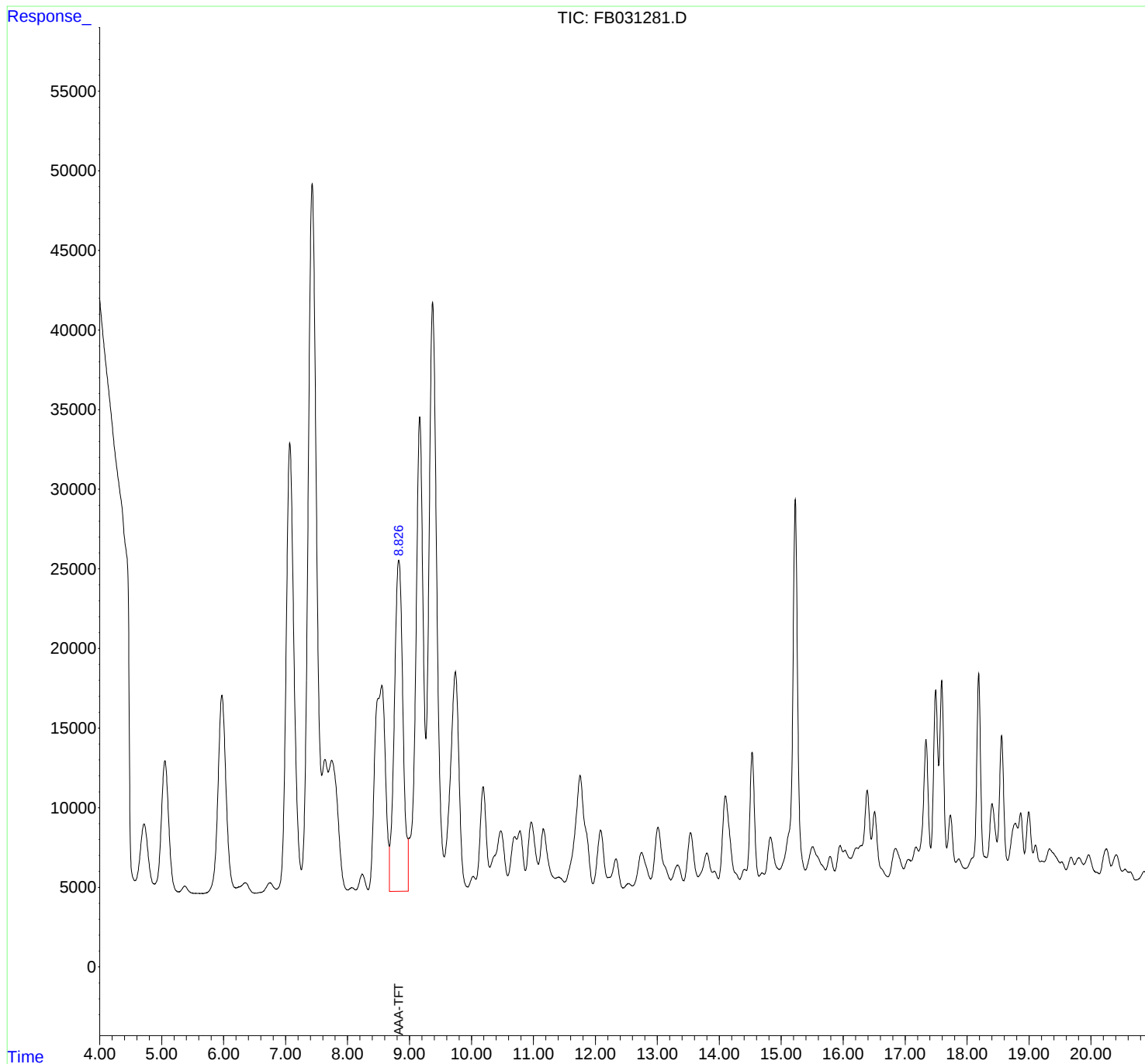
(m)=manual int.

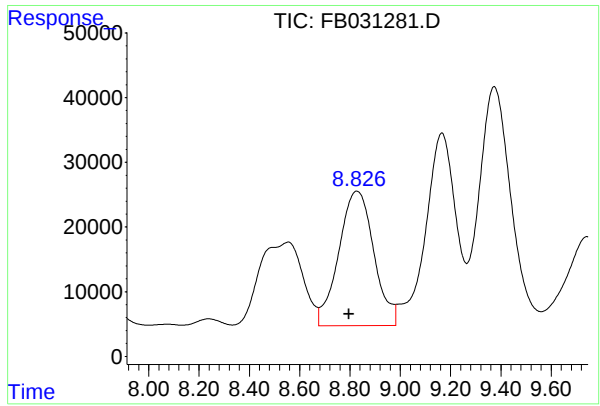
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031281.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 13:43
Operator : YP/AJ
Sample : P5147-01 500X
Misc : 7.37G/5.00 ML MEOH
ALS Vial : 8 Sample Multiplier: 1

Instrument :
FID_B
ClientSampleId :
EX-8-TPH-1

Integration File: Calibration.e
Quant Time: Dec 10 00:48:10 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um





#5 AAA-TFT

R.T.: 8.828 min
Delta R.T.: 0.031 min
Response: 2019549
Conc: 71.75 ng/ml

Instrument :
FID_B
ClientSampleId :
EX-8-TPH-1

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031281.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 13:43
Sample : P5147-01 500X
Misc : 7.37G/5.00 ML MEOH
ALS Vial : 8 Sample Multiplier: 1

Integration File: SAMPLE.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.716	4.537	4.875	BV	3593	277537	6.63%	0.898%
2	5.600	5.587	5.622	PV	10	165	0.00%	0.001%
3	5.651	5.622	5.667	PV	23	237	0.01%	0.001%
4	5.973	5.667	6.204	PV	12462	1143173	27.30%	3.698%
5	6.350	6.204	6.527	VV	671	70958	1.69%	0.230%
6	6.747	6.527	6.848	VV	678	59266	1.42%	0.192%
7	7.069	6.848	7.256	VV	28286	2498410	59.67%	8.083%
8	7.430	7.256	7.586	VV	44570	4187201	100.00%	13.546%
9	7.637	7.586	7.689	VV	8420	492622	11.76%	1.594%
10	7.745	7.689	8.006	VV	8356	853442	20.38%	2.761%
11	8.071	8.006	8.137	VV	351	22461	0.54%	0.073%
12	8.239	8.137	8.332	VV	1206	81387	1.94%	0.263%
13	8.553	8.332	8.676	VV	13063	1571367	37.53%	5.083%
14	8.828	8.676	8.984	VV	20918	2045640	48.85%	6.618%
15	9.166	8.984	9.265	VV	29935	2504889	59.82%	8.104%
16	9.374	9.265	9.562	VV	37089	3276764	78.26%	10.601%
17	9.741	9.562	9.941	VV	13892	1384720	33.07%	4.480%
18	10.028	9.941	10.075	VV	1043	64114	1.53%	0.207%
19	10.190	10.075	10.298	VV	6676	485744	11.60%	1.571%
20	10.475	10.298	10.587	VV	3908	442401	10.57%	1.431%
21	10.698	10.587	10.730	VV	3543	221228	5.28%	0.716%
22	10.782	10.730	10.871	VV	3903	256539	6.13%	0.830%
23	10.968	10.871	11.080	VV	4446	376237	8.99%	1.217%
24	11.163	11.080	11.353	VV	4009	372195	8.89%	1.204%
25	11.409	11.353	11.511	VV	987	83163	1.99%	0.269%
26	11.755	11.511	11.963	VV	7374	922219	22.02%	2.983%
27	12.086	11.963	12.207	VV	3934	313906	7.50%	1.016%
28	12.333	12.207	12.449	VV	2130	178522	4.26%	0.578%
29	12.538	12.449	12.598	VV	587	42129	1.01%	0.136%
30	12.747	12.598	12.897	VV	2528	265329	6.34%	0.858%
31	13.012	12.897	13.219	VV	4110	413073	9.87%	1.336%
32	13.328	13.219	13.423	VV	1719	156489	3.74%	0.506%
33	13.538	13.423	13.661	VV	3770	302630	7.23%	0.979%
34	13.800	13.661	13.893	VV	2482	236190	5.64%	0.764%
35	13.920	13.893	13.988	VV	1345	66645	1.59%	0.216%
36	14.101	13.988	14.330	VV	6064	581909	13.90%	1.883%

					rteres				
37	14.531	14.330	14.645	VV	8818	590865	14.11%	1.911%	
38	14.694	14.645	14.726	VV	1225	56251	1.34%	0.182%	
39	14.827	14.726	14.970	VV	3480	320631	7.66%	1.037%	
40	15.227	14.970	15.390	VV	24680	1662676	39.71%	5.379%	
41	15.508	15.390	15.715	VV	2861	408611	9.76%	1.322%	
42	15.790	15.715	15.864	VV	2246	160740	3.84%	0.520%	
43	15.952	15.864	16.003	VV	2934	195316	4.66%	0.632%	
44	16.029	16.003	16.119	VV	2637	167157	3.99%	0.541%	
45	16.388	16.119	16.455	VV	6405	707986	16.91%	2.290%	
46	16.508	16.455	16.705	VBA	5072	390039	9.32%	1.262%	
					Sum of corrected areas:		30911174		

FB112124.M Tue Dec 10 01:13:47 2024

Report of Analysis

Client:	ENTACT	Date Collected:	12/05/24
Project:	North Point	Date Received:	12/05/24
Client Sample ID:	EX-8-TPH-2	SDG No.:	P5147
Lab Sample ID:	P5147-02	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	79.3
Sample Wt/Vol:	7.04	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Gasoline Range Organics
GPC Factor :		Injection Volume :	
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031282.D	2000	12/09/24 14:09	FB120924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	1060000		13800	80700	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	40.9	*	50 - 150	204%	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_B\Data\FB120924\
Data File : FB031282.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 14:09
Operator : YP/AJ
Sample : P5147-02 2000X
Misc : 7.04G/5.00 ML MEOH
ALS Vial : 9 Sample Multiplier: 1

Instrument :
FID_B
ClientSampleId :
EX-8-TPH-2

Integration File: Calibration.e
Quant Time: Dec 10 00:48:19 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.789	1151209	40.899 ng/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

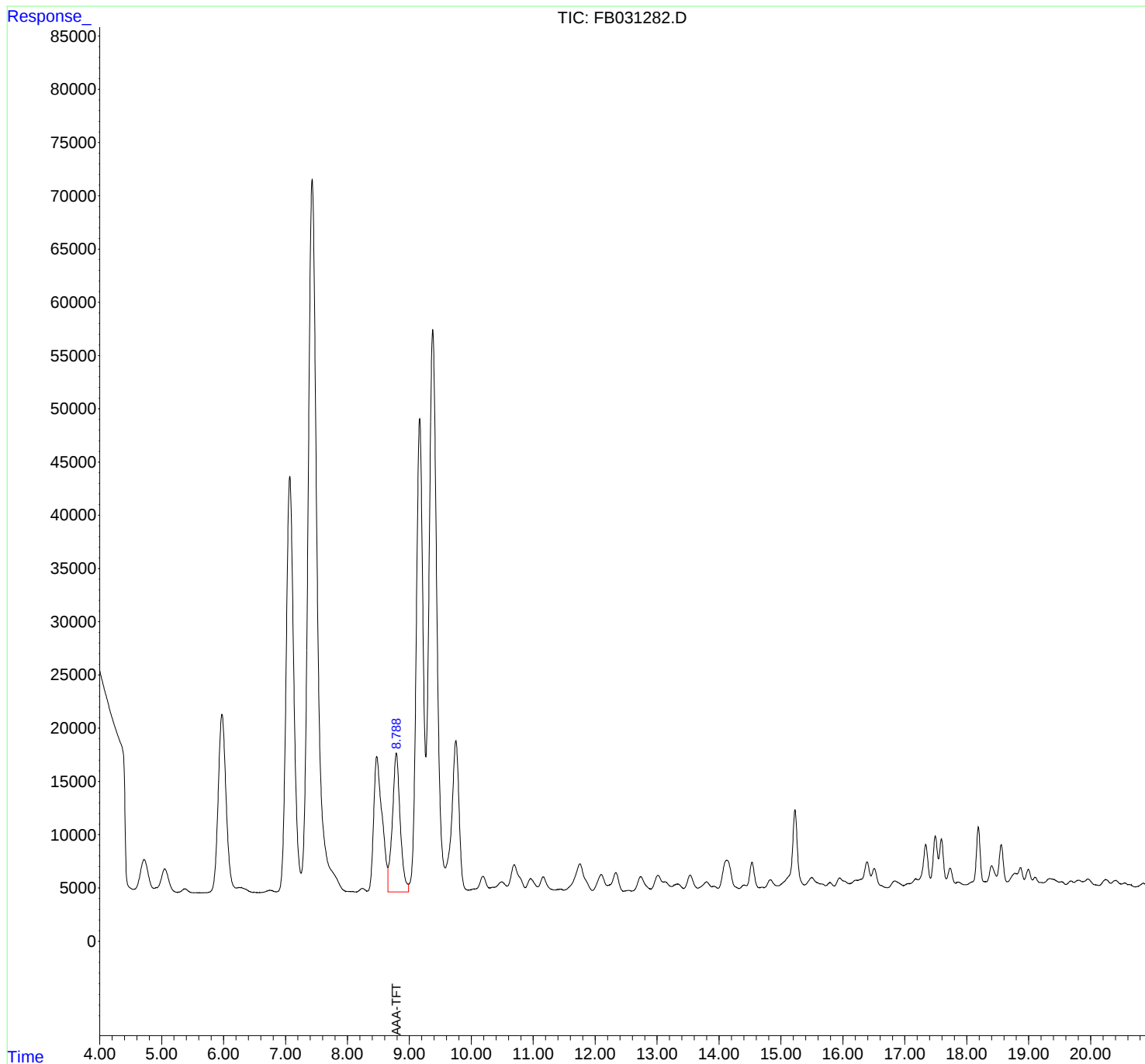
(m)=manual int.

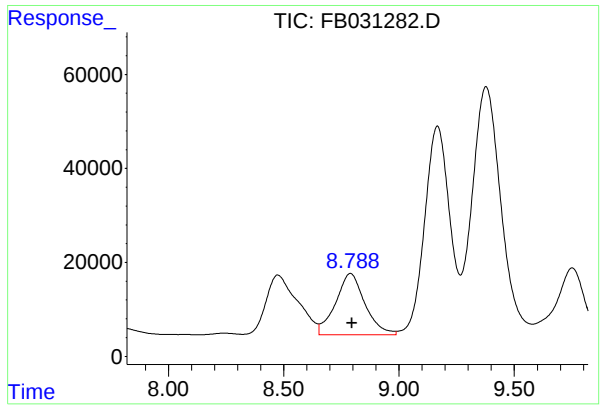
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031282.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 14:09
Operator : YP/AJ
Sample : P5147-02 2000X
Misc : 7.04G/5.00 ML MEOH
ALS Vial : 9 Sample Multiplier: 1

Instrument :
FID_B
ClientSampleId :
EX-8-TPH-2

Integration File: Calibration.e
Quant Time: Dec 10 00:48:19 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um





#5 AAA-TFT

R.T.: 8.789 min

Delta R.T.: -0.007 min

Response: 1151209

Conc: 40.90 ng/ml

Instrument :

FID_B

ClientSampleId :

EX-8-TPH-2

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031282.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 14:09
Sample : P5147-02 2000X
Misc : 7.04G/5.00 ML ME0H
ALS Vial : 9 Sample Multiplier: 1

Integration File: SAMPLE.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.717	4.504	4.871	BV	2818	236194	3.48%	0.854%
2	4.877	4.871	4.884	VV	210	1598	0.02%	0.006%
3	5.561	5.525	5.600	PV	28	609	0.01%	0.002%
4	5.608	5.600	5.616	VV	23	121	0.00%	0.000%
5	5.625	5.616	5.635	VV	18	114	0.00%	0.000%
6	5.648	5.635	5.662	PV	24	140	0.00%	0.001%
7	5.677	5.662	5.684	VV	21	185	0.00%	0.001%
8	5.695	5.684	5.722	VV	26	446	0.01%	0.002%
9	5.975	5.722	6.215	VV	16776	1504003	22.18%	5.437%
10	6.255	6.215	6.541	VV	502	51943	0.77%	0.188%
11	6.546	6.541	6.562	VV	41	333	0.00%	0.001%
12	6.589	6.562	6.608	VV	44	825	0.01%	0.003%
13	7.070	6.851	7.252	VV	39091	3329128	49.10%	12.034%
14	7.431	7.252	8.012	VV	66974	6780218	100.00%	24.509%
15	8.027	8.012	8.044	VV	118	2134	0.03%	0.008%
16	8.060	8.044	8.146	VV	116	5828	0.09%	0.021%
17	8.242	8.146	8.320	VV	400	26842	0.40%	0.097%
18	8.474	8.320	8.654	VV	12786	1216658	17.94%	4.398%
19	8.789	8.654	8.987	VV	13130	1165388	17.19%	4.213%
20	9.167	8.987	9.267	VV	44510	3361322	49.58%	12.151%
21	9.378	9.267	9.579	VV	52889	4598900	67.83%	16.624%
22	9.751	9.579	9.967	VV	14290	1228048	18.11%	4.439%
23	10.189	9.967	10.303	VV	1536	139425	2.06%	0.504%
24	10.492	10.303	10.578	VV	1010	114480	1.69%	0.414%
25	10.693	10.578	10.871	VV	2623	258984	3.82%	0.936%
26	10.960	10.871	11.074	VV	1309	109416	1.61%	0.396%
27	11.162	11.074	11.355	VV	1471	122793	1.81%	0.444%
28	11.443	11.355	11.496	VV	315	23355	0.34%	0.084%
29	11.754	11.496	11.956	VV	2697	316469	4.67%	1.144%
30	12.098	11.956	12.201	VV	1684	143081	2.11%	0.517%
31	12.334	12.201	12.468	VV	1871	149166	2.20%	0.539%
32	12.540	12.468	12.591	VV	183	11808	0.17%	0.043%
33	12.736	12.591	12.896	VV	1497	132649	1.96%	0.480%
34	13.015	12.896	13.242	VV	1607	196572	2.90%	0.711%
35	13.325	13.242	13.429	VV	782	71671	1.06%	0.259%
36	13.535	13.429	13.660	VV	1634	126427	1.86%	0.457%

					rteres				
37	13.799	13.660	13.899	VV	988	98012	1.45%	0.354%	
38	13.920	13.899	13.988	VV	583	26755	0.39%	0.097%	
39	14.125	13.988	14.324	VV	3012	305992	4.51%	1.106%	
40	14.406	14.324	14.444	VV	673	40400	0.60%	0.146%	
41	14.533	14.444	14.653	VV	2835	175031	2.58%	0.633%	
42	14.695	14.653	14.734	VV	482	22250	0.33%	0.080%	
43	14.829	14.734	14.951	VV	1182	105507	1.56%	0.381%	
44	15.227	14.951	15.381	VV	7749	581719	8.58%	2.103%	
45	15.498	15.381	15.723	VV	1365	193448	2.85%	0.699%	
46	15.791	15.723	15.864	VV	904	62867	0.93%	0.227%	
47	15.949	15.864	16.109	VV	1342	148105	2.18%	0.535%	
48	16.390	16.109	16.456	VV	2846	308535	4.55%	1.115%	
49	16.507	16.456	16.705	VBA	2227	167973	2.48%	0.607%	
					Sum of corrected areas:	27663864			

FB112124.M Tue Dec 10 01:14:35 2024



CALIBRATION SUMMARY

GASOLINE RANGE ORGANICS INITIAL CALIBRATION SUMMARY

Lab Name: Chemtech Contract: ENTA05
ProjectID: North Point
Lab Code: CHEM Case No.: P5147 SAS No.: P5147 SDG No.: P5147

Calibration Sequence : FB112124		Test : Gasoline Range Organics	
Concentration (PPB)	Area Count	Reference Factor	File ID
45	2157271	47939	FB031249.D
90	3980278	44225	FB031250.D
180	7517318	41763	FB031251.D
450	20681397	45959	FB031252.D
900	40044417	44494	FB031253.D
AVG RF : 44876		% RSD : 5.083	AVG RT : 8.7942

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: ENTA05
ProjectID: North Point
Lab Code: CHEM Case No.: P5147 SAS No.: P5147 SDG No.: P5147
DataFile: FB031274.D Analyst Name: YP/AJ Analyst Date: 12-09-2024

Conc. (PPB)	Area Count	RF	Average RF	%D
180	7365329	40918	44876	8.82

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
 Data File : FB031274.D
 Signal(s) : FID2B.CH
 Acq On : 9 Dec 2024 10:12
 Operator : YP/AJ
 Sample : 20 PPB GRO STD
 Misc :
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 FID_B
 ClientSampleId :
 20 PPB GRO STD

Manual Integrations
 APPROVED

Reviewed By :Yogesh Patel 12/10/2024
 Supervised By :Ankita Jodhani 12/10/2024

Integration File: Calibration.e
 Quant Time: Dec 10 00:47:05 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
 Quant Title :
 QLast Update : Thu Nov 21 12:34:29 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 5 g/ml
 Signal Phase : RTX-502.2
 Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.780	553462	19.663 ng/ml
Target Compounds			
1) t 2-Methylpentane	4.708	1020519	25.877 ng/mlm
2) t 2,2,4-Trimethylpentane	7.408	1312233	27.750 ng/ml
3) t n-Heptane	7.742	382517	8.191 ng/ml
4) t Benzene	7.880	481088	8.876 ng/ml
6) t Toluene	10.608	1355472	27.105 ng/ml
7) t Ethylbenzene	13.046	417687	9.521 ng/ml
8) t m-Xylene	13.179	901732	19.126 ng/ml
9) t O-Xylene	13.908	809206	18.579 ng/ml
10) t 1,2,4-Trimethylbenzene	16.185	684875	19.186 ng/ml

(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031274.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 10:12
Operator : YP/AJ
Sample : 20 PPB GRO STD
Misc :
ALS Vial : 1 Sample Multiplier: 1

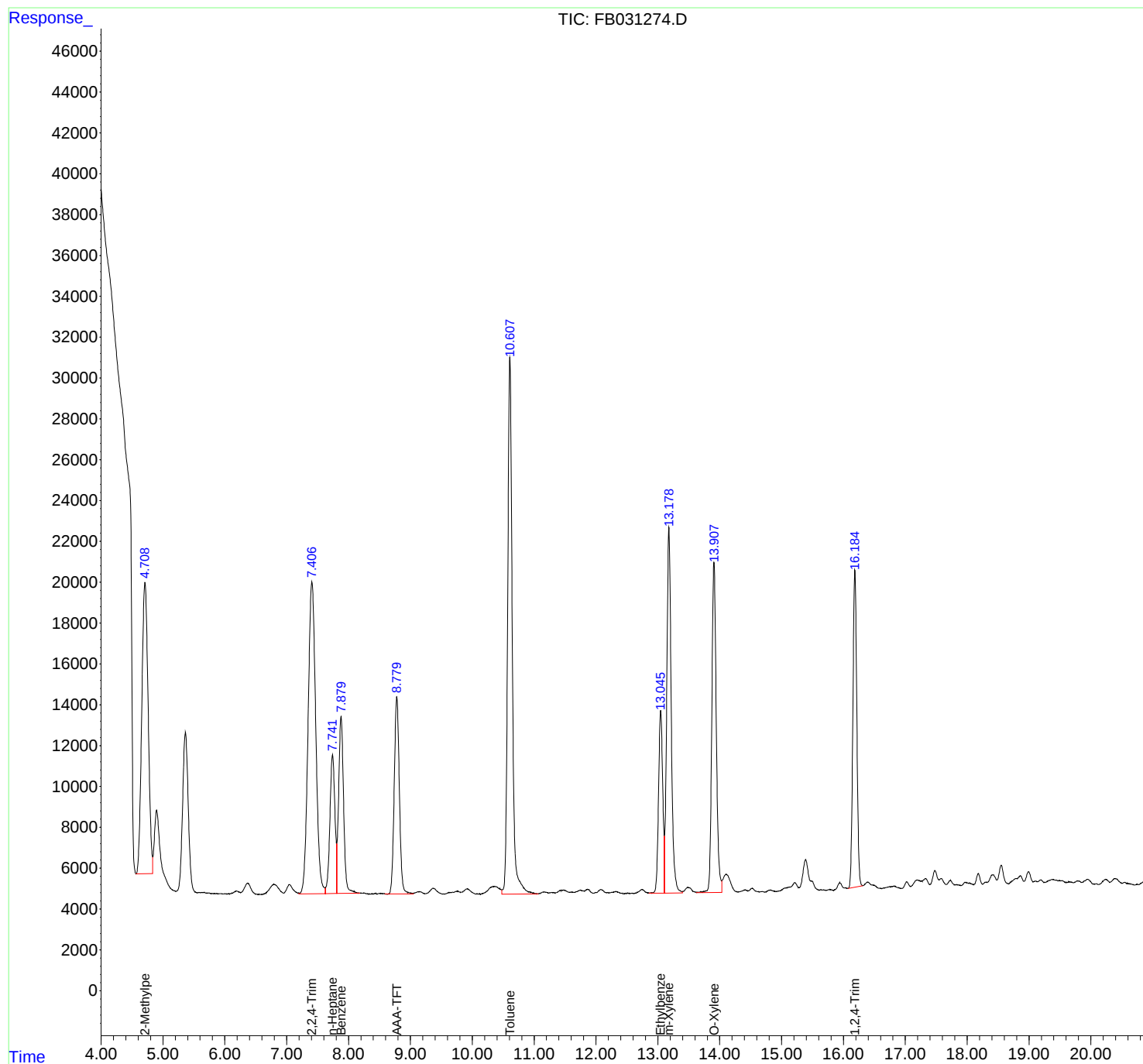
Instrument :
FID_B
ClientSampleId :
20 PPB GRO STD

Manual Integrations
APPROVED

Reviewed By :Yogesh Patel 12/10/2024
Supervised By :Ankita Jodhani 12/10/2024

Integration File: Calibration.e
Quant Time: Dec 10 00:47:05 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um



rteres

Instrument :
FID_B
LabSampleId :
20 PPB GRO STD
Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB12092
Data File : FB031274.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 10:12
Sample : 20 PPB GRO STD
Misc :
ALS Vial : 1 Sample Multiplier: 1

Manual IntegrationsAPPROVED

Reviewed By :Yogesh Patel 12/10/2024
Supervised By :Ankita Jodhani 12/10/2024

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.710	4.582	4.835	BV	13803	951971	70.23%	12.127%
2	7.408	7.197	7.626	VV	15282	1312233	96.81%	16.716%
3	7.742	7.626	7.809	VV	6799	382517	28.22%	4.873%
4	7.880	7.809	8.186	VV	8673	481088	35.49%	6.128%
5	8.780	8.584	9.049	BV	9652	553462	40.83%	7.050%
6	10.608	10.477	11.070	VV	26264	1355472	100.00%	17.267%
7	13.046	12.854	13.107	VV	8949	417687	30.81%	5.321%
8	13.179	13.107	13.397	VV	17892	901732	66.53%	11.487%
9	13.908	13.622	14.034	VV	16162	809206	59.70%	10.308%
10	16.185	16.075	16.316	PV	15546	684875	50.53%	8.724%

Sum of corrected areas: 7850243

FB112124.M Tue Dec 10 01:09:31 2024

GASOLINE RANGE ORGANICS CONTINUING CALIBRATION SUMMARY

20 PPB GRO STD

Lab Name: Chemtech Contract: ENTA05
ProjectID: North Point
Lab Code: CHEM Case No.: P5147 SAS No.: P5147 SDG No.: P5147
DataFile: FB031284.D Analyst Name: YP/AJ Analyst Date: 12-09-2024

Conc. (PPB)	Area Count	RF	Average RF	%D
180	6674705	37082	44876	17.368

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
 Data File : FB031284.D
 Signal(s) : FID2B.CH
 Acq On : 9 Dec 2024 15:30
 Operator : YP/AJ
 Sample : 20 PPB GRO STD
 Misc :
 ALS Vial : 12 Sample Multiplier: 1

Instrument :
 FID_B
 ClientSampleId :
 20 PPB GRO STD

Integration File: Calibration.e
 Quant Time: Dec 10 00:48:37 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
 Quant Title :
 QLast Update : Thu Nov 21 12:34:29 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 5 g/ml
 Signal Phase : RTX-502.2
 Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.794	517701	18.393 ng/ml
Target Compounds			
1) t 2-Methylpentane	4.722	990802	25.123 ng/ml
2) t 2,2,4-Trimethylpentane	7.426	1179680	24.947 ng/ml
3) t n-Heptane	7.756	372993	7.987 ng/ml
4) t Benzene	7.894	443858	8.189 ng/ml
6) t Toluene	10.623	1241700	24.830 ng/ml
7) t Ethylbenzene	13.060	360774	8.224 ng/ml
8) t m-Xylene	13.193	779332	16.530 ng/ml
9) t O-Xylene	13.920	724596	16.637 ng/ml
10) t 1,2,4-Trimethylbenzene	16.196	580970	16.275 ng/ml

(f)=RT Delta > 1/2 Window

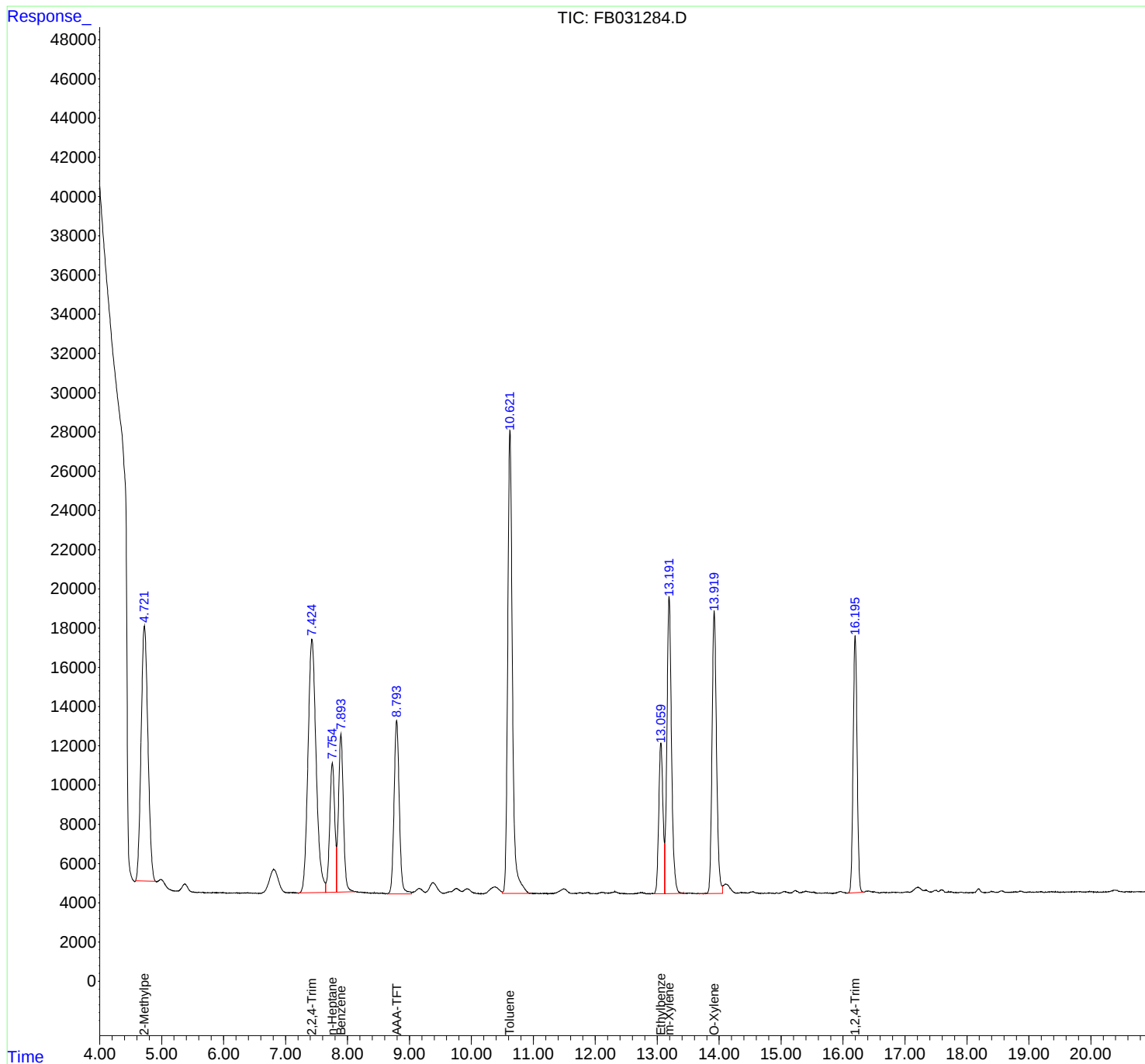
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031284.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 15:30
Operator : YP/AJ
Sample : 20 PPB GRO STD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Instrument :
FID_B
ClientSampleId :
20 PPB GRO STD

Integration File: Calibration.e
Quant Time: Dec 10 00:48:37 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031284.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 15:30
Sample : 20 PPB GRO STD
Misc :
ALS Vial : 12 Sample Multiplier: 1

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.722	4.582	4.900	BBA	12992	990802	79.79%	13.776%
2	7.426	7.192	7.649	BV	12919	1179680	95.01%	16.402%
3	7.756	7.649	7.825	VV	6594	372993	30.04%	5.186%
4	7.894	7.825	8.122	VV	8053	443858	35.75%	6.171%
5	8.794	8.643	9.035	PV	8829	517701	41.69%	7.198%
6	10.623	10.502	10.957	VV	23602	1241700	100.00%	17.264%
7	13.060	12.935	13.120	VV	7684	360774	29.05%	5.016%
8	13.193	13.120	13.447	VV	15121	779332	62.76%	10.835%
9	13.920	13.647	14.053	BV	14411	724596	58.36%	10.074%
10	16.196	16.074	16.339	PV	13110	580970	46.79%	8.078%

Sum of corrected areas: 7192405

FB112124.M Tue Dec 10 01:12:13 2024

Analytical Sequence

Client: ENTACT

SDG No.: P5147

Project: North Point

Instrument ID: FID_B

GC Column: RTX-502.2

ID: 0.53 (mm)

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

MEAN SUROGATE RT FROM INITIAL CALIBRATION 8.7942					
EPA SAMPLE NO.	LAB SAMPLE ID	DATE AND TIME ANALYZED	DATAFILE	RT	#
20 PPB GRO STD	20 PPB GRO STD	9 Dec 2024 10:12	FB031274.D	8.780	
VBF1209S2	VBF1209S2	9 Dec 2024 11:17	FB031276.D	8.789	
BSF1209S1	BSF1209S1	9 Dec 2024 11:43	FB031277.D	8.789	
EX-8-TPH-1	P5147-01	9 Dec 2024 13:43	FB031281.D	8.828	
EX-8-TPH-2	P5147-02	9 Dec 2024 14:09	FB031282.D	8.789	
BSF1209S2	BSF1209S2	9 Dec 2024 15:03	FB031283.D	8.795	
20 PPB GRO STD	20 PPB GRO STD	9 Dec 2024 15:30	FB031284.D	8.794	



QC SAMPLE DATA

Report of Analysis

Client:	ENTACT		Date Collected:		
Project:	North Point		Date Received:		
Client Sample ID:	VBF1209S2		SDG No.:	P5147	
Lab Sample ID:	VBF1209S2		Matrix:	SOIL	
Analytical Method:	8015D GRO		% Solid:	100	Decanted:
Sample Wt/Vol:	5	Units: g	Final Vol:	5	mL
Soil Aliquot Vol:		uL	Test:	Gasoline Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :	PH :				
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031276.D	50	12/09/24 11:17	FB120924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	386	U	386	2250	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	16.3		50 - 150	82%	SPK: 20

Comments:

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

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

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031276.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 11:17
Operator : YP/AJ
Sample : VBF1209S2 50X
Misc : 5.00G/5.00 ML MEOH
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_B
ClientSampleId :
VBF1209S2

Integration File: Calibration.e
Quant Time: Dec 10 00:47:24 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.789	458866	16.302 ng/ml
Target Compounds			

(f)=RT Delta > 1/2 Window

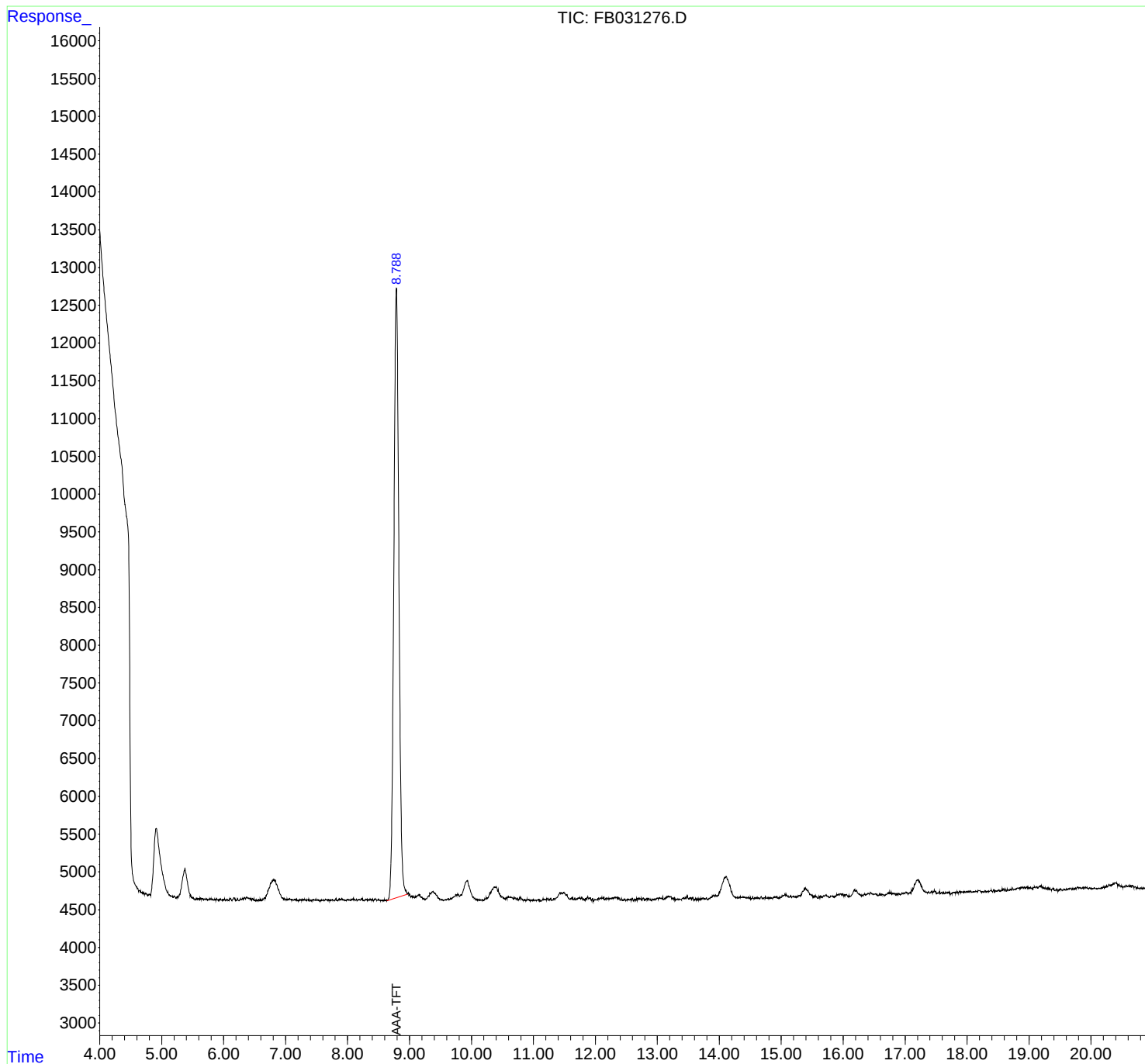
(m)=manual int.

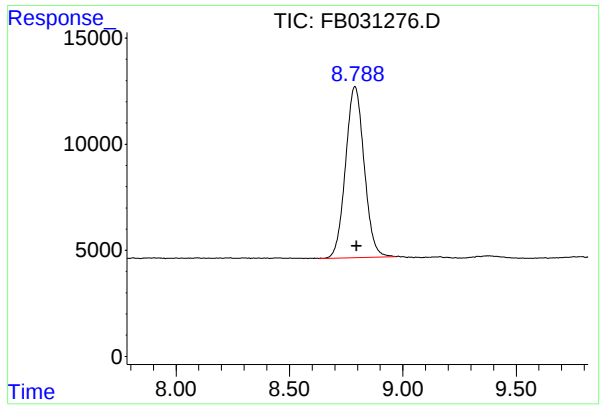
Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031276.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 11:17
Operator : YP/AJ
Sample : VBF1209S2 50X
Misc : 5.00G/5.00 ML MEOH
ALS Vial : 3 Sample Multiplier: 1

Instrument :
FID_B
ClientSampleId :
VBF1209S2

Integration File: Calibration.e
Quant Time: Dec 10 00:47:24 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um





#5 AAA-TFT

R.T.: 8.789 min
Delta R.T.: -0.007 min
Response: 458866
Conc: 16.30 ng/ml

Instrument :
FID_B
ClientSampleId :
VBF1209S2

rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031276.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 11:17
Sample : VBF1209S2 50X
Misc : 5.00G/5.00 ML ME0H
ALS Vial : 3 Sample Multiplier: 1

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	8.789	8.631	8.970	PV	8070	458866	100.00%	100.000%
Sum of corrected areas:							458866	

FB112124.M Tue Dec 10 01:10:08 2024

Report of Analysis

Client:	ENTACT	Date Collected:	
Project:	North Point	Date Received:	
Client Sample ID:	BSF1209S1	SDG No.:	P5147
Lab Sample ID:	BSF1209S1	Matrix:	SOIL
Analytical Method:	8015D GRO	% Solid:	100
Sample Wt/Vol:	5	Units:	g
Soil Aliquot Vol:			uL
Extraction Type:		Test:	Gasoline Range Organics
GPC Factor :		Injection Volume :	
Prep Method :			

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031277.D	1	12/09/24 11:43	FB120924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	134		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	19.7		50 - 150	99%	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_B\Data\FB120924\
 Data File : FB031277.D
 Signal(s) : FID2B.CH
 Acq On : 9 Dec 2024 11:43
 Operator : YP/AJ
 Sample : BSF1209S1
 Misc : 5.00G/5.00 ML DI WATER
 ALS Vial : 4 Sample Multiplier: 1

Instrument :
 FID_B
 ClientSampleId :
 BSF1209S1

Integration File: Calibration.e
 Quant Time: Dec 10 00:47:32 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
 Quant Title :
 QLast Update : Thu Nov 21 12:34:29 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 5 g/ml
 Signal Phase : RTX-502.2
 Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.789	555024	19.719 ng/ml
Target Compounds			
1) t 2-Methylpentane	4.718	869864	22.057 ng/ml
2) t 2,2,4-Trimethylpentane	7.418	1078704	22.811 ng/ml
3) t n-Heptane	7.751	329205	7.049 ng/ml
4) t Benzene	7.890	399625	7.373 ng/ml
6) t Toluene	10.617	1118711	22.371 ng/ml
7) t Ethylbenzene	13.053	325400	7.417 ng/ml
8) t m-Xylene	13.186	696309	14.769 ng/ml
9) t O-Xylene	13.914	648761	14.896 ng/ml
10) t 1,2,4-Trimethylbenzene	16.191	527443	14.776 ng/ml

(f)=RT Delta > 1/2 Window

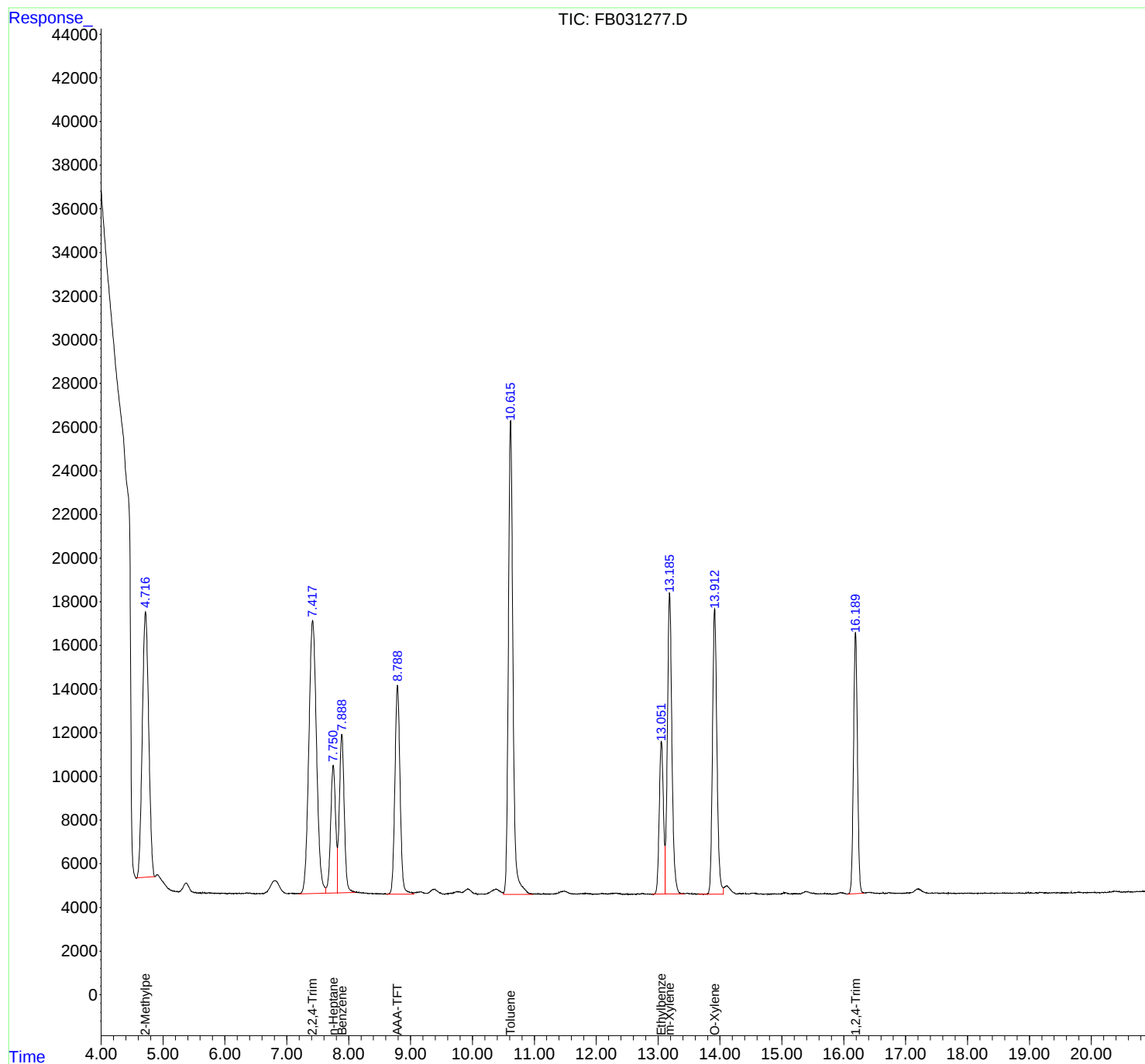
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031277.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 11:43
Operator : YP/AJ
Sample : BSF1209S1
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
FID_B
ClientSampleId :
BSF1209S1

Integration File: Calibration.e
Quant Time: Dec 10 00:47:32 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031277.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 11:43
Sample : BSF1209S1
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 4 Sample Multiplier: 1

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.718	4.582	4.873	BV	12147	869864	77.76%	13.282%
2	7.418	7.195	7.629	PV	12496	1078704	96.42%	16.471%
3	7.751	7.629	7.819	VV	5842	329205	29.43%	5.027%
4	7.890	7.819	8.108	VV	7256	399625	35.72%	6.102%
5	8.789	8.609	9.052	BV	9570	555024	49.61%	8.475%
6	10.617	10.502	10.972	VV	21706	1118711	100.00%	17.082%
7	13.053	12.901	13.113	BV	6986	325400	29.09%	4.969%
8	13.186	13.113	13.427	VV	13796	696309	62.24%	10.632%
9	13.914	13.650	14.053	BV	13069	648761	57.99%	9.906%
10	16.191	16.063	16.327	PV	11954	527443	47.15%	8.054%

Sum of corrected areas: 6549045

FB112124.M Tue Dec 10 01:10:36 2024

Report of Analysis

Client:	ENTACT		Date Collected:		
Project:	North Point		Date Received:		
Client Sample ID:	BSF1209S2		SDG No.:	P5147	
Lab Sample ID:	BSF1209S2		Matrix:	SOIL	
Analytical Method:	8015D GRO		% Solid:	100	Decanted:
Sample Wt/Vol:	5	Units: g	Final Vol:	5	mL
Soil Aliquot Vol:		uL	Test:	Gasoline Range Organics	
Extraction Type:			Injection Volume :		
GPC Factor :	PH :				
Prep Method :					

File ID/Qc Batch:	Dilution:	Date Analyzed	Prep Batch ID
FB031283.D	1	12/09/24 15:03	FB120924

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units(Dry Weight)
TARGETS						
GRO	GRO	137		8.00	45.0	ug/kg
SURROGATES						
98-08-8	Alpha,Alpha,Alpha-Trifluoroto	19.9		50 - 150	100%	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_B\Data\FB120924\
 Data File : FB031283.D
 Signal(s) : FID2B.CH
 Acq On : 9 Dec 2024 15:03
 Operator : YP/AJ
 Sample : BSF1209S2
 Misc : 5.00G/5.00 ML DI WATER
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 FID_B
 ClientSampleId :
 BSF1209S2

Integration File: Calibration.e
 Quant Time: Dec 10 00:48:28 2024
 Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
 Quant Title :
 QLast Update : Thu Nov 21 12:34:29 2024
 Response via : Initial Calibration
 Integrator: ChemStation

Volume Inj. : 5 g/ml
 Signal Phase : RTX-502.2
 Signal Info : 60mx0.53mmx3.00um

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) s AAA-TFT	8.795	561420	19.946 ng/ml
Target Compounds			
1) t 2-Methylpentane	4.723	904592	22.937 ng/ml
2) t 2,2,4-Trimethylpentane	7.428	1084134	22.926 ng/ml
3) t n-Heptane	7.755	343053	7.346 ng/ml
4) t Benzene	7.895	416131	7.678 ng/ml
6) t Toluene	10.623	1152685	23.050 ng/ml
7) t Ethylbenzene	13.059	332696	7.584 ng/ml
8) t m-Xylene	13.192	714476	15.154 ng/ml
9) t O-Xylene	13.920	675484	15.509 ng/ml
10) t 1,2,4-Trimethylbenzene	16.196	532263	14.911 ng/ml

(f)=RT Delta > 1/2 Window

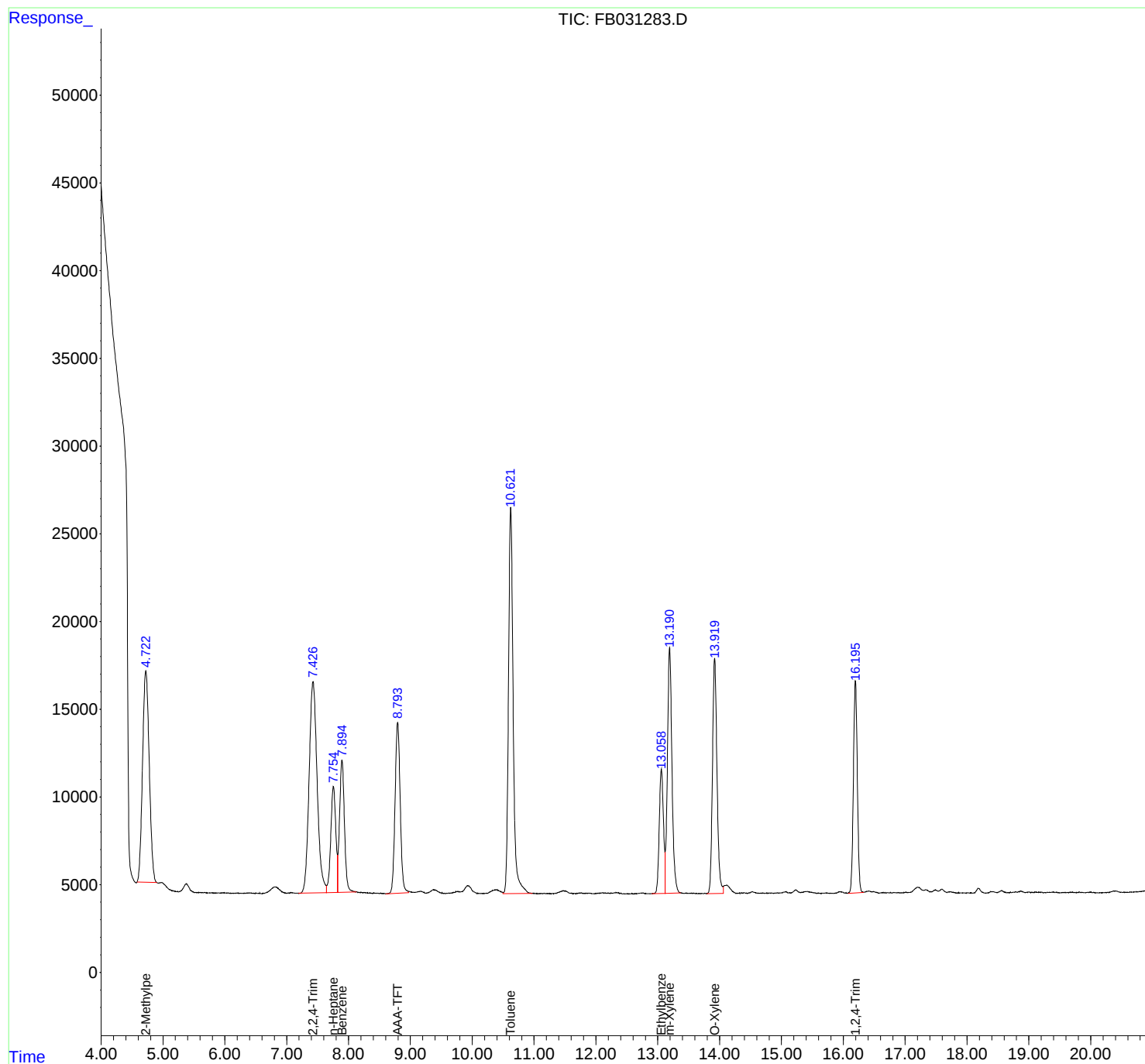
(m)=manual int.

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031283.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 15:03
Operator : YP/AJ
Sample : BSF1209S2
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
FID_B
ClientSampleId :
BSF1209S2

Integration File: Calibration.e
Quant Time: Dec 10 00:48:28 2024
Quant Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Quant Title :
QLast Update : Thu Nov 21 12:34:29 2024
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 5 g/ml
Signal Phase : RTX-502.2
Signal Info : 60mx0.53mmx3.00um



rteres

Area Percent Report

Data Path : Z:\pestpcbsrv\HPCHEM1\FID_B\Data\FB120924\
Data File : FB031283.D
Signal(s) : FID2B.CH
Acq On : 9 Dec 2024 15:03
Sample : BSF1209S2
Misc : 5.00G/5.00 ML DI WATER
ALS Vial : 11 Sample Multiplier: 1

Integration File: Calibration.e

Method : Z:\pestpcbsrv\HPCHEM1\FID_B\Method\FB112124.M
Title :

Signal : FID2B.CH

peak #	R.T. min	Start min	End min	PK TY	peak height	peak area	peak % max.	% of total
1	4.723	4.582	4.900	BBA	12049	904592	78.48%	13.467%
2	7.428	7.195	7.644	BV	12045	1084134	94.05%	16.140%
3	7.756	7.644	7.825	VV	6041	343053	29.76%	5.107%
4	7.895	7.825	8.130	VV	7533	416131	36.10%	6.195%
5	8.795	8.598	8.971	PV	9735	561420	48.71%	8.358%
6	10.623	10.499	10.975	VV	22020	1152685	100.00%	17.161%
7	13.059	12.901	13.120	BV	7087	332696	28.86%	4.953%
8	13.192	13.120	13.372	VV	13986	714476	61.98%	10.637%
9	13.920	13.797	14.062	BV	13395	675484	58.60%	10.056%
10	16.196	16.077	16.327	BV	12078	532263	46.18%	7.924%

Sum of corrected areas: 6716935

FB112124.M Tue Dec 10 01:11:41 2024

Manual Integration Report

Sample ID	ClientId ID	File ID	Sequence ID	Parameter	Supervised By	Supervised On	Reason
20 PPB GRO STD		FB031274.D	FB120924	2-Methylpentane	Ankita	12/10/2024 10:25:51 AM	Peak Integrated by Software incorrectly

Instrument ID: FID_B

Daily Analysis Runlog For Sequence/QC Batch ID # FB112124

Review By	yogesh	Review On	11/21/2024 12:40:59 PM
Supervise By	Ankita	Supervise On	11/21/2024 4:22:27 PM
SubDirectory	FB112124	HP Acquire Method	HP Processing Method FB112124
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23534,PP24008,PP24009,PP24010,PP24011,PP24012		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23535,PP24013		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	5 GRO STD	FB031249.D	21 Nov 2024 11:13	YP/AJ	Ok
2	10 GRO STD	FB031250.D	21 Nov 2024 11:39	YP/AJ	Ok
3	20 GRO STD	FB031251.D	21 Nov 2024 12:06	YP/AJ	Ok
4	50 GRO STD	FB031252.D	21 Nov 2024 12:33	YP/AJ	Ok
5	100 GRO STD	FB031253.D	21 Nov 2024 13:00	YP/AJ	Ok
6	FB112124GROICV	FB031254.D	21 Nov 2024 14:05	YP/AJ	Ok

M : Manual Integration

Instrument ID: FID_B

Daily Analysis Runlog For Sequence/QC Batch ID # FB120924

Review By	yogesh	Review On	12/9/2024 11:50:37 AM
Supervise By	Ankita	Supervise On	12/10/2024 10:25:57 AM
SubDirectory	FB120924	HP Acquire Method	HP Processing Method FB112124
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23534,PP24008,PP24009,PP24010,PP24011,PP24012		
CCC Internal Standard/PEM	PP24074,PP24075		
ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23535,PP24013		

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	20 PPB GRO STD	FB031274.D	9 Dec 2024 10:12	YP/AJ	Ok,M
2	VBF1209S1	FB031275.D	9 Dec 2024 10:50	YP/AJ	Ok
3	VBF1209S2	FB031276.D	9 Dec 2024 11:17	YP/AJ	Ok
4	BSF1209S1	FB031277.D	9 Dec 2024 11:43	YP/AJ	Ok
5	P5147-01	FB031278.D	9 Dec 2024 12:23	YP/AJ	Dilution
6	I.BLK	FB031279.D	9 Dec 2024 12:50	YP/AJ	Ok
7	P5147-02	FB031280.D	9 Dec 2024 13:16	YP/AJ	Dilution
8	P5147-01	FB031281.D	9 Dec 2024 13:43	YP/AJ	Ok
9	P5147-02	FB031282.D	9 Dec 2024 14:09	YP/AJ	Ok
10	BSF1209S2	FB031283.D	9 Dec 2024 15:03	YP/AJ	Ok
11	20 PPB GRO STD	FB031284.D	9 Dec 2024 15:30	YP/AJ	Ok

M : Manual Integration

Instrument ID: FID_B

Daily Analysis Runlog For Sequence/QC Batch ID # FB112124

Review By	yogesh	Review On	11/21/2024 12:40:59 PM
Supervise By	Ankita	Supervise On	11/21/2024 4:22:27 PM
SubDirectory	FB112124	HP Acquire Method	HP Processing Method FB112124
STD. NAME	STD REF.#		
Tune/Reschk Initial Calibration Stds	PP23534,PP24008,PP24009,PP24010,PP24011,PP24012		
CCC Internal Standard/PEM ICV/I.BLK Surrogate Standard MS/MSD Standard LCS Standard	PP23535,PP24013		

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	5 GRO STD		FB031249.D	21 Nov 2024 11:13		YP/AJ	Ok
2	10 GRO STD		FB031250.D	21 Nov 2024 11:39		YP/AJ	Ok
3	20 GRO STD		FB031251.D	21 Nov 2024 12:06		YP/AJ	Ok
4	50 GRO STD		FB031252.D	21 Nov 2024 12:33		YP/AJ	Ok
5	100 GRO STD		FB031253.D	21 Nov 2024 13:00		YP/AJ	Ok
6	FB112124GROICV		FB031254.D	21 Nov 2024 14:05		YP/AJ	Ok

M : Manual Integration

Instrument ID: FID_B

Daily Analysis Runlog For Sequence/QC Batch ID # FB120924

Review By	yogesh	Review On	12/9/2024 11:50:37 AM
Supervise By	Ankita	Supervise On	12/10/2024 10:25:57 AM
SubDirectory	FB120924	HP Acquire Method	HP Processing Method FB112124

STD. NAME	STD REF.#
Tune/Reschk Initial Calibration Stds	PP23534,PP24008,PP24009,PP24010,PP24011,PP24012
CCC	PP24074,PP24075
Internal Standard/PEM	
ICV/I.BLK	PP23535,PP24013
Surrogate Standard	
MS/MSD Standard	
LCS Standard	

Sr#	SampleID	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	20 PPB GRO STD		FB031274.D	9 Dec 2024 10:12		YP/AJ	Ok,M
2	VBF1209S1		FB031275.D	9 Dec 2024 10:50		YP/AJ	Ok
3	VBF1209S2		FB031276.D	9 Dec 2024 11:17		YP/AJ	Ok
4	BSF1209S1		FB031277.D	9 Dec 2024 11:43		YP/AJ	Ok
5	P5147-01		FB031278.D	9 Dec 2024 12:23	vial-C need 500x	YP/AJ	Dilution
6	I.BLK		FB031279.D	9 Dec 2024 12:50		YP/AJ	Ok
7	P5147-02		FB031280.D	9 Dec 2024 13:16	vial-C, need 2000x	YP/AJ	Dilution
8	P5147-01		FB031281.D	9 Dec 2024 13:43		YP/AJ	Ok
9	P5147-02		FB031282.D	9 Dec 2024 14:09		YP/AJ	Ok
10	BSF1209S2		FB031283.D	9 Dec 2024 15:03		YP/AJ	Ok
11	20 PPB GRO STD		FB031284.D	9 Dec 2024 15:30		YP/AJ	Ok

M : Manual Integration



PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/6/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 12/05/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:15
Out Date: 12/06/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC:LB133767

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
P5112-01	10TH-ST-SOIL	1	1.15	8.38	9.53	8.81	91.4	
P5113-01	FES-SB406-4345	2	1.15	8.81	9.96	8.94	88.4	
P5113-02	FES-SB406-7375	3	1.15	8.61	9.76	7.93	78.7	
P5117-01	TAPIAL3-SB04I-10-12032 4-00-T1	4	1.15	8.59	9.74	9.37	95.7	
P5117-02	TAPIAL2-IDW-SOIL-12042 4-00-T2	5	1.15	8.38	9.53	7.84	79.8	
P5120-01	TAPIAL2-IDW-SOIL-12042 4-00-T2	6	1.15	8.38	9.53	7.84	79.8	
P5133-01	MOO-24-00374	9	1.15	8.35	9.5	9.14	95.7	
P5134-01	MOO-24-00373	10	1.00	1.00	2.00	2.00	100.0	debris
P5135-01	LAW-23-00193	11	1.16	8.44	9.6	9.05	93.5	
P5136-01	COMP-1	12	1.16	8.49	9.65	7.26	71.8	
P5137-01	LAW-OILY-STONES	13	1.00	1.00	2.00	2.00	100.0	oily stone
P5137-02	LAW-OILY-STONES-E2	14	1.00	1.00	2.00	2.00	100.0	oily stone
P5144-01	60400	15	1.00	1.00	2.00	2.00	100.0	wipe sample
P5147-01	EX-8-TPH-1	7	1.15	8.82	9.97	8.29	81.0	
P5147-02	EX-8-TPH-2	8	1.15	8.76	9.91	8.1	79.3	

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

WORKLIST(Hardcopy Internal Chain)

133767

WorkList Name : %1-120524

WorkList ID : 185988

Department : Wet-Chemistry

Date : 12-05-2024 08:21:57

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5112-01	10TH-ST-SOIL	Solid	Percent Solids	Cool 4 deg C	TULL02	L51	12/05/2024	Chemtech -SO
P5113-01	FES-SB406-4345	Solid	Percent Solids	Cool 4 deg C	TETRO6	L31	12/04/2024	Chemtech -SO
P5113-02	FES-SB406-7375	Solid	Percent Solids	Cool 4 deg C	TETRO6	L31	12/04/2024	Chemtech -SO
P5117-01	TAPIAL3-SB04I-10-120324-00-	Solid	Percent Solids	Cool 4 deg C	WEST04	L41	12/05/2024	Chemtech -SO
P5117-02	TAPIAL2-IDW-SOIL-120424-00-	Solid	Percent Solids	Cool 4 deg C	WEST04	L41	12/05/2024	Chemtech -SO
P5120-01	TAPIAL2-IDW-SOIL-120424-00-	Solid	Percent Solids	Cool 4 deg C	WEST04	L51	11/27/2024	Chemtech -SO
P5133-01	MOO-24-00374	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	12/05/2024	Chemtech -SO
P5134-01	MOO-24-00373	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	12/05/2024	Chemtech -SO
P5135-01	LAW-23-00193	Solid	Percent Solids	Cool 4 deg C	PSEG03	L51	12/05/2024	Chemtech -SO
P5136-01	COMP-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	12/05/2024	Chemtech -SO
P5137-01	LAW-OILY-STONES	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	12/05/2024	Chemtech -SO
P5137-02	LAW-OILY-STONES-E2	Solid	Percent Solids	Cool 4 deg C	PSEG03	L61	12/05/2024	Chemtech -SO
P5147-01	EX-8-TPH-1	Solid	Percent Solids	Cool 4 deg C	ENTA05	L41	12/05/2024	Chemtech -SO
P5147-02	EX-8-TPH-2	Solid	Percent Solids	Cool 4 deg C	ENTA05	L41	12/05/2024	Chemtech -SO

Date/Time 12/05/24 15:40
 Raw Sample Received by: JH werc
 Raw Sample Relinquished by: RJ cext-(ab)

Date/Time 12/05/24 18:10
 Raw Sample Received by: RJ cext-(ab)
 Raw Sample Relinquished by: JH werc

Prep Standard - Chemical Standard Summary

Order ID : P5147

Test : Gasoline Range Organics

Prepbatch ID :

Sequence ID/Qc Batch ID: FB120924,

Standard ID :

PP23534,PP23535,PP23538,PP24008,PP24009,PP24010,PP24011,PP24012,PP24013,PP24074,PP24075,

Chemical ID :

P11121,P9826,V11252,V14143,W3112,

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>
231	10 PPM GRO STD 1ST SOURCE	PP23534	07/29/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
07/30/2024								

FROM 0.11100ml of P9826 + 9.89000ml of V14143 = 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>
233	10 PPM GRO STD 2nd SOURCE	PP23535	07/29/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
07/30/2024								

FROM 0.11100ml of P11121 + 9.89000ml of V14143 = 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>
3619	25 PPM AAA-TFT Surg	PP23538	07/29/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								07/30/2024

FROM 0.10000ml of V11252 + 9.90000ml of V14143 = 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>
238	5 PPB ICC GRO STD	PP24008	11/21/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 5.00000ml of W3112 + 0.00100ml of PP23538 + 0.00250ml of PP23534 = Final Quantity: 5.004 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>
237	10 PPB ICC GRO STD	PP24009	11/21/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 5.00000ml of W3112 + 0.00200ml of PP23538 + 0.00500ml of PP23534 = Final Quantity: 5.007 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>
239	20 PPB ICC GRO STD	PP24010	11/21/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 5.00000ml of W3112 + 0.00400ml of PP23538 + 0.01000ml of PP23534 = Final Quantity: 5.014 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>
235	50 PPB ICC GRO STD	PP24011	11/21/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 5.00000ml of W3112 + 0.01000ml of PP23538 + 0.02500ml of PP23534 = Final Quantity: 5.035 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>
234	100 PPB ICC GRO STD	PP24012	11/21/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 5.00000ml of W3112 + 0.02000ml of PP23538 + 0.05000ml of PP23534 = Final Quantity: 5.070 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>
240	20 PPB ICV GRO STD	PP24013	11/21/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								11/21/2024

FROM 5.00000ml of W3112 + 0.00400ml of PP23538 + 0.01000ml of PP23535 = Final Quantity: 5.014 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>
241	20 PPB CCC GRO STD	PP24074	12/09/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani
								12/10/2024

FROM 5.00000ml of W3112 + 0.00400ml of PP23538 + 0.01000ml of PP23534 = Final Quantity: 5.014 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>
241	20 PPB CCC GRO STD	PP24075	12/09/2024	01/22/2025	Yogesh Patel	None	None	Ankita Jodhani 12/10/2024
<u>FROM</u> 5.00000ml of W3112 + 0.00400ml of PP23538 + 0.01000ml of PP23534 = Final Quantity: 5.014 ml								

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30065 / GRO Mix (EPA)	A0161776	01/25/2025	07/25/2024 / yogesh	02/10/2021 / Sohil	P11121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30065 / GRO Mix (EPA)	A0155991	01/25/2025	07/25/2024 / yogesh	09/11/2020 / DHAVAL	P9826

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30068 / VOA Mix, a, a, a-trifluorotoluene 2500uq/ml, P&T methanol, 1ml	A0158026	05/31/2028	11/27/2023 / yogesh	09/11/2020 / DHAVAL	V11252

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	22L0562016	01/22/2025	07/22/2024 / SAM	02/06/2024 / SAM	V14143

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112



110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

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. : 30065 **Lot No.:** A0161776

Description : Gasoline Range Organics Mix (EPA)

Gasoline Range Organics Mix (EPA) 500 - 1500µg/mL, P&T Methanol, 1mL/ampul

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

Expiration Date : July 31, 2027 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)
1	2-Methylpentane CAS # 107-83-5 (Lot MKCB1674V) Purity 99%	1,507.0 µg/mL	+/- 8.9511 µg/mL Gravimetric +/- 84.5158 µg/mL Unstressed +/- 86.4925 µg/mL Stressed
2	2,2,4-Trimethylpentane (isooctane) CAS # 540-84-1 (Lot SHBF8066V) Purity 99%	1,511.0 µg/mL	+/- 8.9749 µg/mL Gravimetric +/- 84.7402 µg/mL Unstressed +/- 86.7221 µg/mL Stressed
3	n-Heptane (C7) CAS # 142-82-5 (Lot SHBK8626) Purity 98%	498.8 µg/mL	+/- 2.9628 µg/mL Gravimetric +/- 27.9749 µg/mL Unstressed +/- 28.6292 µg/mL Stressed
4	Benzene CAS # 71-43-2 (Lot SHBK5679) Purity 99%	500.0 µg/mL	+/- 2.9698 µg/mL Gravimetric +/- 28.0411 µg/mL Unstressed +/- 28.6969 µg/mL Stressed
5	Toluene CAS # 108-88-3 (Lot MKCH9232) Purity 99%	1,510.0 µg/mL	+/- 8.9689 µg/mL Gravimetric +/- 84.6841 µg/mL Unstressed +/- 86.6647 µg/mL Stressed
6	Ethylbenzene CAS # 100-41-4 (Lot SHBL0706) Purity 99%	504.0 µg/mL	+/- 2.9936 µg/mL Gravimetric +/- 28.2654 µg/mL Unstressed +/- 28.9265 µg/mL Stressed
7	m-Xylene CAS # 108-38-3 (Lot SHBL0265) Purity 99%	1,005.0 µg/mL	+/- 5.9694 µg/mL Gravimetric +/- 56.3626 µg/mL Unstressed +/- 57.6808 µg/mL Stressed

8	o-Xylene		(Lot SHBK7739)	1,007.0	µg/mL	+/-	5.9813	µg/mL	Gravimetric
	CAS #	95-47-6				+/-	56.4747	µg/mL	Unstressed
	Purity	99%				+/-	57.7956	µg/mL	Stressed
9	1,2,4-Trimethylbenzene		(Lot WXBC4246V)	1,008.0	µg/mL	+/-	5.9872	µg/mL	Gravimetric
	CAS #	95-63-6				+/-	56.5308	µg/mL	Unstressed
	Purity	99%				+/-	57.8530	µg/mL	Stressed
Solvent:	P&T Methanol								
	CAS #	67-56-1							
	Purity	99%							

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

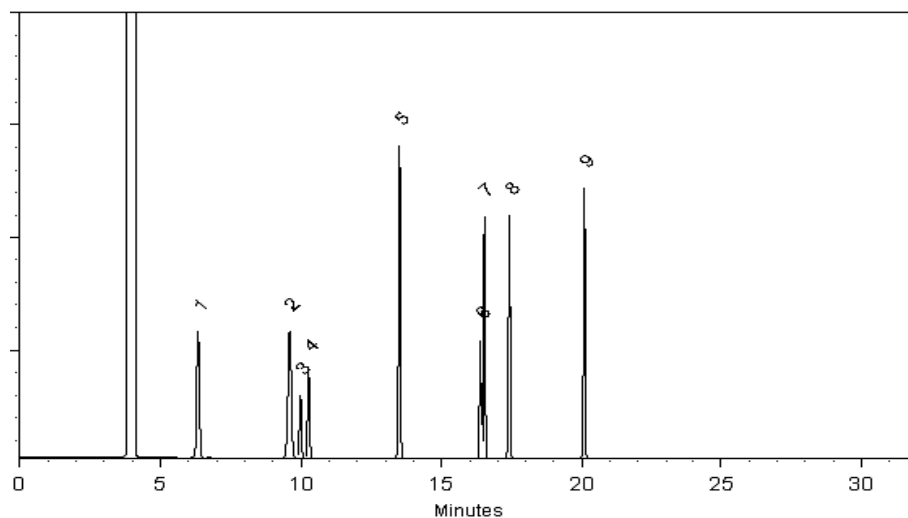
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°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.

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 15-Jun-2020

Balance: B251644995

Fang-Yun Lo
Fang-Yun Lo - QC Analyst

Date Passed: 17-Jun-2020

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.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis



Material No.: 9077-02
Batch No.: 22L0562016
Manufactured Date: 2022-10-26
Expiration Date: 2025-10-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (CH ₃ OH) (by GC, corrected for water)	≥ 99.9 %	100.0 %
Residue after Evaporation	≤ 1.0 ppm	0.2 ppm
Titration Acid (μeq/g)	≤ 0.3	0.2
Titration Base (μeq/g)	≤ 0.10	0.03
Water (by KF, coulometric)	≤ 0.08 %	< 0.01 %
Volatile Organic Trace Analysis - Below EPA 8260B CRQL	Conforms	Conforms

For Laboratory, Research, or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Ethier
Vice President Global Quality



SHIPPING DOCUMENTS

CHAIN OF CUSTODY RECORD

P5147

NO. 1 OF 1

COMPANY INFORMATION			PROJECT INFORMATION				REQUESTED ANALYSIS/METHOD										COMMENTS		
LOCATION	ENTACT LLC		PROJECT	North Point			NUMBER OF CONTAINERS TPH analysis (EPH Cat2, DRO & GRO) (8015)												
ATTN	Wyatt Seel		BILLING INFORMATION																
ADDRESS	150 Bay Street, Suite 801		BILL TO	ENTACT LLC															
	Jersey City, NJ		ADDRESS	999 Oakmont Plaza Drive Suite 300 Westmont, IL 60559															
PHONE	419-266-4671		PHONE	630-986-2900															
FAX			FAX			PO#	E9306												
SAMPLE ID	SAMPLE DESCRIPTION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE TYPE	CONTAINER TYPE													
EX-8-TPH-1	TPH	12/5	11:00	Soil	G	Teracore / 8oz	2	X											
EX-8-TPH-2	TPH	12/5	11:00	Soil	G	Teracore / 8oz	2	X											
SAMPLER	A. Farmerie		SHIPMENT	courier				AIRBILL											
REQUIRED TURNAROUND		☐ SAME DAY ☐ 24 HOURS ☐ 48 HOURS ☐ 72 HOURS ☒ 5 DAYS ☐ 10 DAYS ☐ ROUTINE ☐ OTHER: _____																	
1. RELINQUISHED BY		DATE	2. RELINQUISHED BY				DATE	3. RELINQUISHED BY				DATE							
SIGNATURE: <i>Butler et al</i>		9-5-21	SIGNATURE:					SIGNATURE:											
PRINTED NAME/COMPANY: ENTACT LLC			PRINTED NAME/COMPANY:					PRINTED NAME/COMPANY:											
1. RECEIVED BY		DATE	2. RECEIVED BY				DATE	3. RECEIVED BY				DATE							
SIGNATURE: <i>[Signature]</i>		12-5-21	SIGNATURE:					SIGNATURE:											
PRINTED NAME/COMPANY: GORSE DESIGN/ALLIANCE		1455	PRINTED NAME/COMPANY:					PRINTED NAME/COMPANY:											



284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

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