Energy Laboratories Inc

ANALYTICAL RUN Summary

03-Nov-21

Run ID GCFID-HP5-B_211102A

Run Start Date:	11/2/2021
Analyst:	Ann Nebel
Ical:	
Column ID:	
Comments:	ICAL for 8015C_DRO211002IA

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211012A	Diesel Fuel #2 50,000 ug/mL in DCM					CAL-DIESE	4/30/2023
DRO211012B	#2 Diesel in Acetone 150,000 ug/mL					SECOND S	11/5/2023
DRO211025A	ALI CCV Mix-200ug/mL					MARKER	5/31/2022
DRO211101A	OTP-4000 ug/mL DCM					CAL-SURR	9/30/2024

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822192	CCV_1102HP50	HC-8015-DRO-	CCV		11/2/2021 8:31:3	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		3.665751		15	0	0	0.0749	0.3	50	24%	80	120	0%	S
o-Terphenyl	S	mg/L		0.2015393		0.2	0	0	0.000429	0.002	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822193	CCV_1102HP50	HC-8015-DRO-	CAL1		11/2/2021 9:57:0	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.00195342		0.002	0	0	0.000429	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822194	CCV_1102HP50	HC-8015-DRO-	CAL2		11/2/2021 10:39:	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.04992196		0.05	0	0	0.000429	0.002	0	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822195	CCV_1102HP50	HC-8015-DRO-	CAL3		11/2/2021 11:22:	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.1939565		0.2	0	0	0.000429	0.002	0	97%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822196	CCV_1102HP50	HC-8015-DRO-	CAL4		11/2/2021 12:05:	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.5113316		0.5	0	0	0.000429	0.002	0	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822197	CCV_1102HP50	HC-8015-DRO-	CAL5		11/2/2021 12:49:	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		1.032406		1	0	0	0.000429	0.002	0	103%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822198	CCV_1102HP51	HC-8015-DRO-	CAL1		11/2/2021 1:32:0	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		0.1551854		0.15	0	0	0.0749	0.3	50	103%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822199	CCV_1102HP51	HC-8015-DRO-	CAL2		11/2/2021 2:15:0	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		3.698073		3.75	0	0	0.0749	0.3	50	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822200	CCV_1102HP51	HC-8015-DRO-	CAL3		11/2/2021 2:58:2	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		15.26249		15	0	0	0.0749	0.3	50	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822201	CCV_1102HP51	HC-8015-DRO-	CAL4		11/2/2021 3:41:3	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		36.59341		37.5	0	0	0.0749	0.3	50	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822202	CCV_1102HP51	HC-8015-DRO-	CAL5		11/2/2021 4:24:5	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		49.2977		50	0	0	0.0749	0.3	50	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14822203	CCV_1102HP51	HC-8015-DRO-	ICV		11/2/2021 5:51:3	1	R369667		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		14.98994		15	0	0	0.0749	0.3	50	100%	80	120	0%	

Write Sequence Data File	Insert Entries(Have the first cell for entries selecte Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
:\org\HP5\DAT\HP5110221_b\1102HP5.03r	CCV_1102HP508r, DRO ;1102HP5 , DRO211025A	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.04r	DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.05r	CCV_1102HP505r, CAL1 ;1102HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.06r	CCV_1102HP506r, CAL2 ;1102HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.07r	CCV_1102HP507r, CAL3 ;1102HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.08r	CCV_1102HP508r, CAL4 ;1102HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.09r	CCV_1102HP509r, CAL5 ;1102HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.10r	CCV_1102HP510r, CAL1 ;1102HP5 , 150 ug per mL Diesel (10 uL of Cal3 + 990 uL DCM(14408),	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.11r	CCV_1102HP511r, CAL2 ;1102HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.12r	CCV_1102HP512r, CAL3 ;1102HP5 , 15000 ug per mL Diesel (300 uL of DRO211012A + 700 uL DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.13r	CCV_1102HP513r, CAL4 ;1102HP5 , 37500ug per mL Diesel (750 uL of DRO211012A + 250 uL DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.14r	CCV_1102HP514r, CAL5 ;1102HP5 , 50000 ug per mL Diesel (200 uL of DRO211012A)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.15r	DCM-Baseline Check-V15	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0
:\org\HP5\DAT\HP5110221_b\1102HP5.16r	CCV_1102HP516r, Second Source ;1102HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0

File Name: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Version: 14

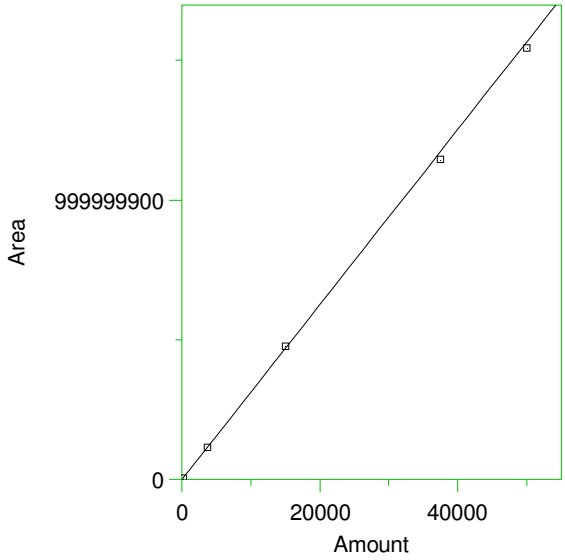
Creator: AMN 11/02/2021
Description: 8015C-DRO. New ICal Per 1102HP5 (2021)-2 uL Inj.; COD added using OTP RFs
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 500
Reference peak area reject threshold: 500
Amount units: nanograms
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 DRO Range Start



Expected retention time:	6.64 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

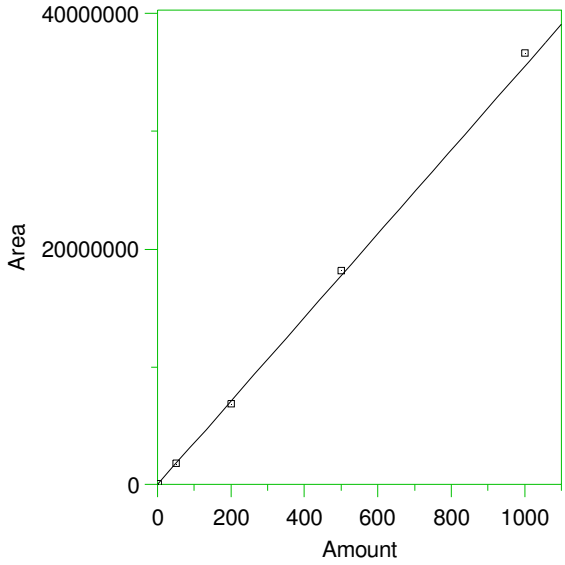
Y = 31353.19 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9992341
Average error:	2.083%
Average CF:	31353.19
RSD:	2.487%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4865557	32437.05	3.457	Manual	11/3/2021 6:44:55 AM
2	3750	1.159464E+08	30919.04	-1.385	Manual	11/3/2021 6:45:31 AM
3	15000	4.785279E+08	31901.86	1.750	Manual	11/3/2021 6:46:08 AM
4	37500	1.14732E+09	30595.2	-2.418	Manual	11/3/2021 6:45:45 AM
5	50000	1.54564E+09	30912.8	-1.405	Manual	11/3/2021 6:45:18 AM

2 *o-Terphenyl



Expected retention time:	12.29 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

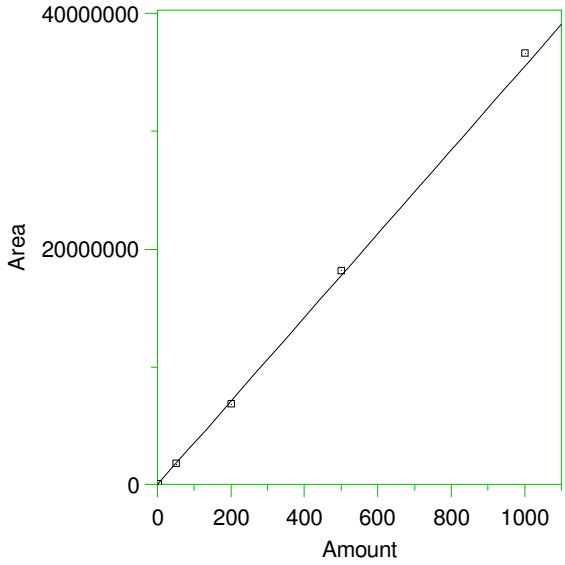
Y = 35509.21 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9983284
Average error:	2.203%
Average CF:	35509.21
RSD:	2.749%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	69364.34	34682.17	-2.329	G:\Org\HP5\DAT\HP5110221_b\1102HP5.0005.BND	11/2/2021 2:21:29 PM
2	50	1772689	35453.78	-0.156	G:\Org\HP5\DAT\HP5110221_b\1102HP5.0006.BND	11/2/2021 2:21:35 PM
3	200	6887244	34436.22	-3.022	G:\Org\HP5\DAT\HP5110221_b\1102HP5.0007.BND	11/2/2021 2:21:41 PM
4	500	1.815698E+07	36313.96	2.266	G:\Org\HP5\DAT\HP5110221_b\1102HP5.0008.BND	11/2/2021 2:21:47 PM
5	1000	3.665993E+07	36659.93	3.241	G:\Org\HP5\DAT\HP5110221_b\1102HP5.0009.BND	11/2/2021 2:21:52 PM

3 *1-Chlorooctadecane



Expected retention time:	13.1 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

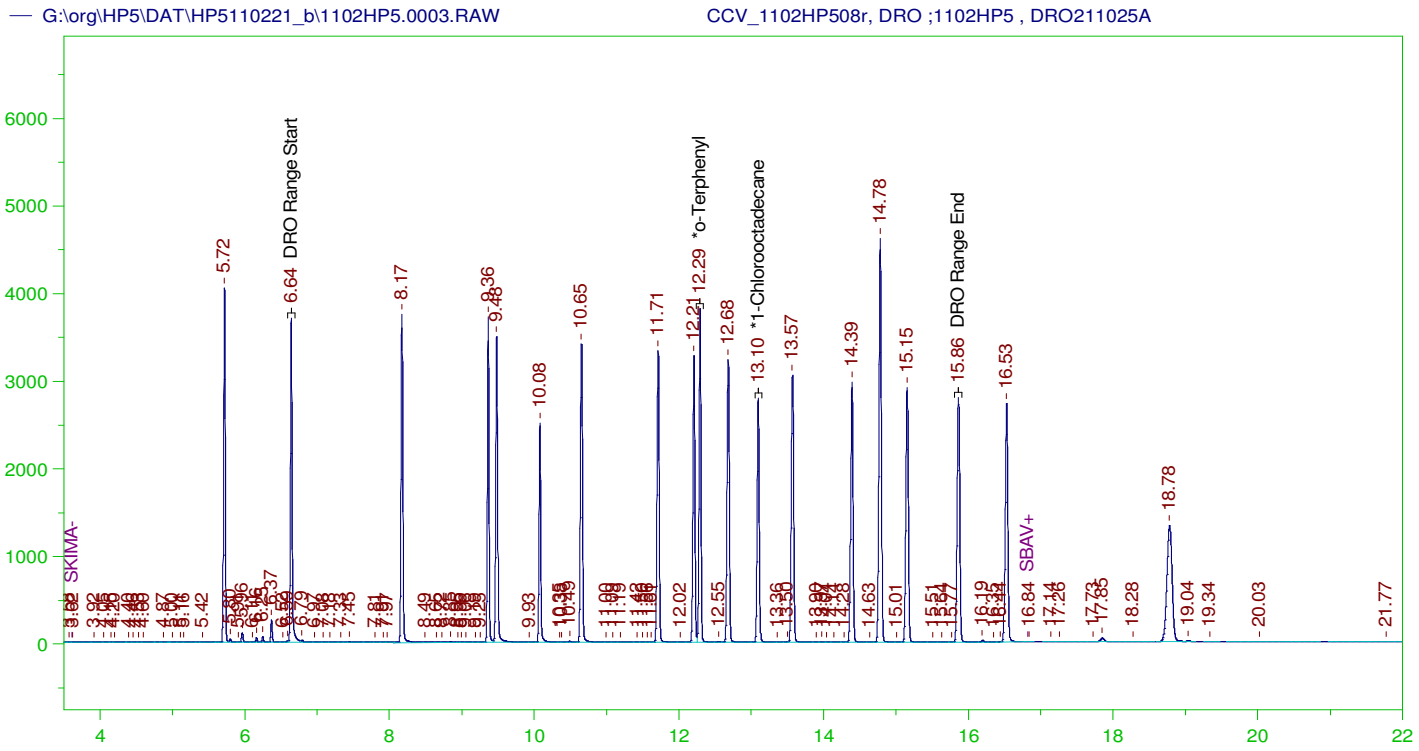
Single peak quantification by area

Y = 35509.21 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9983284
Average error:	2.203%
Average CF:	35509.21
RSD:	2.749%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	69364.34	34682.17	-2.329	Manual	11/2/2021 2:21:57 PM
2	50	1772689	35453.78	-0.156	Manual	11/2/2021 2:21:58 PM
3	200	6887244	34436.22	-3.022	Manual	11/2/2021 2:22:00 PM
4	500	1.815698E+07	36313.96	2.266	Manual	11/2/2021 2:22:02 PM
5	1000	3.665993E+07	36659.93	3.241	Manual	11/2/2021 2:22:04 PM



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1102HP508r, DRO ;1102HP5 , DRO211025A
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0003.RAW
Date & Time Acquired: 11/2/2021 8:31:35 AM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

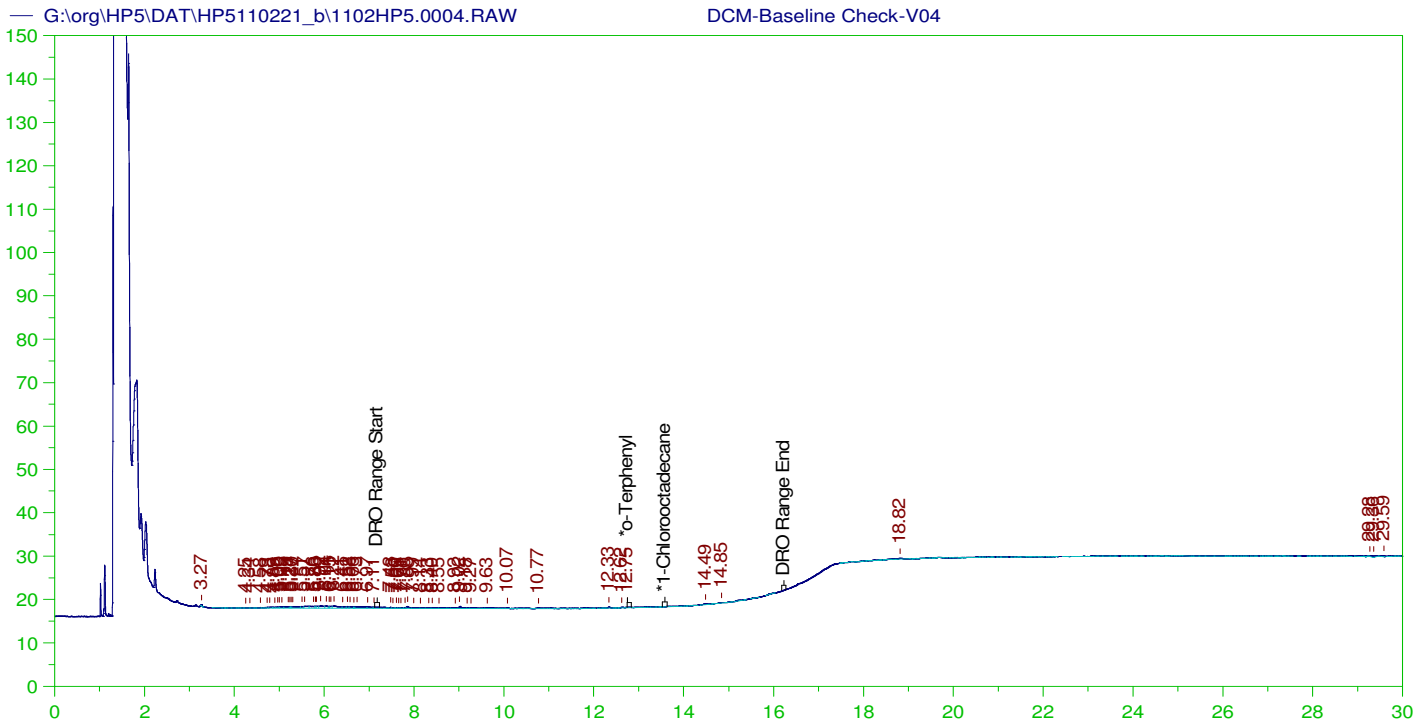
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.292	200.	201.539	100.77	-
*1-Chlorooctadecane	13.095	200.	163.573	81.79	-

DRO Area:9.38791E+07 DRO Amount: 2994.244
TEH Area:1.14933E+08 TEH Amount: 3665.75

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0003.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	3665.75	24.44	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.292	200.	201.539	100.77	85-115
*1-Chlorooctadecane	13.095	200.	163.573	81.79	85-115



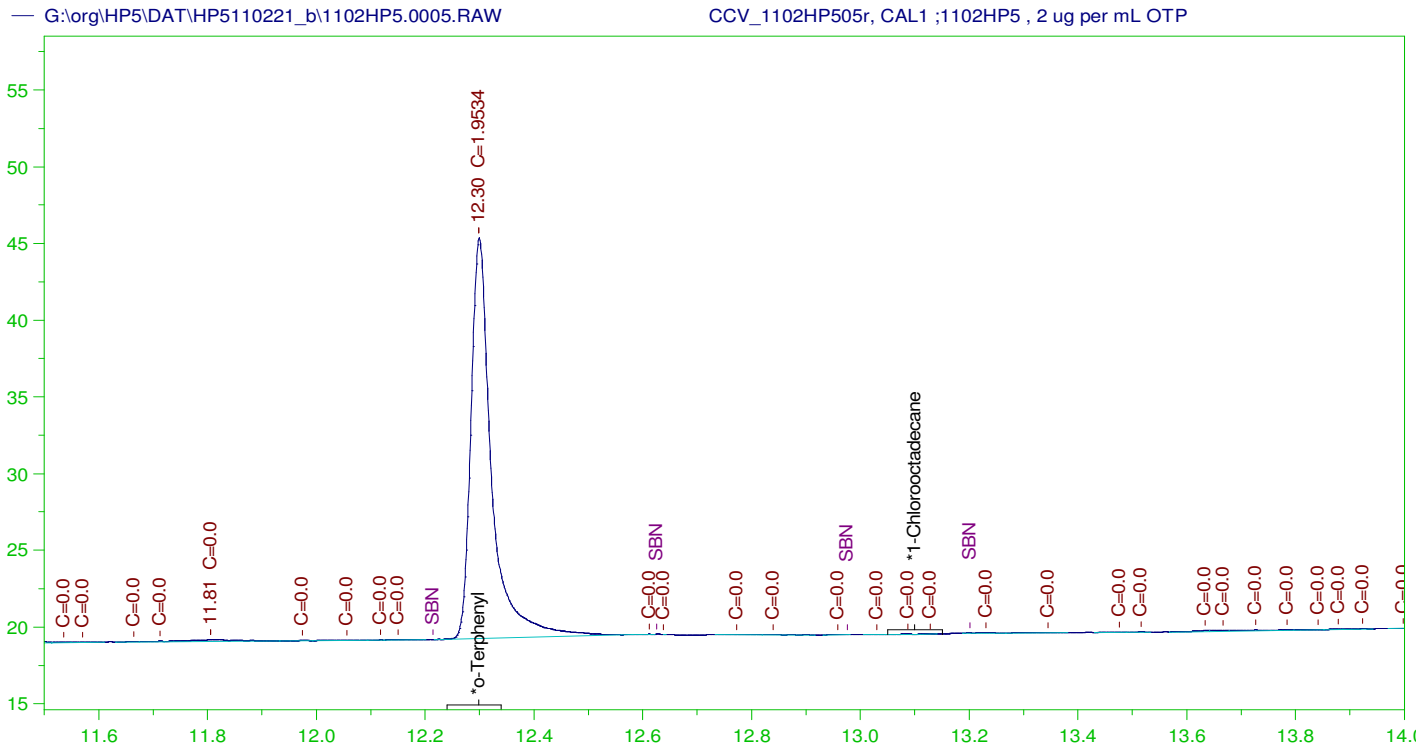
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V04
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0004.RAW
Date & Time Acquired: 11/2/2021 9:14:27 AM
Method File: G:\Org\HP5\Methods\DR_8015-HP-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HP.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 7.125 to 16.28

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.746	200.	.026	.01	-
*1-Chlorooctadecane	29.929	200.	.	.	-

DRO Area:35138 DRO Amount: 1.192844
TEH Area:110269.4 TEH Amount: 3.74336



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1102HP505r, CAL1 ;1102HP5 , 2 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0005.RAW
Date & Time Acquired: 11/2/2021 9:57:01 AM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

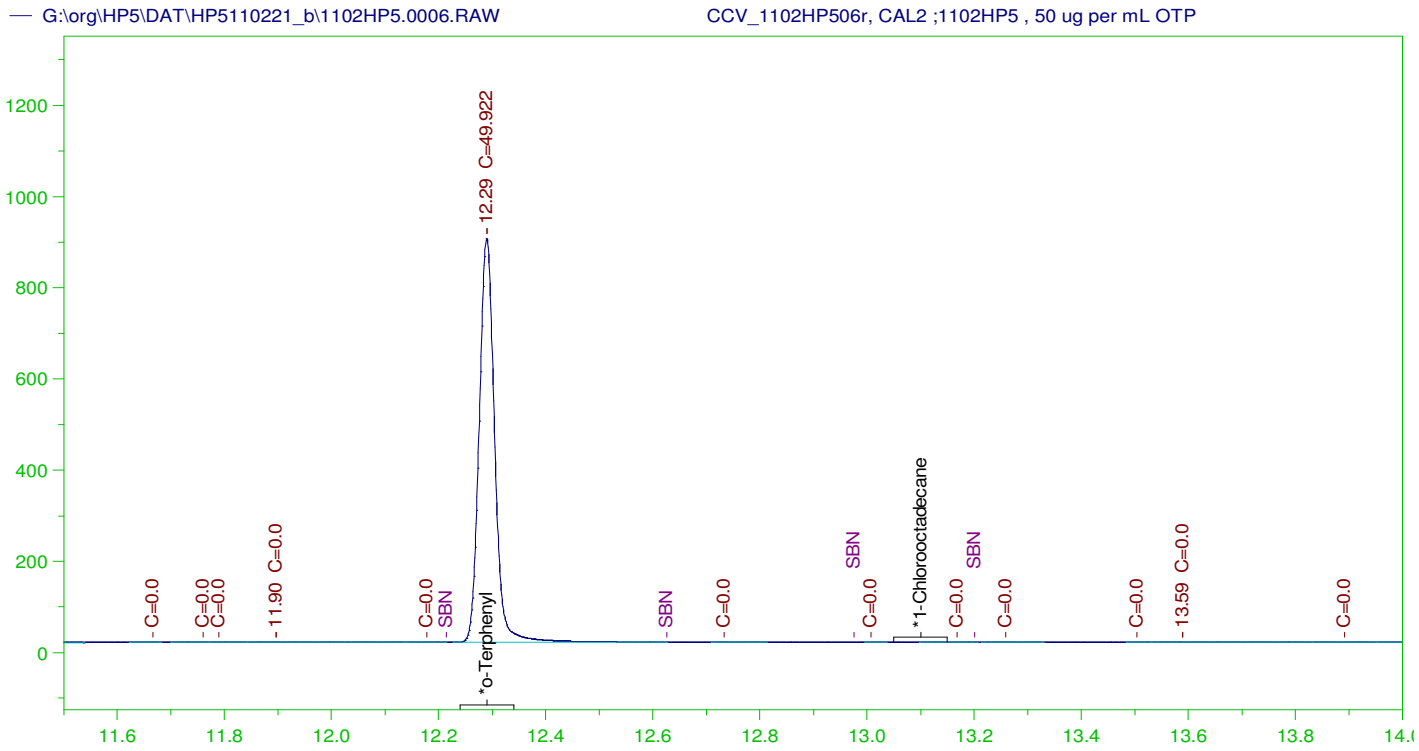
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.299	200.	1.953	.98	-
*1-Chlorooctadecane	15.561	200.	.	.	-

DRO Area:37026.36 DRO Amount: 1.180944
TEH Area:88429.33 TEH Amount: 2.820425

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0005.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	.	.	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.299	200.	1.953	.98	85-115
*1-Chlorooctadecane	15.561	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1102HP506r, CAL2 ;1102HP5 , 50 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0006.RAW
Date & Time Acquired: 11/2/2021 10:39:43 AM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

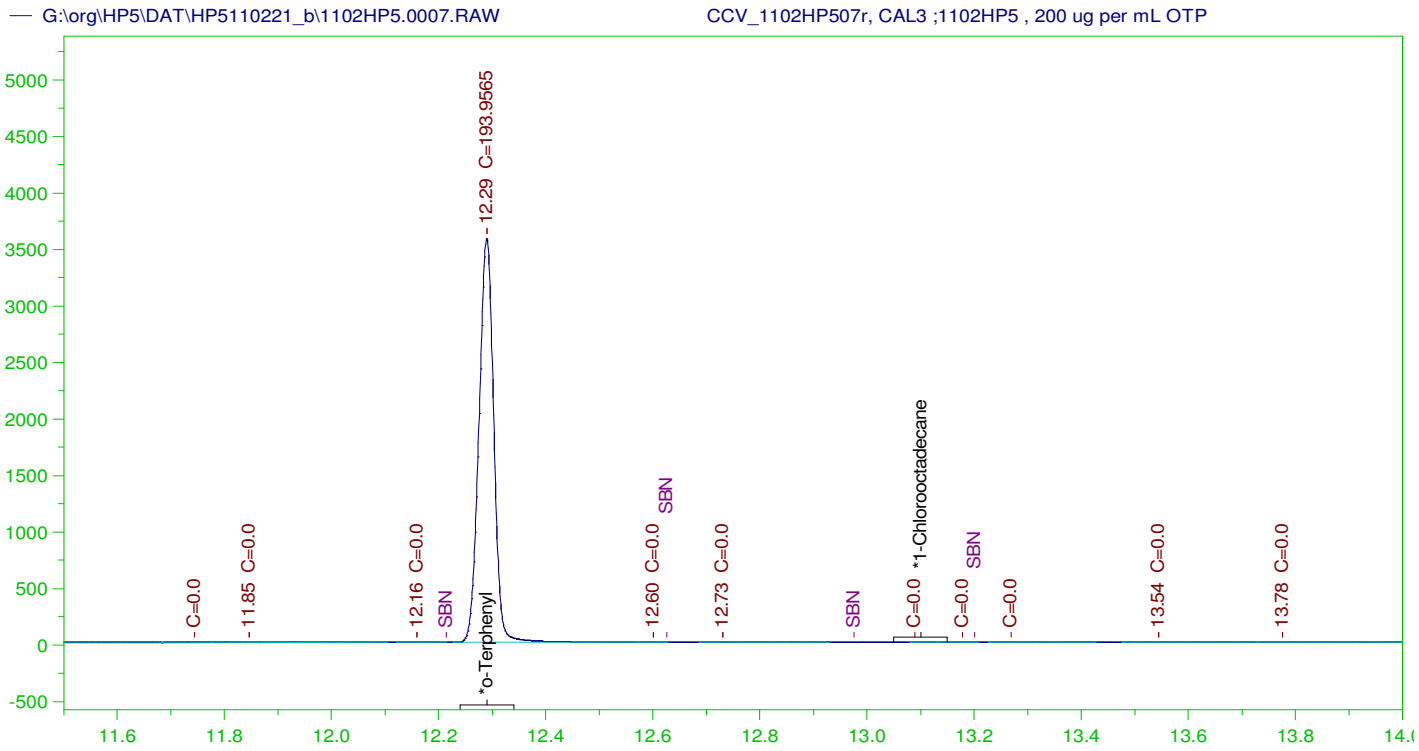
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.29	200.	49.922	24.96	-
*1-Chlorooctadecane	15.697	200.	.	.	-

DRO Area:141449.5 DRO Amount: 4.511485
TEH Area:310030.7 TEH Amount: 9.88833

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0006.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	.	.	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.29	200.	49.922	24.96	85-115
*1-Chlorooctadecane	15.697	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1102HP507r, CAL3 ;1102HP5 , 200 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0007.RAW
Date & Time Acquired: 11/2/2021 11:22:37 AM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

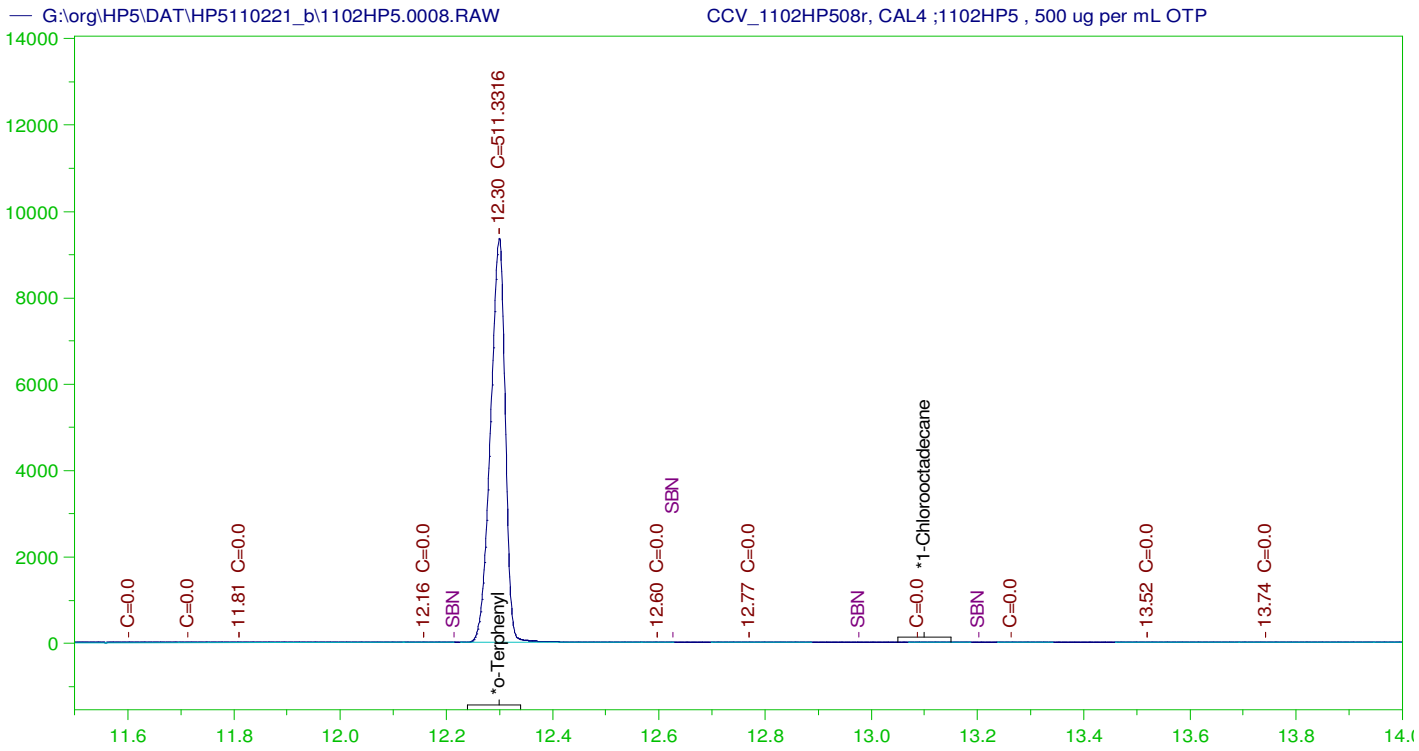
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.29	200.	193.957	96.98	-
*1-Chlorooctadecane	15.779	200.	.	.	-

DRO Area:338082.7 DRO Amount: 10.78304
TEH Area:638415.8 TEH Amount: 20.36207

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0007.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	20.36	.14	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.29	200.	193.957	96.98	85-115
*1-Chlorooctadecane	15.779	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1102HP508r, CAL4 ;1102HP5 , 500 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0008.RAW
Date & Time Acquired: 11/2/2021 12:05:44 PM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

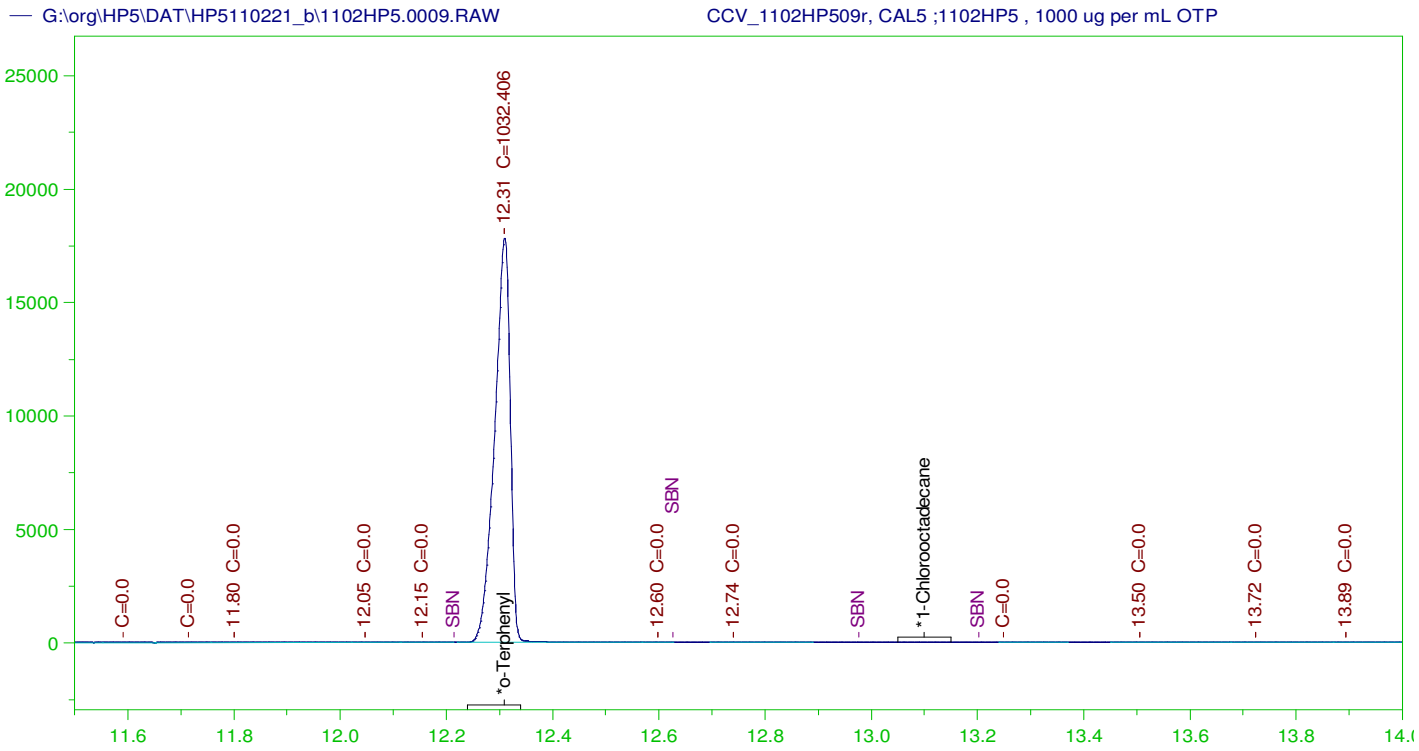
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.3	200.	511.332	255.67	-
*1-Chlorooctadecane	15.798	200.	.	.	-

DRO Area:456992 DRO Amount: 14.57561
TEH Area:825752.1 TEH Amount: 26.3371

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0008.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	26.34	.18	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.3	200.	511.332	255.67	85-115
*1-Chlorooctadecane	15.798	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1102HP509r, CAL5 ;1102HP5 , 1000 ug per mL OTP
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0009.RAW
Date & Time Acquired: 11/2/2021 12:49:02 PM
Method File: G:\Org\HP5\Methods\DS_8015-IA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

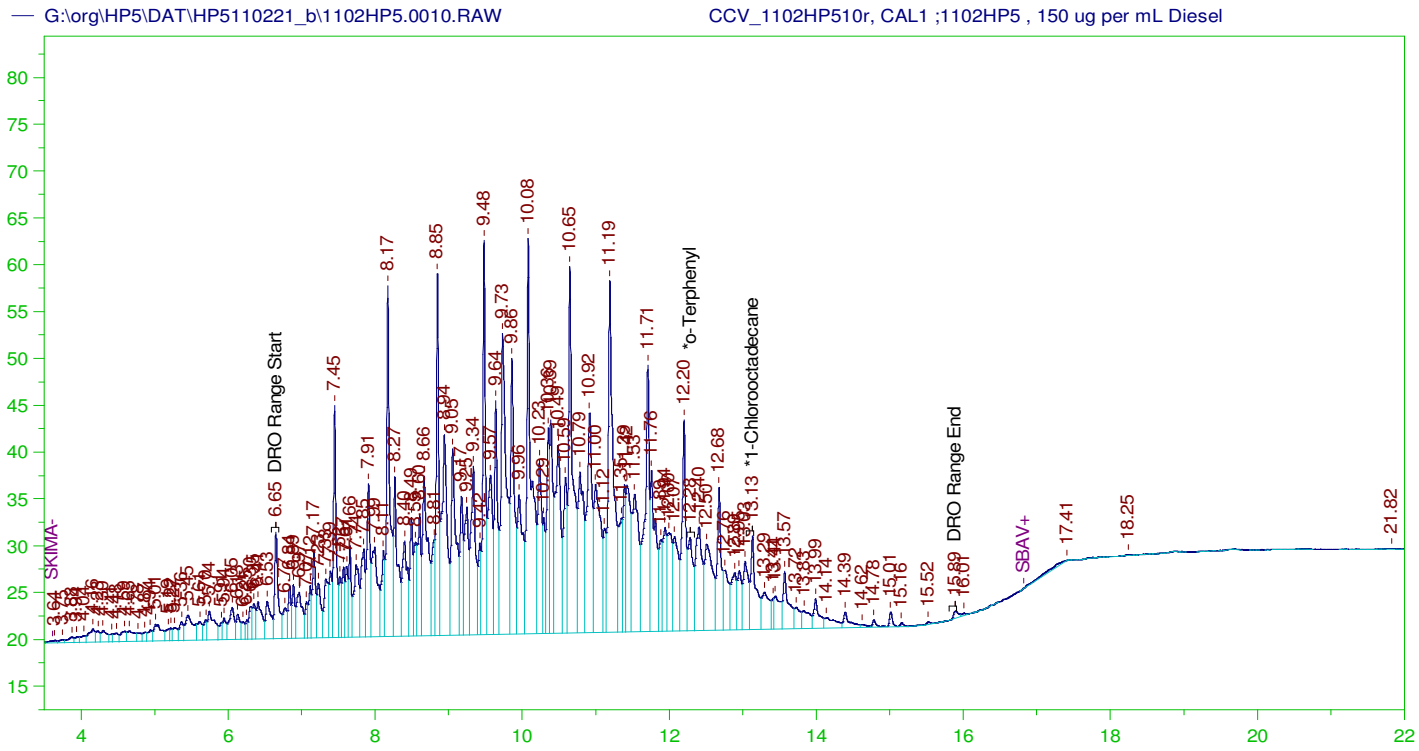
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.31	200.	1032.406	516.2	-
*1-Chlorooctadecane	15.803	200.	.	.	-

DRO Area:461032.4 DRO Amount: 14.70448
TEH Area:724020.4 TEH Amount: 23.0924

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0009.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	23.09	.15	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.31	200.	1032.406	516.2	85-115
*1-Chlorooctadecane	15.803	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1102HP510r, CAL1 ;1102HP5 , 150 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0010.RAW
Date & Time Acquired: 11/2/2021 1:32:06 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

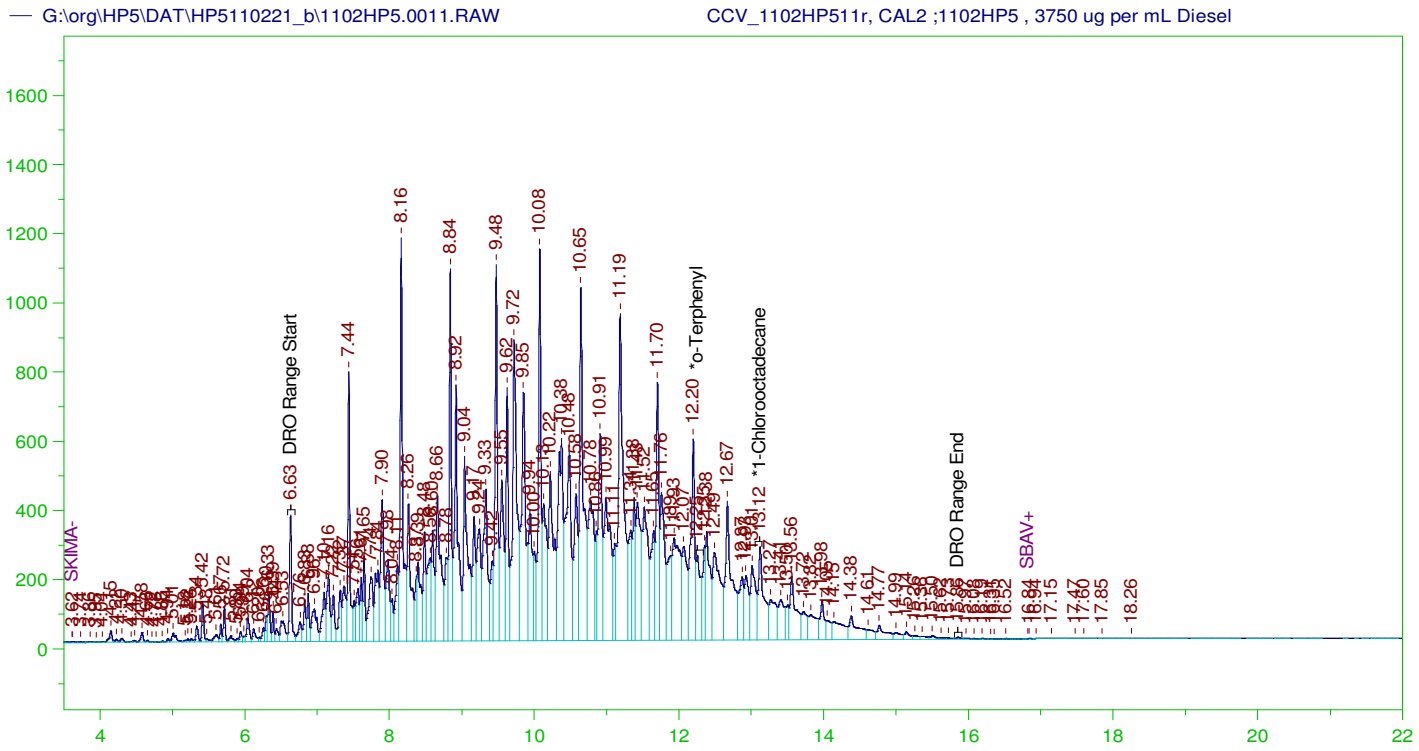
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.285	200.	1.416	.71	-
*1-Chlorooctadecane	13.13	200.	1.44	.72	-

DRO Area:4571415 DRO Amount: 145.8038
TEH Area:4865557 TEH Amount: 155.1854

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0010.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	155.19	1.03	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.285	200.	1.416	.71	85-115
*1-Chlorooctadecane	13.13	200.	1.44	.72	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1102HP511r, CAL2 ;1102HP5 , 3750 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0011.RAW
Date & Time Acquired: 11/2/2021 2:15:08 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

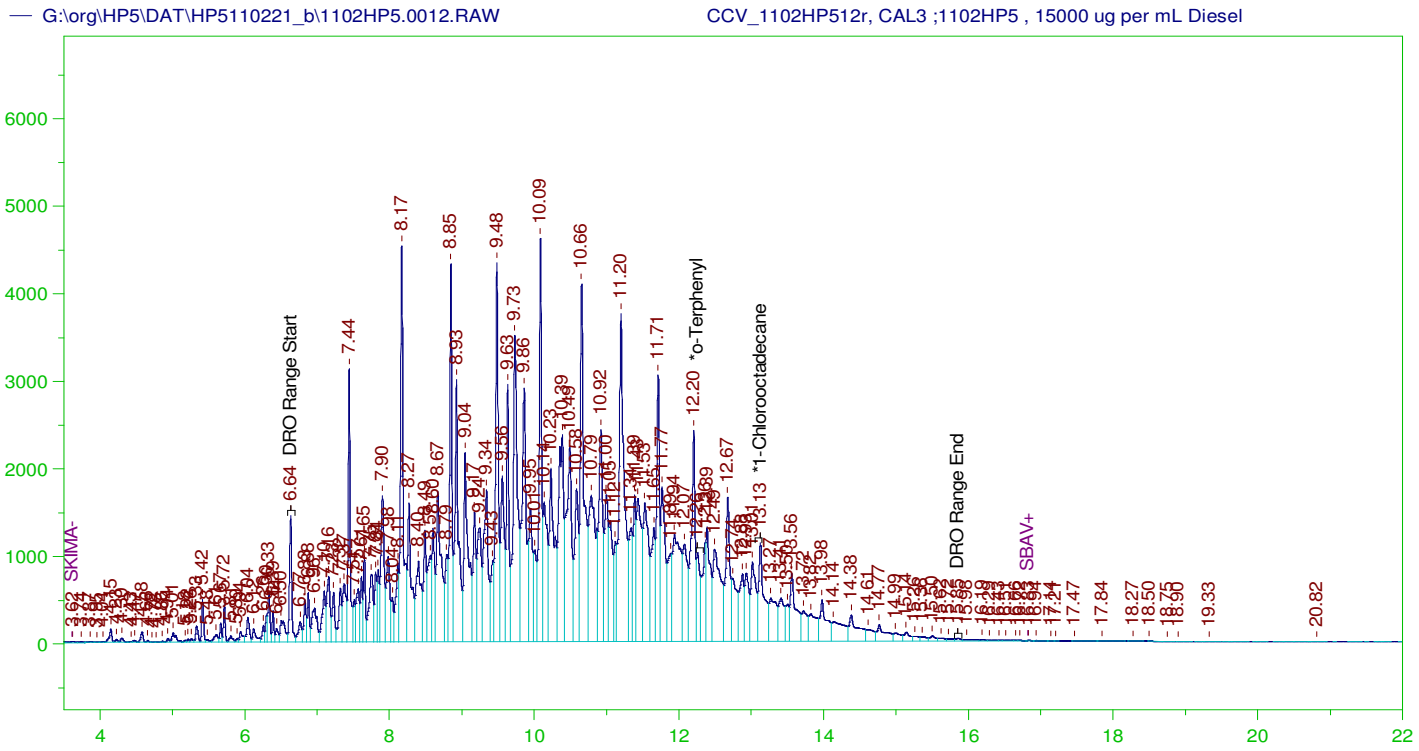
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.252	200.	28.988	14.49	-
*1-Chlorooctadecane	13.122	200.	39.19	19.59	-

DRO Area:1.131291E+08 DRO Amount: 3608.216
TEH Area:1.159464E+08 TEH Amount: 3698.073

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0011.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	3698.07	24.65	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.252	200.	28.988	14.49	85-115
*1-Chlorooctadecane	13.122	200.	39.19	19.59	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1102HP512r, CAL3 ;1102HP5 , 15000 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0012.RAW
Date & Time Acquired: 11/2/2021 2:58:26 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

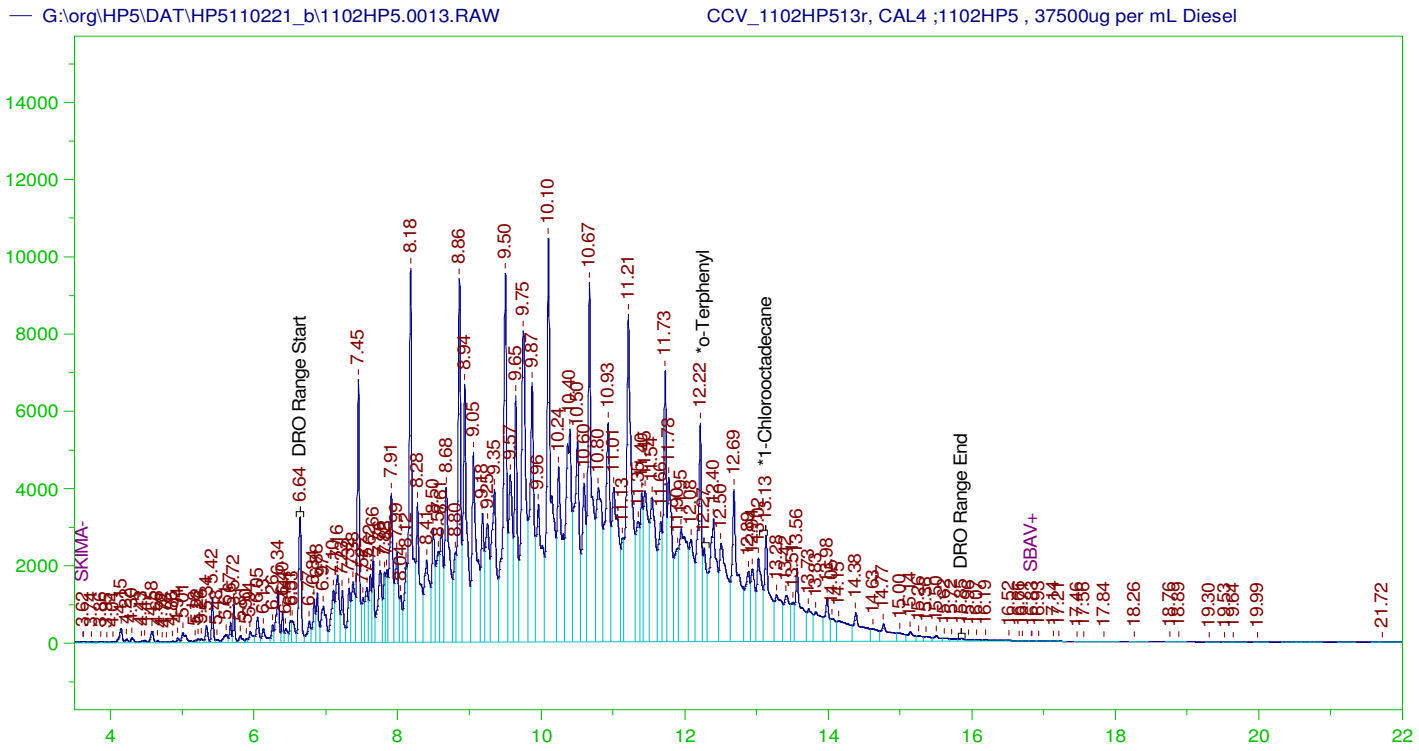
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.257	200.	92.35	46.18	-
*1-Chlorooctadecane	13.125	200.	158.994	79.5	-

DRO Area:4.667999E+08 DRO Amount: 14888.43
TEH Area:4.785279E+08 TEH Amount: 15262.49

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0012.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15262.49	101.75	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.257	200.	92.35	46.18	85-115
*1-Chlorooctadecane	13.125	200.	158.994	79.5	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1102HP513r, CAL4 ;1102HP5 , 37500ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0013.RAW
Date & Time Acquired: 11/2/2021 3:41:37 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.268	200.	238.956	119.48	-
*1-Chlorooctadecane	13.133	200.	386.008	193.	-

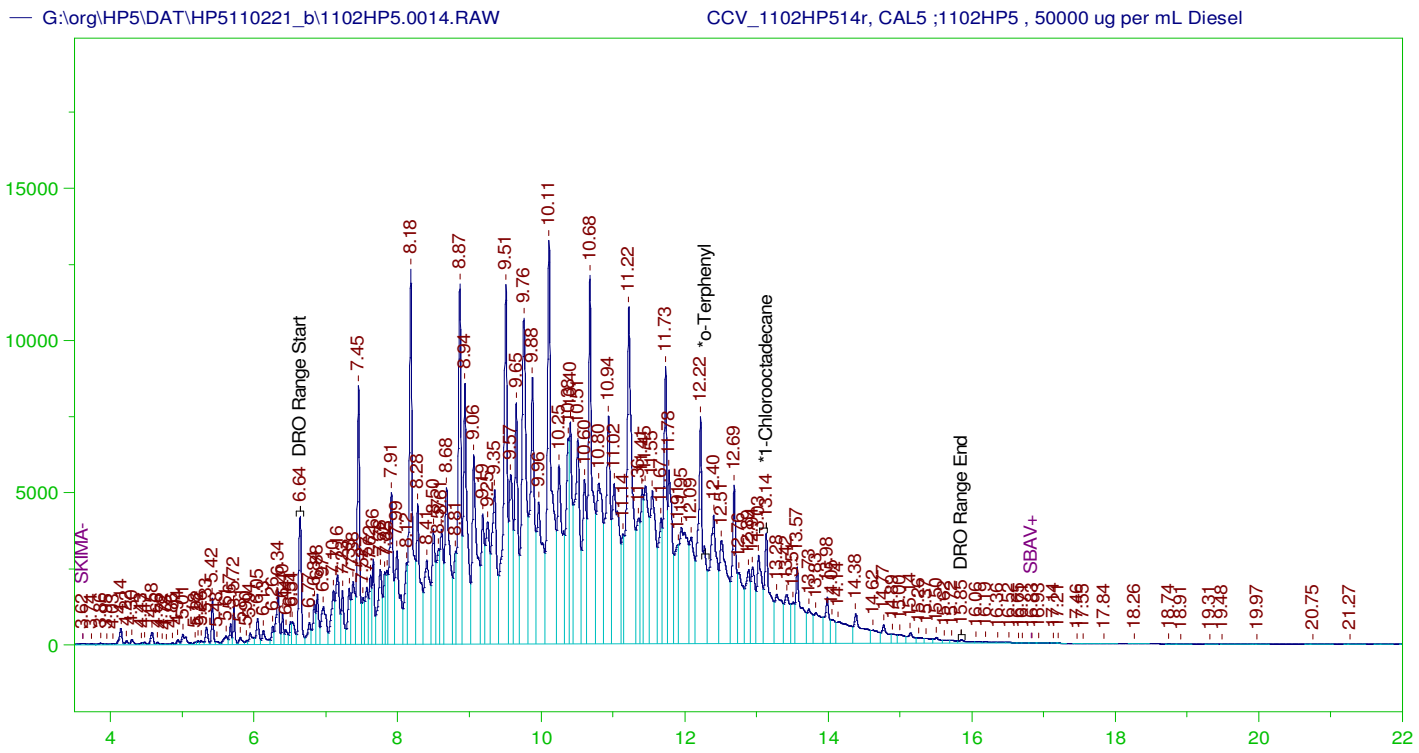
DRO Area:1.118993E+09 DRO Amount: 35689.91
TEH Area:1.14732E+09 TEH Amount: 36593.41

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0013.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	36593.41	243.96	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.268	200.	238.956	119.48	85-115
*1-Chlorooctadecane	13.133	200.	386.008	193.	85-115

G:\org\HP5\dat\HP5110221_b\Review\013_CCV_1102HP513r_DC_8015-IA-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1102HP514r, CAL5 ;1102HP5 , 50000 ug per mL Diesel
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0014.RAW
Date & Time Acquired: 11/2/2021 4:24:53 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

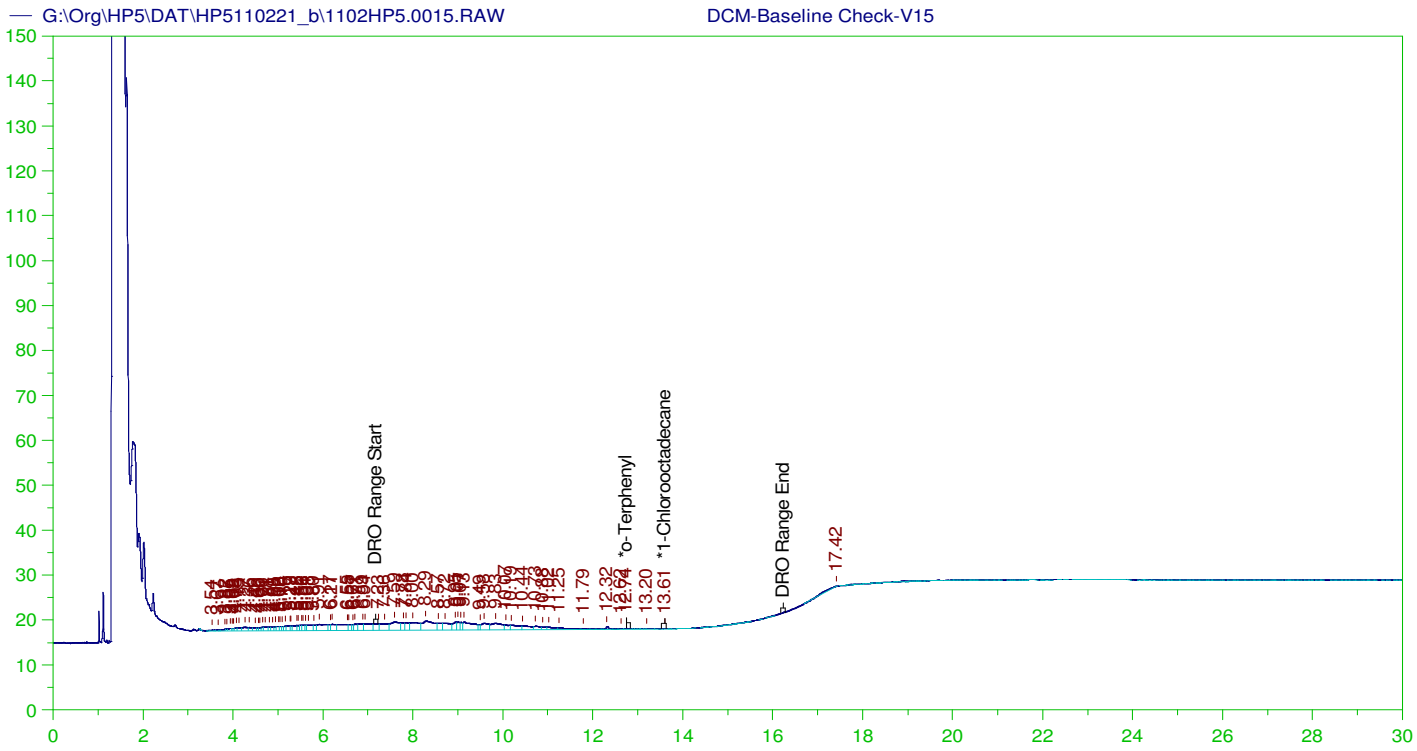
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	29.921	200.	.	.	-
*1-Chlorooctadecane	13.135	200.	512.63	256.31	-

DRO Area:1.507978E+09 DRO Amount: 48096.49
TEH Area:1.54564E+09 TEH Amount: 49297.7

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0014.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	49297.7	328.65	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	29.921	200.	.	.	85-115
*1-Chlorooctadecane	13.135	200.	512.63	256.31	85-115



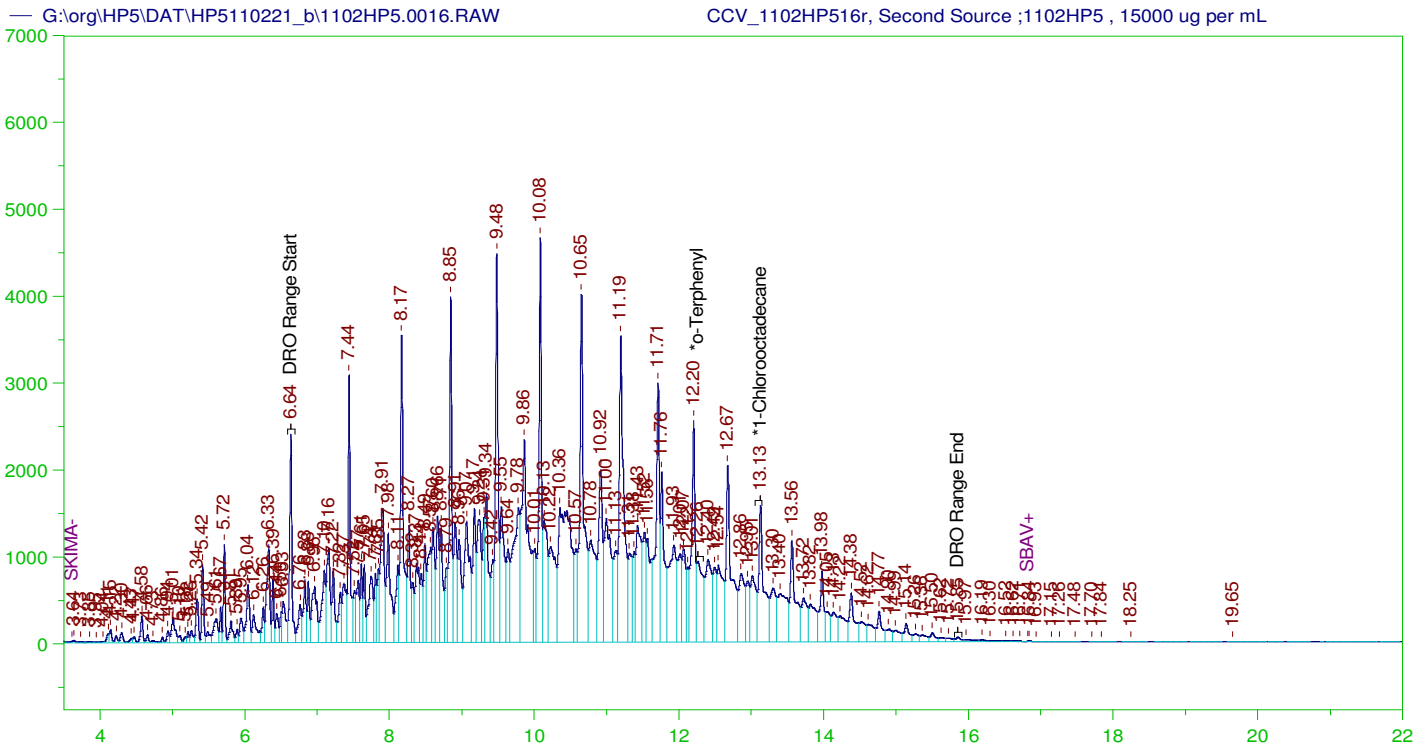
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V15
Raw File: G:\Org\HP5\DAT\HP5110221_b\1102HP5.0015.RAW
Date & Time Acquired: 11/2/2021 5:08:11 PM
Method File: G:\Org\HP5\Methods\DR_8015-HP-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HP.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 7.125 to 16.28

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.744	200.	.041	.02	-
*1-Chlorooctadecane	13.606	200.	.017	.01	-

DRO Area:305831.5 DRO Amount: 10.38219
TEH Area:517467.1 TEH Amount: 17.56667



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1102HP516r, Second Source ;1102HP5 , 15000 ug per mL
Raw File: G:\org\HP5\DAT\HP5110221_b\1102HP5.0016.RAW
Date & Time Acquired: 11/2/2021 5:51:31 PM
Method File: G:\Org\HP5\Methods\DC_8015-IA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.59 to 15.91

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.261	200.	146.398	73.2	-
*1-Chlorooctadecane	13.127	200.	209.876	104.94	-

DRO Area:4.432555E+08 DRO Amount: 14137.49
TEH Area:4.699825E+08 TEH Amount: 14989.94

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0016.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14989.94	99.93	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.261	200.	146.398	73.2	85-115
*1-Chlorooctadecane	13.127	200.	209.876	104.94	85-115

Write Sequence Data File	Insert Entries(Have the first cell for entries selecte Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manul Integrations
G:\org\HP5\DAT\HP5110221_b\1102HP5.03r	CCV_1102HP508r, DRO ;1102HP5 , DRO211025A	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5110221_b\1102HP5.04r	DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5110221_b\1102HP5.05r	CCV_1102HP505r, CAL1 ;1102HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
G:\org\HP5\DAT\HP5110221_b\1102HP5.06r	CCV_1102HP506r, CAL2 ;1102HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
G:\org\HP5\DAT\HP5110221_b\1102HP5.07r	CCV_1102HP507r, CAL3 ;1102HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
G:\org\HP5\DAT\HP5110221_b\1102HP5.08r	CCV_1102HP508r, CAL4 ;1102HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
G:\org\HP5\DAT\HP5110221_b\1102HP5.09r	CCV_1102HP509r, CAL5 ;1102HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
G:\org\HP5\DAT\HP5110221_b\1102HP5.10r	CCV_1102HP510r, CAL1 ;1102HP5 , 150 ug per mL Diesel (10 uL of Cal3 + 990 uL DCM(14408),	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83
G:\org\HP5\DAT\HP5110221_b\1102HP5.11r	CCV_1102HP511r, CAL2 ;1102HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5
G:\org\HP5\DAT\HP5110221_b\1102HP5.12r	CCV_1102HP512r, CAL3 ;1102HP5 , 15000 ug per mL Diesel (300 uL of DRO211012A + 700 uL DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5
G:\org\HP5\DAT\HP5110221_b\1102HP5.13r	CCV_1102HP513r, CAL4 ;1102HP5 , 37500ug per mL Diesel (750 uL of DRO211012A + 250 uL DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5
G:\org\HP5\DAT\HP5110221_b\1102HP5.14r	CCV_1102HP514r, CAL5 ;1102HP5 , 50000 ug per mL Diesel (200 uL of DRO211012A)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5
G:\org\HP5\DAT\HP5110221_b\1102HP5.15r	DCM-Baseline Check-V15	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5110221_b\1102HP5.16r	CCV_1102HP516r, Second Source ;1102HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.5

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2021.11.09 12:32:44 -07:00

Energy Laboratories Inc

ANALYTICAL RUN Summary

31-Mar-21

Run ID GCFID-HP5-B_210218B

Run Start Date: 2/18/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments: 8015 OIL range calibration
SW8015_OIL210218

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO180918C	50,000 ug/mL Oil Std For AK103 RRO-In DCM					CAL	8/31/2025
DRO210204A	Carbon Scan STD					MARKER	3/5/2028
DRO210217A	20,000 ug/mL Oil Std For AK103 RRO-In DCM					ICV	8/23/2021

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14282665	CCV_0218HP50	HC-8015-DRO-	CAL1		2/18/2021 12:03:	1	R356533		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		0.1468323		0.15	0	0	0	0.3	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14282666	CCV_0218HP50	HC-8015-DRO-	CAL2		2/18/2021 1:27:3	1	R356533		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		1.062811		1	0	0	0.15	0.3	0	106%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14282667	CCV_0218HP50	HC-8015-DRO-	CAL3		2/18/2021 2:51:0	1	R356533		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.035713		5	0	0	0.15	0.3	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14282668	CCV_0218HP50	HC-8015-DRO-	CAL4		2/18/2021 4:14:3	1	R356533		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		14.69295		15	0	0	0.15	0.3	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14282669	CCV_0218HP51	HC-8015-DRO-	CAL5		2/18/2021 5:38:3	1	R356533		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		28.20769		30	0	0	0.15	0.3	0	94%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14282670	CCV_0218HP51	HC-8015-DRO-	ICV		2/18/2021 8:27:3	1	R356533		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.474465		5	0	0	0.15	0.3	0	109%	80	120	0%	

Write Sequence	Data File	Sample Nam	Insert Entries(Have the first cell for entries selected	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
g:\org\HP5\DAT\HP5021821_b\0218HP5.01r	Marker_0218HP501r, DRO C40 ;0218HP5 , DRO210204A			g:\org\HP5\Methods\\CSC210212.met	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.02r	DCM-Baseline Check-V02			G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.03r	CCV_0218HP503r, CAL1 ;0218HP5 , 150 ug per mLOil (10 uL of Cal4 + 990 uL DCM(13510)			G:\Org\HP5\Methods\DR_OIL-021803-AA-L0.MET	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.04r	DCM-Baseline Check-V04			G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.05r	CCV_0218HP505r, CAL2 ;0218HP5 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(13510)			G:\Org\HP5\Methods\DR_OIL-021805-AA-L0.MET	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.06r	DCM-Baseline Check-V06			G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.07r	CCV_0218HP507r, CAL3 ;0218HP5 , 5000 ug per mL Oil (100 uL of DRO180918C + 900 uL DCM(13510)			G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.08r	DCM-Baseline Check-V08			G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.09r	CCV_0218HP509r, CAL4 ;0218HP5 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(13510)			G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.10r	DCM-Baseline Check-V10			G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.11r	CCV_0218HP511r, CAL5 ;0218HP5 , 30000 ug per mL Oil (600 uL of DRO180918C + 400 uL of DCM)			G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.12r	DCM-Baseline Check-V12			G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.13r	DCM-Baseline Check-V13			G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.14r	DCM-Baseline Check-V14			G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
g:\org\HP5\DAT\HP5021821_b\0218HP5.15r	CCV_0218HP515r, Second Source ;0218HP5 , 5000 ug per mL (100uL of DRO210217A + 300uL DCM(13510)			G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET	1	1	1	1	0

File Name: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Version: 4

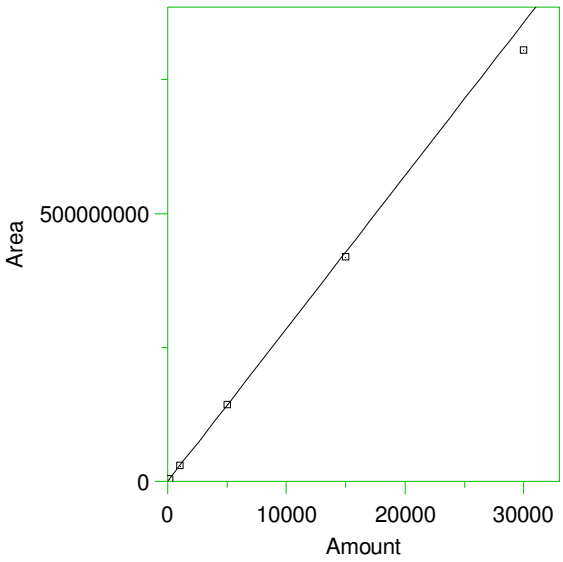
Creator: AMN 3/31/2021
Description: DRO-8015-Oil range. New ICal Per 0218HP5 (2021)-2 uL Inj.; COD added using OTP RFs
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 500
Reference peak area reject threshold: 500
Amount units: nanograms
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 DRO Range Start



Expected retention time:	6.54 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

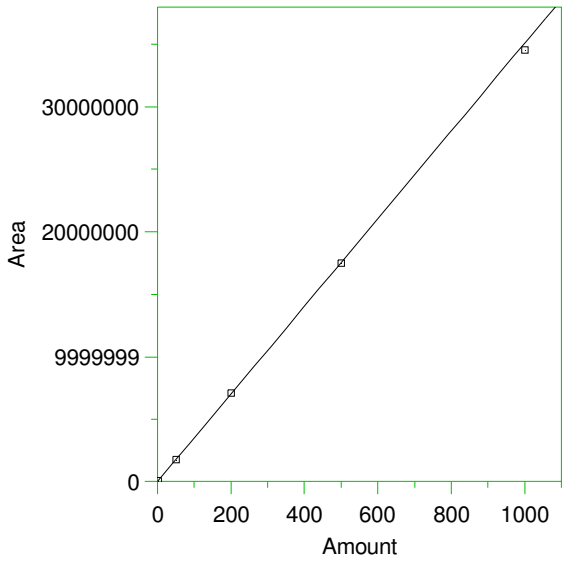
Y = 28542.41 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9940317
Average error:	3.209%
Average CF:	28542.41
RSD:	4.497%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4325287	28835.25	1.026	Manual	3/30/2021 11:50:57 AM
2	1000	3.03352E+07	30335.2	6.281	Manual	3/30/2021 11:51:41 AM
3	5000	1.437314E+08	28746.28	0.714	Manual	3/30/2021 11:52:00 AM
4	15000	4.193721E+08	27958.14	-2.047	Manual	3/30/2021 11:52:55 AM
5	30000	8.051155E+08	26837.18	-5.974	Manual	3/30/2021 11:52:32 AM

2 *o-Terphenyl



Expected retention time:	12.14 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

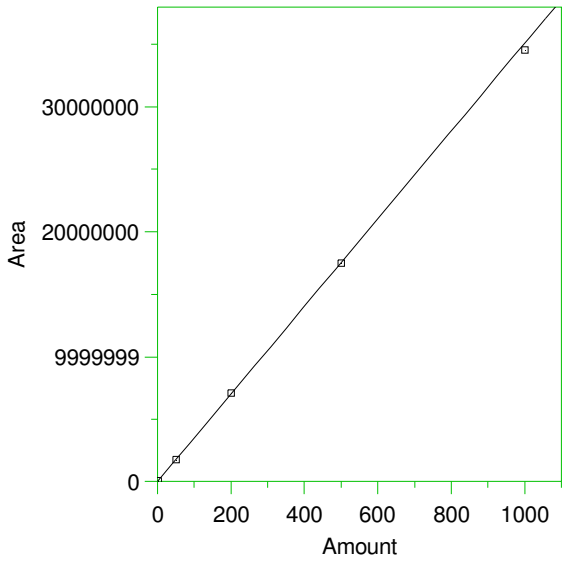
Y = 35071.26 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9996535
Average error:	0.838%
Average CF:	35071.26
RSD:	1.097%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	70648.41	35324.2	0.721	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0011.BND	1/11/2021 9:44:43 AM
2	50	1746406	34928.12	-0.408	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0012.BND	1/11/2021 9:44:50 AM
3	200	7110604	35553.02	1.374	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0013.BND	1/11/2021 9:44:58 AM
4	500	1.749965E+07	34999.3	-0.205	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0014.BND	1/11/2021 9:45:02 AM
5	1000	3.455164E+07	34551.64	-1.482	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0015.BND	1/11/2021 9:45:07 AM

3 *1-Chlorooctadecane



Expected retention time:	12.95 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

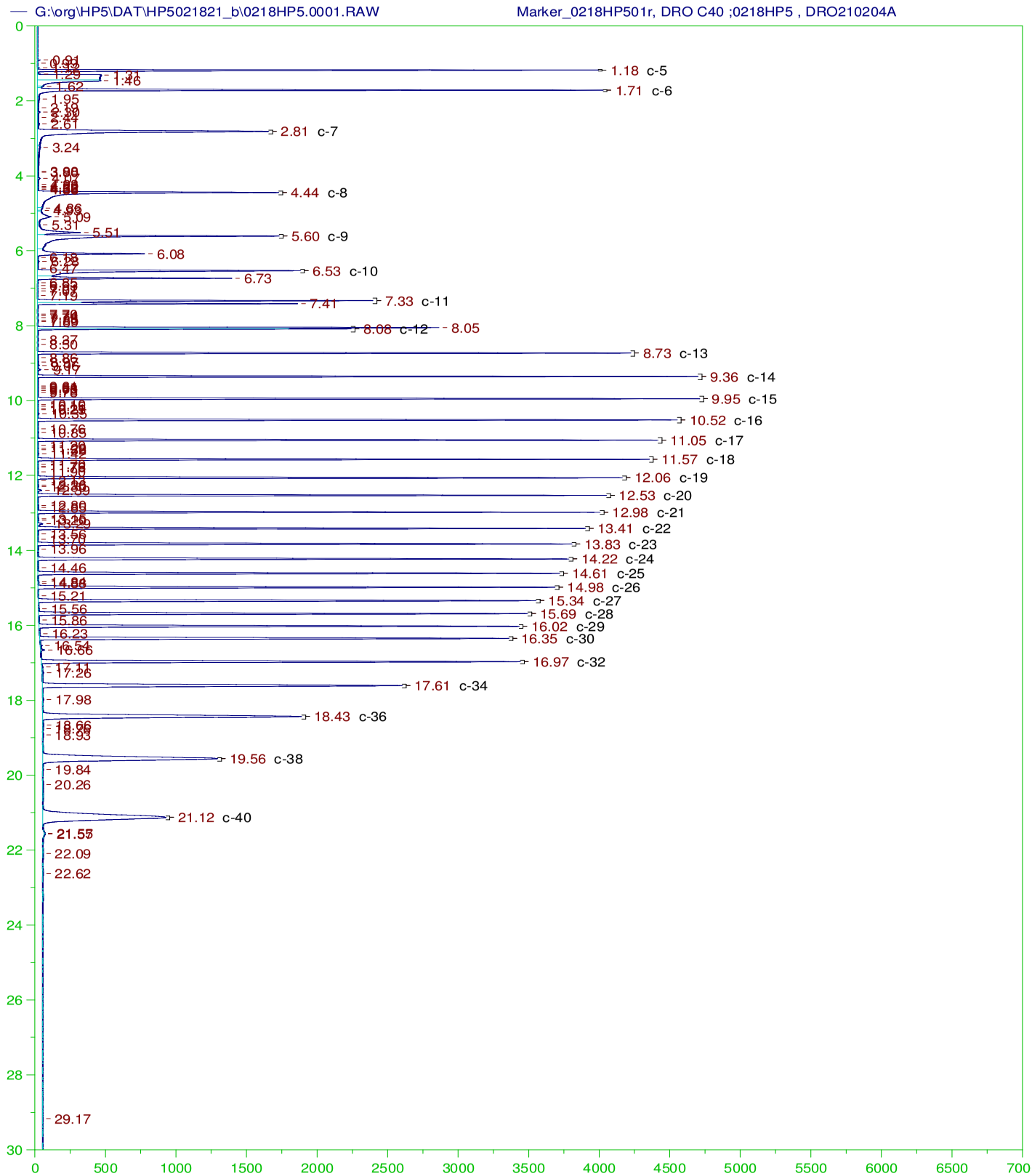
Single peak quantification by area

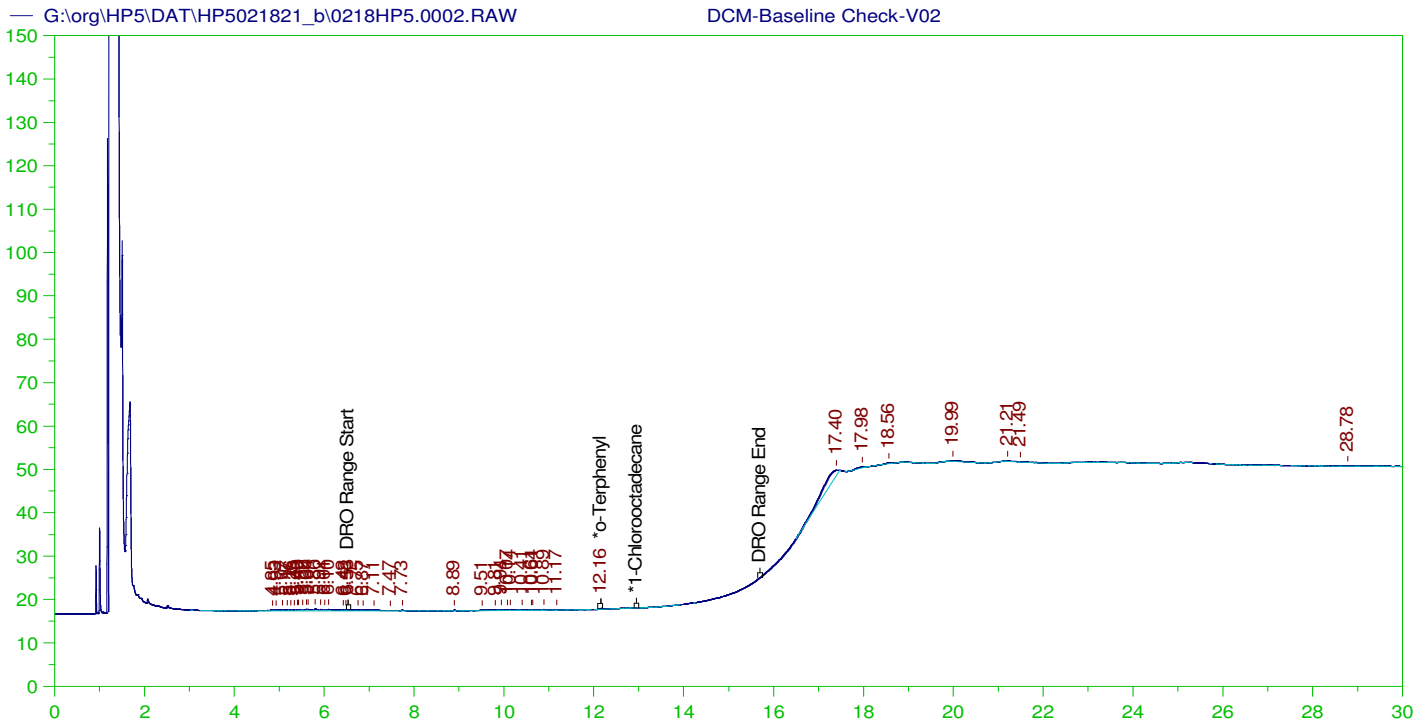
Y = 35071.26 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9996535
Average error:	0.838%
Average CF:	35071.26
RSD:	1.097%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	70648.41	35324.2	0.721	Manual	1/11/2021 9:45:13 AM
2	50	1746406	34928.12	-0.408	Manual	1/11/2021 9:45:15 AM
3	200	7110604	35553.02	1.374	Manual	1/11/2021 9:45:17 AM
4	500	1.749965E+07	34999.3	-0.205	Manual	1/11/2021 9:45:19 AM
5	1000	3.455164E+07	34551.64	-1.482	Manual	1/11/2021 9:45:21 AM


G:\org\HP5\DAT\HP5021821_b\0218HP5.0001.RAW
Marker_0218HP501r, DRO C40 ;0218HP5 , DRO210204A
1.18 c-5
1.71 c-6
2.81 c-7
4.44 c-8
5.60 c-9
6.53 c-10
7.33 c-11
8.05
8.73 c-13
9.36 c-14
9.95 c-15
10.52 c-16
11.05 c-17
11.57 c-18
12.06 c-19
12.53 c-20
12.98 c-21
13.41 c-22
13.83 c-23
14.22 c-24
14.61 c-25
14.98 c-26
15.34 c-27
15.69 c-28
16.02 c-29
16.35 c-30
16.97 c-32
17.61 c-34
18.43 c-36
19.56 c-38
21.12 c-40
29.17
0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 700
G:\org\HP5\dat\HP5021821_b\Review\001_Marker_0218HP501r_CSC210212.xls



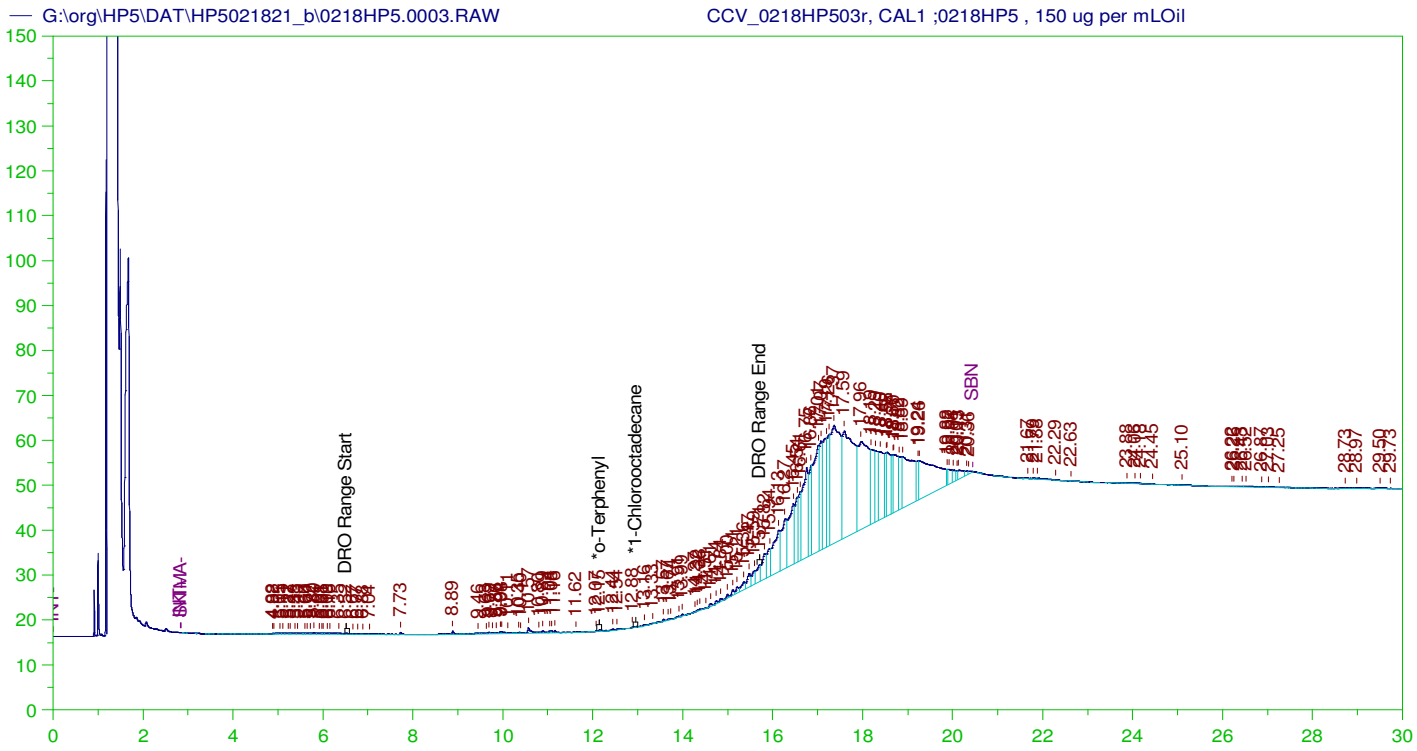
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V02
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0002.RAW
Date & Time Acquired: 2/18/2021 11:21:40 AM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.158	200.	.034	.02	-
*1-Chlorooctadecane	29.927	200.	.	.	-

DRO Area:29553.31 DRO Amount: 1.003258
TEH Area:144057.3 TEH Amount: 4.890373



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0218HP503r, CAL1 ;0218HP5 , 150 ug per mLOil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0003.RAW
Date & Time Acquired: 2/18/2021 12:03:33 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021803-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

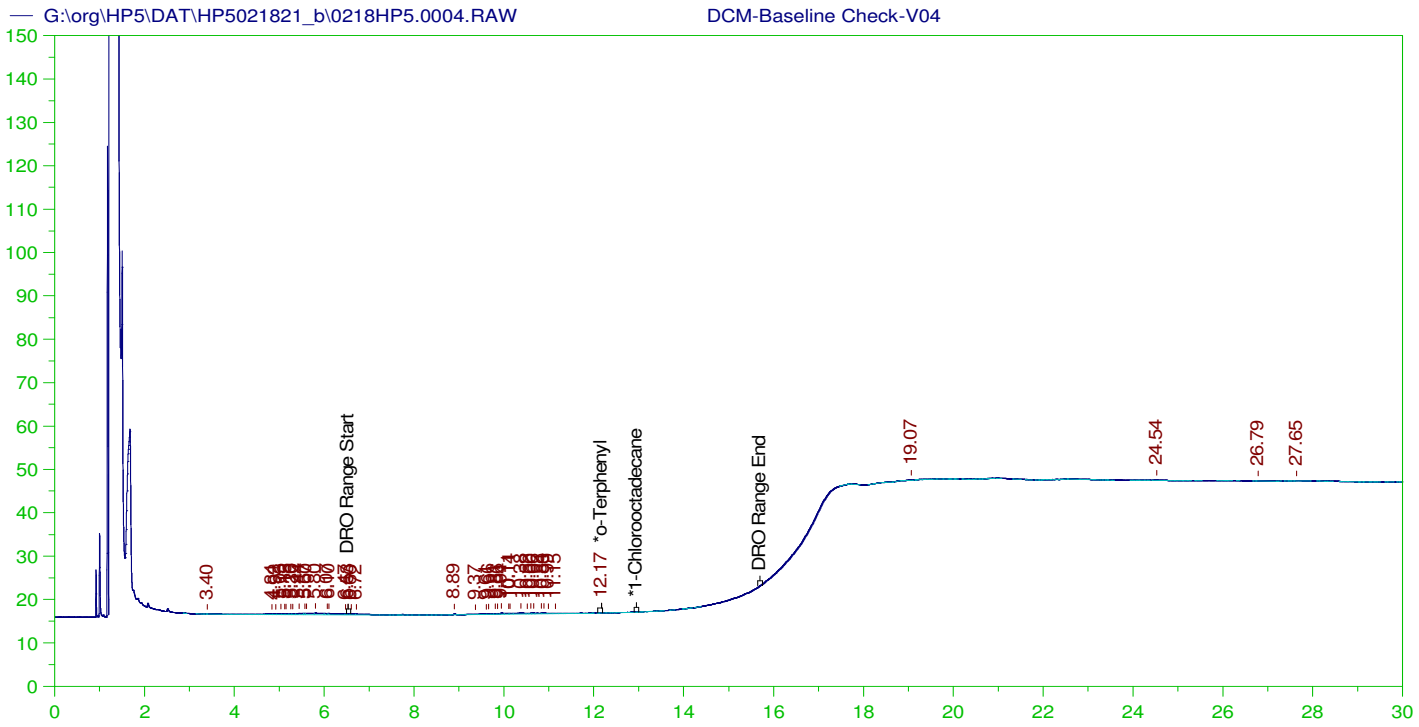
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.146	200.	.02	.01	-
*1-Chlorooctadecane	29.979	200.	.	.	-

DRO Area:141843.8 DRO Amount: 4.969579
TEH Area:3766485 TEH Amount: 131.961

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0003.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	131.96	2.64	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.146	200.	.02	.01	85-115
*1-Chlorooctadecane	29.979	200.	.	.	85-115



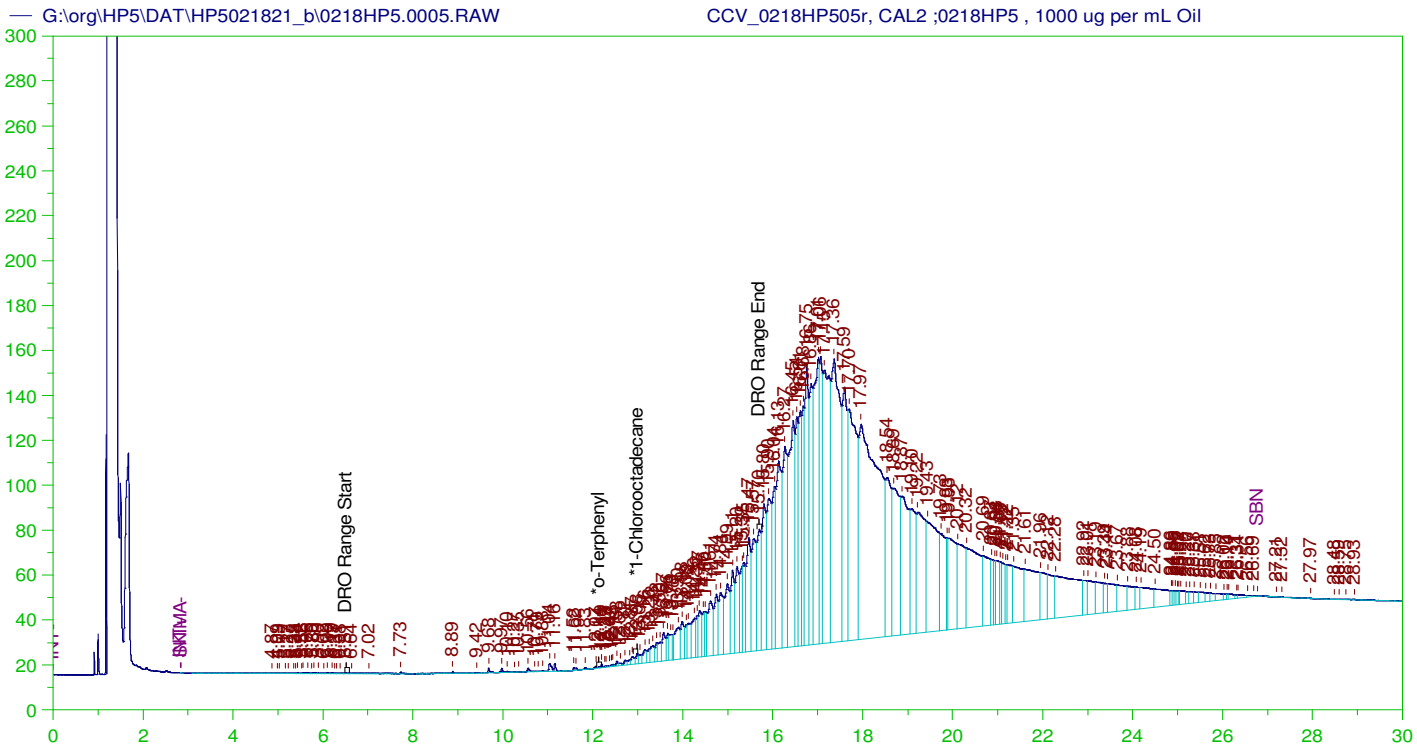
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V04
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0004.RAW
Date & Time Acquired: 2/18/2021 12:45:36 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.171	200.	.017	.01	-
*1-Chlorooctadecane	29.958	200.	.	.	-

DRO Area:27245.38 DRO Amount: 0.9249101
TEH Area:63574.01 TEH Amount: 2.158173



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0218HP505r, CAL2 ;0218HP5 , 1000 ug per mL Oil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0005.RAW
Date & Time Acquired: 2/18/2021 1:27:30 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021805-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

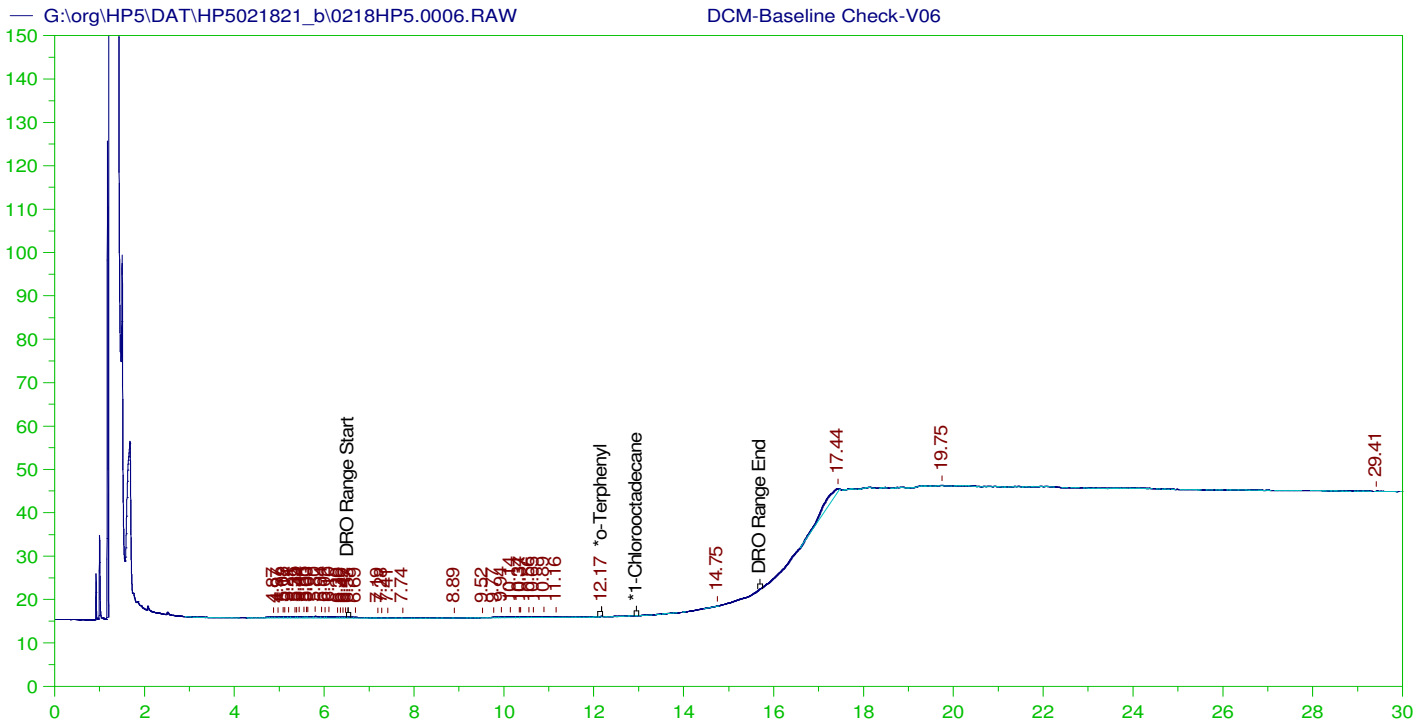
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.136	200.	.034	.02	-
*1-Chlorooctadecane	12.983	200.	.496	.25	-

DRO Area:3721460 DRO Amount: 130.3835
TEH Area:3.03352E+07 TEH Amount: 1062.811

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0005.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	1062.81	21.26	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.136	200.	.034	.02	85-115
*1-Chlorooctadecane	12.983	200.	.496	.25	85-115



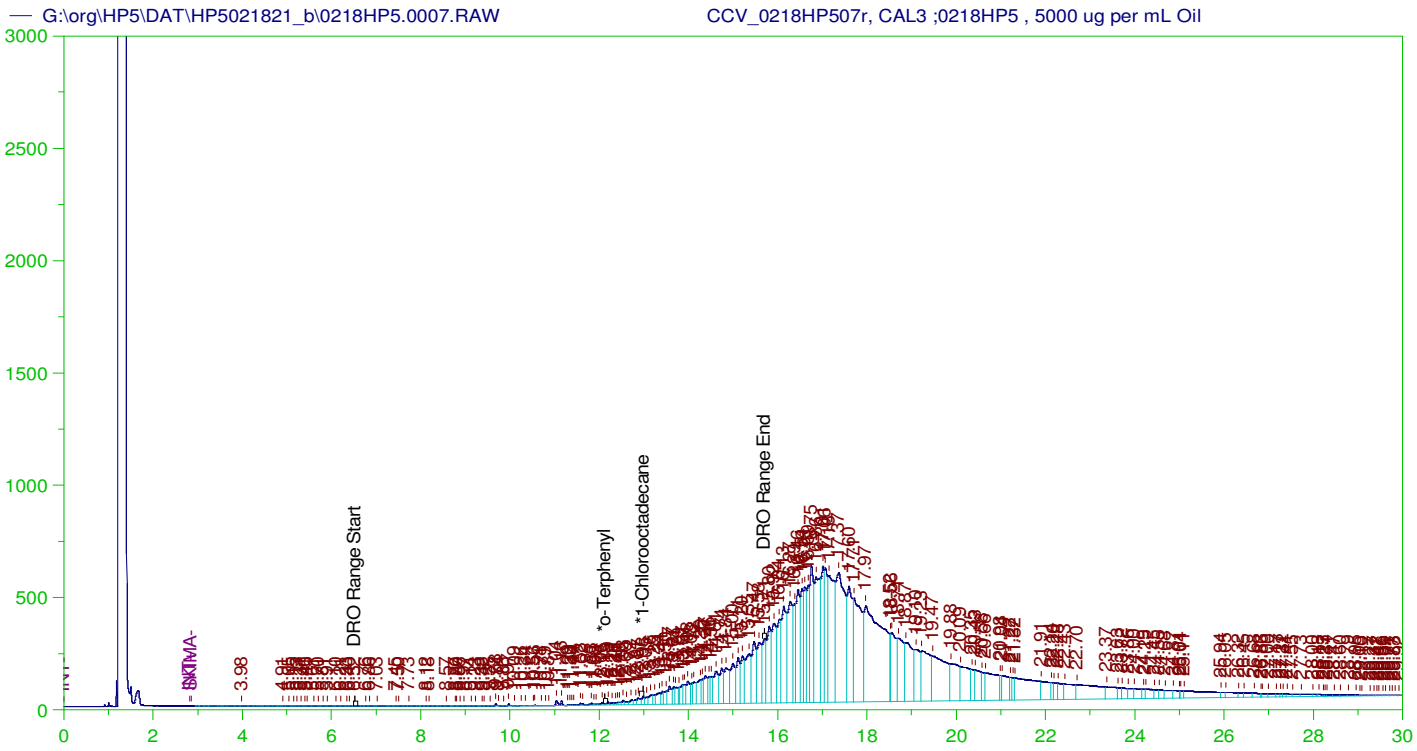
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V06
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0006.RAW
Date & Time Acquired: 2/18/2021 2:09:12 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.17	200.	.017	.01	-
*1-Chlorooctadecane	29.977	200.	.	.	-

DRO Area:29249.25 DRO Amount: 0.9929362
TEH Area:123949.1 TEH Amount: 4.20775



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0218HP507r, CAL3 ;0218HP5 , 5000 ug per mL Oil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0007.RAW
Date & Time Acquired: 2/18/2021 2:51:00 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021807-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.129	200.	.538	.27	-
*1-Chlorooctadecane	12.981	200.	4.244	2.12	-

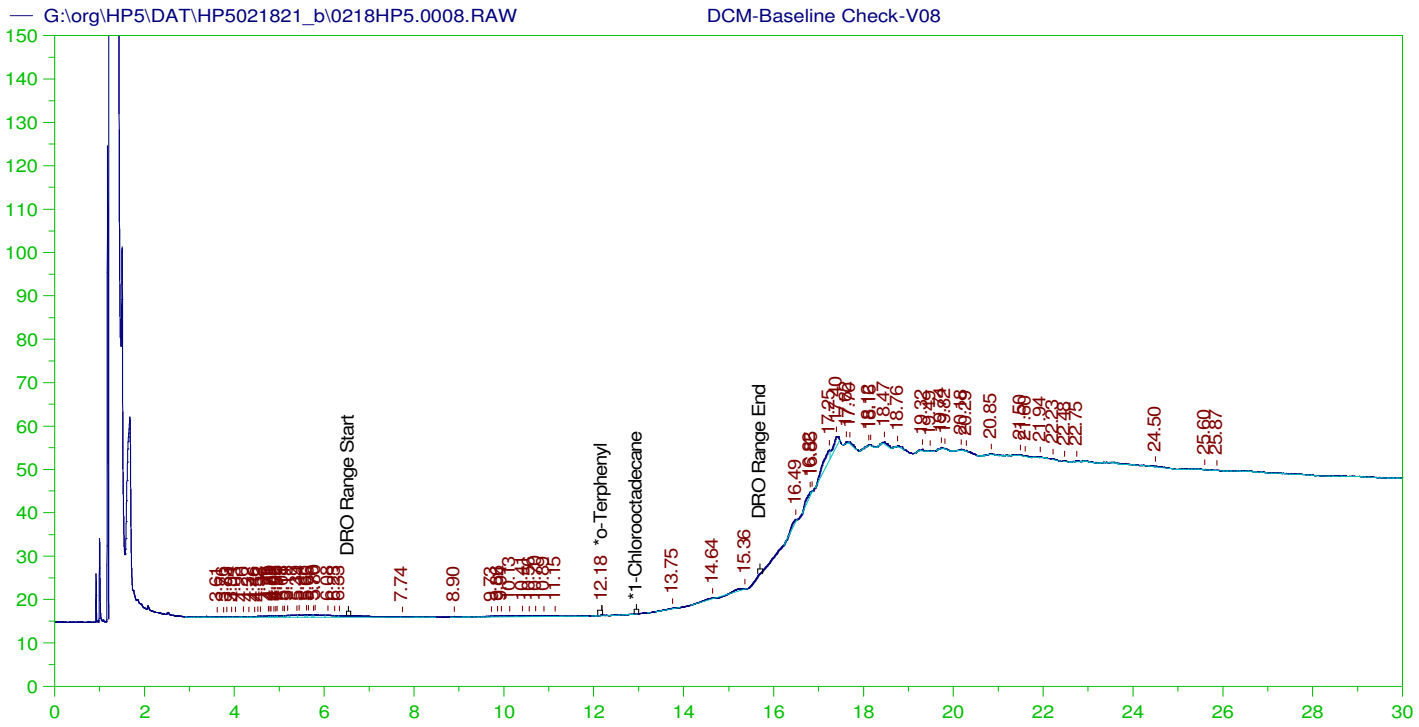
DRO Area:2.19239E+07 DRO Amount: 768.1166
TEH Area:1.437314E+08 TEH Amount: 5035.713

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0007.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	5035.71	100.71	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.129	200.	.538	.27	85-115
*1-Chlorooctadecane	12.981	200.	4.244	2.12	85-115

G:\org\HP5\dat\HP5021821_b\Review\007_CCV_0218HP507r_DR_OIL-021807-AA-L0.xls



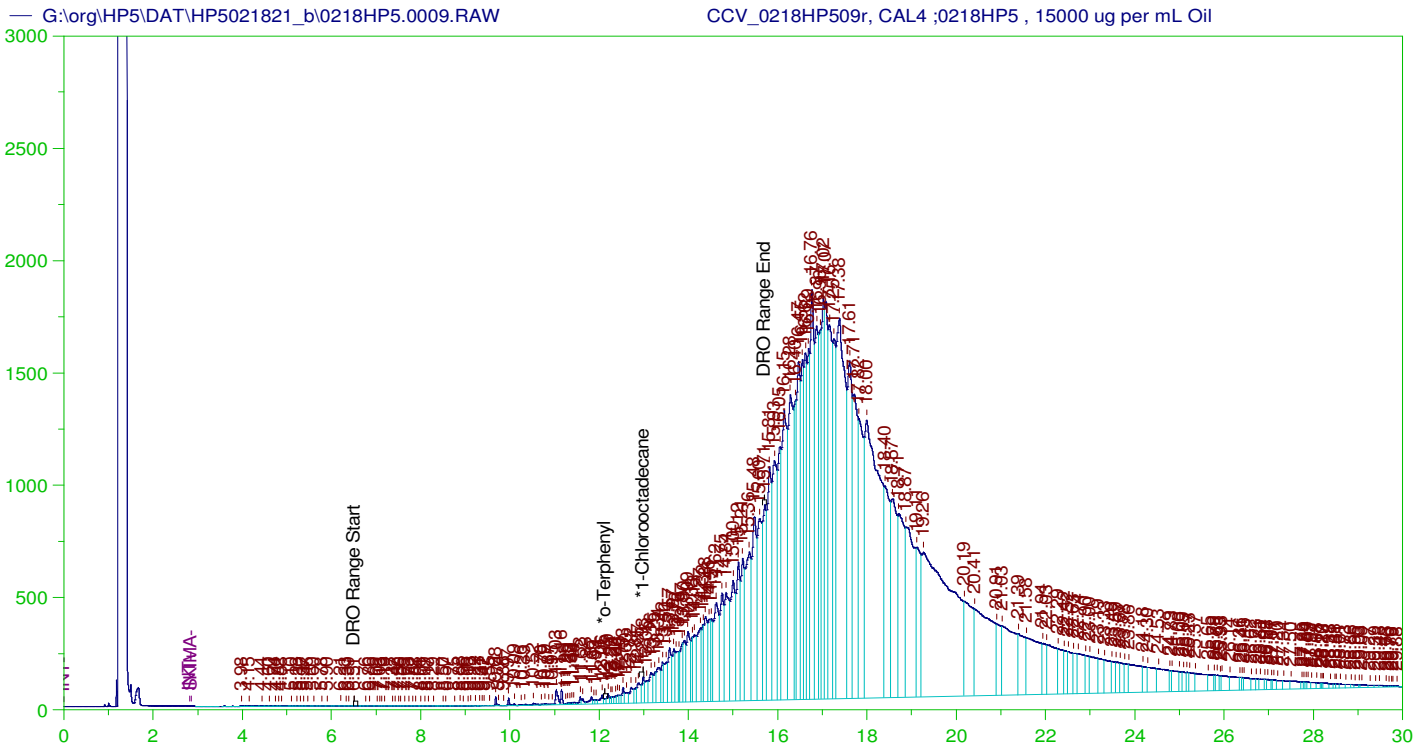
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V08
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0008.RAW
Date & Time Acquired: 2/18/2021 3:32:46 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.176	200.	.026	.01	-
*1-Chlorooctadecane	29.982	200.	.	.	-

DRO Area:30717.07 DRO Amount: 1.042765
TEH Area:223672.8 TEH Amount: 7.593112



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_0218HP509r, CAL4 ;0218HP5 , 15000 ug per mL Oil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0009.RAW
Date & Time Acquired: 2/18/2021 4:14:34 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021807-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

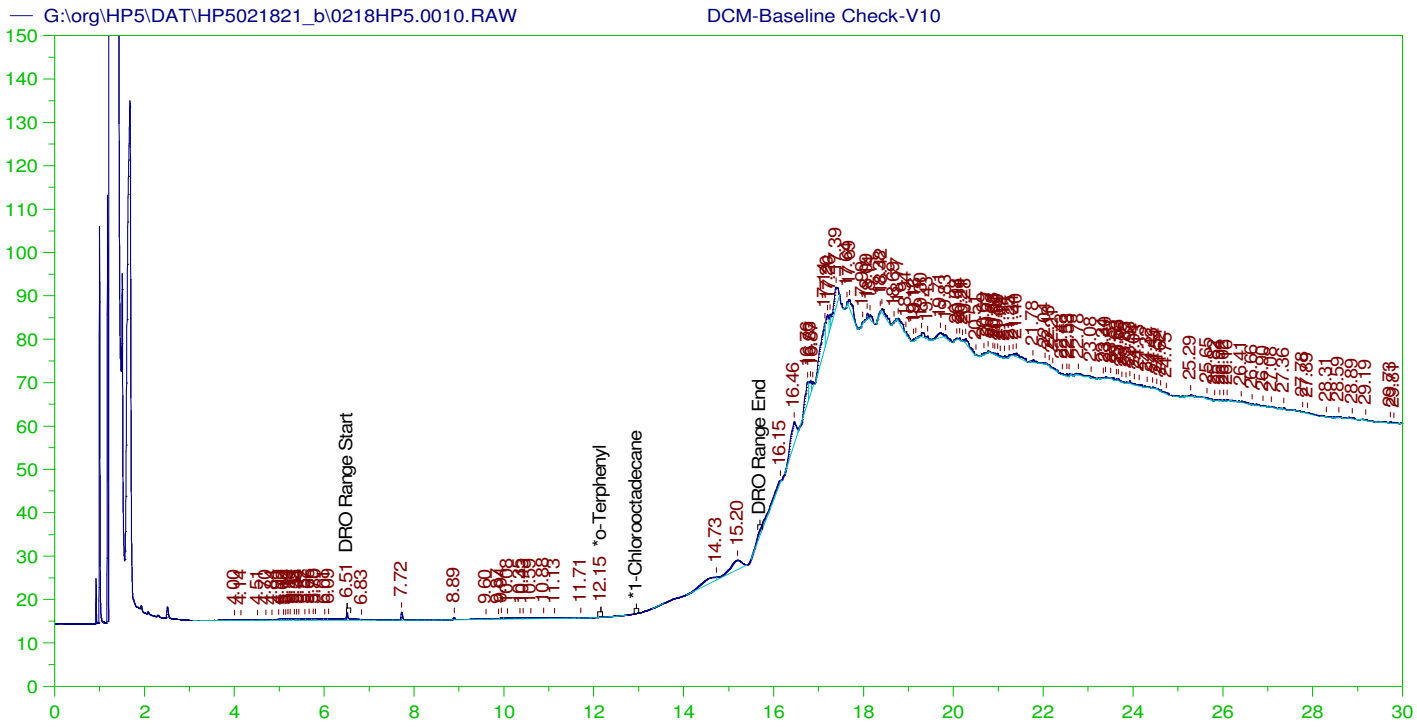
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.124	200.	1.888	.94	-
*1-Chlorooctadecane	12.984	200.	13.129	6.56	-

DRO Area:6.73131E+07 DRO Amount: 2358.354
TEH Area:4.193721E+08 TEH Amount: 14692.95

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0009.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	14692.95	293.86	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.124	200.	1.888	.94	85-115
*1-Chlorooctadecane	12.984	200.	13.129	6.56	85-115

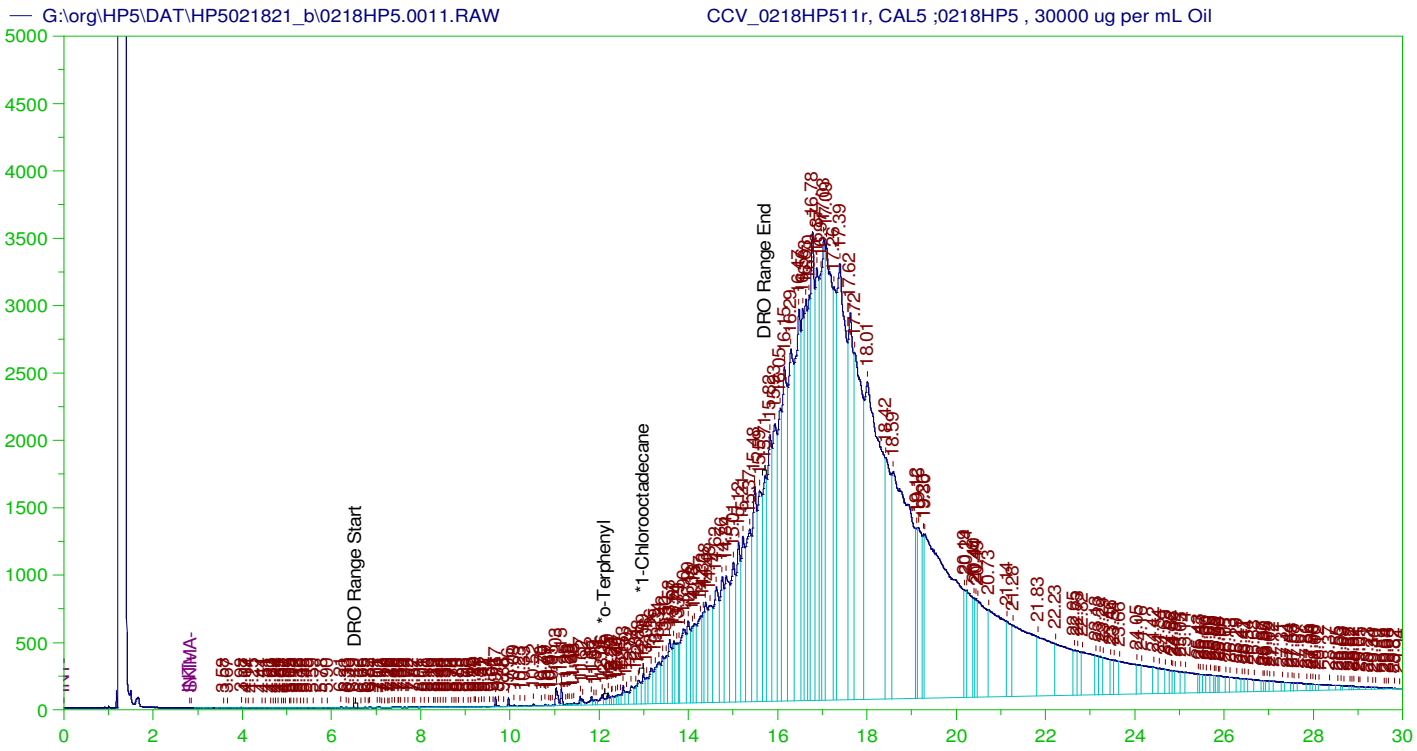


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V10
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0010.RAW
Date & Time Acquired: 2/18/2021 4:56:16 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.153	200.	.023	.01	-
*1-Chlorooctadecane	29.957	200.	.	.	-

DRO Area:108629.1 DRO Amount: 3.687675
TEH Area:543425.7 TEH Amount: 18.44789



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0218HP511r, CAL5 ;0218HP5 , 30000 ug per mL Oil
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0011.RAW
Date & Time Acquired: 2/18/2021 5:38:33 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021811-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

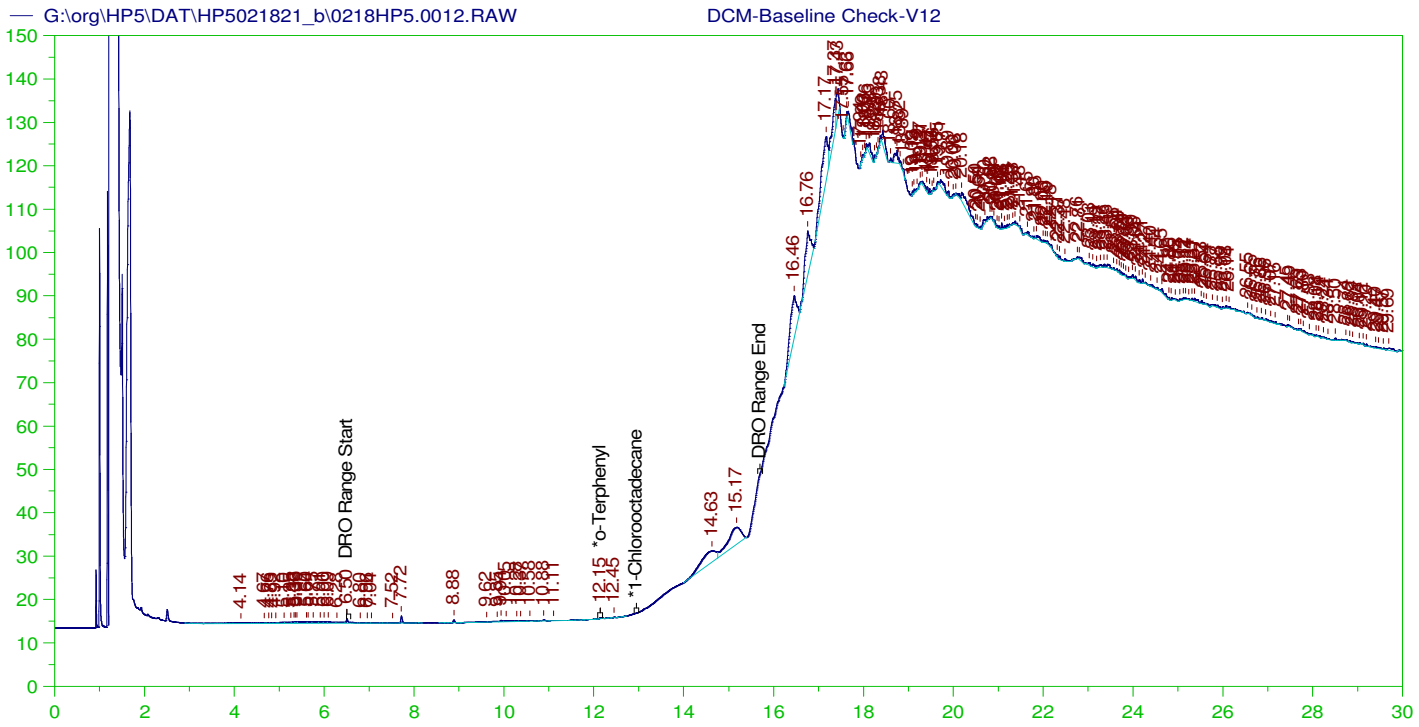
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.128	200.	3.828	1.91	-
*1-Chlorooctadecane	12.985	200.	28.22	14.11	-

DRO Area:1.319327E+08 DRO Amount: 4622.338
TEH Area:8.051155E+08 TEH Amount: 28207.69

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821_b\0218HP5.0011.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	28207.69	564.15	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.128	200.	3.828	1.91	85-115
*1-Chlorooctadecane	12.985	200.	28.22	14.11	85-115



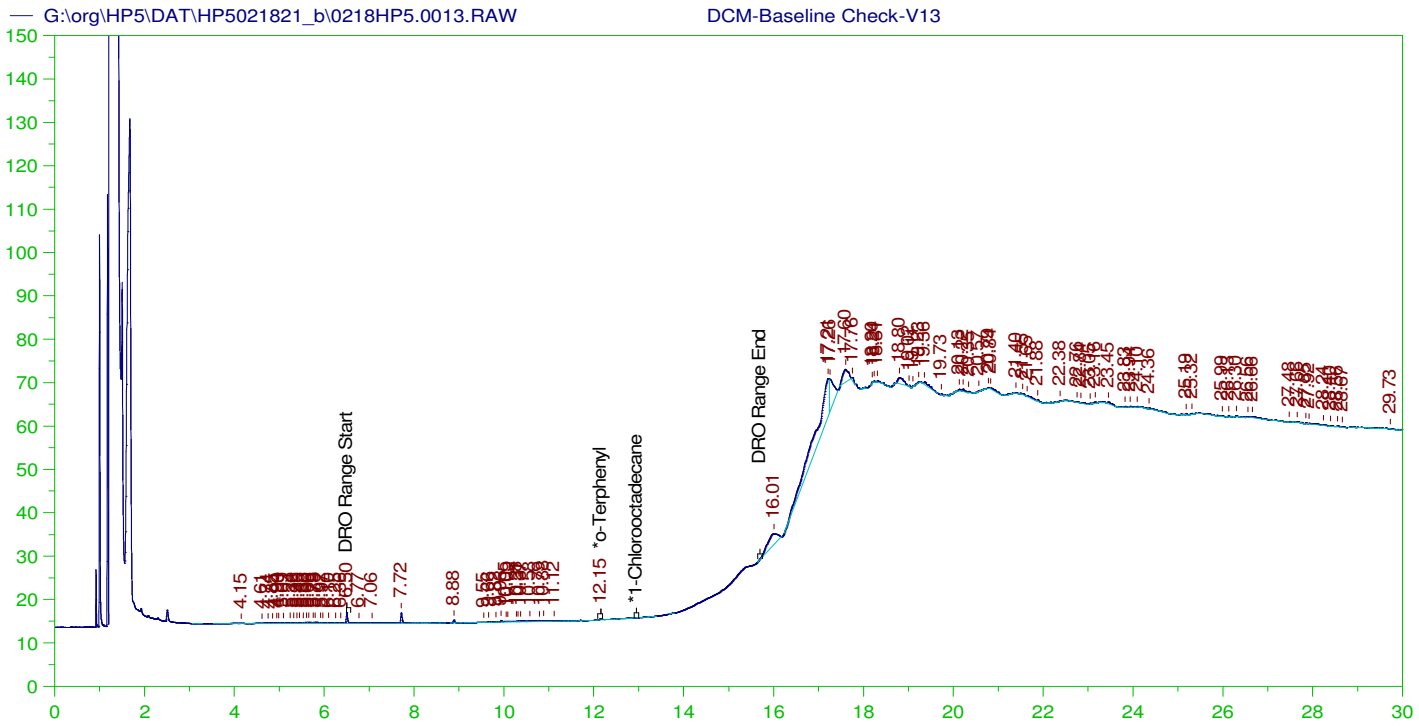
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V12
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0012.RAW
Date & Time Acquired: 2/18/2021 6:20:48 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.146	200.	.024	.01	-
*1-Chlorooctadecane	29.981	200.	.	.	-

DRO Area:186033.1 DRO Amount: 6.31534
TEH Area:888262.2 TEH Amount: 30.1542



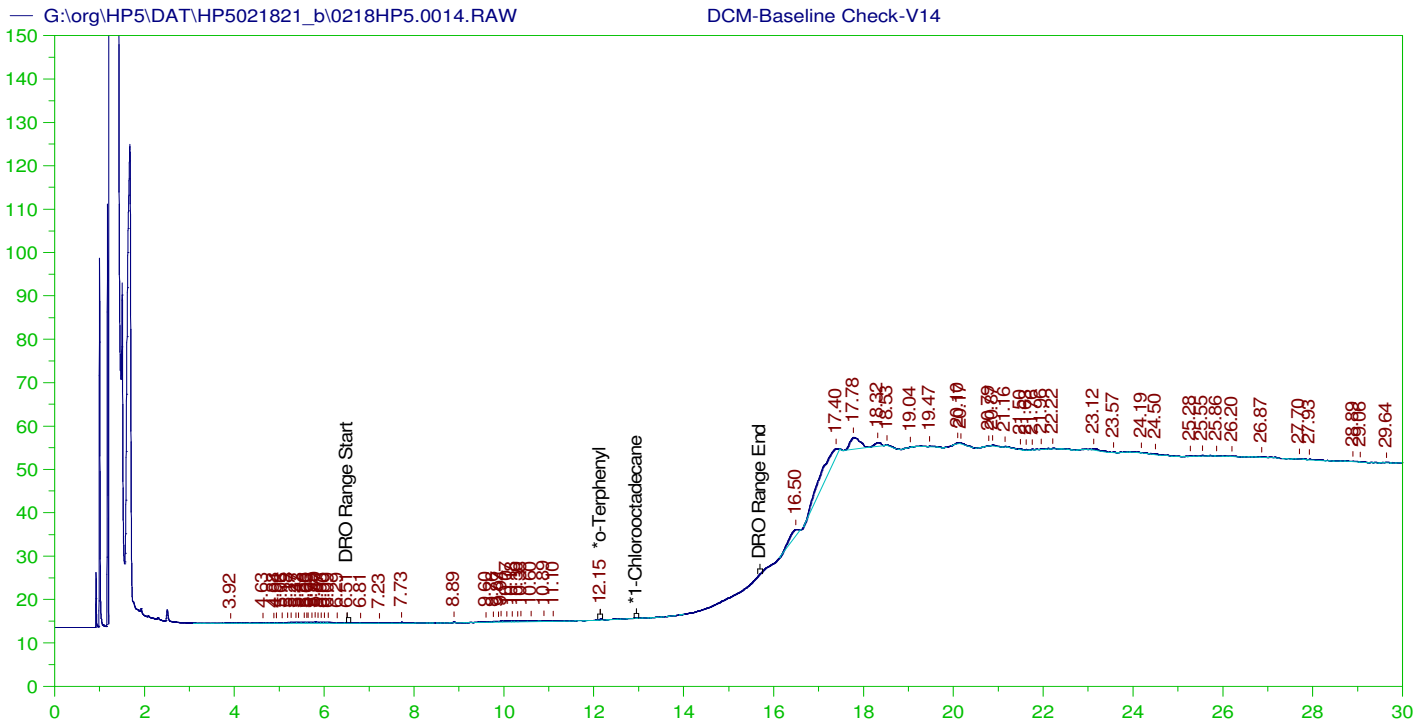
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V13
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0013.RAW
Date & Time Acquired: 2/18/2021 7:03:01 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.152	200.	.033	.02	-
*1-Chlorooctadecane	29.967	200.	.	.	-

DRO Area:40824.55 DRO Amount: 1.385888
TEH Area:476705.3 TEH Amount: 16.18291



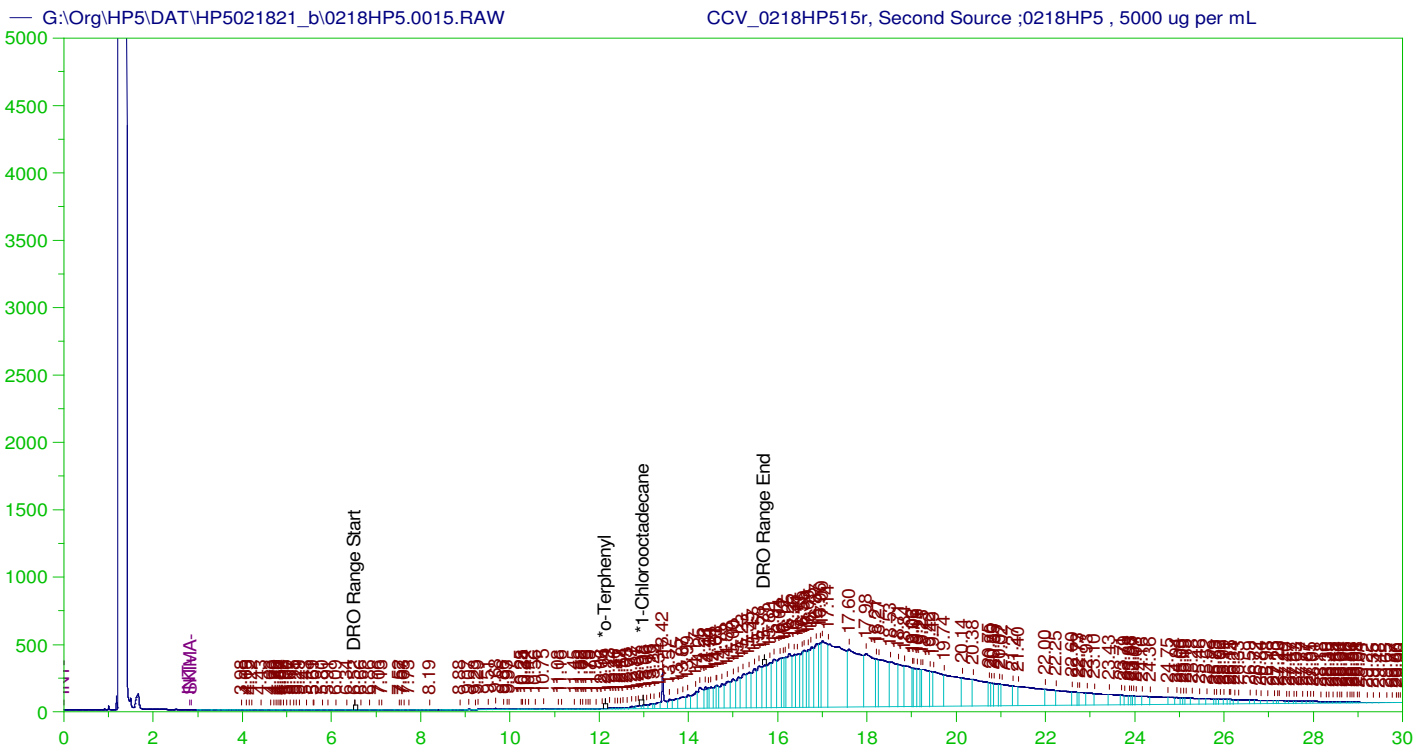
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V14
Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0014.RAW
Date & Time Acquired: 2/18/2021 7:45:21 PM
Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.148	200.	.03	.01	-
*1-Chlorooctadecane	29.949	200.	.	.	-

DRO Area:30445.24 DRO Amount: 1.033537
TEH Area:297634.4 TEH Amount: 10.10392



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0218HP515r, Second Source ;0218HP5 , 5000 ug per mL
Raw File: G:\Org\HP5\DAT\HP5021821_b\0218HP5.0015.RAW
Date & Time Acquired: 2/18/2021 8:27:37 PM
Method File: G:\ORG\HP5\METHODS\DR_OIL-021811-AA-L0.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_OIL210218AA.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41
Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.137	.2	.19	-	
*1-Chlorooctadecane	12.984	.2	.003	1.62	-

DRO Area:2.558549E+07 DRO Amount: 0.8964027
TEH Area:1.562544E+08 TEH Amount: 5.474465

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5021821_b\0218HP5.0015.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	5.47	.11	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.137	.2	.19	85-115	
*1-Chlorooctadecane	12.984	.2	.003	1.62	85-115

Write Sequence	Data File	Sample Nan	Insert Entries(Have the first cell for entries selecte	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.01r	Marker_0218HP501r, DRO C40 ;0218HP5 , DRO210204A		g:\org\HP5\Methods\\CSC210212.met	1	1	1	1	0	No Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.02r	DCM-Baseline Check-V02		G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.03r	CCV_0218HP503r, CAL1 ;0218HP5 , 150 ug per mLOil (10 uL of Cal4 + 990 uL DCM(13510)		G:\Org\HP5\Methods\DR_OIL-021803-AA-L0.MET	1	1	1	1	0	The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 20.91 changed peak width and scale was set at 150 for the Yaxis.
	:\org\HP5\DAT\HP5021821_b\0218HP5.04r	DCM-Baseline Check-V04		G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.05r	CCV_0218HP505r, CAL2 ;0218HP5 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(13510)		G:\Org\HP5\Methods\DR_OIL-021805-AA-L0.MET	1	1	1	1	0	The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 26.79 changed peak width and scale was set at 300 for the Yaxis.
	:\org\HP5\DAT\HP5021821_b\0218HP5.06r	DCM-Baseline Check-V06		G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.07r	CCV_0218HP507r, CAL3 ;0218HP5 , 5000 ug per mL Oil (100 uL of DRO180918C + 900 uL DCM(13510)		G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET	1	1	1	1	0	The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Scale was set at 3000 for the Yaxis.
	:\org\HP5\DAT\HP5021821_b\0218HP5.08r	DCM-Baseline Check-V08		G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.09r	CCV_0218HP509r, CAL4 ;0218HP5 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(13510)		G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET	1	1	1	1	0	The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Scale was set at 3000 for the Yaxis.
	:\org\HP5\DAT\HP5021821_b\0218HP5.10r	DCM-Baseline Check-V10		G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.11r	CCV_0218HP511r, CAL5 ;0218HP5 , 30000 ug per mL Oil (600 uL of DRO180918C + 400 uL of DCM)		G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET	1	1	1	1	0	The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Scale was set at 5000 for the Yaxis.
	:\org\HP5\DAT\HP5021821_b\0218HP5.12r	DCM-Baseline Check-V12		G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.13r	DCM-Baseline Check-V13		G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.14r	DCM-Baseline Check-V14		G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
	:\org\HP5\DAT\HP5021821_b\0218HP5.15r	CCV_0218HP515r, Second Source ;0218HP5 , 5000 ug per mL (100uL of DRO210217A + 300uL DCM(13510)		G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET	1	1	1	1	0	The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the basline. Scale was set at 5000 for the Yaxis.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2021.10.29 12:03:40 -06:00

Energy Laboratories Inc

ANALYTICAL RUN Summary

25-Oct-21

Run ID GCFID-HP5-B_211017A

Run Start Date: 10/17/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments: Triacontane ICAL

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211006A	Triacontane SURR 2000 ug/mL					SURR	4/6/2026

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14777567	CCV_1017HP50	HC-8015-DRO-	CAL1		10/17/2021 3:30:	1	R368813		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.00202757		0.002	0	0	0.002	0.002	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14777568	CCV_1017HP50	HC-8015-DRO-	CAL2		10/17/2021 4:12:	1	R368813		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.04817772		0.05	0	0	0.002	0.002	0	96%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14777569	CCV_1017HP50	HC-8015-DRO-	CAL3		10/17/2021 4:55:	1	R368813		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.2231112		0.2	0	0	0.002	0.002	0	112%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14777570	CCV_1017HP50	HC-8015-DRO-	CAL4		10/17/2021 5:38:	1	R368813		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.4700634		0.5	0	0	0.002	0.002	0	94%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14777571	CCV_1017HP50	HC-8015-DRO-	CAL5		10/17/2021 6:20:	1	R368813		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.9372648		1	0	0	0.002	0.002	0	94%	80	120	0%	

Write Sequence	Insert Entries(Have the first cell for entries selecte						
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
G:\org\HP5\DAT\HP5101721_b\1017HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5101721_b\1017HP5.02r	DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5101721_b\1017HP5.03r	CCV_1017HP503r, DRO ;1017HP5 , DRO210708A	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5101721_b\1017HP5.04r	DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5101721_b\1017HP5.05r	CCV_1017HP505r, CAL1 ;1017HP5 , 2 ug per mL Triacontane (10 uL of Cal3 + 990 uL DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0
G:\org\HP5\DAT\HP5101721_b\1017HP5.06r	CCV_1017HP506r, CAL2 ;1017HP5 , 50 ug per mL Triacontane (100 uL Cal4 + 900 uL of DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0
G:\org\HP5\DAT\HP5101721_b\1017HP5.07r	CCV_1017HP507r, CAL3 ;1017HP5 , 200 ug per mL Triacontane (100uL of Cal5 + 400 uL DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0
G:\org\HP5\DAT\HP5101721_b\1017HP5.08r	CCV_1017HP508r, CAL4 ;1017HP5 , 500 ug per mL Triacontane (250uL of Cal5 + 250 uL DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0
G:\org\HP5\DAT\HP5101721_b\1017HP5.09r	CCV_1017HP509r, CAL5 ;1017HP5 , 1000 ug per mL Triacontane (500 uL 2000 ug/mL Triacontane DRO211006A + 500 DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0

File Name: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Version: 11

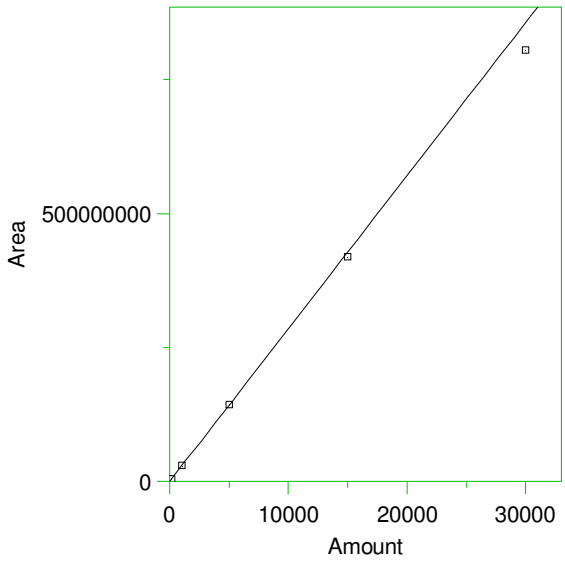
Creator: AMN
Description: 8015C-Oil Range. New ICal Per 1017HP5 (2021)-2 uL Inj.; RRO copied from 8015 cal for Oil
Reason for change:

External standard calibration
Standard injection volume: 1
Standard sample weight: 1
Area reject threshold: 500
Reference peak area reject threshold: 500
Amount units: nanograms
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

1 *30-40 Motor Oil



Expected retention time:	6.4 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

Single peak quantification by area

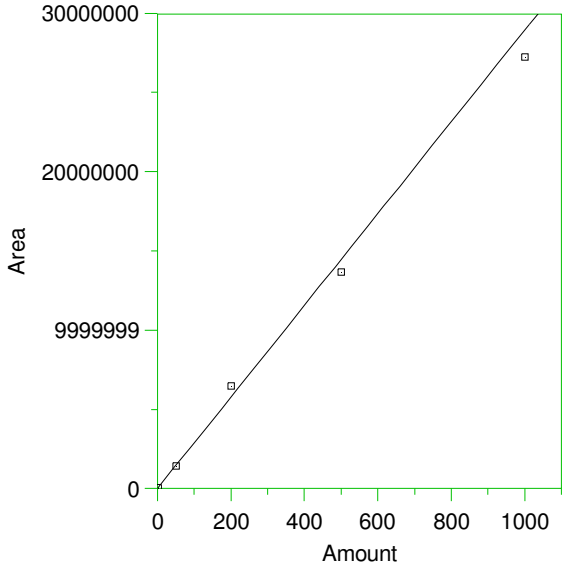
Y = 28542.41 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9940317
Average error:	3.209%
Average CF:	28542.41
RSD:	4.497%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4325287	28835.25	1.026	Manual	10/18/2021 2:26:35 PM
2	1000	3.03352E+07	30335.2	6.281	Manual	10/18/2021 2:26:39 PM
3	5000	1.437314E+08	28746.28	0.714	Manual	10/18/2021 2:26:42 PM
4	15000	4.193721E+08	27958.14	-2.047	Manual	10/18/2021 2:26:45 PM
5	30000	8.051155E+08	26837.18	-5.974	Manual	10/18/2021 2:26:47 PM

3 *#Triacontane



Expected retention time:	16.26 minutes
Search window:	0.05 minutes
No retention time reference component	
Group number:	0
High alarm limit:	0
Low alarm limit:	0
Component constant:	0

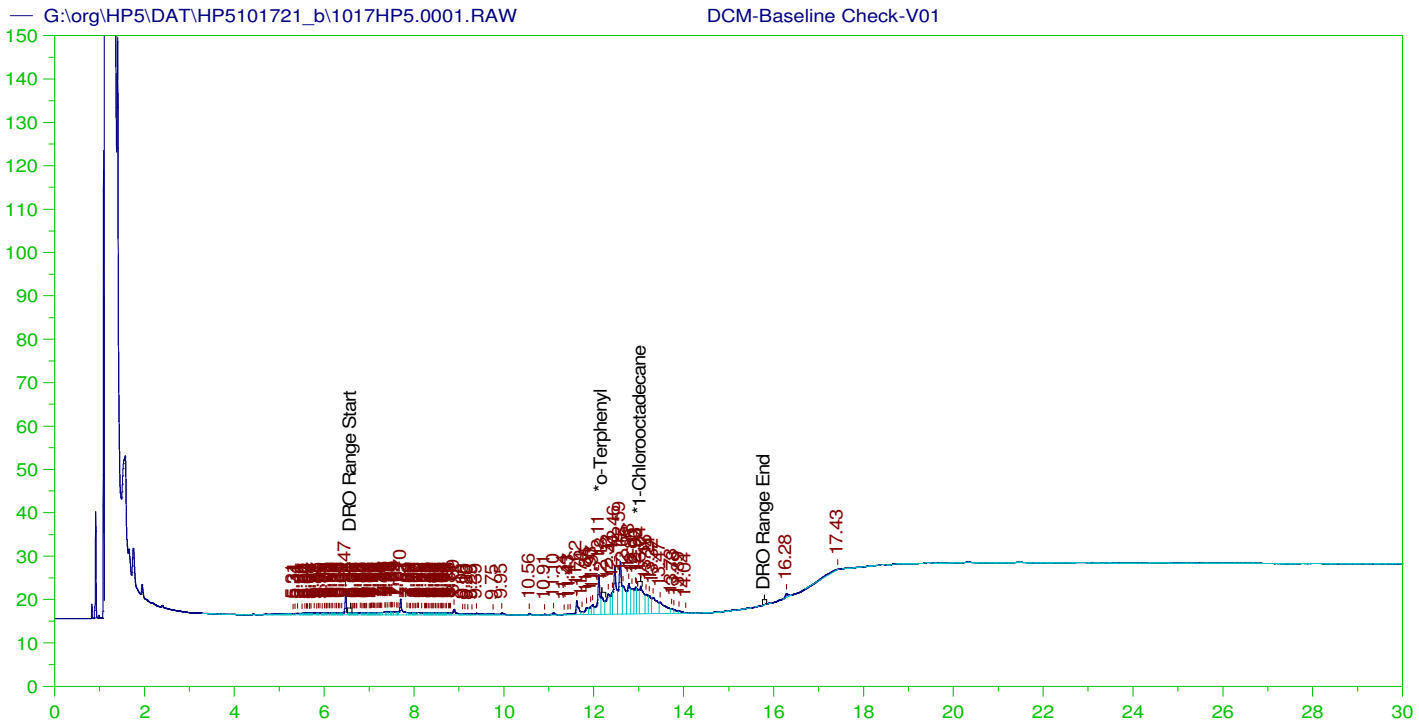
Single peak quantification by area

Y = 28930.14 X + 0

Average CF fit with equal weighting, forced to origin

Coefficient of determination:	0.9919451
Average error:	5.737%
Average CF:	28930.14
RSD:	7.577%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	59020.1	29510.05	2.005	Manual	10/18/2021 2:42:38 PM
2	50	1403134	28062.68	-2.998	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0015.BND	10/7/2021 12:47:26 PM
3	200	6499949	32499.74	12.339	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0017.BND	10/7/2021 12:47:56 PM
4	500	1.366713E+07	27334.26	-5.516	Manual	10/18/2021 2:44:43 PM
5	1000	2.724398E+07	27243.98	-5.828	Manual	10/18/2021 2:43:45 PM



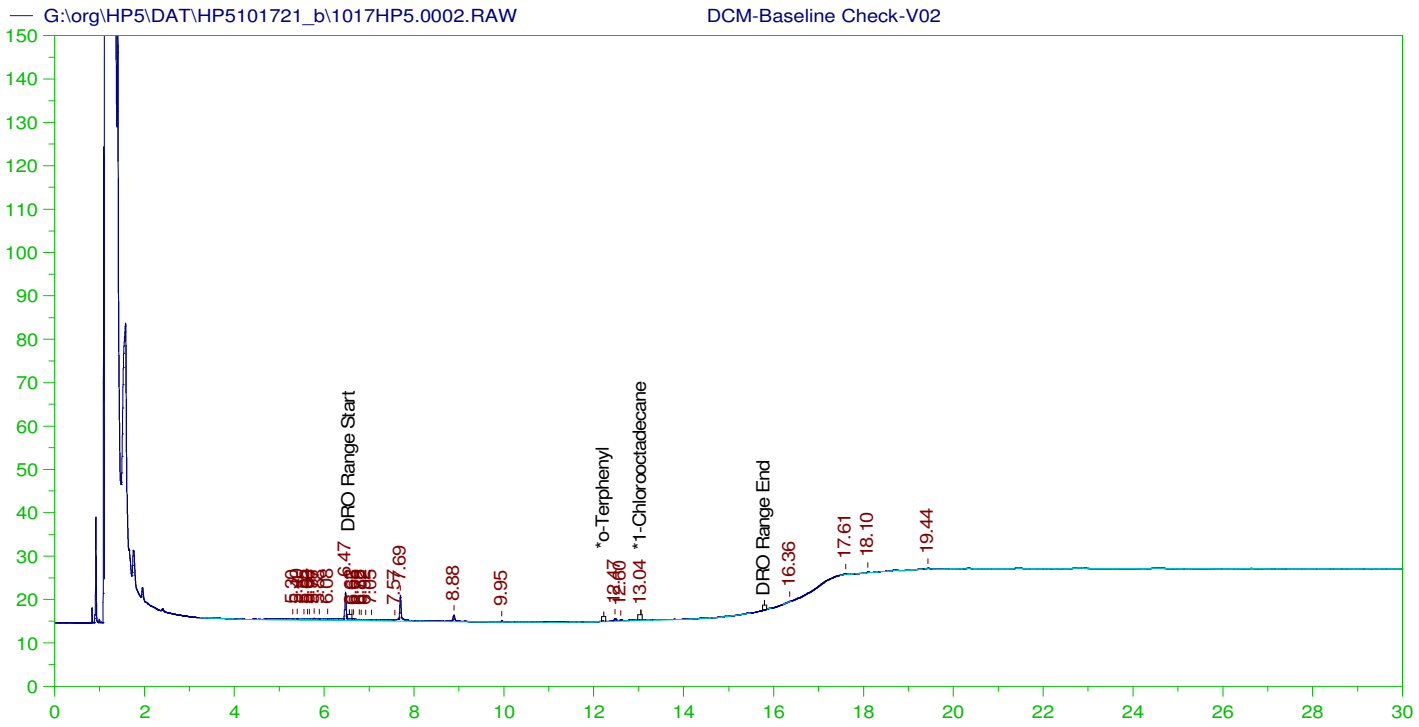
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V01
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0001.RAW
Date & Time Acquired: 10/17/2021 12:40:02 PM
Method File: G:\Org\HP5\Methods\DR_8015-HS-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108Hs.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.51 to 15.85

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.178	200.	.522	.26	-
*1-Chlorooctadecane	13.04	200.	1.235	.62	-

DRO Area:571771.5 DRO Amount: 19.41016
TEH Area:639555.1 TEH Amount: 21.71124

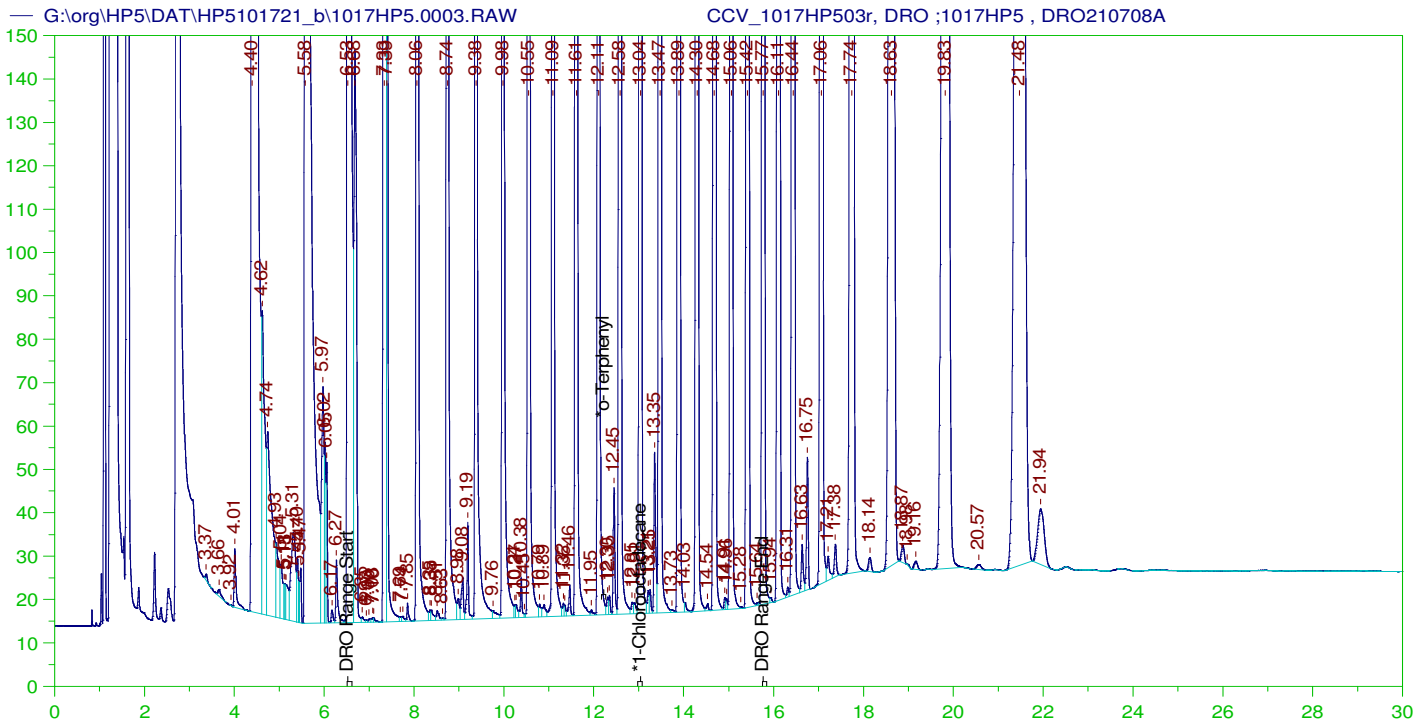


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V02
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0002.RAW
Date & Time Acquired: 10/17/2021 1:22:21 PM
Method File: G:\Org\HP5\Methods\DR_8015-HS-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108Hs.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.51 to 15.85

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.973	200.	.	. -
*1-Chlorooctadecane	13.043	200.	.018	.01 -

DRO Area:58862.56 DRO Amount: 1.998231
TEH Area:105899.4 TEH Amount: 3.595009



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1017HP503r, DRO ;1017HP5 , DRO210708A
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0003.RAW
Date & Time Acquired: 10/17/2021 2:04:53 PM
Method File: G:\Org\HP5\Methods\DR_8015-HS-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108Hs.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.51 to 15.85

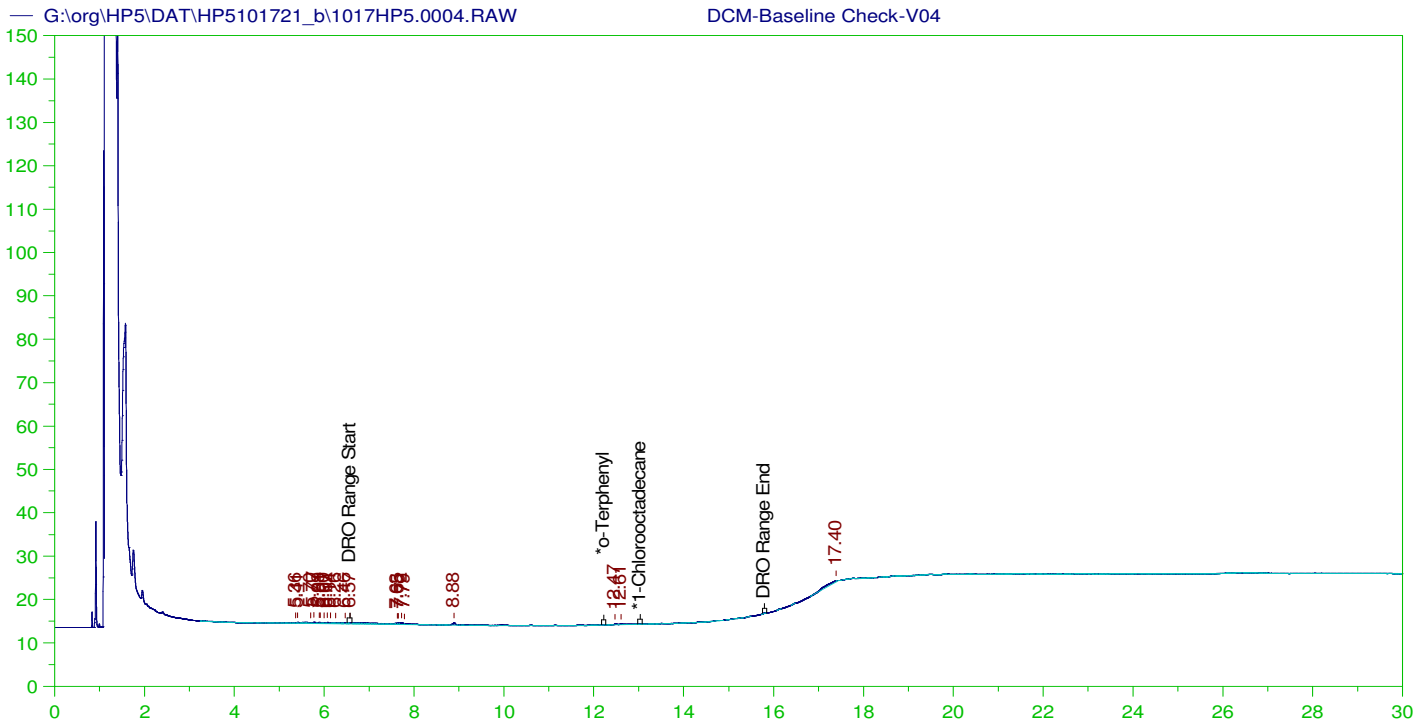
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	29.982	200.	.	.	-
*1-Chlorooctadecane	13.037	200.	255.634	127.82	-

DRO Area:1.592713E+08 DRO Amount: 5406.847
TEH Area:2.370861E+08 TEH Amount: 8048.458

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0003.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8048.46	53.66	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	29.982	200.	.	.	85-115
*1-Chlorooctadecane	13.037	200.	255.634	127.82	85-115



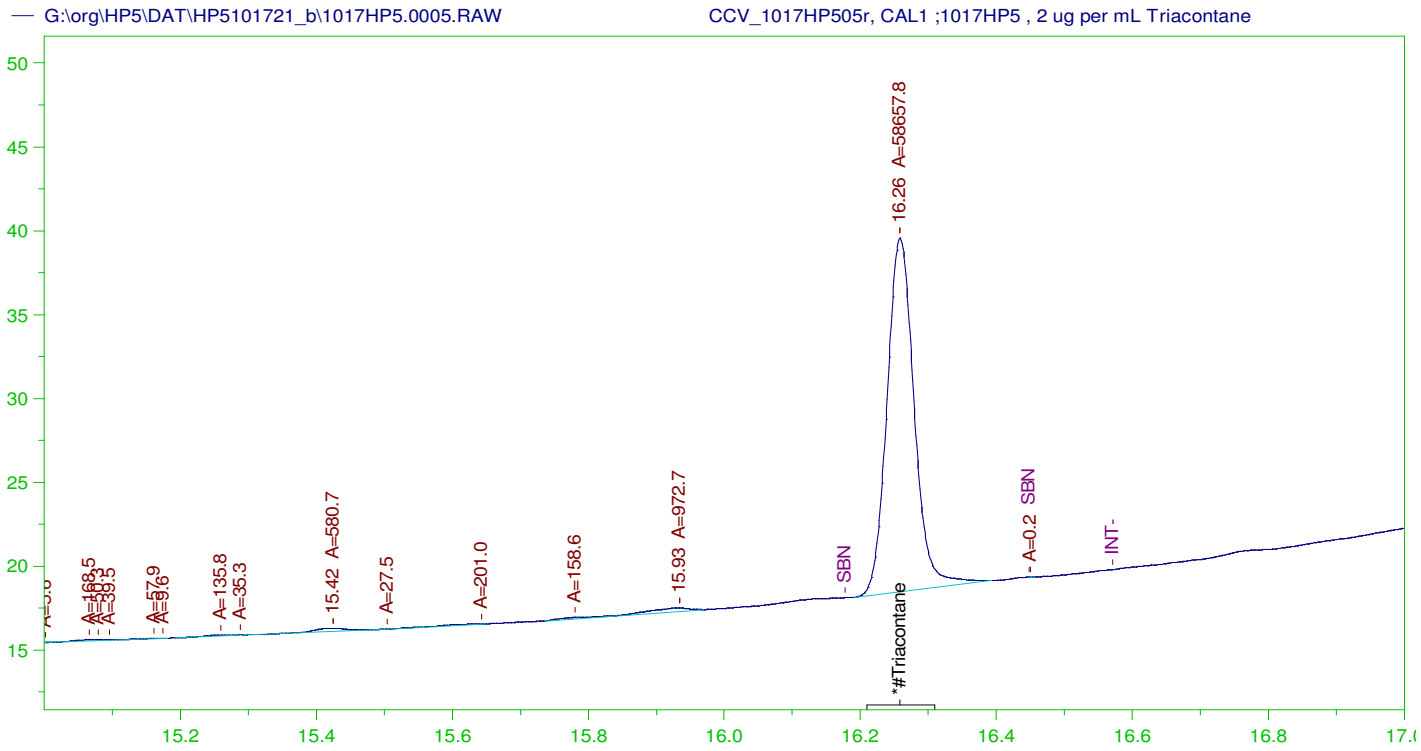
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V04
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0004.RAW
Date & Time Acquired: 10/17/2021 2:47:29 PM
Method File: G:\Org\HP5\Methods\DR_8015-HS-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108Hs.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33
Rt range for Diesel Range Organics: 6.51 to 15.85

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.987	200.	.	.	-
*1-Chlorooctadecane	29.987	200.	.	.	-

DRO Area:32637.46 DRO Amount: 1.107957
TEH Area:75218.02 TEH Amount: 2.553457



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1017HP505r, CAL1 ;1017HP5 , 2 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0005.RAW
Date & Time Acquired: 10/17/2021 3:30:16 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

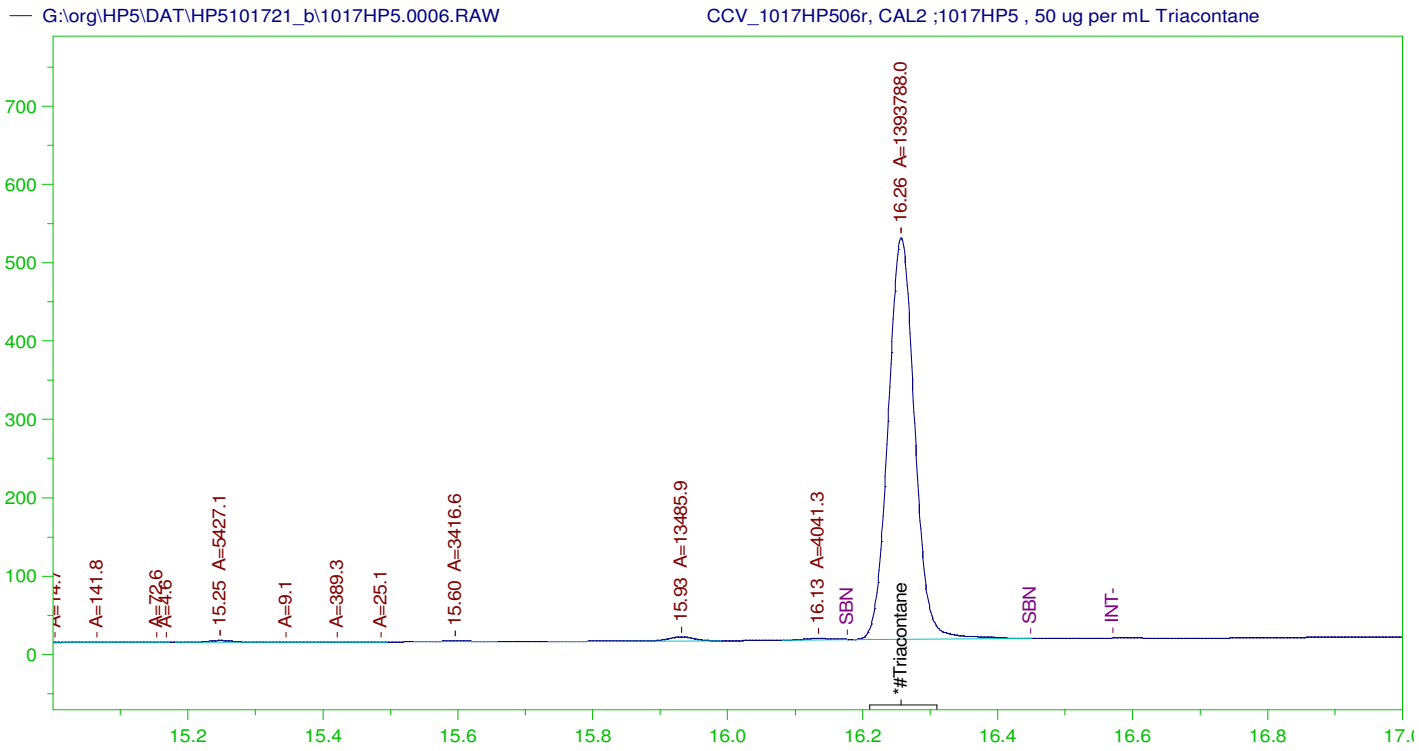
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.258	500.	2.028	.41	-

RRO Area:2747.039 RRO AMOUNT: 9.624412E-02

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0005.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.258	200.	2.028	1.01	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1017HP506r, CAL2 ;1017HP5 , 50 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0006.RAW
Date & Time Acquired: 10/17/2021 4:12:57 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

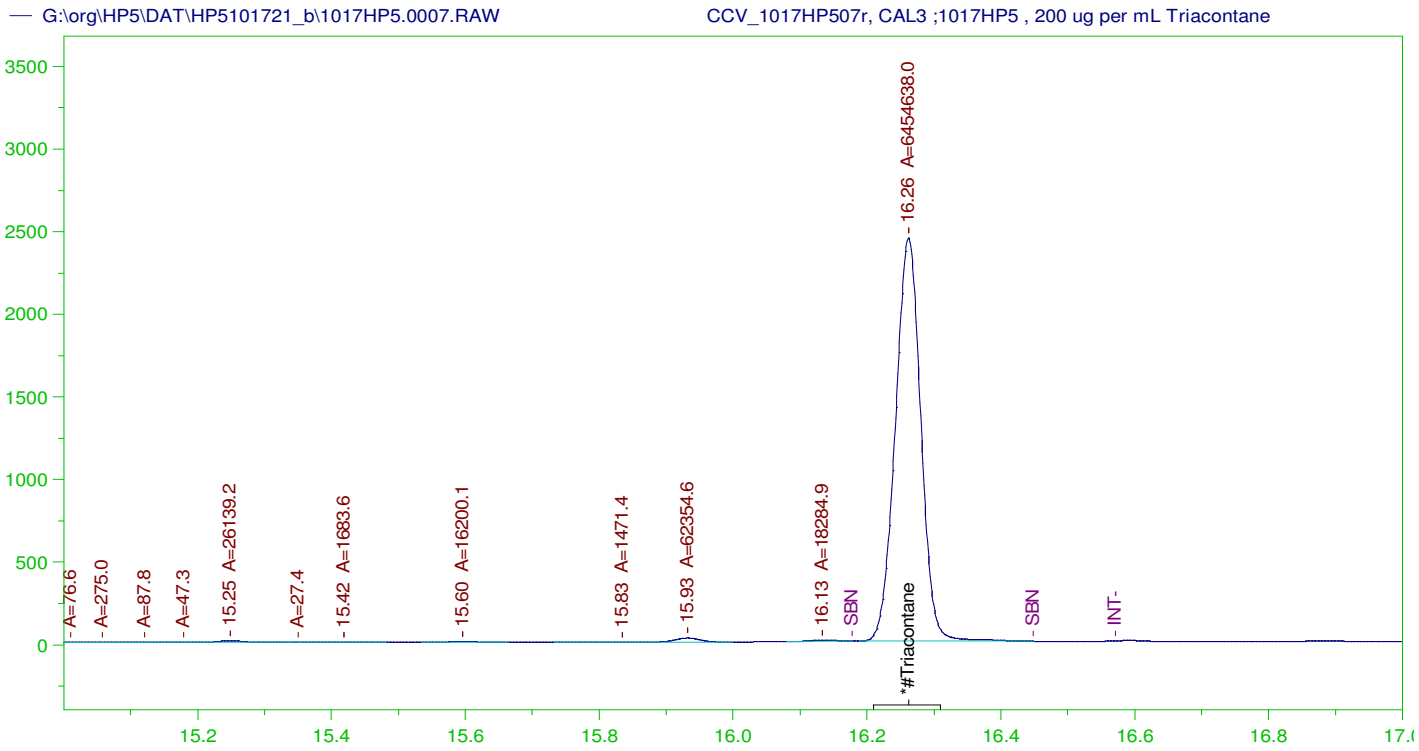
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.257	500.	48.178	9.64	-

RRO Area:45902.25 RRO AMOUNT: 1.608212

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0006.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.257	200.	48.178	24.09	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1017HP507r, CAL3 ;1017HP5 , 200 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0007.RAW
Date & Time Acquired: 10/17/2021 4:55:33 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

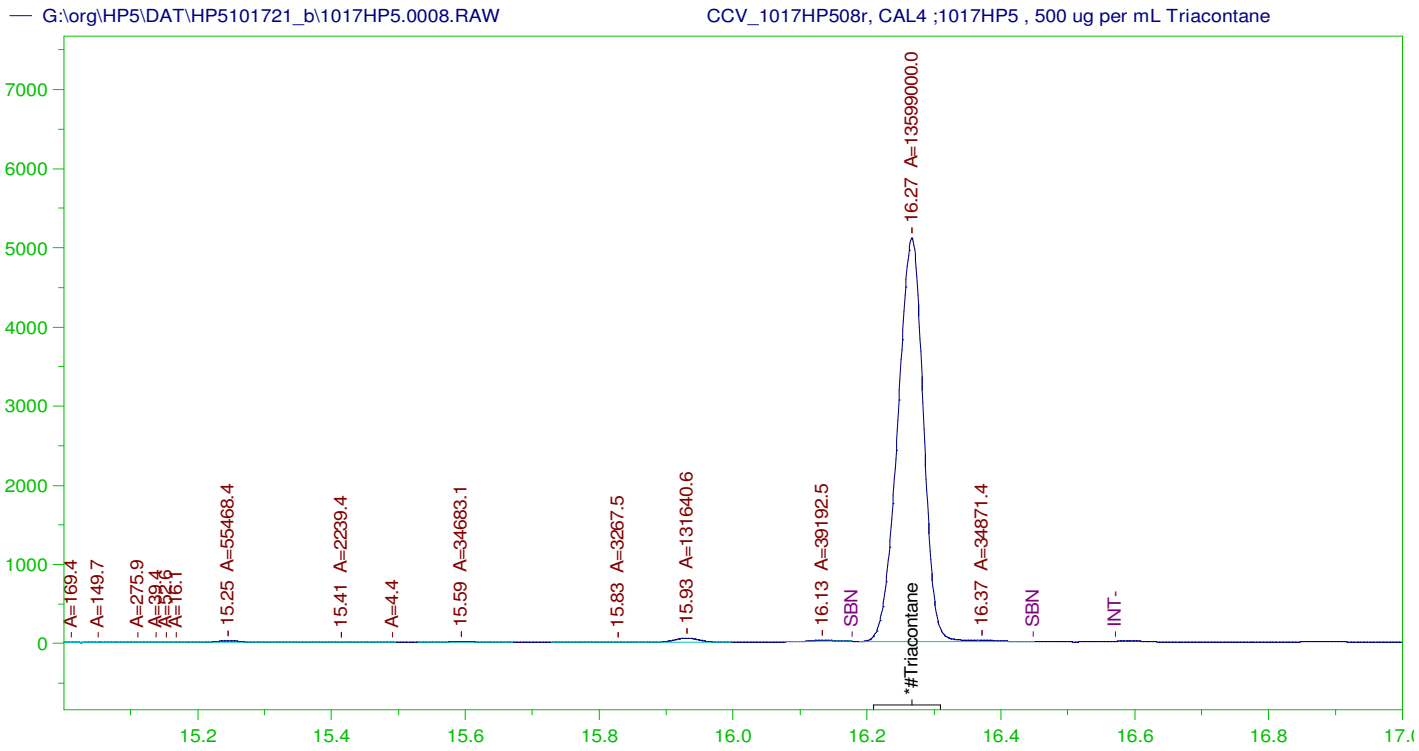
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.262	500.	223.111	44.62	-

RRO Area:219754.5 RRO AMOUNT: 7.699227

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0007.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.262	200.	223.111	111.56	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1017HP508r, CAL4 ;1017HP5 , 500 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0008.RAW
Date & Time Acquired: 10/17/2021 5:38:10 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

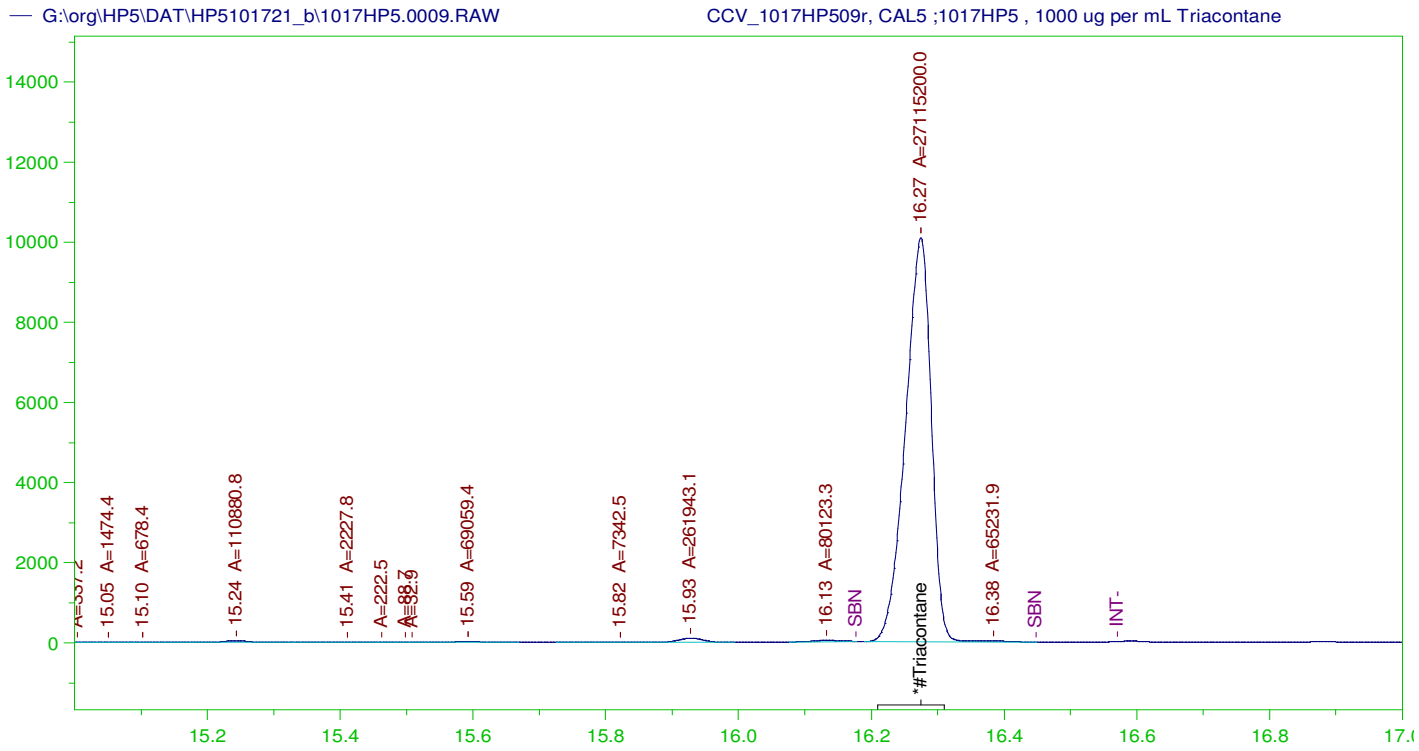
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.267	500.	470.063	94.01	-

RRO Area:496538.4 RRO AMOUNT: 17.39651

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0008.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.267	200.	470.063	235.03	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1017HP509r, CAL5 ;1017HP5 , 1000 ug per mL Triacontane
Raw File: G:\org\HP5\DAT\HP5101721_b\1017HP5.0009.RAW
Date & Time Acquired: 10/17/2021 6:20:57 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AA-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AA.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.275	500.	937.265	187.45	-

RRO Area:979213.9 RRO AMOUNT: 34.30733

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0009.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.275	200.	937.265	468.63	75-125

Write Sequence	Insert Entries(Have the first cell for entries selecte								
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integration
G:\org\HP5\DAT\HP5101721_b\1017HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No integration
G:\org\HP5\DAT\HP5101721_b\1017HP5.02r	DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No integration
G:\org\HP5\DAT\HP5101721_b\1017HP5.03r	CCV_1017HP503r, DRO ;1017HP5 , DRO210708A	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No integration
G:\org\HP5\DAT\HP5101721_b\1017HP5.04r	DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No integration
G:\org\HP5\DAT\HP5101721_b\1017HP5.05r	CCV_1017HP505r, CAL1 ;1017HP5 , 2 ug per mL Triacontane (10 uL of Cal3 + 990 uL DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0
G:\org\HP5\DAT\HP5101721_b\1017HP5.06r	CCV_1017HP506r, CAL2 ;1017HP5 , 50 ug per mL Triacontane (100 uL Cal4 + 900 uL of DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0
G:\org\HP5\DAT\HP5101721_b\1017HP5.07r	CCV_1017HP507r, CAL3 ;1017HP5 , 200 ug per mL Triacontane (100uL of Cal5 + 400 uL DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0
G:\org\HP5\DAT\HP5101721_b\1017HP5.08r	CCV_1017HP508r, CAL4 ;1017HP5 , 500 ug per mL Triacontane (250uL of Cal5 + 250 uL DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0
G:\org\HP5\DAT\HP5101721_b\1017HP5.09r	CCV_1017HP509r, CAL5 ;1017HP5 , 1000 ug per mL Triacontane (500 uL 2000 ug/mL Triacontane DRO211006A + 500 DCM(14354)	G:\Org\HP5\Methods\DS_ORO-AA-L0.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.18 and slightly after the surrogate peak at 16.45 and scaling showing surrogate peak from 15.0-17.0

Digitally signed by
Ann Nebel
Date: 2021.10.25 17:42:58 -06:00

PREP BATCH REPORT

Prep Code: **HC-3520-DRO** Technician: **Jillian L Bostwick** Prep Start Date: **12/13/2021 1:18:25 P**

Prep Batch **162151** Prep Temp **NA °C** Batch Units: **ML** Prep End Date: **12/14/2021 11:10:00 A**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-162151			1000	0	0	1.00	0.001		12/13/2021	12/14/2021
Start time: 1:07 PM, 12/13/2021. End time: 12/14/2021 at 7:10 AM. SGT by ALN on 12/15/2021 was to remainder of sample.										
LCS-162151			1000	0	0	1.00	0.001		12/13/2021	12/14/2021
All bottles were completely used, defaced and disposed of on 12/13/2021. SGT by ALN on 12/15/2021 was to remainder of sample.										
LCSD-162151			1000	0	0	1.00	0.001		12/13/2021	12/14/2021
SGT by ALN on 12/15/2021 was to remainder of sample.										
LCS-162151-RRO			1000	0	0	1.00	0.001		12/13/2021	12/14/2021
SGT by ALN on 12/15/2021 was to remainder of sample.										
LCSD-162151-RRO			1000	0	0	1.00	0.001		12/13/2021	12/14/2021
SGT by ALN on 12/15/2021 was to remainder of sample.										
B21121019-001B	Ground Water	2	1020	0	0	1.00	0.00098		12/13/2021	12/14/2021
Bottle 1/2 Clear SGT by ALN on 12/15/2021 was to remainder of sample.										
B21121019-001BMS	Ground Water	2	1050	0	0	1.00	0.000952		12/13/2021	12/14/2021
Bottle 2/2 Clear SGT by ALN on 12/15/2021 was to remainder of sample.										
B21121019-002B	Ground Water	2	1040	0	0	1.00	0.000962		12/13/2021	12/14/2021
Bottle 1/2. Clear, orange sediment SGT by ALN on 12/15/2021 was to remainder of sample.										
B21121019-002BMS-RRO	Ground Water	2	1040	0	0	1.00	0.000957		12/13/2021	12/14/2021
Bottle 2/2. Clear, orange sediment SGT by ALN on 12/15/2021 was to remainder of sample.										
B21121001-001B	Ground Water	2	1030	0	0	1.00	0.000971		12/13/2021	12/14/2021
Bottle 1/2 Clear SGT by ALN on 12/15/2021 was to remainder of sample.										
B21121001-002B	Ground Water	2	1030	0	0	1.00	0.000971		12/13/2021	12/14/2021
Bottle 1/2 Clear SGT by ALN on 12/15/2021 was on a 5x dilution of sample.										
B21121012-001B	Ground Water	2	1040	0	0	1.00	0.000962		12/13/2021	12/14/2021
Bottle 1/2 Clear SGT by ALN on 12/15/2021 was to remainder of sample.										
B21121014-001B	Ground Water	2	1030	0	0	1.00	0.000971		12/13/2021	12/14/2021
Bottle 1/2 Clear										
B21121019-003B	Ground Water	2	1040	0	0	1.00	0.000962		12/13/2021	12/14/2021
Bottle 1/2. Clear, orange sediment SGT by ALN on 12/15/2021 was to remainder of sample.										

Number	Reagent Name	Exp Date	
11	Carbon Filter Water	1/1/2023	
13379	PTFE Boiling Stones 27463755	12/30/2025	
14206	pH-indicator Strips 0-14 HC160347	8/26/2026	
14563	4ML, Amber Vial, 171001407106	11/30/2022	
14596	Dichloromethane EC757	10/20/2023	

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP211207 14244	DCM RINSED FILTER PAPER	all	1	4/6/2026
Sulfate 12/10/21 (	Baked Sodium Sulfate	all	Varies	11/29/2026
DRO211129A	Triacontane SURR 1000 ug/mL	all except LCS/D,	100 uL	4/6/2026
DRO211213A	OTP only SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
DRO211012B	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS	100 uL	11/5/2023
DRO210902A	50,000 ug/mL Oil Std for RRO-In D	LCS/D-RRO, MS-	100 uL	9/1/2026
SG211201(13376)	Baked Silica Gel	SGT	5g	2/28/2030

PREP BATCH REPORT

Prep Batch **162151** Prep Code: **HC-3520-DRO** Prep Temp **NA °C** Technician: **Jillian L Bostwick** Batch Units: **ML** Prep Start Date: **12/13/2021 1:18:25 P** Prep End Date: **12/14/2021 11:10:00 A**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
B21121020-001B	Ground Water	2	1050	0	0	1.00	0.000952		12/13/2021	12/14/2021
Bottle 1/2 Clear	SGT by ALN on 12/15/2021 was to remainder of sample.									
B21121020-002B	Ground Water	2	1030	0	0	1.00	0.000971		12/13/2021	12/14/2021
Bottle 1/2 Clear	SGT by ALN on 12/15/2021 was to remainder of sample.									

Number	Reagent Name	Exp Date	
11	Carbon Filter Water	1/1/2023	
13379	PTFE Boiling Stones 27463755	12/30/2025	
14206	pH-indicator Strips 0-14 HC160347	8/26/2026	
14563	4ML, Amber Vial, 171001407106	11/30/2022	
14596	Dichloromethane EC757	10/20/2023	

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP211207 14244	DCM RINSED FILTER PAPER	all	1	4/6/2026
Sulfate 12/10/21 (	Baked Sodium Sulfate	all	Varies	11/29/2026
DRO211129A	Triacontane SURR 1000 ug/mL	all except LCS/D,	100 uL	4/6/2026
DRO211213A	OTP only SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
DRO211012B	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS	100 uL	11/5/2023
DRO210902A	50,000 ug/mL Oil Std for RRO-In D	LCS/D-RRO, MS-	100 uL	9/1/2026
SG211201(13376)	Baked Silica Gel	SGT	5g	2/28/2030

Energy Laboratories Inc

ANALYTICAL RUN Summary

29-Dec-21

Run ID GCFID-HP5-B_211214A

Run Start Date: 12/14/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments: DRO-8015-ICAL information is in Index GCFID-HP5-B_211102A 8015C OIL range calibration GCFID-HP5-B_210218B

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211201A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026
DRO211207A	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO211214A	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924588	CCV_1214HP50	HC-8015-DRO-	CCV		12/14/2021 9:45:	1	R371804		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.81772021		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L		0.2118351		0.2	0	0	0.000336	0.002	0	106%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924589	CCV_1214HP50	HC-8015-DRO-	CCV		12/14/2021 10:2	1	R371804		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		15.02692		15	0	0	0.0389	0.3	0	100%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.58372		15	0	0	0.0749	0.3	50	104%	80	120	0%	
o-Terphenyl	S	mg/L		0.1997195		0.2	0	0	0.000429	0.002	0	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924590	LCS-162151	HC-8015-DRO-	LCS-DOD		12/14/2021 11:5	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924590	LCS-162151	HC-8015-DRO-	LCS-DOD		12/14/2021 11:5	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.07567		15	0	0	0.0389	0.3	0	87%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		13.98902		15	0	0	0.0749	0.3	50	93%	60	132	0%	
o-Terphenyl	S	mg/L		0.1833512		0.2	0	0	0.000429	0.002	0	92%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924591	LCSD-162151	HC-8015-DRO-	LCSD-DOD		12/14/2021 12:4	1	162151	12/13/2021	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.5908		15	0	13.07567	0.0389	0.3	0	91%	36	132	4%	
Total Extractable Hydrocarbons	A	mg/L		14.538		15	0	13.98902	0.0749	0.3	50	97%	60	132	4%	
o-Terphenyl	S	mg/L		0.1912832		0.2	0	0	0.000429	0.002	0	96%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924592	MB-162151	HC-8015-DRO-	MBLK		12/14/2021 1:25:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0389	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0		0	0	0	0.0879	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0749	0.15	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0982		0.1	0	0	0.000336	0.002	0	98%	50	150	0%	
o-Terphenyl	S	mg/L		0.186421		0.2	0	0	0.000429	0.002	0	93%	56	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924593	B21121019-001	HC-8015-DRO-	MS-DOD		12/14/2021 2:51:	1	162151	12/13/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.76678		14.28	0.1226268	0	0.0370328	0.3	0	96%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		14.98018		14.28	0.4056753	0	0.0713048	0.3	50	102%	60	132	0%	
o-Terphenyl	S	mg/L		0.1831038		0.1904	0	0	0.0004084	0.002	0	96%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924594	B21121019-003	HC-8015-DRO-	SAMP		12/14/2021 4:17:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924594	B21121019-003	HC-8015-DRO-	SAMP		12/14/2021 4:17:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.2526107		0	0	0	0.0374218	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.45146203		0	0	0	0.0845598	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		0.8102295		0	0	0	0.0720538	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0966		0.0962	0	0	0.0003232	0.001924	0	100%	50	150	0%	
o-Terphenyl	S	mg/L		0.1666594		0.1924	0	0	0.0004127	0.002	0	87%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924595	B21121019-002	HC-8015-DRO-	SAMP		12/14/2021 5:48:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.03887578		0	0	0	0.0374218	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.16520701		0	0	0	0.0845598	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.240315		0	0	0	0.0720538	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.0938		0.0962	0	0	0.0003232	0.001924	0	98%	50	150	0%	
o-Terphenyl	S	mg/L		0.1764355		0.1924	0	0	0.0004127	0.002	0	92%	56	125	0%	
TEH(Oil Range)	X	mg/L		0.23463553		0	0	0	0.0845598	0.3	0	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924596	B21121019-002	HC-8015-DRO-	MS-DOD		12/14/2021 6:32:	1	162151	12/13/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.95337200		4.785	0.2346355	0	0.0841203	0.3	0	99%	41	113	0%	
n-Triacontane	S	mg/L		0.0938		0.0957	0	0	0.0003216	0.002	0	98%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924597	CCV_1214HP51	HC-8015-DRO-	CCV		12/14/2021 7:59:	1	R371804		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.89551855		5	0	0	0.0879	0.3	0	98%	80	120	0%	
n-Triacontane	S	mg/L		0.2081693		0.2	0	0	0.000336	0.002	0	104%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924598	CCV_1214HP51	HC-8015-DRO-	CCV		12/14/2021 8:42:	1	R371804		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		15.03533		15	0	0	0.0389	0.3	0	100%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.58232		15	0	0	0.0749	0.3	50	104%	80	120	0%	
o-Terphenyl	S	mg/L		0.2014108		0.2	0	0	0.000429	0.002	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924599	B21121014-001	HC-8015-DRO-	SAMP		12/14/2021 10:0	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0377719	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0		0	0	0	0.0853509	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0727279	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.0943		0.0971	0	0	0.0003263	0.001942	0	97%	50	150	0%	
o-Terphenyl	S	mg/L		0.1808158		0.1942	0	0	0.0004166	0.002	0	93%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924600	B21121020-001	HC-8015-DRO-	SAMP		12/14/2021 11:3	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.2859029		0	0	0	0.0370328	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.22857220		0	0	0	0.0836808	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.5929129		0	0	0	0.0713048	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0958		0.0952	0	0	0.0003199	0.001904	0	101%	50	150	0%	
o-Terphenyl	S	mg/L		0.1822403		0.1904	0	0	0.0004084	0.002	0	96%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924601	B21121020-002	HC-8015-DRO-	SAMP		12/15/2021 1:02:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		1.651752		0	0	0	0.0377719	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.34434649		0	0	0	0.0853509	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		2.076744		0	0	0	0.0727279	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0895		0.0971	0	0	0.0003263	0.001942	0	92%	50	150	0%	
o-Terphenyl	S	mg/L		0.1697766		0.1942	0	0	0.0004166	0.002	0	87%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924602	B21121001-001	HC-8015-DRO-	SAMP		12/15/2021 2:28:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.3523605		0	0	0	0.0377719	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.66668063		0	0	0	0.0853509	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		1.19277		0	0	0	0.0727279	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0961		0.0971	0	0	0.0003263	0.001942	0	99%	50	150	0%	
o-Terphenyl	S	mg/L		0.1082457		0.1942	0	0	0.0004166	0.002	0	56%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924603	B21121001-002	HC-8015-DRO-	SAMP		12/15/2021 3:54:	10	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		141.5429		0	0	0	0.377719	2.913	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		144.5599		0	0	0	0.727279	2.913	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0945		0.0971	0	0	0.0032626	0.01942	0	97%	50	150	0%	
o-Terphenyl	S	mg/L		0.1653261		0.1942	0	0	0.0041656	0.01942	0	85%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924604	CCV_1214HP53	HC-8015-DRO-	CCV		12/15/2021 6:47:	1	R371804		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.06731885		5	0	0	0.0879	0.3	0	101%	80	120	0%	
n-Triacontane	S	mg/L		0.2128065		0.2	0	0	0.000336	0.002	0	106%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14924605	CCV_1214HP53	HC-8015-DRO-	CCV		12/15/2021 7:32:	1	R371804		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		15.3577		15	0	0	0.0389	0.3	0	102%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.91715		15	0	0	0.0749	0.3	50	106%	80	120	0%	
o-Terphenyl	S	mg/L		0.2044643		0.2	0	0	0.000429	0.002	0	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14925656	B21121001-002	HC-8015-DRO-	SAMP		12/15/2021 9:41:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14925656	B21121001-002	HC-8015-DRO-	SAMP		12/15/2021 9:41:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.52726316		0	0	0	0.0853509	0.3	0	0%	0	0	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14925657	B21121012-001	HC-8015-DRO-	SAMP		12/15/2021 11:0	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.04600193		0	0	0	0.0374218	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.08663172		0	0	0	0.0845598	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.1315458		0	0	0	0.0720538	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.0985		0.0962	0	0	0.0003232	0.001924	0	102%	50	150	0%	
o-Terphenyl	S	mg/L		0.1891121		0.1924	0	0	0.0004127	0.002	0	98%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14925658	B21121019-001	HC-8015-DRO-	SAMP		12/15/2021 11:4	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.1226268		0	0	0	0.038122	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40	A	mg/L		0.24266666		0	0	0	0.086142	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.4056753		0	0	0	0.073402	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0925		0.098	0	0	0.0003293	0.00196	0	94%	50	150	0%	
o-Terphenyl	S	mg/L		0.1222417		0.196	0	0	0.0004204	0.002	0	62%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14925744	LCS-162151-RR	HC-8015-DRO-	LCS-DOD		12/15/2021 12:3	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.680336		5	0	0	0.0879	0.3	0	94%	41	113	0%	
n-Triacontane	S	mg/L		0.0949		0.1	0	0	0.000336	0.002	0	95%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14926169	LCSD-162151-R	HC-8015-DRO-	LCSD-DOD		12/15/2021 1:15:	1	162151	12/13/2021	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14926169	LCSD-162151-R	HC-8015-DRO-	LCSD-DOD		12/15/2021 1:15:	1	162151	12/13/2021	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.19566584		5	0	4.680336	0.0879	0.3	0	104%	41	113	10%	
n-Triacontane	S	mg/L		0.0983		0.1	0	0	0.000336	0.002	0	98%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14926170	CCV_1214HP54	HC-8015-DRO-	CCV		12/15/2021 2:40:	1	R371804		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.7865459		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L		0.2077744		0.2	0	0	0.000336	0.002	0	104%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14926333	CCV_1214HP54	HC-8015-DRO-	CCV		12/15/2021 3:23:	1	R371804		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		15.24861		15	0	0	0.0389	0.3	0	102%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.77049		15	0	0	0.0749	0.3	50	105%	80	120	0%	
o-Terphenyl	S	mg/L		0.2020061		0.2	0	0	0.000429	0.002	0	101%	80	120	0%	

Energy Laboratories Inc

ANALYTICAL RUN Summary

29-Dec-21

Run ID GCFID-HP5-B_211214B

Run Start Date:	12/14/2021
Analyst:	Ann Nebel
Ical:	
Column ID:	
Comments:	DRO-8015-ICAL information is in Index GCFID-HP5-B_211102A 8015C OIL range calibration GCFID-HP5-B_210218B

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211201A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026
DRO211207A	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO211214A	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929948	CCV_1214HP54	HC-8015-DRO-	CCV		12/15/2021 6:22:	1	R371919		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.82479443		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L		0.2077679		0.2	0	0	0.000336	0.002	0	104%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929949	CCV_1214HP55	HC-8015-DRO-	CCV		12/15/2021 7:05:	1	R371919		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		14.98542		15	0	0	0.0389	0.3	0	100%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.53623		15	0	0	0.0749	0.3	50	104%	80	120	0%	
o-Terphenyl	S	mg/L		0.1987372		0.2	0	0	0.000429	0.002	0	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929950	LCS-162151	HC-8015-DRO-	LCS-DOD		12/15/2021 8:31:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929950	LCS-162151	HC-8015-DRO-	LCS-DOD		12/15/2021 8:31:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		11.87909		15	0	0	0.0389	0.3	0	79%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		12.67561		15	0	0	0.0329	0.3	0	85%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1714211		0.2	0	0	0.000429	0.002	0	86%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929951	LCSD-162151	HC-8015-DRO-	LCSD-DOD		12/15/2021 9:14:	1	162151	12/13/2021	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		13.1287		15	0	11.87909	0.0389	0.3	0	88%	36	132	10%	
Total Extractable Hydrocarbons (SGT	A	mg/L		13.99176		15	0	12.67561	0.0329	0.3	0	93%	60	132	10%	
o-Terphenyl (SGT)	S	mg/L		0.1887738		0.2	0	0	0.000429	0.002	0	94%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929952	MB-162151	HC-8015-DRO-	MBLK		12/15/2021 9:57:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0389	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0329	0.15	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0821		0.1	0	0	0.000336	0.002	0	82%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.168823		0.2	0	0	0.000429	0.002	0	84%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929953	B21121019-001	HC-8015-DRO-	SAMP		12/15/2021 10:4	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.038122	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.086142	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.032242	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.072		0.098	0	0	0.0003293	0.00196	0	73%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1053457		0.196	0	0	0.0004204	0.00196	0	54%	56	125	0%	S

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929954	B21121019-001	HC-8015-DRO-	MS-DOD		12/15/2021 11:2	1	162151	12/13/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		12.64191		14.28	0	0	0.0370328	0.3	0	89%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		13.44718		14.28	0	0	0.0313208	0.3	0	94%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1768164		0.1904	0	0	0.0004084	0.002	0	93%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929955	B21121019-002	HC-8015-DRO-	SAMP		12/16/2021 12:4	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0374218	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0845598	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0316498	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0848		0.0962	0	0	0.0003232	0.001924	0	88%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1697484		0.1924	0	0	0.0004127	0.001924	0	88%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929956	B21121019-003	HC-8015-DRO-	SAMP		12/16/2021 1:32:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0374218	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0845598	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0316498	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.084		0.0962	0	0	0.0003232	0.001924	0	87%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1589544		0.1924	0	0	0.0004127	0.001924	0	83%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929957	B21121012-001	HC-8015-DRO-	SAMP		12/16/2021 2:58:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0374218	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0845598	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0316498	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0719		0.0962	0	0	0.0003232	0.001924	0	75%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1350441		0.1924	0	0	0.0004127	0.001924	0	70%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929958	B21121019-002	HC-8015-DRO-	MS-DOD		12/16/2021 3:41:	1	162151	12/13/2021	1E+07	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.55636501		4.785	0	0	0.0841203	0.3	0	95%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.0826		0.0957	0	0	0.0003216	0.002	0	86%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929959	CCV_1214HP56	HC-8015-DRO-	CCV		12/16/2021 5:07:	1	R371919		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.86748828		5	0	0	0.0879	0.3	0	97%	80	120	0%	
n-Triacontane	S	mg/L		0.2114697		0.2	0	0	0.000336	0.002	0	106%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929960	CCV_1214HP56	HC-8015-DRO-	CCV		12/16/2021 5:50:	1	R371919		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		15.34575		15	0	0	0.0389	0.3	0	102%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.89106		15	0	0	0.0749	0.3	50	106%	80	120	0%	
o-Terphenyl	S	mg/L		0.2046774		0.2	0	0	0.000429	0.002	0	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929961	B21121020-001	HC-8015-DRO-	SAMP		12/16/2021 7:16:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.05545928		0	0	0	0.0370328	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0836808	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.06814735		0	0	0	0.0313208	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.0869		0.0952	0	0	0.0003199	0.001904	0	91%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1692173		0.1904	0	0	0.0004084	0.001904	0	89%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929962	B21121020-002	HC-8015-DRO-	SAMP		12/16/2021 7:59:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929962	B21121020-002	HC-8015-DRO-	SAMP		12/16/2021 7:59:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.4086917		0	0	0	0.0377719	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0853509	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.4252945		0	0	0	0.0319459	0.3	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0866		0.0971	0	0	0.0003263	0.001942	0	89%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1672653		0.1942	0	0	0.0004166	0.001942	0	86%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929963	B21121001-001	HC-8015-DRO-	SAMP		12/16/2021 8:42:	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0377719	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0853509	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.07819327		0	0	0	0.0319459	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.0856		0.0971	0	0	0.0003263	0.001942	0	88%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1081404		0.1942	0	0	0.0004166	0.001942	0	56%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929964	B21121001-002	HC-8015-DRO-	SAMP		12/16/2021 10:0	10	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		139.6919		0	0	0	0.377719	2.913	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.853509	2.913	0	0%	0	0	0%	UO
Total Extractable Hydrocarbons (SGT	A	mg/L		142.2922		0	0	0	0.319459	2.913	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0874		0.0971	0	0	0.0032626	0.01942	0	90%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1625081		0.1942	0	0	0.0041656	0.01942	0	84%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929965	LCS-162151-RR	HC-8015-DRO-	LCS-DOD		12/16/2021 10:5	1	162151	12/13/2021	0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.68088007		5	0	0	0.0879	0.3	0	94%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.0906		0.1	0	0	0.000336	0.002	0	91%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929966	LCSD-162151-R	HC-8015-DRO-	LCSD-DOD		12/16/2021 12:1	1	162151	12/13/2021	0	1E+07	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.72176170		5	0	4.6808801	0.0879	0.3	0	94%	41	113	1%	
n-Triacontane (SGT)	S	mg/L		0.0887		0.1	0	0	0.000336	0.002	0	89%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929967	CCV_1214HP57	HC-8015-DRO-	CCV		12/16/2021 1:43:	1	R371919		0	0	

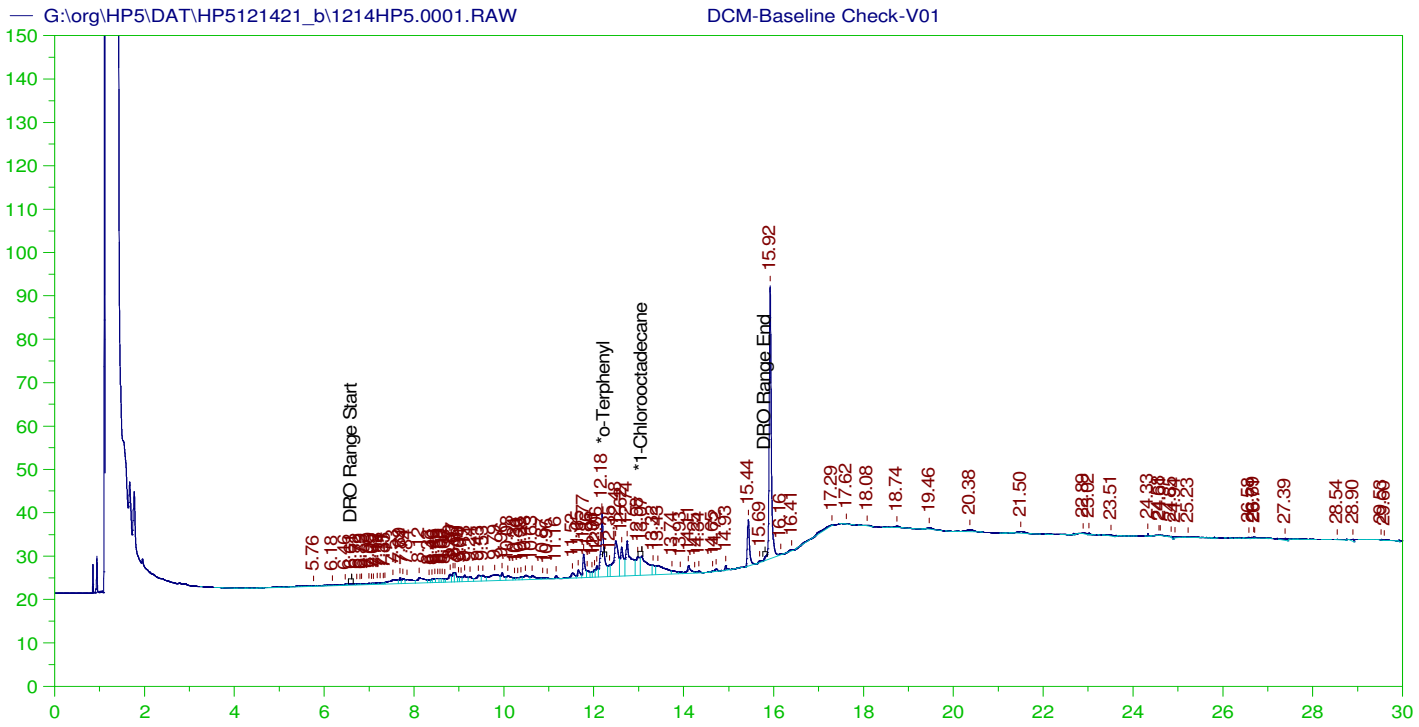
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		4.8945752		5	0	0	0.0879	0.3	0	98%	80	120	0%	
n-Triacontane	S	mg/L		0.2125684		0.2	0	0	0.000336	0.002	0	106%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
14929968	CCV_1214HP57	HC-8015-DRO-	CCV		12/16/2021 2:25:	1	R371919		0	0	

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		15.17644		15	0	0	0.0389	0.3	0	101%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.69944		15	0	0	0.0749	0.3	50	105%	80	120	0%	
o-Terphenyl	S	mg/L		0.2003651		0.2	0	0	0.000429	0.002	0	100%	80	120	0%	

Write Sequence	Insert Entries(Have the first cell for entries selecte							
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
G:\org\HP5\DAT\HP5121421_b\1214HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.02r	DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.03r	MARKER_1214HP503r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.04r	CCV_1214HP504r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.05r	CCV_1214HP505r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.06r	DCM-Baseline Check-V06	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.07r	LCS-162151 ;1214HP5 ,	G:\Org\HP5\Methods\D3_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.08r	LCSD-162151 ;1214HP5 ,	G:\Org\HP5\Methods\D3_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.09r	MB-162151 ;1214HP5 ,	G:\Org\HP5\Methods\DR_8015-C24T-IH-L%.met G:\Org\HP5\Methods\DR_OROS-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.11r	B21121019-001BMS ;1214HP5 ,	G:\Org\HP5\Methods\D3_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1050	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.12r	DCM-Baseline Check-V12	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.13r	B21121019-003B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-121413-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121413-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.14r	DCM-Baseline Check-V14	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.15r	B21121019-002B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-121415-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121415-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.16r	B21121019-002BMS-RRO ;1214HP5 ,	G:\Org\HP5\Methods\D3_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1045	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.17r	MARKER_1214HP517r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.18r	CCV_1214HP518r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.19r	CCV_1214HP519r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.20r	DCM-Baseline Check-V20	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.21r	B21121014-001B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-C24T-IH-L%.met G:\Org\HP5\Methods\DR_OROS-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.22r	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.23r	B21121020-001B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-121423-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121423-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1050	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.24r	DCM-Baseline Check-V24	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.25r	B21121020-002B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-121423-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121423-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.26r	DCM-Baseline Check-V26	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.27r	B21121001-001B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-121413-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121413-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.28r	DCM-Baseline Check-V28	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.29r	B21121001-002B ;1214HP5 , $HC-8015-DRO-W, ,(1,10)	G:\Org\HP5\Methods\DR_8015-121429-IH-L%.met G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1030	10	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.30r	DCM-Baseline Check-V30	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.31r	B21121012-001B ;1214HP5 , $HC-8015-DRO-W, ,(1,10) Needs rr udiluted	G:\Org\HP5\Methods\DR_8015-C24T-IH-L0.met	1040	10	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.32r	MARKER_1214HP532r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.33r	CCV_1214HP533r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.34r	CCV_1214HP534r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.35r	DCM-Baseline Check-V35	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.36r	B21121012-001B ;1214HP5 , $HC-8015-DRO-W, Needs RR baseline rise	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.37r	B21121001-002B ;1214HP5 , $HC-8015-DRO-W, RR for oil	G:\Org\HP5\Methods\D3_OROS-121437-AI-L%.MET	1030	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.38r	DCM-Baseline Check-V38	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.39r	B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR	G:\Org\HP5\Methods\DR_8015-121439-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121439-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.40r	B21121019-001B ;1214HP5 , $HC-8015-DRO-W, RR	G:\Org\HP5\Methods\D3_8015-121440-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121440-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.41r	LCS-162151-RRO ;1214HP5 ,	G:\Org\HP5\Methods\D3_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.42r	LCSD-162151-RRO ;1214HP5 ,	G:\Org\HP5\Methods\D3_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-121442-AI-L%.MET	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.43r	MARKER_1214HP543r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.44r	CCV_1214HP544r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.45r	CCV_1214HP545r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1	1	1	1	0

Write Sequence	Insert Entries(Have the first cell for entries selecte							
Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
G:\org\HP5\DAT\HP5121421_b\1214HP5.46r	DCM-Baseline Check-V46	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.47r	DCM-Baseline Check-V47	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.48r	MARKER_1214HP548r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214a.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.49r	CCV_1214HP549r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.50r	CCV_1214HP550r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.51r	DCM-Baseline Check-V51	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.52r	LCS-162151 ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.53r	LCSD-162151 ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_8015-121453-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.54r	MB-162151 ;1214HP5 , SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.55r	B21121019-001B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.56r	B21121019-001BMS ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1050	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.57r	DCM-Baseline Check-V57	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.58r	B21121019-002B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.59r	B21121019-003B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.60r	DCM-Baseline Check-V60	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.61r	B21121012-001B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.62r	B21121019-002BMS-RRO ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1045	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.63r	MARKER_1214HP563r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214a.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.64r	CCV_1214HP564r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.65r	CCV_1214HP565r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.66r	DCM-Baseline Check-V66	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.67r	B21121020-001B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1050	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.68r	B21121020-002B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.69r	B21121001-001B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\D3_8015-II-L%.met G:\Org\HP5\Methods\D3_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.70r	DCM-Baseline Check-V70	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.71r	B21121001-002B ;1214HP5 , $HC-8015-DRO-W, SGT,(1,10)	G:\Org\HP5\Methods\DR_8015-121471-II-L%.met G:\Org\HP5\Methods\DR_OROS-121471-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-121471-C24T-II-L#.met	1030	10	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.72r	LCS-162151-RRO ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.73r	DCM-Baseline Check-V73	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.74r	LCSD-162151-RRO ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1000	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.75r	MARKER_1214HP575r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214a.met	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.76r	CCV_1214HP576r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5121421_b\1214HP5.77r	CCV_1214HP577r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1	1	1	1	0



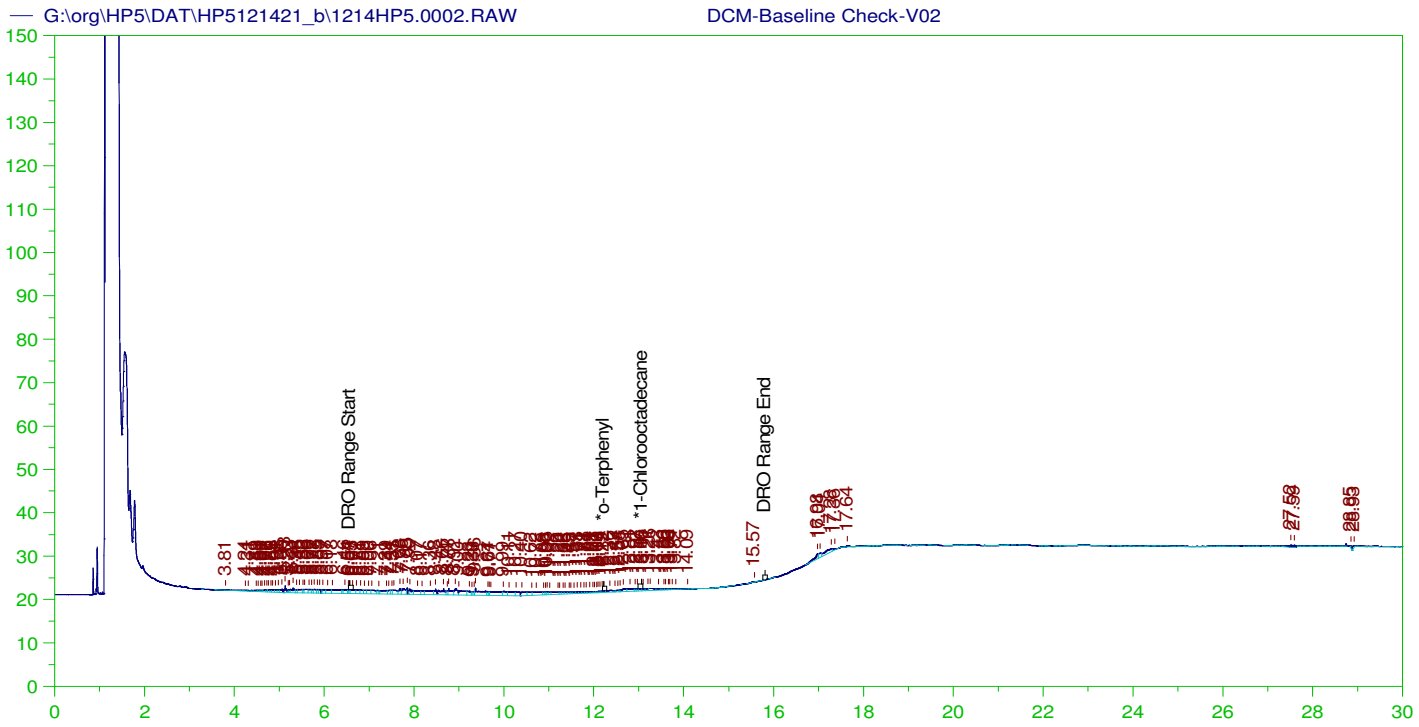
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V01
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0001.RAW
Date & Time Acquired: 12/14/2021 7:36:47 AM
Method File: G:\Org\HP5\Methods\DR_8015-IB-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	29.92	200.	.	.	-
*1-Chlorooctadecane	13.07	200.	1.351	.68	-

DRO Area:636388.1 DRO Amount: 20.2974
TEH Area:920420.9 TEH Amount: 29.35653



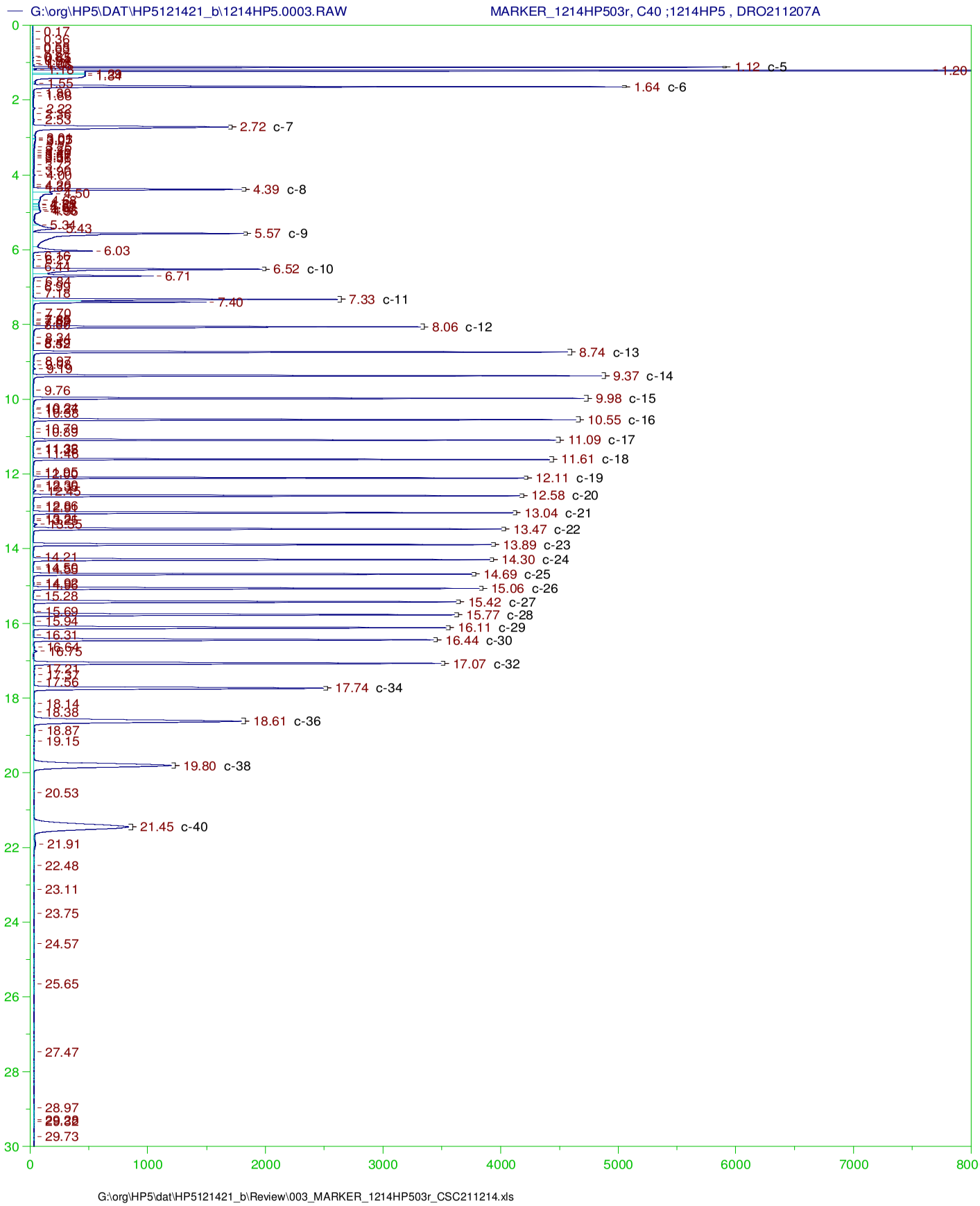
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V02
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0002.RAW
Date & Time Acquired: 12/14/2021 8:19:47 AM
Method File: G:\Org\HP5\Methods\DR_8015-IB-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.219	200.	.028	.01	-
*1-Chlorooctadecane	13.061	200.	.062	.03	-

DRO Area:284943.7 DRO Amount: 9.088186
TEH Area:408221.9 TEH Amount: 13.02011


G:\org\HP5\DAT\HP5121421_b\1214HP5.0003.RAW
MARKER_1214HP503r, C40 ;1214HP5 , DRO211207A
1.12 c-5
1.64 c-6
2.72 c-7
4.39 c-8
5.57 c-9
6.52 c-10
7.33 c-11
8.06 c-12
8.74 c-13
9.37 c-14
9.98 c-15
10.55 c-16
11.09 c-17
11.61 c-18
12.11 c-19
12.58 c-20
13.04 c-21
13.47 c-22
13.89 c-23
14.30 c-24
14.69 c-25
15.06 c-26
15.42 c-27
15.77 c-28
16.11 c-29
16.44 c-30
17.07 c-32
17.74 c-34
18.61 c-36
19.80 c-38
21.45 c-40
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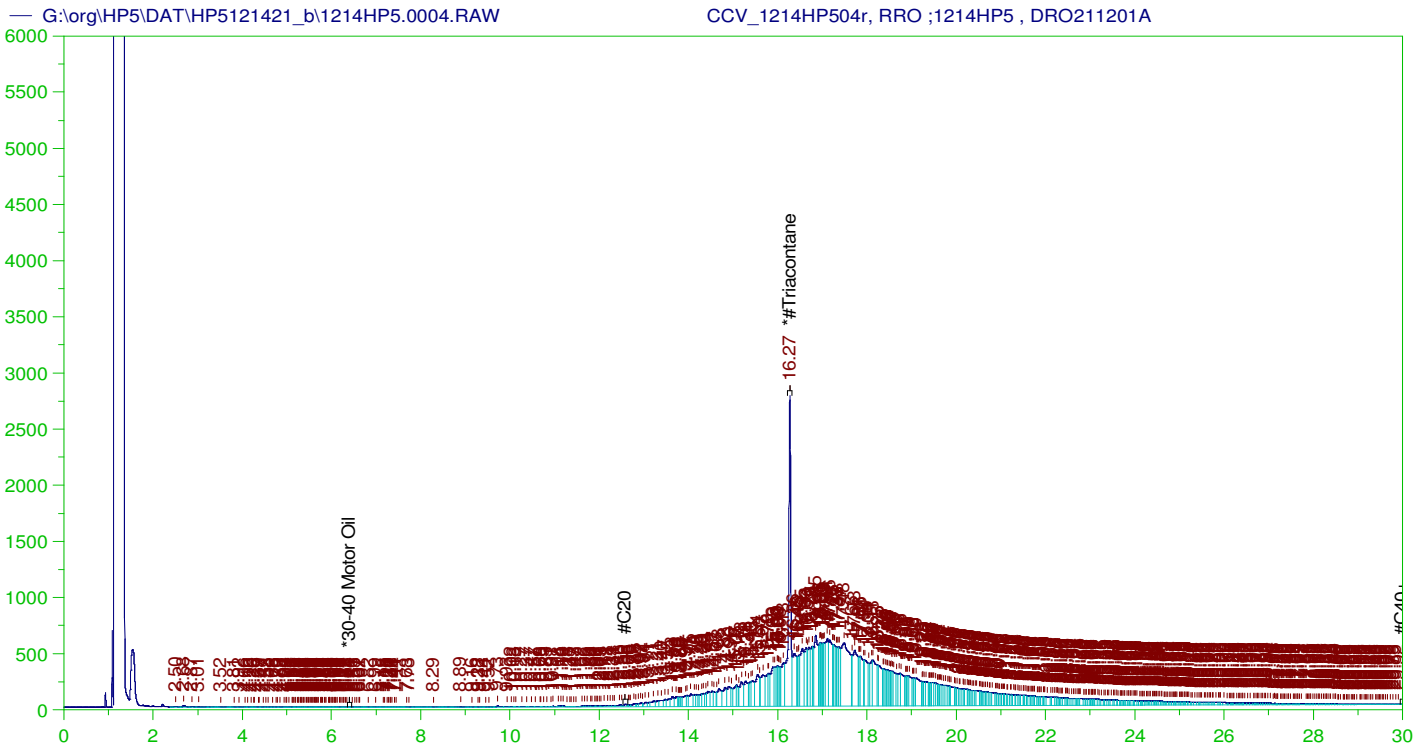


RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP504r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0004.RAW
Date & Time Acquired: 12/14/2021 9:45:54 AM
Method File: G:\Org\HP5\Methods\DC_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.269	500.	360.627	72.13	-

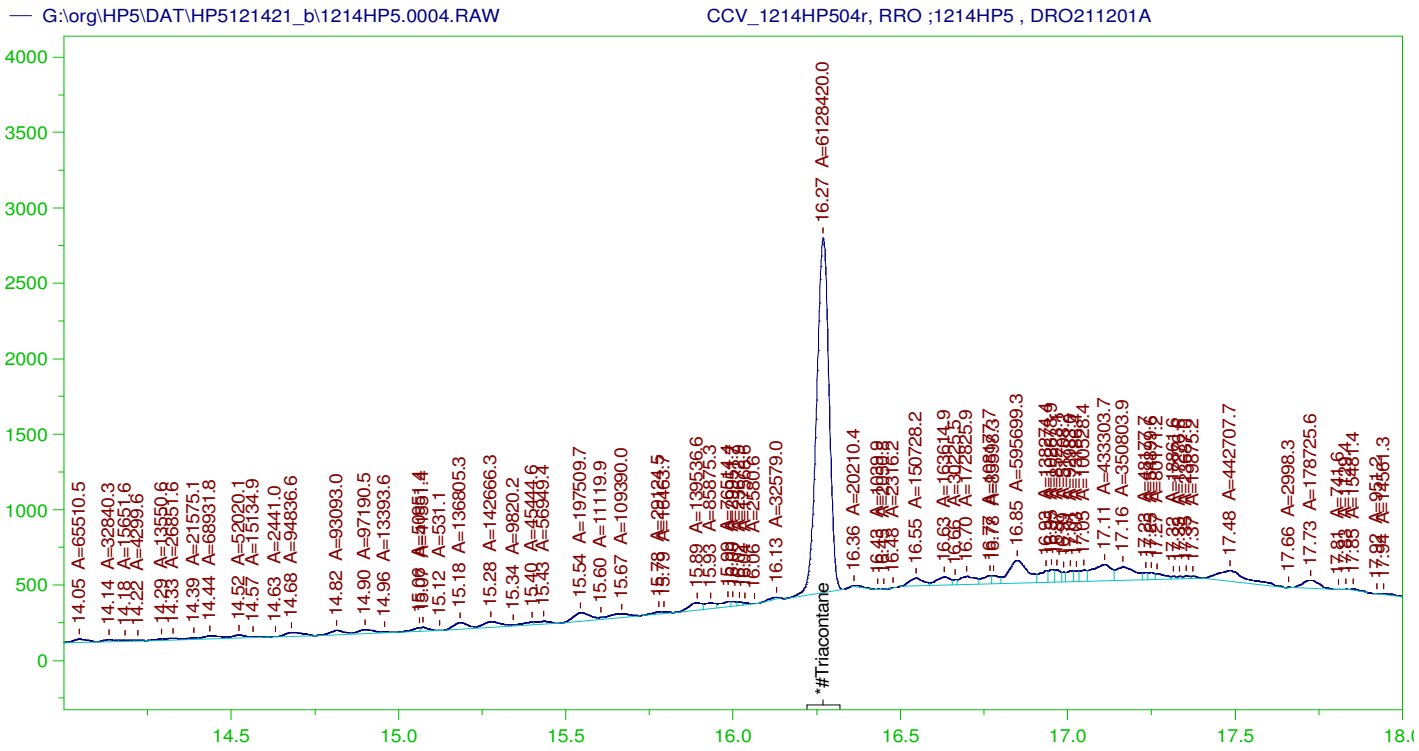
~~RRO~~ TEH (Oil Range) Area:1.375093E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4817.72

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0004.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.023	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	360.627	180.31	75-125

AMN 01/07/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP504r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0004.RAW
Date & Time Acquired: 12/14/2021 9:45:54 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

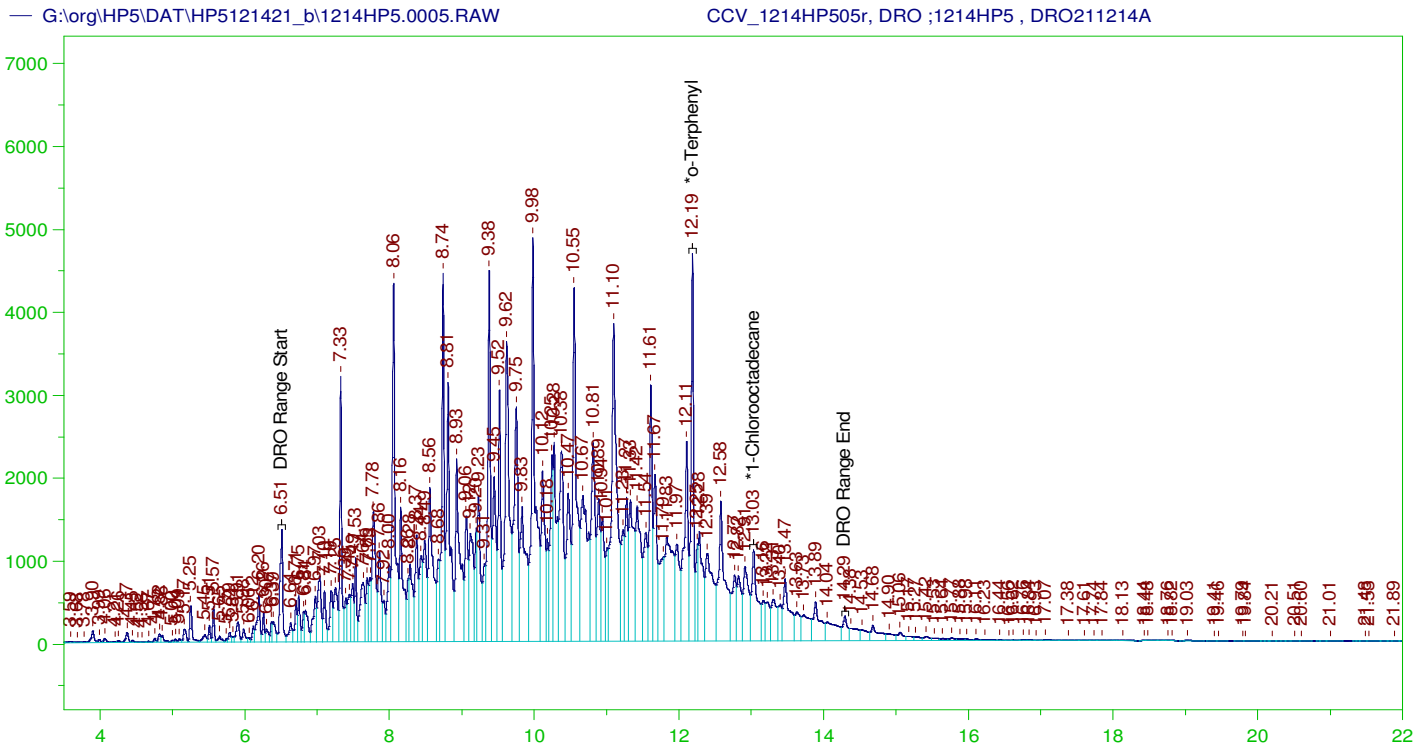
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.269	500.	211.835	42.37	-

RRO Area:6255290 RRO AMOUNT: 219.1577

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0004.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.023	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	211.835	105.92	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1214HP505r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0005.RAW
Date & Time Acquired: 12/14/2021 10:29:07 AM
Method File: G:\Org\HP5\Methods\DC_8015-24-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.186	200.	330.65	165.33	-
*1-Chlorooctadecane	13.032	200.	160.68	80.34	-

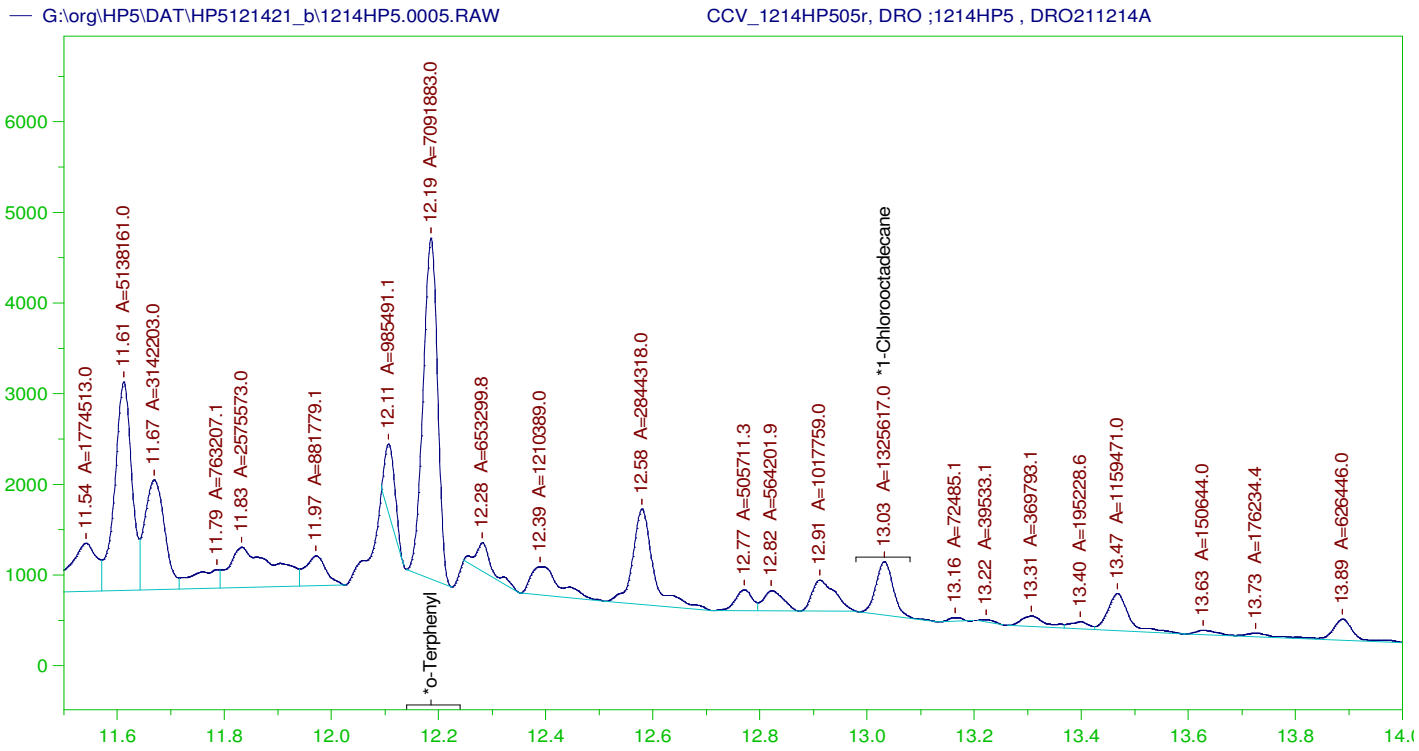
DRO Area:4.711419E+08 DRO Amount: 15026.92
TEH Area:4.885992E+08 TEH Amount: 15583.72

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0005.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15583.72	103.89	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.186	200.	330.65	165.33	85-115
*1-Chlorooctadecane	13.032	200.	160.68	80.34	85-115

G:\org\HP5\dat\HP5121421_b\Review\005_CCV_1214HP505r_DC_8015-24-IH-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1214HP505r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0005.RAW
Date & Time Acquired: 12/14/2021 10:29:07 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

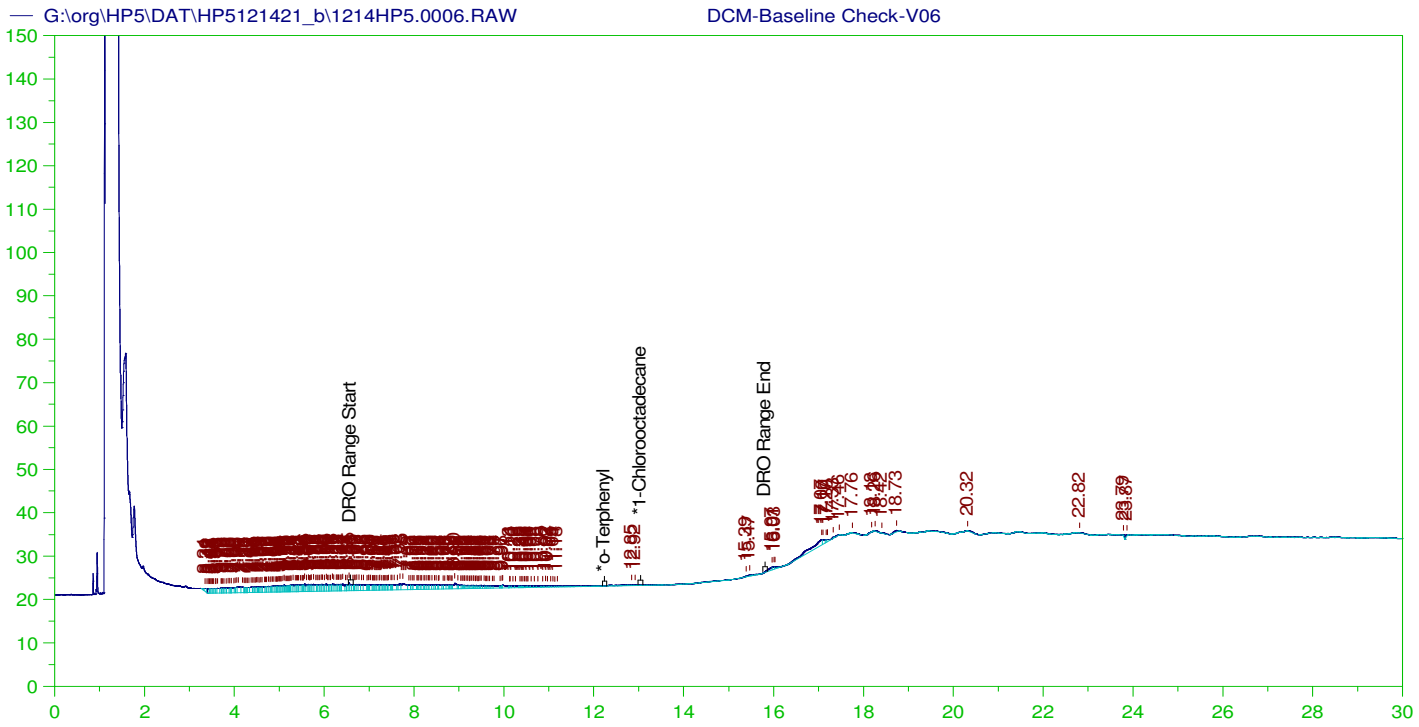
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.186	200.	199.72	99.86	-
*1-Chlorooctadecane	13.032	200.	37.332	18.67	-

DRO Area:2.624351E+08 DRO Amount: 8370.283
TEH Area:2.729994E+08 TEH Amount: 8707.229

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0005.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8707.23	58.05	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.186	200.	199.72	99.86	85-115
*1-Chlorooctadecane	13.032	200.	37.332	18.67	85-115



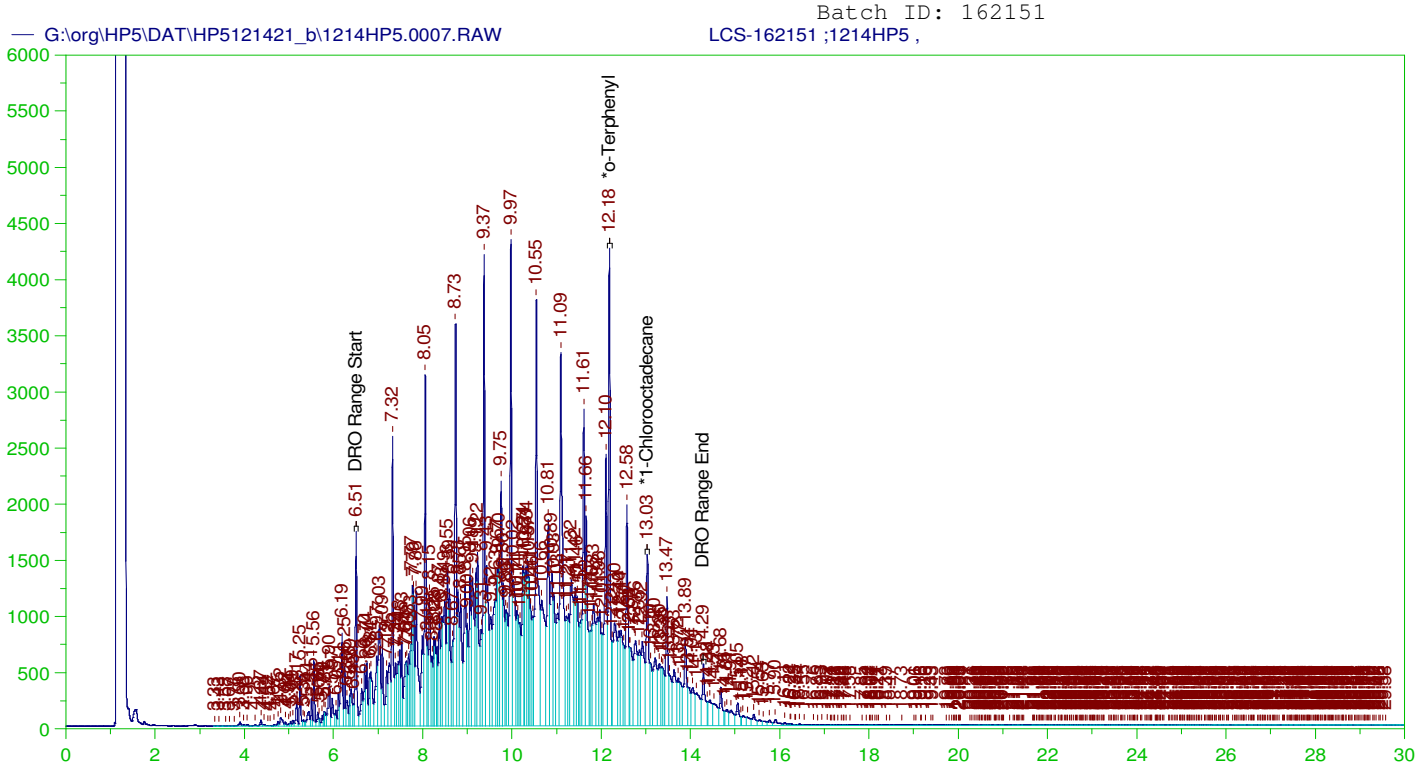
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V06
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0006.RAW
Date & Time Acquired: 12/14/2021 11:12:16 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.956	200.	.	.	-
*1-Chlorooctadecane	29.956	200.	.	.	-

DRO Area:249419.4 DRO Amount: 7.955153
TEH Area:577539.8 TEH Amount: 18.42044

Batch ID: 162151



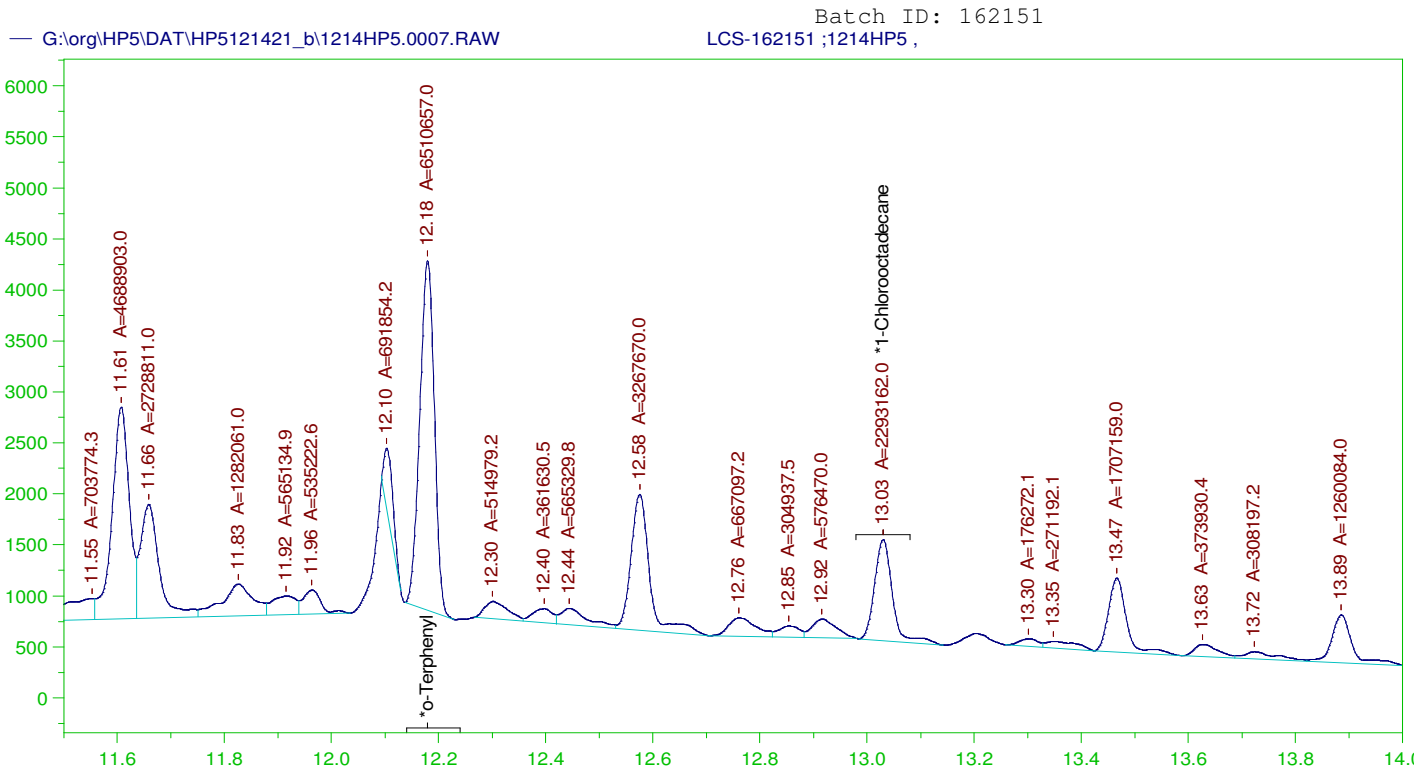
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-162151 ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0007.RAW
Date & Time Acquired: 12/14/2021 11:59:43 AM
Method File: G:\Org\HP5\Methods\D3_8015-24-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.179	.2	.313	156.54	-
*1-Chlorooctadecane	13.03	.2	.151	75.67	-

DRO Area:4.099638E+08 DRO Amount: 13.07567
TEH Area:4.386005E+08 TEH Amount: 13.98902



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

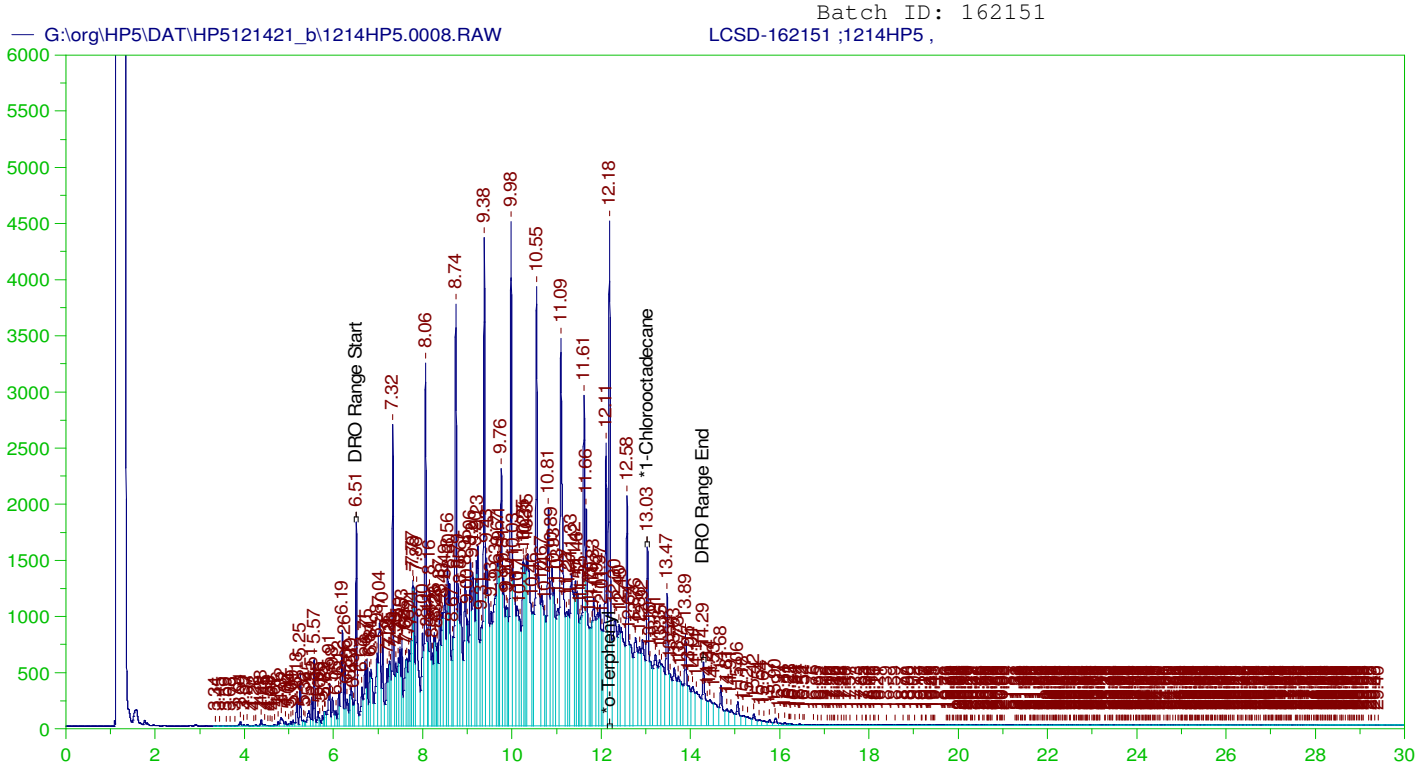
Sample Name: LCS-162151 ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0007.RAW
Date & Time Acquired: 12/14/2021 11:59:43 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.179	.2	.183	91.68	-
*1-Chlorooctadecane	13.03	.2	.065	32.29	-

DRO Area:1.980477E+08 DRO Amount: 6.316669
TEH Area:2.115996E+08 TEH Amount: 6.748901

Batch ID: 162151



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

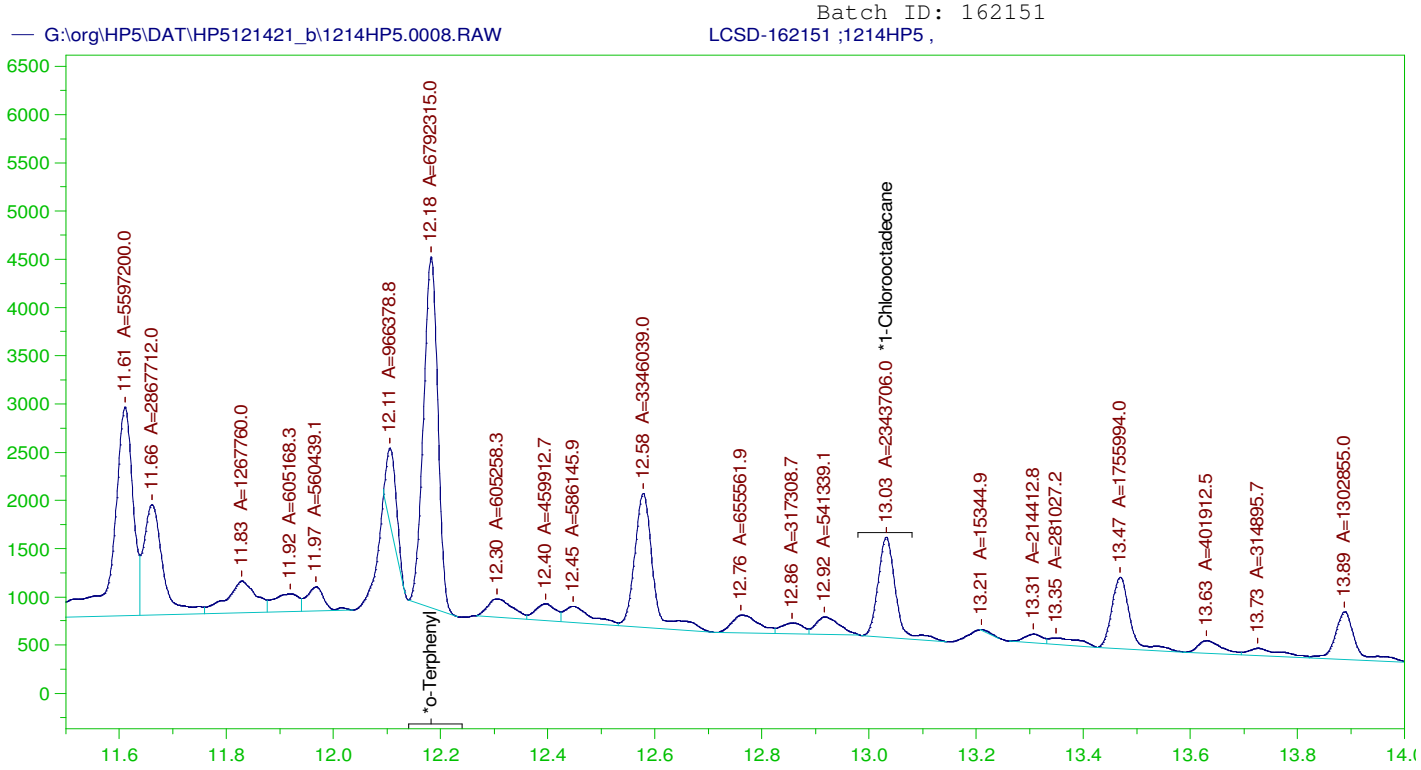
Sample Name: LCSD-162151 ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0008.RAW
Date & Time Acquired: 12/14/2021 12:42:54 PM
Method File: G:\Org\HP5\Methods\D3_8015-24-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.182	.2	.344	172.13	-
*1-Chlorooctadecane	13.032	.2	.156	77.87	-

DRO Area:4.261148E+08 DRO Amount: 13.5908
TEH Area:4.558128E+08 TEH Amount: 14.538

Batch ID: 162151



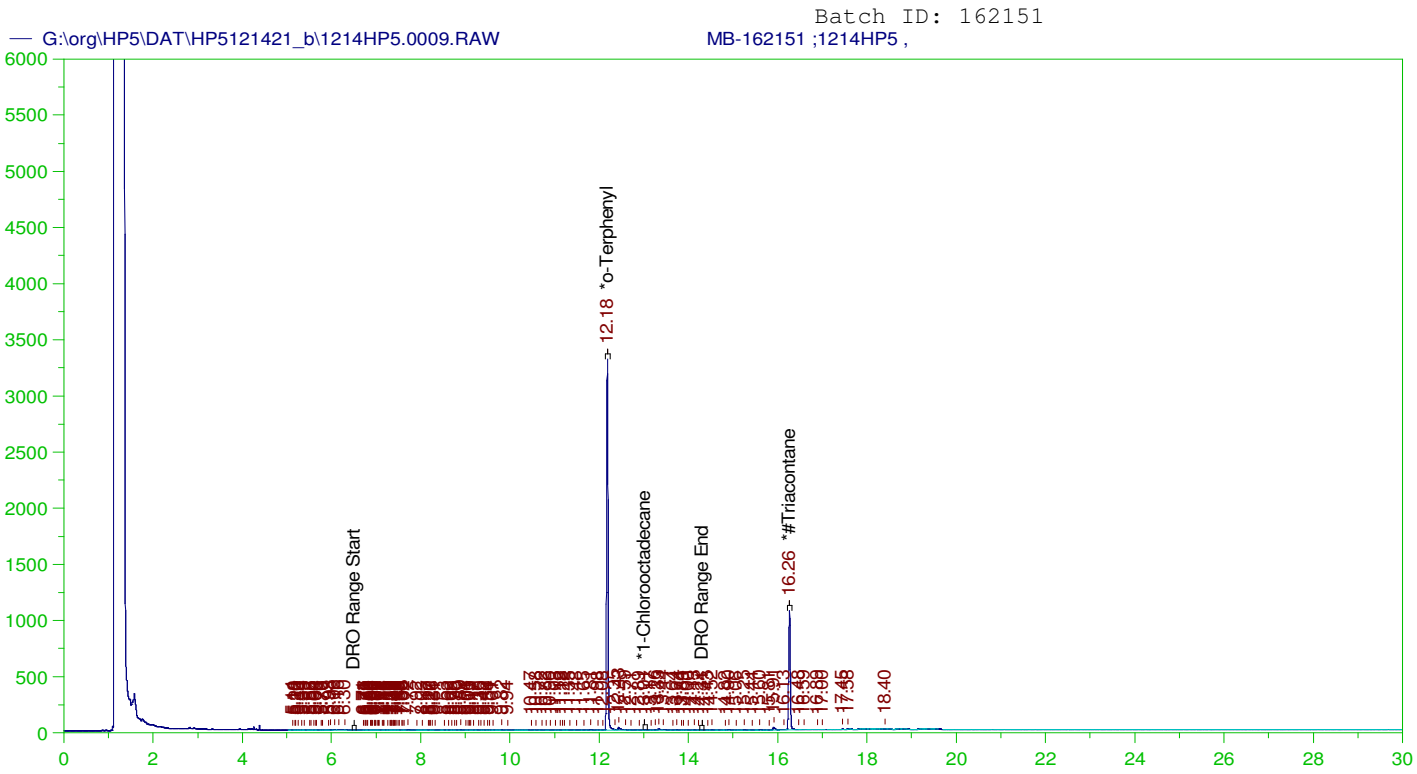
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCSD-162151 ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0008.RAW
Date & Time Acquired: 12/14/2021 12:42:54 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.182	.2	.191	95.64	-
*1-Chlorooctadecane	13.032	.2	.066	33.	-

DRO Area:2.069722E+08 DRO Amount: 6.601313
TEH Area:2.209836E+08 TEH Amount: 7.048202

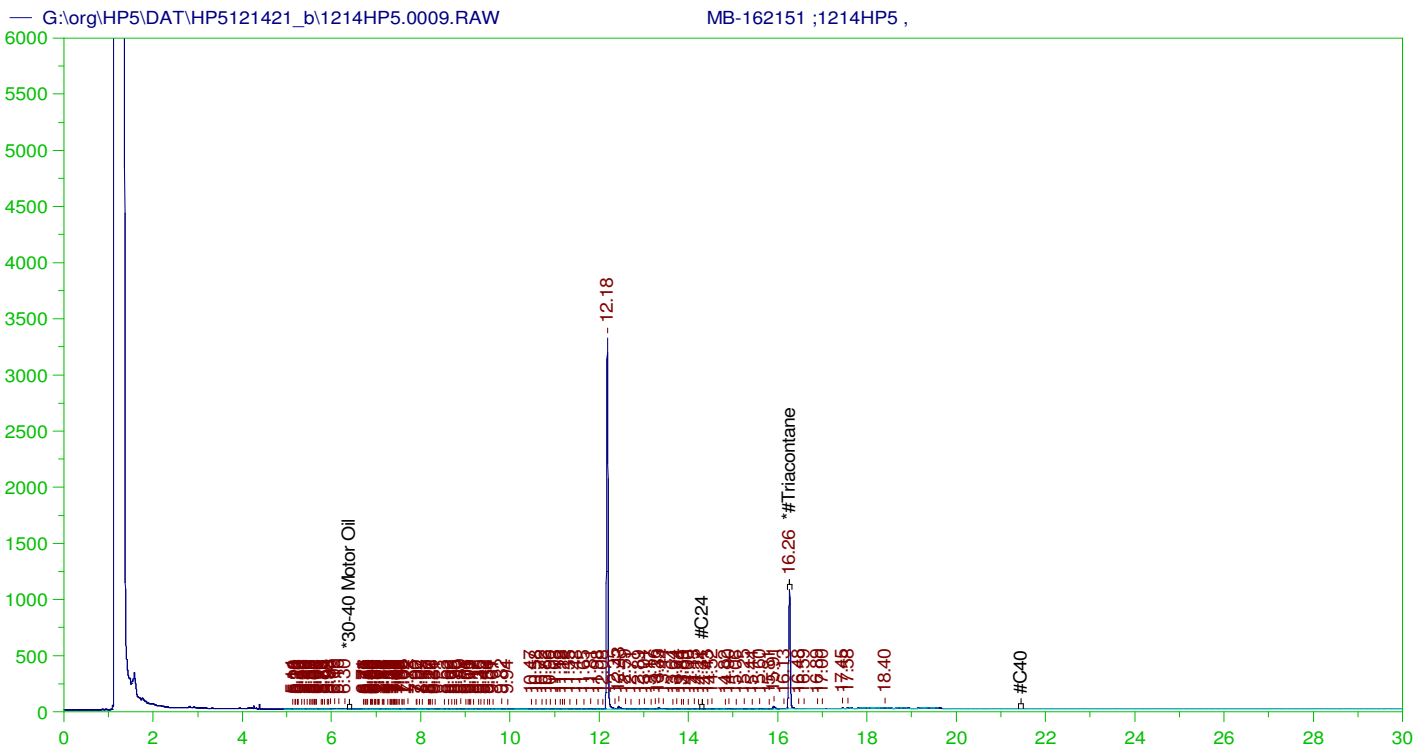


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: MB-162151 ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0009.RAW
Date & Time Acquired: 12/14/2021 1:25:52 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.179	.2	.188	94.	-
*1-Chlorooctadecane	13.013	.2	.001	.27	-
*#Triacontane	16.259	.2	.099	49.48	-

DRO Area:537061.6 DRO Amount: 1.712941E-02
TEH Area:884388.4 TEH Amount: 2.820729E-02



RESIDUAL RANGE ORGANICS CHROMATOGRAM

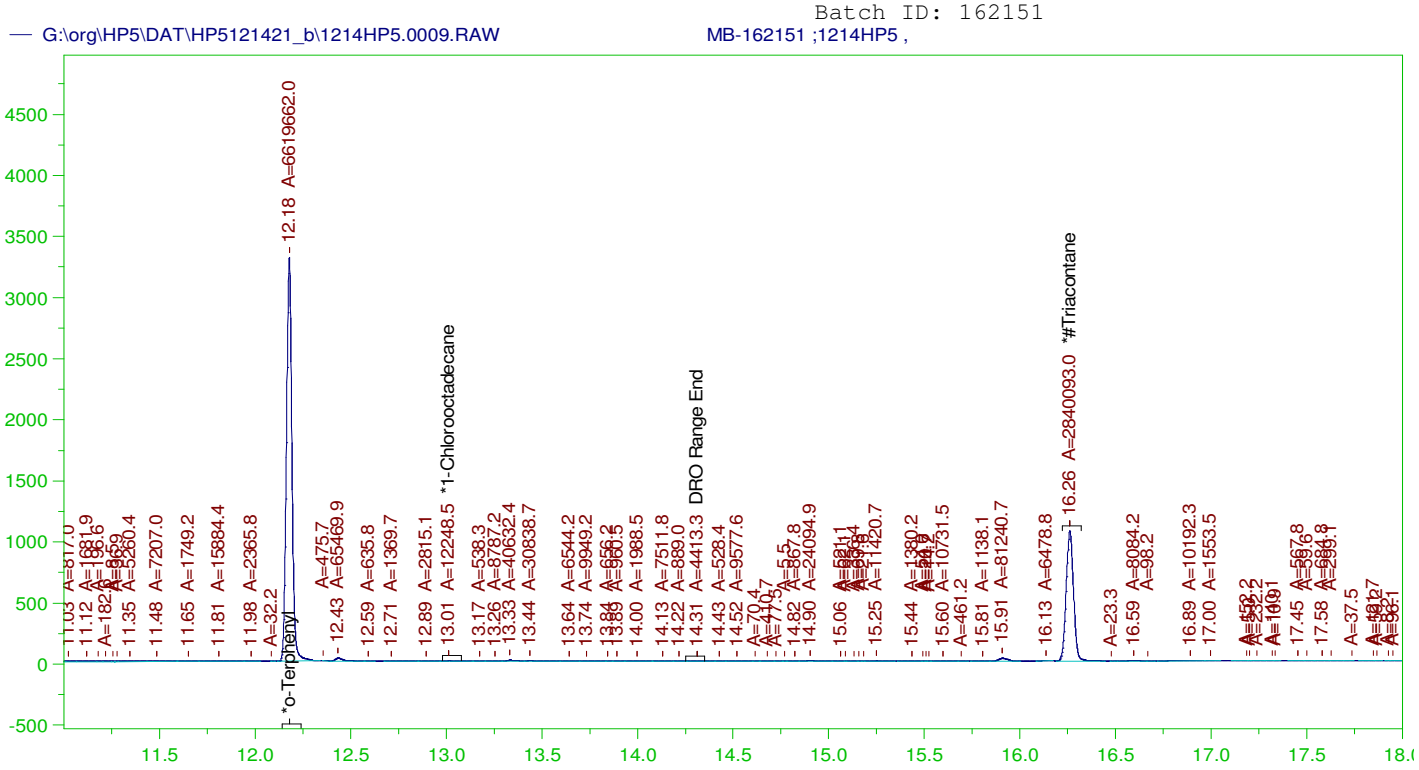
Sample Name: MB-162151 ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0009.RAW
Date & Time Acquired: 12/14/2021 1:25:52 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.259	.5	.099	19.79	-

RRO Area:193637.1 RRO AMOUNT: 6.78419E-03

Batch ID: 162151



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

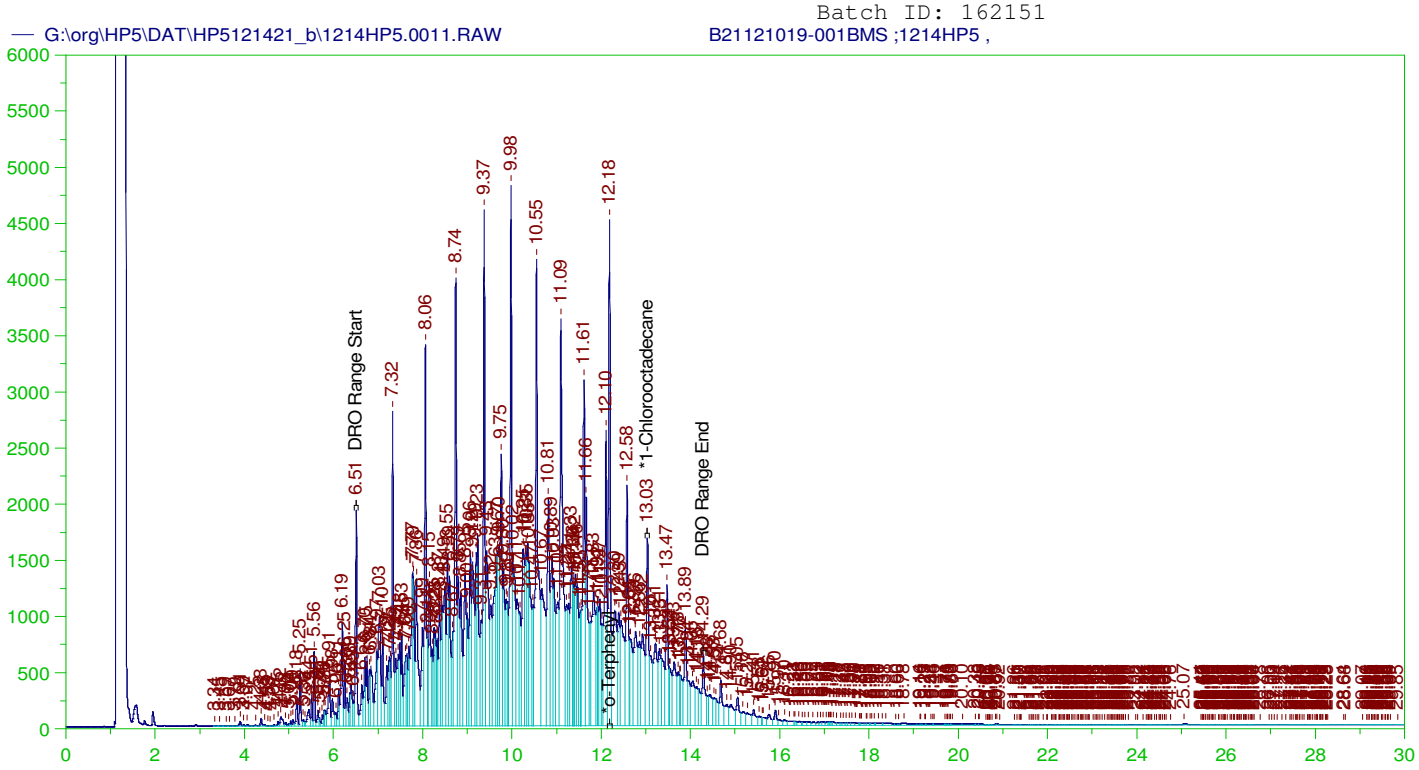
Sample Name: MB-162151 ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0009.RAW
Date & Time Acquired: 12/14/2021 1:25:52 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.179	.2	.186	93.21	-
*1-Chlorooctadecane	13.013	.2	.17	85	-
*#Triacontane	16.259	.2	.098	49.09	-

DRO Area:387350.2 DRO Amount: 1.235441E-02
TEH Area:981713.3 TEH Amount: 3.131143E-02

Batch ID: 162151



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

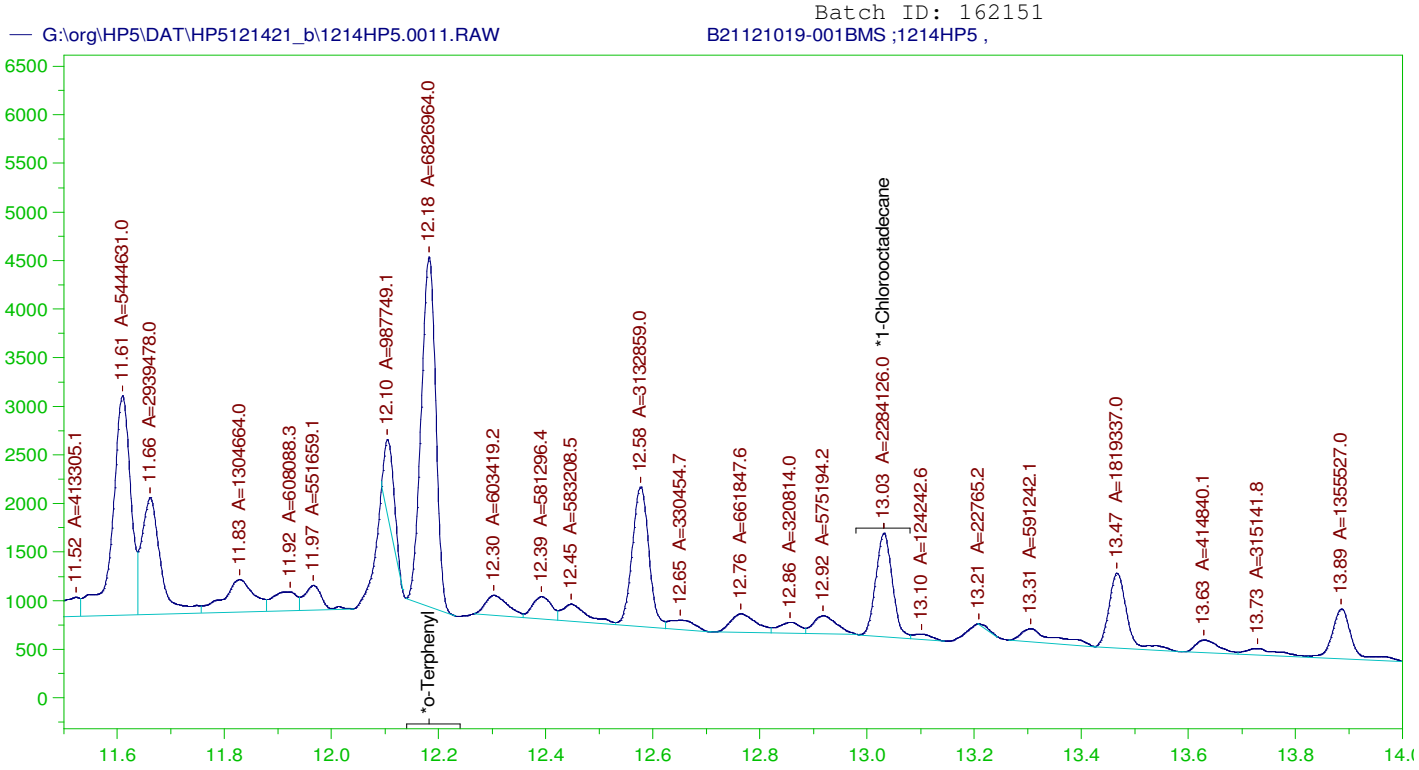
Sample Name: B21121019-001BMS ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0011.RAW
Date & Time Acquired: 12/14/2021 2:51:38 PM
Method File: G:\Org\HP5\Methods\D3_8015-24-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.182	.19	.325	170.47	-
*1-Chlorooctadecane	13.031	.19	.157	82.34	-

DRO Area:4.53214E+08 DRO Amount: 13.76678
TEH Area:4.931604E+08 TEH Amount: 14.98018

Batch ID: 162151



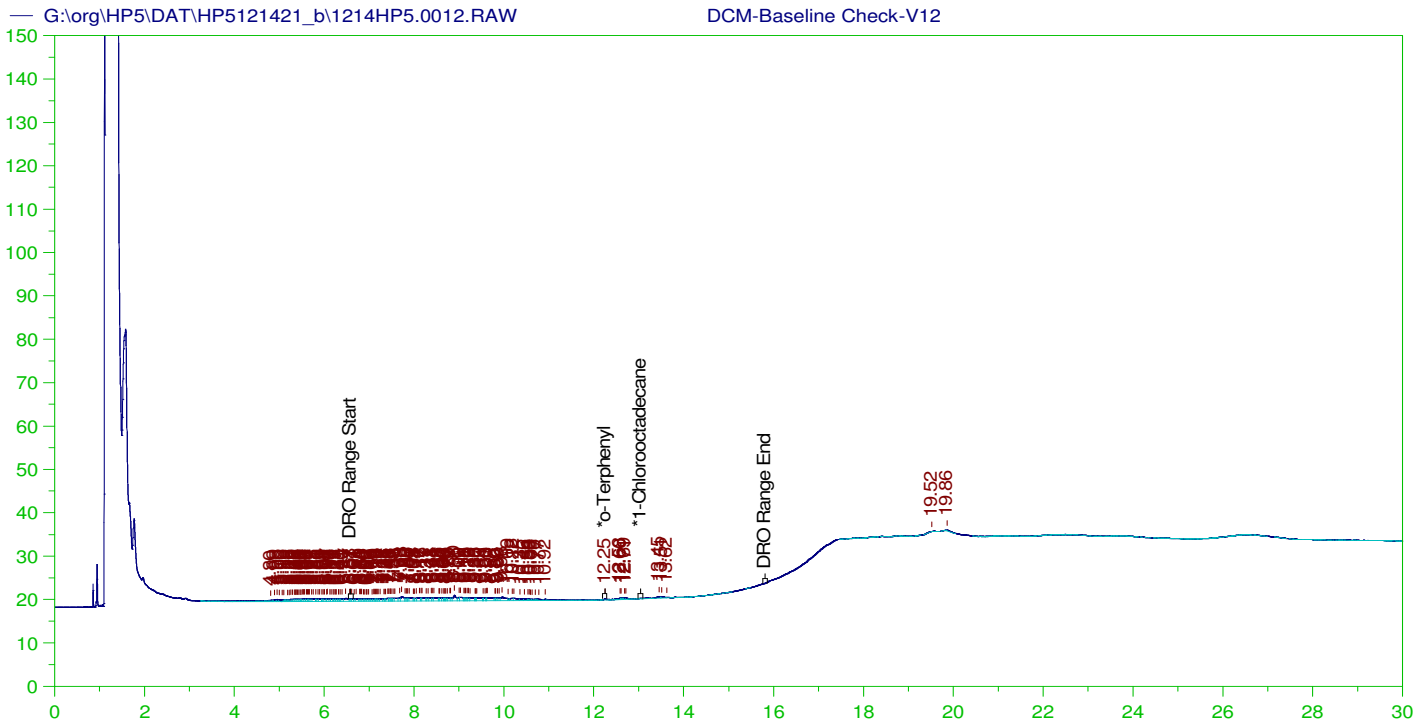
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-001BMS ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0011.RAW
Date & Time Acquired: 12/14/2021 2:51:38 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.182	.19	.183	96.13	-
*1-Chlorooctadecane	13.031	.19	.061	32.16	-

DRO Area:2.181851E+08 DRO Amount: 6.627564
TEH Area:2.333182E+08 TEH Amount: 7.087246



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V12
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0012.RAW
Date & Time Acquired: 12/14/2021 3:34:17 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.251	200.	.03	.02	-
*1-Chlorooctadecane	29.982	200.	.	.	-

DRO Area:169760.1 DRO Amount: 5.414445
TEH Area:235277.1 TEH Amount: 7.504087

ERH2220 (RHMW05) Batch ID: 162151

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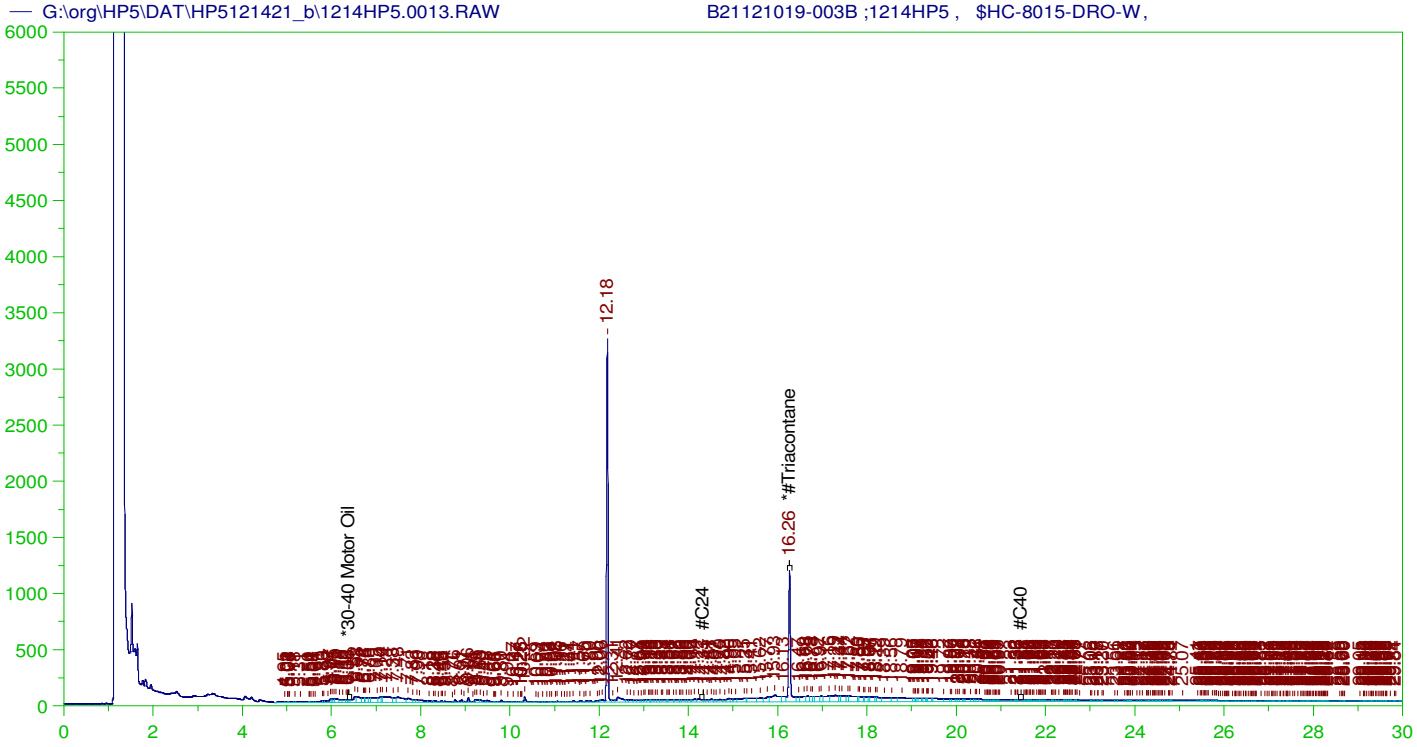


RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121019-003B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0013.RAW
Date & Time Acquired: 12/14/2021 4:17:19 PM
Method File: G:\Org\HP5\Methods\D3_OROS-121413-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

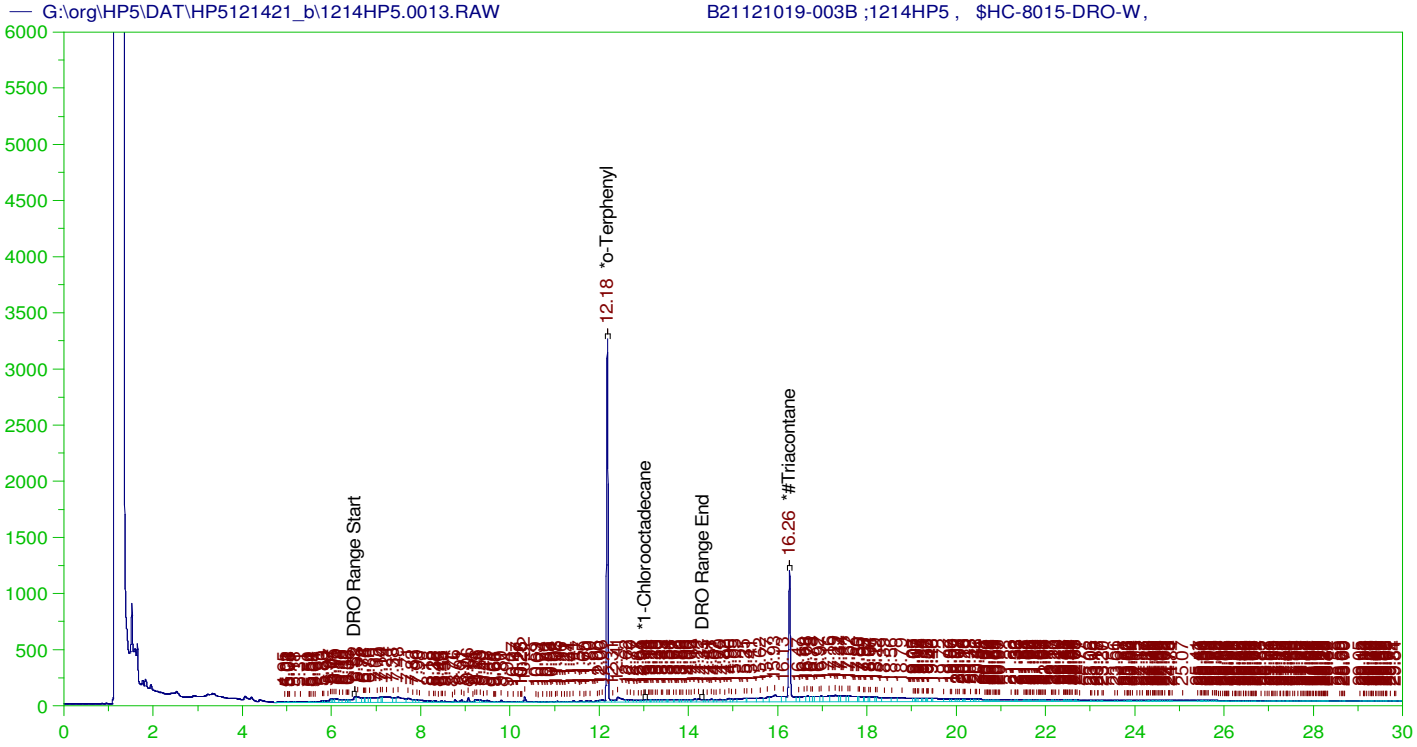
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.261	.481	.115	23.97	-

RRO Area:1.340125E+07 RRO AMOUNT: 0.451462

ERH2220 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0013.RAW B21121019-003B ;1214HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-003B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0013.RAW
Date & Time Acquired: 12/14/2021 4:17:19 PM
Method File: G:\Org\HP5\Methods\DR_8015-121413-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

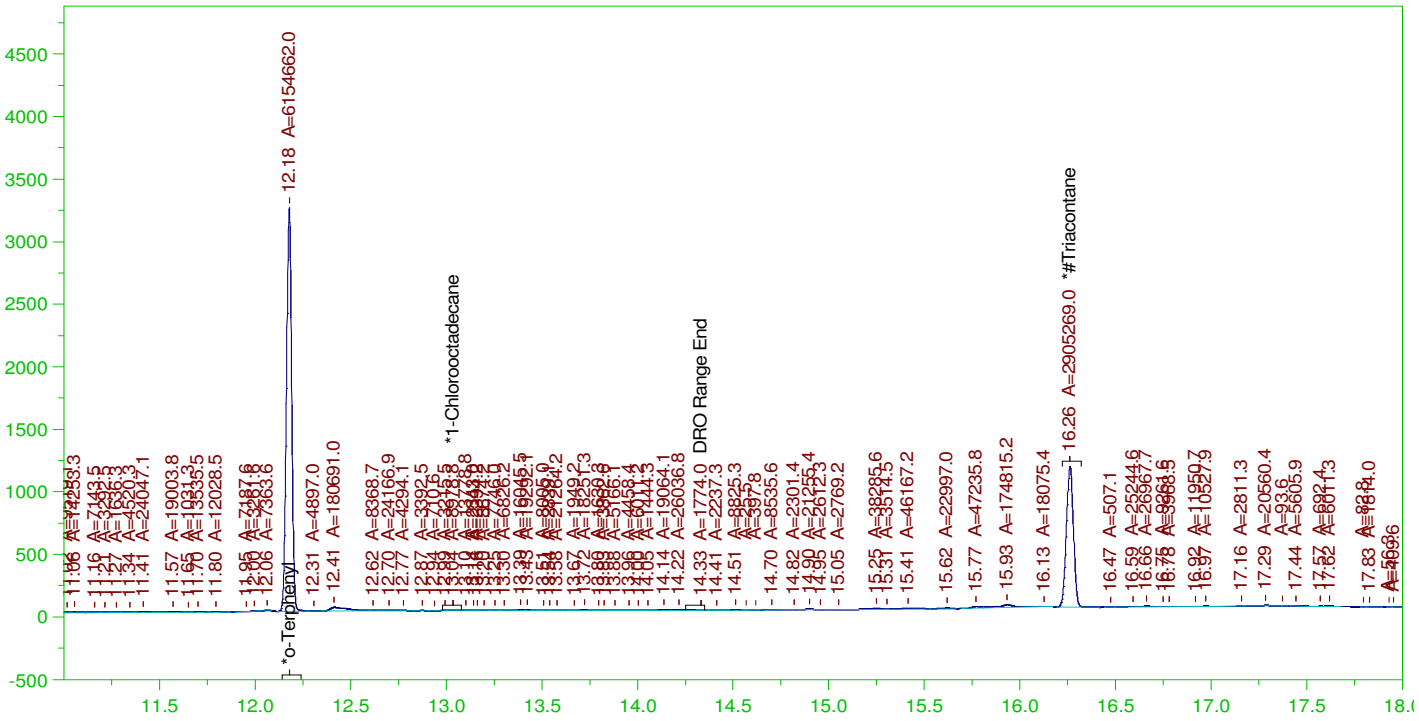
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.179	.192	.17	88.39	-
*1-Chlorooctadecane	13.036	.192	.002	.94	-
*#Triacontane	16.261	.192	.115	59.93	-

DRO Area:8236959 DRO Amount: 0.2526107
TEH Area:2.641941E+07 TEH Amount: 0.8102295

ERH2220 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0013.RAW B21121019-003B ;1214HP5 , $HC-8015-DRO-W,



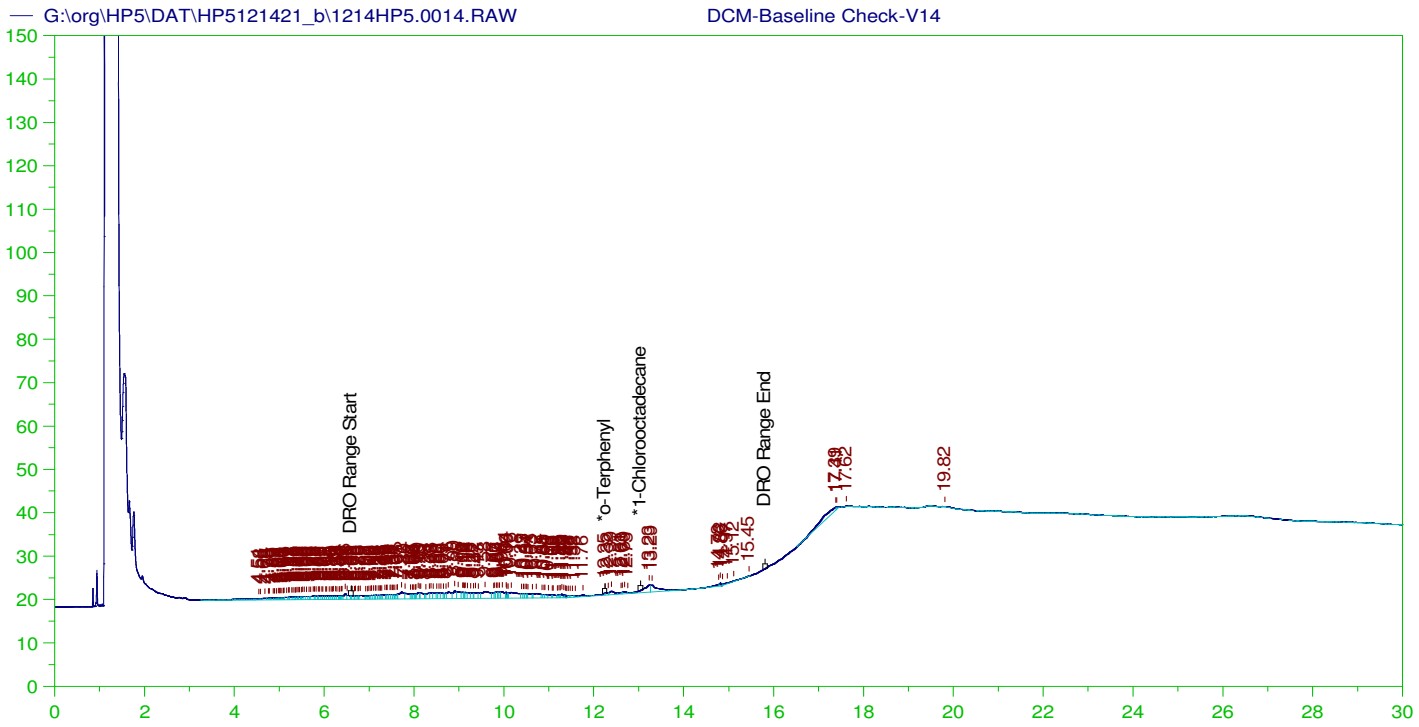
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-003B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0013.RAW
Date & Time Acquired: 12/14/2021 4:17:19 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.179	.192	.167	86.66	-
*1-Chlorooctadecane	13.036	.192	. .13		-
*#Triacontane	16.261	.192	.097	50.21	-

DRO Area:5415471 DRO Amount: 0.1660815
TEH Area:8037952 TEH Amount: 0.2465076



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V14
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0014.RAW
Date & Time Acquired: 12/14/2021 5:05:35 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

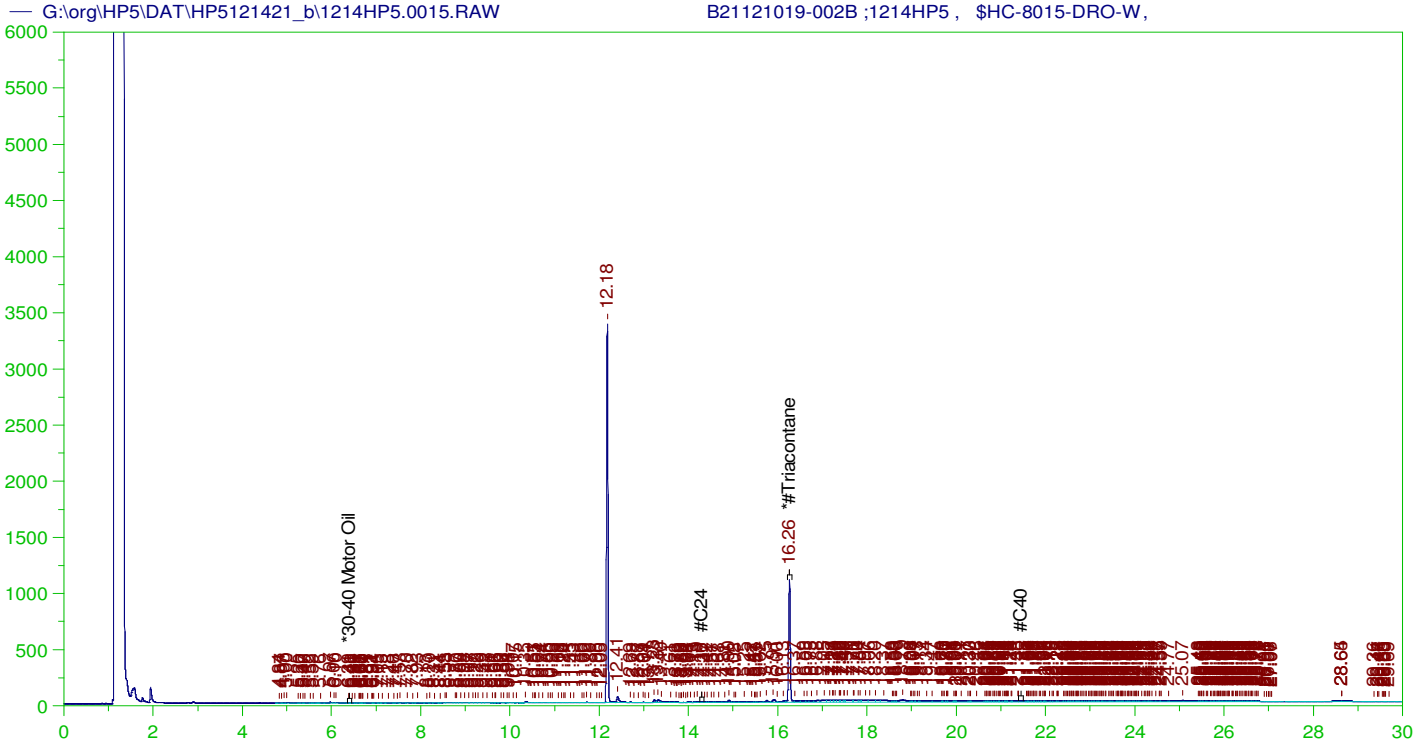
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.248	200.	.052	.03	-
*1-Chlorooctadecane	29.968	200.	.	.	-

DRO Area:374994.5 DRO Amount: 11.96033
TEH Area:501291 TEH Amount: 15.98852

ERH2219 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0015.RAW B21121019-002B ;1214HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121019-002B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0015.RAW
Date & Time Acquired: 12/14/2021 5:48:58 PM
Method File: G:\Org\HP5\Methods\D3_OROS-121415-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.259	.481	.098	20.37	-

RRO Area:4904023 RRO AMOUNT: 0.165207

ERH2219 (RHMW05) Batch ID: 162151

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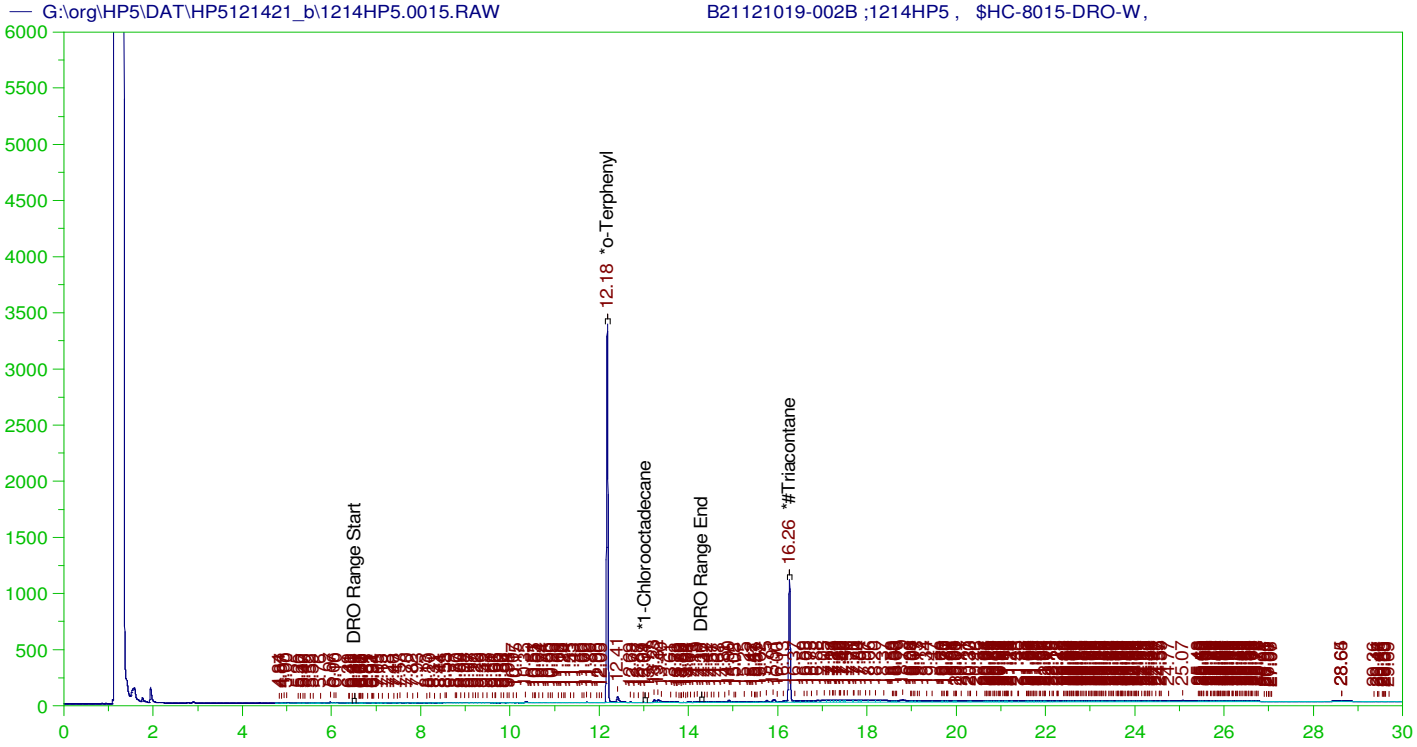


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-002B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0015.RAW
Date & Time Acquired: 12/14/2021 5:48:58 PM
Method File: G:\Org\HP5\Methods\DR_8015-121415-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

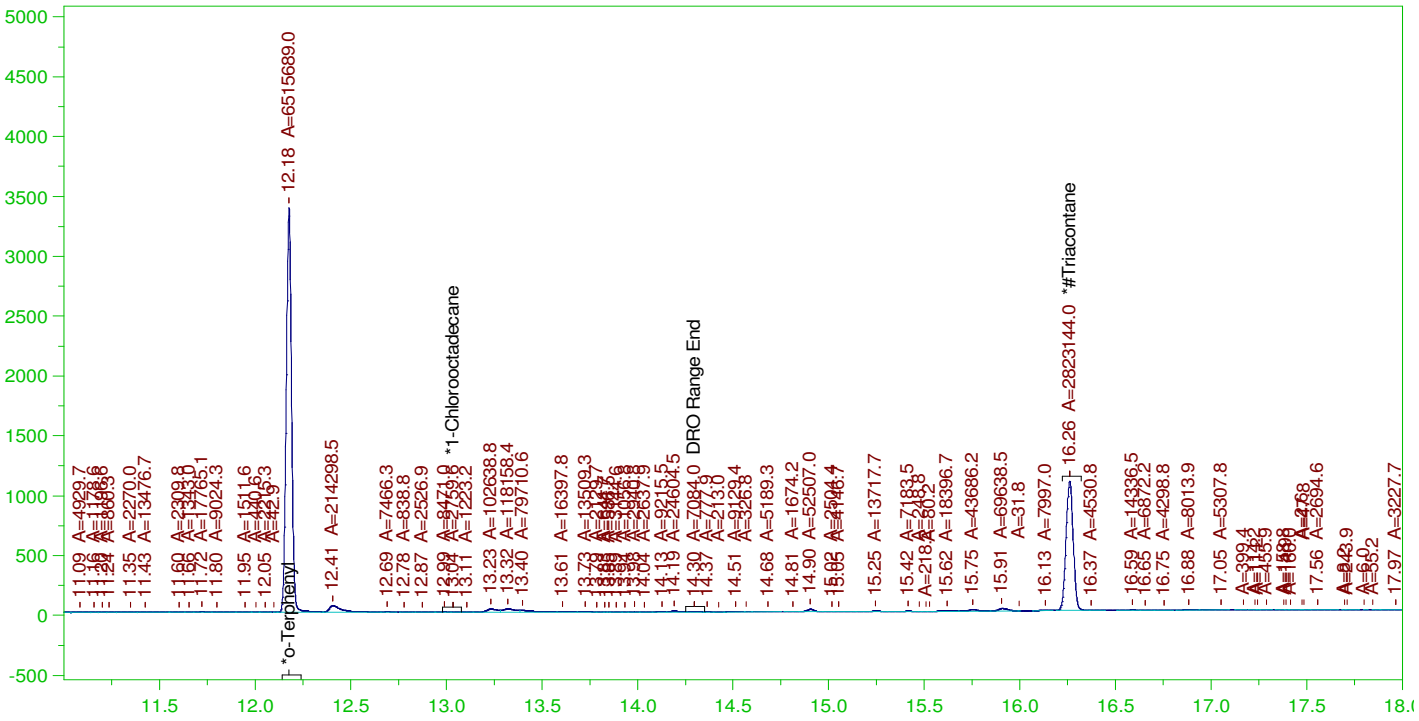
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.177	.192	.177	92.2	-
*1-Chlorooctadecane	13.037	.192	.	.07	-
*#Triacontane	16.259	.192	.098	50.92	-

DRO Area:1267635 DRO Amount: 3.887578E-02
TEH Area:7836028 TEH Amount: 0.240315

ERH2219 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0015.RAW B21121019-002B ;1214HP5 , $HC-8015-DRO-W,



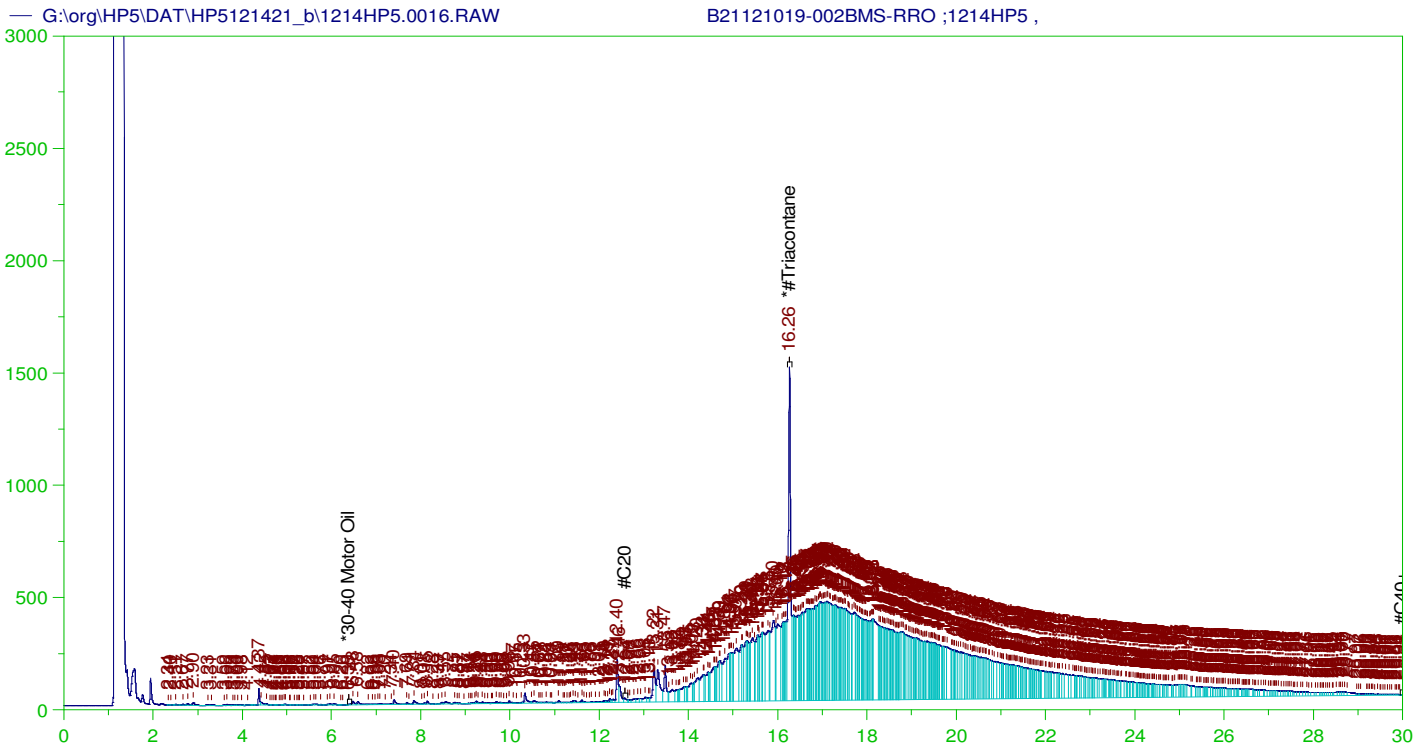
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-002B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0015.RAW
Date & Time Acquired: 12/14/2021 5:48:58 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.177	.192	.176	91.75	-
*1-Chlorooctadecane	13.037	.192	.	.04	-
*#Triacontane	16.259	.192	.094	48.79	-

DRO Area:1167157 DRO Amount: 3.579434E-02
TEH Area:1897580 TEH Amount: 5.819489E-02



RESIDUAL RANGE ORGANICS CHROMATOGRAM

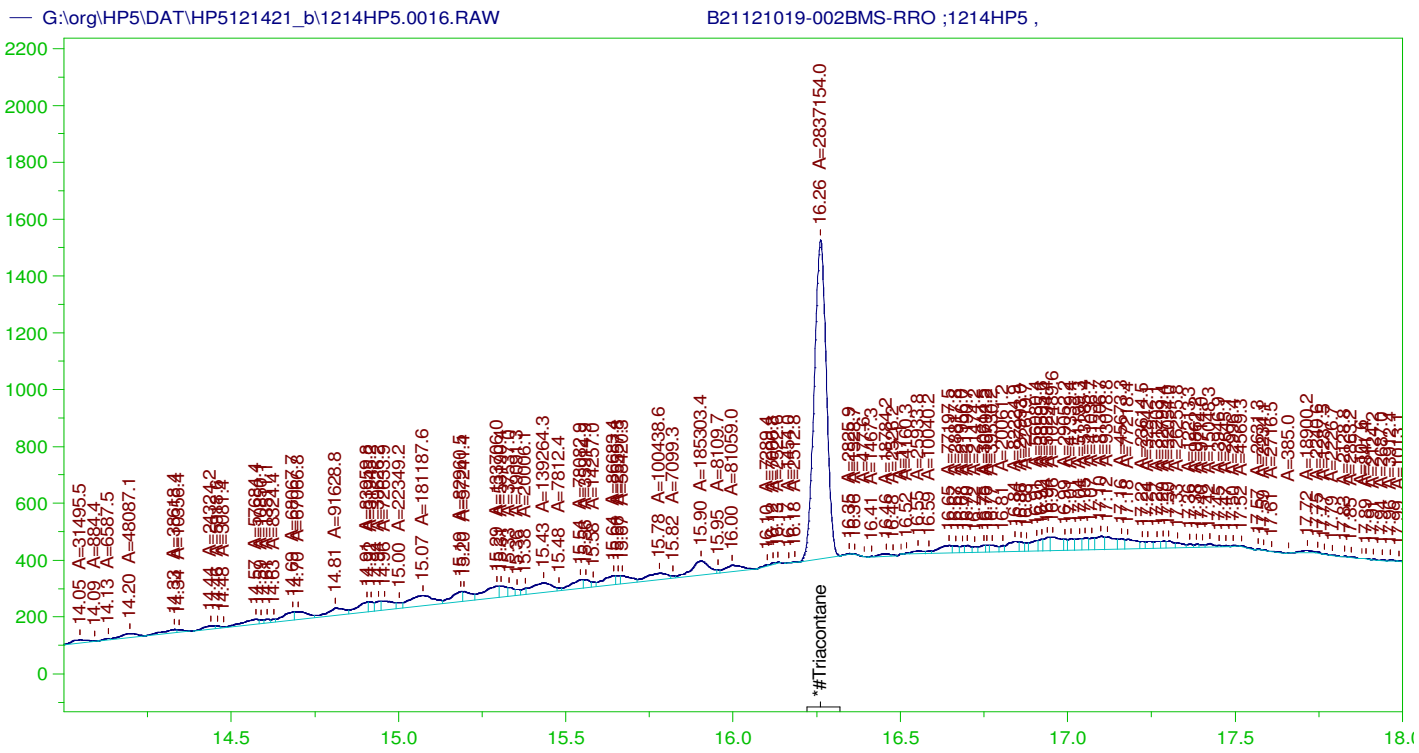
Sample Name: B21121019-002BMS-RRO ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0016.RAW
Date & Time Acquired: 12/14/2021 6:32:24 PM
Method File: G:\Org\HP5\Methods\D3_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.261	.478	.181	37.93	-

~~RRO~~ TEH (Oil Range) Area:1.477433E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.953372

AMN 01/07/2022



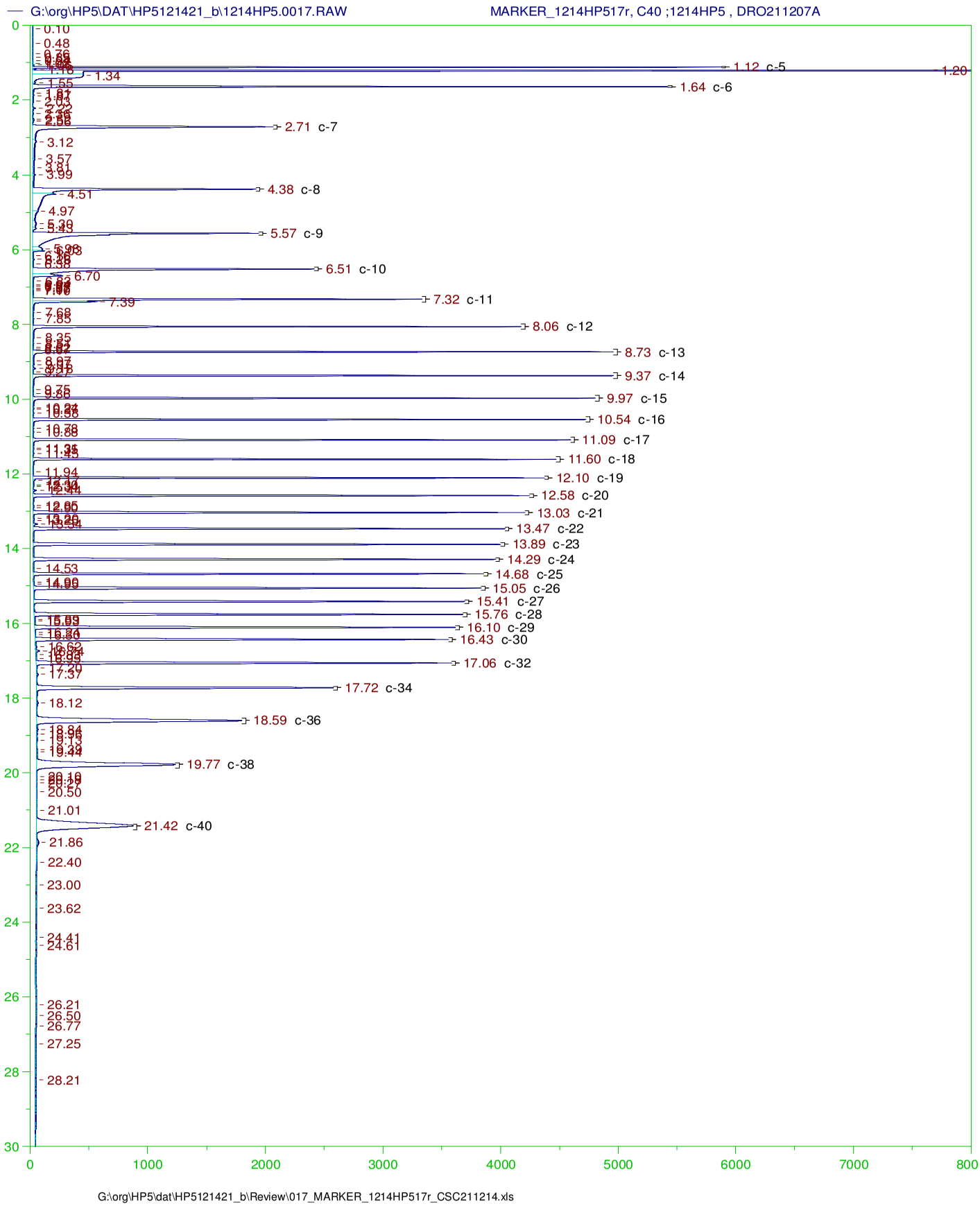
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121019-002BMS-RRO ;1214HP5 ,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0016.RAW
Date & Time Acquired: 12/14/2021 6:32:24 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.261	.478	.094	19.61	-

RRO Area:5159469 RRO AMOUNT: 0.1729809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1.20
1.34
1.64 c-6
2.71 c-7
3.12
3.57
3.99
4.38 c-8
4.51
4.97
5.57 c-9
6.51 c-10
6.70
7.32 c-11
7.39
7.68
8.06 c-12
8.73 c-13
9.37 c-14
9.97 c-15
10.54 c-16
11.09 c-17
11.60 c-18
12.10 c-19
12.58 c-20
13.03 c-21
13.47 c-22
13.89 c-23
14.29 c-24
14.53
14.68 c-25
15.05 c-26
15.41 c-27
15.76 c-28
16.10 c-29
16.43 c-30
17.06 c-32
17.37
17.72 c-34
18.12
18.59 c-36
19.77 c-38
20.50
21.01
21.42 c-40
21.86
22.40
23.00
23.62
24.41
24.61
26.21
26.50
26.77
27.25
28.21
0
1000
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3000
4000
5000
6000
7000
800
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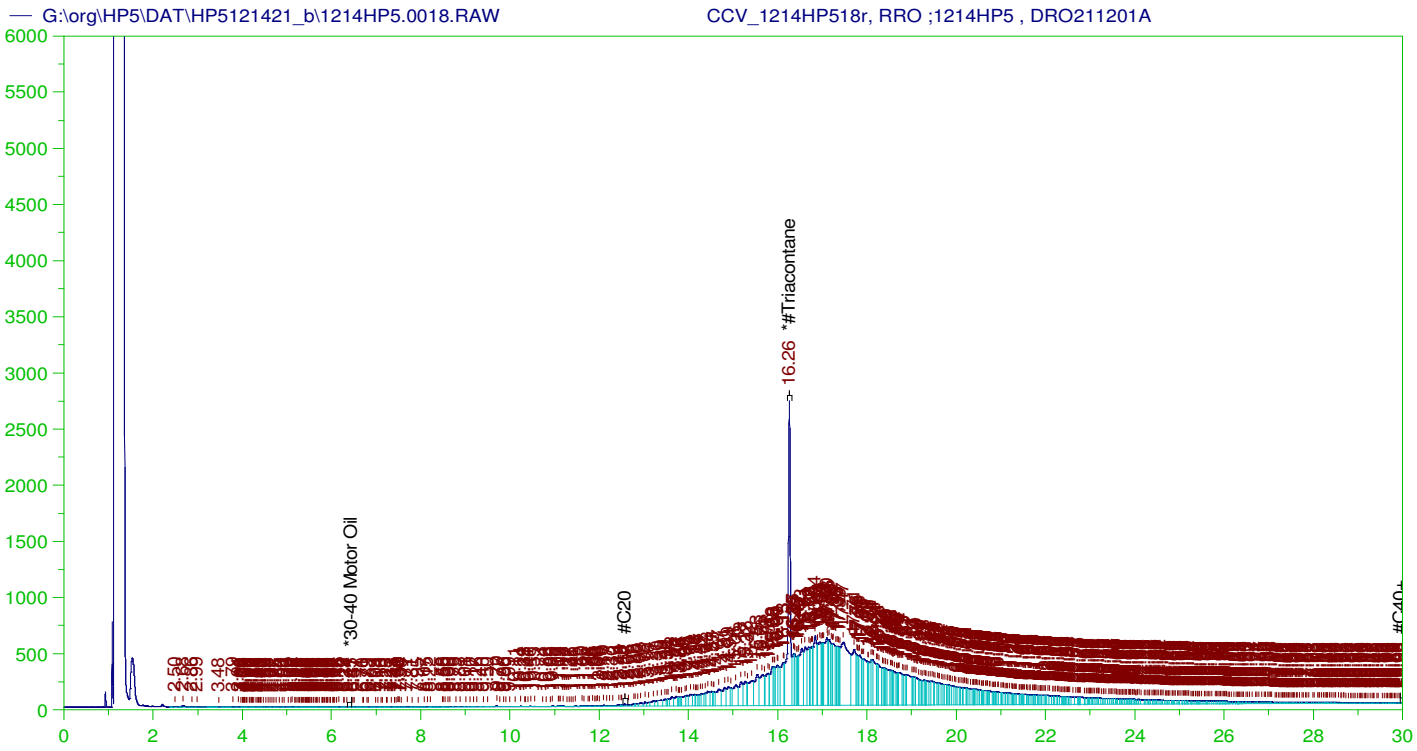


RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP518r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0018.RAW
Date & Time Acquired: 12/14/2021 7:59:15 PM
Method File: G:\Org\HP5\Methods\DC_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.258	500.	343.599	68.72	-

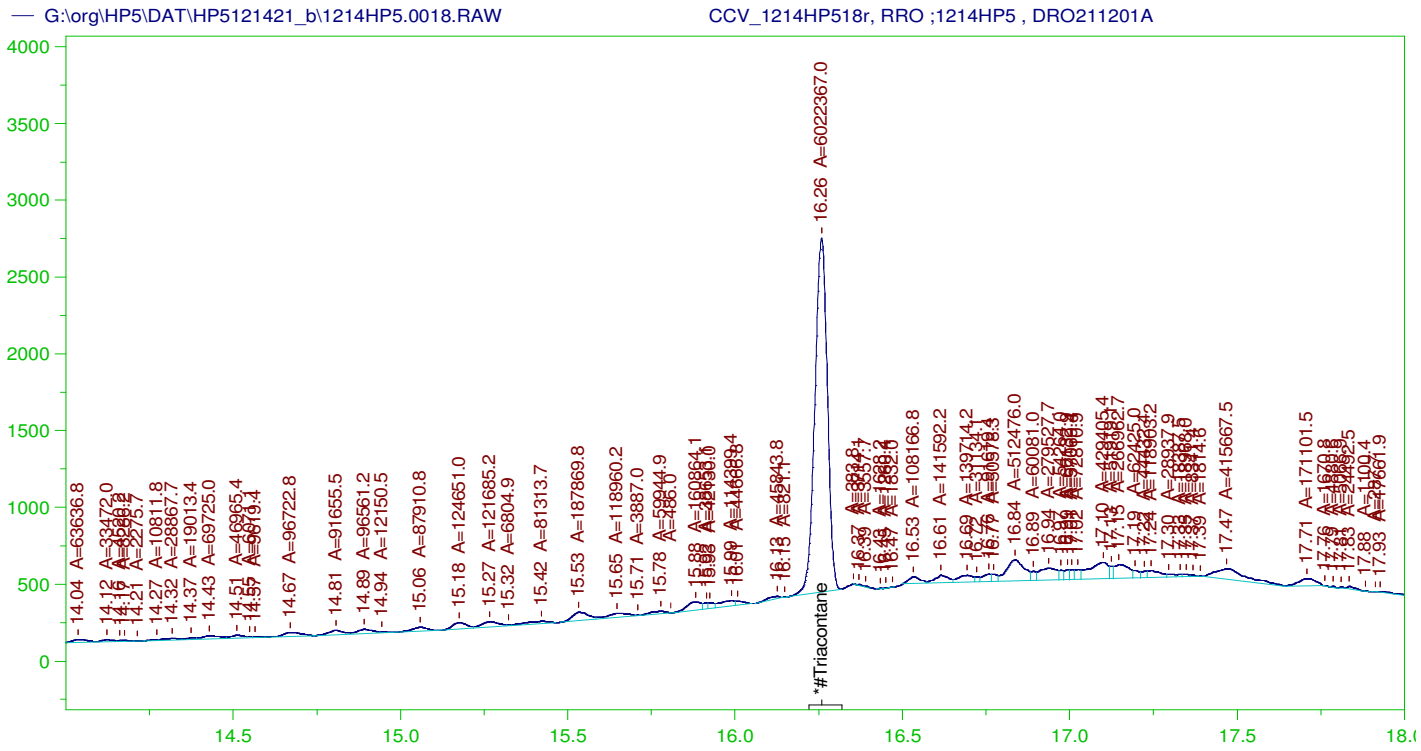
~~RRO~~ TEH (Oil Range) Area:1.397299E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4895.519

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0018.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.021	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.258	200.	343.599	171.8	75-125

AMN 01/07/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP518r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0018.RAW
Date & Time Acquired: 12/14/2021 7:59:15 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

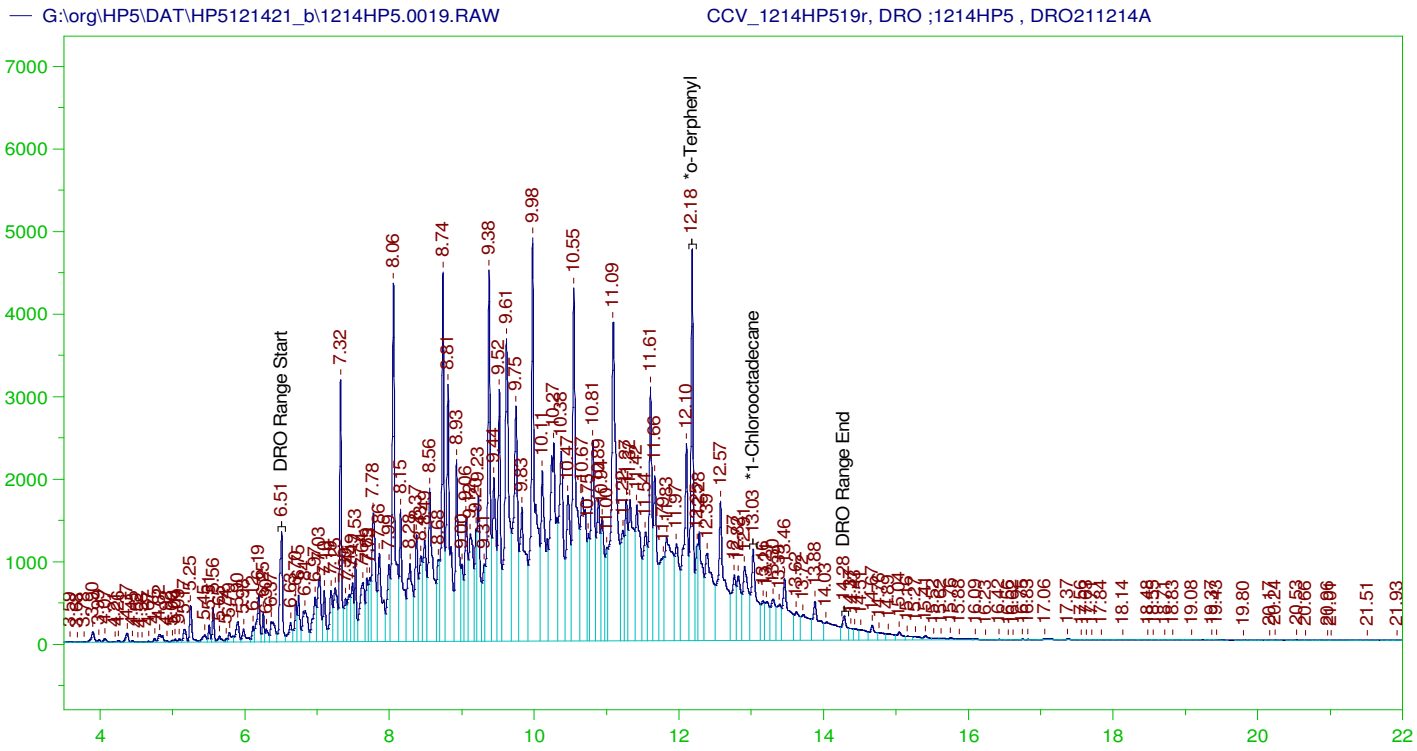
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.258	500.	208.169	41.63	-

RRO Area:5887765 RRO AMOUNT: 206.2813

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0018.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.021	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.258	200.	208.169	104.08	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1214HP519r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0019.RAW
Date & Time Acquired: 12/14/2021 8:42:41 PM
Method File: G:\Org\HP5\Methods\DC_8015-24-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.181	200.	332.797	166.4	-
*1-Chlorooctadecane	13.026	200.	160.702	80.35	-

DRO Area:4.714055E+08 DRO Amount: 15035.33
TEH Area:4.885553E+08 TEH Amount: 15582.32

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0019.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15582.32	103.88	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.181	200.	332.797	166.4	85-115
*1-Chlorooctadecane	13.026	200.	160.702	80.35	85-115

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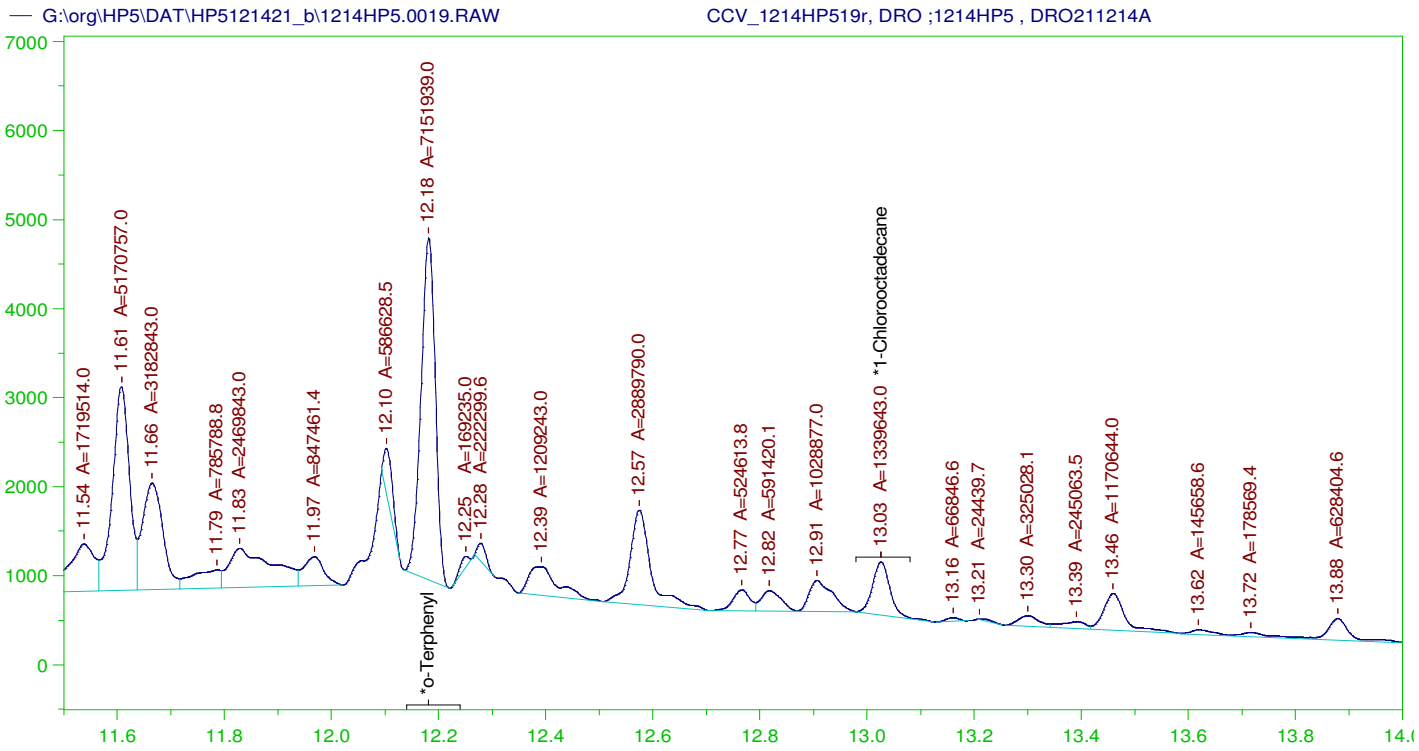


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1214HP519r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0019.RAW
Date & Time Acquired: 12/14/2021 8:42:41 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

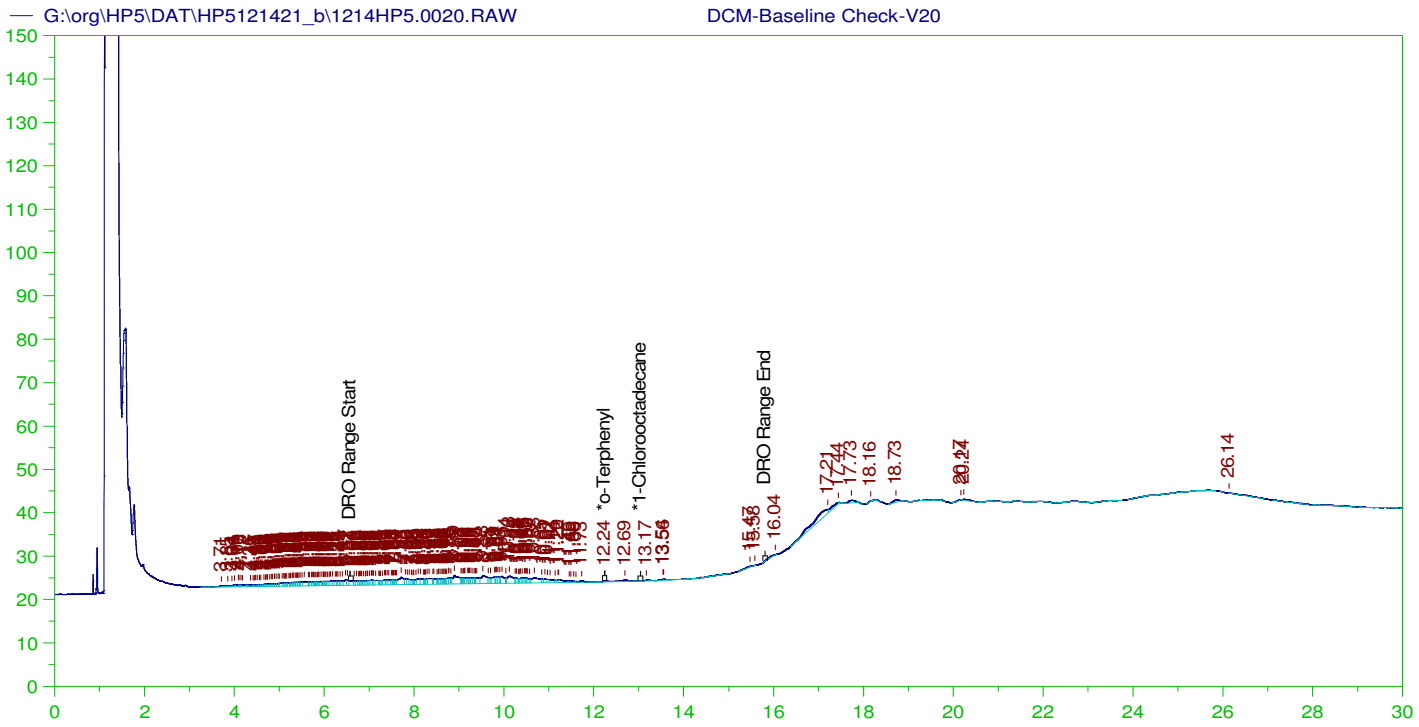
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.181	200.	201.411	100.71	-
*1-Chlorooctadecane	13.026	200.	37.727	18.86	-

DRO Area:2.617413E+08 DRO Amount: 8348.155
TEH Area:2.722545E+08 TEH Amount: 8683.47

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0019.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8683.47	57.89	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.181	200.	201.411	100.71	85-115
*1-Chlorooctadecane	13.026	200.	37.727	18.86	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V20
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0020.RAW
Date & Time Acquired: 12/14/2021 9:26:01 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

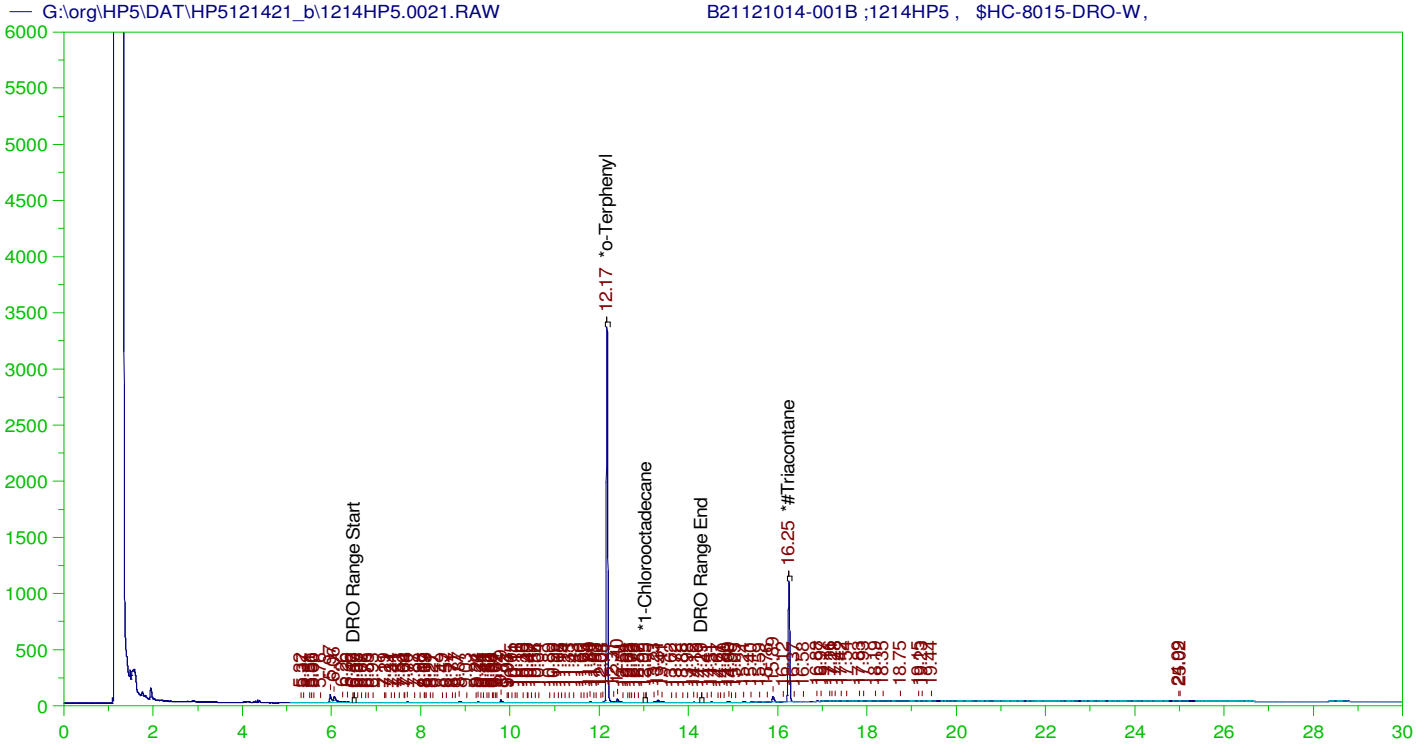
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.243	200.	.051	.03	-
*1-Chlorooctadecane	29.958	200.	.	.	-

DRO Area:353797.3 DRO Amount: 11.28425
TEH Area:548425.9 TEH Amount: 17.49187

ERH2228 (RHMW08) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0021.RAW B21121014-001B ;1214HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121014-001B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0021.RAW
Date & Time Acquired: 12/14/2021 10:09:15 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

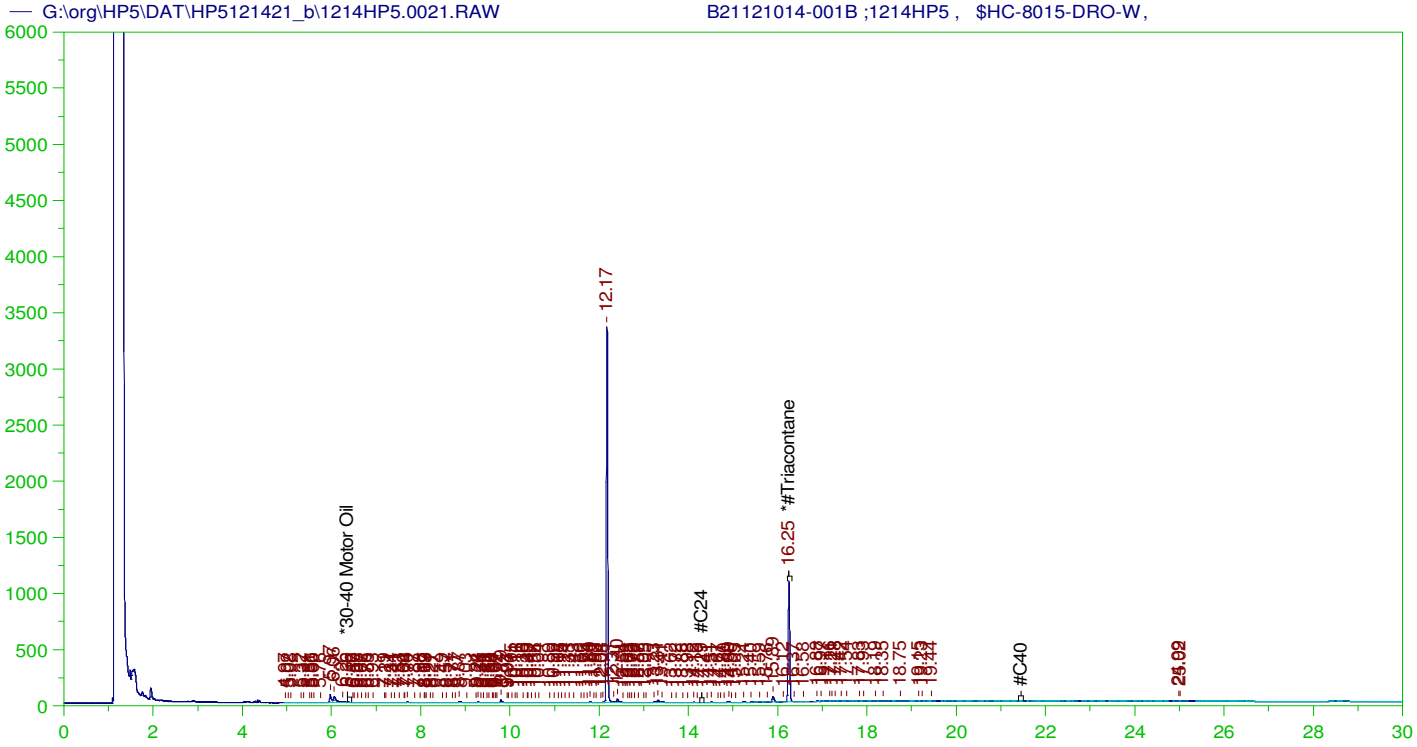
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.173	.194	.182	93.6	-
*1-Chlorooctadecane	13.045	.194	.	.04	-
*#Triacontane	16.248	.194	.095	48.82	-

DRO Area:934823.2 DRO Amount: 2.894746E-02
TEH Area:1896907 TEH Amount: 5.873908E-02

ERH2228 (RHMW08) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0021.RAW B21121014-001B ;1214HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121014-001B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0021.RAW
Date & Time Acquired: 12/14/2021 10:09:15 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

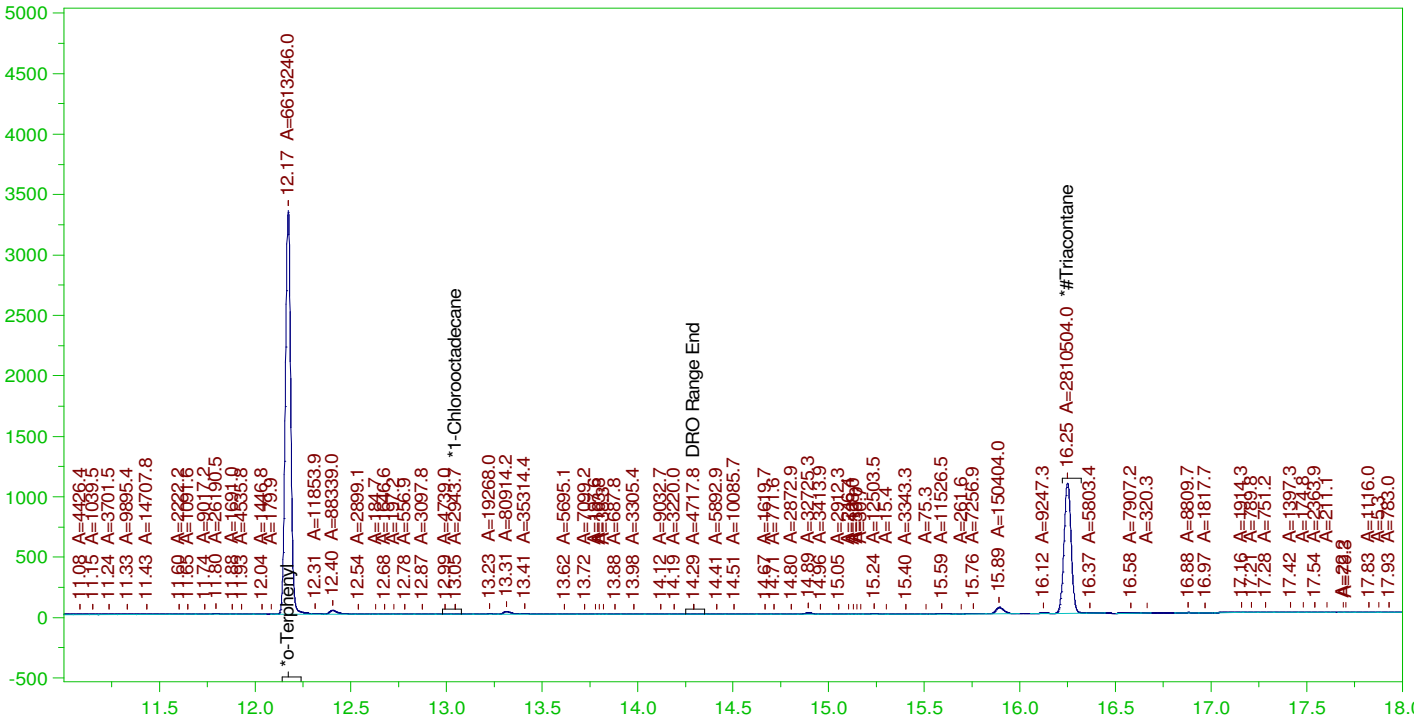
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.248	.485	.095	19.53	-

RRO Area:335457.8 RRO AMOUNT: 1.141064E-02

ERH2228 (RHMW08) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0021.RAW B21121014-001B ;1214HP5 , $HC-8015-DRO-W,



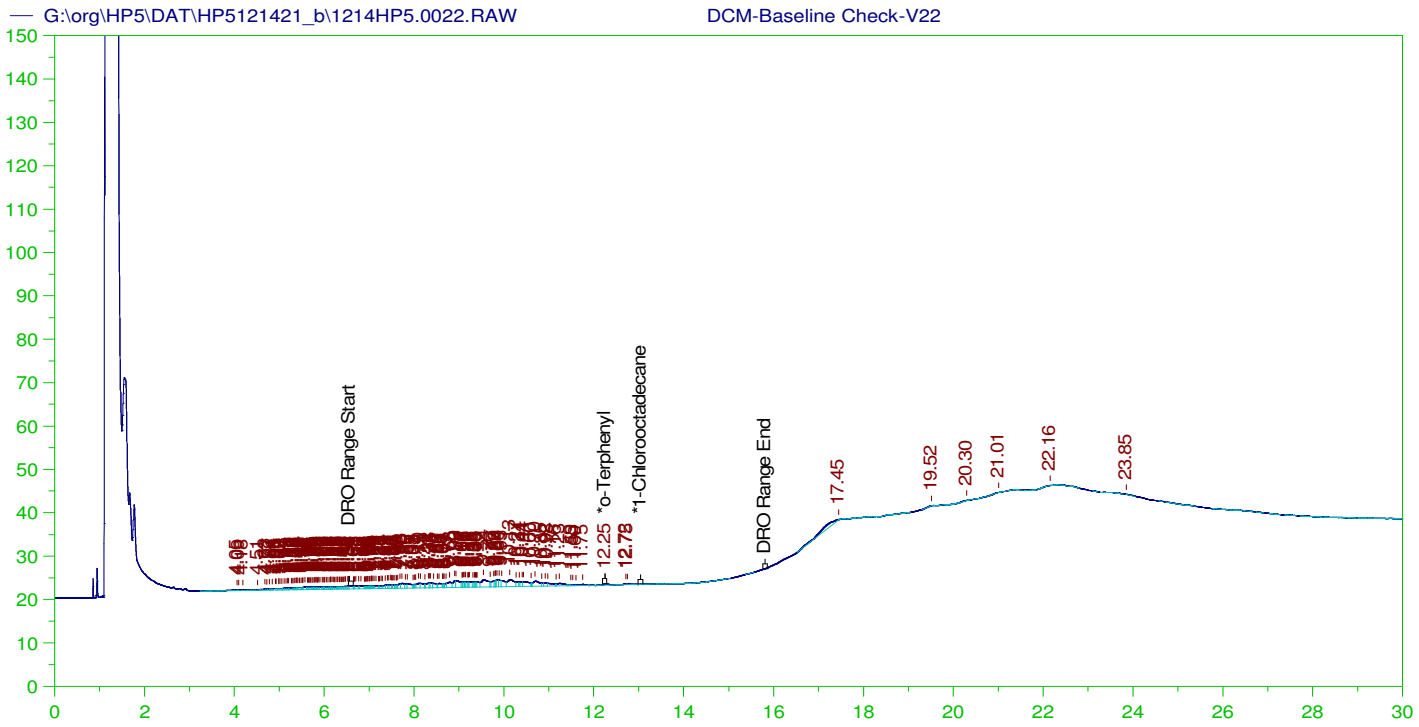
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121014-001B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0021.RAW
Date & Time Acquired: 12/14/2021 10:09:15 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.173	.194	.181	93.12	-
*1-Chlorooctadecane	13.045	.194	. .04		-
*#Triacontane	16.248	.194	.094	48.57	-

DRO Area:899386.9 DRO Amount: 2.785015E-02
TEH Area:2139623 TEH Amount: 6.625493E-02



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V22
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0022.RAW
Date & Time Acquired: 12/14/2021 10:52:32 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

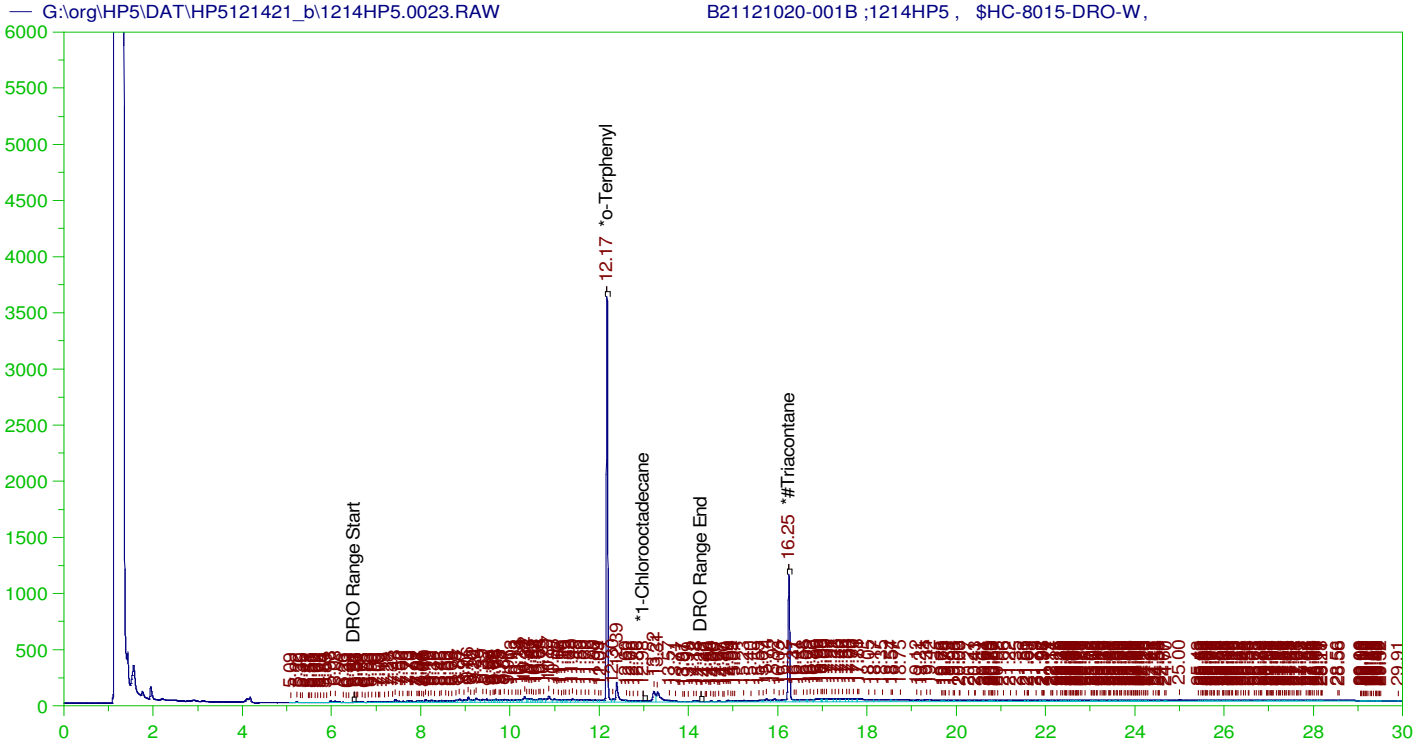
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.251	200.	.091	.05	-
*1-Chlorooctadecane	29.937	200.	.	.	-

DRO Area:299772.3 DRO Amount: 9.561143
TEH Area:403751.4 TEH Amount: 12.87752

ERH2213 (RHMW01R) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0023.RAW B21121020-001B ;1214HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121020-001B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0023.RAW
Date & Time Acquired: 12/14/2021 11:35:45 PM
Method File: G:\Org\HP5\Methods\D3_8015-121423-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

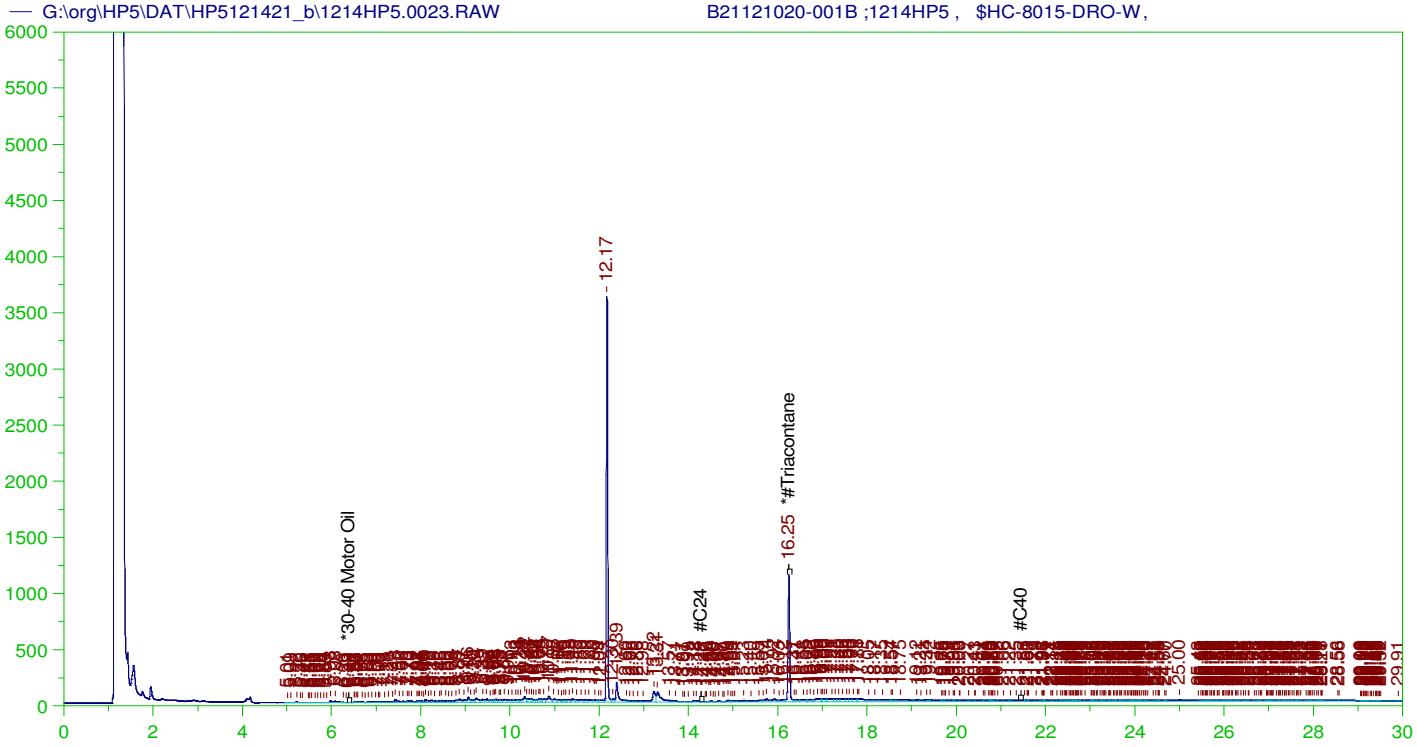
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.173	.19	.187	98.38	-
*1-Chlorooctadecane	12.982	.19	.003	1.4	-
*#Triacontane	16.247	.19	.102	53.6	-

DRO Area:9412167 DRO Amount: 0.2859029
TEH Area:1.95192E+07 TEH Amount: 0.5929129

ERH2213 (RHMW01R) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0023.RAW B21121020-001B ;1214HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121020-001B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0023.RAW
Date & Time Acquired: 12/14/2021 11:35:45 PM
Method File: G:\Org\HP5\Methods\D3_OROS-121423-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

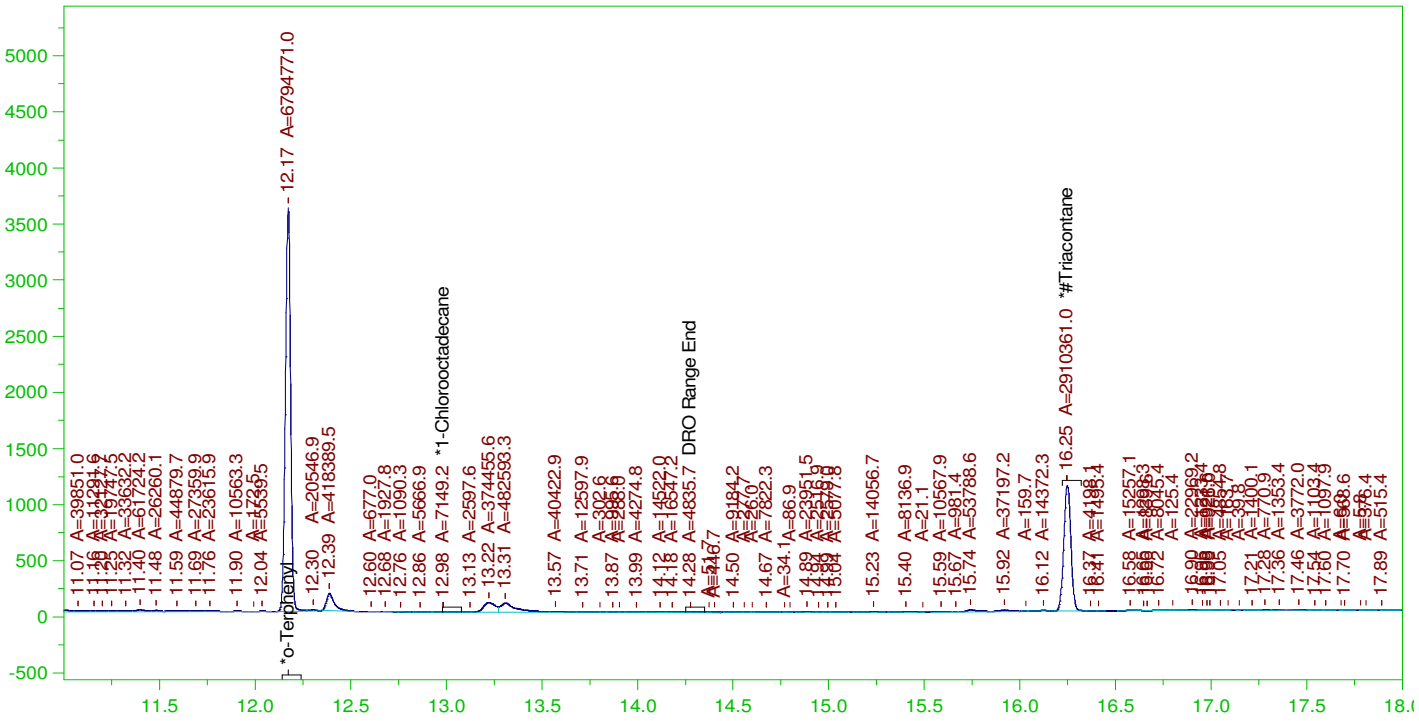
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.247	.476	.102	21.44	-

RRO Area:6850202 RRO AMOUNT: 0.2285722

ERH2213 (RHMW01R) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0023.RAW B21121020-001B ;1214HP5 , $HC-8015-DRO-W,



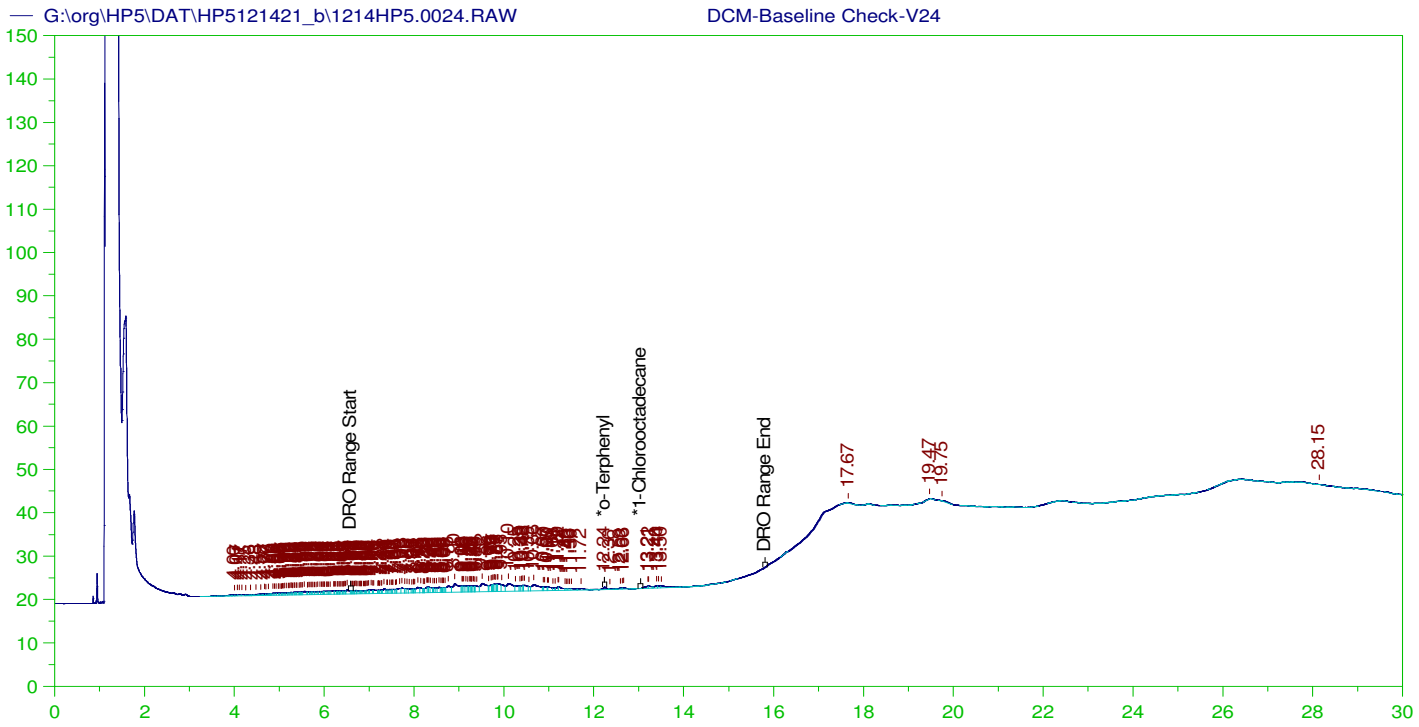
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121020-001B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0023.RAW
Date & Time Acquired: 12/14/2021 11:35:45 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.173	.19	.182	95.68	-
*1-Chlorooctadecane	12.982	.19	. .1		-
*#Triacontane	16.247	.19	.096	50.3	-

DRO Area:4640673 DRO Amount: 0.1409645
TEH Area:5724896 TEH Amount: 0.1738988



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V24
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0024.RAW
Date & Time Acquired: 12/15/2021 12:19:01 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

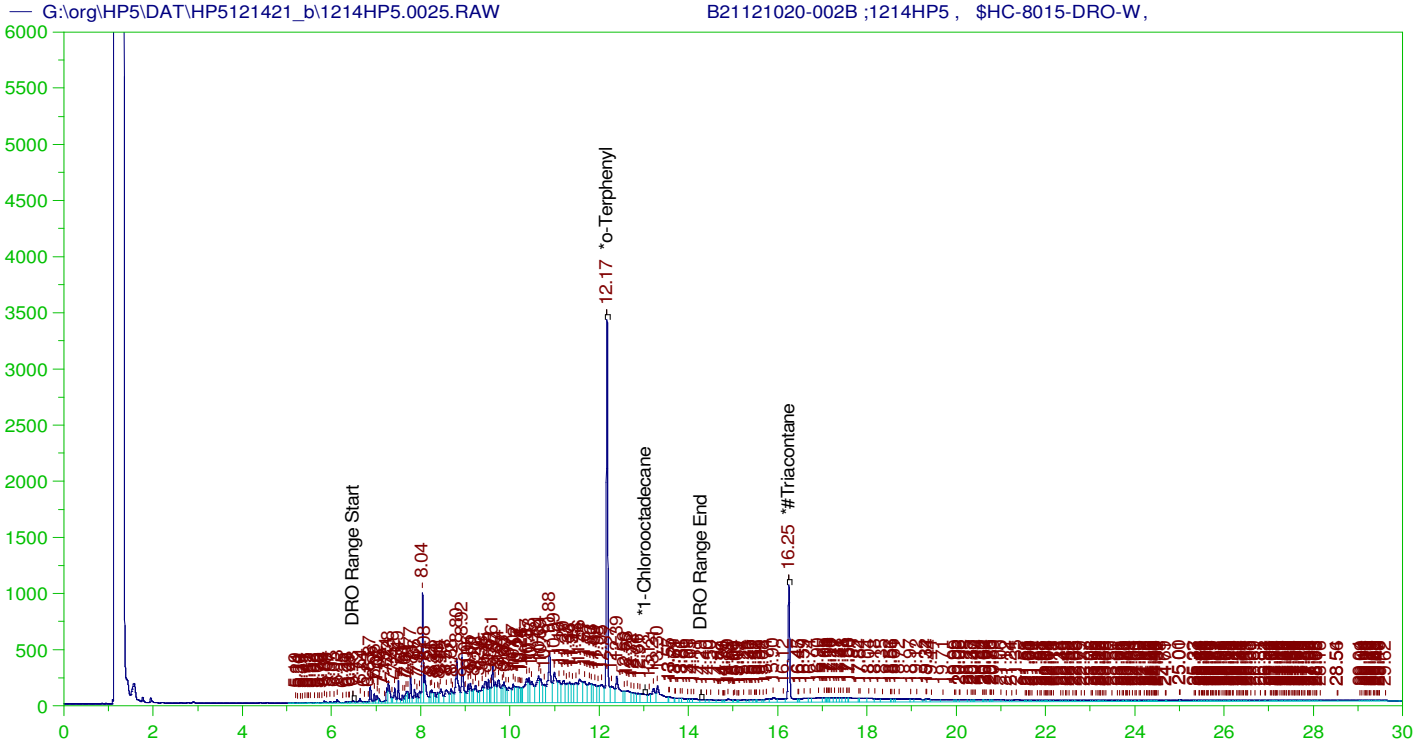
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.238	200.	.093	.05	-
*1-Chlorooctadecane	29.886	200.	.	.	-

DRO Area:343739.4 DRO Amount: 10.96346
TEH Area:445163 TEH Amount: 14.19833

ERH2215 (RHMW02) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0025.RAW B21121020-002B ;1214HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121020-002B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0025.RAW
Date & Time Acquired: 12/15/2021 1:02:11 AM
Method File: G:\Org\HP5\Methods\D3_8015-121423-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

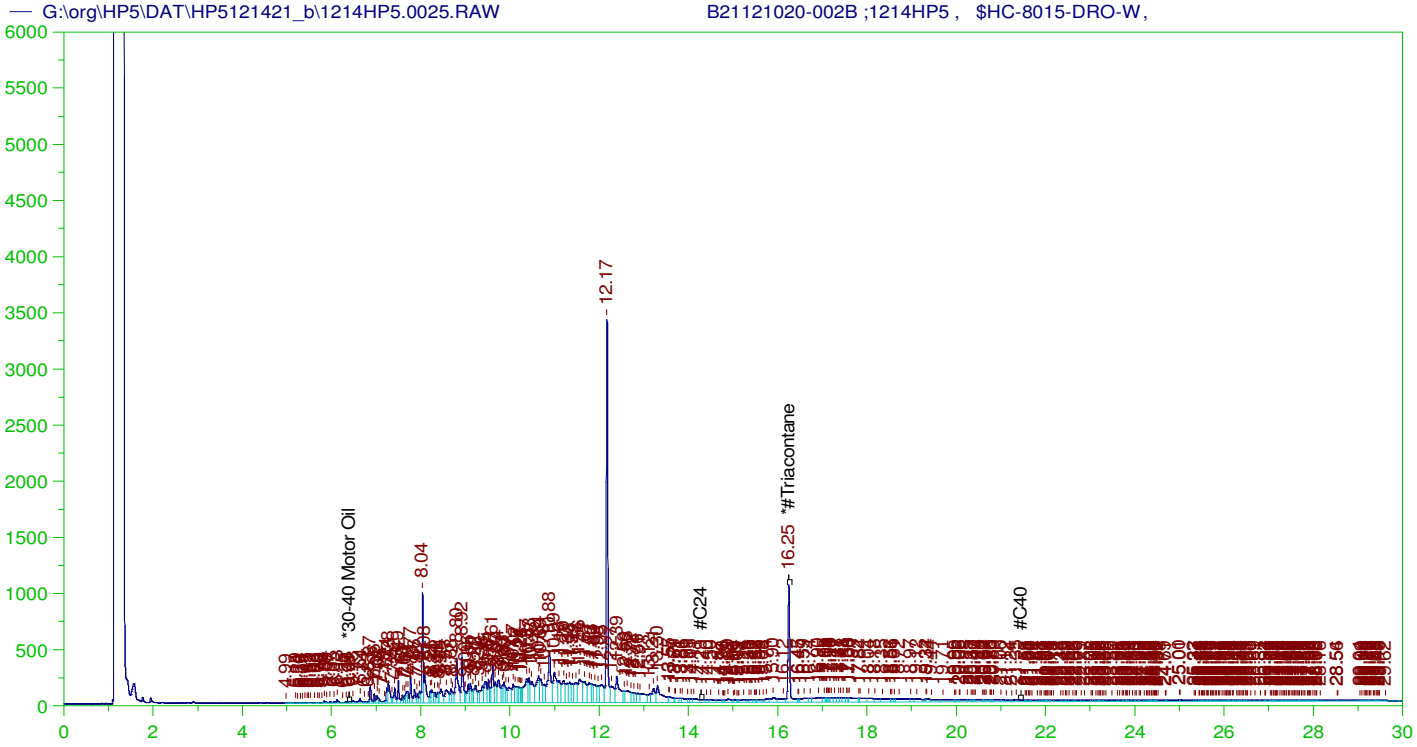
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.173	.194	.198	102.22	-
*1-Chlorooctadecane	29.936	.194	.	.	-
*#Triacontane	16.246	.194	.104	53.79	-

DRO Area:5.334132E+07 DRO Amount: 1.651752
TEH Area:6.706593E+07 TEH Amount: 2.076744

ERH2215 (RHMW02) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0025.RAW B21121020-002B ;1214HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121020-002B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0025.RAW
Date & Time Acquired: 12/15/2021 1:02:11 AM
Method File: G:\Org\HP5\Methods\D3_OROS-121423-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

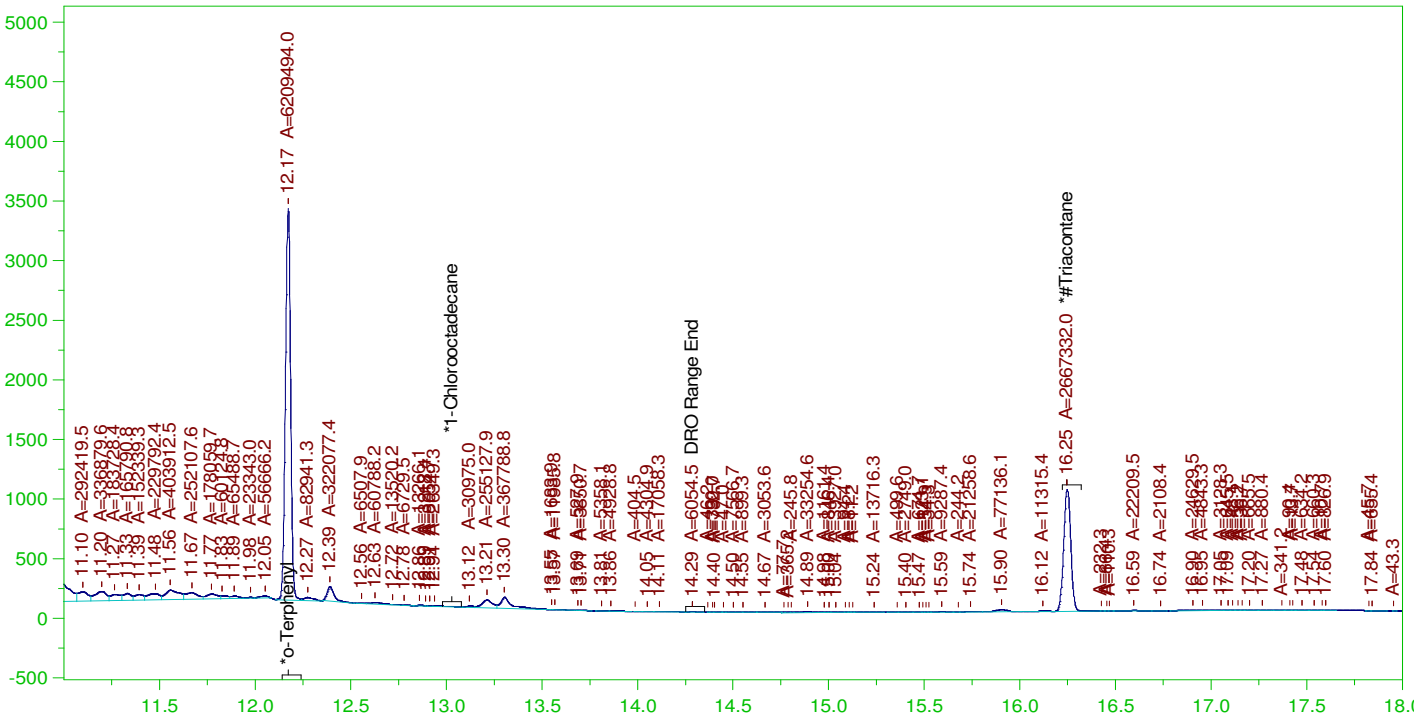
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.246	.485	.104	21.52	-

RRO Area:1.012333E+07 RRO AMOUNT: 0.3443465

ERH2215 (RHMW02) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0025.RAW B21121020-002B ;1214HP5 , $HC-8015-DRO-W,



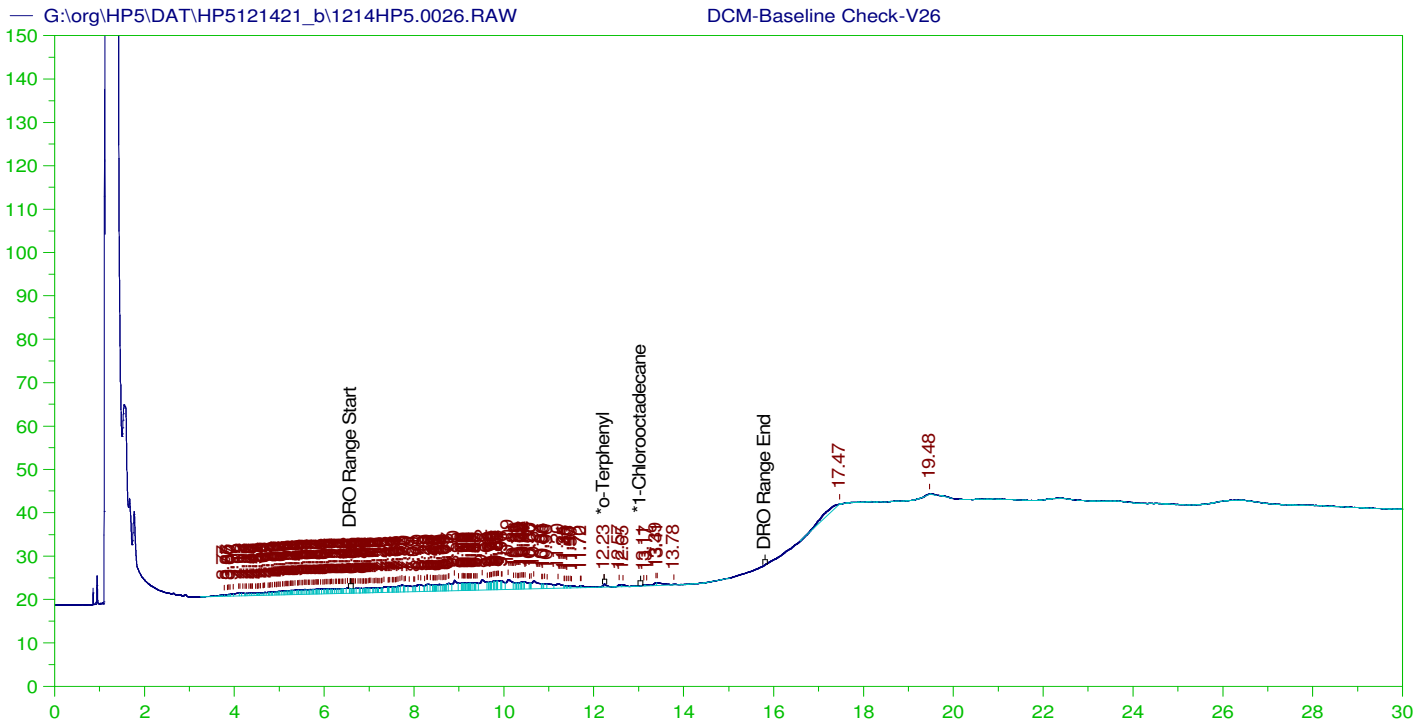
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121020-002B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0025.RAW
Date & Time Acquired: 12/15/2021 1:02:11 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.173	.194	.17	87.43	-
*1-Chlorooctadecane	29.992	.194	.	.	-
*#Triacontane	16.246	.194	.09	46.1	-

DRO Area:2.213872E+07 DRO Amount: 0.6855412
TEH Area:2.27859E+07 TEH Amount: 0.7055817



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V26
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0026.RAW
Date & Time Acquired: 12/15/2021 1:45:21 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

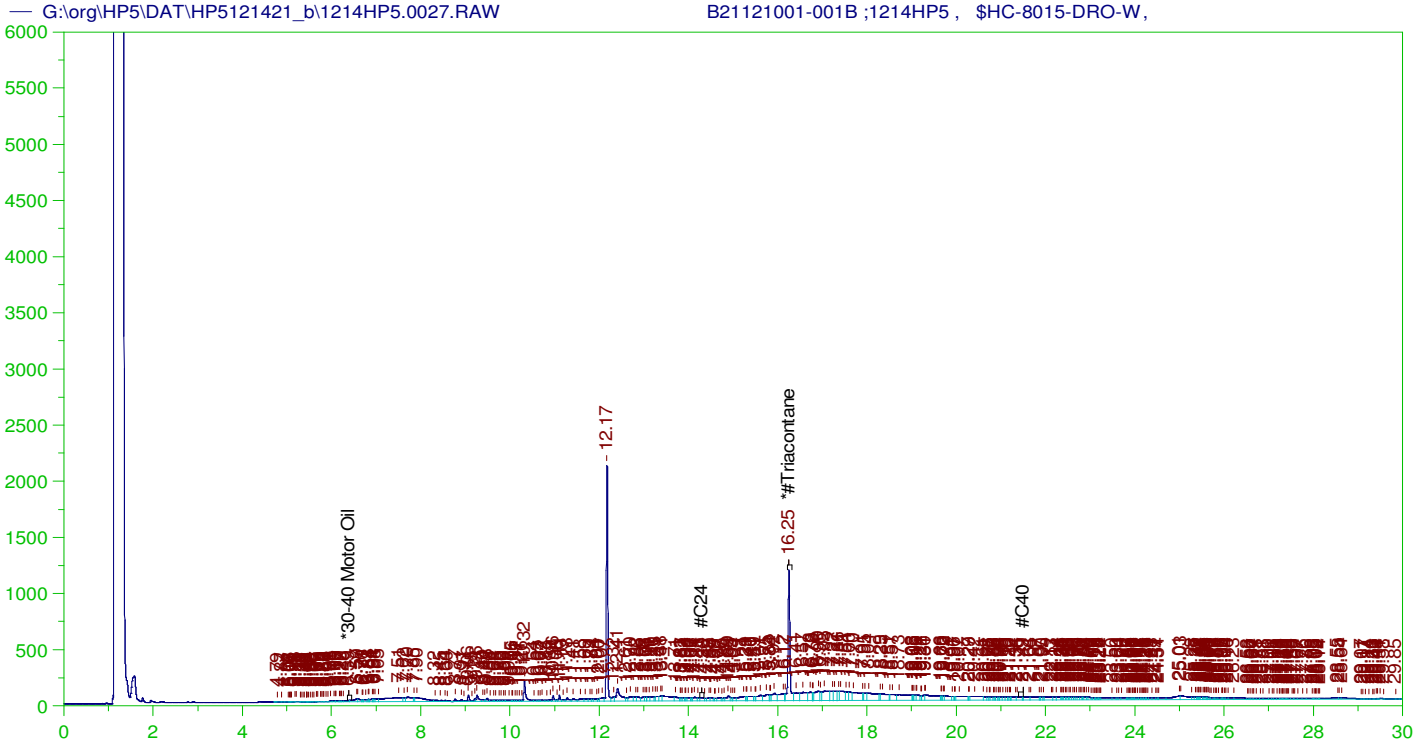
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.228	200.	.107	.05	-
*1-Chlorooctadecane	29.985	200.	.	.	-

DRO Area:447037.8 DRO Amount: 14.25813
TEH Area:633257.3 TEH Amount: 20.19754

ERH2222 (RHMW08) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0027.RAW B21121001-001B ;1214HP5 , $HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121001-001B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0027.RAW
Date & Time Acquired: 12/15/2021 2:28:37 AM
Method File: G:\Org\HP5\Methods\D3_OROS-121413-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

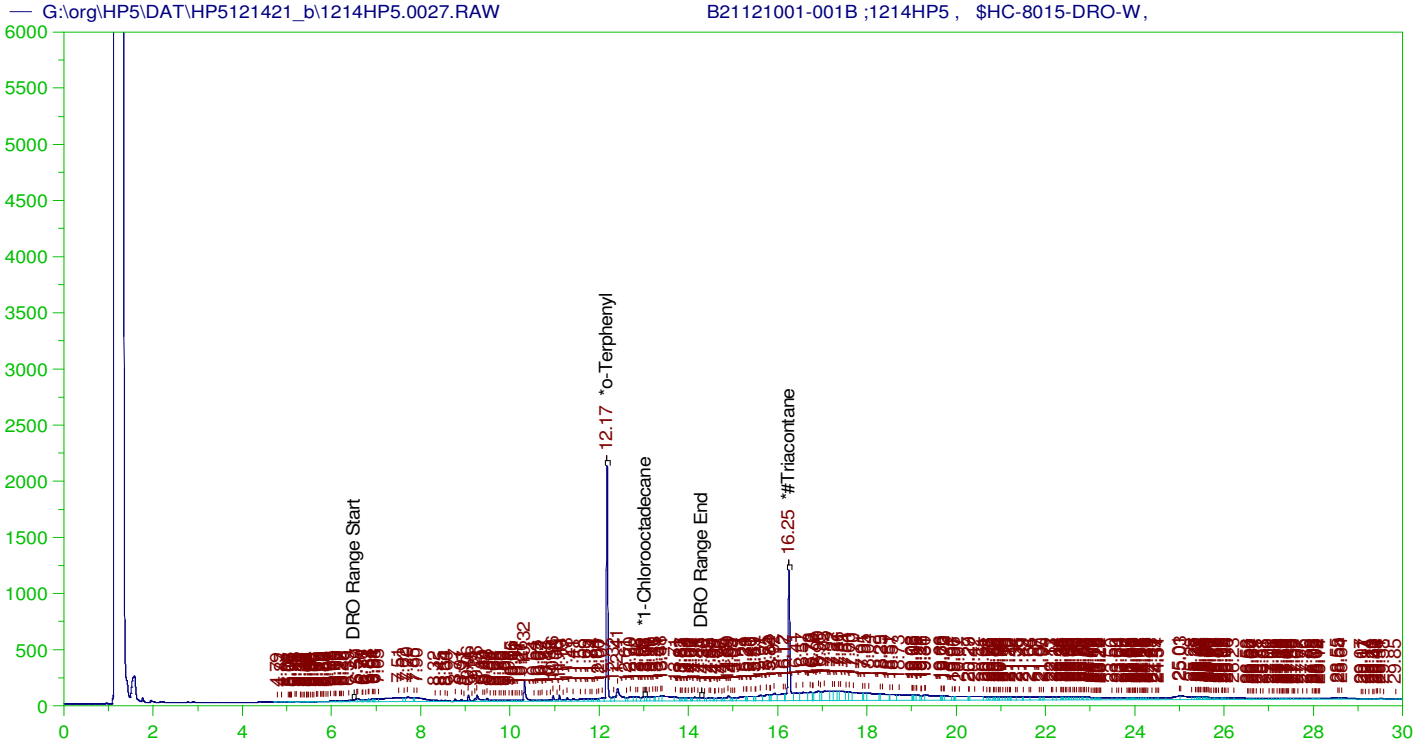
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.248	.485	.119	24.43	-

RRO Area:1.959953E+07 RRO AMOUNT: 0.6666806

ERH2222 (RHMW08) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0027.RAW B21121001-001B ;1214HP5 , $HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121001-001B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0027.RAW
Date & Time Acquired: 12/15/2021 2:28:37 AM
Method File: G:\Org\HP5\Methods\DR_8015-121413-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

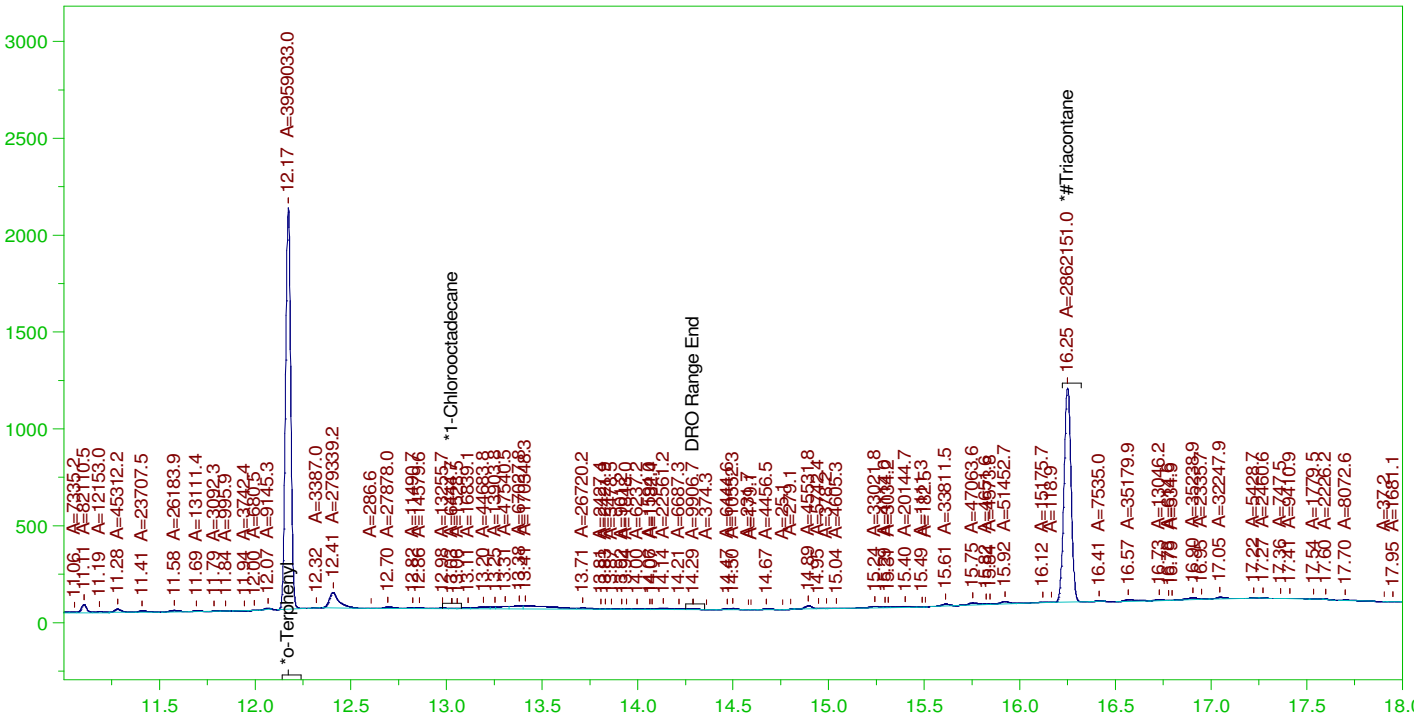
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.174	.194	.115	59.22	-
*1-Chlorooctadecane	13.029	.194	.002	1.16	-
*#Triacontane	16.248	.194	.119	61.08	-

DRO Area:1.137906E+07 DRO Amount: 0.3523605
TEH Area:3.851906E+07 TEH Amount: 1.19277

ERH2222 (RHMW08) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0027.RAW B21121001-001B ;1214HP5 , $HC-8015-DRO-W,



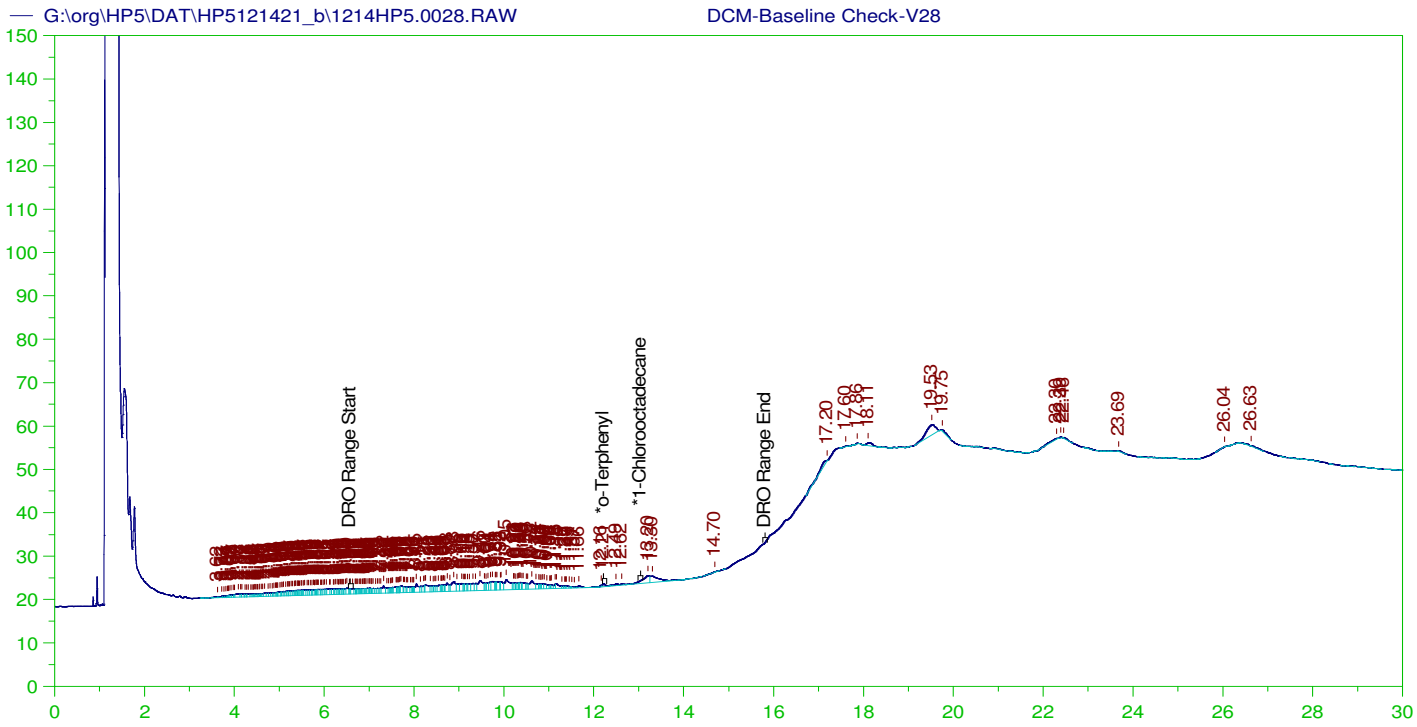
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121001-001B ;1214HP5 , $HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0027.RAW
Date & Time Acquired: 12/15/2021 2:28:37 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.174	.194	.108	55.75	-
*1-Chlorooctadecane	13.029	.194	. .09		-
*#Triacontane	16.248	.194	.096	49.47	-

DRO Area:5531396 DRO Amount: 0.1712836
TEH Area:7014097 TEH Amount: 0.2171965



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V28
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0028.RAW
Date & Time Acquired: 12/15/2021 3:11:50 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

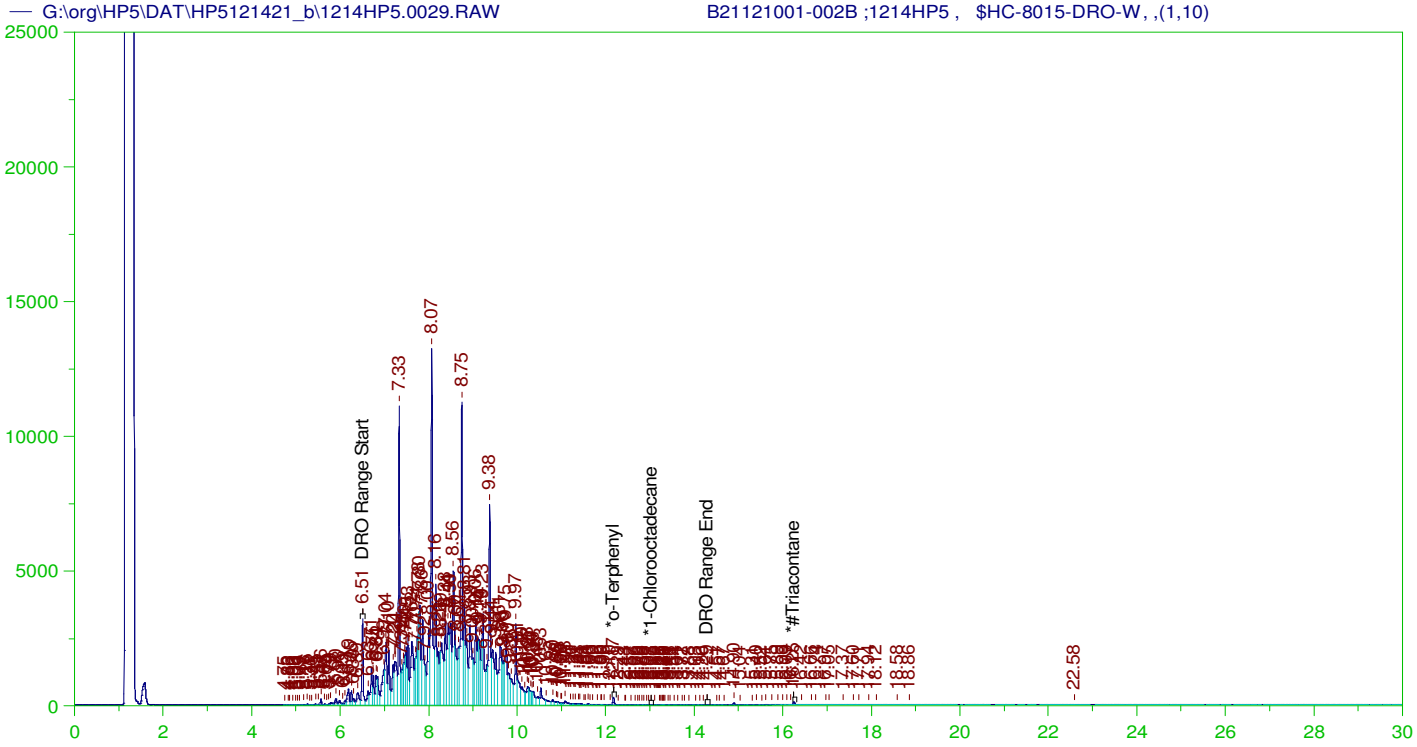
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.212	200.	.088	.04	-
*1-Chlorooctadecane	29.99	200.	.	.	-

DRO Area:453949.7 DRO Amount: 14.47858
TEH Area:698892 TEH Amount: 22.29094

ERH2226 (RHMW2254-01) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0029.RAW B21121001-002B ;1214HP5 , $HC-8015-DRO-W, ,(1,10)



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121001-002B ;1214HP5 , $HC-8015-DRO-W, ,(1,10)
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0029.RAW
Date & Time Acquired: 12/15/2021 3:54:56 AM
Method File: G:\Org\HP5\Methods\DR_8015-121429-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1030 Dilution: 10 S.A.: 1

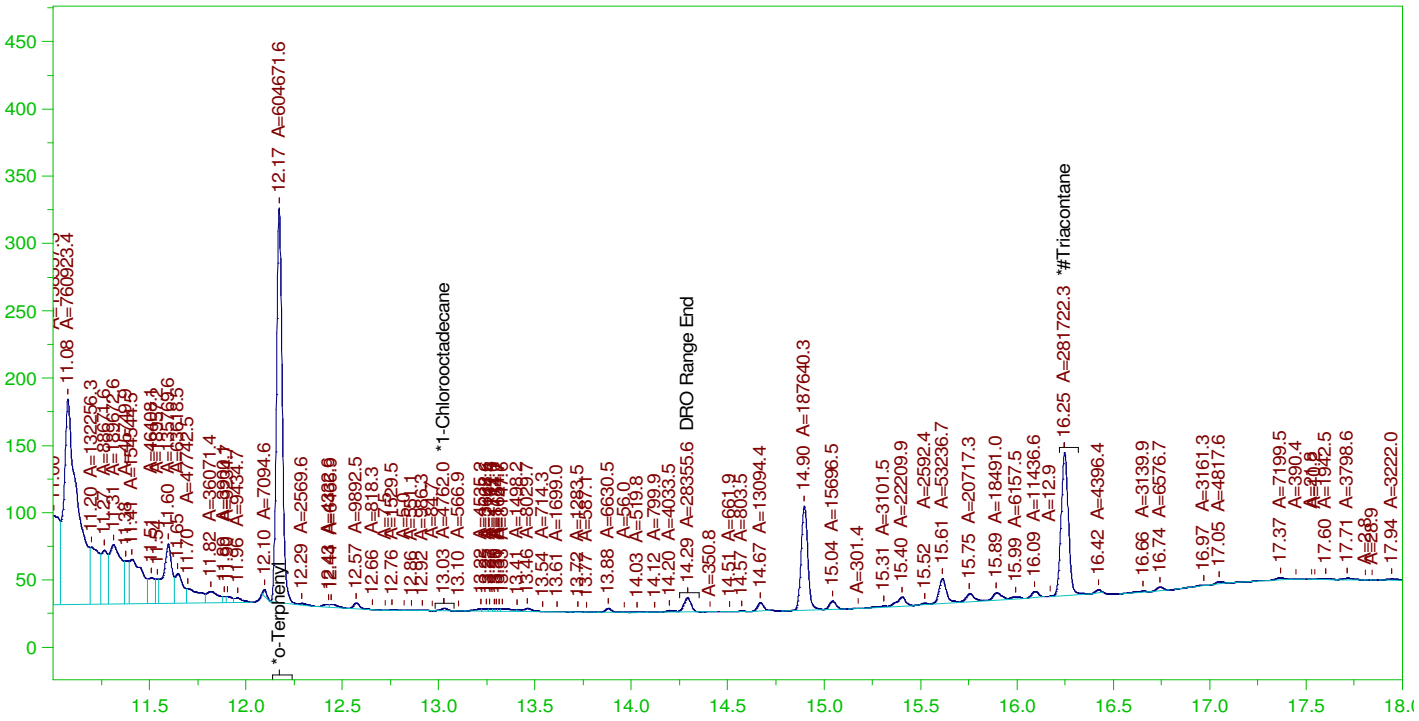
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.173	.194	.184	94.59	-
*1-Chlorooctadecane	13.028	.194	.004	2.16	-
*#Triacontane	16.247	.194	.099	50.96	-

DRO Area:4.570956E+08 DRO Amount: 141.5429
TEH Area:4.668388E+08 TEH Amount: 144.5599

ERH2226 (RHMW2254-01) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0029.RAW B21121001-002B ;1214HP5 , $HC-8015-DRO-W, ,(1,10)



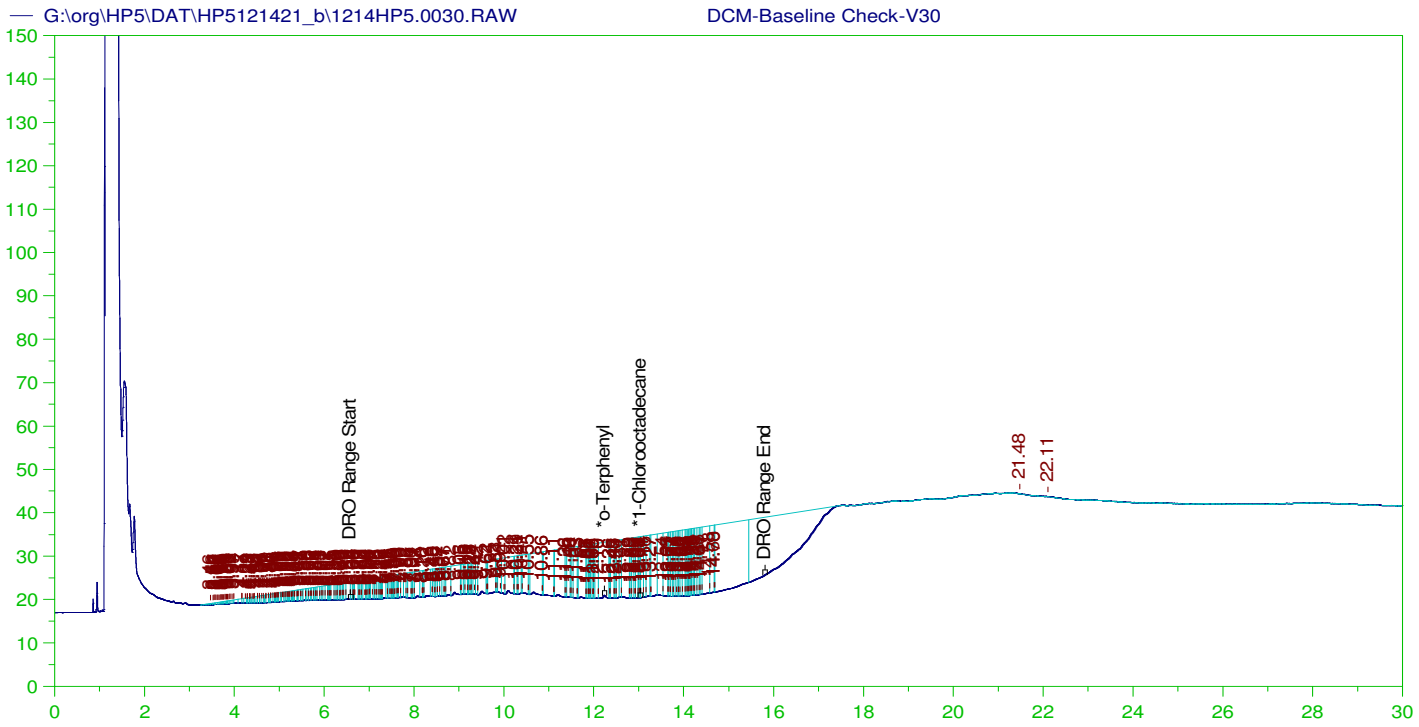
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121001-002B ;1214HP5 , $HC-8015-DRO-W, ,(1,10)
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0029.RAW
Date & Time Acquired: 12/15/2021 3:54:56 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1030 Dilution: 10 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.173	.194	.165	85.14	-
*1-Chlorooctadecane	13.028	.194	.001	.67	-
*#Triacontane	16.247	.194	.095	48.69	-

DRO Area:4.551242E+08 DRO Amount: 140.9324
TEH Area:4.647907E+08 TEH Amount: 143.9257



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V30
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0030.RAW
Date & Time Acquired: 12/15/2021 4:38:08 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

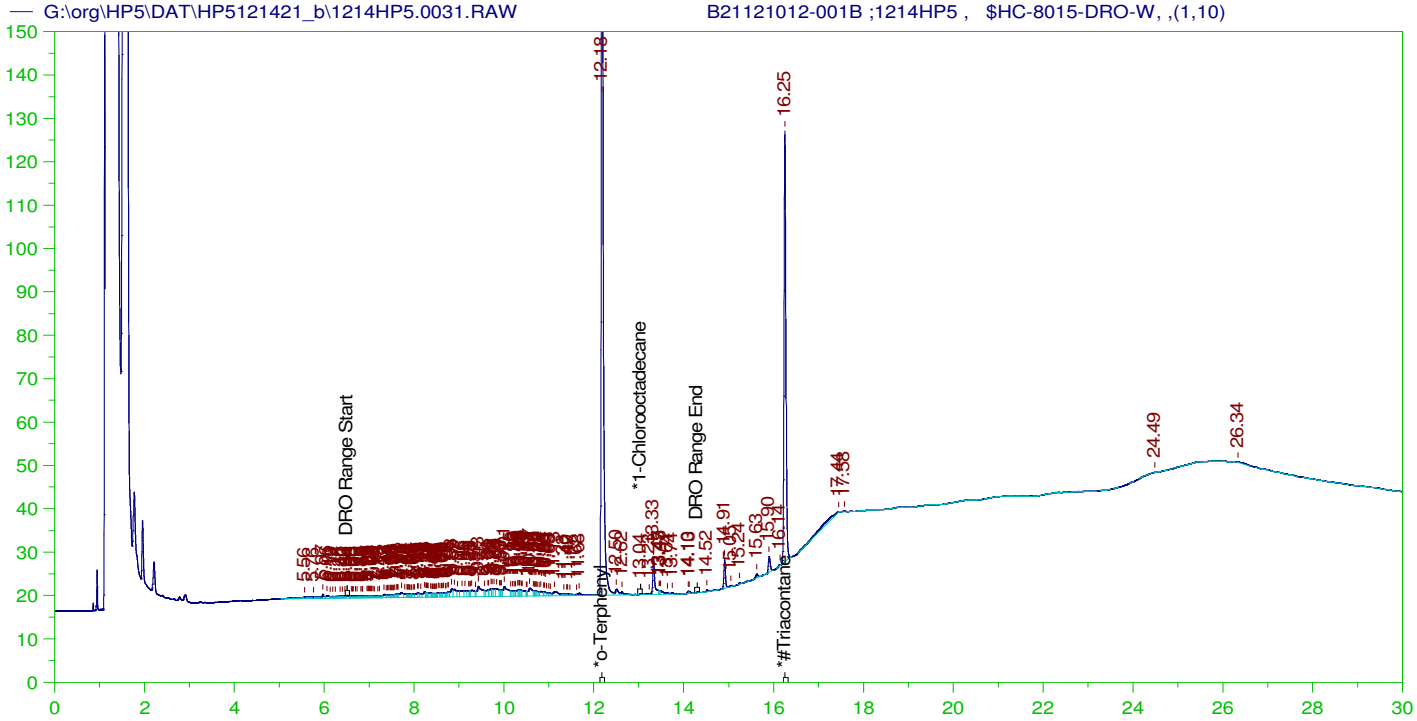
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.969	200.	.	. -
*1-Chlorooctadecane	13.043	200.	1.52	.76 -

DRO Area:5406079 DRO Amount: 172.4251
TEH Area:4808599 TEH Amount: 153.3687

ERH 2224 (RHMW15-05 Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0031.RAW B21121012-001B ;1214HP5 , $HC-8015-DRO-W, ,(1,10)



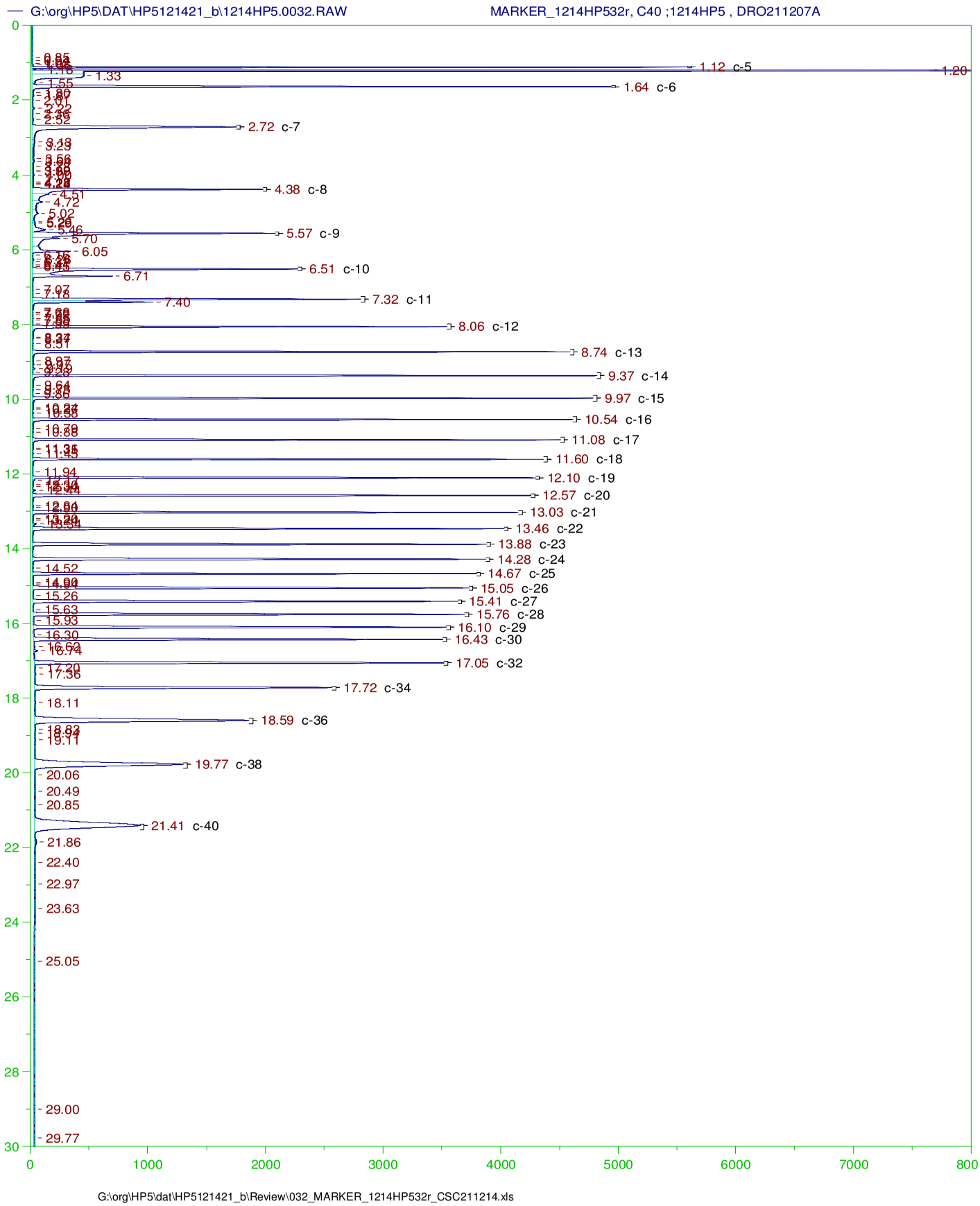
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121012-001B ;1214HP5 , $HC-8015-DRO-W, ,(1,10)
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0031.RAW
Date & Time Acquired: 12/15/2021 5:21:22 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IH-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1040 Dilution: 10 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.18	.192	.186	96.62	-
*1-Chlorooctadecane	13.036	.192	. .16		-
*#Triacontane	16.253	.192	.095	49.26	-

DRO Area:353974.1 DRO Amount: 0.1085566
TEH Area:453888 TEH Amount: 0.1391982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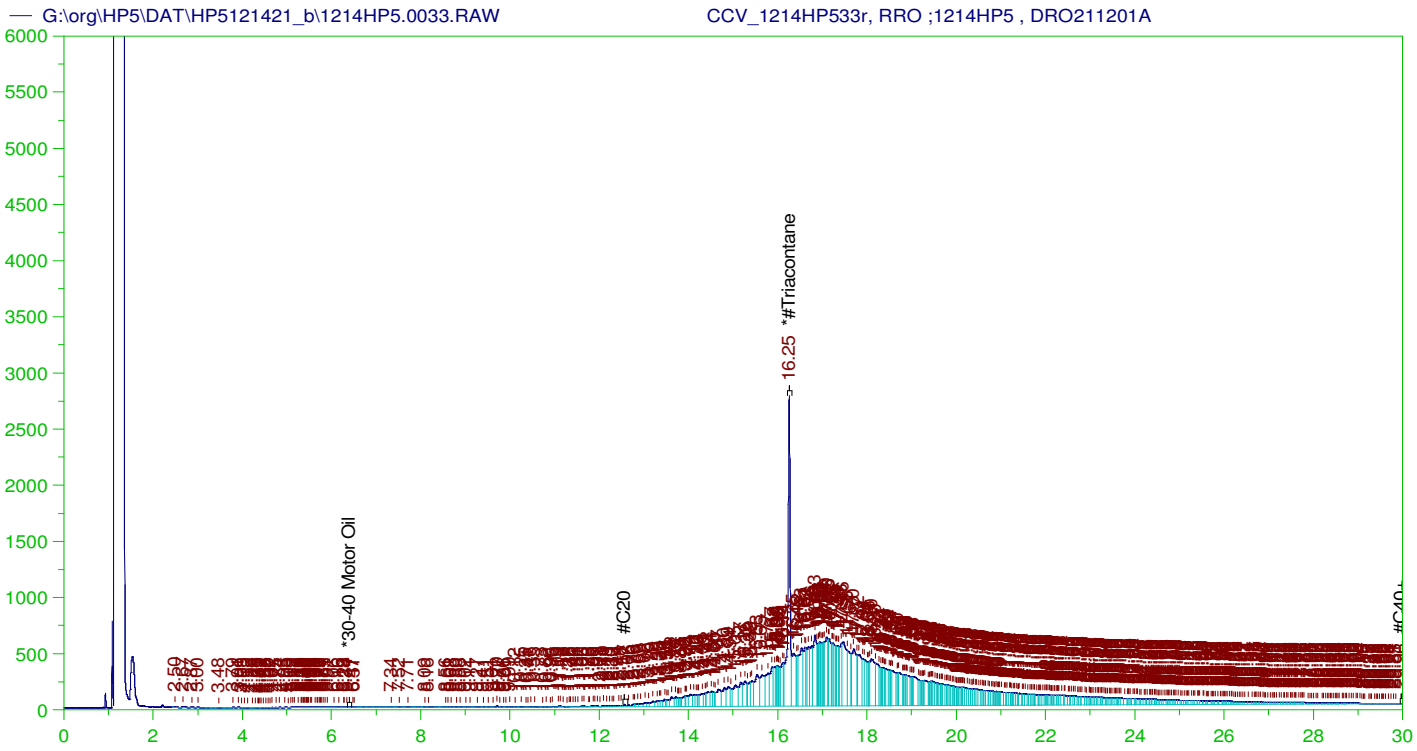
MARKER_1214HP532r, C40 ;1214HP5 , DRO211207A
1.12 c-5
1.20
1.33
1.64 c-6
2.72 c-7
4.38 c-8
4.51
4.72
5.02
5.46
5.57 c-9
5.70
6.05
6.51 c-10
6.71
7.32 c-11
7.40
8.06 c-12
8.74 c-13
9.37 c-14
9.97 c-15
10.54 c-16
11.08 c-17
11.60 c-18
12.10 c-19
12.57 c-20
13.03 c-21
13.46 c-22
13.88 c-23
14.28 c-24
14.52
14.67 c-25
15.05 c-26
15.26
15.41 c-27
15.63
15.76 c-28
15.93
16.10 c-29
16.30
16.43 c-30
17.05 c-32
17.36
17.72 c-34
18.11
18.59 c-36
19.11
19.77 c-38
20.06
20.49
20.85
21.41 c-40
21.86
22.40
22.97
23.63
25.05
29.00
29.77
0
1000
2000
3000
4000
5000
6000
7000
800
G:\org\HP5\dat\HP5121421_b\Review\032_MARKER_1214HP532r_CSC211214.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP533r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0033.RAW
Date & Time Acquired: 12/15/2021 6:47:32 AM
Method File: G:\Org\HP5\Methods\DC_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.253	500.	351.886	70.38	-

~~RRO~~ TEH (Oil Range) Area:1.446335E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5067.319

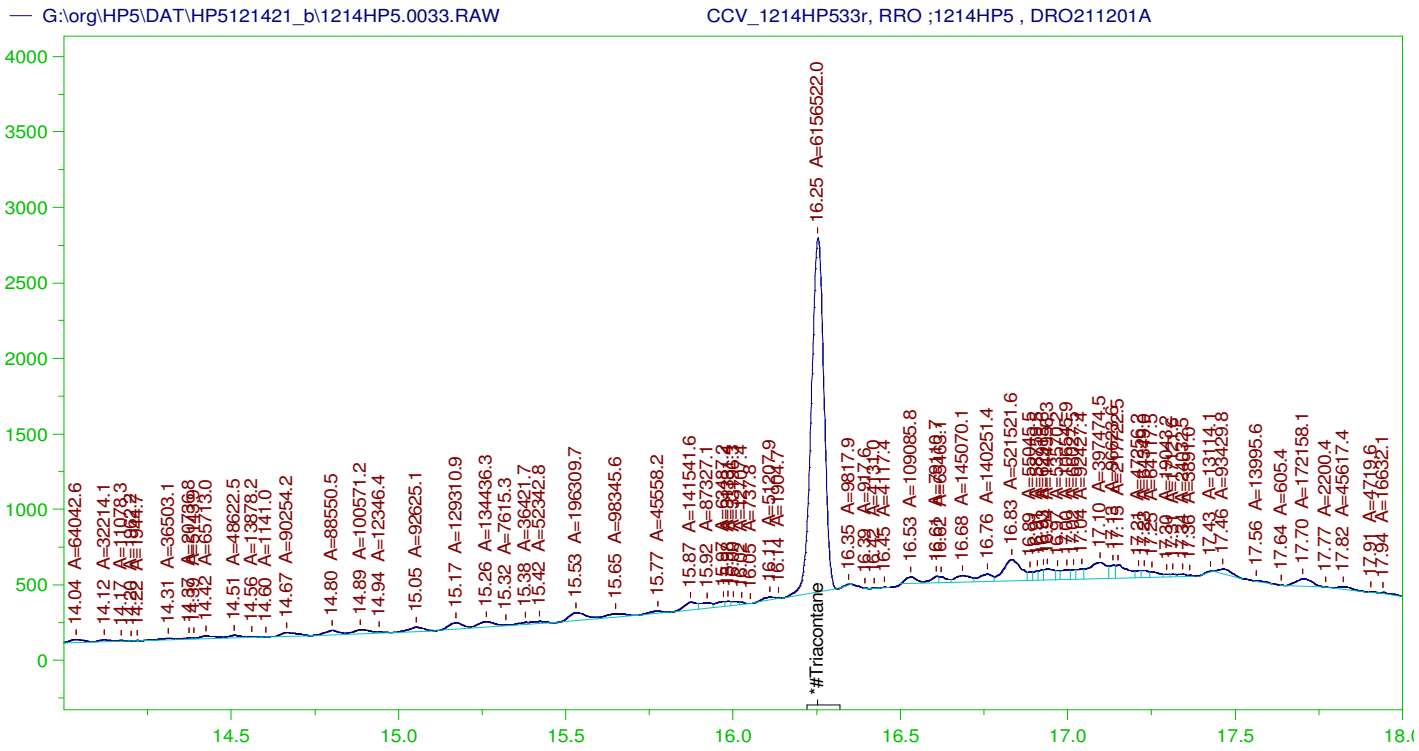
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0033.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.253	200.	351.886	175.94	75-125

AMN 01/07/2022

G:\org\HP5\dat\HP5121421_b\Review\033_CCV_1214HP533r_DC_ORO-AI-L%.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP533r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0033.RAW
Date & Time Acquired: 12/15/2021 6:47:32 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

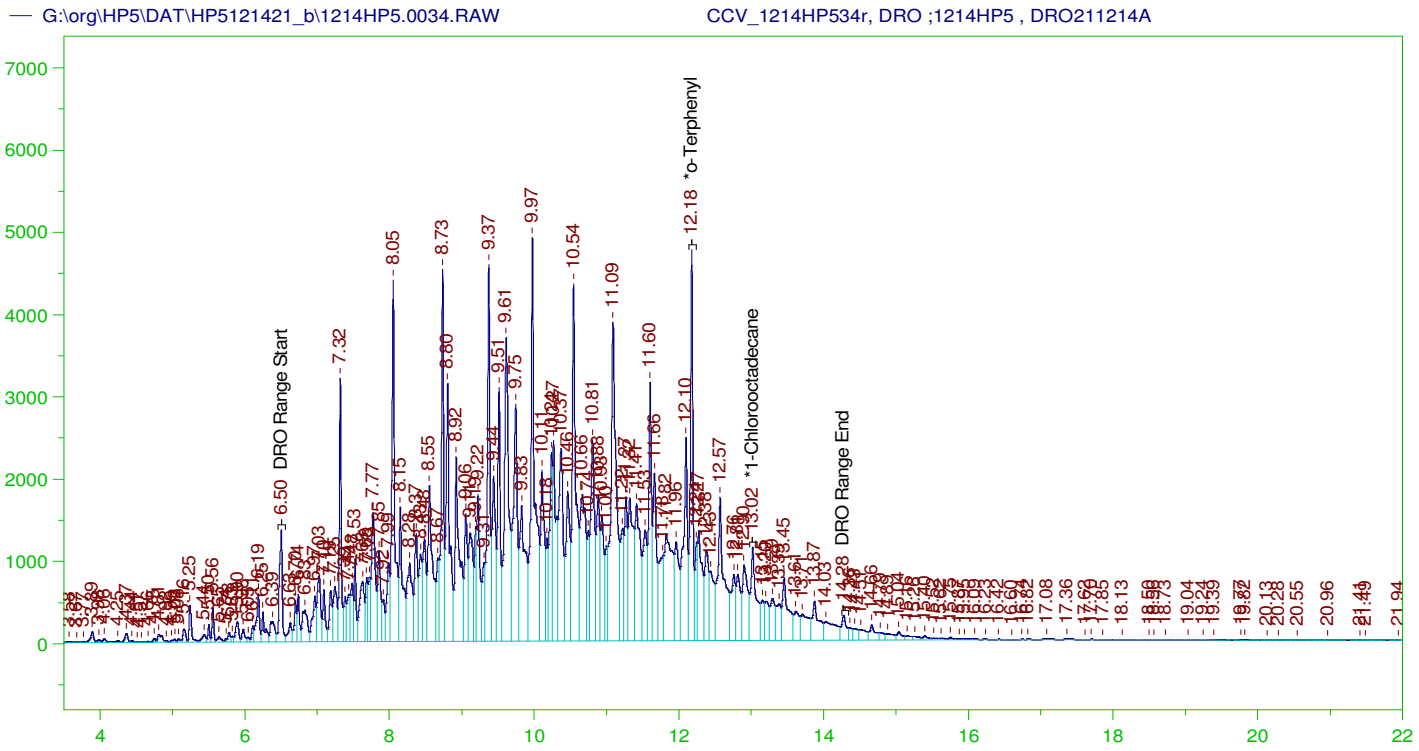
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.253	500.	212.807	42.56	-

RRO Area:5660599 RRO AMOUNT: 198.3224

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0033.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.253	200.	212.807	106.4	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1214HP534r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0034.RAW
Date & Time Acquired: 12/15/2021 7:32:44 AM
Method File: G:\Org\HP5\Methods\DC_8015-24-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

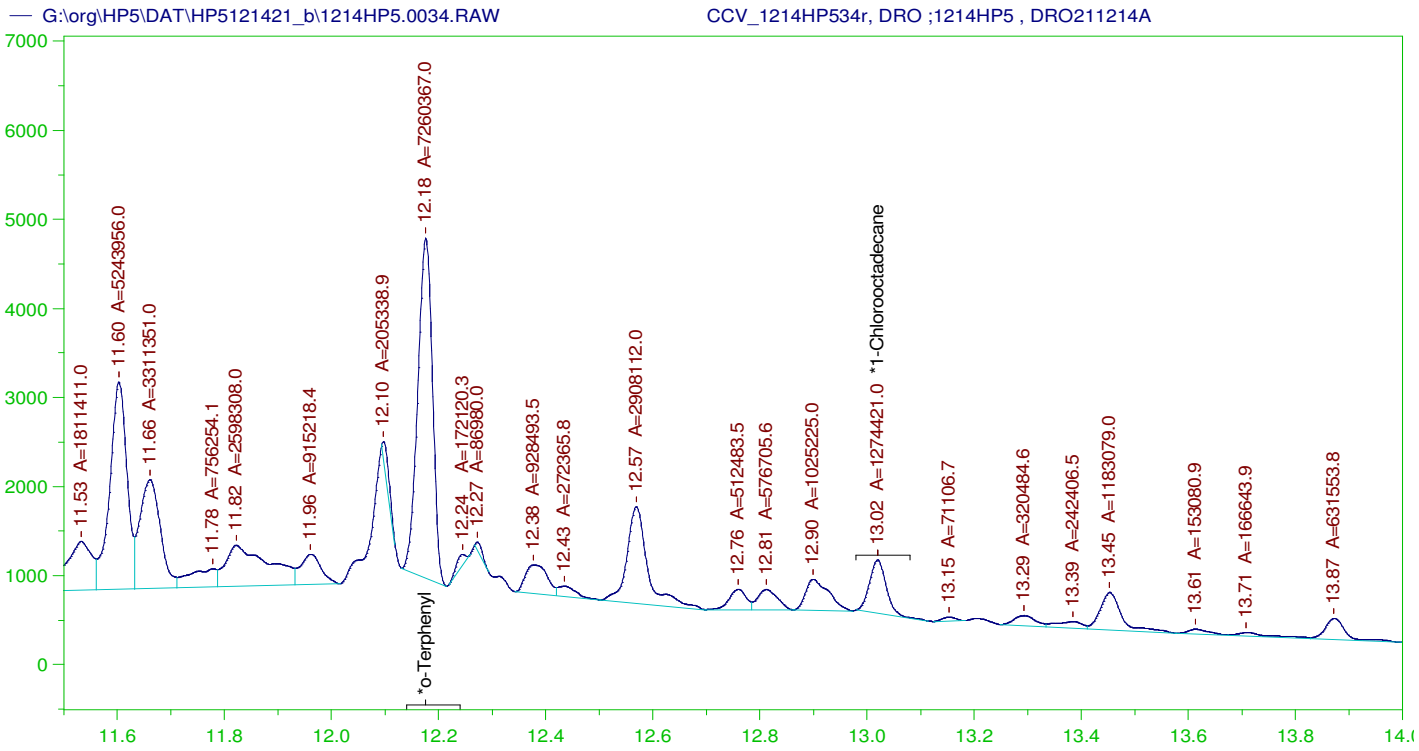
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.176	200.	338.297	169.15	-
*1-Chlorooctadecane	13.02	200.	166.194	83.1	-

DRO Area:4.815129E+08 DRO Amount: 15357.7
TEH Area:4.990534E+08 TEH Amount: 15917.15

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0034.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15917.15	106.11	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.176	200.	338.297	169.15	85-115
*1-Chlorooctadecane	13.02	200.	166.194	83.1	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1214HP534r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0034.RAW
Date & Time Acquired: 12/15/2021 7:32:44 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

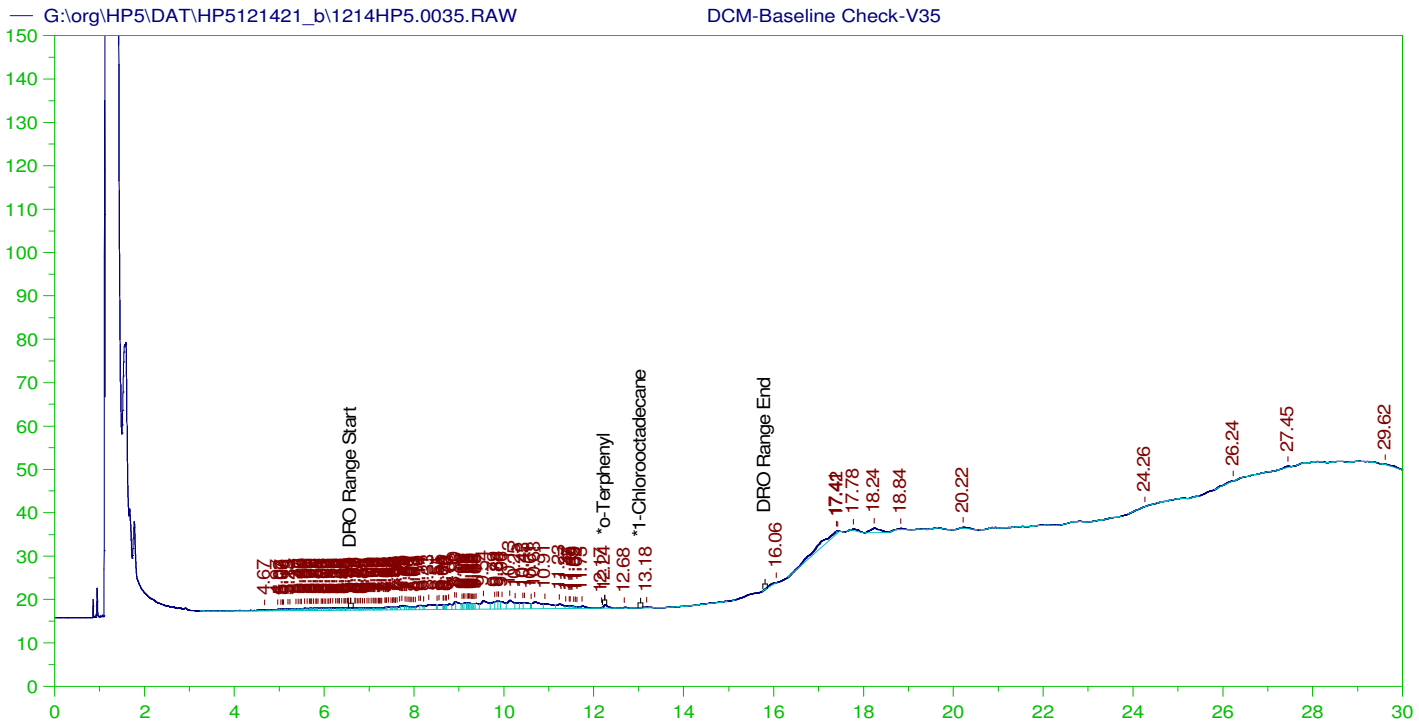
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.176	200.	204.464	102.23	-
*1-Chlorooctadecane	13.02	200.	35.89	17.94	-

DRO Area:2.668975E+08 DRO Amount: 8512.611
TEH Area:2.776204E+08 TEH Amount: 8854.614

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0034.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8854.61	59.03	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.176	200.	204.464	102.23	85-115
*1-Chlorooctadecane	13.02	200.	35.89	17.94	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V35
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0035.RAW
Date & Time Acquired: 12/15/2021 8:15:35 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

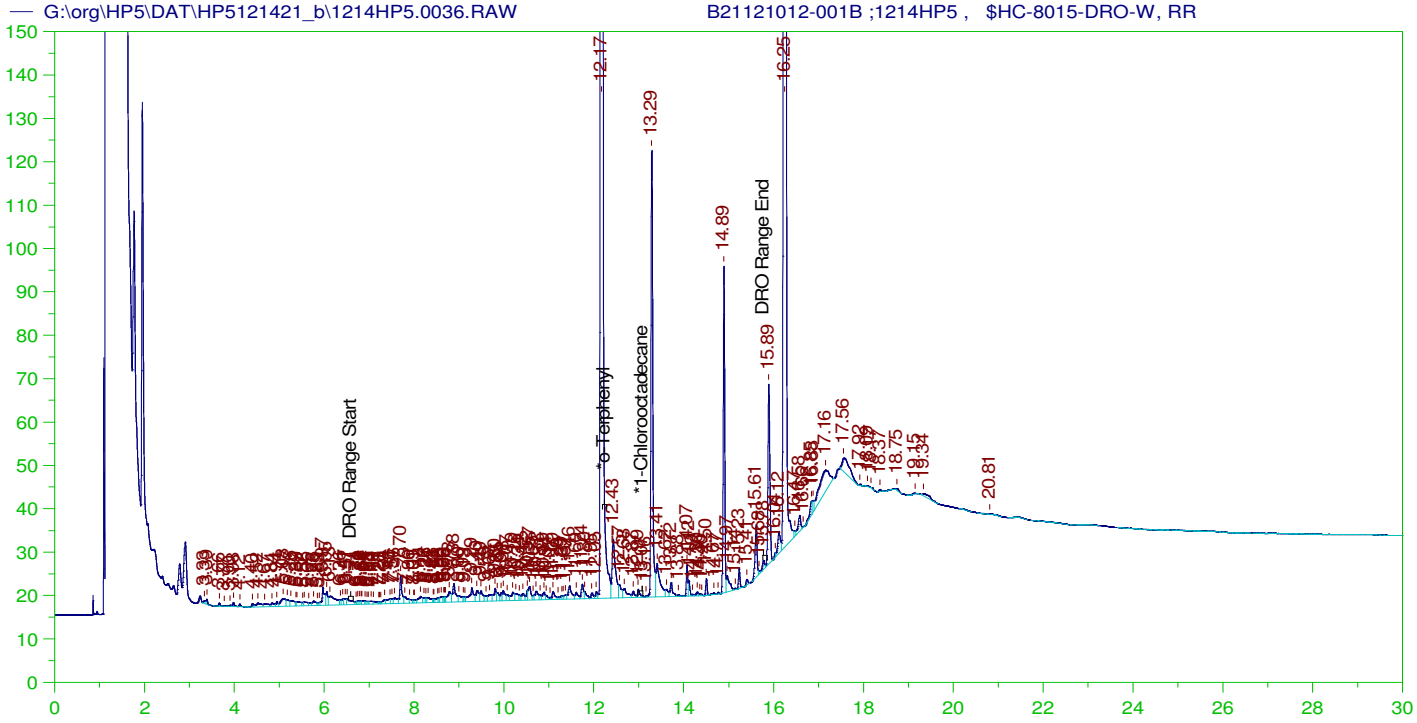
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.242	200.	.141	.07	-
*1-Chlorooctadecane	29.621	200.	.	.	-

DRO Area:315038.1 DRO Amount: 10.04804
TEH Area:458202.8 TEH Amount: 14.61423

ERH 2224 (RHMW15-05 Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0036.RAW B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0036.RAW
Date & Time Acquired: 12/15/2021 8:58:28 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

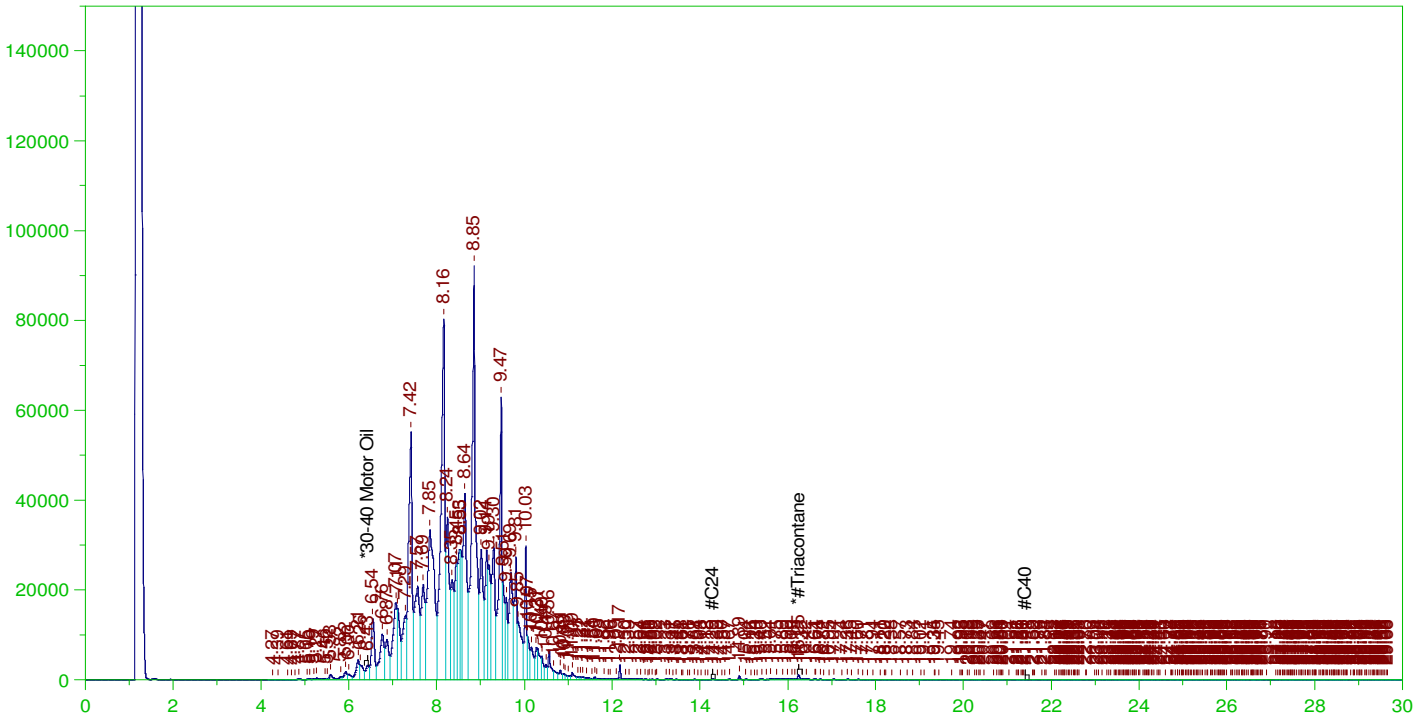
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.963	.192	.	.	-
*1-Chlorooctadecane	13.074	.192	.	.01	-

DRO Area:8070169 DRO Amount: 0.2474956
TEH Area:1.153457E+07 TEH Amount: 0.3537418

ERH2226 (RHMW2254-01) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0037.RAW B21121001-002B ;1214HP5 , $HC-8015-DRO-W, RR for oil



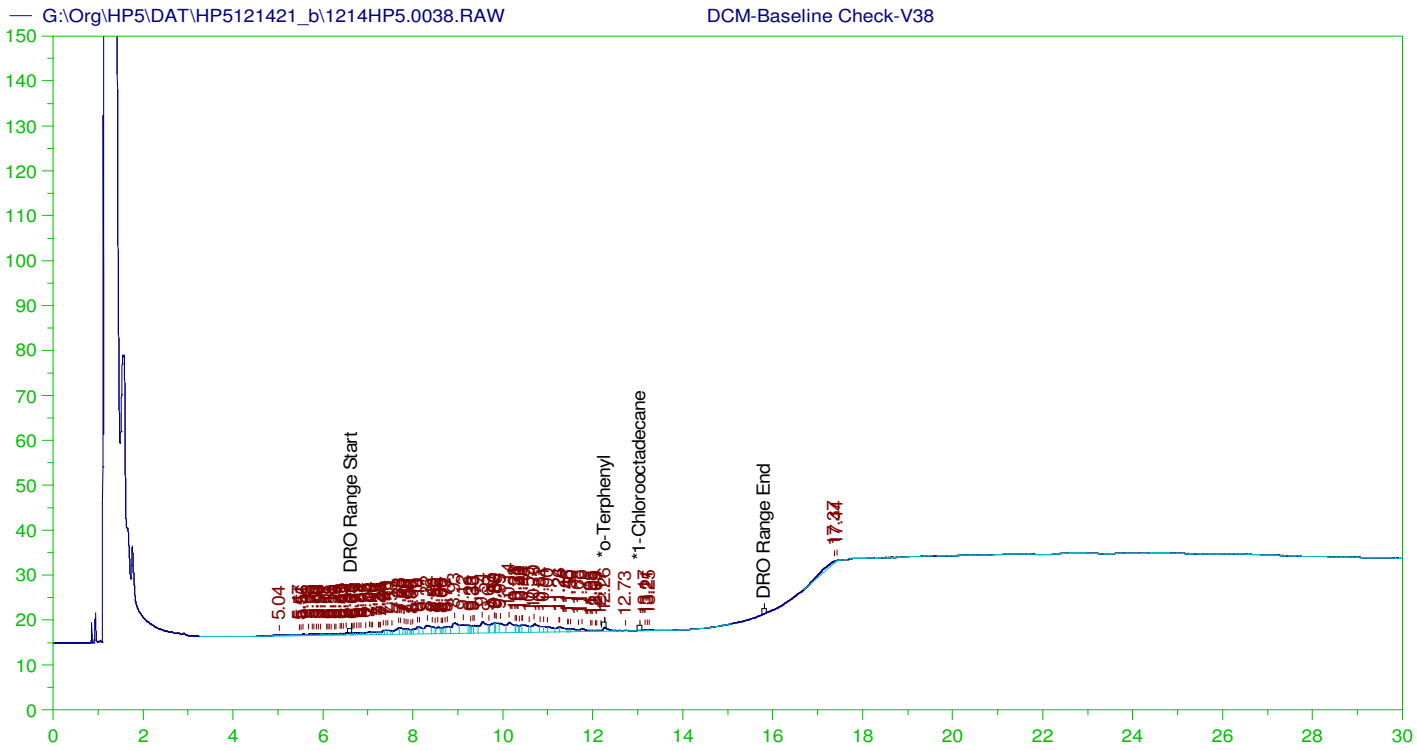
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121001-002B ;1214HP5 , $HC-8015-DRO-W, RR for oil
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0037.RAW
Date & Time Acquired: 12/15/2021 9:41:18 AM
Method File: G:\Org\HP5\Methods\D3_OROS-121437-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.245	.485	.113	23.36	-

RRO Area:1.550084E+07 RRO AMOUNT: 0.5272632



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V38
Raw File: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0038.RAW
Date & Time Acquired: 12/15/2021 10:24:17 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

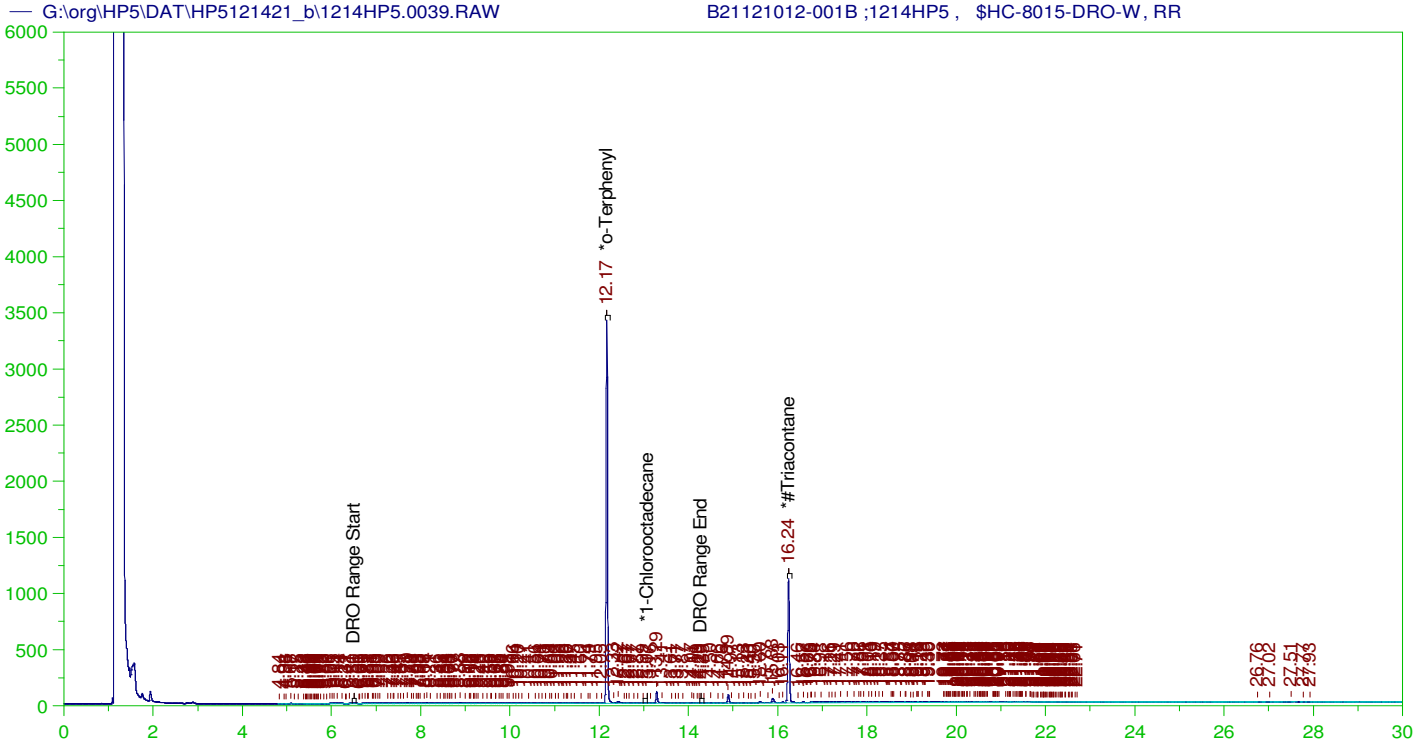
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.263	200.	.205	.1	-
*1-Chlorooctadecane	29.982	200.	.	.	-

DRO Area:412446.7 DRO Amount: 13.15485
TEH Area:474389.4 TEH Amount: 15.1305

ERH 2224 (RHMW15-05 Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0039.RAW B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0039.RAW
Date & Time Acquired: 12/15/2021 11:07:13 AM
Method File: G:\Org\HP5\Methods\DR_8015-121439-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

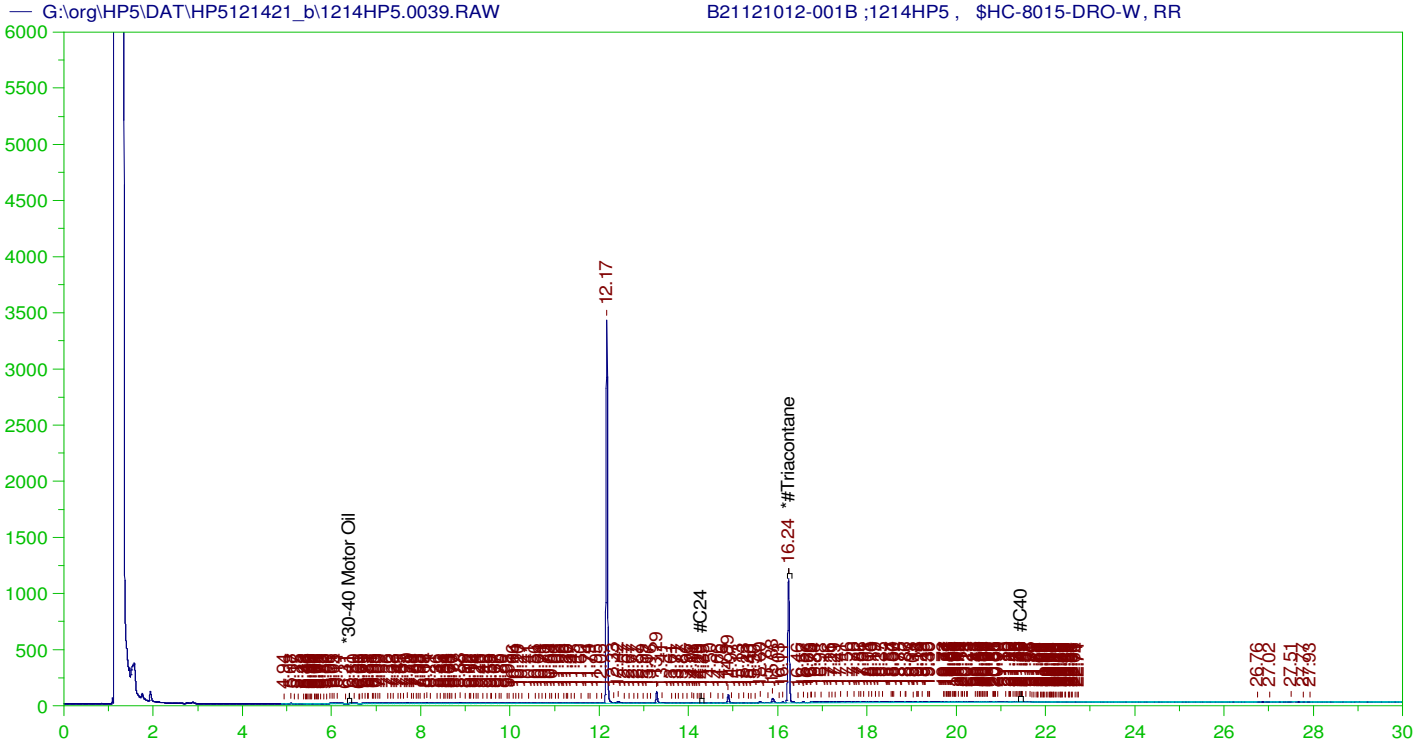
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.168	.192	.19	98.96	-
*1-Chlorooctadecane	13.071	.192	.	.02	-
*#Triacontane	16.239	.192	.1	52.22	-

DRO Area:1500000 DRO Amount: 4.600193E-02
TEH Area:4289357 TEH Amount: 0.1315458

ERH 2224 (RHMW15-05 Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0039.RAW B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0039.RAW
Date & Time Acquired: 12/15/2021 11:07:13 AM
Method File: G:\Org\HP5\Methods\D3_OROS-121439-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

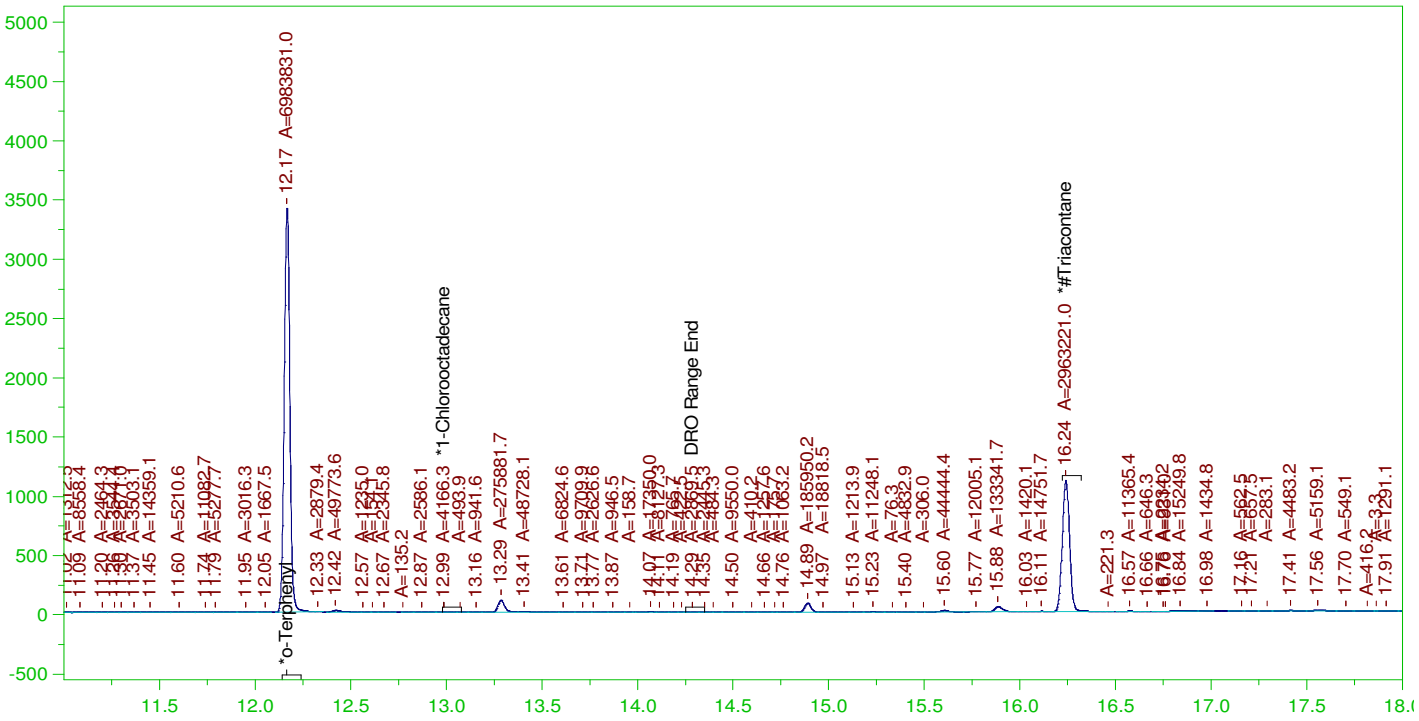
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.239	.481	.1	20.89	-

RRO Area:2571585 RRO AMOUNT: 8.663172E-02

ERH 2224 (RHMW15-05 Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0039.RAW B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0039.RAW
Date & Time Acquired: 12/15/2021 11:07:13 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

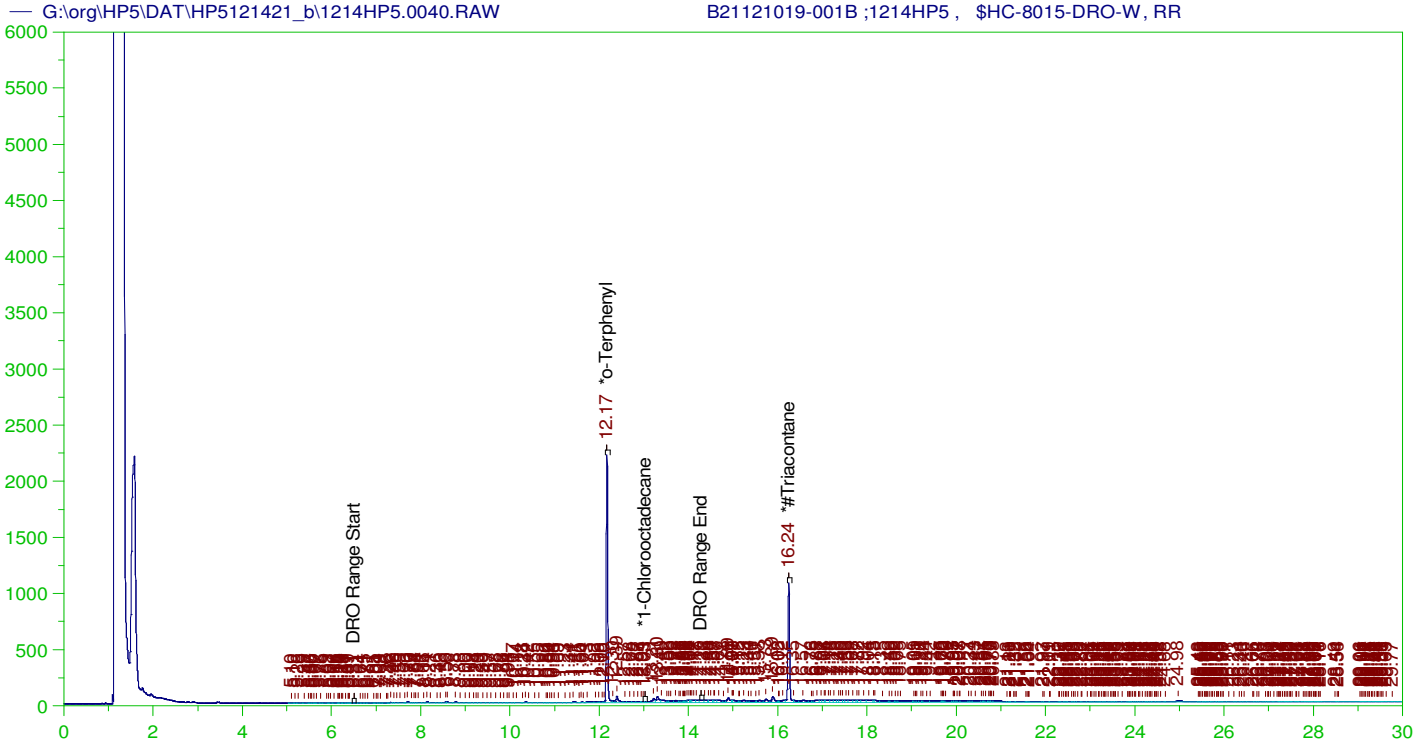
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.168	.192	.189	98.34	-
*1-Chlorooctadecane	12.987	.192	.	.06	-
*#Triacontane	16.239	.192	.098	51.21	-

DRO Area:1206449 DRO Amount: 3.699933E-02
TEH Area:1865023 TEH Amount: 5.719646E-02

ERH2217 (RHMW03) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0040.RAW B21121019-001B ;1214HP5 , $HC-8015-DRO-W, RR



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-001B ;1214HP5 , $HC-8015-DRO-W, RR
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0040.RAW
Date & Time Acquired: 12/15/2021 11:49:54 AM
Method File: G:\Org\HP5\Methods\D3_8015-121440-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

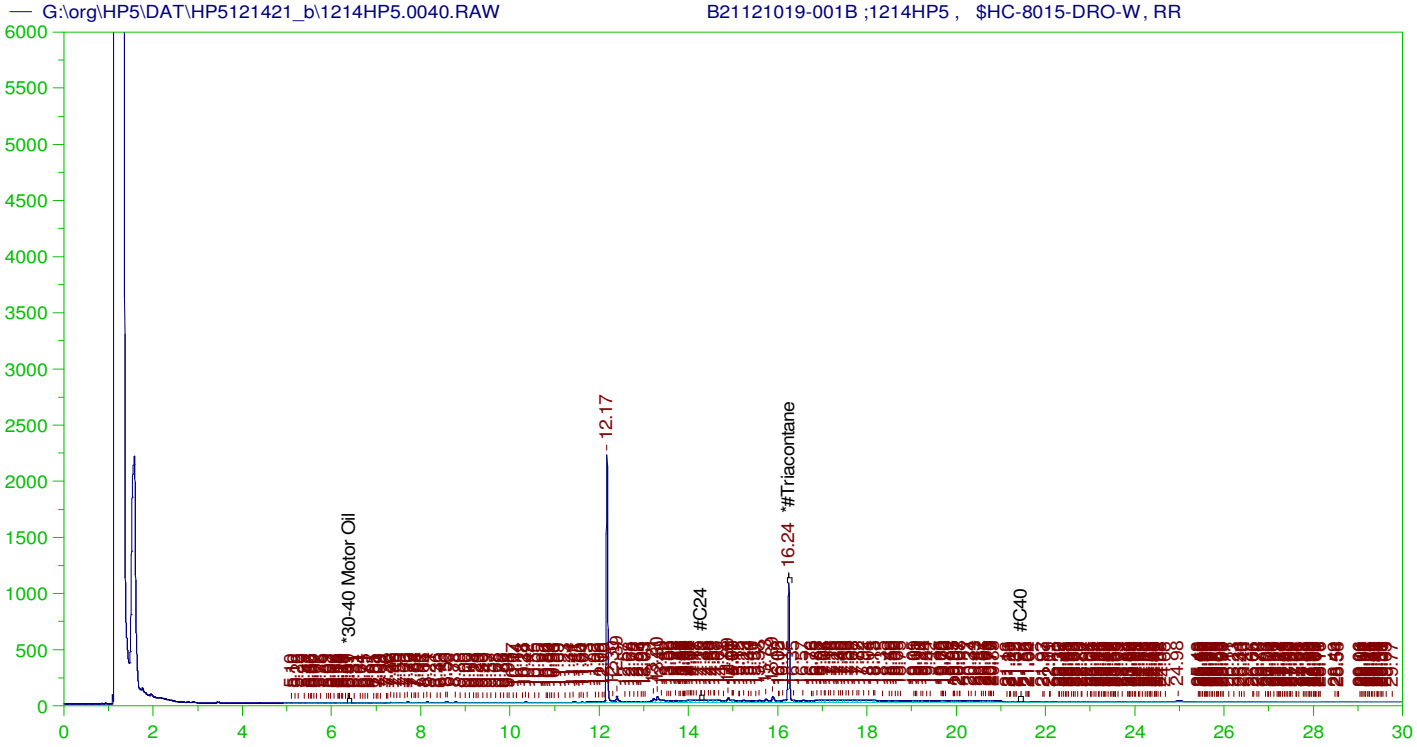
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.171	.196	.125	63.8	-
*1-Chlorooctadecane	13.033	.196	.001	.65	-
*#Triacontane	16.244	.196	.099	50.44	-

DRO Area:3921638 DRO Amount: 0.1226268
TEH Area:1.29736E+07 TEH Amount: 0.4056753

ERH2217 (RHMW03) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0040.RAW B21121019-001B ;1214HP5 , $HC-8015-DRO-W, RR



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121019-001B ;1214HP5 , $HC-8015-DRO-W, RR
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0040.RAW
Date & Time Acquired: 12/15/2021 11:49:54 AM
Method File: G:\Org\HP5\Methods\D3_OROS-121440-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI-SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

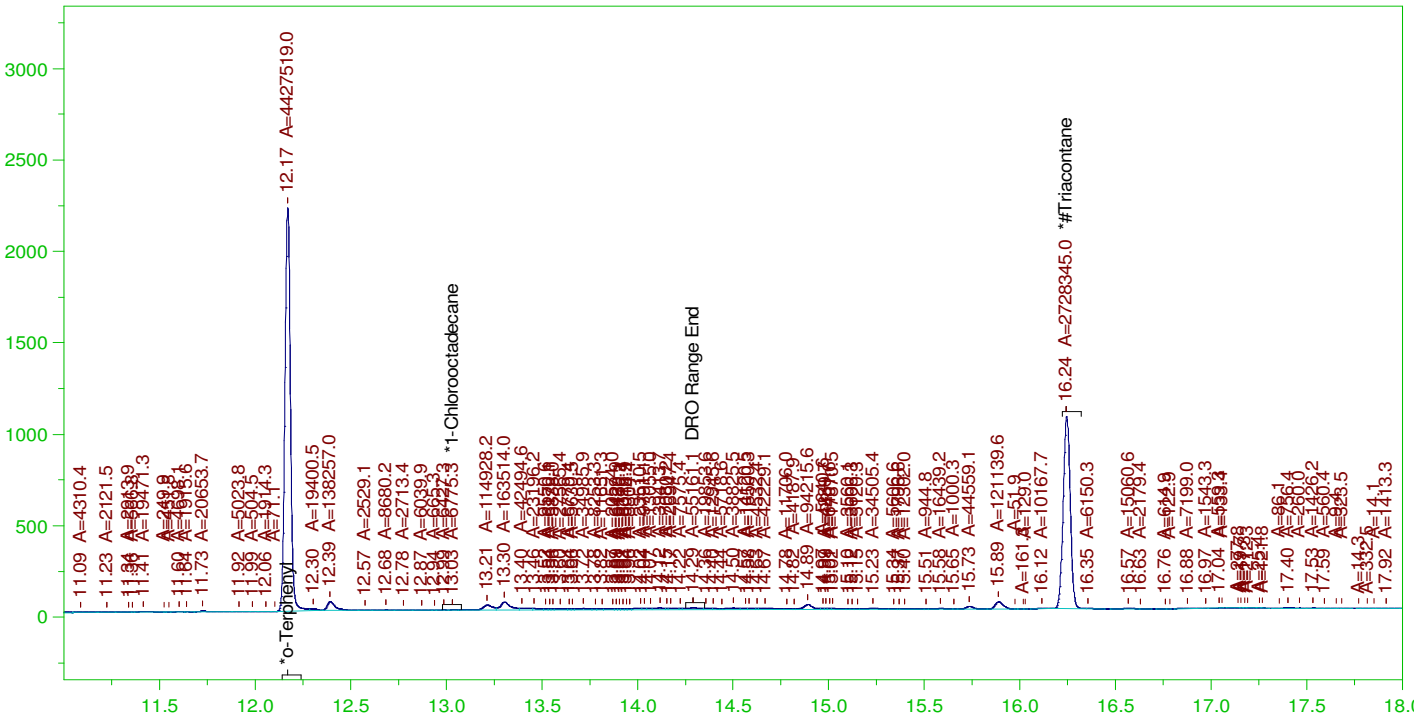
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.25 to 21.5

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.244	.49	.099	20.18	-

RRO Area:7064817 RRO AMOUNT: 0.2426667

ERH2217 (RHMW03) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0040.RAW B21121019-001B ;1214HP5 , $HC-8015-DRO-W, RR



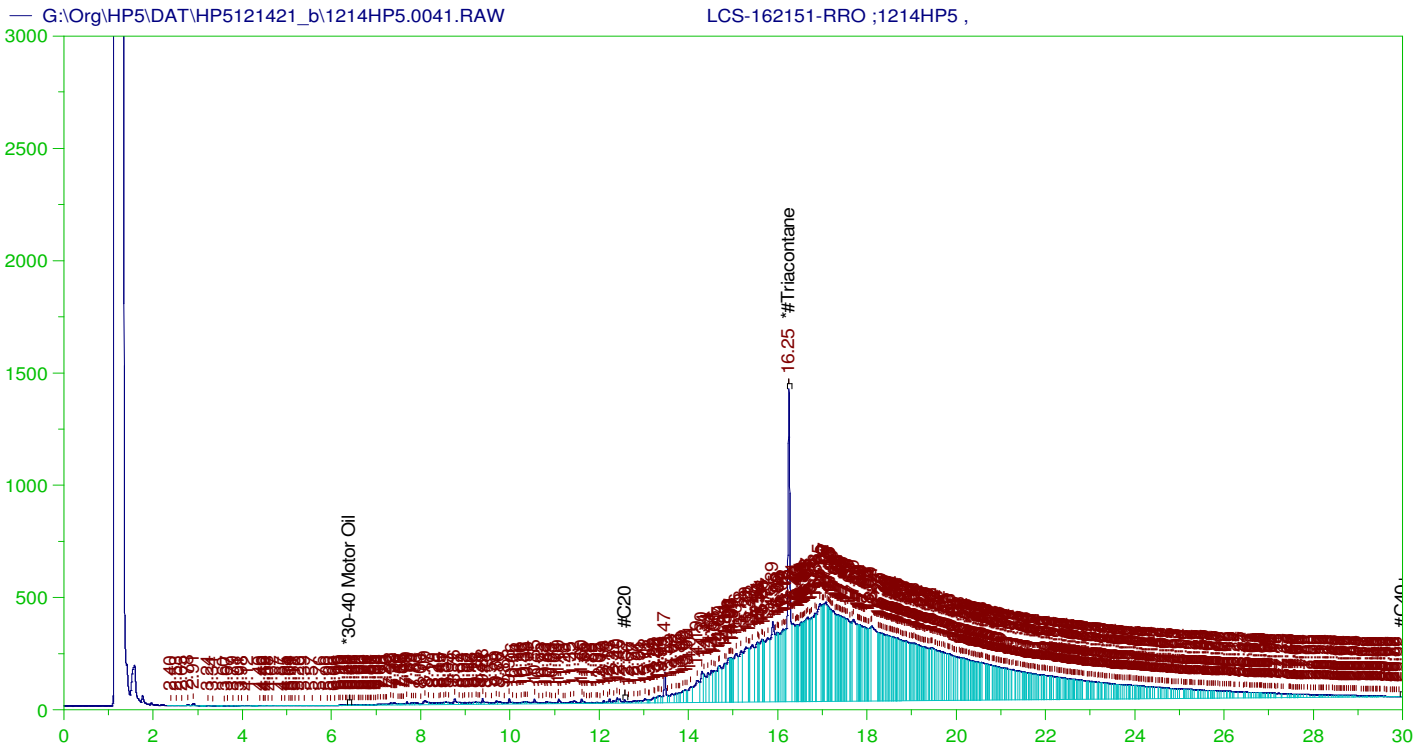
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-001B ;1214HP5 , $HC-8015-DRO-W, RR
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0040.RAW
Date & Time Acquired: 12/15/2021 11:49:54 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.171	.196	.122	62.34	-
*1-Chlorooctadecane	13.033	.196	. .1	-	
*#Triacontane	16.244	.196	.092	47.15	-

DRO Area:1731967 DRO Amount: 5.415737E-02
TEH Area:2571574 TEH Amount: 8.041129E-02



RESIDUAL RANGE ORGANICS CHROMATOGRAM

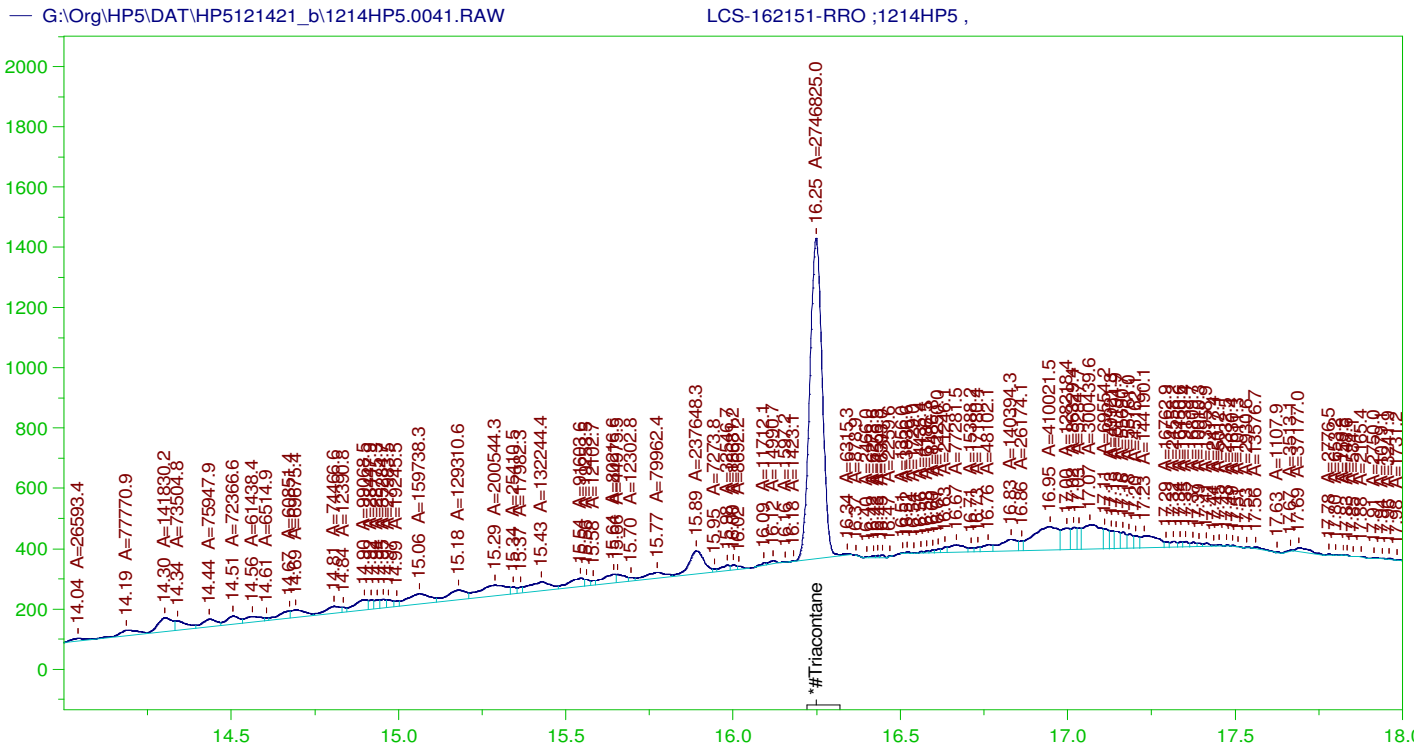
Sample Name: LCS-162151-RRO ;1214HP5 ,
Raw File: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0041.RAW
Date & Time Acquired: 12/15/2021 12:32:43 PM
Method File: G:\Org\HP5\Methods\D3_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.248	.5	.186	37.19	-

~~RRO~~ TEH (Oil Range) Area:1.335881E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.680336

AMN 01/07/2022



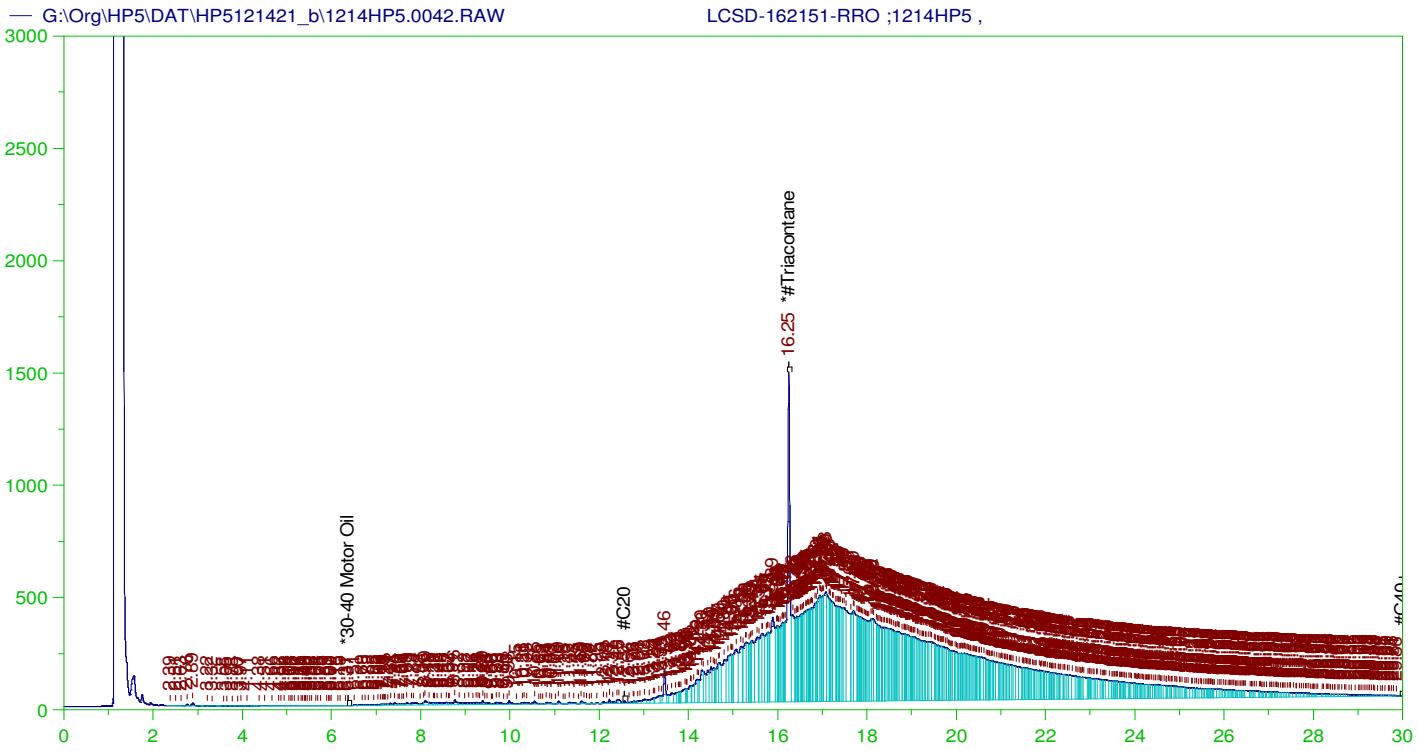
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCS-162151-RRO ;1214HP5 ,
Raw File: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0041.RAW
Date & Time Acquired: 12/15/2021 12:32:43 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.248	.5	.095	18.99	-

RRO Area:5089832 RRO AMOUNT: 0.1783252



RESIDUAL RANGE ORGANICS CHROMATOGRAM

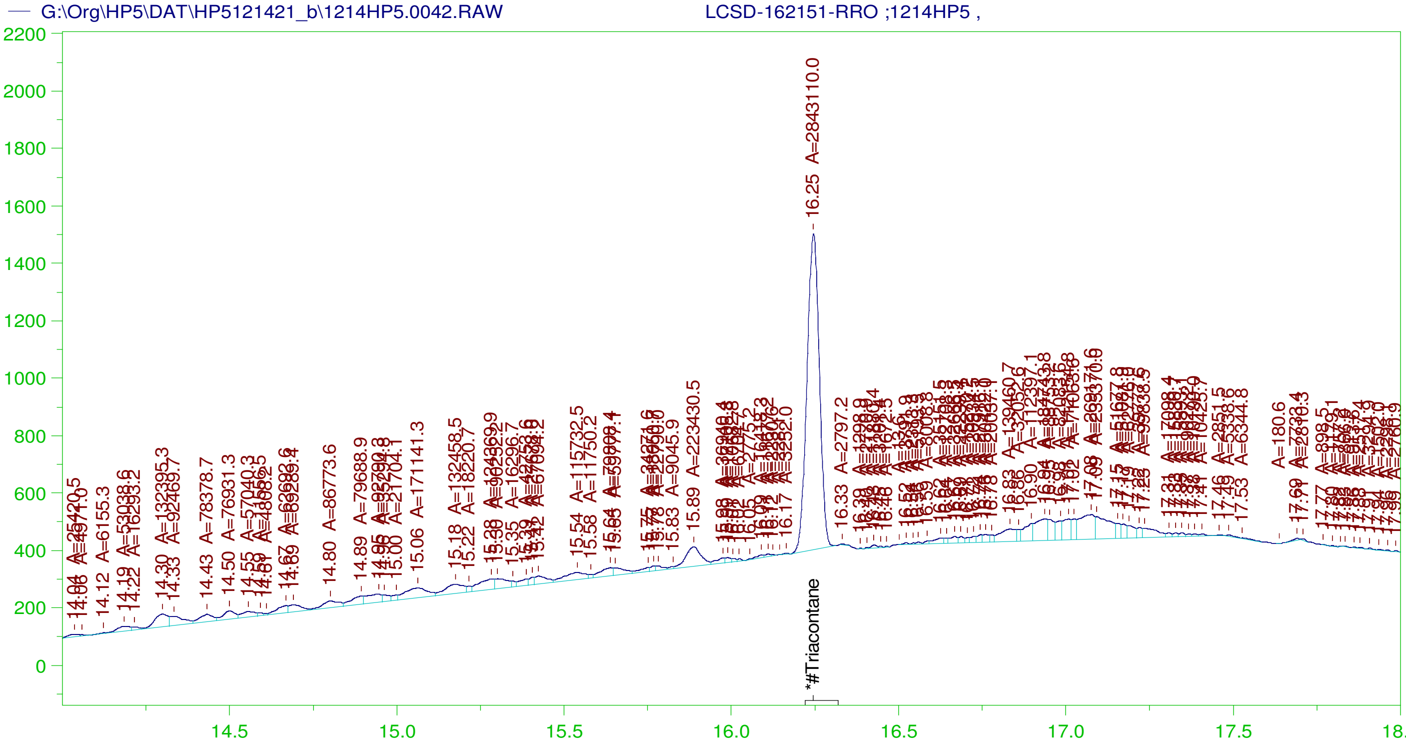
Sample Name: LCSD-162151-RRO ;1214HP5 ,
Raw File: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0042.RAW
Date & Time Acquired: 12/15/2021 1:15:31 PM
Method File: G:\Org\HP5\Methods\D3_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.245	.5	.202	40.3	-

~~RRO~~ TEH (Oil Range) Area:1.482968E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5.195666

AMN 01/07/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

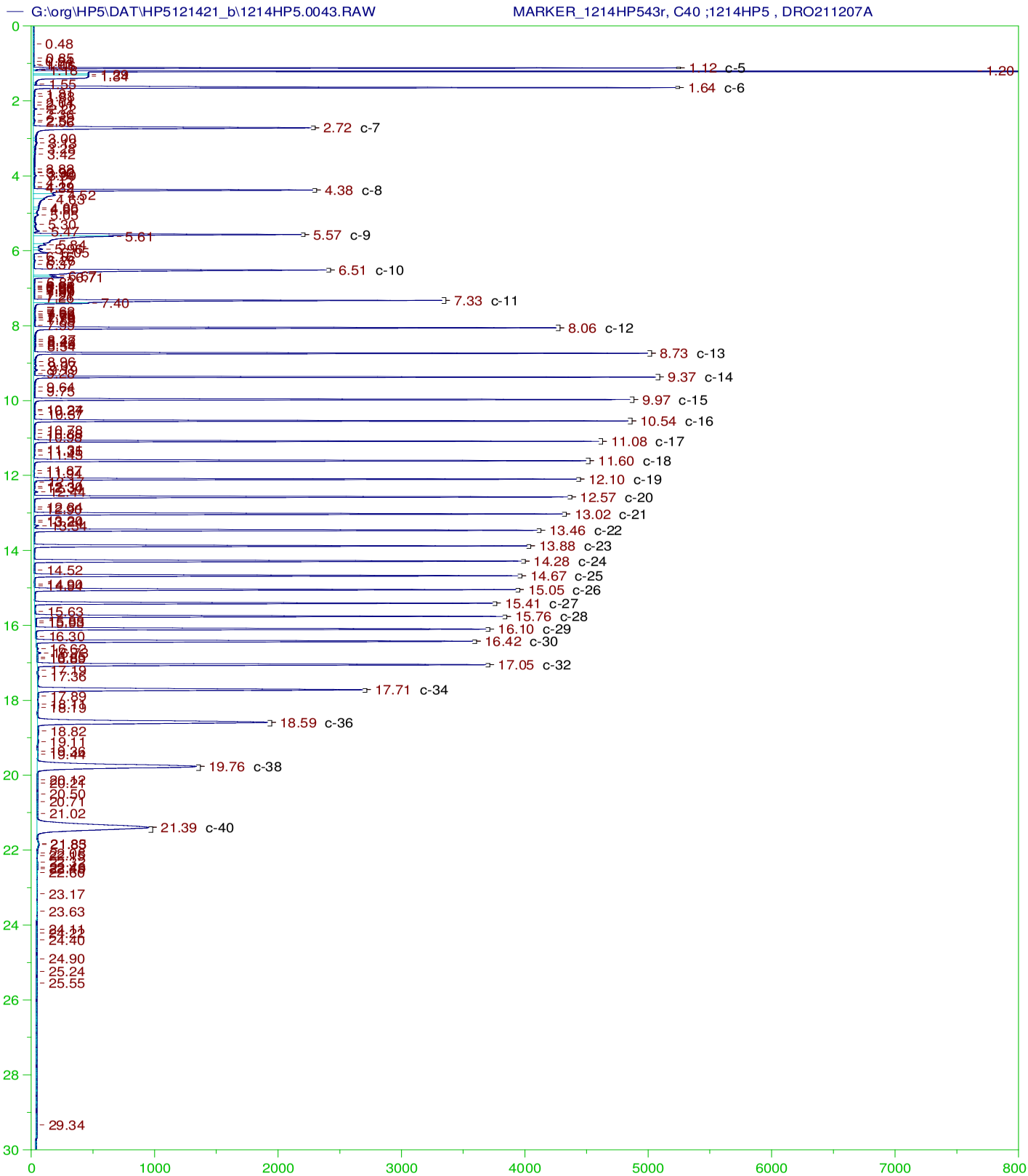
Sample Name: LCSD-162151-RRO ;1214HP5 ,
Raw File: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0042.RAW
Date & Time Acquired: 12/15/2021 1:15:31 PM
Method File: G:\Org\HP5\Methods\DS_ORO-121442-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.245	.5	.098	19.66	-

RRO Area:5095850 RRO AMOUNT: 0.1785361

G:\org\HP5\dat\HP5121421_b\Review\042_LCSD-162151-RRO_DS_ORO-121442-AI-L%.xls


G:\org\HP5\DAT\HP5121421_b\1214HP5.0043.RAW
MARKER_1214HP543r, C40 ;1214HP5 , DRO211207A
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1.64 c-6
2.72 c-7
4.38 c-8
5.57 c-9
6.51 c-10
7.33 c-11
8.06 c-12
8.73 c-13
9.37 c-14
9.97 c-15
10.54 c-16
11.08 c-17
11.60 c-18
12.10 c-19
12.57 c-20
13.02 c-21
13.46 c-22
13.88 c-23
14.28 c-24
14.67 c-25
15.05 c-26
15.41 c-27
15.76 c-28
16.10 c-29
16.42 c-30
17.05 c-32
17.71 c-34
18.59 c-36
19.76 c-38
21.39 c-40
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6000
7000
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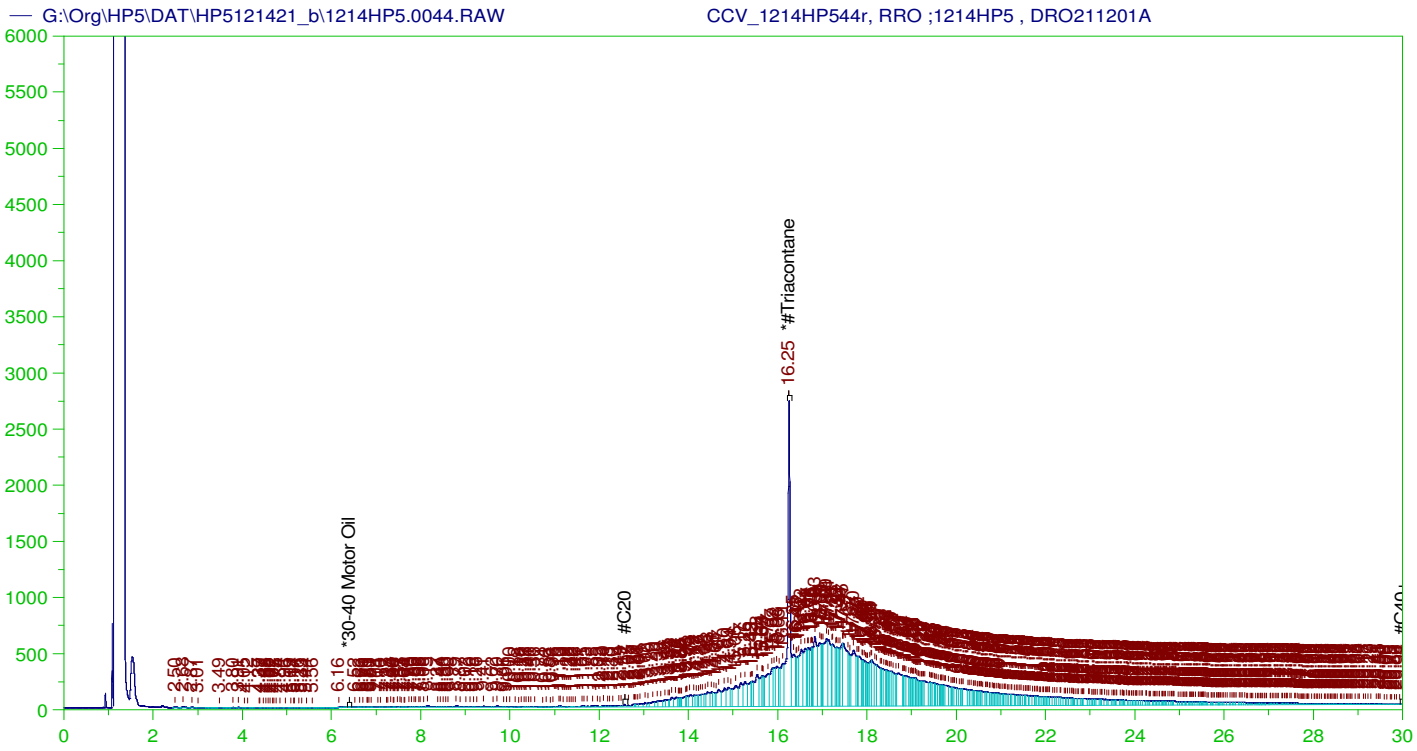


RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP544r, RRO ;1214HP5 , DRO211201A
Raw File: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0044.RAW
Date & Time Acquired: 12/15/2021 2:40:53 PM
Method File: G:\Org\HP5\Methods\DC_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.251	500.	351.167	70.23	-

~~RRO~~ TEH (Oil Range) Area:1.366196E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4786.546

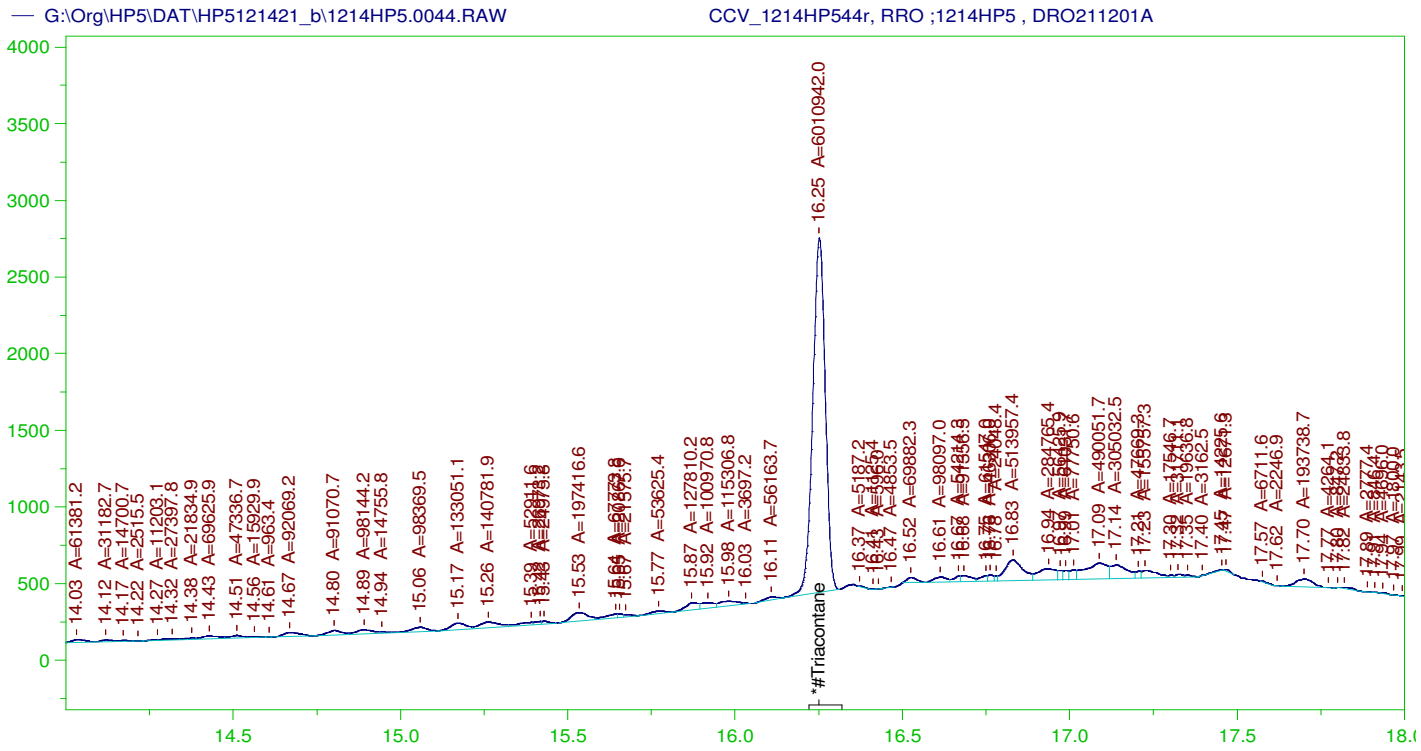
CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0044.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.251	200.	351.167	175.58	75-125

AMN 01/07/2022

G:\org\HP5\dat\HP5121421_b\Review\044_CCV_1214HP544r_DC_ORO-AI-L%.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP544r, RRO ;1214HP5 , DRO211201A
Raw File: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0044.RAW
Date & Time Acquired: 12/15/2021 2:40:53 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AI-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AI.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.53 to 30.05

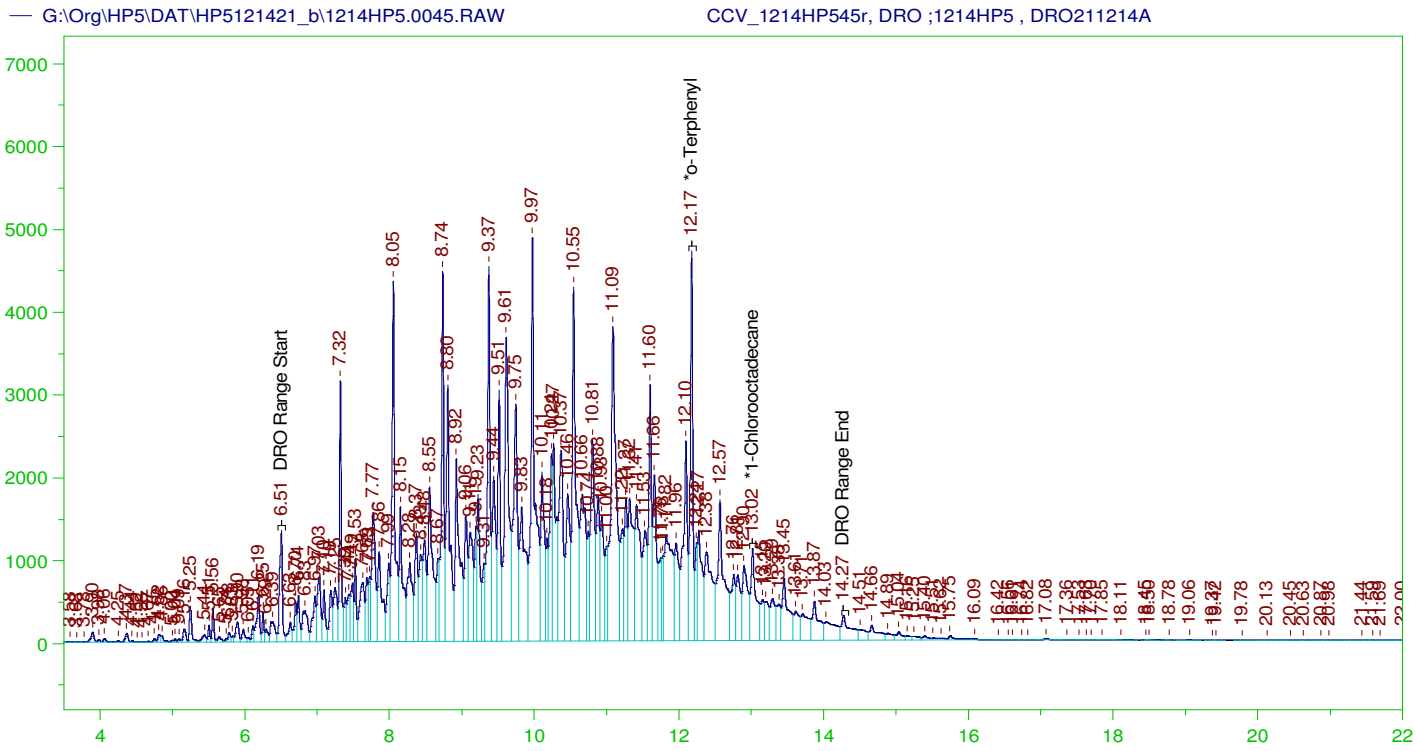
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.251	500.	207.774	41.55	-

RRO Area:5316633 RRO AMOUNT: 186.2713

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0044.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.251	200.	207.774	103.89	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1214HP545r, DRO ;1214HP5 , DRO211214A
Raw File: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0045.RAW
Date & Time Acquired: 12/15/2021 3:23:22 PM
Method File: G:\Org\HP5\Methods\DC_8015-24-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.175	200.	334.343	167.17	-
*1-Chlorooctadecane	13.019	200.	160.439	80.22	-

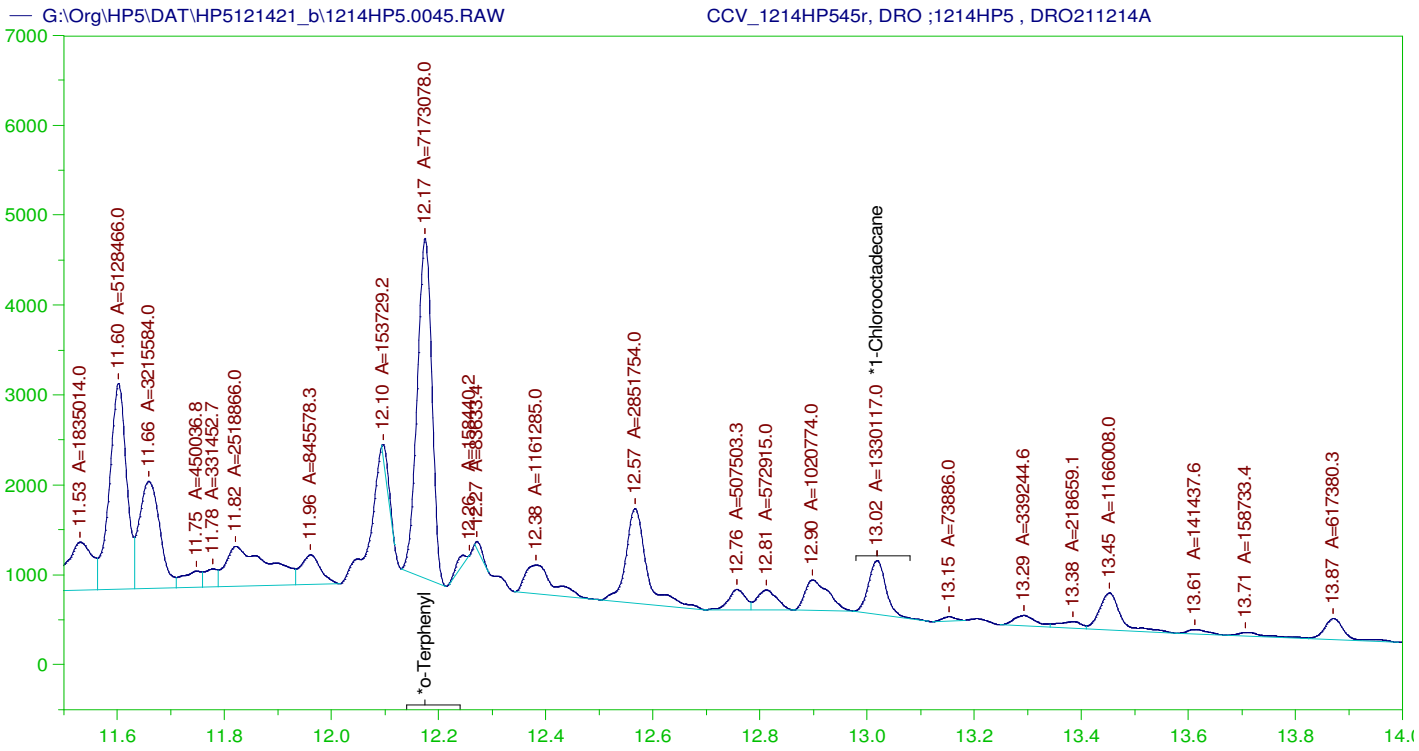
DRO Area:4.780925E+08 DRO Amount: 15248.61
TEH Area:4.944553E+08 TEH Amount: 15770.49

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0045.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15770.49	105.14	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.175	200.	334.343	167.17	85-115
*1-Chlorooctadecane	13.019	200.	160.439	80.22	85-115

G:\org\HP5\dat\HP5121421_b\Review\045_CCV_1214HP545r_DC_8015-24-IH-L%.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1214HP545r, DRO ;1214HP5 , DRO211214A
Raw File: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0045.RAW
Date & Time Acquired: 12/15/2021 3:23:22 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IH-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IH-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.46 to 14.35

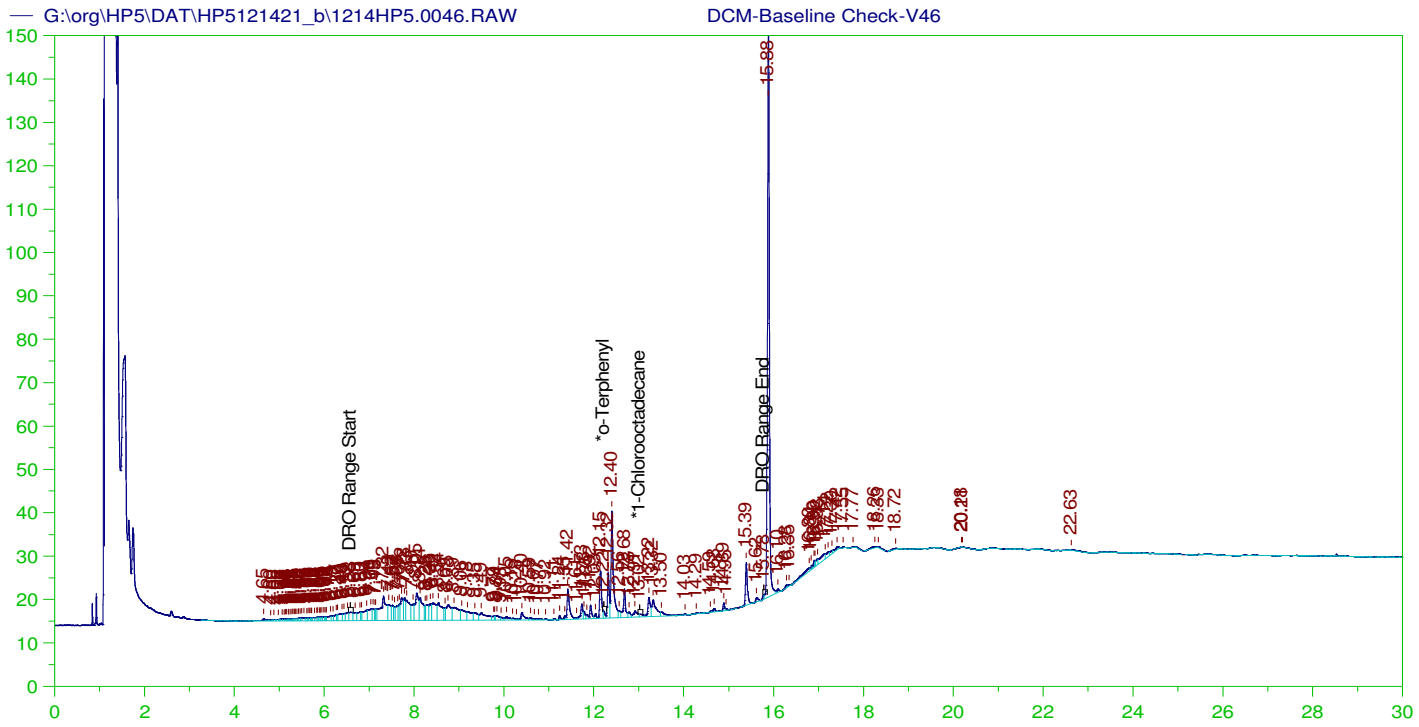
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.175	200.	202.006	101.	-
*1-Chlorooctadecane	13.019	200.	37.458	18.73	-

DRO Area:2.635395E+08 DRO Amount: 8405.507
TEH Area:2.740257E+08 TEH Amount: 8739.963

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5121421_b\1214HP5.0045.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8739.96	58.27	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.175	200.	202.006	101.	85-115
*1-Chlorooctadecane	13.019	200.	37.458	18.73	85-115



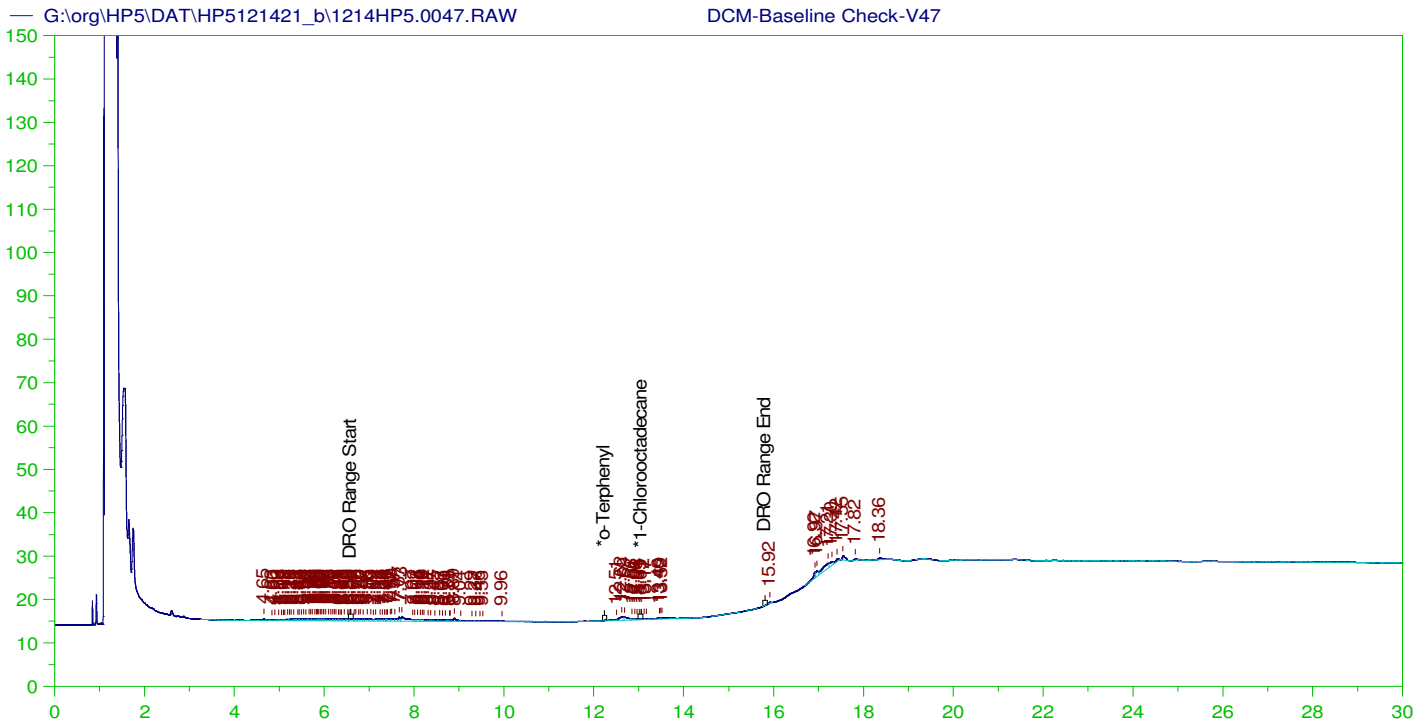
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V46
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0046.RAW
Date & Time Acquired: 12/15/2021 4:13:09 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.223	200.	.117	.06	-
*1-Chlorooctadecane	13.017	200.	.098	.05	-

DRO Area:938859.7 DRO Amount: 29.94463
TEH Area:1485988 TEH Amount: 47.3951



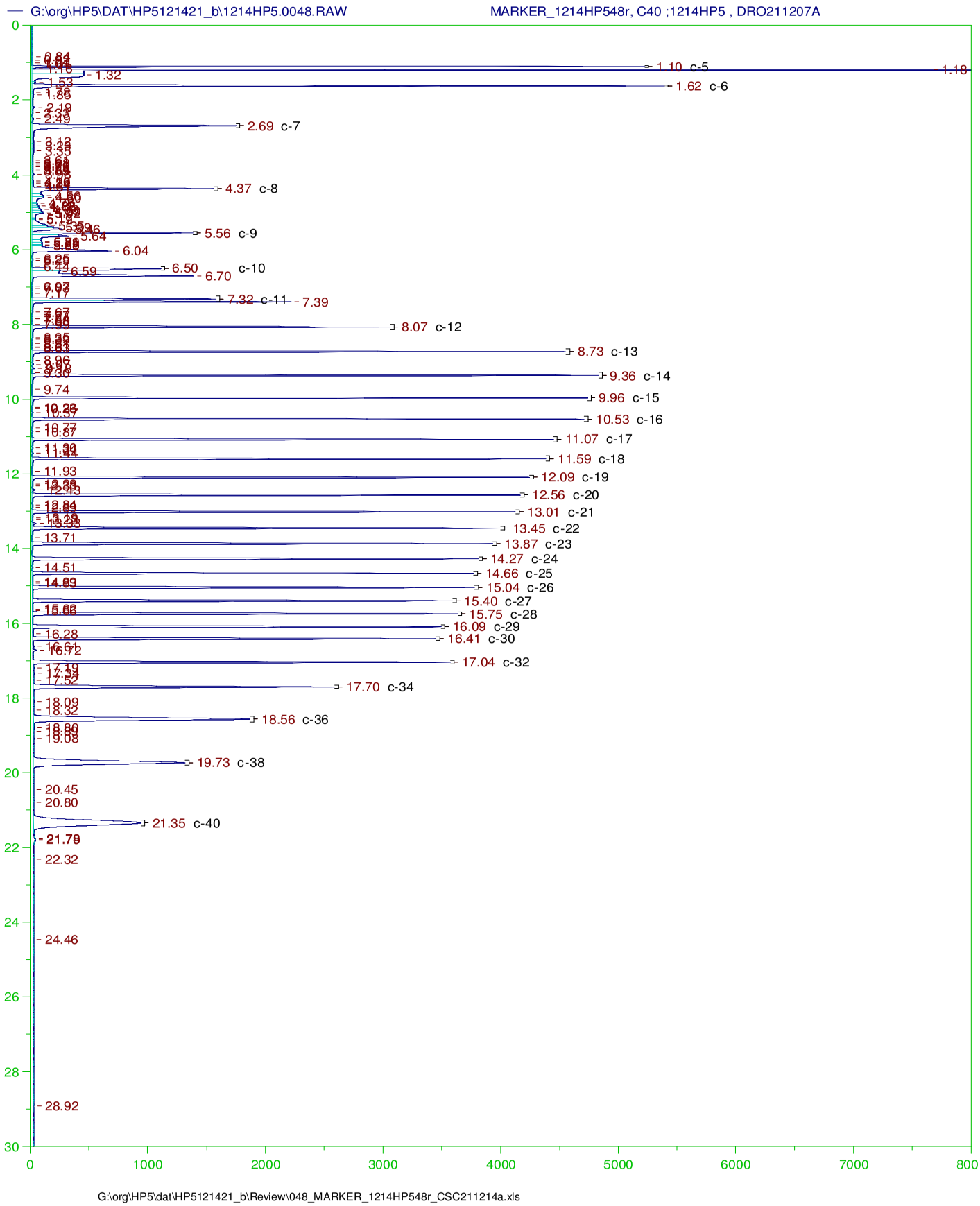
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V47
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0047.RAW
Date & Time Acquired: 12/15/2021 4:55:43 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.979	200.	.	. -
*1-Chlorooctadecane	13.052	200.	.014	.01 -

DRO Area:95180.18 DRO Amount: 3.035741
TEH Area:187273.5 TEH Amount: 5.97303


G:\org\HP5\DAT\HP5121421_b\1214HP5.0048.RAW
MARKER_1214HP548r, C40 ;1214HP5 , DRO211207A
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1.32
1.62 c-6
2.69 c-7
4.37 c-8
5.56 c-9
6.04
6.50
6.70 c-10
7.32 c-11
7.39
8.07 c-12
8.73 c-13
9.36 c-14
9.74
9.96 c-15
10.53 c-16
11.07 c-17
11.59 c-18
11.93
12.09 c-19
12.56 c-20
13.01 c-21
13.45 c-22
13.71
13.87 c-23
14.27 c-24
14.51
14.66 c-25
15.04 c-26
15.40 c-27
15.75 c-28
16.09 c-29
16.28
16.41 c-30
17.04 c-32
17.70 c-34
18.09
18.56 c-36
19.73 c-38
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24.46
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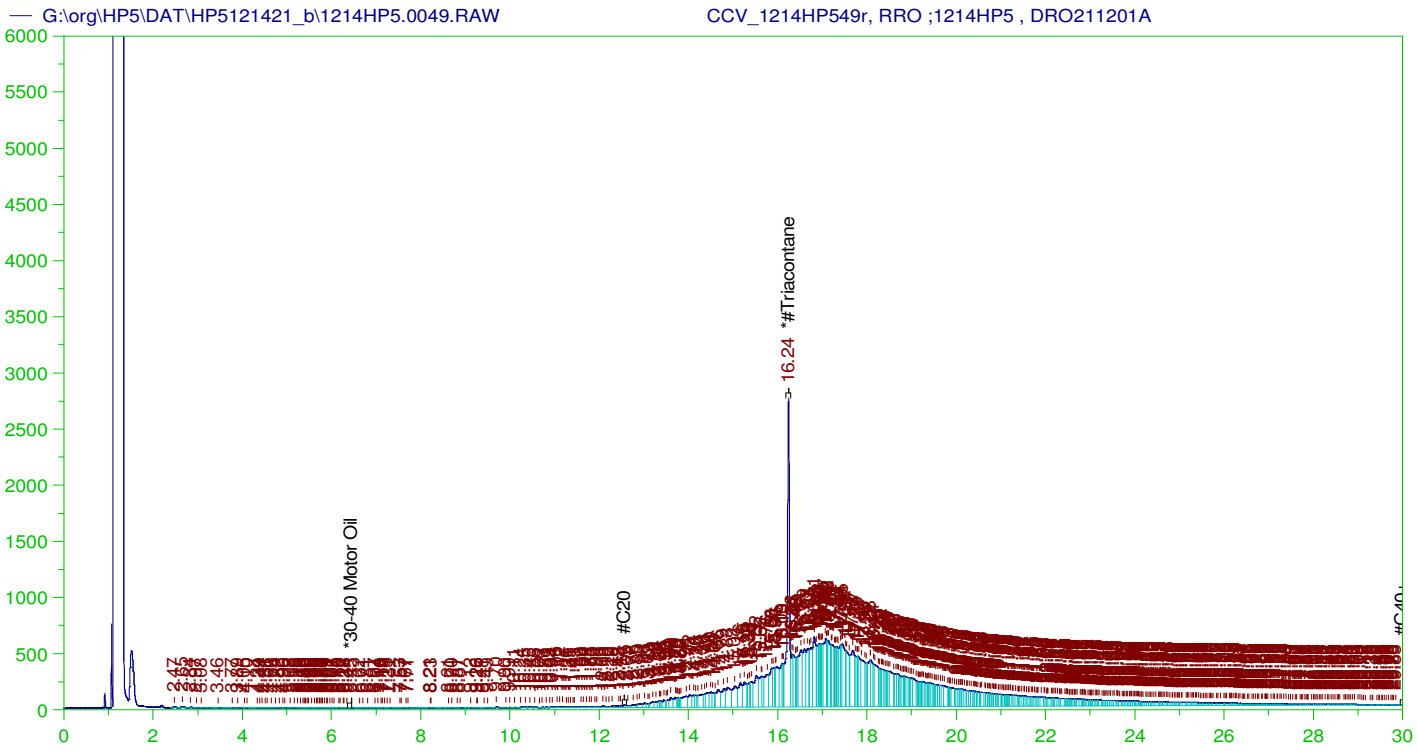


RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP549r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0049.RAW
Date & Time Acquired: 12/15/2021 6:22:09 PM
Method File: G:\Org\HP5\Methods\DC_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range)Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.238	500.	341.912	68.38	-

~~RRO~~ TEH (Oil Range)Area:1.377113E+08 ~~RRO~~ TEH (Oil Range)AMOUNT: 4824.794

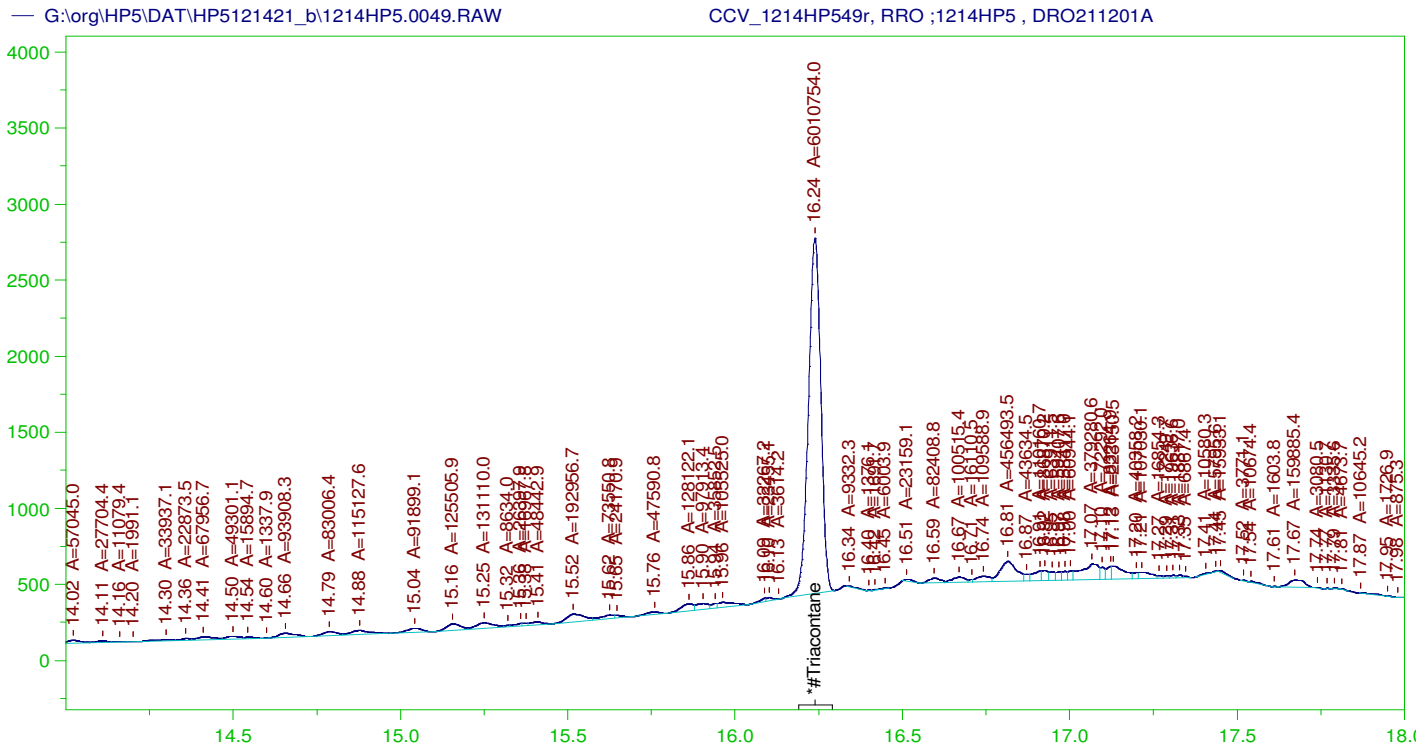
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0049.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.061	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.238	200.	341.912	170.96	75-125

AMN 01/07/2022

G:\org\HP5\dat\HP5121421_b\Review\049_CCV_1214HP549r_DC_ORO-AJ-L%.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP549r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0049.RAW
Date & Time Acquired: 12/15/2021 6:22:09 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.51 to 30.05

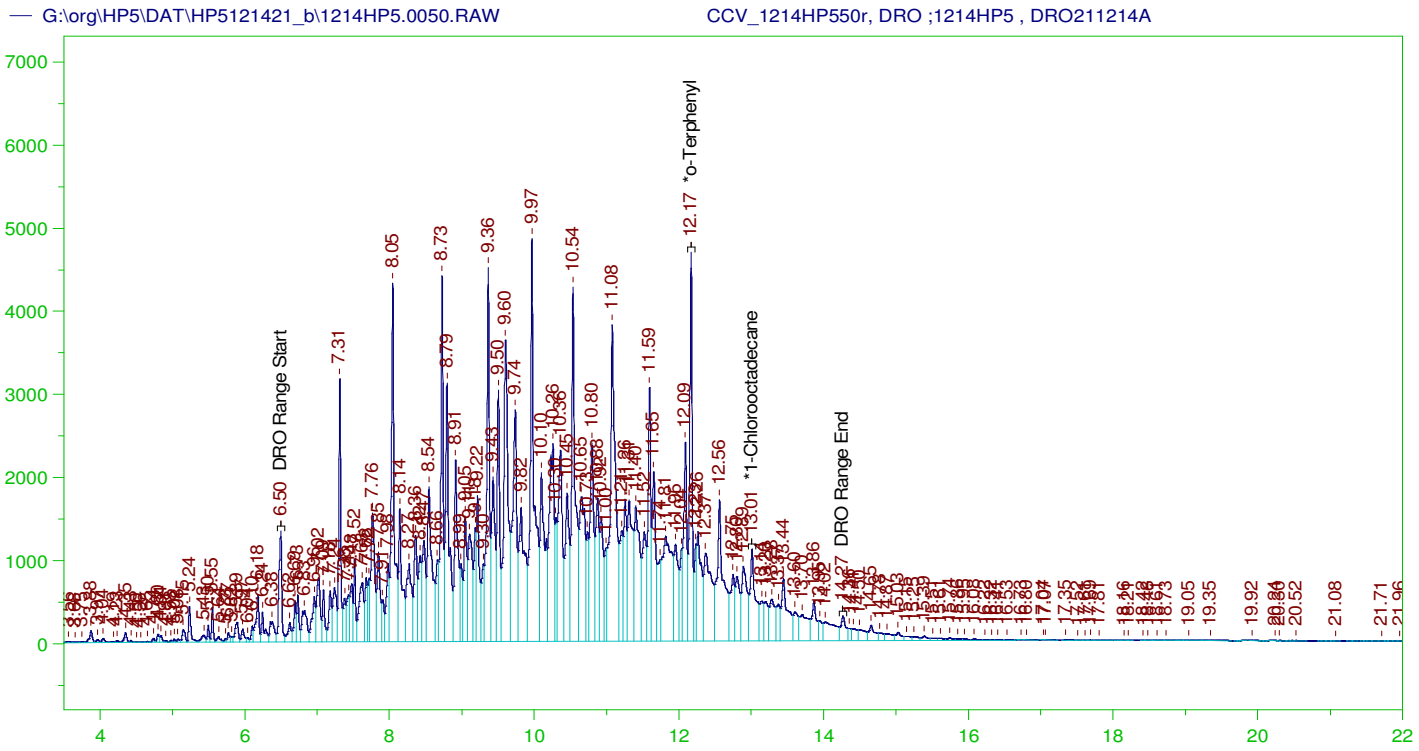
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.238	500.	207.768	41.55	-

RRO Area:5028512 RRO AMOUNT: 176.1768

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0049.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.061	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.238	200.	207.768	103.88	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1214HP550r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0050.RAW
Date & Time Acquired: 12/15/2021 7:05:12 PM
Method File: G:\Org\HP5\Methods\DC_8015-24-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

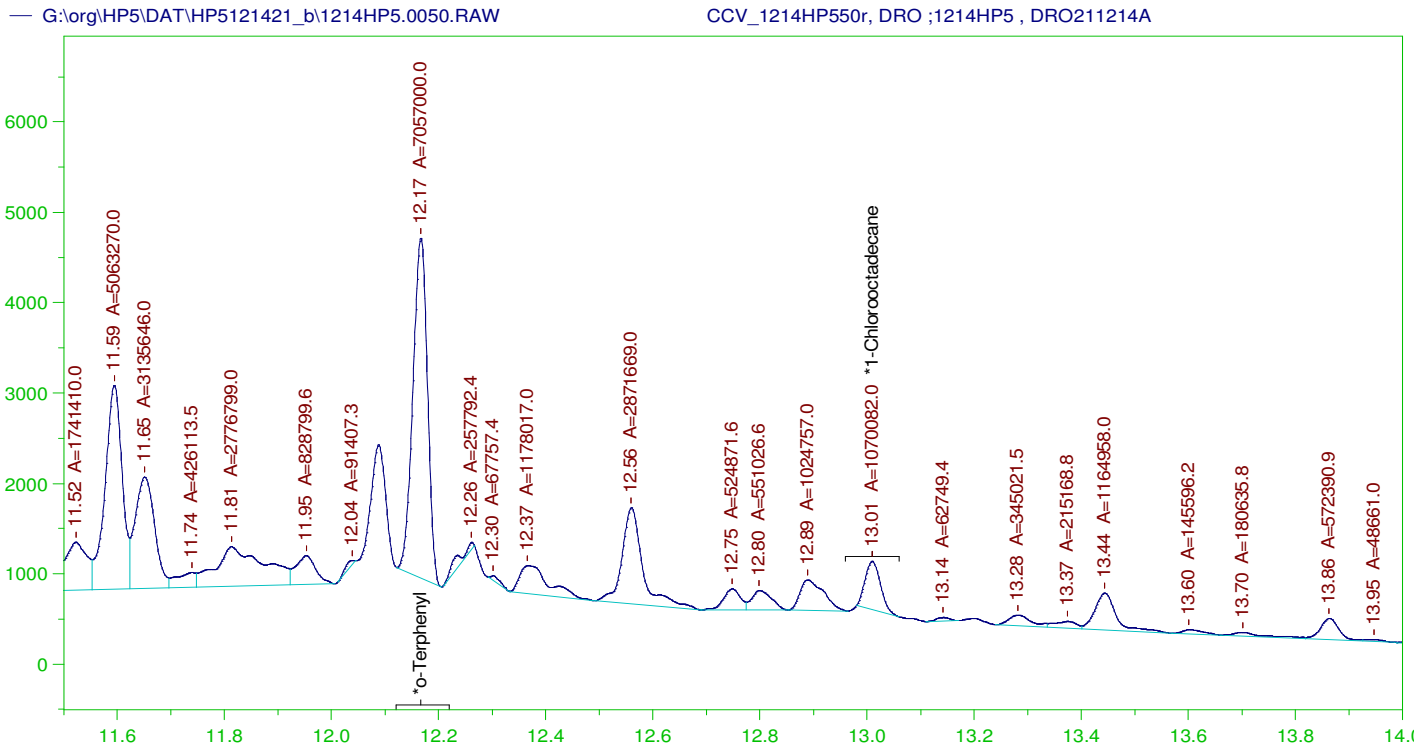
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.167	200.	329.47	164.74	-
*1-Chlorooctadecane	13.009	200.	159.582	79.79	-

DRO Area:4.698406E+08 DRO Amount: 14985.42
TEH Area:4.871103E+08 TEH Amount: 15536.23

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0050.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15536.23	103.57	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.167	200.	329.47	164.74	85-115
*1-Chlorooctadecane	13.009	200.	159.582	79.79	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1214HP550r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0050.RAW
Date & Time Acquired: 12/15/2021 7:05:12 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

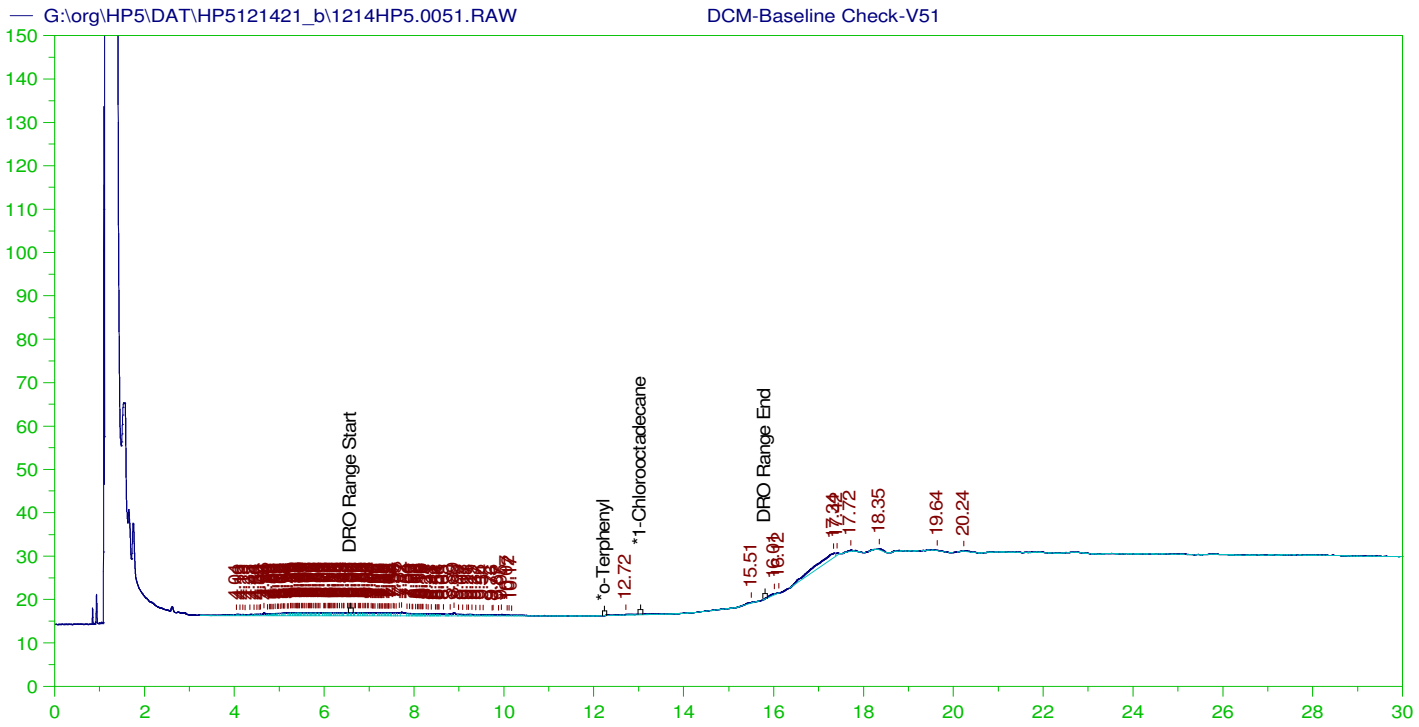
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.167	200.	198.737	99.37	-
*1-Chlorooctadecane	13.009	200.	30.135	15.07	-

DRO Area:2.588048E+08 DRO Amount: 8254.496
TEH Area:2.692762E+08 TEH Amount: 8588.477

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0050.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8588.48	57.26	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.167	200.	198.737	99.37	85-115
*1-Chlorooctadecane	13.009	200.	30.135	15.07	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

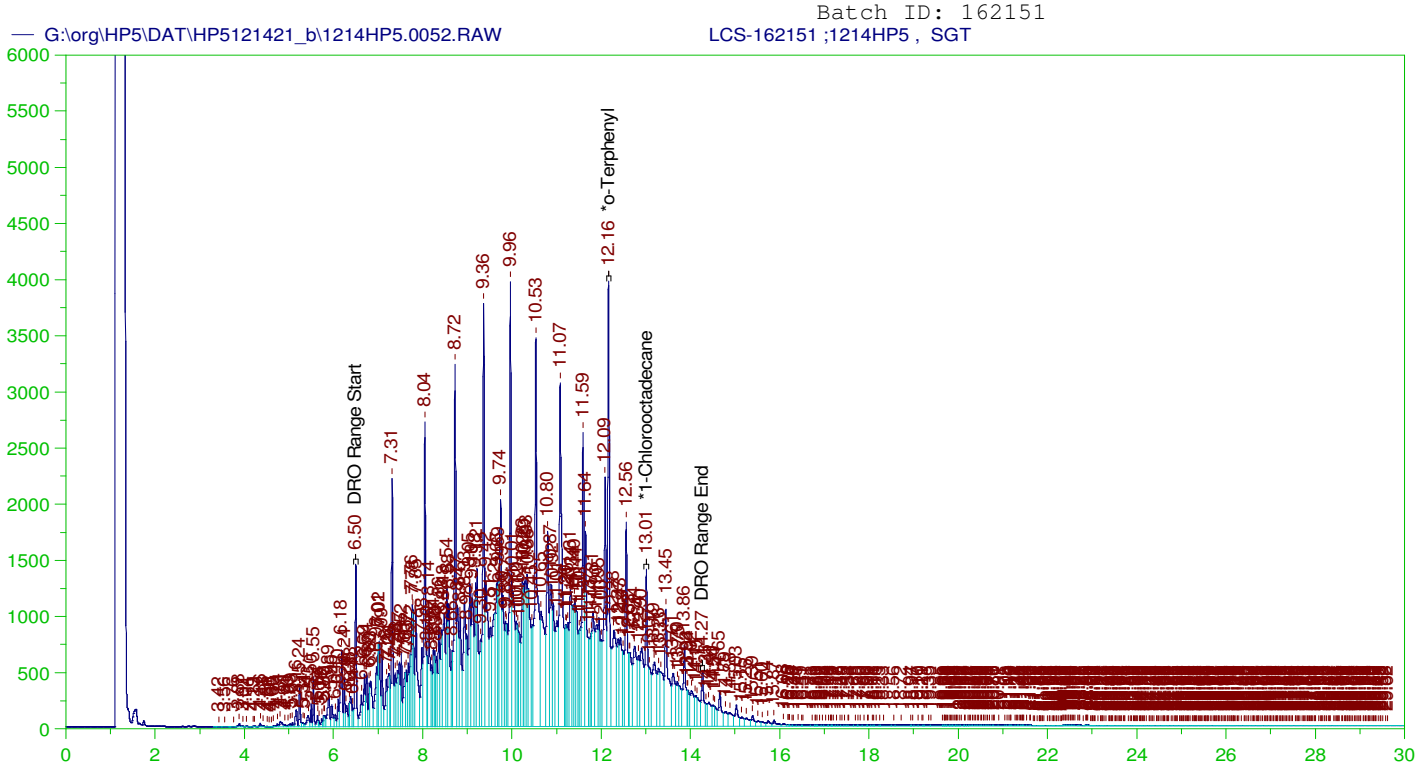
Sample Name: DCM-Baseline Check-V51
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0051.RAW
Date & Time Acquired: 12/15/2021 7:48:16 PM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.983	200.	.	.	-
*1-Chlorooctadecane	29.983	200.	.	.	-

DRO Area:114846 DRO Amount: 3.662977
TEH Area:267150.9 TEH Amount: 8.520694

Batch ID: 162151



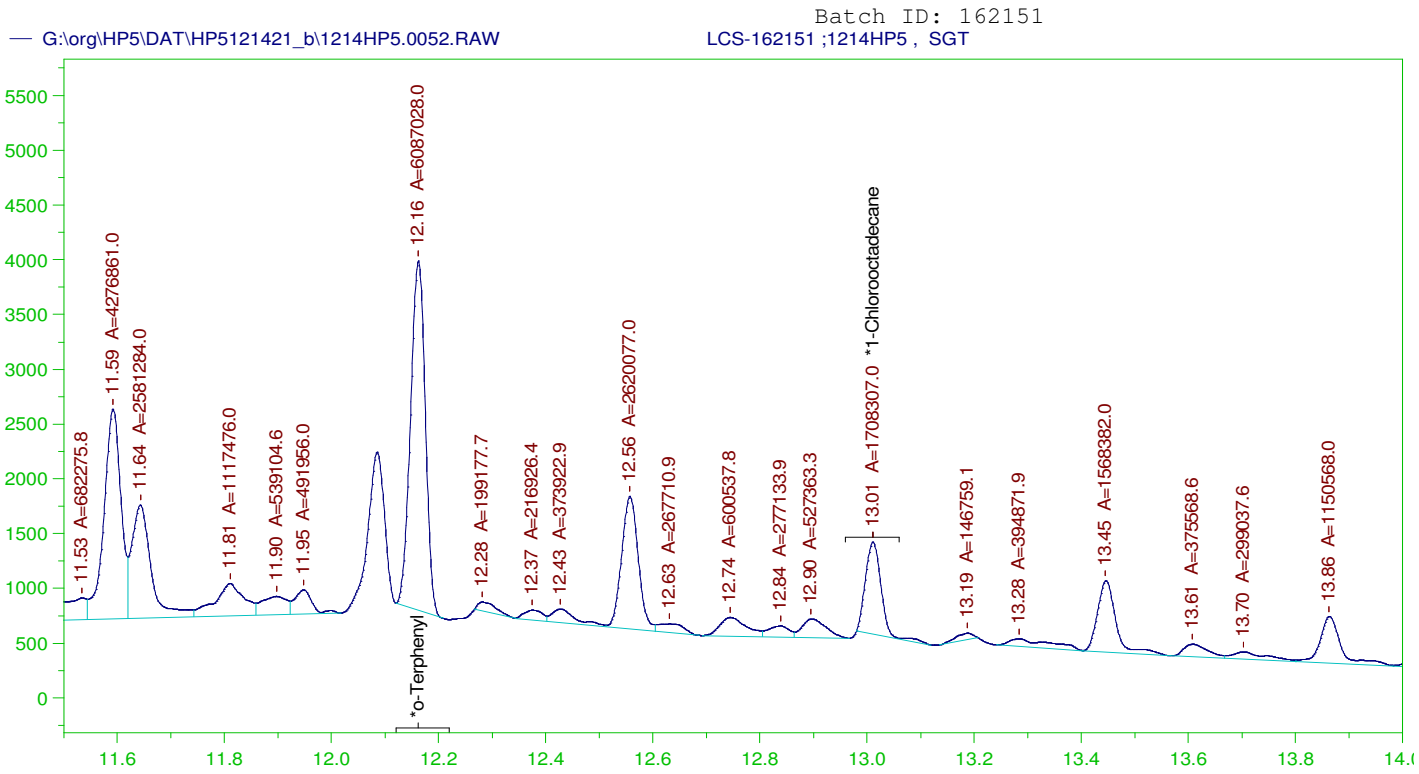
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-162151 ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0052.RAW
Date & Time Acquired: 12/15/2021 8:31:16 PM
Method File: G:\Org\HP5\Methods\D3_8015-24-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.162	.2	.3	149.92	-
*1-Chlorooctadecane	13.011	.2	.136	67.97	-

DRO Area:3.724473E+08 DRO Amount: 11.87909
TEH Area:3.974208E+08 TEH Amount: 12.67561



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

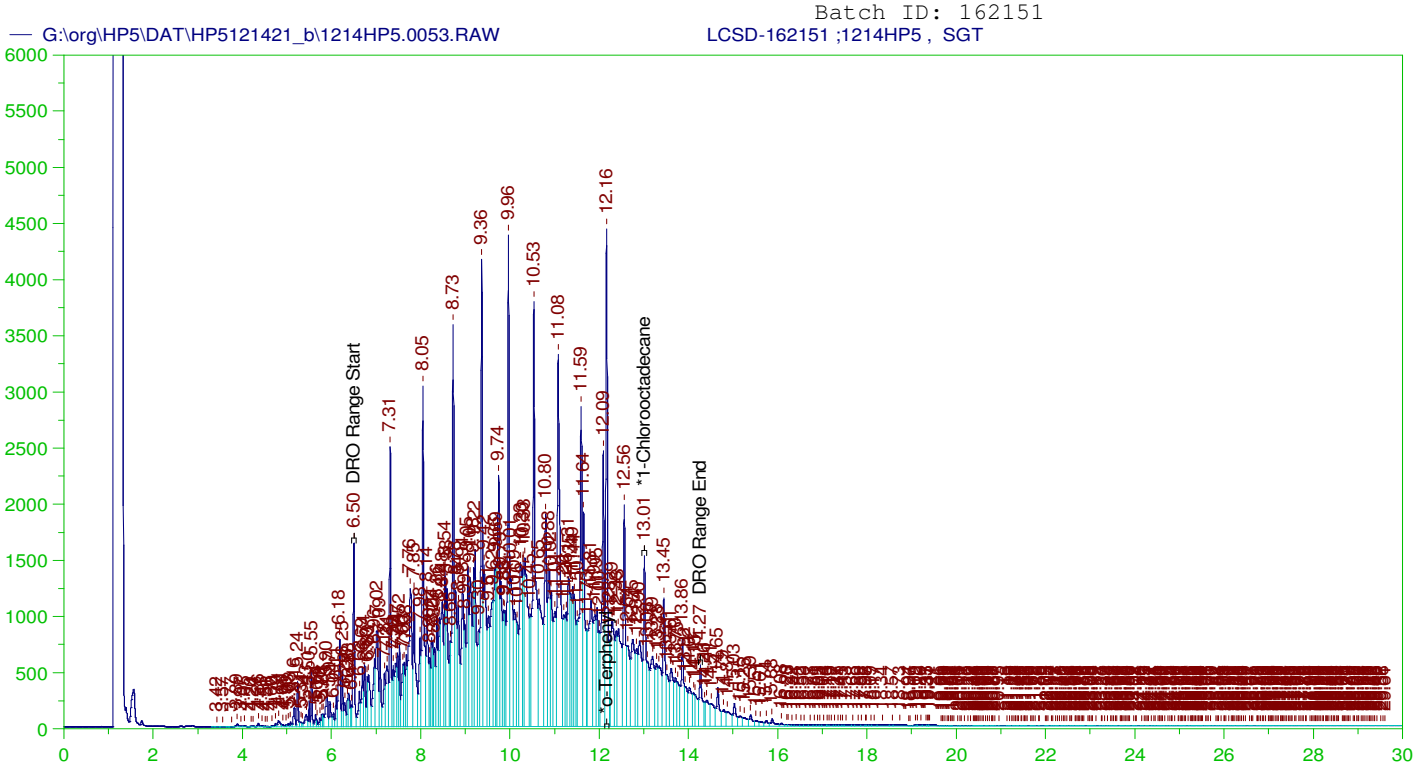
Sample Name: LCS-162151 ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0052.RAW
Date & Time Acquired: 12/15/2021 8:31:16 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.162	.2	.171	85.71	-
*1-Chlorooctadecane	13.011	.2	.048	24.05	-

DRO Area:1.753612E+08 DRO Amount: 5.593089
TEH Area:1.860333E+08 TEH Amount: 5.933473

Batch ID: 162151



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

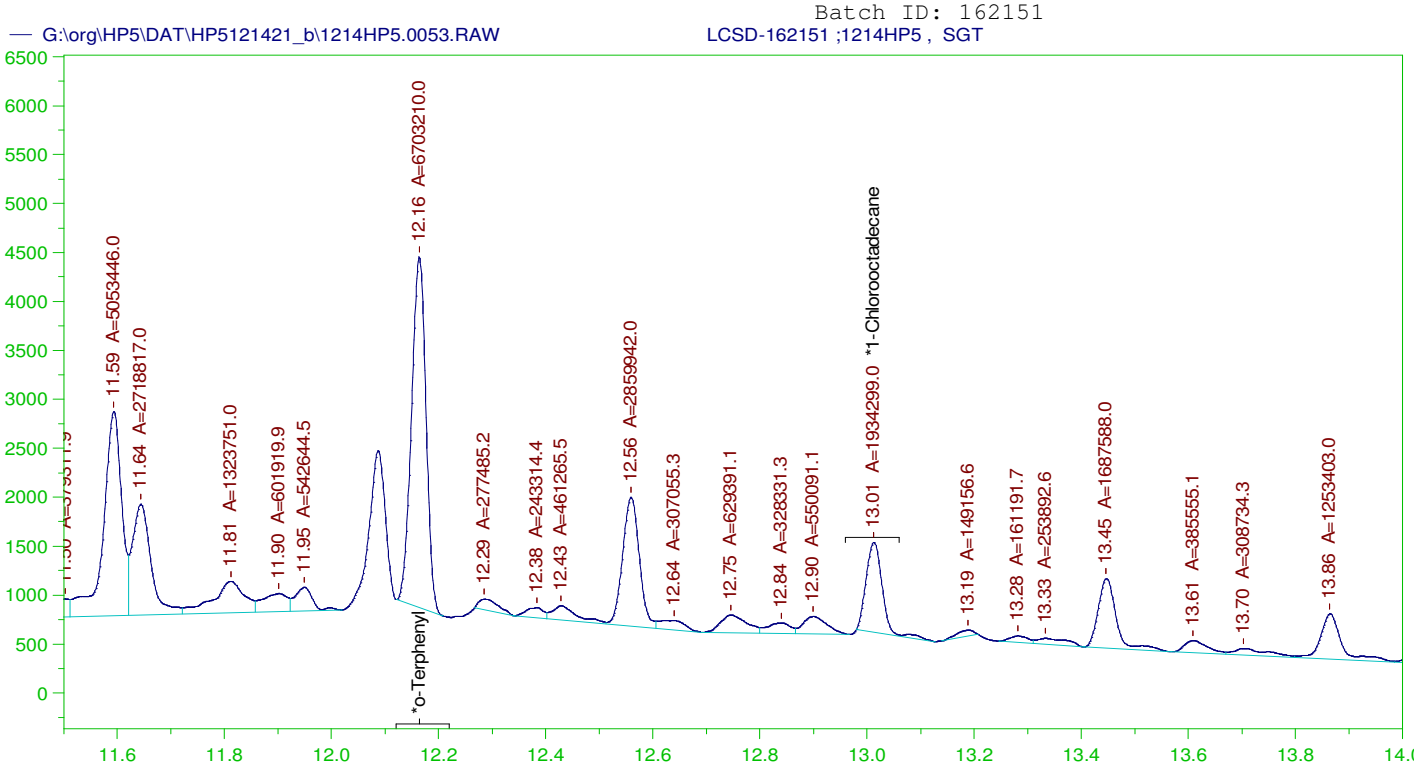
Sample Name: LCSD-162151 ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0053.RAW
Date & Time Acquired: 12/15/2021 9:14:20 PM
Method File: G:\Org\HP5\Methods\D3_8015-121453-IH-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102Ii-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.164	.2	.331	165.47	-
*1-Chlorooctadecane	13.013	.2	.15	74.91	-

DRO Area:4.116268E+08 DRO Amount: 13.1287
TEH Area:4.386864E+08 TEH Amount: 13.99176

Batch ID: 162151



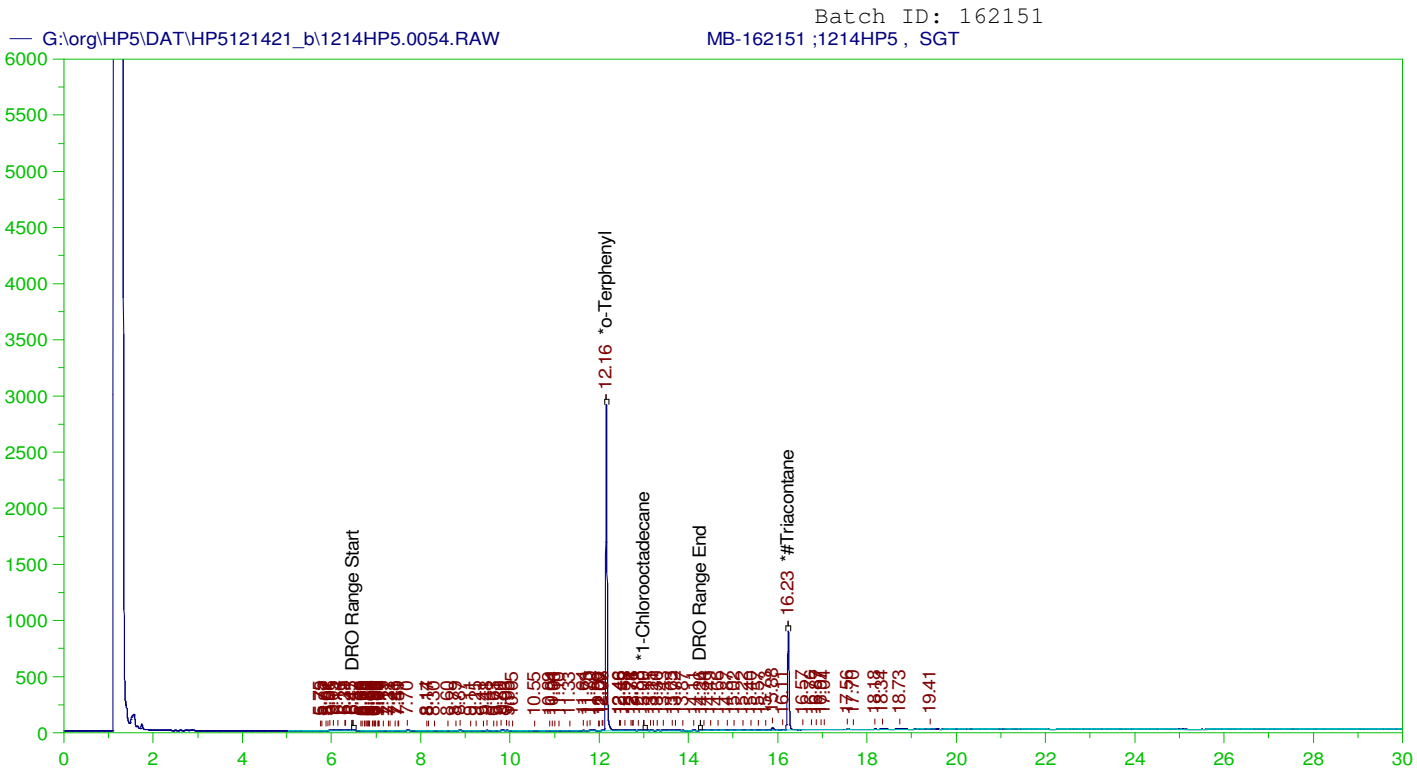
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCSD-162151 ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0053.RAW
Date & Time Acquired: 12/15/2021 9:14:20 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.164	.2	.189	94.39	-
*1-Chlorooctadecane	13.013	.2	.054	27.24	-

DRO Area:1.958191E+08 DRO Amount: 6.245586
TEH Area:2.079089E+08 TEH Amount: 6.631189

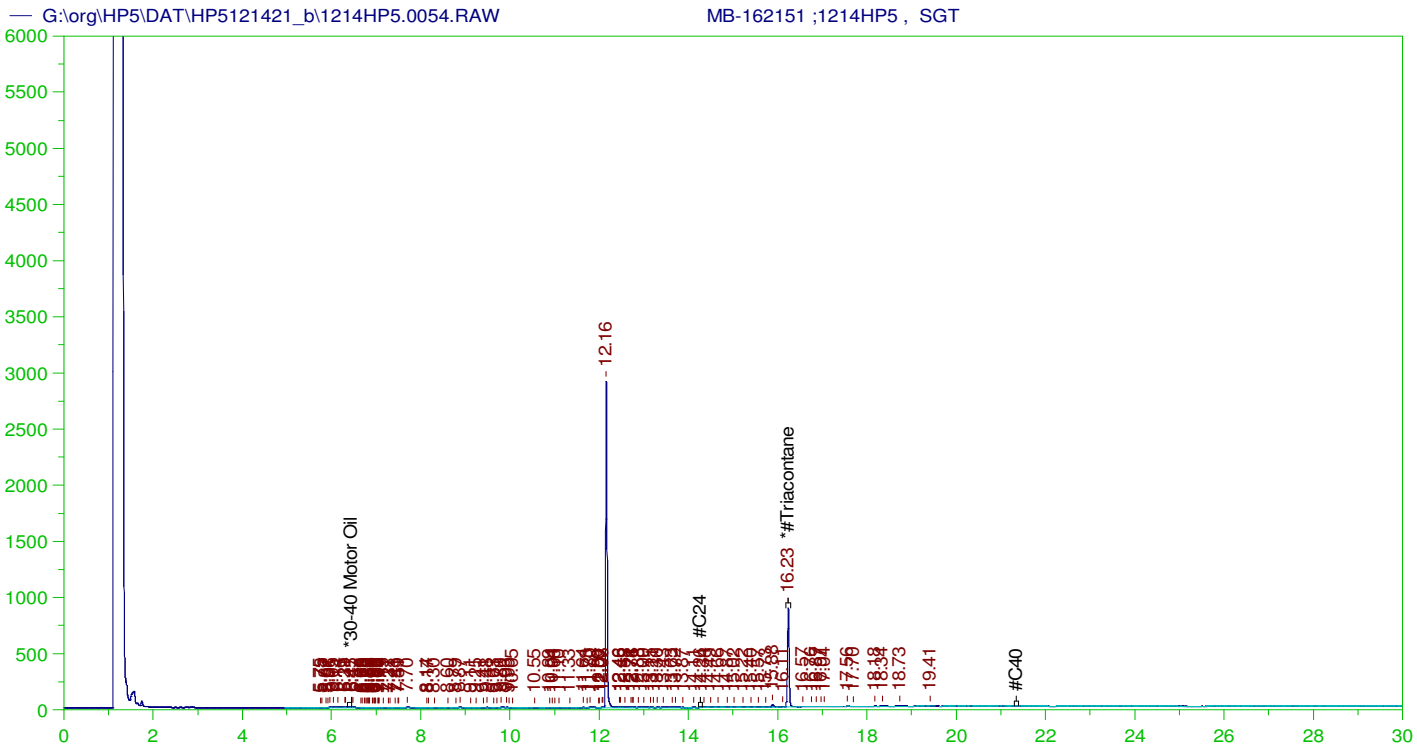


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: MB-162151 ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0054.RAW
Date & Time Acquired: 12/15/2021 9:57:21 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.159	.2	.17	84.78	-
*1-Chlorooctadecane	13.	.2	.	.19	-
*#Triacontane	16.233	.2	.083	41.36	-

DRO Area:237399.8 DRO Amount: 7.571791E-03
TEH Area:516807.2 TEH Amount: 0.0164834



RESIDUAL RANGE ORGANICS CHROMATOGRAM

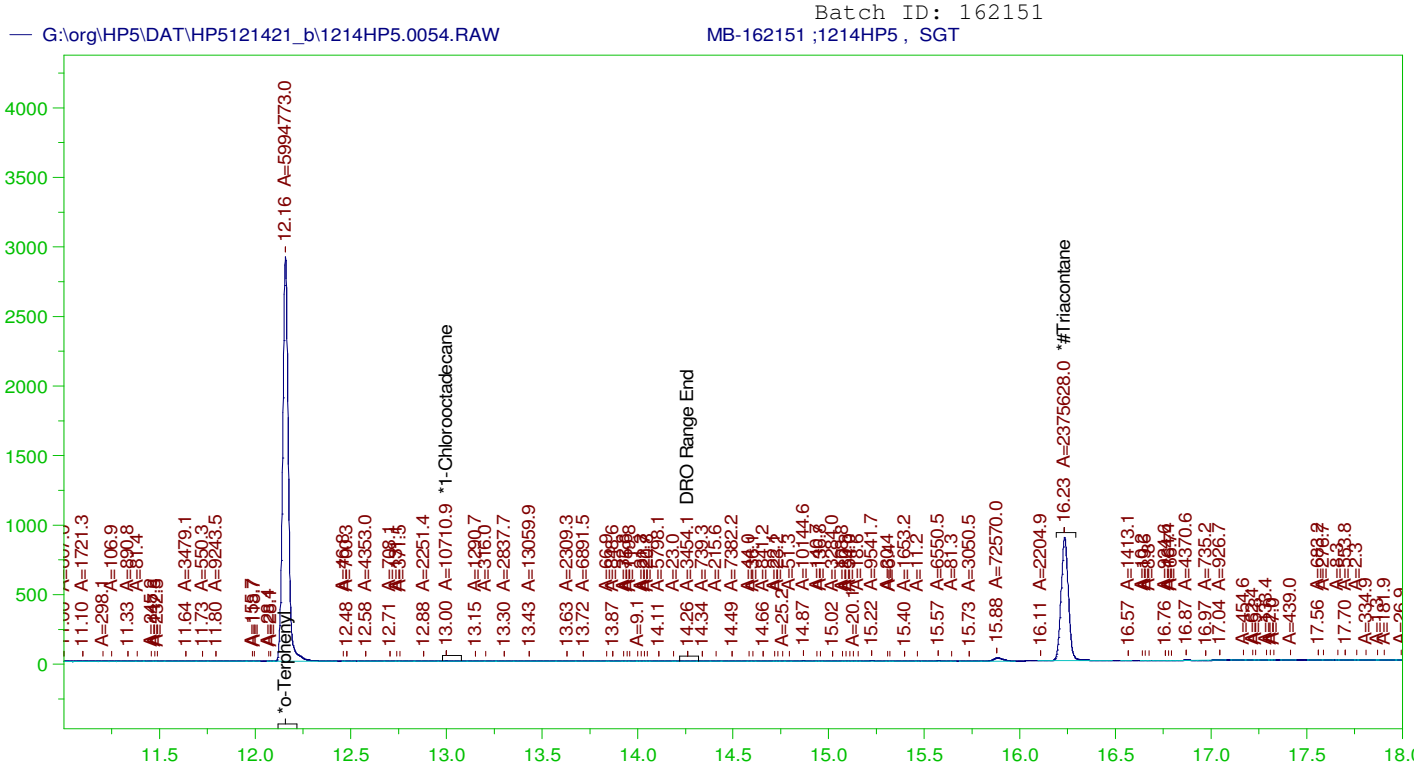
Sample Name: MB-162151 ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0054.RAW
Date & Time Acquired: 12/15/2021 9:57:21 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ-SAMP.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.22 to 21.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.233	.5	.083	16.54	-

RRO Area:177091.8 RRO AMOUNT: 6.204516E-03

Batch ID: 162151



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162151 ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0054.RAW
Date & Time Acquired: 12/15/2021 9:57:21 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

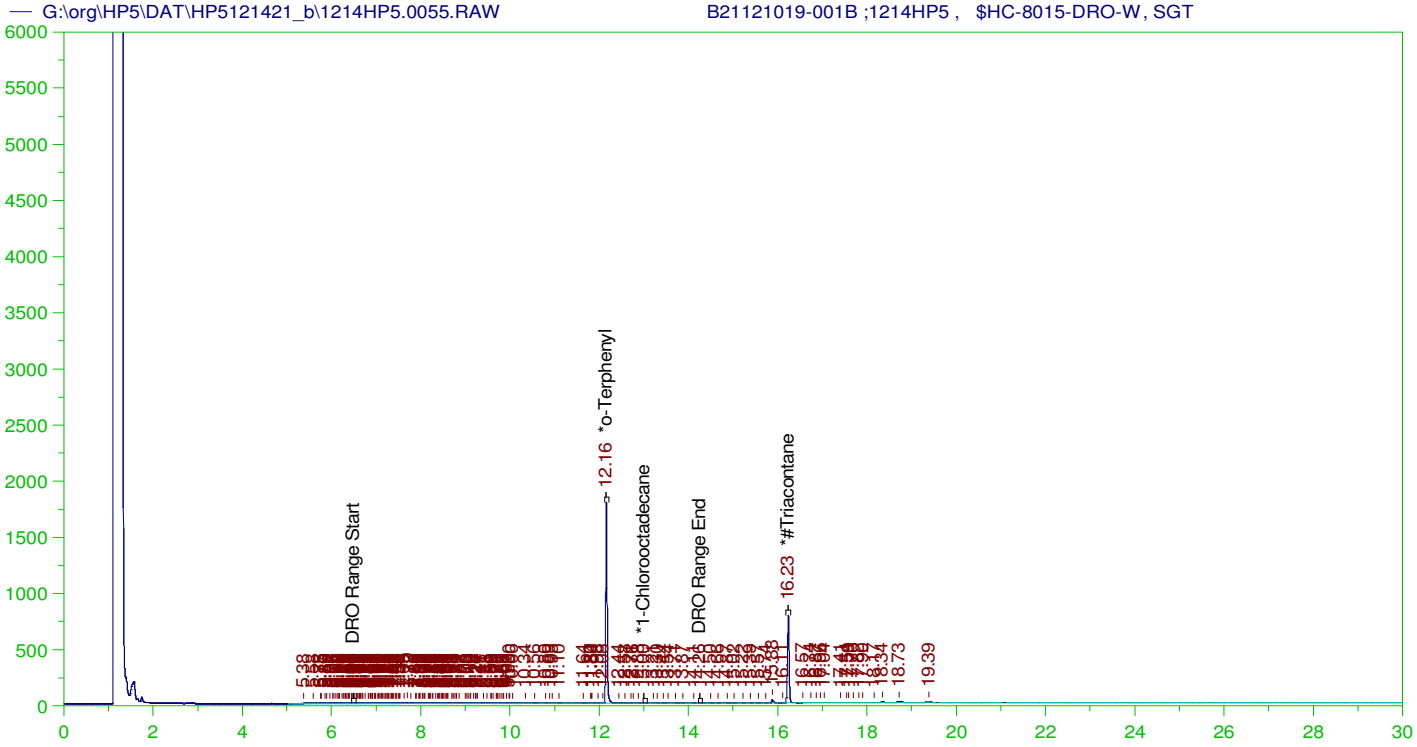
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.159	.2	.169	84.41	-
*1-Chlorooctadecane	13.	.2	.	.15	-
*#Triacontane	16.233	.2	.082	41.06	-

DRO Area:220974.4 DRO Amount: 7.047909E-03
TEH Area:521456.5 TEH Amount: 1.663169E-02

ERH2217 (RHMW03) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0055.RAW B21121019-001B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0055.RAW
Date & Time Acquired: 12/15/2021 10:40:21 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

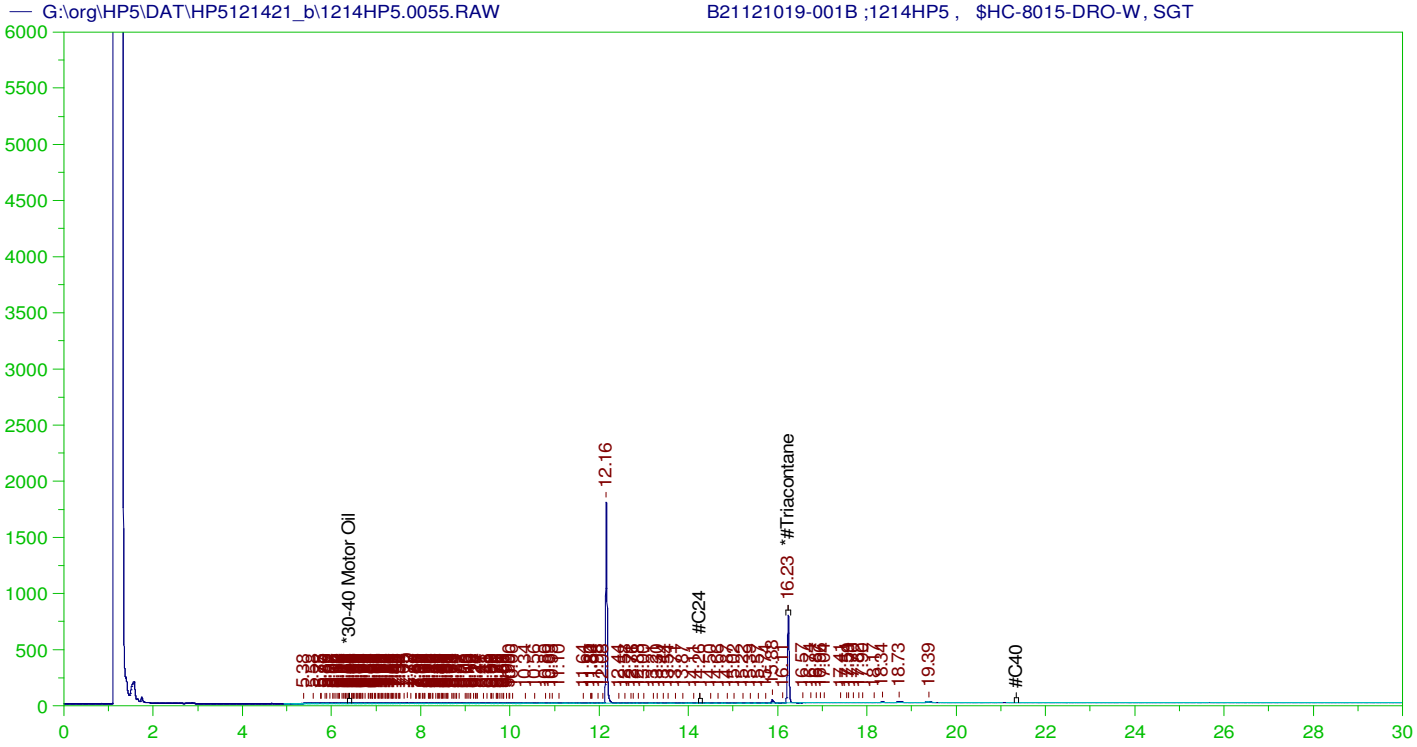
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.159	.196	.106	54.06	-
*1-Chlorooctadecane	13.003	.196	. .1	-	
*#Triacontane	16.233	.196	.072	36.94	-

DRO Area:278620.1 DRO Amount: 8.712253E-03
TEH Area:530479.1 TEH Amount: 1.658771E-02

ERH2217 (RHMW03) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0055.RAW B21121019-001B ;1214HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121019-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0055.RAW
Date & Time Acquired: 12/15/2021 10:40:21 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ-SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

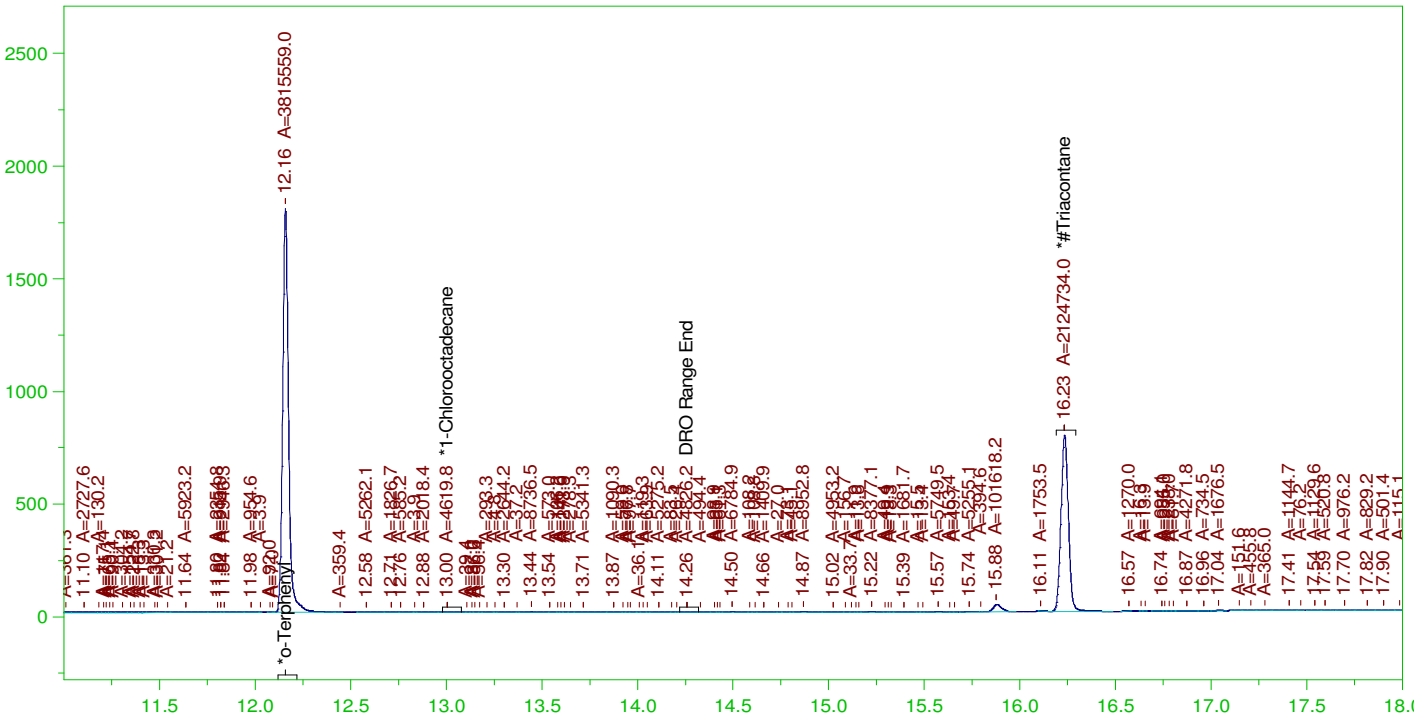
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.22 to 21.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.233	.49	.072	14.77	-

RRO Area:217817.9 RRO AMOUNT: 7.481744E-03

ERH2217 (RHMW03) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0055.RAW B21121019-001B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

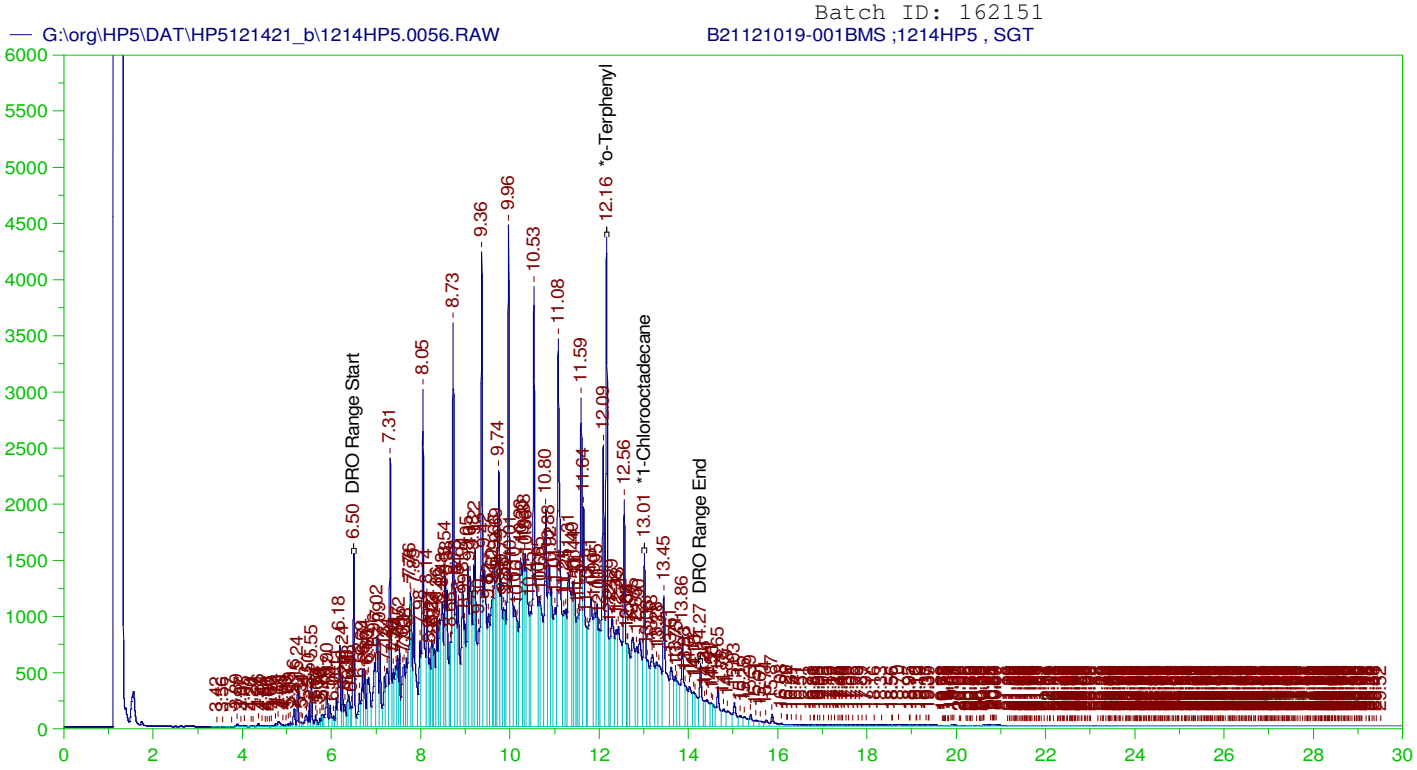
Sample Name: B21121019-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0055.RAW
Date & Time Acquired: 12/15/2021 10:40:21 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.159	.196	.105	53.73	-
*1-Chlorooctadecane	13.003	.196	. .07		-
*#Triacontane	16.233	.196	.072	36.72	-

DRO Area:303243 DRO Amount: 9.482194E-03
TEH Area:612645.4 TEH Amount: 1.915699E-02

Batch ID: 162151



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

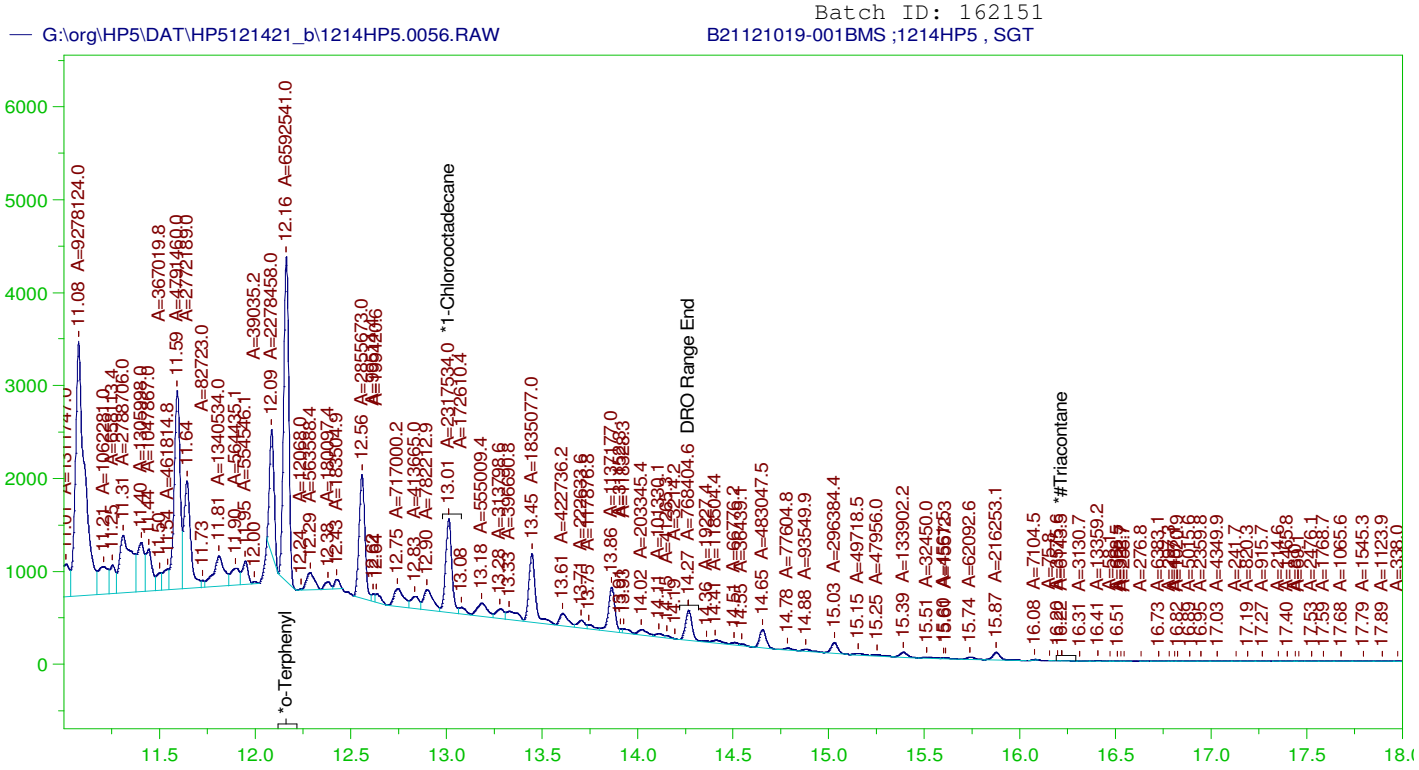
Sample Name: B21121019-001BMS ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0056.RAW
Date & Time Acquired: 12/15/2021 11:23:24 PM
Method File: G:\Org\HP5\Methods\D3_8015-24-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.164	.19	.307	161.41	-
*1-Chlorooctadecane	13.013	.19	.147	77.28	-

DRO Area:4.161824E+08 DRO Amount: 12.64191
TEH Area:4.426925E+08 TEH Amount: 13.44718

Batch ID: 162151



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

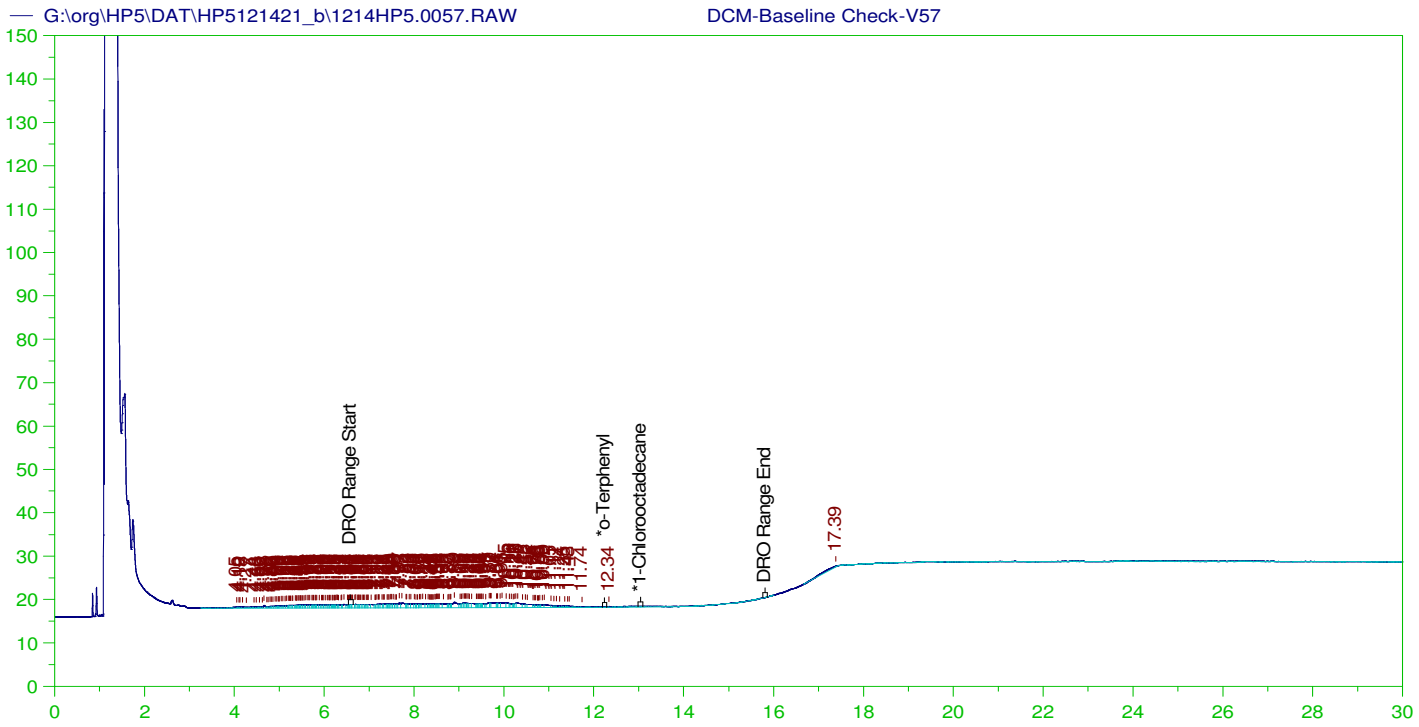
Sample Name: B21121019-001BMS ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0056.RAW
Date & Time Acquired: 12/15/2021 11:23:24 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.164	.19	.177	92.83	-
*1-Chlorooctadecane	13.013	.19	.062	32.63	-
*#Triacontane	16.219	.19	.	.11	-

DRO Area:1.997863E+08 DRO Amount: 6.068685
TEH Area:2.113696E+08 TEH Amount: 6.420539

G:\org\HP5\dat\HP5121421_b\Review\056_B21121019-001BMS_DS_8015-C24T-II-L#.xls



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V57
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0057.RAW
Date & Time Acquired: 12/16/2021 12:06:23 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

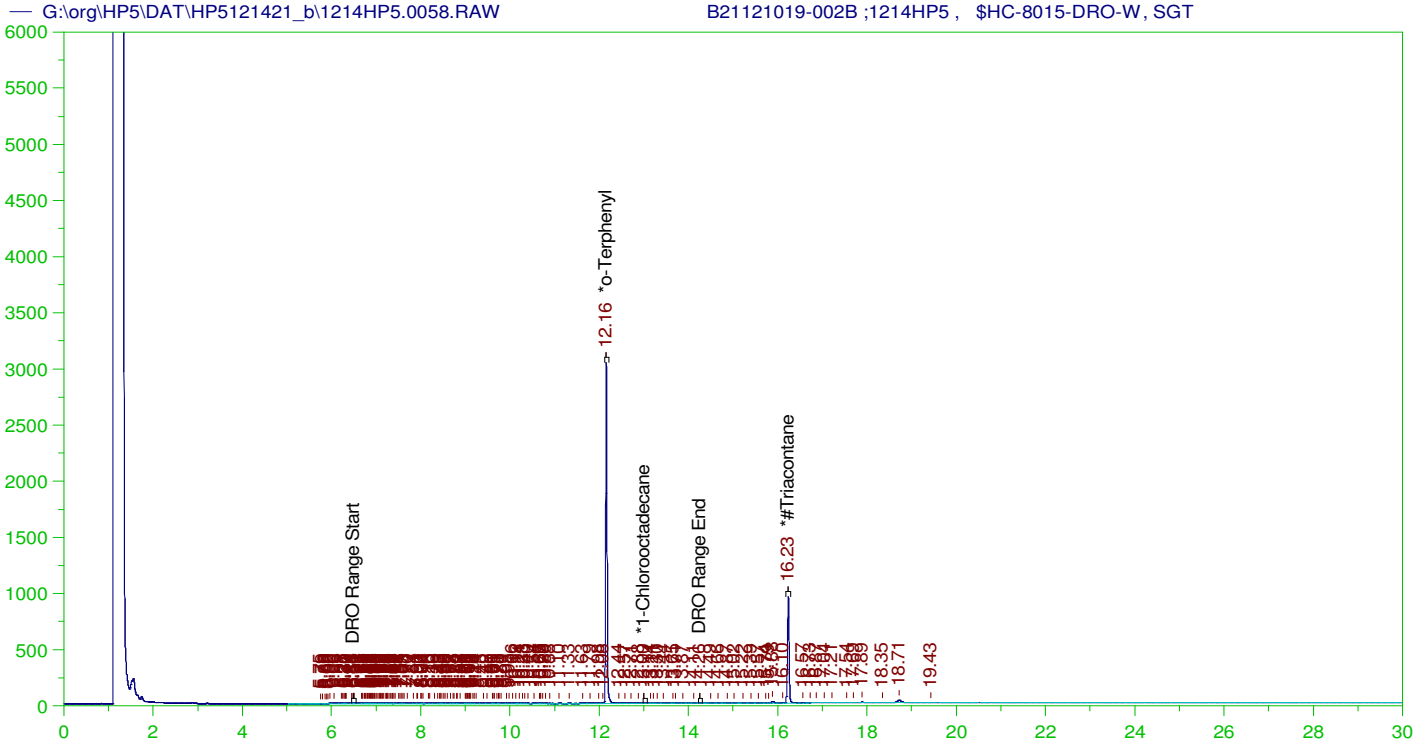
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.975	200.	.	.	-
*1-Chlorooctadecane	29.975	200.	.	.	-

DRO Area:244398.5 DRO Amount: 7.795011
TEH Area:351420 TEH Amount: 11.20843

ERH2219 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0058.RAW B21121019-002B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-002B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0058.RAW
Date & Time Acquired: 12/16/2021 12:49:23 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

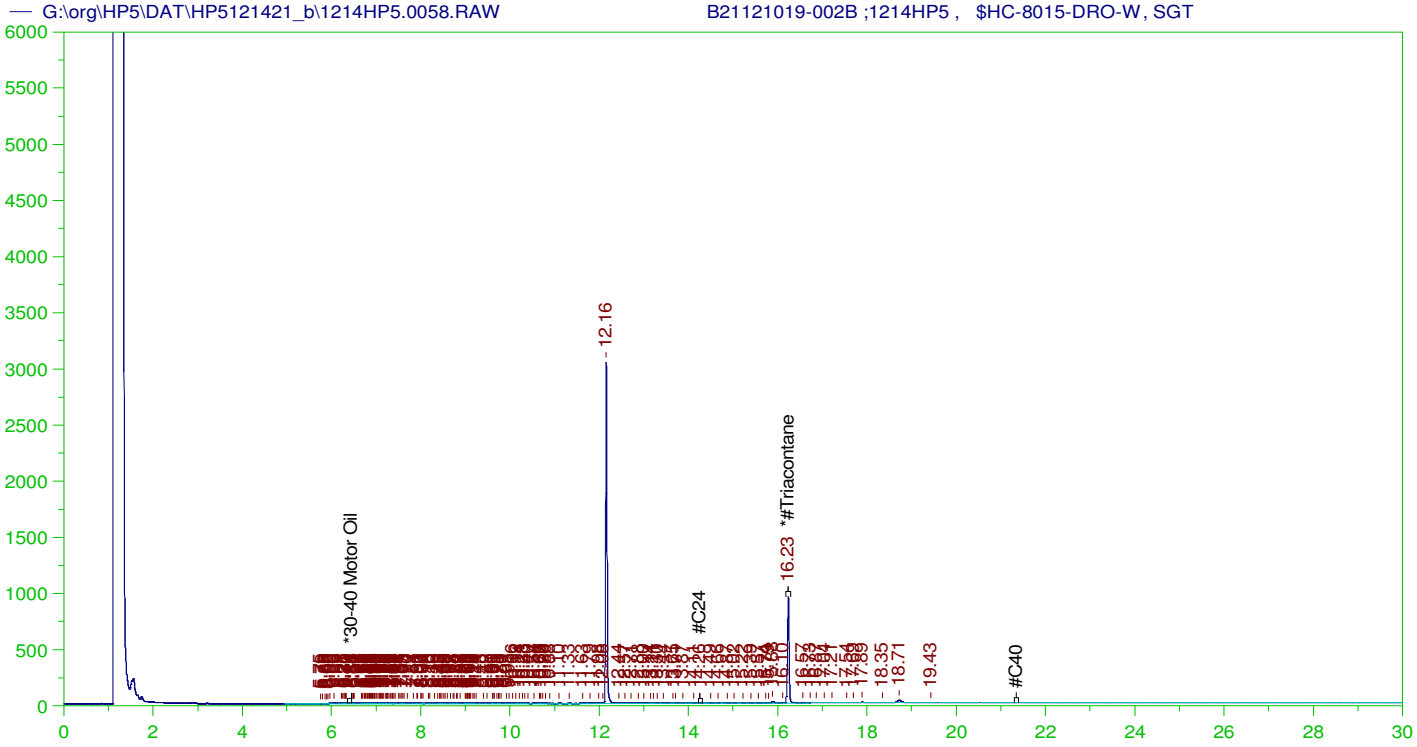
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.158	.192	.171	88.71	-
*1-Chlorooctadecane	13.	.192	.	.17	-
*#Triacontane	16.232	.192	.085	44.41	-

DRO Area:351248 DRO Amount: 1.077206E-02
TEH Area:760879.4 TEH Amount: 2.333462E-02

ERH2219 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0058.RAW B21121019-002B ;1214HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121019-002B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0058.RAW
Date & Time Acquired: 12/16/2021 12:49:23 AM
Method File: G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ-SAMP.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

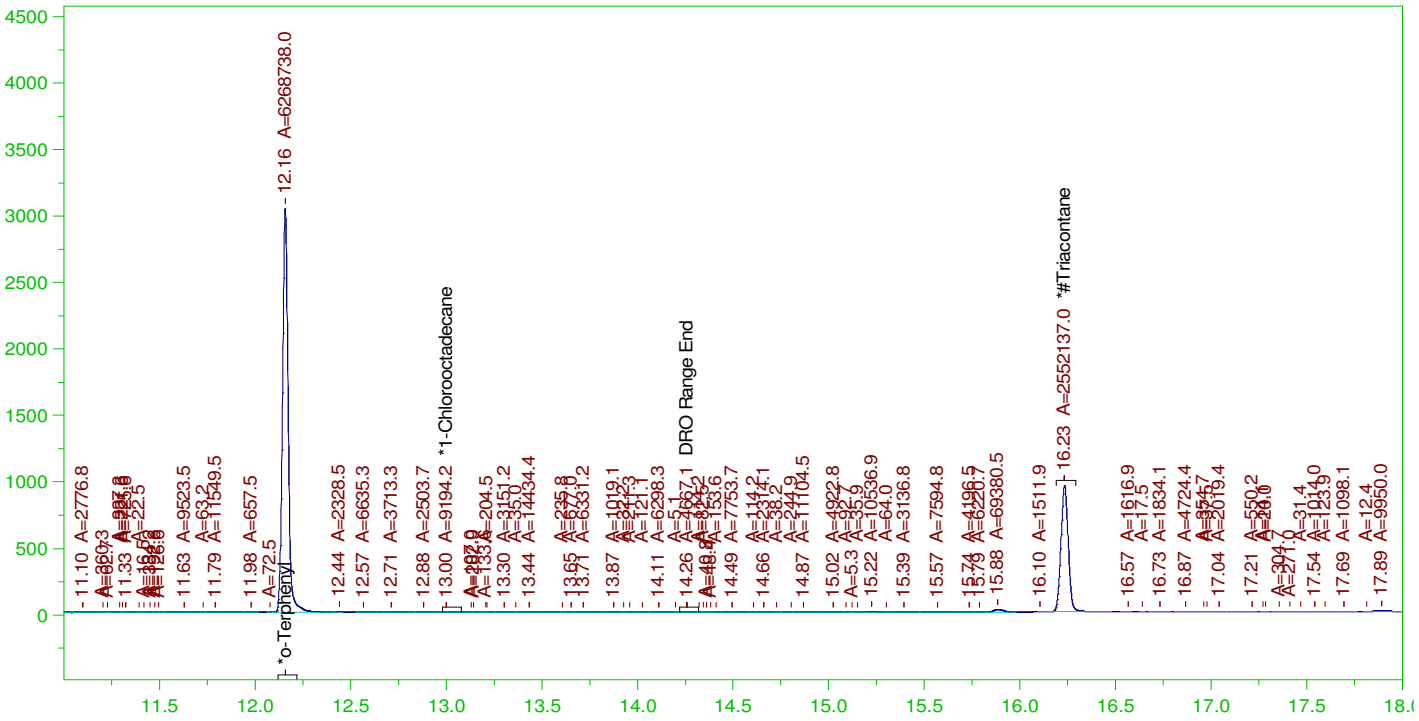
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.22 to 21.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.232	.481	.085	17.77	-

RRO Area:337429.5 RRO AMOUNT: 1.136735E-02

ERH2219 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0058.RAW B21121019-002B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-002B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0058.RAW
Date & Time Acquired: 12/16/2021 12:49:23 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

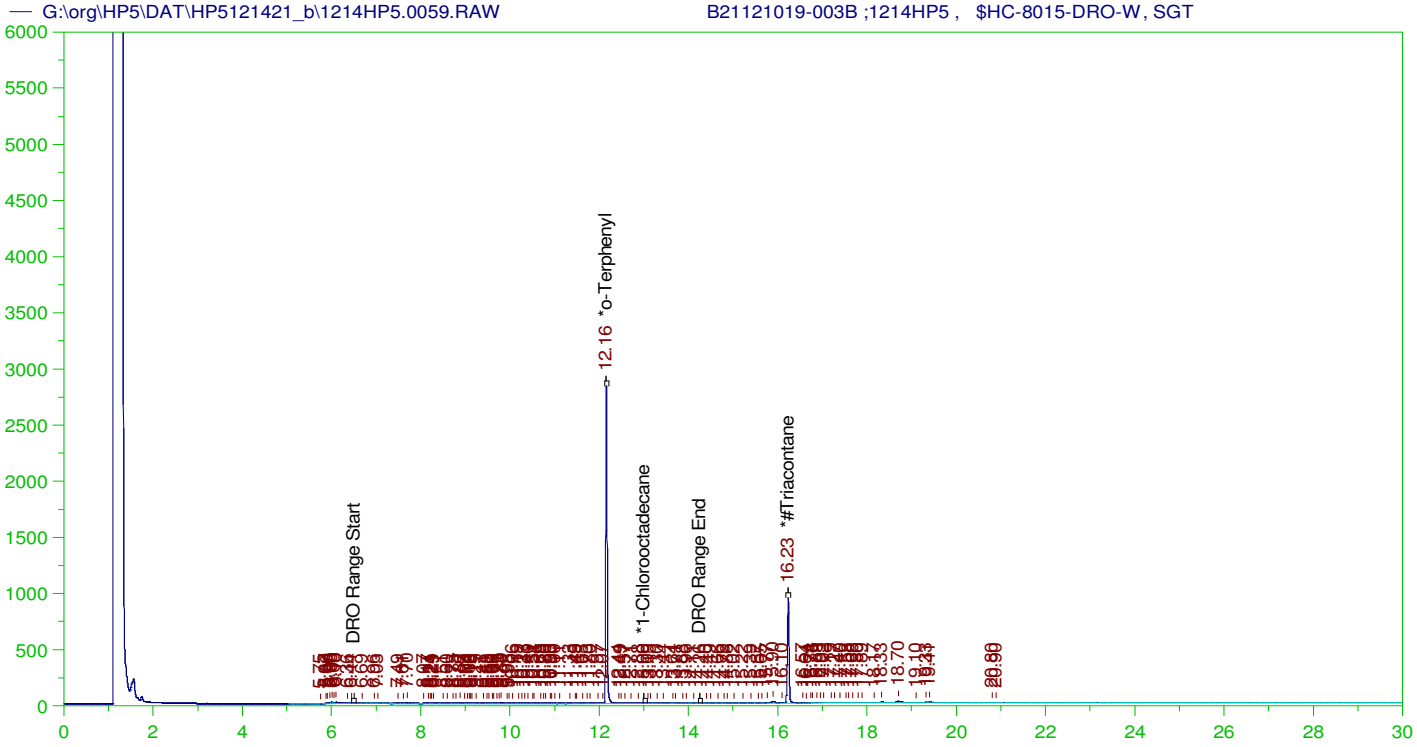
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.158	.192	.17	88.27	-
*1-Chlorooctadecane	13.	.192	.	.13	-
*#Triacontane	16.232	.192	.085	44.11	-

DRO Area:318732.8 DRO Amount: 9.774885E-03
TEH Area:729135.8 TEH Amount: 2.236111E-02

ERH2220 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0059.RAW B21121019-003B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-003B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0059.RAW
Date & Time Acquired: 12/16/2021 1:32:20 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

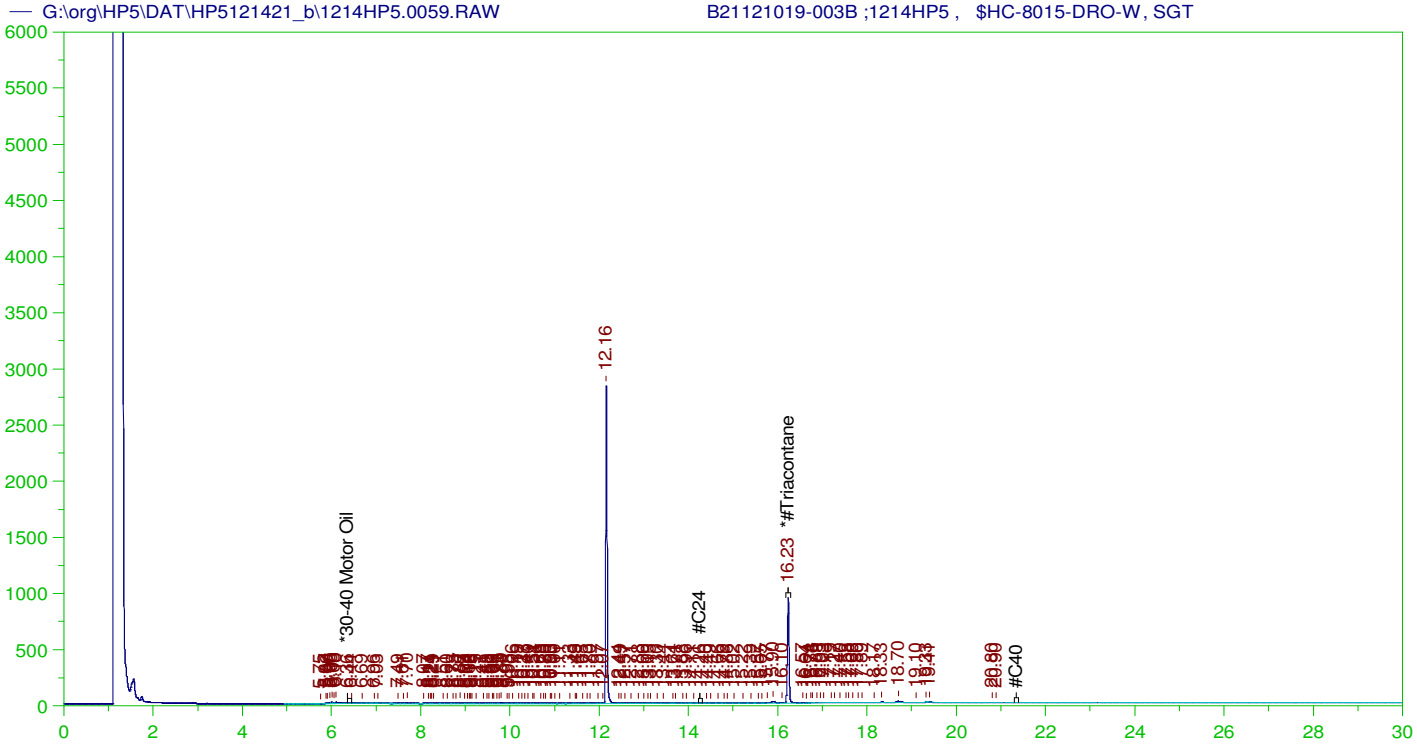
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.16	.192	.16	83.09	-
*1-Chlorooctadecane	13.004	.192	.	.06	-
*#Triacontane	16.23	.192	.085	44.09	-

DRO Area:304144.7 DRO Amount: 9.327499E-03
TEH Area:886674.8 TEH Amount: 2.719251E-02

ERH2220 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0059.RAW B21121019-003B ;1214HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121019-003B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0059.RAW
Date & Time Acquired: 12/16/2021 1:32:20 AM
Method File: G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ-SAMP.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

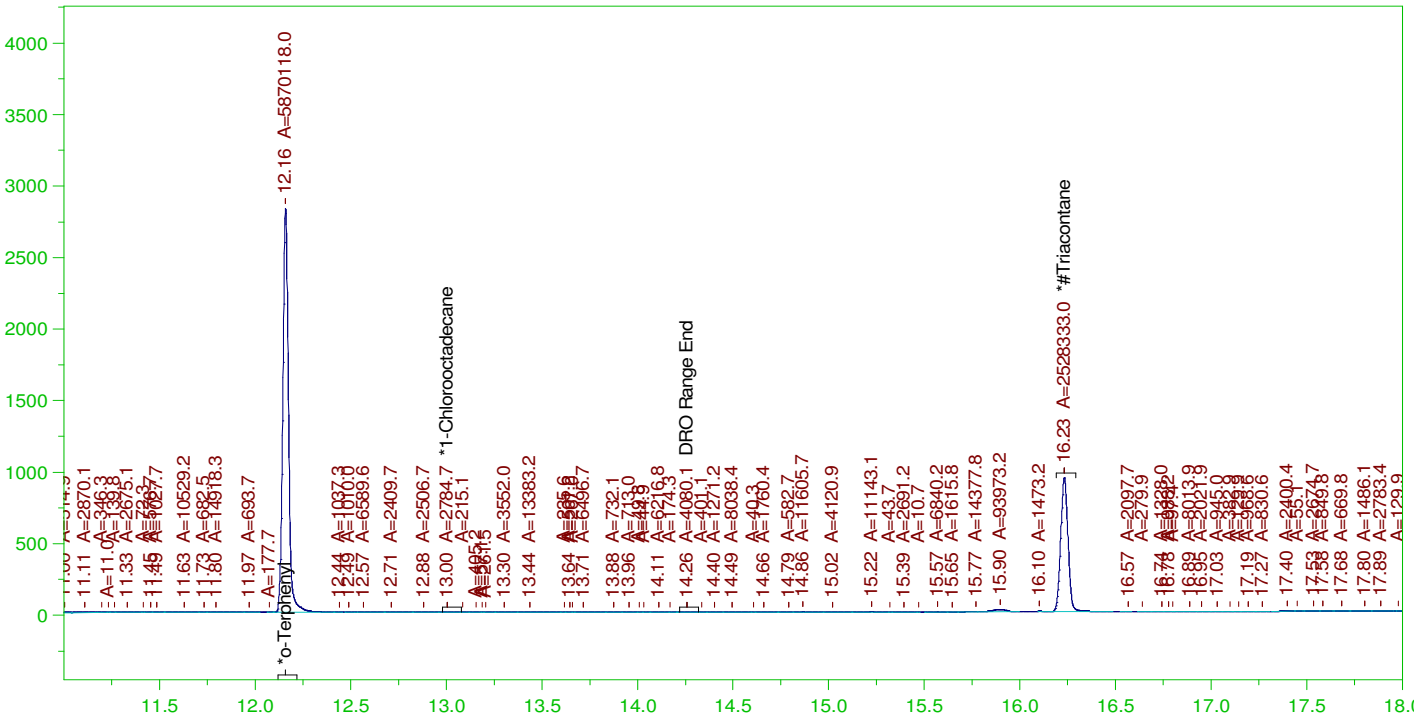
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.22 to 21.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.23	.481	.085	17.63	-

RRO Area:372158.4 RRO AMOUNT: 1.253729E-02

ERH2220 (RHMW05) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0059.RAW B21121019-003B ;1214HP5 , $HC-8015-DRO-W, SGT



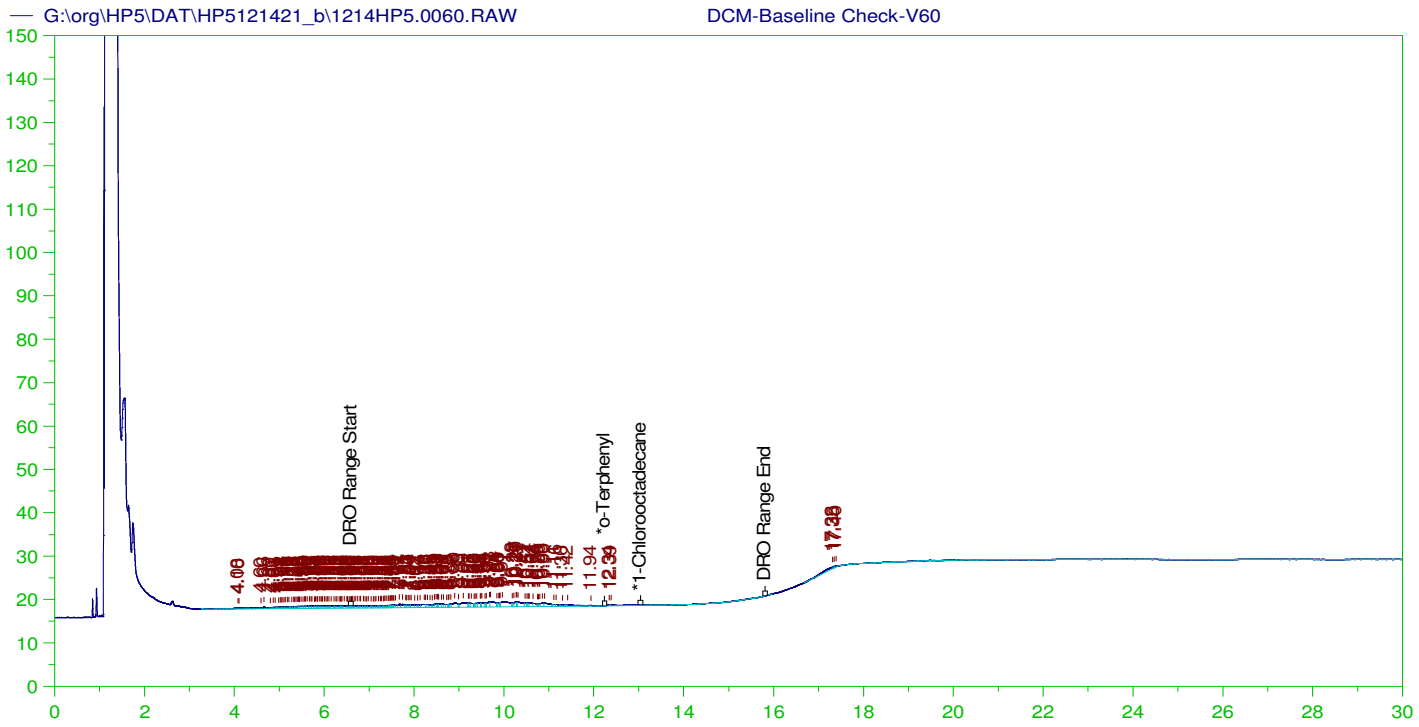
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121019-003B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0059.RAW
Date & Time Acquired: 12/16/2021 1:32:20 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.16	.192	.159	82.66	-
*1-Chlorooctadecane	13.004	.192	.	.04	-
*#Triacontane	16.23	.192	.084	43.7	-

DRO Area:257180.6 DRO Amount: 7.887206E-03
TEH Area:786442 TEH Amount: 2.411857E-02



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V60
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0060.RAW
Date & Time Acquired: 12/16/2021 2:15:19 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

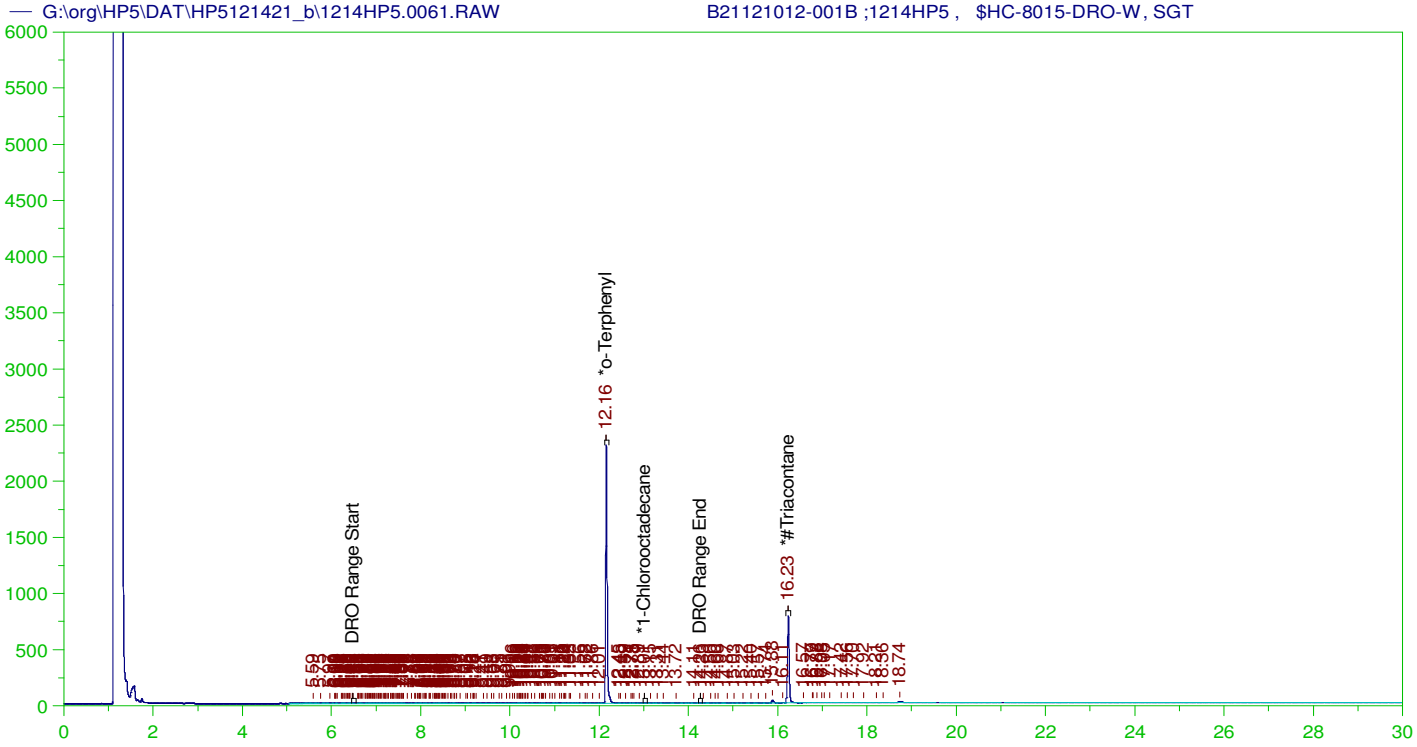
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.968	200.	.	.	-
*1-Chlorooctadecane	29.968	200.	.	.	-

DRO Area:211668 DRO Amount: 6.751082
TEH Area:288959.1 TEH Amount: 9.216259

ERH 2224 (RHMW15-05 Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0061.RAW B21121012-001B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121012-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0061.RAW
Date & Time Acquired: 12/16/2021 2:58:19 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

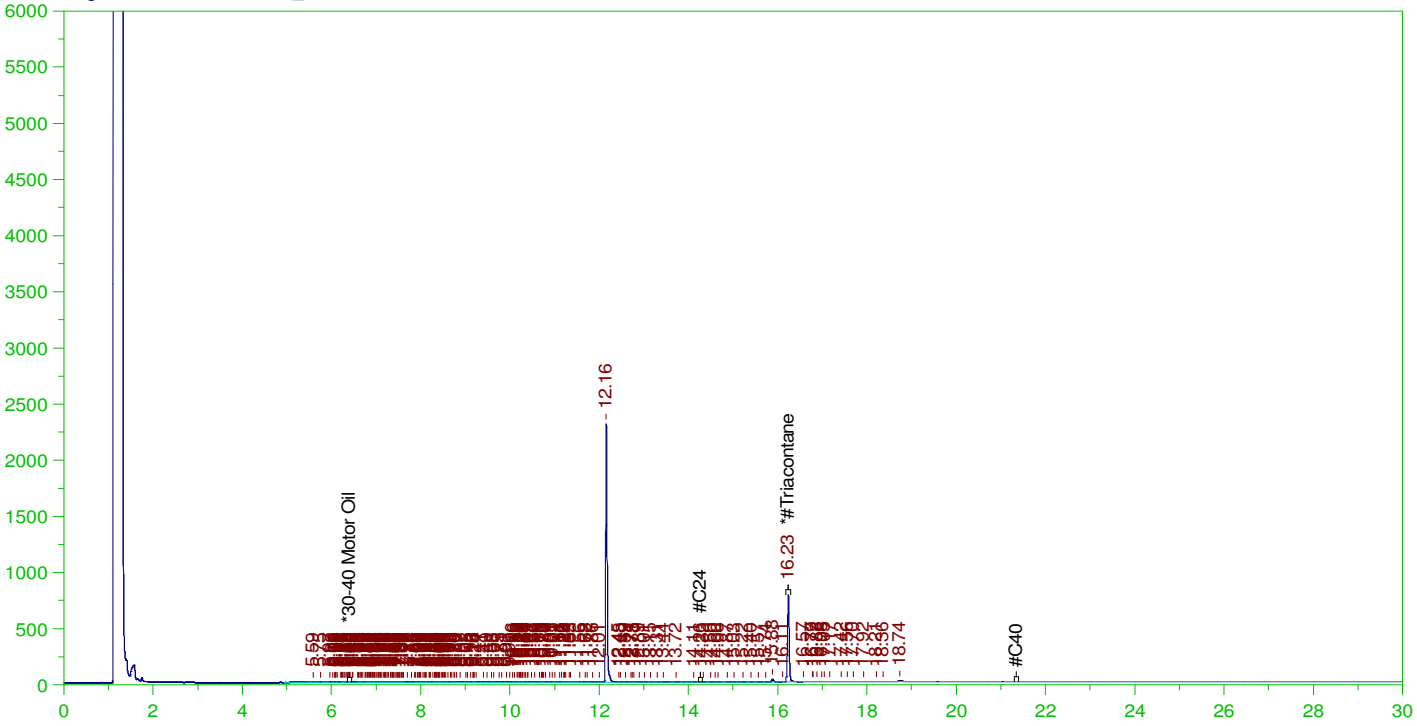
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.158	.192	.136	70.63	-
*1-Chlorooctadecane	13.01	.192	.07		-
*#Triacontane	16.233	.192	.072	37.67	-

DRO Area:346216.9 DRO Amount: 1.061777E-02
TEH Area:584610.2 TEH Amount: 0.0179288

ERH 2224 (RHMW15-05 Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0061.RAW B21121012-001B ;1214HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121012-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0061.RAW
Date & Time Acquired: 12/16/2021 2:58:19 AM
Method File: G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ-SAMP.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

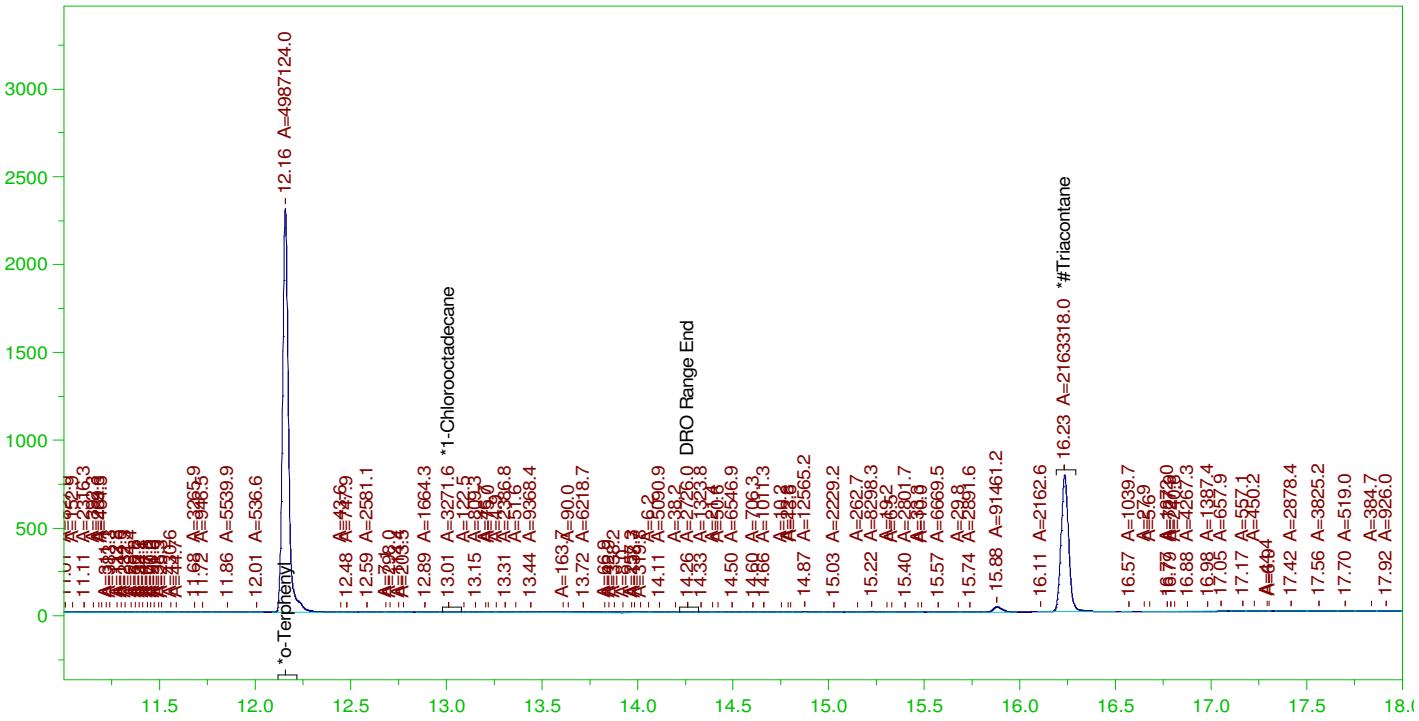
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.22 to 21.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.233	.481	.072	15.07	-

RRO Area:200681.3 RRO AMOUNT: 6.760563E-03

ERH 2224 (RHMW15-05 Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0061.RAW B21121012-001B ;1214HP5 , $HC-8015-DRO-W, SGT



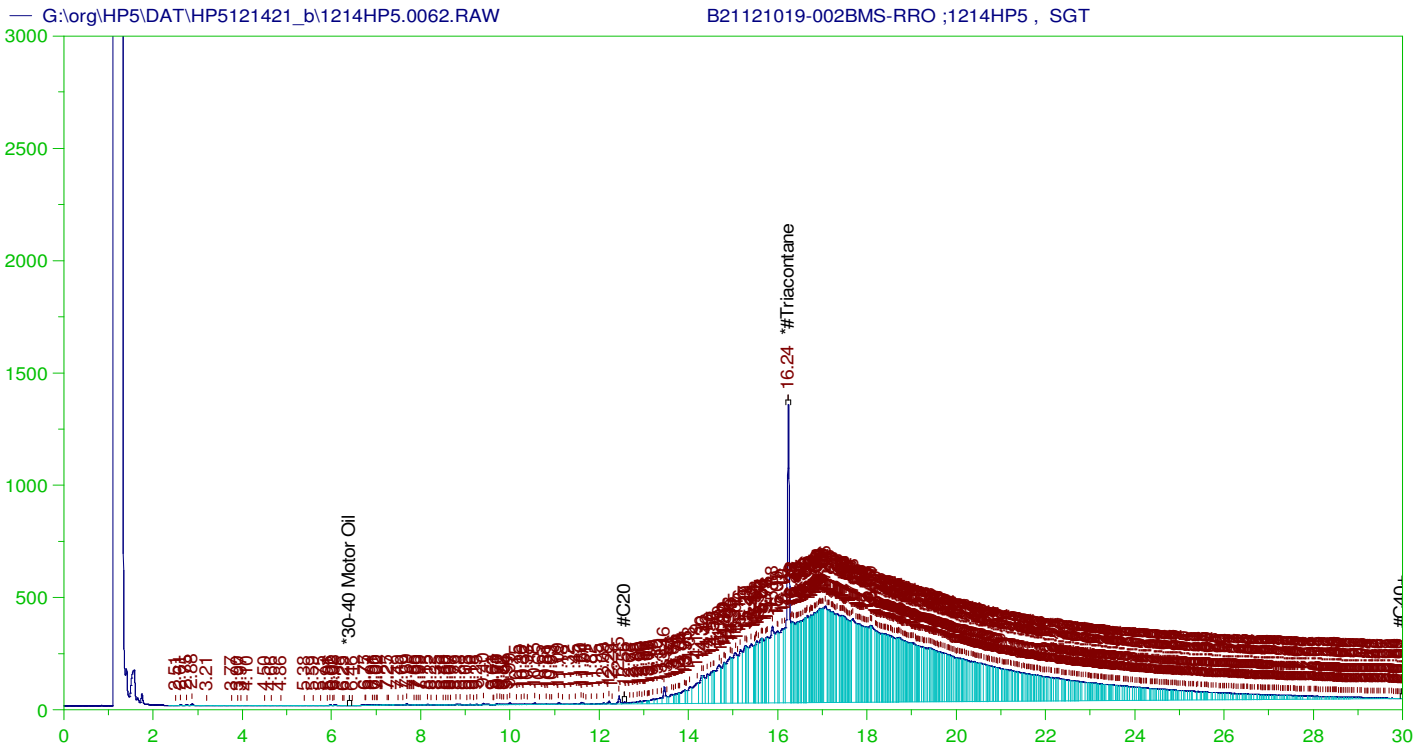
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121012-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0061.RAW
Date & Time Acquired: 12/16/2021 2:58:19 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.158	.192	.135	70.22	-
*1-Chlorooctadecane	13.01	.192	. .05		-
*#Triacontane	16.233	.192	.072	37.39	-

DRO Area:314534.4 DRO Amount: 9.646128E-03
TEH Area:587049.1 TEH Amount: 0.0180036



RESIDUAL RANGE ORGANICS CHROMATOGRAM

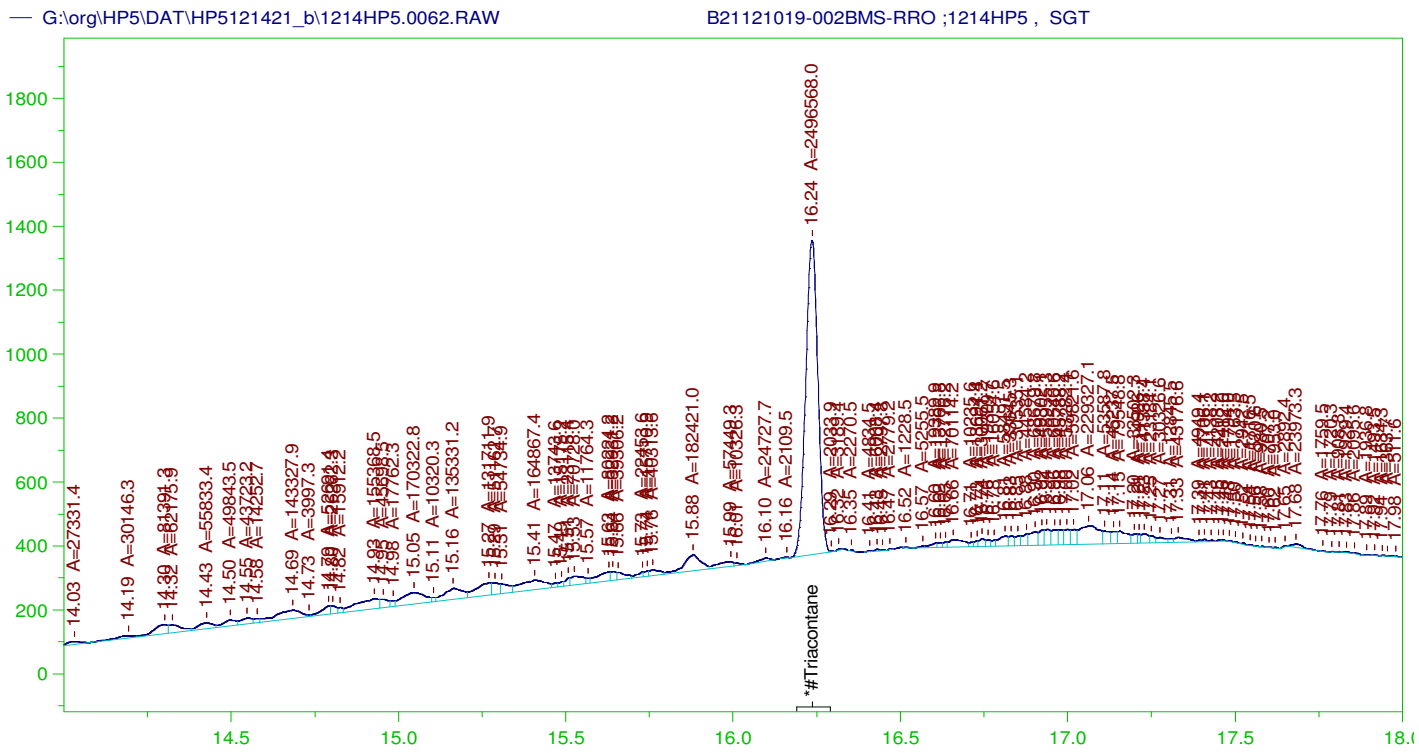
Sample Name: B21121019-002BMS-RRO ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0062.RAW
Date & Time Acquired: 12/16/2021 3:41:26 AM
Method File: G:\Org\HP5\Methods\D3_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Range Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.236	.478	.164	34.23	-

~~RRO~~ TEH (Oil Range) Area:1.359019E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.556365

AMN 01/07/2022



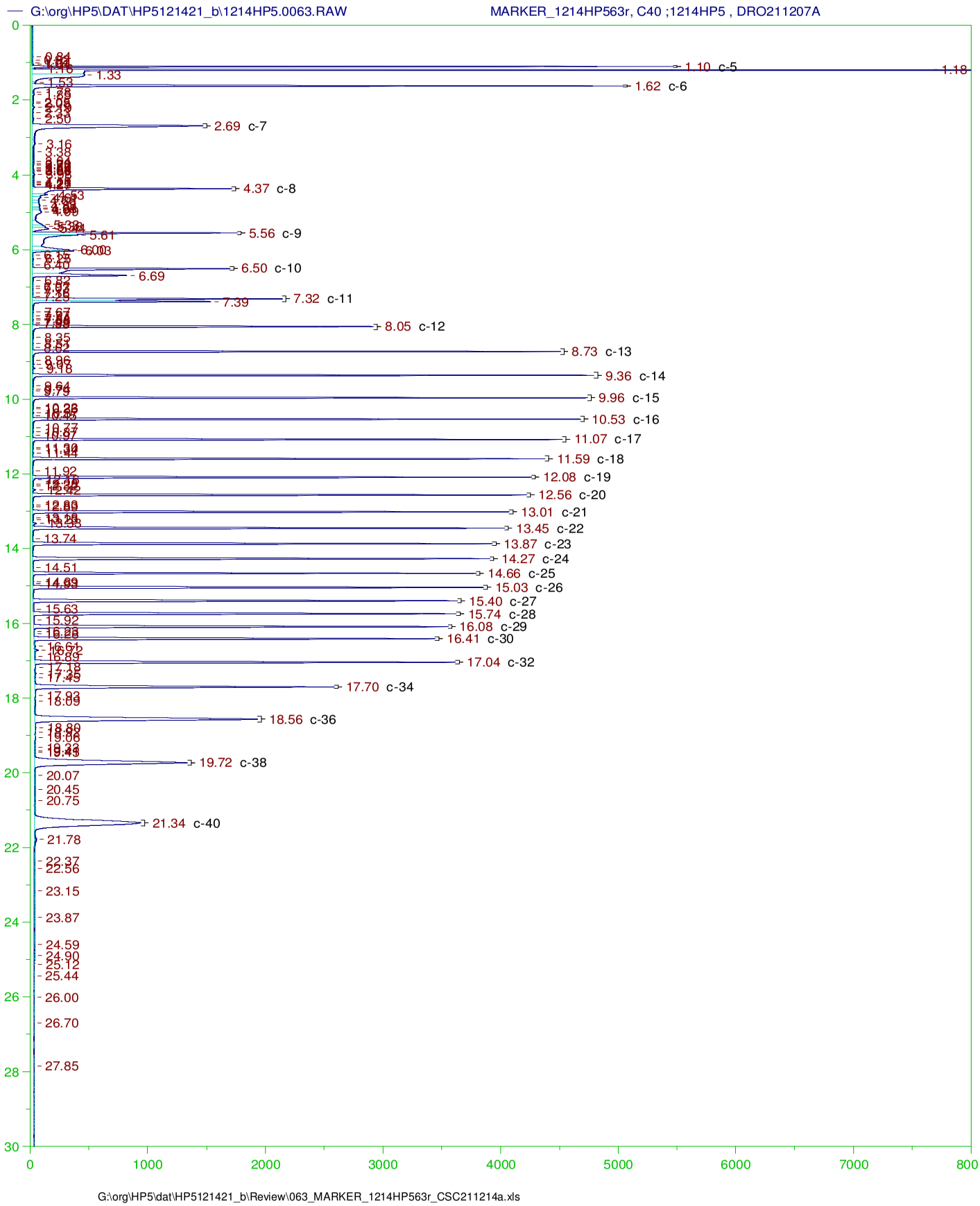
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121019-002BMS-RRO ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0062.RAW
Date & Time Acquired: 12/16/2021 3:41:26 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.236	.478	.083	17.26	-

RRO Area:4215150 RRO AMOUNT: 0.1413208


G:\org\HP5\DAT\HP5121421_b\1214HP5.0063.RAW
MARKER_1214HP563r, C40 ;1214HP5 , DRO211207A
1.10 c-5
1.18
1.33
1.62 c-6
2.69 c-7
4.37 c-8
5.56 c-9
6.50 c-10
6.69
7.32 c-11
7.39
8.05 c-12
8.73 c-13
9.36 c-14
9.96 c-15
10.53 c-16
11.07 c-17
11.59 c-18
12.08 c-19
12.56 c-20
13.01 c-21
13.45 c-22
13.74
13.87 c-23
14.27 c-24
14.51
14.66 c-25
15.03 c-26
15.40 c-27
15.63
15.74 c-28
15.92
16.08 c-29
16.41 c-30
17.04 c-32
17.70 c-34
18.56 c-36
19.72 c-38
20.07
20.45
20.75
21.34 c-40
21.78
22.37
22.56
23.15
23.87
24.59
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25.44
26.00
26.70
27.85
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1000
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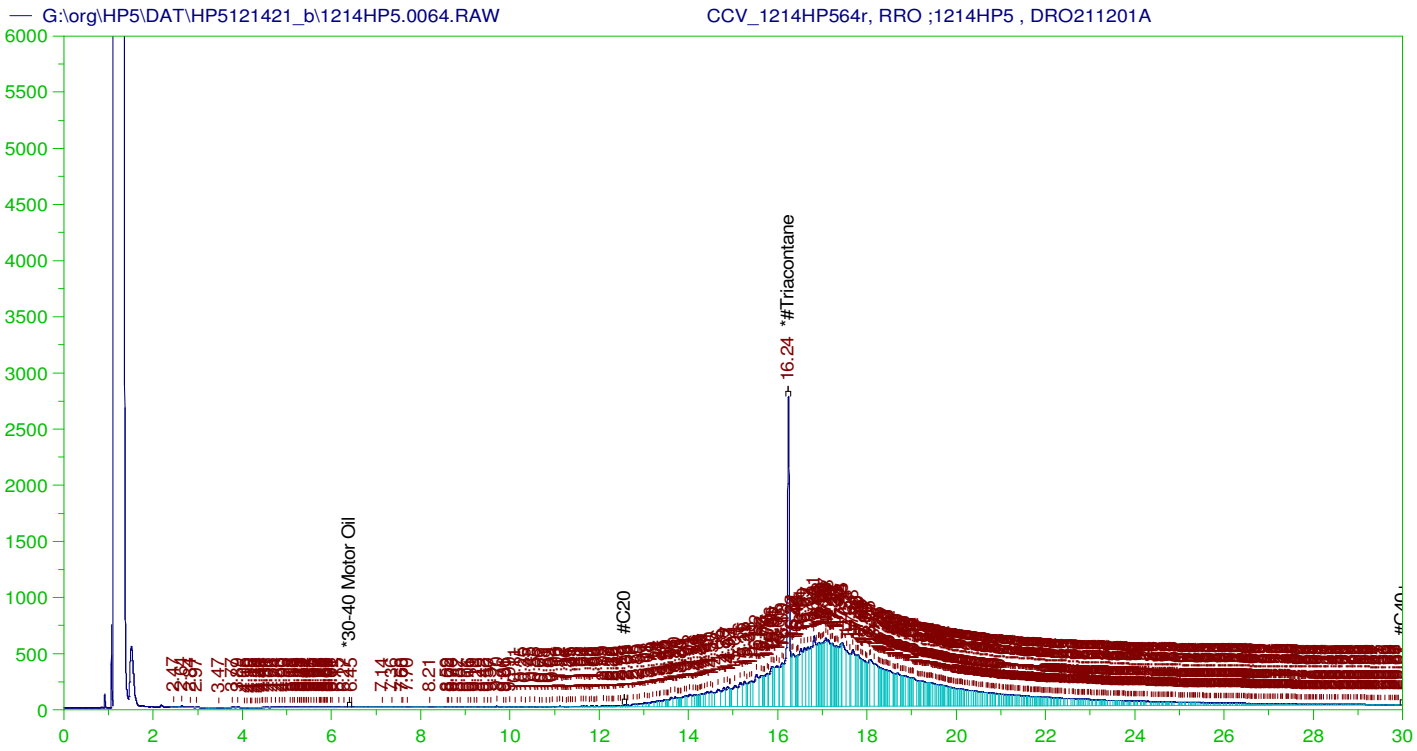


RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP564r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0064.RAW
Date & Time Acquired: 12/16/2021 5:07:24 AM
Method File: G:\Org\HP5\Methods\DC_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.237	500.	349.457	69.89	-

~~RRO~~ TEH (Oil Range) Area:1.389298E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4867.488

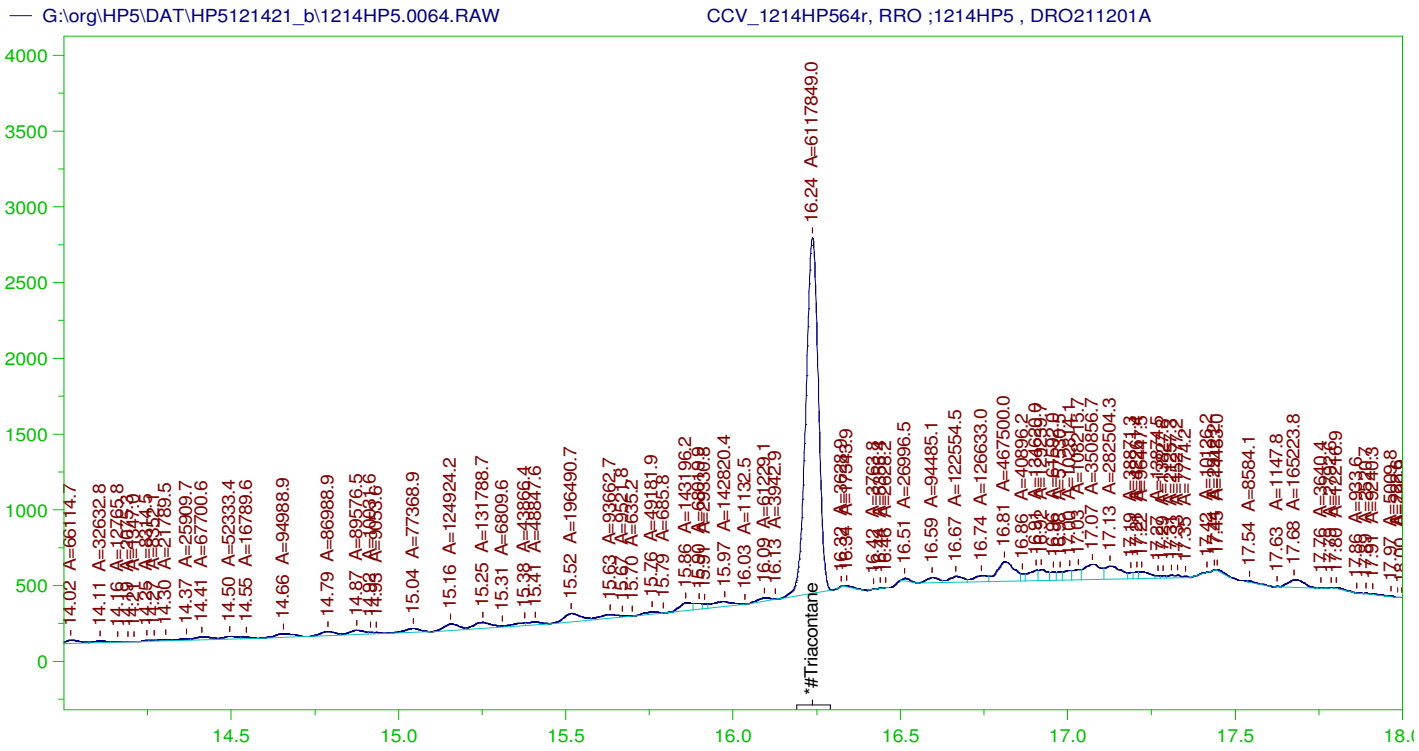
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0064.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.237	200.	349.457	174.73	75-125

AMN 01/07/2022

G:\org\HP5\dat\HP5121421_b\Review\064_CCV_1214HP564r_DC_ORO-AJ-L%.xls



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP564r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0064.RAW
Date & Time Acquired: 12/16/2021 5:07:24 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.51 to 30.05

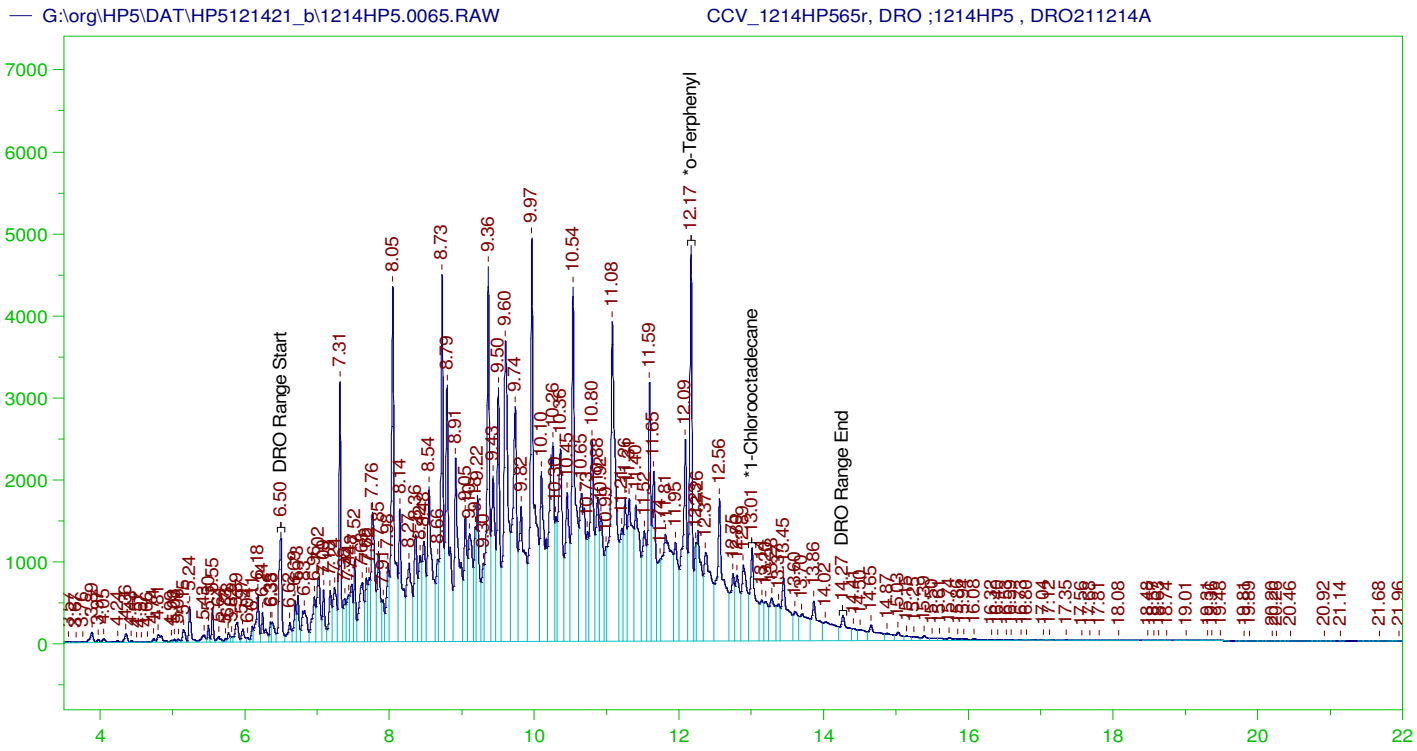
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.237	500.	211.47	42.29	-

RRO Area:5185145 RRO AMOUNT: 181.6646

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0064.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.237	200.	211.47	105.73	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1214HP565r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0065.RAW
Date & Time Acquired: 12/16/2021 5:50:26 AM
Method File: G:\Org\HP5\Methods\DC_8015-24-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

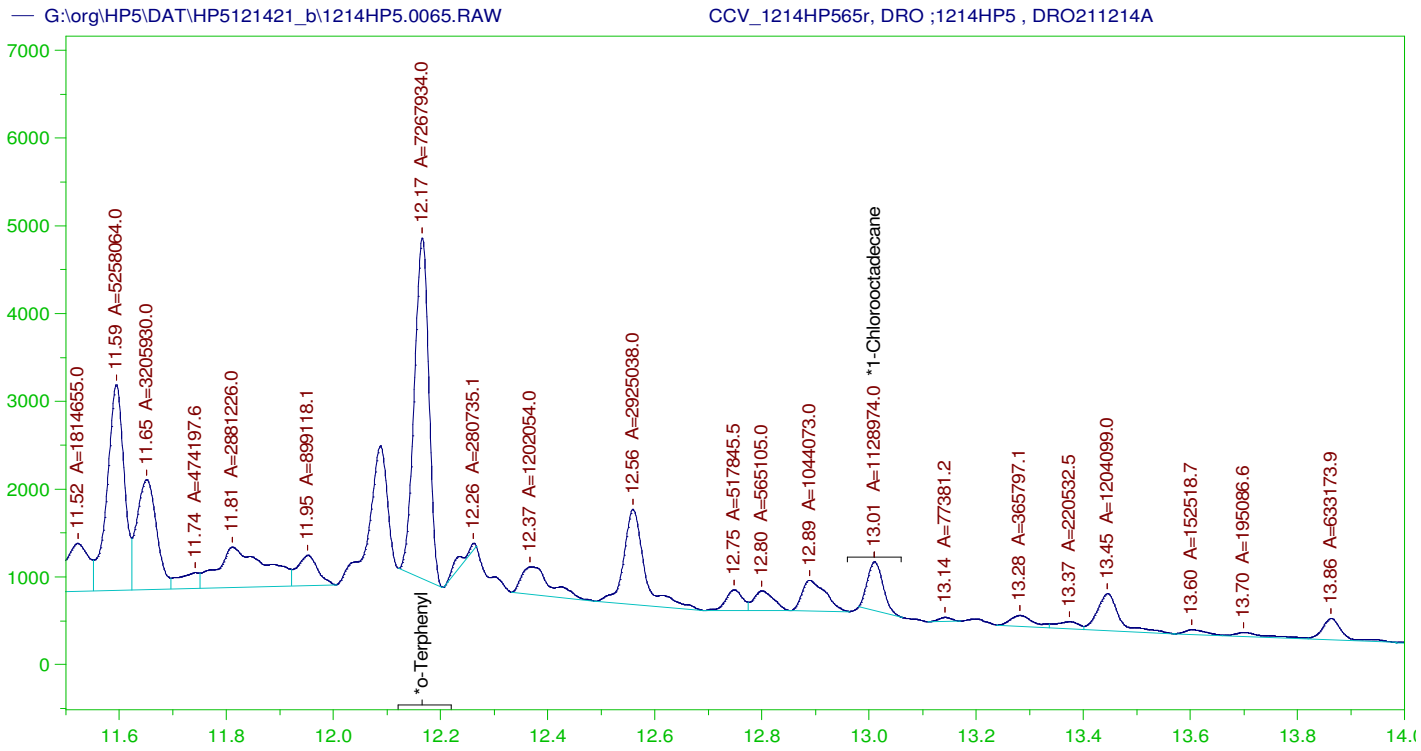
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.166	200.	336.932	168.47	-
*1-Chlorooctadecane	13.01	200.	165.217	82.61	-

DRO Area:4.811384E+08 DRO Amount: 15345.75
TEH Area:4.982353E+08 TEH Amount: 15891.05

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0065.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15891.05	105.94	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.166	200.	336.932	168.47	85-115
*1-Chlorooctadecane	13.01	200.	165.217	82.61	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1214HP565r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0065.RAW
Date & Time Acquired: 12/16/2021 5:50:26 AM
Method File: G:\Org\HP5\Methods\DS_8015-24-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

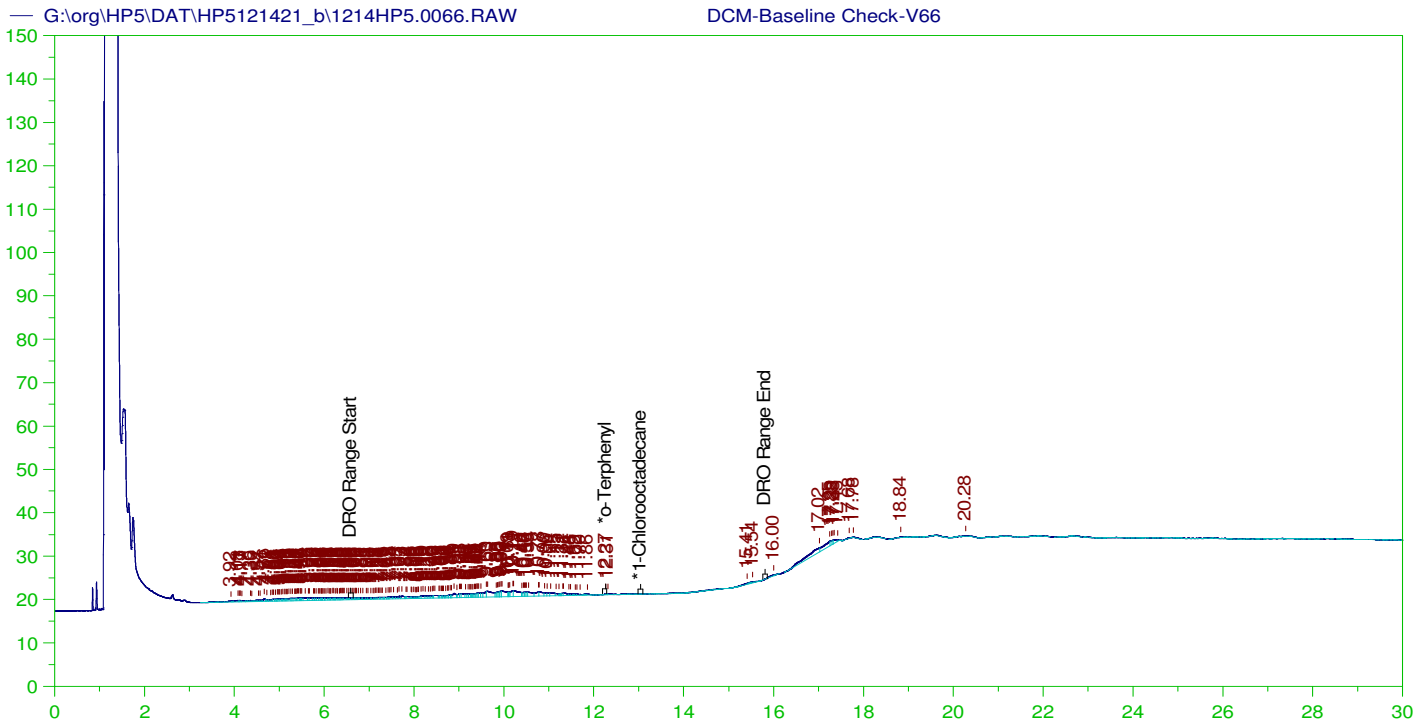
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.166	200.	204.677	102.34	-
*1-Chlorooctadecane	13.01	200.	31.794	15.9	-

DRO Area:2.649992E+08 DRO Amount: 8452.064
TEH Area:2.755105E+08 TEH Amount: 8787.318

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0065.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8787.32	58.58	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.166	200.	204.677	102.34	85-115
*1-Chlorooctadecane	13.01	200.	31.794	15.9	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V66
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0066.RAW
Date & Time Acquired: 12/16/2021 6:33:32 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

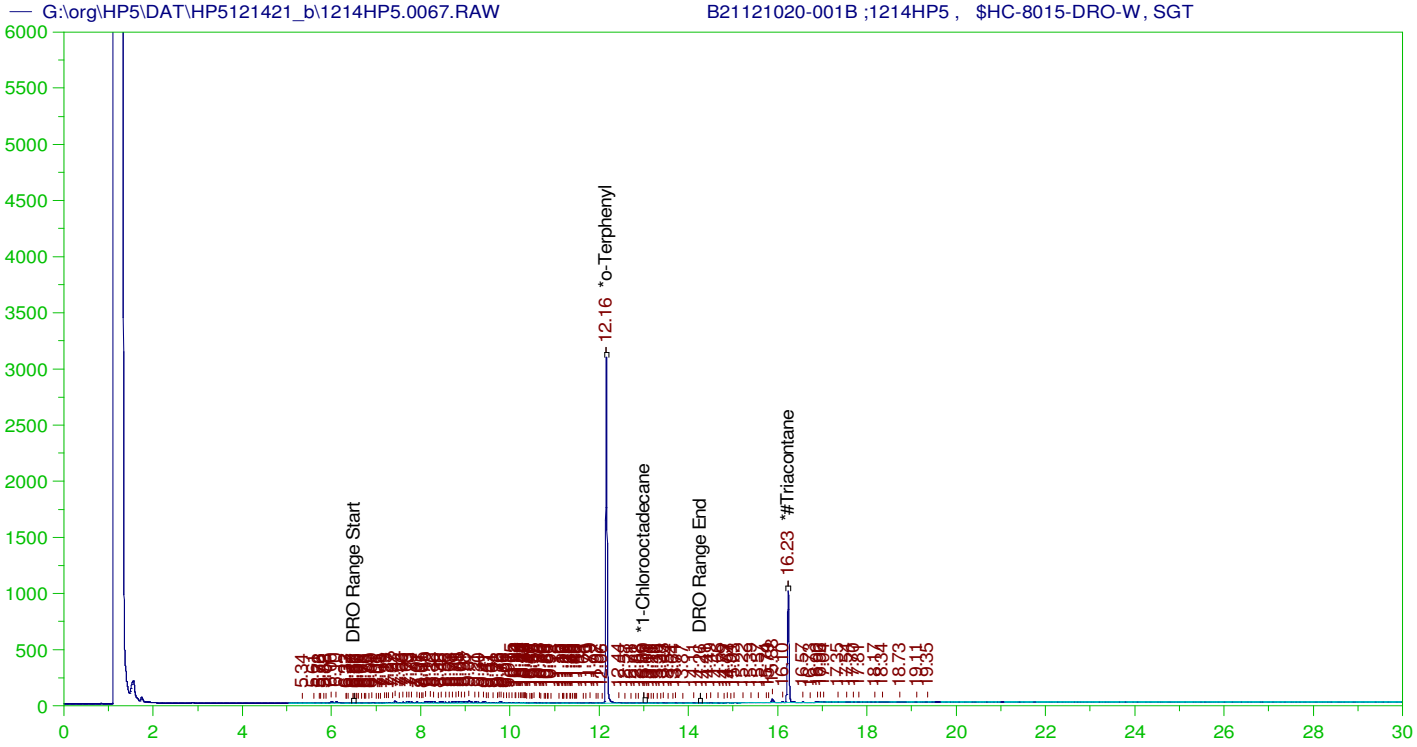
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.268	200.	.018	.01	-
*1-Chlorooctadecane	29.99	200.	.	.	-

DRO Area:227589 DRO Amount: 7.258878
TEH Area:365596.9 TEH Amount: 11.6606

ERH2213 (RHMW01R) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0067.RAW B21121020-001B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121020-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0067.RAW
Date & Time Acquired: 12/16/2021 7:16:33 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

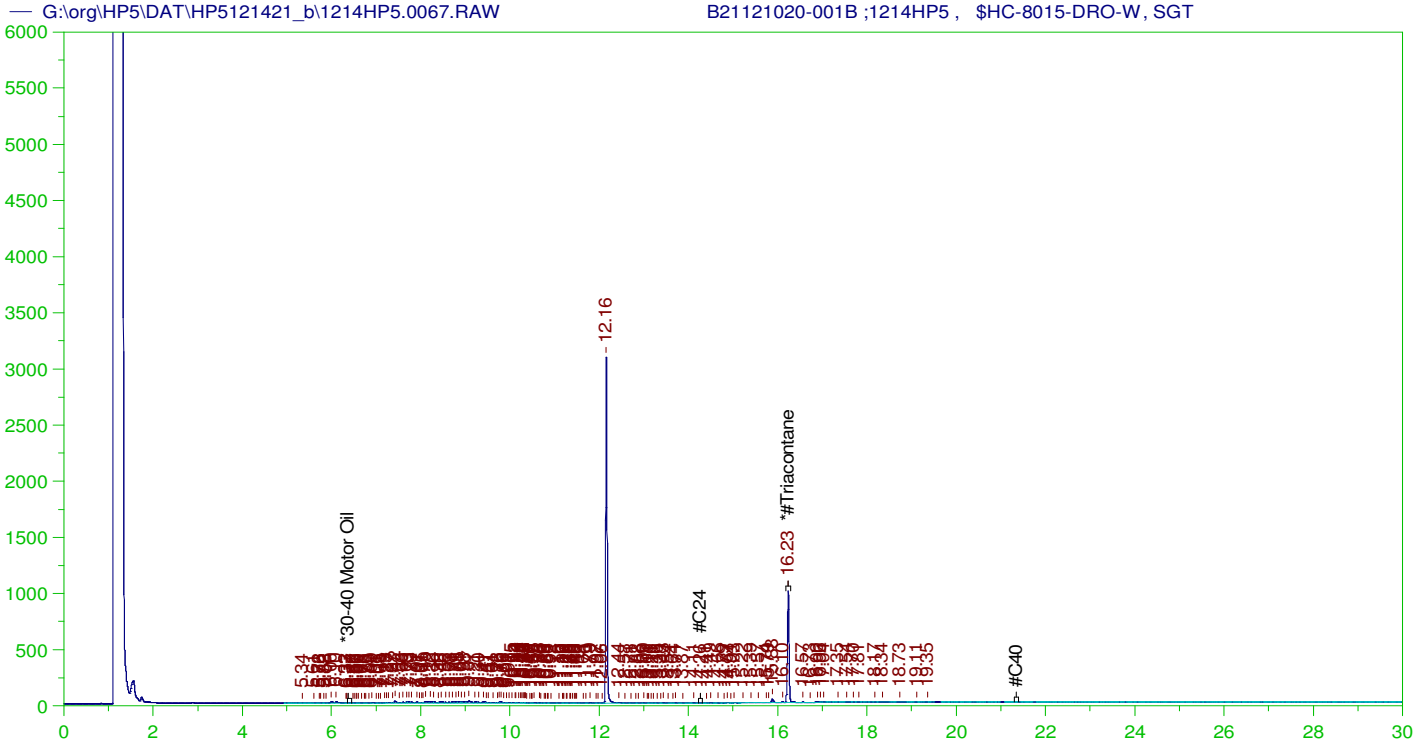
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.159	.19	.17	89.33	-
*1-Chlorooctadecane	12.999	.19	.	.12	-
*#Triacontane	16.231	.19	.087	45.9	-

DRO Area:1825767 DRO Amount: 5.545928E-02
TEH Area:2243469 TEH Amount: 6.814735E-02

ERH2213 (RHMW01R) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0067.RAW B21121020-001B ;1214HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121020-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0067.RAW
Date & Time Acquired: 12/16/2021 7:16:33 AM
Method File: G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ-SAMP.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

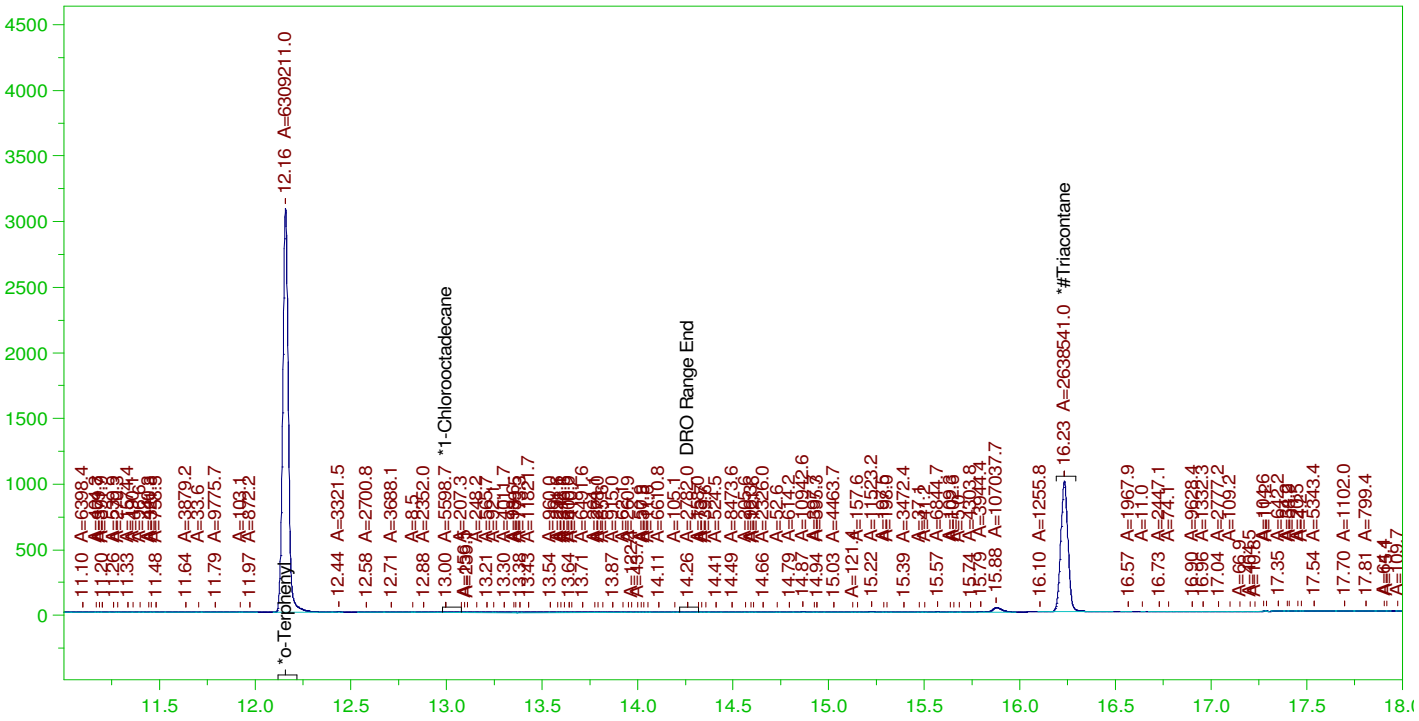
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.22 to 21.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.231	.476	.087	18.36	-

RRO Area:249006.2 RRO AMOUNT: 8.308644E-03

ERH2213 (RHMW01R) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0067.RAW B21121020-001B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121020-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0067.RAW
Date & Time Acquired: 12/16/2021 7:16:33 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

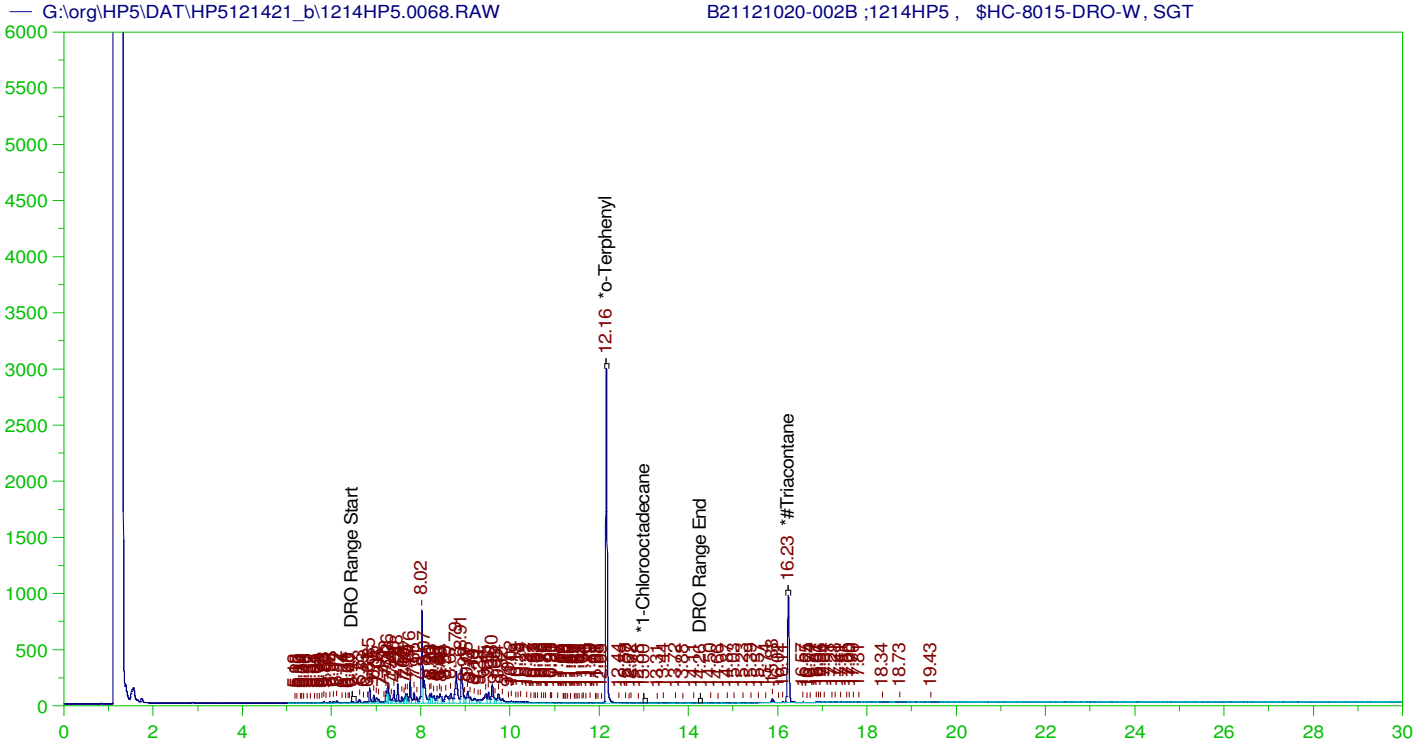
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.159	.19	.169	88.84	-
*1-Chlorooctadecane	12.999	.19	.	.08	-
*#Triacontane	16.231	.19	.087	45.6	-

DRO Area:1666120 DRO Amount: 5.060987E-02
TEH Area:2128967 TEH Amount: 6.466924E-02

ERH2215 (RHMW02) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0068.RAW B21121020-002B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121020-002B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0068.RAW
Date & Time Acquired: 12/16/2021 7:59:47 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

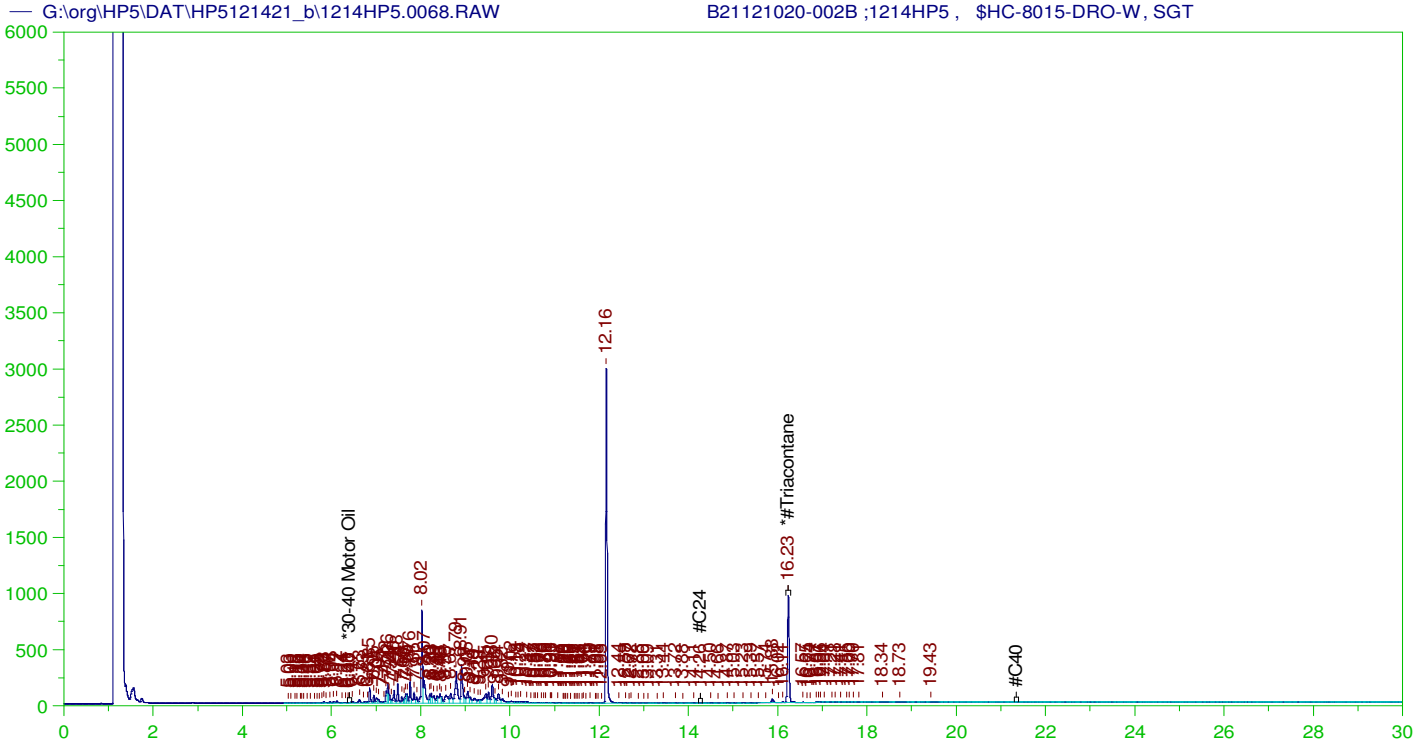
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.159	.194	.168	86.64	-
*1-Chlorooctadecane	13.003	.194	.08		-
*#Triacontane	16.233	.194	.087	44.85	-

DRO Area:1.31982E+07 DRO Amount: 0.4086917
TEH Area:1.373437E+07 TEH Amount: 0.4252945

ERH2215 (RHMW02) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0068.RAW B21121020-002B ;1214HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121020-002B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0068.RAW
Date & Time Acquired: 12/16/2021 7:59:47 AM
Method File: G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ-SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

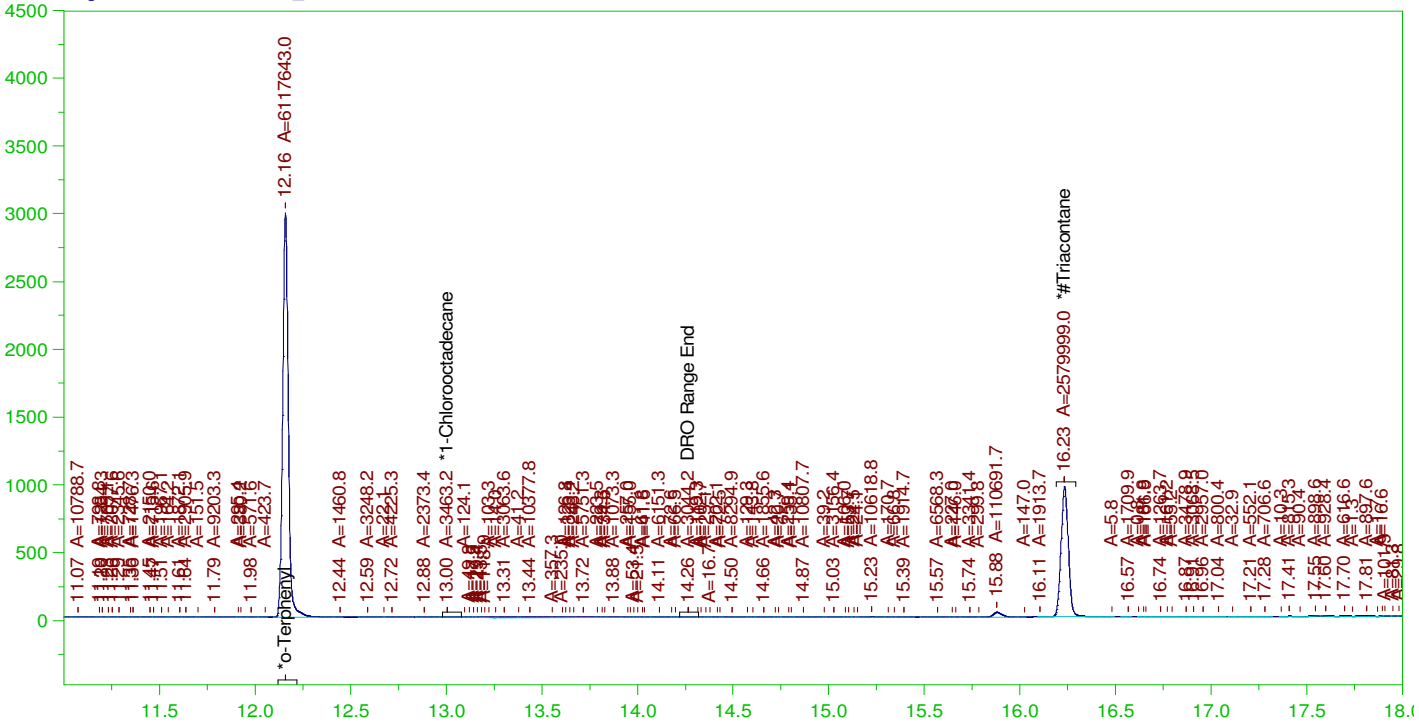
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.22 to 21.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.233	.485	.087	17.94	-

RRO Area:231133.6 RRO AMOUNT: 7.862039E-03

ERH2215 (RHMW02) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0068.RAW B21121020-002B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121020-002B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0068.RAW
Date & Time Acquired: 12/16/2021 7:59:47 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

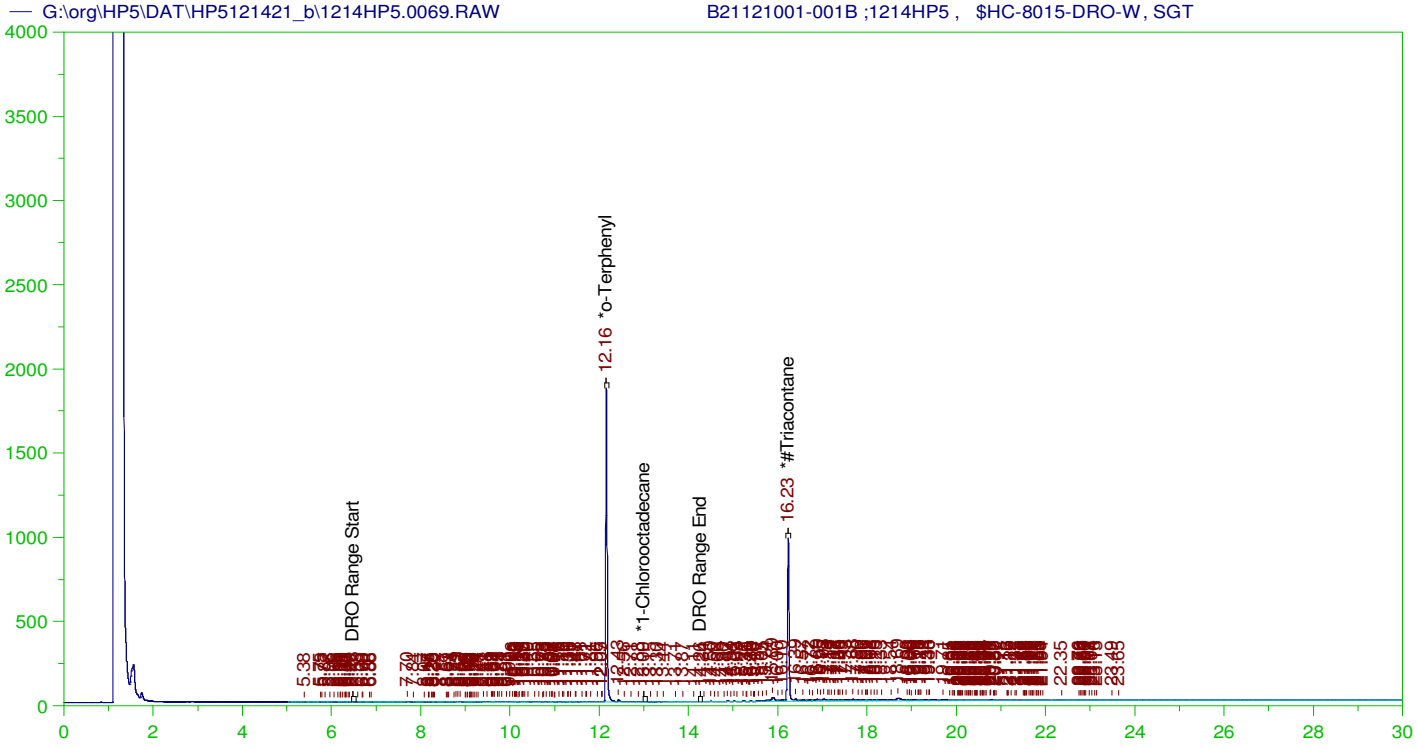
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.159	.194	.167	86.14	-
*1-Chlorooctadecane	13.003	.194	.	.05	-
*#Triacontane	16.233	.194	.087	44.59	-

DRO Area:1.296531E+07 DRO Amount: 0.40148
TEH Area:1.354112E+07 TEH Amount: 0.4193103

ERH2222 (RHMW08) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0069.RAW B21121001-001B ;1214HP5 , $HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121001-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0069.RAW
Date & Time Acquired: 12/16/2021 8:42:56 AM
Method File: G:\Org\HP5\Methods\D3_8015-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102Ii-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

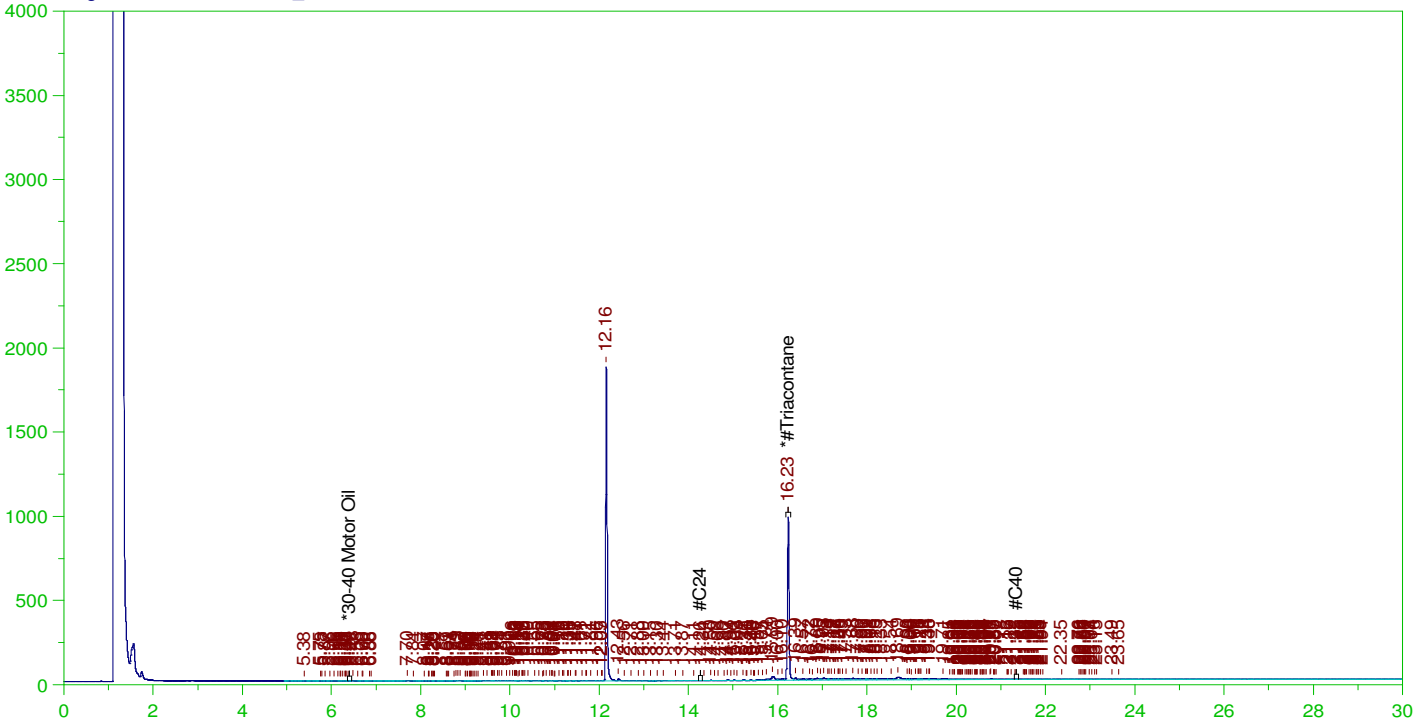
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.158	.194	.109	56.1	-
*1-Chlorooctadecane	12.999	.194	.13		-
*#Triacontane	16.232	.194	.088	45.29	-

DRO Area:341943.6 DRO Amount: 1.058853E-02
TEH Area:2525157 TEH Amount: 7.819327E-02

ERH2222 (RHMW08) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0069.RAW B21121001-001B ;1214HP5 , $HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121001-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0069.RAW
Date & Time Acquired: 12/16/2021 8:42:56 AM
Method File: G:\Org\HP5\Methods\D3_OROS-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ-SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

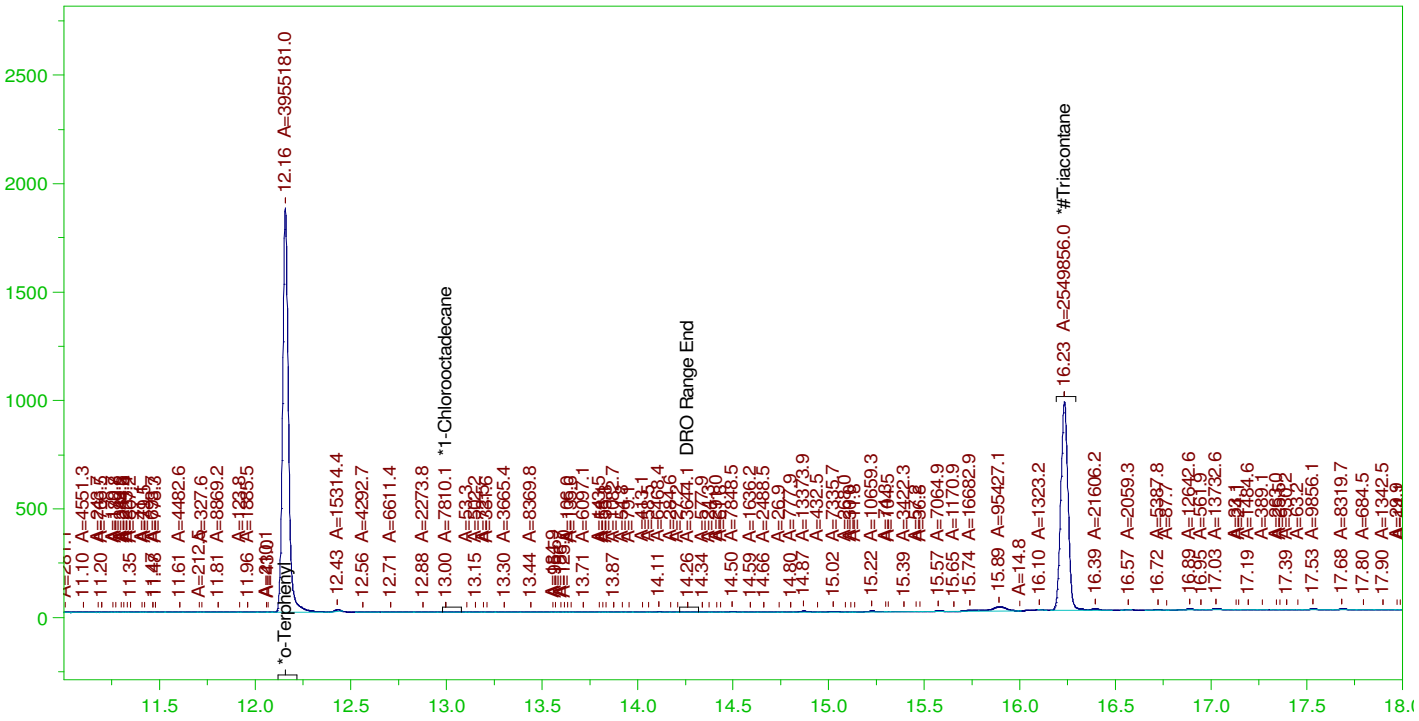
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.22 to 21.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.232	.485	.088	18.12	-

RRO Area:2082677 RRO AMOUNT: 7.084251E-02

ERH2222 (RHMW08) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0069.RAW B21121001-001B ;1214HP5 , $HC-8015-DRO-W, SGT



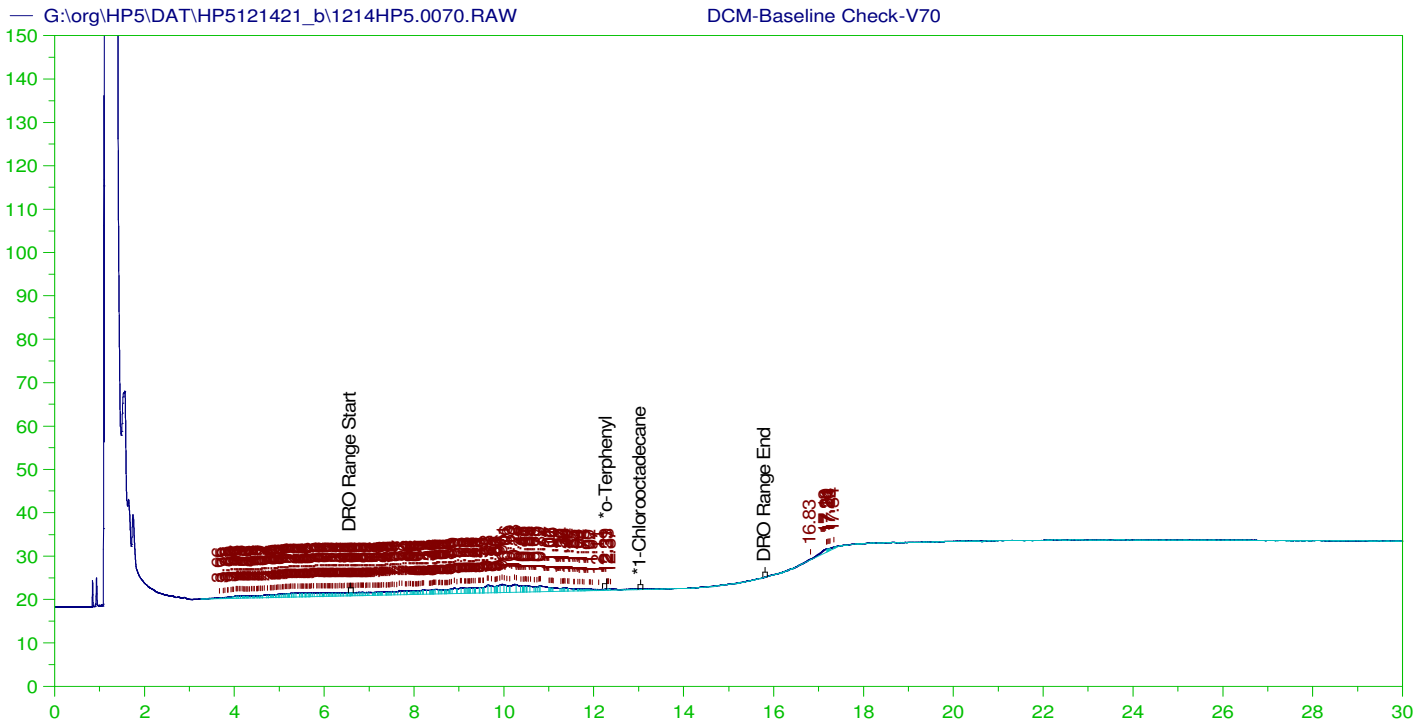
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121001-001B ;1214HP5 , $HC-8015-DRO-W, SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0069.RAW
Date & Time Acquired: 12/16/2021 8:42:56 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.158	.194	.108	55.69	-
*1-Chlorooctadecane	12.999	.194	. .11		-
*#Triacontane	16.232	.194	.086	44.07	-

DRO Area:250798.9 DRO Amount: 7.766166E-03
TEH Area:662816.6 TEH Amount: 2.052458E-02



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V70
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0070.RAW
Date & Time Acquired: 12/16/2021 9:26:12 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

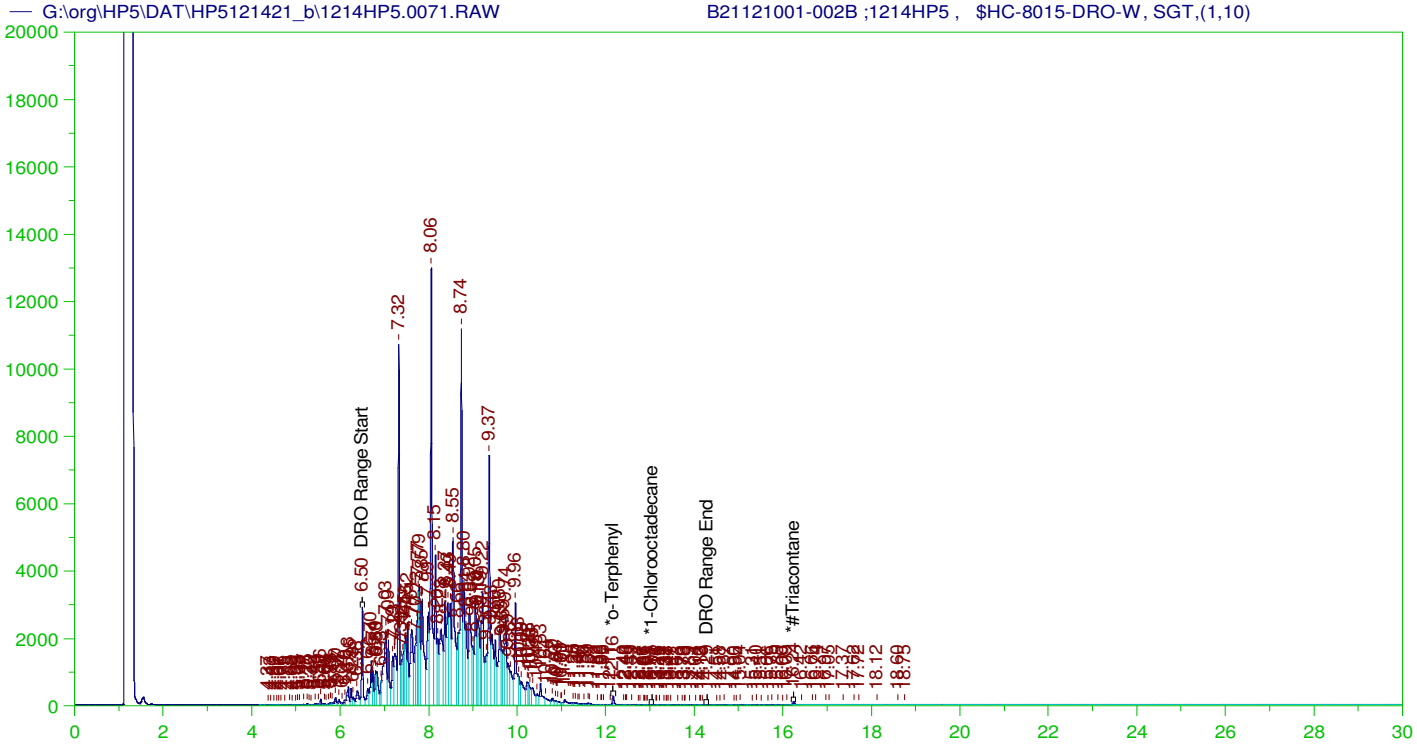
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.289	200.	.025	.01	-
*1-Chlorooctadecane	29.988	200.	.	.	-

DRO Area:349405.9 DRO Amount: 11.14419
TEH Area:499955.8 TEH Amount: 15.94593

ERH2226 (RHMW2254-01) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0071.RAW B21121001-002B ;1214HP5 , $HC-8015-DRO-W, SGT,(1,10)



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121001-002B ;1214HP5 , $HC-8015-DRO-W, SGT,(1,10)
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0071.RAW
Date & Time Acquired: 12/16/2021 10:09:20 AM
Method File: G:\Org\HP5\Methods\DR_8015-121471-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1030 Dilution: 10 S.A.: 1

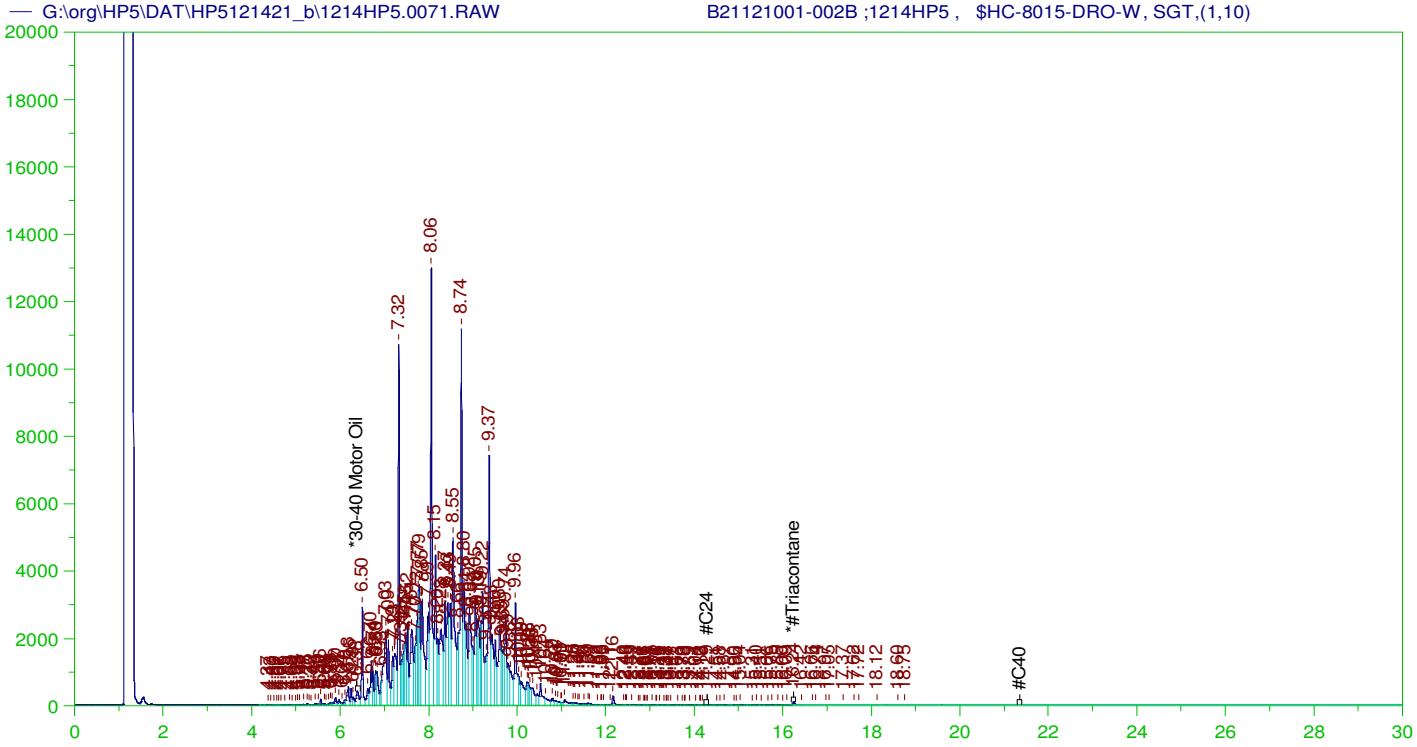
Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.164	.194	.208	106.95	-
*1-Chlorooctadecane	13.045	.194	.007	3.86	-
*#Triacontane	16.24	.194	.09	46.44	-

DRO Area:4.511182E+08 DRO Amount: 139.6919
TEH Area:4.595153E+08 TEH Amount: 142.2922

ERH2226 (RHMW2254-01) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0071.RAW B21121001-002B ;1214HP5 , $HC-8015-DRO-W, SGT,(1,10)



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21121001-002B ;1214HP5 , $HC-8015-DRO-W, SGT,(1,10)
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0071.RAW
Date & Time Acquired: 12/16/2021 10:09:20 AM
Method File: G:\Org\HP5\Methods\DR_OROS-121471-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ-SAMP.CAL
Sample Weight: 1030 Dilution: 10 S.A.: 1

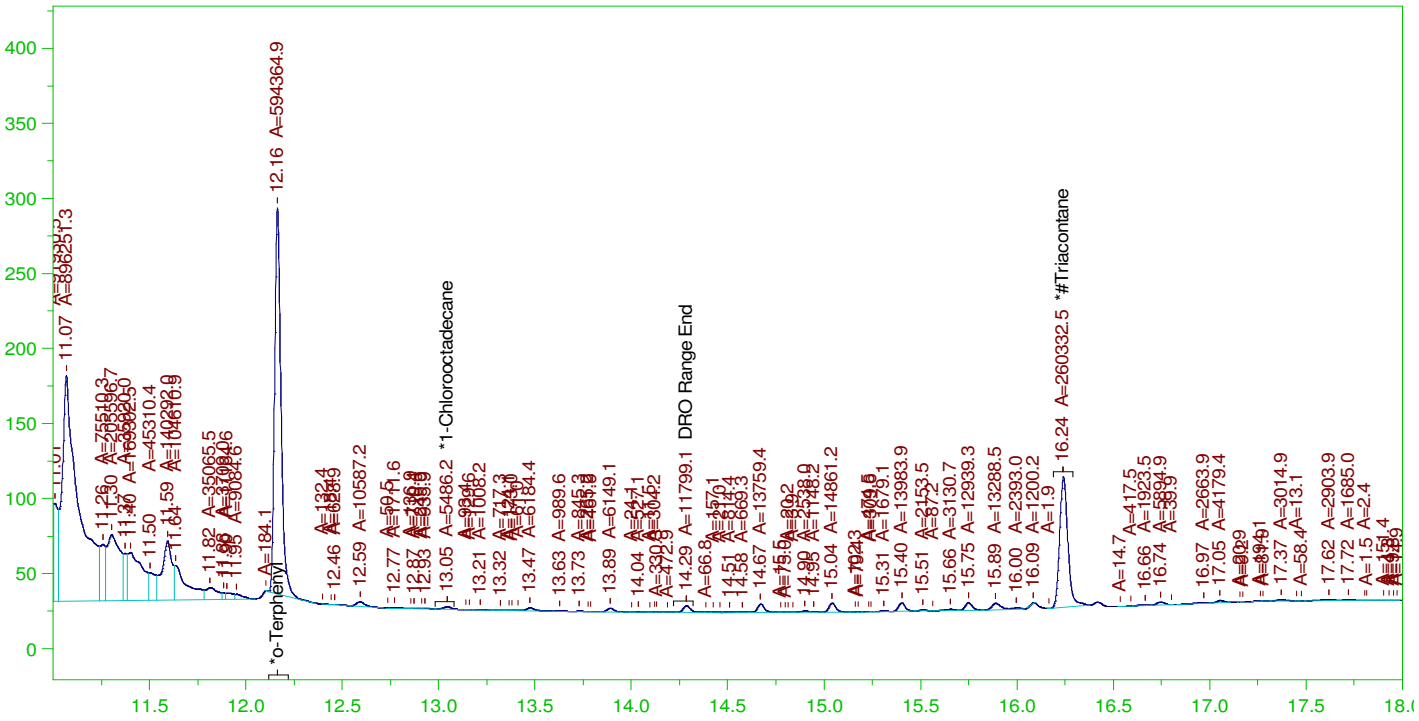
Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 14.22 to 21.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.24	.485	.09	18.58	-

RRO Area:145105.5 RRO AMOUNT: 4.935784E-02

ERH2226 (RHMW2254-01) Batch ID: 162151

G:\org\HP5\DAT\HP5121421_b\1214HP5.0071.RAW B21121001-002B ;1214HP5 , $HC-8015-DRO-W, SGT,(1,10)



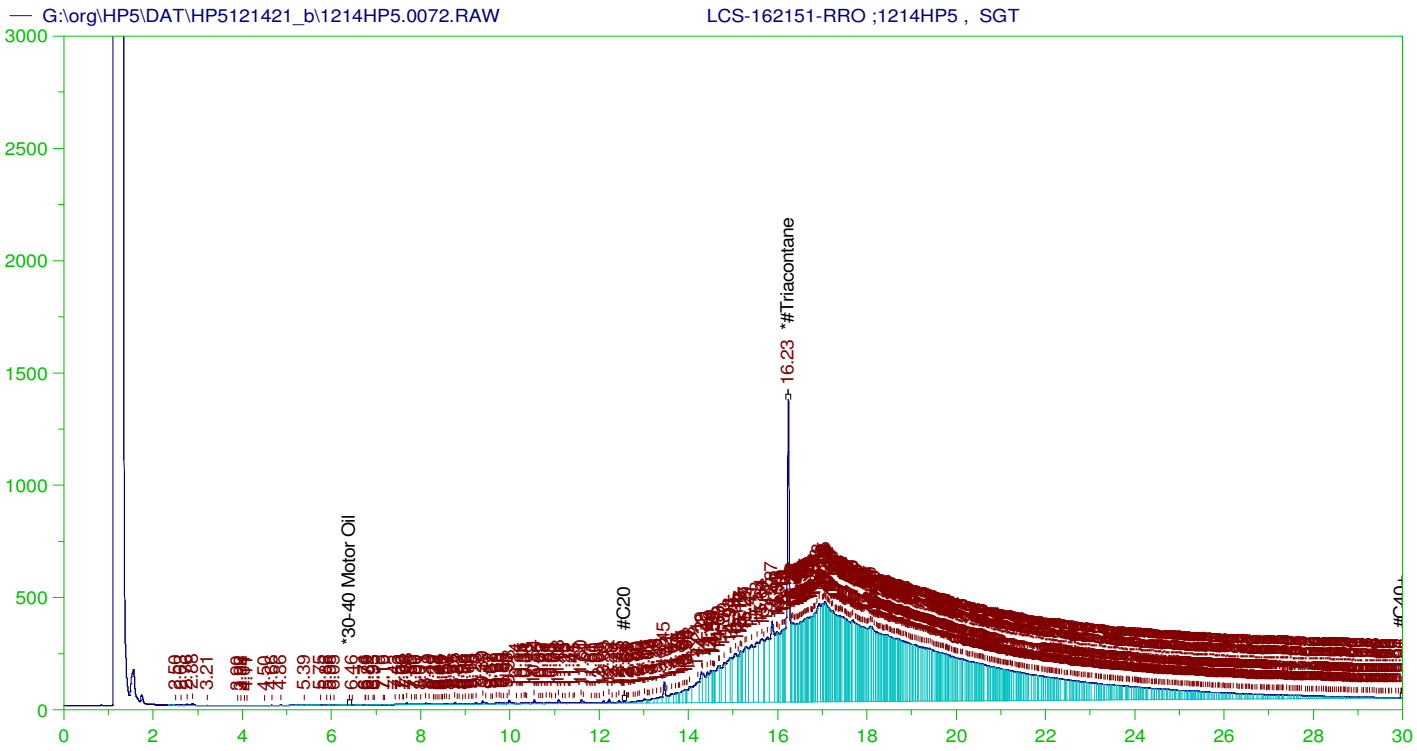
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21121001-002B ;1214HP5 , $HC-8015-DRO-W, SGT,(1,10)
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0071.RAW
Date & Time Acquired: 12/16/2021 10:09:20 AM
Method File: G:\Org\HP5\Methods\DS_8015-121471-C24T-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24-Tri.CAL
Sample Weight: 1030 Dilution: 10 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.164	.194	.163	83.69	-
*1-Chlorooctadecane	13.045	.194	.002	.77	-
*#Triacontane	16.24	.194	.087	44.99	-

DRO Area:4.488378E+08 DRO Amount: 138.9858
TEH Area:4.570632E+08 TEH Amount: 141.5329



RESIDUAL RANGE ORGANICS CHROMATOGRAM

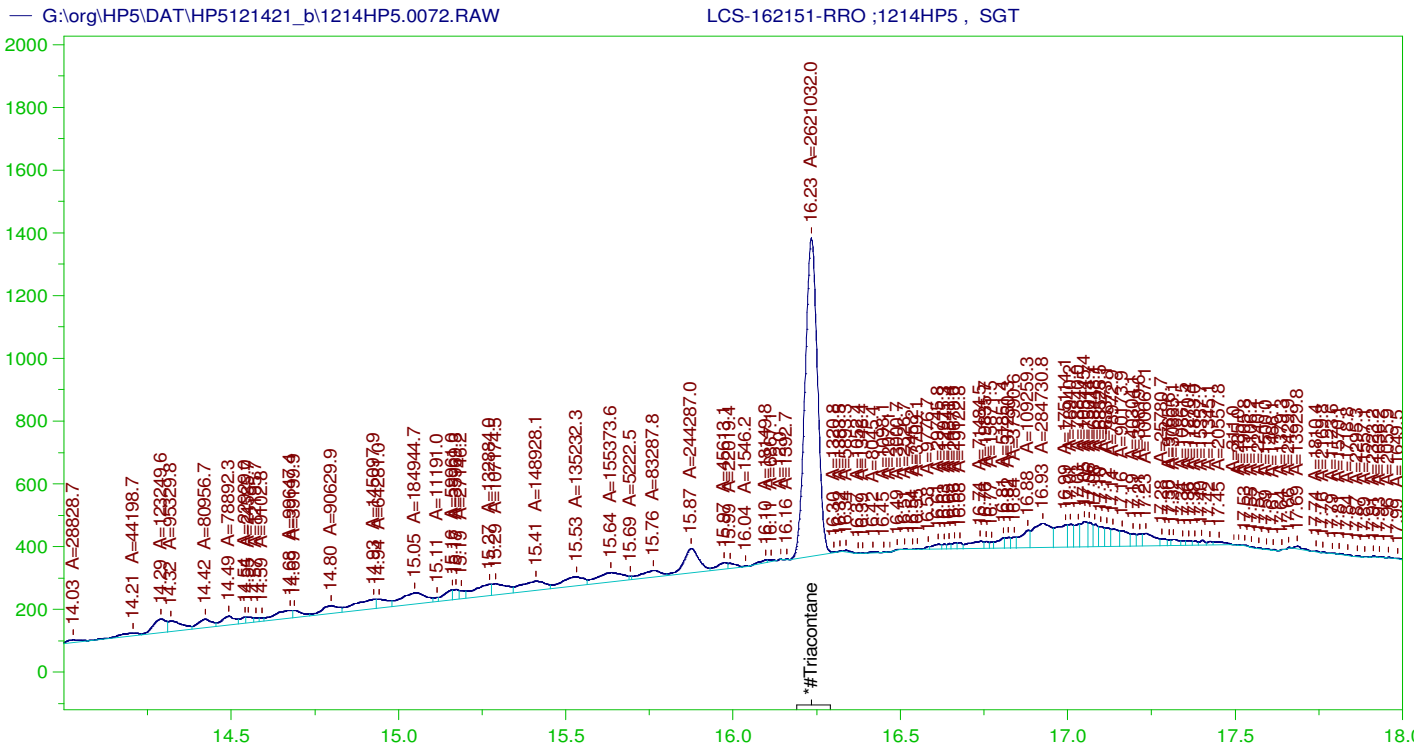
Sample Name: LCS-162151-RRO ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0072.RAW
Date & Time Acquired: 12/16/2021 10:52:20 AM
Method File: G:\Org\HP5\Methods\D3_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.234	.5	.179	35.72	-

~~RRO~~ TEH (Oil Range) Area:1.336036E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.68088

AMN 01/07/2022



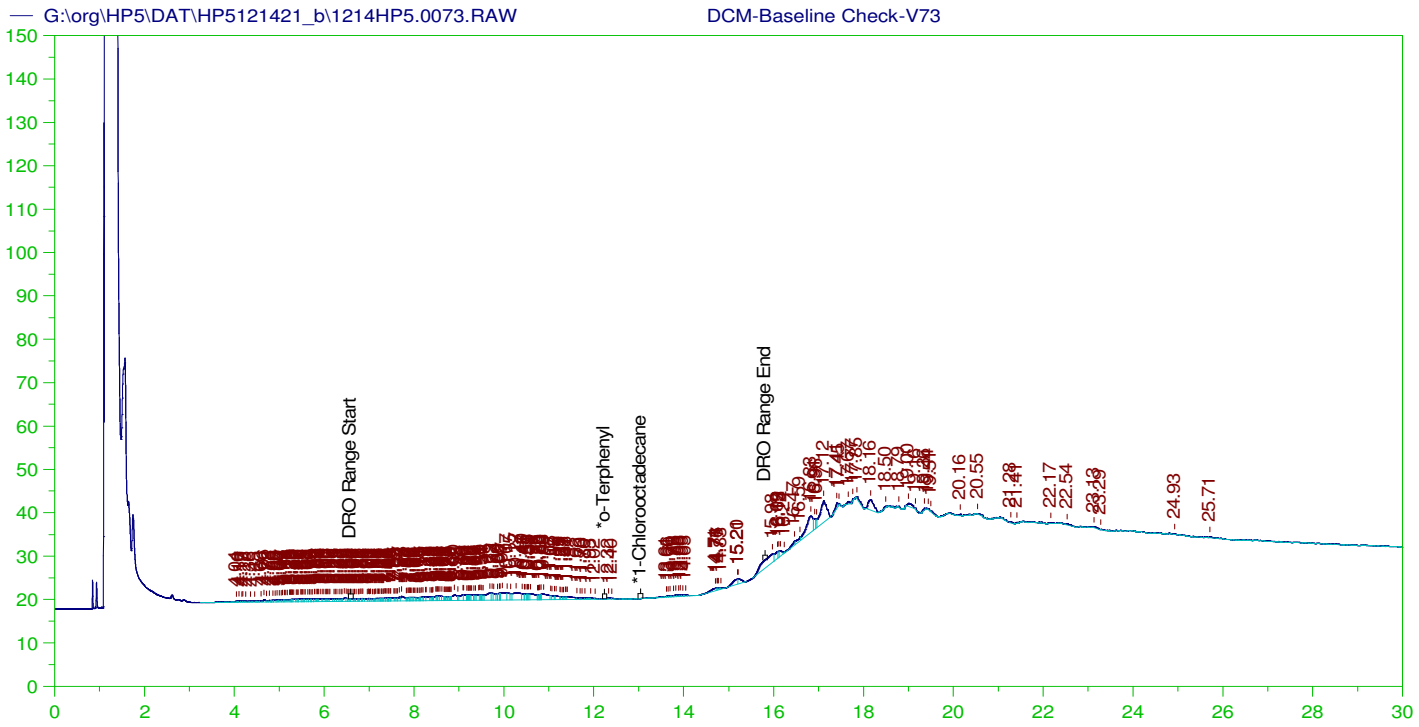
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCS-162151-RRO ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0072.RAW
Date & Time Acquired: 12/16/2021 10:52:20 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.234	.5	.091	18.12	-

RRO Area:5055886 RRO AMOUNT: 0.1771359

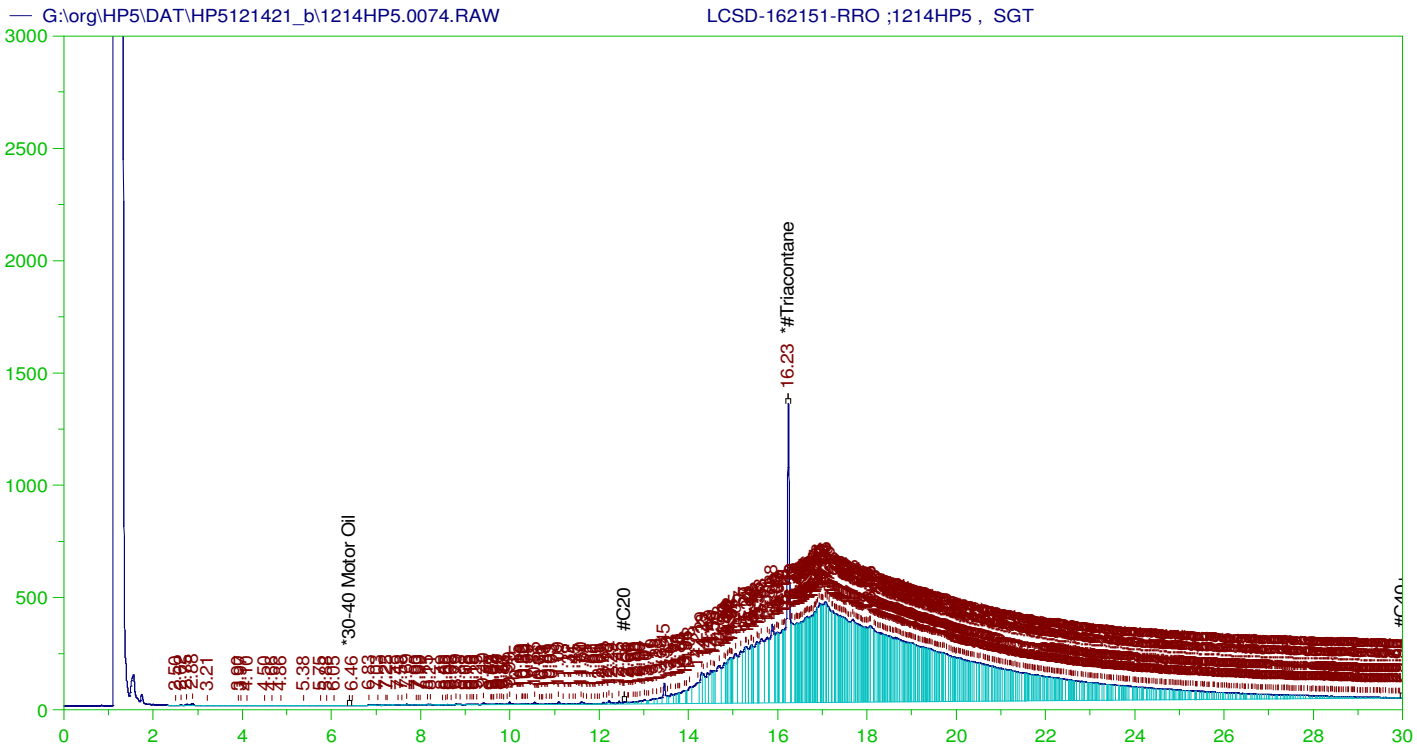


DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: DCM-Baseline Check-V73
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0073.RAW
Date & Time Acquired: 12/16/2021 11:35:14 AM
Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED		%REC
*o-Terphenyl	29.992	200.	.	.	-
*1-Chlorooctadecane	29.992	200.	.	.	-

DRO Area:358125.6 DRO Amount: 11.4223
TEH Area:688349.2 TEH Amount: 21.95468



RESIDUAL RANGE ORGANICS CHROMATOGRAM

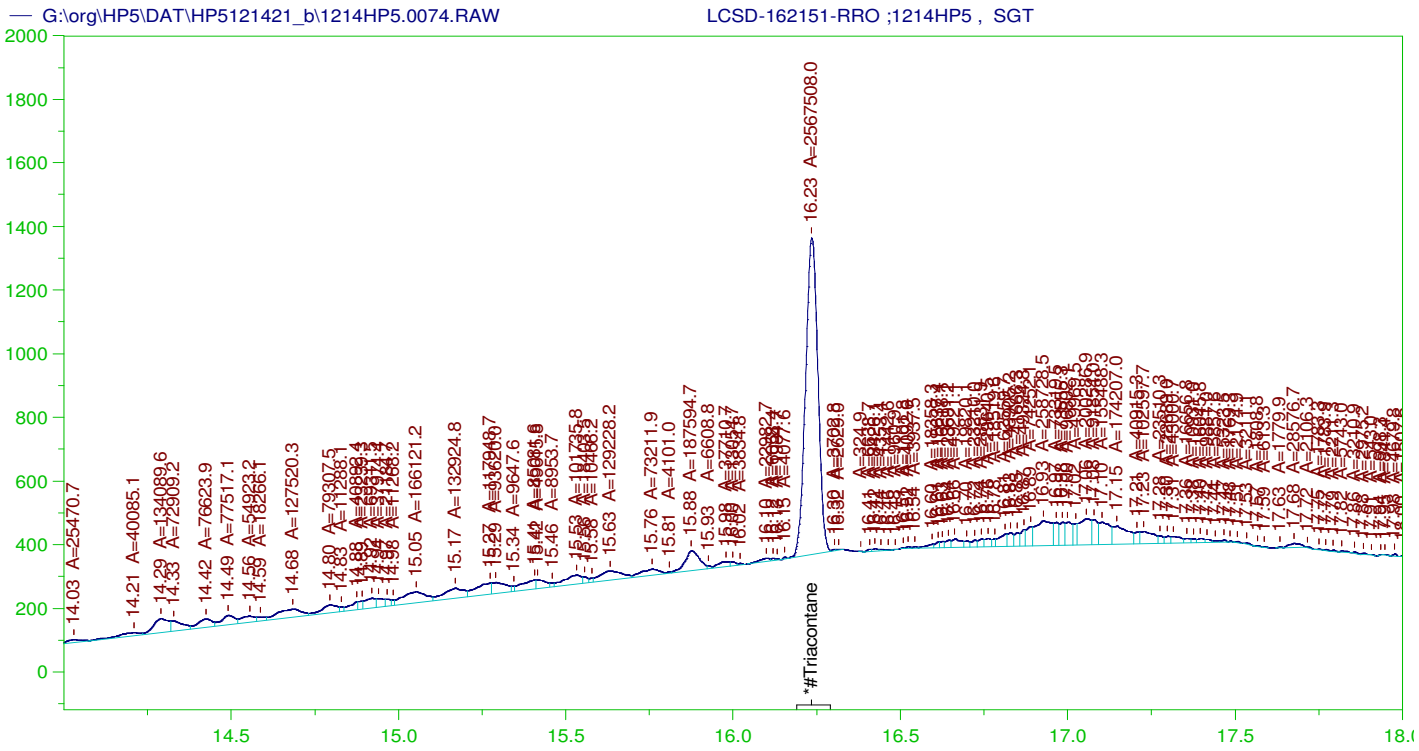
Sample Name: LCSD-162151-RRO ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0074.RAW
Date & Time Acquired: 12/16/2021 12:17:56 PM
Method File: G:\Org\HP5\Methods\D3_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.235	.5	.178	35.57	-

~~RRO~~ TEH (Oil Range) Area:1.347705E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.721762

AMN 01/07/2022



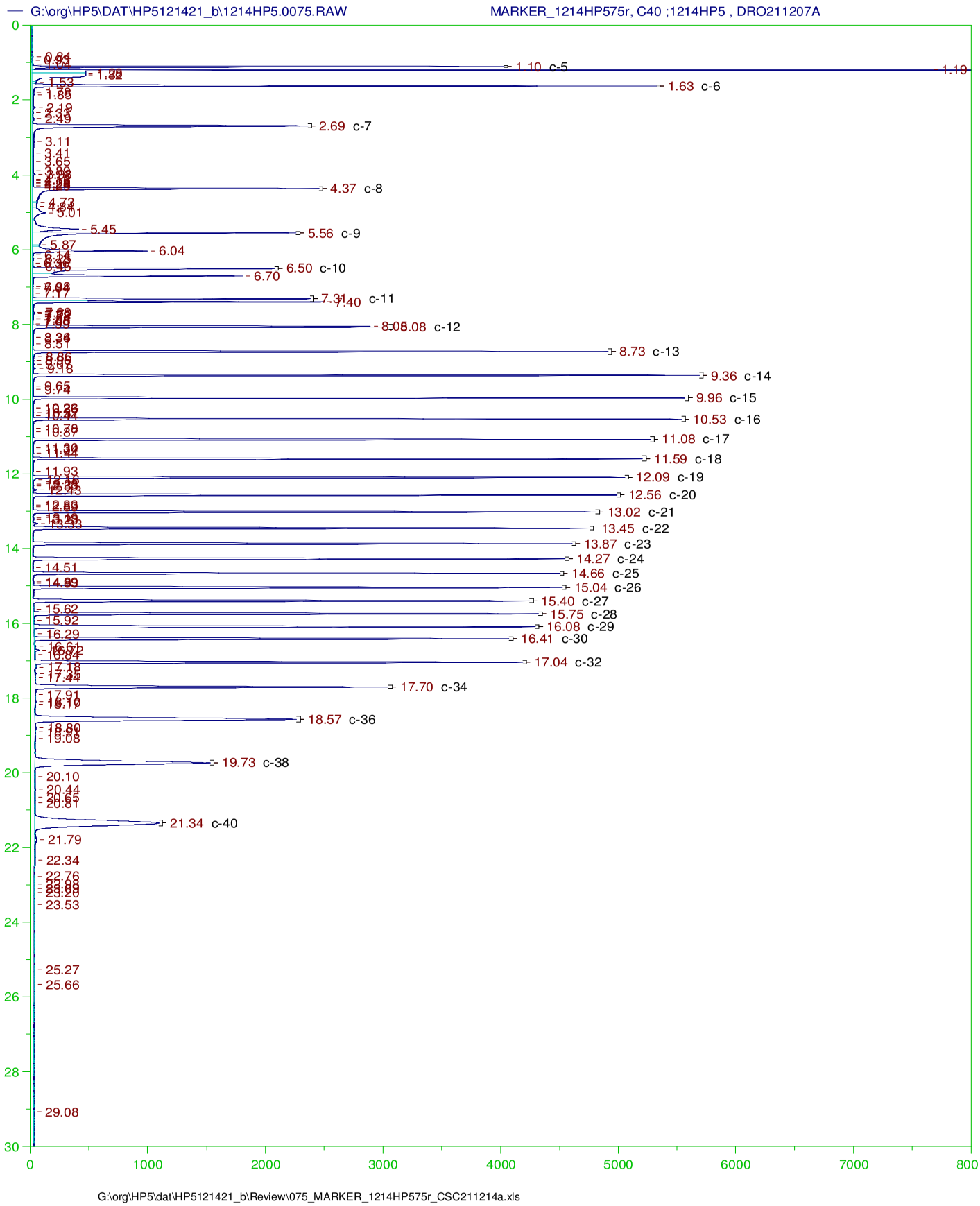
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCSD-162151-RRO ;1214HP5 , SGT
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0074.RAW
Date & Time Acquired: 12/16/2021 12:17:56 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.235	.5	.089	17.75	-

RRO Area:4953242 RRO AMOUNT: 0.1735397


G:\org\HP5\DAT\HP5121421_b\1214HP5.0075.RAW
MARKER_1214HP575r, C40 ;1214HP5 , DRO211207A
1.10 c-5
1.19
1.63 c-6
2.69 c-7
4.37 c-8
5.45
5.56 c-9
5.87
6.04
6.50 c-10
6.70
7.31
7.40 c-11
8.08 c-12
8.73 c-13
9.36 c-14
9.96 c-15
10.53 c-16
11.08 c-17
11.59 c-18
12.09 c-19
12.56 c-20
13.02 c-21
13.45 c-22
13.87 c-23
14.27 c-24
14.66 c-25
15.04 c-26
15.40 c-27
15.75 c-28
16.08 c-29
16.41 c-30
17.04 c-32
17.70 c-34
18.57 c-36
19.73 c-38
21.34 c-40
21.79
22.34
22.76
23.53
25.27
25.66
29.08
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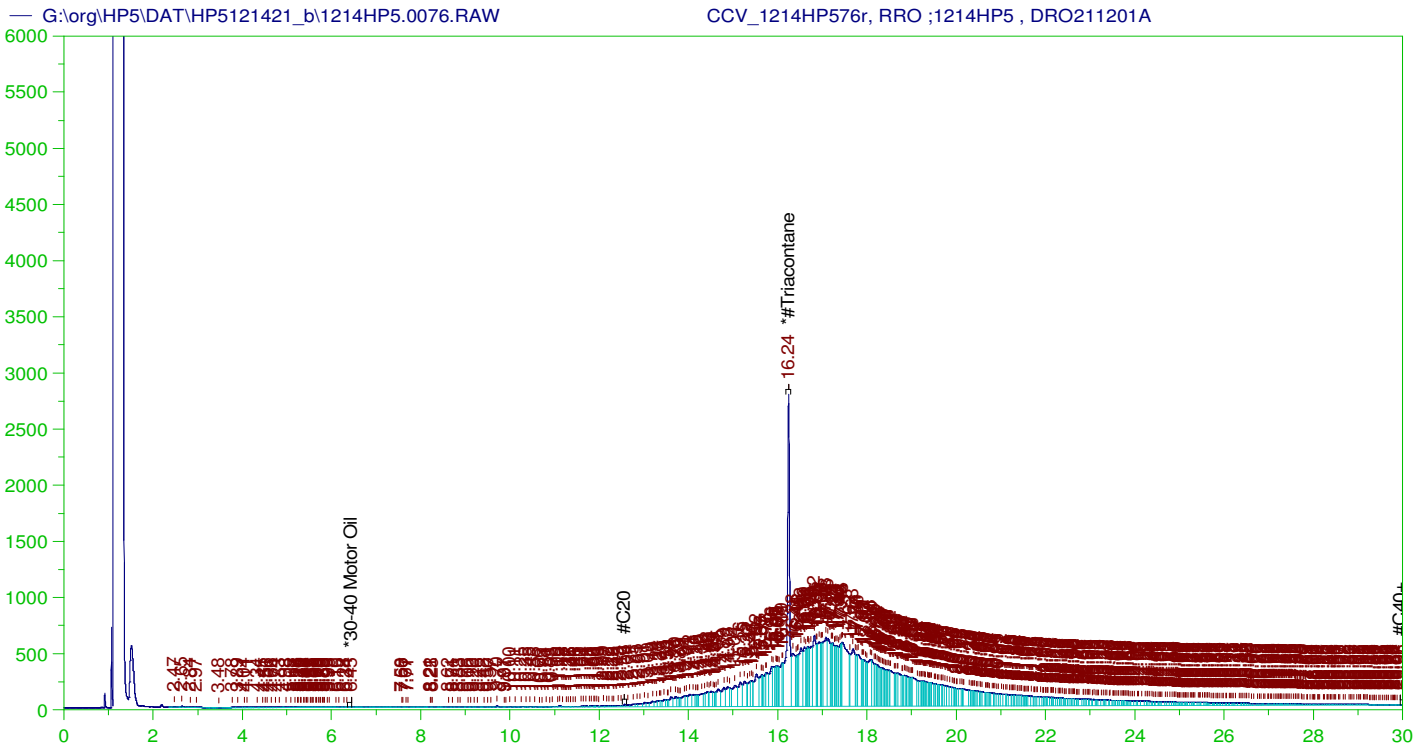


RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP576r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0076.RAW
Date & Time Acquired: 12/16/2021 1:43:18 PM
Method File: G:\Org\HP5\Methods\DC_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Range Organics Calculations: 28542.41
Rt range for ~~Residual~~ TEH (Oil Range) Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.241	500.	360.511	72.1	-

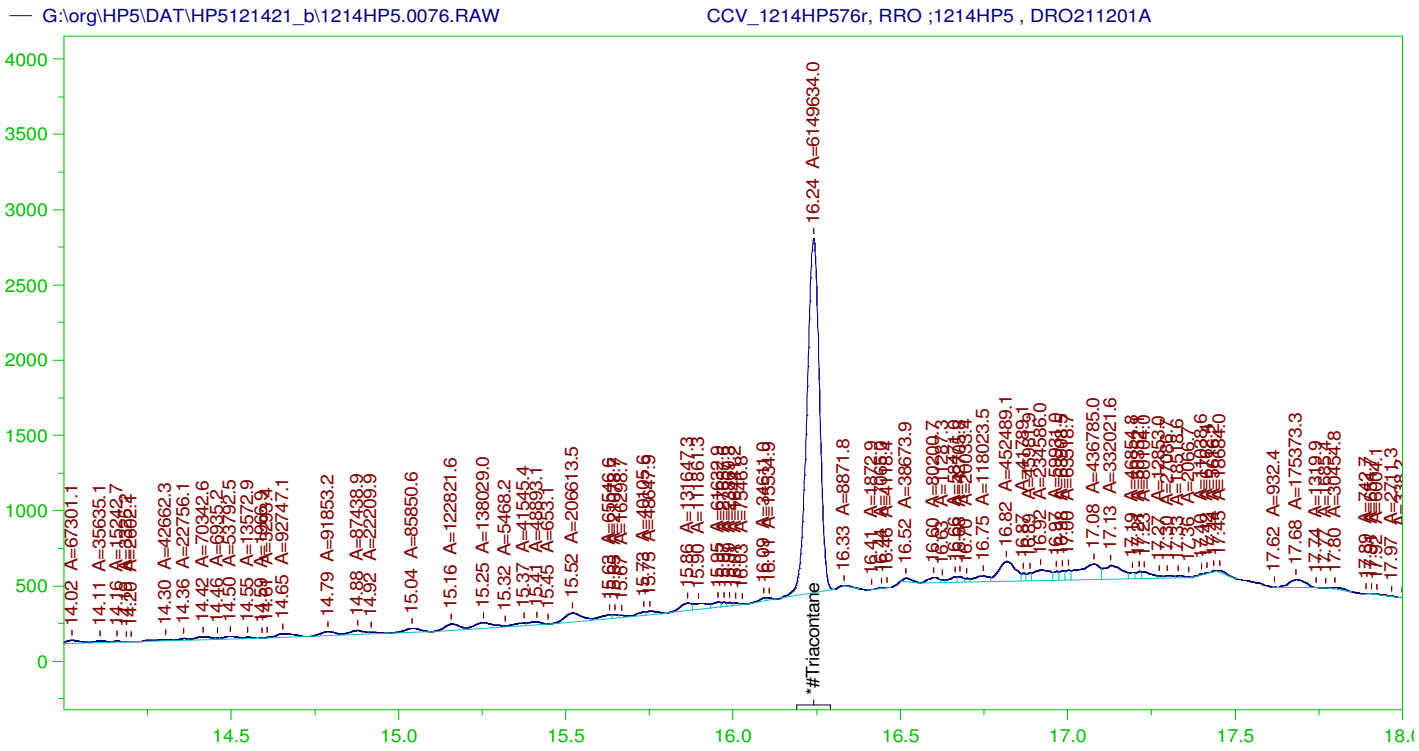
~~RRO~~ TEH (Oil Range) Area:1.39703E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4894.575

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0076.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.022	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.241	200.	360.511	180.26	75-125

AMN 01/07/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1214HP576r, RRO ;1214HP5 , DRO211201A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0076.RAW
Date & Time Acquired: 12/16/2021 1:43:18 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AJ.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41
Rt range for Residual Range Organics: 12.51 to 30.05

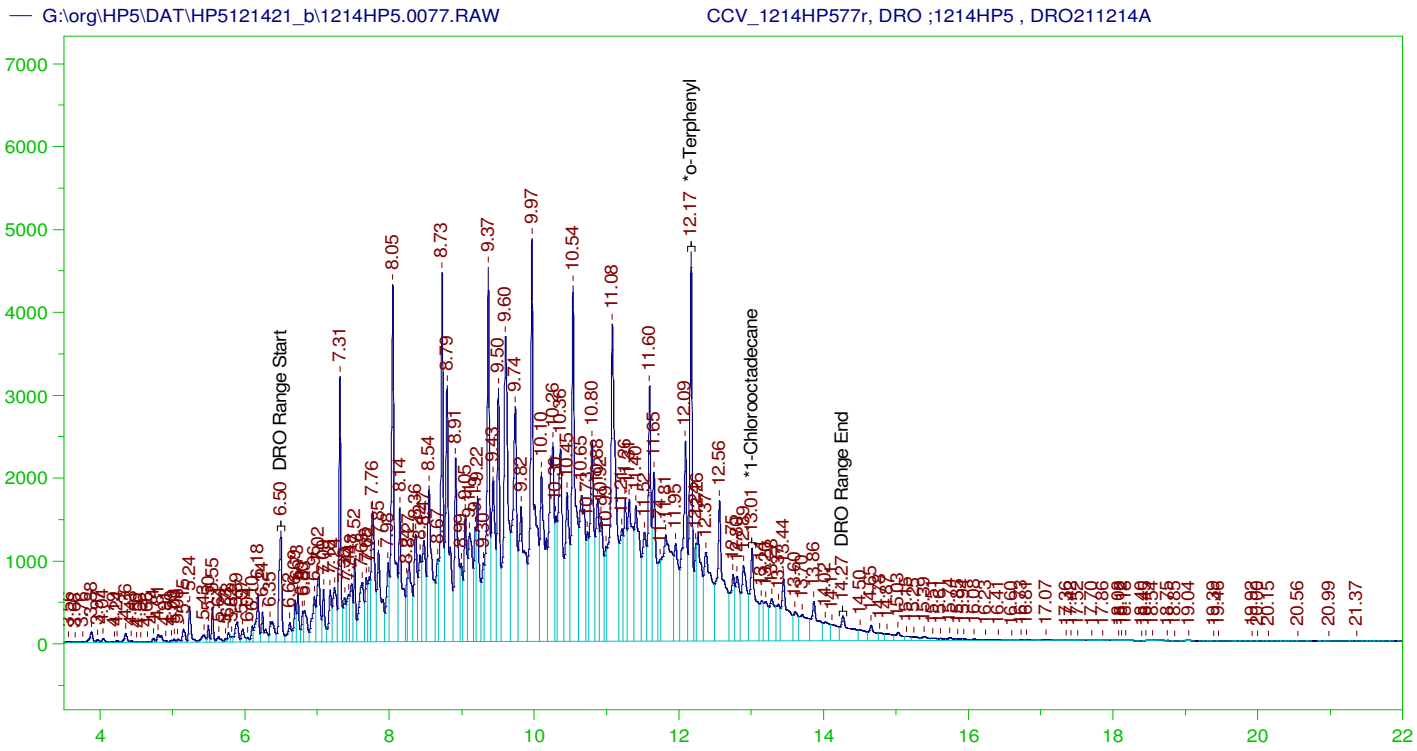
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.241	500.	212.568	42.51	-

RRO Area:5268778 RRO AMOUNT: 184.5947

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0076.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.022	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.241	200.	212.568	106.28	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1214HP577r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0077.RAW
Date & Time Acquired: 12/16/2021 2:25:57 PM
Method File: G:\Org\HP5\Methods\DC_8015-24-II-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

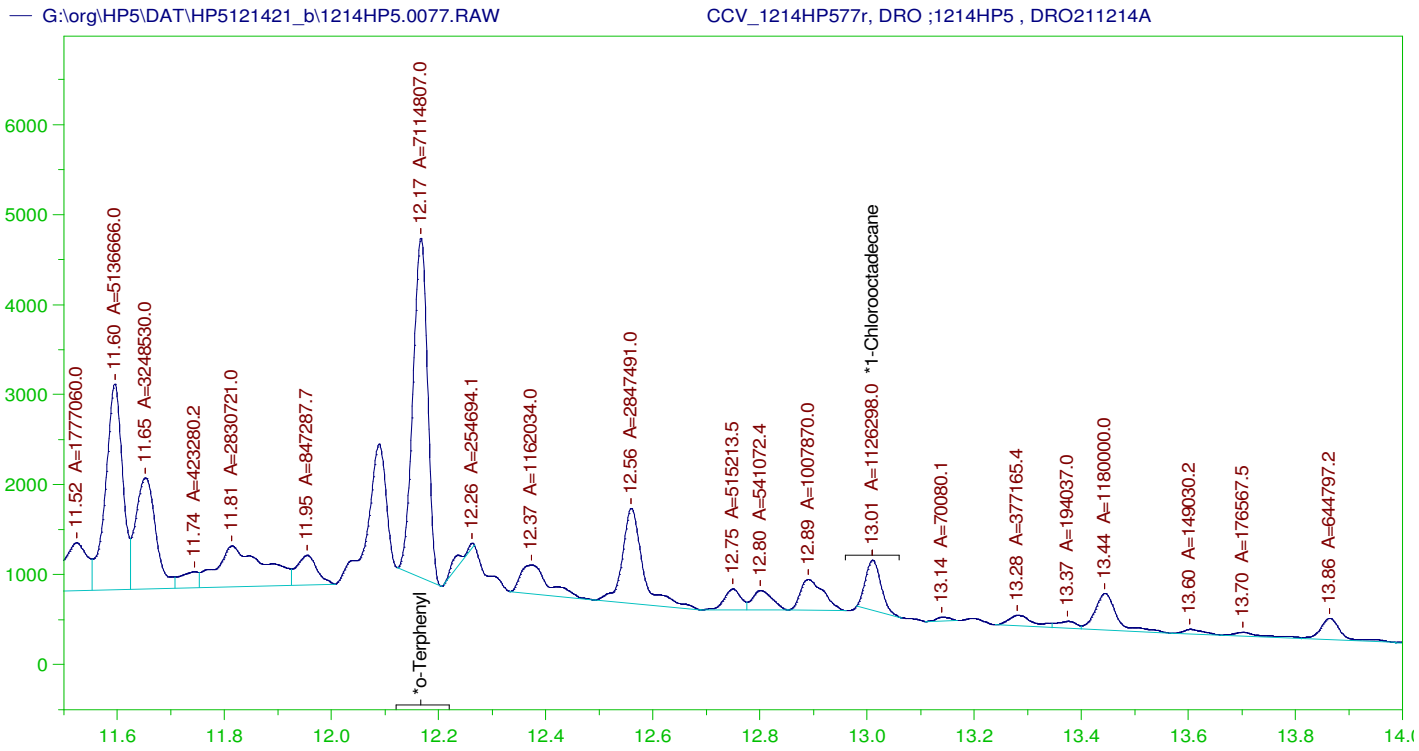
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.167	200.	330.562	165.28	-
*1-Chlorooctadecane	13.01	200.	162.878	81.44	-

DRO Area:4.758298E+08 DRO Amount: 15176.44
TEH Area:4.922277E+08 TEH Amount: 15699.44

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0077.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15699.44	104.66	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.167	200.	330.562	165.28	85-115
*1-Chlorooctadecane	13.01	200.	162.878	81.44	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT
Sample Name: CCV_1214HP577r, DRO ;1214HP5 , DRO211214A
Raw File: G:\org\HP5\DAT\HP5121421_b\1214HP5.0077.RAW
Date & Time Acquired: 12/16/2021 2:25:57 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-II-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102II-24.CAL
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.45 to 14.32

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.167	200.	200.365	100.18	-
*1-Chlorooctadecane	13.01	200.	31.718	15.86	-

DRO Area:2.621858E+08 DRO Amount: 8362.331
TEH Area:2.727232E+08 TEH Amount: 8698.42

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5121421_b\1214HP5.0077.RAW

COMPOUND	ACTUAL(NG)	MEASURED(NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8698.42	57.99	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.167	200.	200.365	100.18	85-115
*1-Chlorooctadecane	13.01	200.	31.718	15.86	85-115

Write Sequence | Insert Entries(Have the first cell for entries selecte

Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.02r	DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.03r	MARKER_1214HP503r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.04r	CCV_1214HP504r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.05r	CCV_1214HP505r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.06r	DCM-Baseline Check-V06	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.07r	LCS-162151 ;1214HP5 ,	G:\Org\HP5\Methods\D3_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.08r	LCSD-162151 ;1214HP5 ,	G:\Org\HP5\Methods\D3_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.09r	MB-162151 ;1214HP5 ,	G:\Org\HP5\Methods\DR_8015-C24T-IH-L%.met G:\Org\HP5\Methods\DR_OROS-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.11r	B21121019-001BMS ;1214HP5 ,	G:\Org\HP5\Methods\D3_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.12r	DCM-Baseline Check-V12	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.13r	B21121019-003B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-121413-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121413-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1040	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline, turn on integration at 5.03 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.14r	DCM-Baseline Check-V14	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.15r	B21121019-002B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-121415-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121415-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1040	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline and a set baseline now at 27.32 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.16r	B21121019-002BMS-RRO ;1214HP5 ,	G:\Org\HP5\Methods\D3_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1045	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.17r	MARKER_1214HP517r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.18r	CCV_1214HP518r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.19r	CCV_1214HP519r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.20r	DCM-Baseline Check-V20	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.21r	B21121014-001B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-C24T-IH-L%.met G:\Org\HP5\Methods\DR_OROS-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.22r	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations

G:\org\HP5\DAT\HP5121421_b\1214HP5.23r	B21121020-001B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-121423-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121423-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.24r	DCM-Baseline Check-V24	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.25r	B21121020-002B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-121423-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121423-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.26r	DCM-Baseline Check-V26	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.27r	B21121001-001B ;1214HP5 , $HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-121413-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121413-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline, turn on integration at 5.03 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.28r	DCM-Baseline Check-V28	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.29r	B21121001-002B ;1214HP5 , $HC-8015-DRO-W, ,(1,10)	G:\Org\HP5\Methods\DR_8015-121429-IH-L%.met G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1030	10	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with Y-Axis adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.30r	DCM-Baseline Check-V30	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.31r	B21121012-001B ;1214HP5 , $HC-8015-DRO-W, ,(1,10) Needs rr udiluted	G:\Org\HP5\Methods\DR_8015-C24T-IH-L0.met	1040	10	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.32r	MARKER_1214HP532r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.33r	CCV_1214HP533r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.34r	CCV_1214HP534r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.35r	DCM-Baseline Check-V35	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.36r	B21121012-001B ;1214HP5 , $HC-8015-DRO-W, Needs RR baseline rise	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1040	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.37r	B21121001-002B ;1214HP5 , $HC-8015-DRO-W, RR for oil	G:\Org\HP5\Methods\D3_OROS-121437-AI-L%.MET	1030	1	1	1	0	The integration of C24-C40 is the hydrocarbon response with reference to the basline with peak width adjusted and turn on integration placed at 4.16 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.38r	DCM-Baseline Check-V38	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.39r	B21121012-001B ;1214HP5 , $HC-8015-DRO-W, RR	G:\Org\HP5\Methods\DR_8015-121439-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121439-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1040	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with a set baseline all valleys on at 22.9 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.40r	B21121019-001B ;1214HP5 , $HC-8015-DRO-W, RR	G:\Org\HP5\Methods\D3_8015-121440-IH-L%.met G:\Org\HP5\Methods\D3_OROS-121440-AI-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IH-L#.met	1020	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.41r	LCS-162151-RRO ;1214HP5 ,	G:\Org\HP5\Methods\D3_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1000	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.42r	LCSD-162151-RRO ;1214HP5 ,	G:\Org\HP5\Methods\D3_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-121442-AI-L%.MET	1000	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.32 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.43r	MARKER_1214HP543r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.44r	CCV_1214HP544r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AI-L%.MET G:\Org\HP5\Methods\DS_ORO-AI-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.

G:\org\HP5\DAT\HP5121421_b\1214HP5.45r	CCV_1214HP545r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-IH-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.10 12:40:19 -07:00

Write Sequence / Data File	Insert Entries(Have the first cell for entries selected) / Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.46r	DCM-Baseline Check-V46	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.47r	DCM-Baseline Check-V47	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.48r	MARKER_1214HP548r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214a.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.49r	CCV_1214HP549r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.50r	CCV_1214HP550r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.51r	DCM-Baseline Check-V51	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.52r	LCS-162151 ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.53r	LCSD-162151 ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_8015-121453-IH-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline wih peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.54r	MB-162151 ;1214HP5 , SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.55r	B21121019-001B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1020	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.56r	B21121019-001BMS ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.57r	DCM-Baseline Check-V57	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.58r	B21121019-002B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1040	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.59r	B21121019-003B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1040	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.60r	DCM-Baseline Check-V60	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.61r	B21121012-001B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1040	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.62r	B21121019-002BMS-RRO ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1045	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.63r	MARKER_1214HP563r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214a.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.64r	CCV_1214HP564r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.

G:\org\HP5\DAT\HP5121421_b\1214HP5.65r	CCV_1214HP565r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.66r	DCM-Baseline Check-V66	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.67r	B21121020-001B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.68r	B21121020-002B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-II-L%.met G:\Org\HP5\Methods\DR_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.69r	B21121001-001B ;1214HP5 , $HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\D3_8015-II-L%.met G:\Org\HP5\Methods\D3_OROS-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-II-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.70r	DCM-Baseline Check-V70	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.71r	B21121001-002B ;1214HP5 , $HC-8015-DRO-W, SGT,(1,10)	G:\Org\HP5\Methods\DR_8015-121471-II-L%.met G:\Org\HP5\Methods\DR_OROS-121471-AJ-L%.MET G:\Org\HP5\Methods\DS_8015-121471-C24T-II-L#.met	1030	10	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the basline with a turn integration on at 4.18 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.36 and 16.44 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.72r	LCS-162151-RRO ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1000	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.73r	DCM-Baseline Check-V73	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.74r	LCSD-162151-RRO ;1214HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1000	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.75r	MARKER_1214HP575r, C40 ;1214HP5 , DRO211207A	g:\org\HP5\Methods\\CSC211214a.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5121421_b\1214HP5.76r	CCV_1214HP576r, RRO ;1214HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AJ-L%.MET G:\Org\HP5\Methods\DS_ORO-AJ-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the basline. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 16.14 minutes slightly after the surrogate peak at 16.35 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5121421_b\1214HP5.77r	CCV_1214HP577r, DRO ;1214HP5 , DRO211214A	G:\Org\HP5\Methods\DC_8015-24-II-L%.met G:\Org\HP5\Methods\DS_8015-24-II-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the basline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Basline Now placed slight before at 12.09 minutes and slightly after the surrogate peak at 12.27 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.10 12:40:41 -07:00

Energy Laboratories Inc

Spike LOG

Standard ID:	DRO211101A		
Standard Name	OTP-4000 ug/mL DCM	Type:	Secondary
Date Prepared	11/1/2021	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	Open
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Used to Prep DRO-8015 ICAL and CCV Solutions		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC328	14408	25	mL	8/19/

Final Volume: 25 mL

Stock Source		**Base Units**	**Amount Added**
DRO200430B	O-Terphenyl	ug/mL	0.1012 g

Analytes		**CAS**	Conc:	**ug/mL**
A	O-Terphenyl	84-15-1		4000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO200430B		
Standard Name	O-Terphenyl	Type:	Neat
Date Prepared	4/30/2020	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	New
Vendor:	Chemservice		
Lot Number:	9972100		
Balance ID:			
Comments:	ID#: 6271		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	12650	500	mg	9/30/

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes		**CAS**	Conc:	**ug/mL**
A	O-Terphenyl	84-15-1		1

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER	N-12693-500MG
LOT NUMBER	9972100
DATE CERTIFIED	09/23/19
EXPIRATION DATE	09/30/24
CAS NUMBER	84-15-1
MOLECULAR FORMULA	C18H14
MOLECULAR WEIGHT	230.32
STORAGE	Store in a cool dry place.
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650
Opened:
o-Terphenyl
Expires: 9/30/2024
Rec'd: 4/30/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

PJLA Reference Material Producer
PJLA Testing

COA Form
Revision 3 (3/2015)

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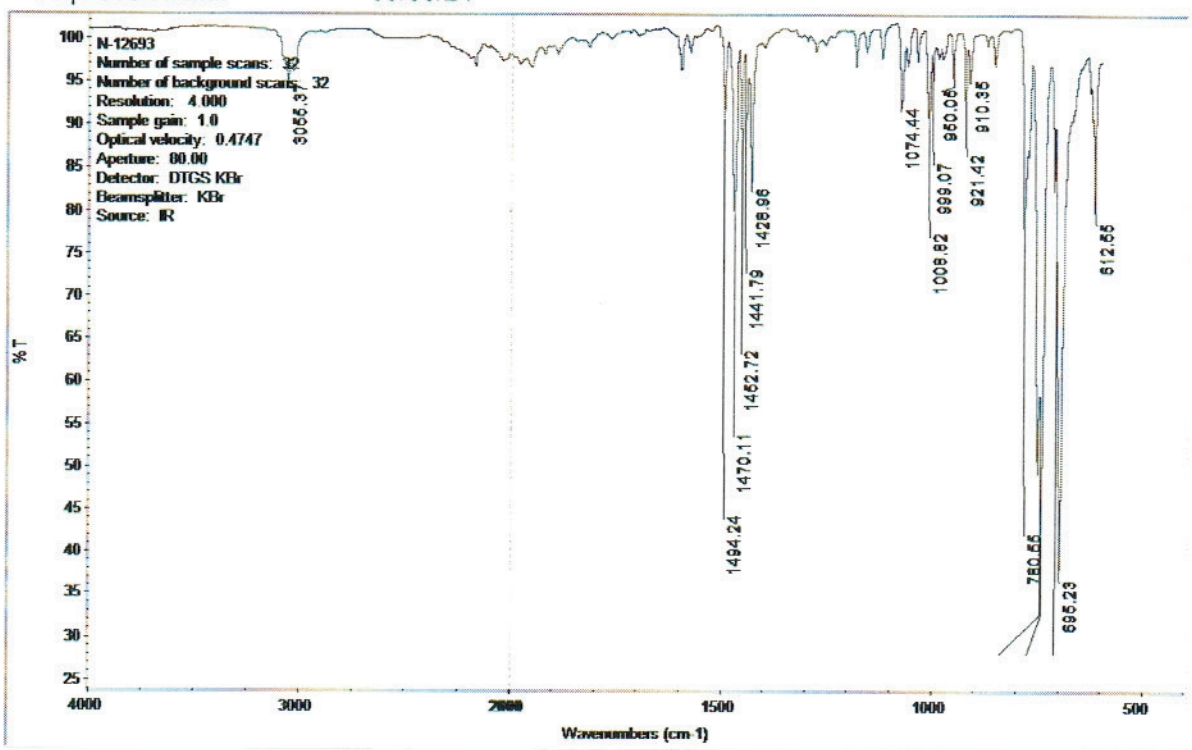
CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



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CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth:SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

ERIN.M Mon Sep 23 10:55:51 2019

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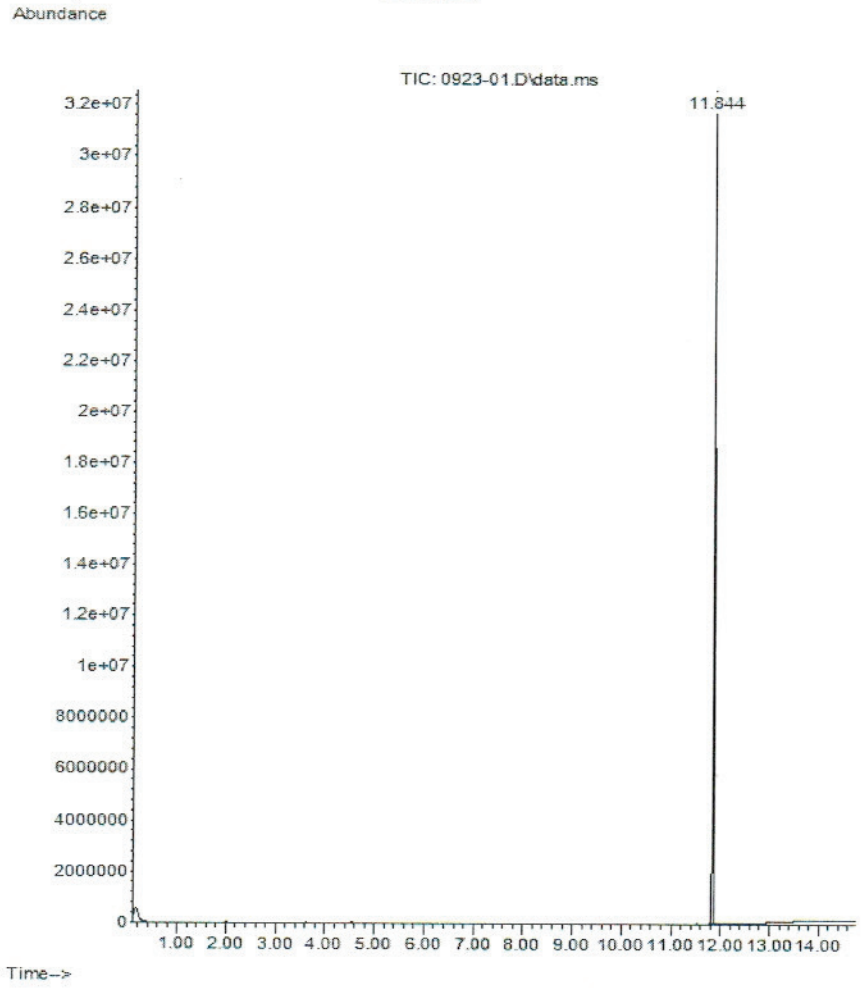
CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



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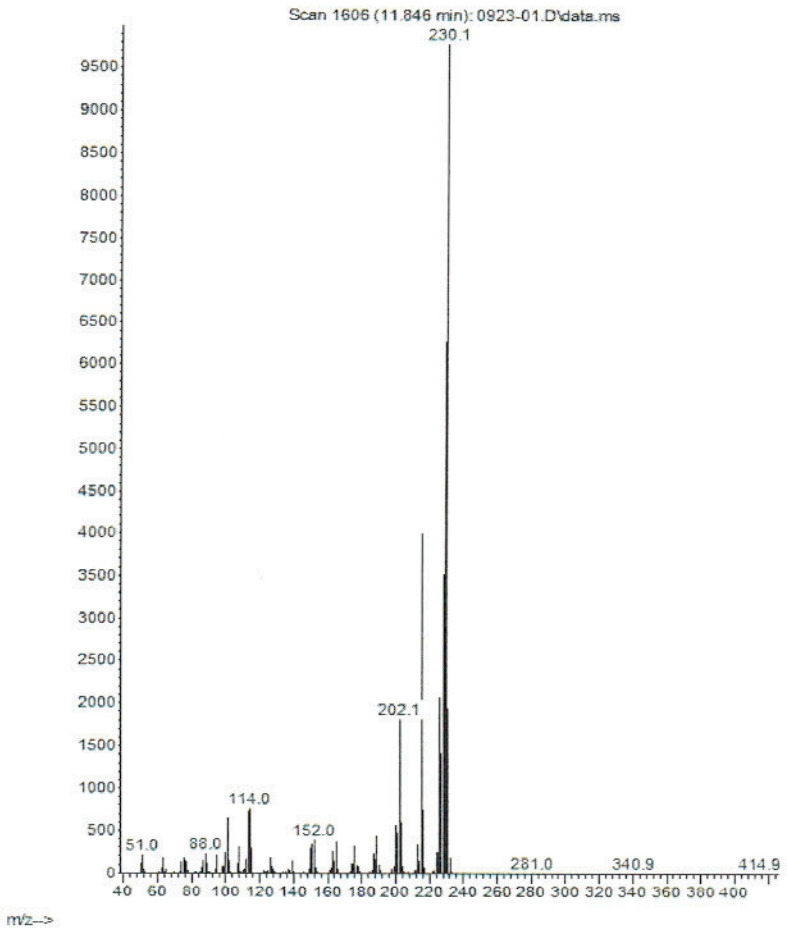
CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



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CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

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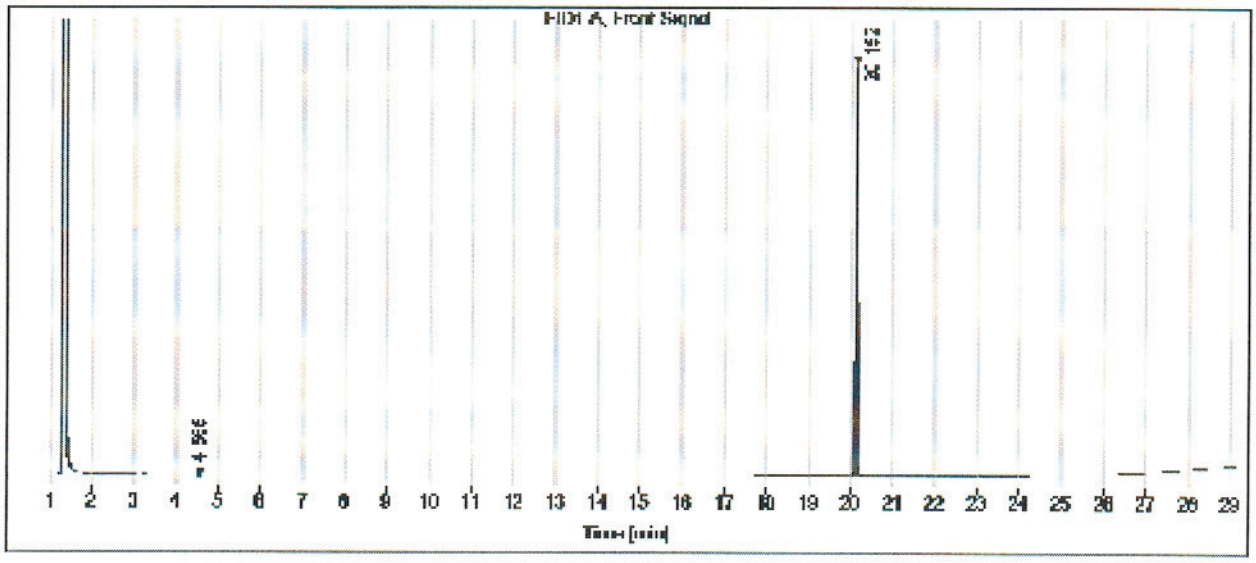
Gas

CERTIFICATE OF ANALYSIS

Data file:	C:\CHEM3\		
Sample name:	N-12693		
Instrument:	GC 2	**Sample type:**	Sample
Injection date:	9/23/2019 9:56:34 AM	**Location:**	Vial 141
Acq. method:	SCREEN.M	**Injection volume:**	1.0uL
Column name:	HP-5		



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211012A		
Standard Name	Diesel Fuel #2 50,000 ug/mL in DCM	Type:	Primary
Date Prepared	10/12/2021	BY:	Ann Nebel
Date Expires:	4/30/2023		
Department	dropr	Status:	New
Vendor:	Sigma-Aldrich		
Lot Number:	LRAC6316		
Balance ID:			
Comments:	Diesel Fuel #2 For CCVs.		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Diesel Fuel No. 2	14376	1	mL	4/30/

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
Diesel Fuel #2		0

Page: *1 of 1*

Certificate of Analysis

Diesel Fuel No. 2

Certified Reference Material

Description

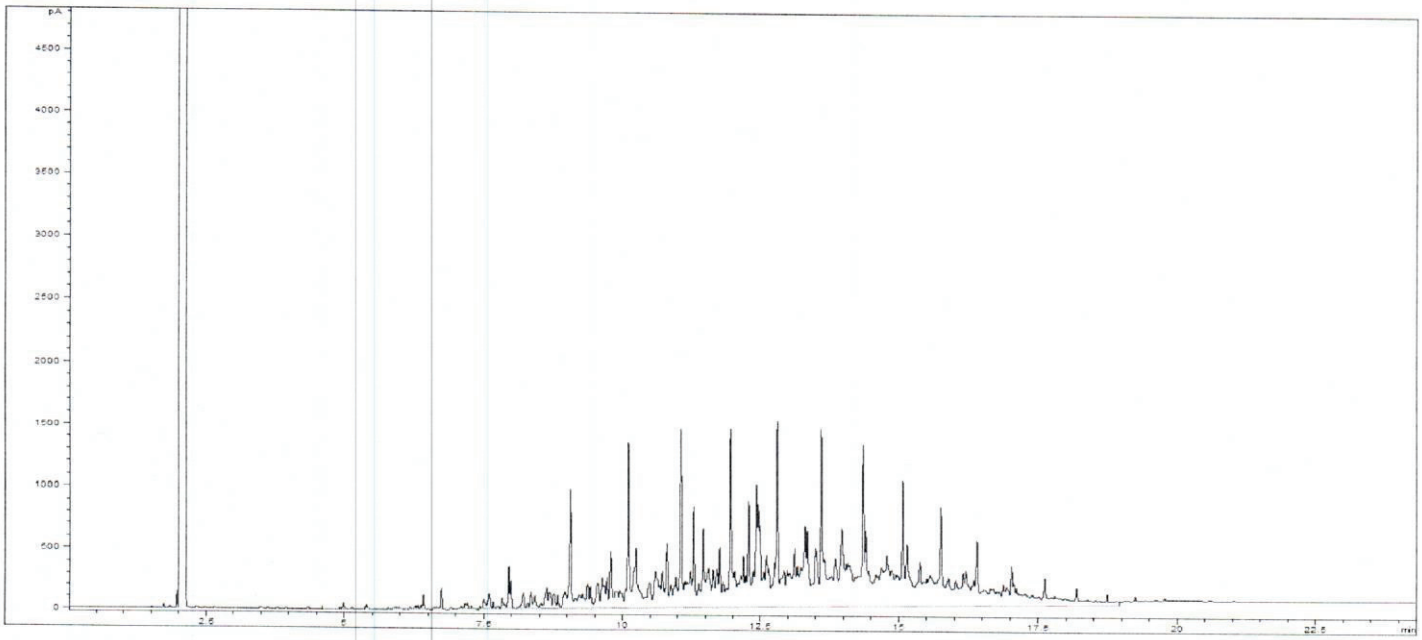
Product ID UST148
Lot **LRAC6316**
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

ID #: 14376
Opened:
Diesel Fuel No. 2
Expires: 4/30/2023
Rec'd: 10/12/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Certified Values

Analyte	*Certified Value* [1,4]	*Units*	*Raw Material Purity,%*	*Raw Material Lot*	*CAS*
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:
Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)
Carrier Gas: H2, Flow: 4.0 mL/min
Inlet Temperature: 250 °C, Injection Volume: 1.0 µL
Injection Mode: Split, Split Ratio: 10: 1
Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)
Detector: FID
Detector Temperature: 300 °C

ANAB ACCREDITED 5017/2014 REFERENCE MATERIAL PRODUCER

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot LRAC6316
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

1 **Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{hom\ ogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH **ISO/IEC 17025:2017 (ANAB Cert AT-1467)** and **ISO 17034:2016 (ANAB Cert AR-1470).**

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Certification Date April 30, 2020
Version 0-4302020

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO180918C		
Standard Name	50,000 ug/mL Oil Std For AK103 RRO-In DC	Type:	Primary
Date Prepared	9/18/2018	BY:	Ann Nebel
Date Expires:	8/31/2025		
Department	dropr	Status:	Open
Vendor:	Restek		
Lot Number:	A0140080		
Balance ID:	Sartorius 4 place balance		

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Residual Range Cailbration Standard	10787	1	mL	8/31/

Final Volume: 1 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

RESTEK® CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 31817 **Lot No.:** A0140080

Description : Residual Range Calibration Standard (RCS)

Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : August 31, 2025 **Storage:** 25°C nominal

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil)	50,113.0 µg/mL	+/- 293.4226	µg/mL	Gravimetric
	CAS # 64742-65-0.F (Lot A0126386)		+/- 1,492.4284	µg/mL	Unstressed
	Purity ----%		+/- 1,591.6738	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

ID #: 10787
Opened:
Residual Range Calibration Standard
Expires: 8/31/2025
Rec'd: 9/18/2018
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

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

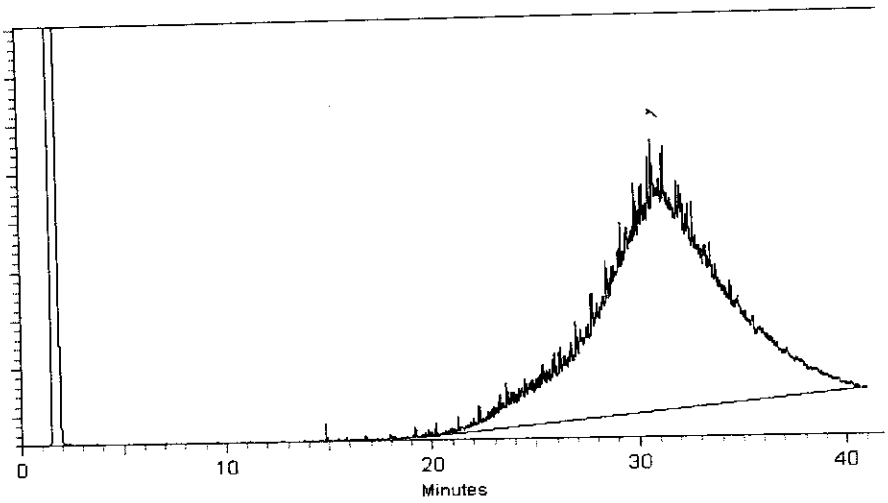
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

Brandon Reish - Mix Technician

Date Mixed: 28-Jul-2018 **Balance:** B345965662

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 30-Jul-2018

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

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211006A		
Standard Name	Triacontane SURR 2000 ug/mL	Type:	Secondary
Date Prepared	10/6/2021	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	50	mL	7/22/

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
DRO210406A	Triacontane-d62 Surr For AK103 RRO	ug/mL	0.1001 g

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			2000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210406A		
Standard Name	Triacontane-d62 Surr For AK103 RRO	Type:	Neat
Date Prepared	4/6/2021	BY:	Ann Nebel
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:	Sigma-Aldrich		
Lot Number:	MBBC4347		
Balance ID:			
Comments:	Alaska surr [for AK103 RRO]		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Triacontane-d62-98 atom % D	13736		mL	4/6/2

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A Triacontane-d62		1

Page: *1 of 1*

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sigma-aldrich.com

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Triacontane-d62 - 98 atom % D

$CD_3(CD_2)_{28}CD_3$

Product Number:	**451789**
Batch Number:	**MBBC4347**
Brand:	ALDRICH
CAS Number:	93952-07-9
MDL Number:	MFCD00209794
Formula:	C30D62
Formula Weight:	485.20 g/mol
Quality Release Date:	27 APR 2018

ID #: 13736
Opened:
Triacontane-d62-98 atom % D
Expires: 4/6/2026
Rec'd: 4/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C

Greg Abernathy, Supervisor
Quality Control
Miamisburg, Ohio US

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211012B		
Standard Name	#2 Diesel in Acetone 150,000 ug/mL	Type:	Secondary
Date Prepared	10/12/2021	BY:	Ann Nebel
Date Expires:	11/5/2023		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	#2 Diesel in Acetone 150,000 ug/mL.		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone EA662	14050	25	mL	1/7/2

Final Volume: 25 mL

Stock Source		**Base Units**	**Amount Added**
DRO181105A	#2 Diesel (NEAT)	ug/mL	3.7507 g

Analytes		**CAS**	Conc:	**ug/mL**
A	#2 Diesel	68476-34-6		150000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO181105A		
Standard Name	#2 Diesel (NEAT)	Type:	Neat
Date Prepared	11/5/2018	BY:	Ann Nebel
Date Expires:	11/5/2023		
Department	dropr	Status:	New
Vendor:	conoco		
Lot Number:			
Balance ID:			

Comments: -18 Cloud peak. (Conoco Gas Sation 1240 S. 27th Billings, MT) 2nd Source

Final Volume: 250 mL

Stock Source		Base Units	Amount Added	
Analytes		**CAS**	Conc:	**ug/mL**
A	#2 Diesel	68476-34-6		1

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210217A		
Standard Name	20,000 ug/mL Oil Std For AK103 RRO-In DC	Type:	Secondary
Date Prepared	2/17/2021	BY:	Ann Nebel
Date Expires:	8/23/2021		
Department	dropr	Status:	Expired
Vendor:			
Lot Number:			
Balance ID:	Sartorius 4 place balance		

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EA342	13510	25	mL	11/17

Final Volume: 25 mL

Stock Source		Base Units	Amount Added
DRO160823C	30W Motor Oil-Valvoline	ug/mL	0.2501 g
DRO160823D	40W Motor Oil-Valvoline	ug/mL	0.2527 g

Analytes		CAS	Conc:	ug/mL
A	30W Motor Oil			10000
A	30W-Motor oil			0
A	40W Motor Oil			10000
A	40W-Motor oil			0

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO160823C		
Standard Name	30W Motor Oil-Valvoline	Type:	Primary
Date Prepared	8/23/2016	BY:	Todd C Cooper
Date Expires:	8/23/2021		
Department	dropr	Status:	Expired
Vendor:			
Lot Number:			
Balance ID:			

Comments: Used to make 2nd Source Standard for AK103 method.

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 30 Motor Oil	8637		mL	8/23/

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A 30W-Motor oil		1

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO160823D		
Standard Name	40W Motor Oil-Valvoline	Type:	Primary
Date Prepared	8/23/2016	BY:	Todd C Cooper
Date Expires:	8/23/2021		
Department	dropr	Status:	Expired
Vendor:			
Lot Number:			
Balance ID:			

Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 40 Motor Oil	8638		mL	8/23/

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A 40W-Motor oil		1

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211201A		
Standard Name	5,000 ug/mL RRO CCV 200 ug/mL Triaconta	Type:	Secondary
Date Prepared	12/1/2021	BY:	Ann Nebel
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	Sartorius 4 place balance		
Comments:	CCV for AK102 and 8015C RRO.		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC735	14518	2.8	mL	10/14

Final Volume: 4 mL

Stock Source		Base Units	Amount Added
DRO210401B	50,000 ug/mL Oil Std For AK103 RRO-I	ug/mL	400 µL
DRO211129A	Triacontane SURR 1000 ug/mL	ug/mL	800 µL

Analytes		CAS	Conc:	ug/mL
A	30/40W Motor Oil			5000
A	Triacontane-d62			200

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210401B		
Standard Name	50,000 ug/mL Oil Std For AK103 RRO-In DC	Type:	Primary
Date Prepared	4/1/2021	BY:	Ann Nebel
Date Expires:	1/31/2028		
Department	dropr	Status:	Open
Vendor:	Restek		
Lot Number:	A0166827		
Balance ID:	Sartorius 4 place balance		

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Residual Range Calibration Standard (	13714	1	mL	1/31/

Final Volume: 1 mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**

Page: *1 of 1*

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

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. : 31817 **Lot No.:** A0166827

Description : Residual Range Calibration Standard (RCS)

Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2028 **Storage:** 25°C nominal

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil) CAS # 64742-65-0.F (Lot A0126386) Purity ----%	50,056.0 µg/mL	+/- 293.0889 µg/mL +/- 1,490.7309 µg/mL +/- 1,589.8634 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

ID #: 13714
Opened:
Residual Range Calibration Standard (RCS)
Expires: 1/31/2028
Rec'd: 4/1/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

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

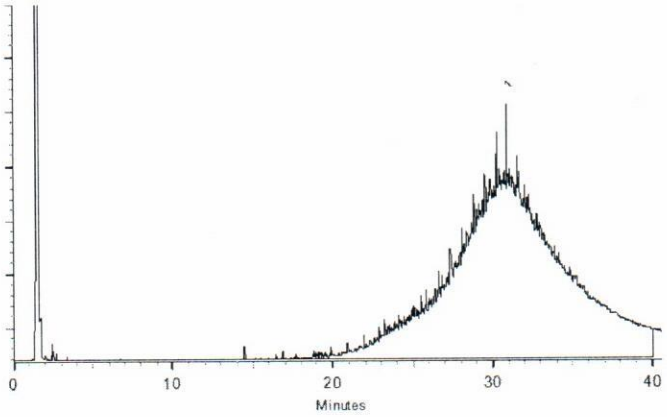
Carrier Gas:
hydrogen-constant pressure 10 psi.

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.

Kylie Struble - Operations Technician I

Date Mixed: 02-Dec-2020 **Balance:** 1128353505

Justine Albertson - Operations Tech-ARM QC

Date Passed: 07-Dec-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:

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

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.

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211129A		
Standard Name	Triacontane SURR 1000 ug/mL	Type:	Secondary
Date Prepared	11/29/2021	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	2X dilution of Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC735	14518	5	mL	10/14

Final Volume: 10 mL

Stock Source		**Base Units**	**Amount Added**
DRO211006A	Triacontane SURR 2000 ug/mL	ug/mL	5 mL

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			1000

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211006A		
Standard Name	Triacontane SURR 2000 ug/mL	Type:	Secondary
Date Prepared	10/6/2021	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	50	mL	7/22/

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
DRO210406A	Triacontane-d62 Surr For AK103 RRO	ug/mL	0.1001 g

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			2000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210406A		
Standard Name	Triacontane-d62 Surr For AK103 RRO	Type:	Neat
Date Prepared	4/6/2021	BY:	Ann Nebel
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:	Sigma-Aldrich		
Lot Number:	MBBC4347		
Balance ID:			
Comments:	Alaska surr [for AK103 RRO]		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Triacontane-d62-98 atom % D	13736		mL	4/6/2

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

A Triacontane-d62

Page: *1 of 1*

SIGMA-ALDRICH®

sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Triacontane-d62 - 98 atom % D

$CD_3(CD_2)_{28}CD_3$

Product Number:	**451789**
Batch Number:	**MBBC4347**
Brand:	ALDRICH
CAS Number:	93952-07-9
MDL Number:	MFCD00209794
Formula:	C30D62
Formula Weight:	485.20 g/mol
Quality Release Date:	27 APR 2018

ID #: 13736
Opened:
Triacontane-d62-98 atom % D
Expires: 4/6/2026
Rec'd: 4/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C

Greg Abernathy, Supervisor
Quality Control
Miamisburg, Ohio US

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211214A		
Standard Name	8015 CCV-15,000ug/mL + 200 OTP	Type:	Secondary
Date Prepared	12/14/2021	BY:	Ann Nebel
Date Expires:	4/30/2023		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:			
Comments:	8015DRO CCV MIX-15,000ug/mL +200 OTP #2 Diesel		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC757	14596	2.6	mL	10/20

Final Volume: 4 mL

Stock Source		Base Units	Amount Added
DRO211101A	OTP-4000 ug/mL DCM	ug/mL	0.2 mL
DRO211102B	Diesel Fuel #2 50,000 ug/mL in DCM	ug/mL	1.2 mL

Analytes		CAS	Conc: ug/mL
A	#2 Diesel		15000
	Diesel Fuel #2		0
A	O-Terphenyl	84-15-1	200

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211102B		
Standard Name	Diesel Fuel #2 50,000 ug/mL in DCM	Type:	Primary
Date Prepared	11/2/2021	BY:	Ann Nebel
Date Expires:	4/30/2023		
Department	dropr	Status:	New
Vendor:	Sigma-Aldrich		
Lot Number:	LRAC6316		
Balance ID:			
Comments:	Diesel Fuel #2 For CCVs.		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Diesel Fuel No. 2	14478	1	mL	4/30/

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**	
Analytes	**CAS**	Conc:	**ug/mL**
Diesel Fuel #2			0

Page: *1 of 1*

Certificate of Analysis

Diesel Fuel No. 2

Certified Reference Material

Description

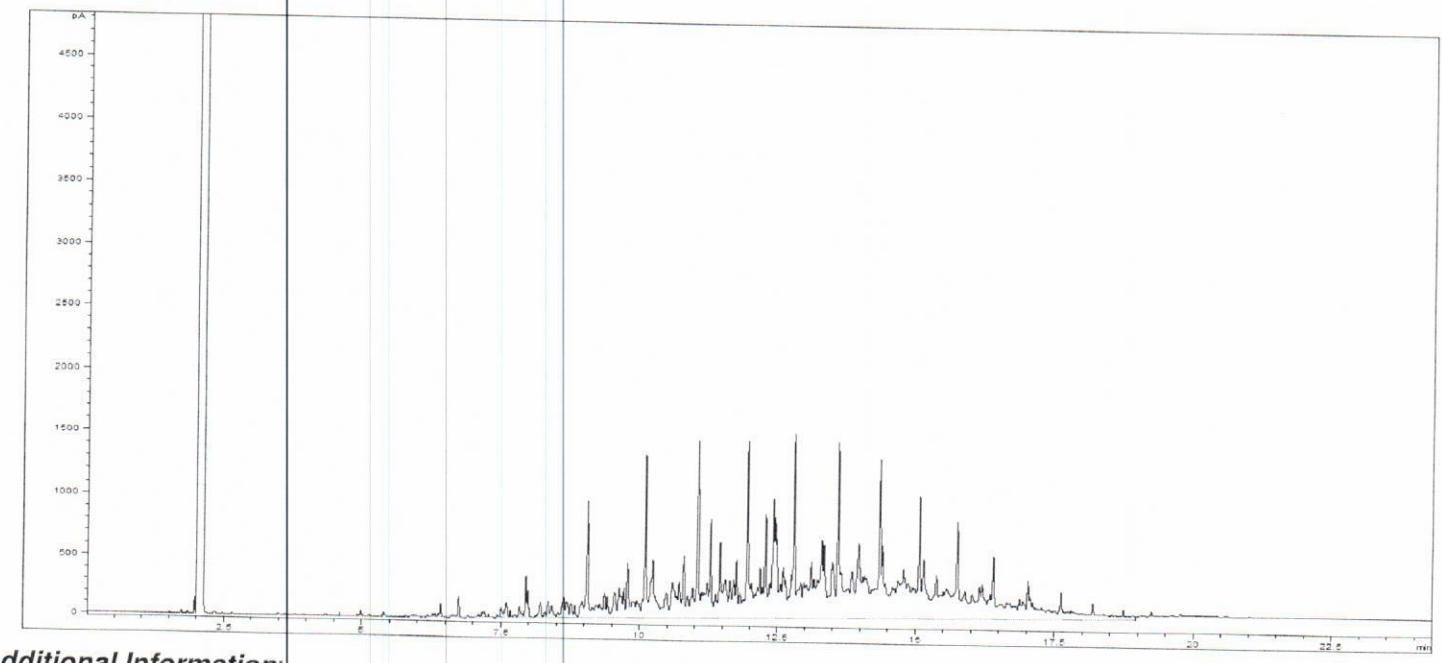
Product ID UST148
Lot **LRAC6316**
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

ID #: 14478
Opened:_____
Diesel Fuel No. 2
Expires: 4/30/2023
Rec'd: 11/2/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Certified Values

Analyte	*Certified Value* [1,4]	*Units*	*Raw Material Purity,%*	*Raw Material Lot*	*CAS*
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:
Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)
Carrier Gas: H2, Flow: 4.0 mL/min
Inlet Temperature: 250 °C, Injection Volume: 1.0 µL
Injection Mode: Split, Split Ratio: 10: 1
Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)
Detector: FID
Detector Temperature: 300 °C

ANAB ACCREDITED
REFERENCE MATERIAL PRODUCER

SIGMA-ALDRICH
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@millipore sigma.com www.sigma-aldrich.com

Description

Lot LRAC6316
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

1 **Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{hom\ ogeneity}^2 + u_{stability}^2}$$

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH **ISO/IEC 17025:2017 (ANAB Cert AT-1467)** and **ISO 17034:2016 (ANAB Cert AR-1470).**

Andy Ommen - QC Manager

Mark Pooler - QA Supervisor

Certification Date April 30, 2020
Version 0-4302020

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

Energy Laboratories Inc

Spike LOG

Standard ID:	DRO211101A		
Standard Name	OTP-4000 ug/mL DCM	Type:	Secondary
Date Prepared	11/1/2021	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	Open
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Used to Prep DRO-8015 ICAL and CCV Solutions		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC328	14408	25	mL	8/19/

Final Volume: 25 mL

Stock Source		Base Units	Amount Added
DRO200430B	O-Terphenyl	ug/mL	0.1012 g

Analytes		CAS	Conc:	ug/mL
A	O-Terphenyl	84-15-1		4000

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO200430B		
Standard Name	O-Terphenyl	Type:	Neat
Date Prepared	4/30/2020	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	New
Vendor:	Chemservice		
Lot Number:	9972100		
Balance ID:			
Comments:	ID#: 6271		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	12650	500	mg	9/30/

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes		**CAS**	Conc:	**ug/mL**
A	O-Terphenyl	84-15-1		1

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER	N-12693-500MG
LOT NUMBER	9972100
DATE CERTIFIED	09/23/19
EXPIRATION DATE	09/30/24
CAS NUMBER	84-15-1
MOLECULAR FORMULA	C18H14
MOLECULAR WEIGHT	230.32
STORAGE	Store in a cool dry place.
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650
Opened:
o-Terphenyl
Expires: 9/30/2024
Rec'd: 4/30/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

PJLA Reference Material Producer

PJLA Testing

COA Form
Revision 3 (3/2015)

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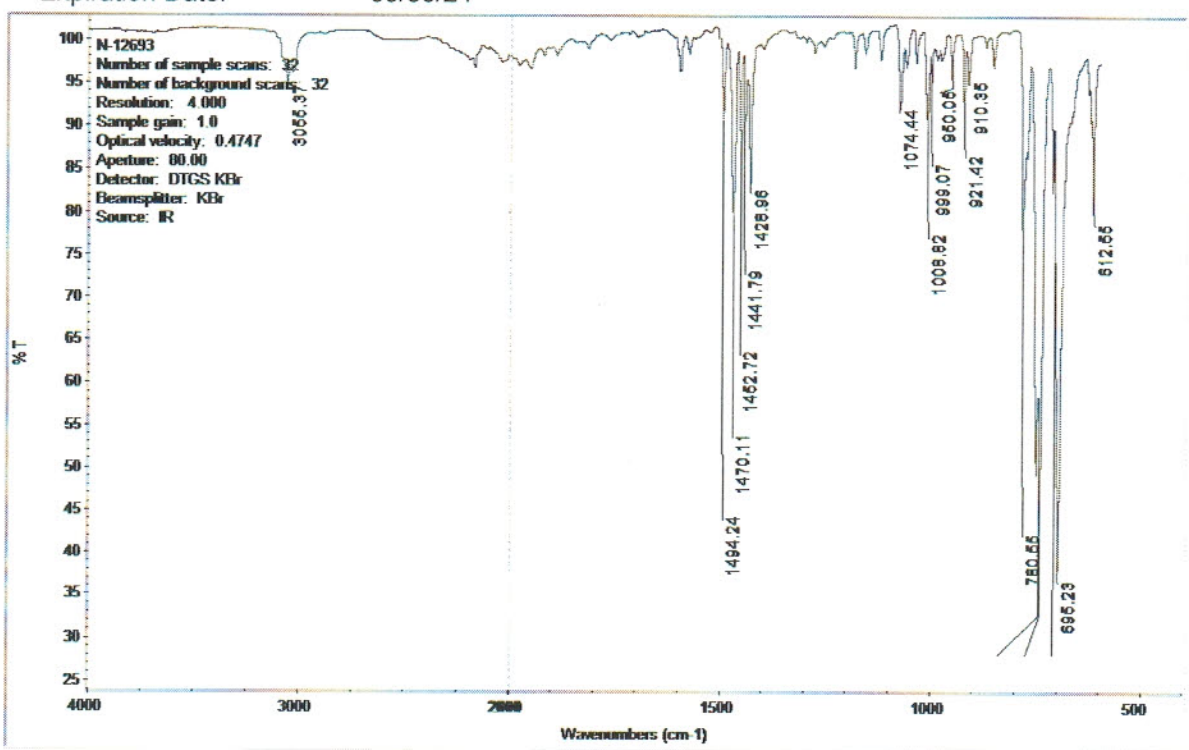
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



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CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth:SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

ERIN.M Mon Sep 23 10:55:51 2019

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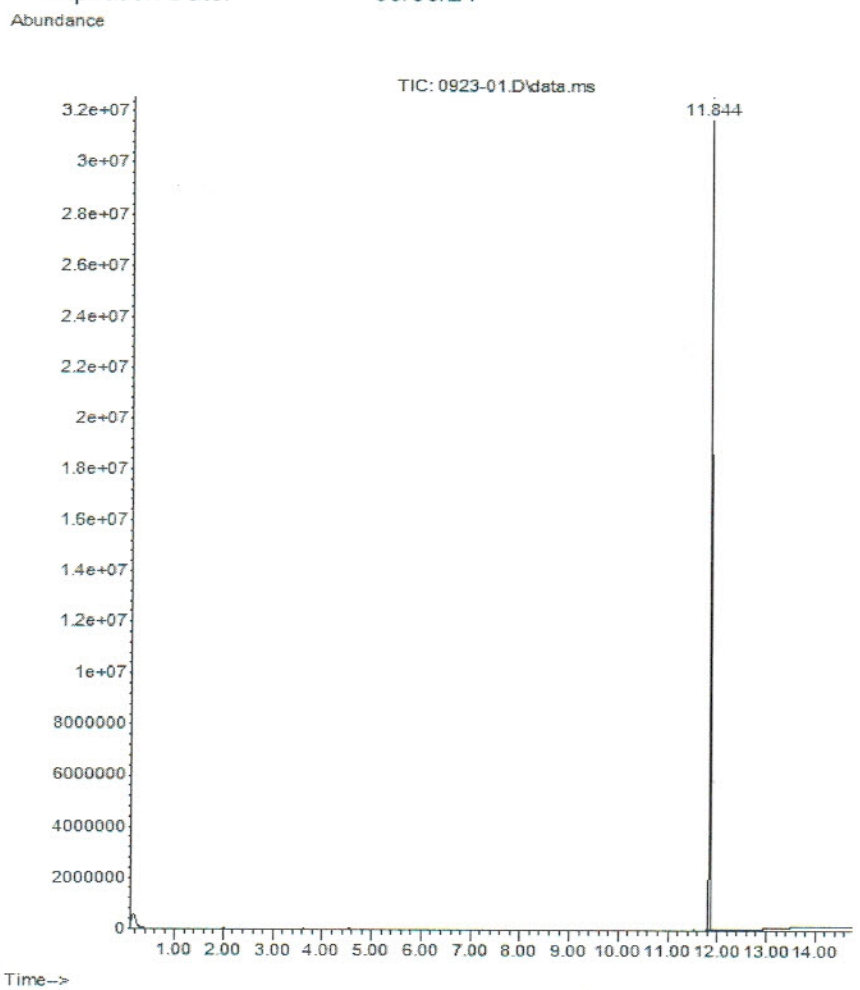
CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



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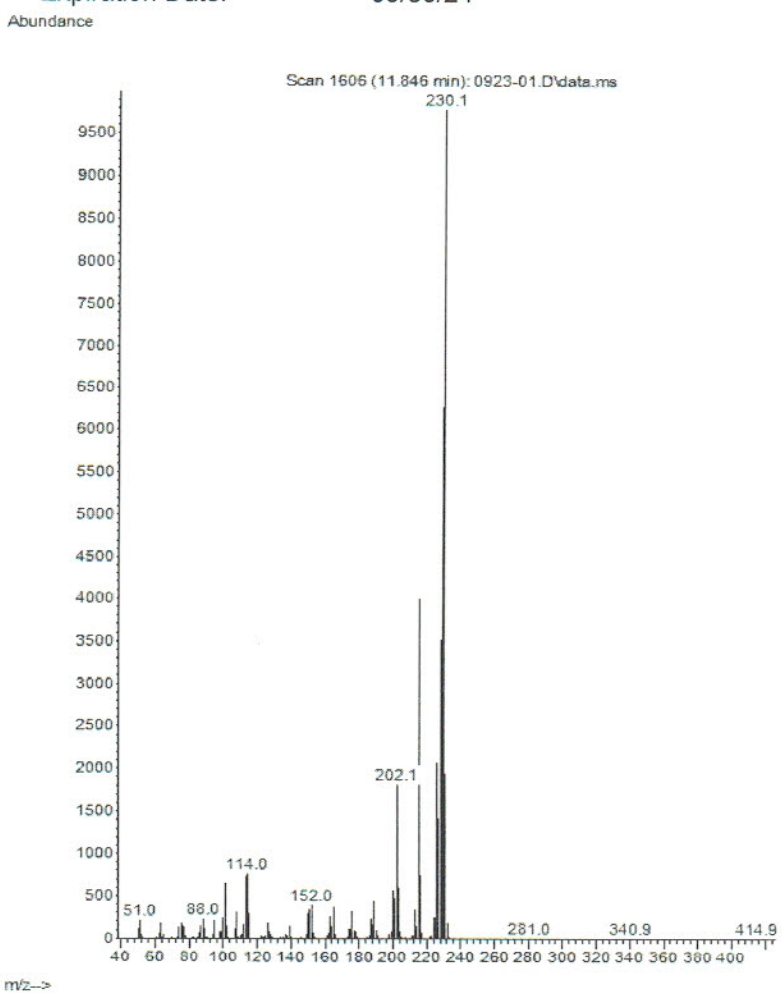
CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



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info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

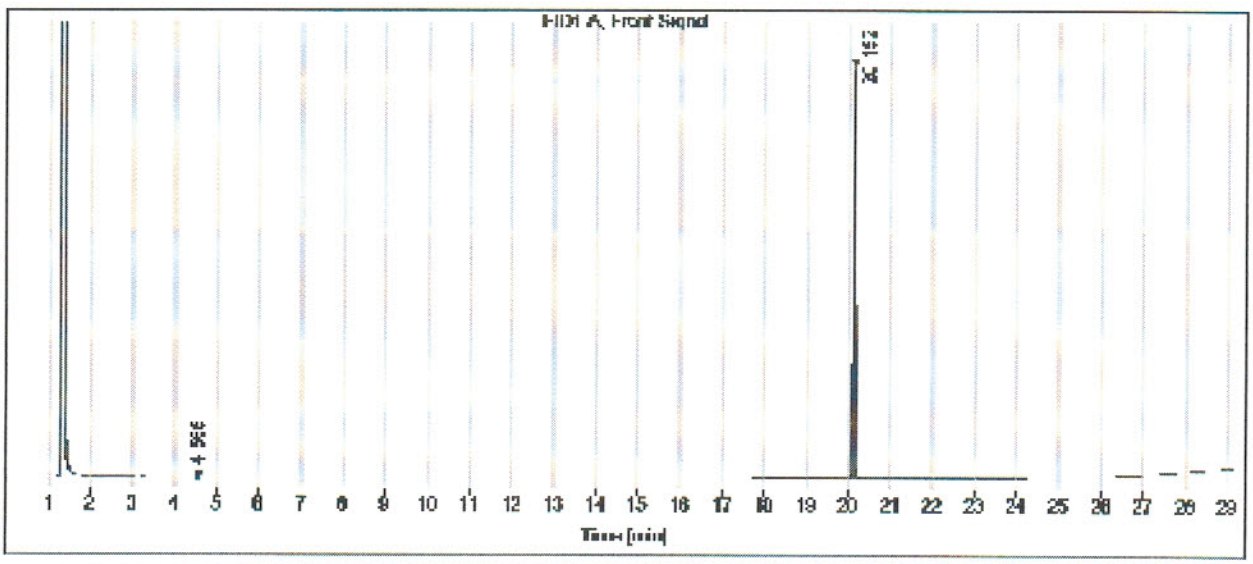
Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

CERTIFICATE OF ANALYSIS

Data file:	C:\CHEM32		
Sample name:	N-12693		
Instrument:	GC 2	**Sample type:**	Sample
Injection date:	9/23/2019 9:56:34 AM	**Location:**	Vial 141
Acq. method:	SCREEN.M	**Injection volume:**	1.0uL
Column name:	HP-5		



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211213A		
Standard Name	OTP only SURR 2000 ug/mL	Type:	Secondary
Date Prepared	12/13/2021	BY:	Jillian L Bostwick
Date Expires:	9/30/2024		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	OTP SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	100	mL	7/22/

Final Volume: 100 mL

Stock Source		Base Units	Amount Added
DRO200430B	O-Terphenyl	ug/mL	0.2015 g

Analytes		CAS	Conc:	ug/mL
A	1-Chlorooctadecane	3386-33-2		2000

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO200430B		
Standard Name	O-Terphenyl	Type:	Neat
Date Prepared	4/30/2020	BY:	Ann Nebel
Date Expires:	9/30/2024		
Department	dropr	Status:	New
Vendor:	Chemservice		
Lot Number:	9972100		
Balance ID:			
Comments:	ID#: 6271		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	12650	500	mg	9/30/

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes		**CAS**	Conc:	**ug/mL**
A	O-Terphenyl	84-15-1		1

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info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER	N-12693-500MG
LOT NUMBER	9972100
DATE CERTIFIED	09/23/19
EXPIRATION DATE	09/30/24
CAS NUMBER	84-15-1
MOLECULAR FORMULA	C18H14
MOLECULAR WEIGHT	230.32
STORAGE	Store in a cool dry place.
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650
Opened:
o-Terphenyl
Expires: 9/30/2024
Rec'd: 4/30/2020
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

PJLA Reference Material Producer

PJLA Testing

COA Form
Revision 3 (3/2015)

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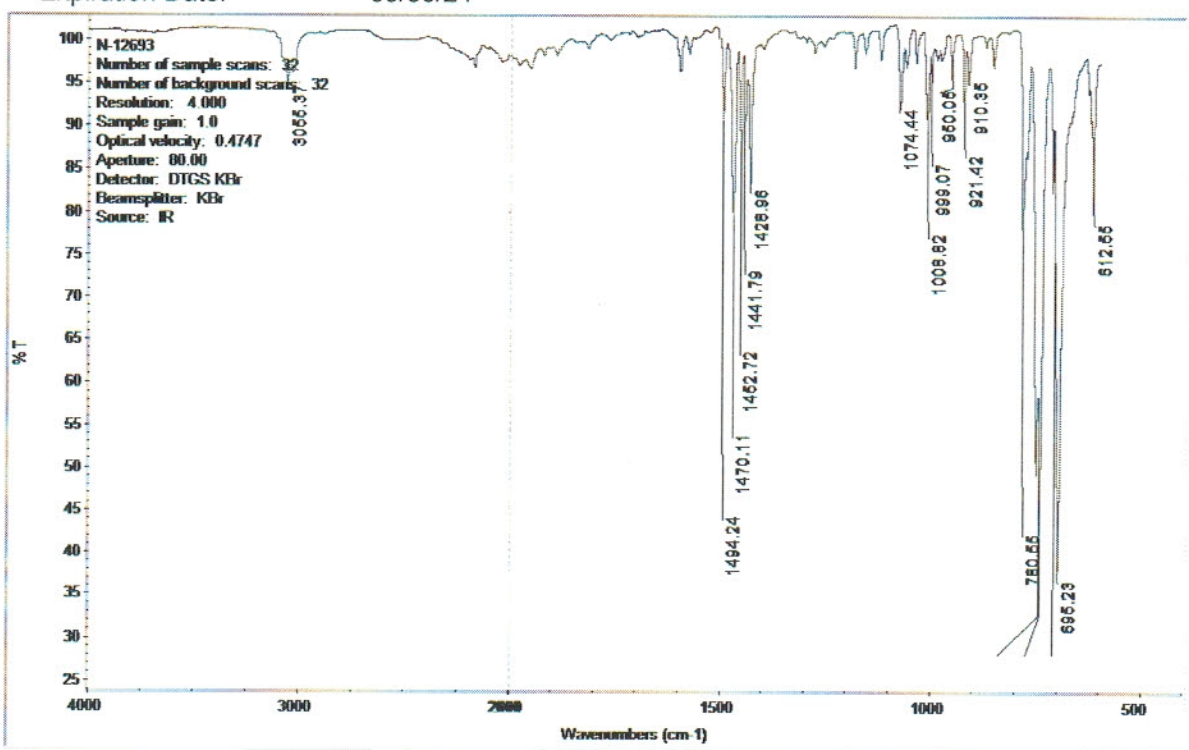
CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



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CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth:SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

Signal : TIC: 0923-01.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

ERIN.M Mon Sep 23 10:55:51 2019

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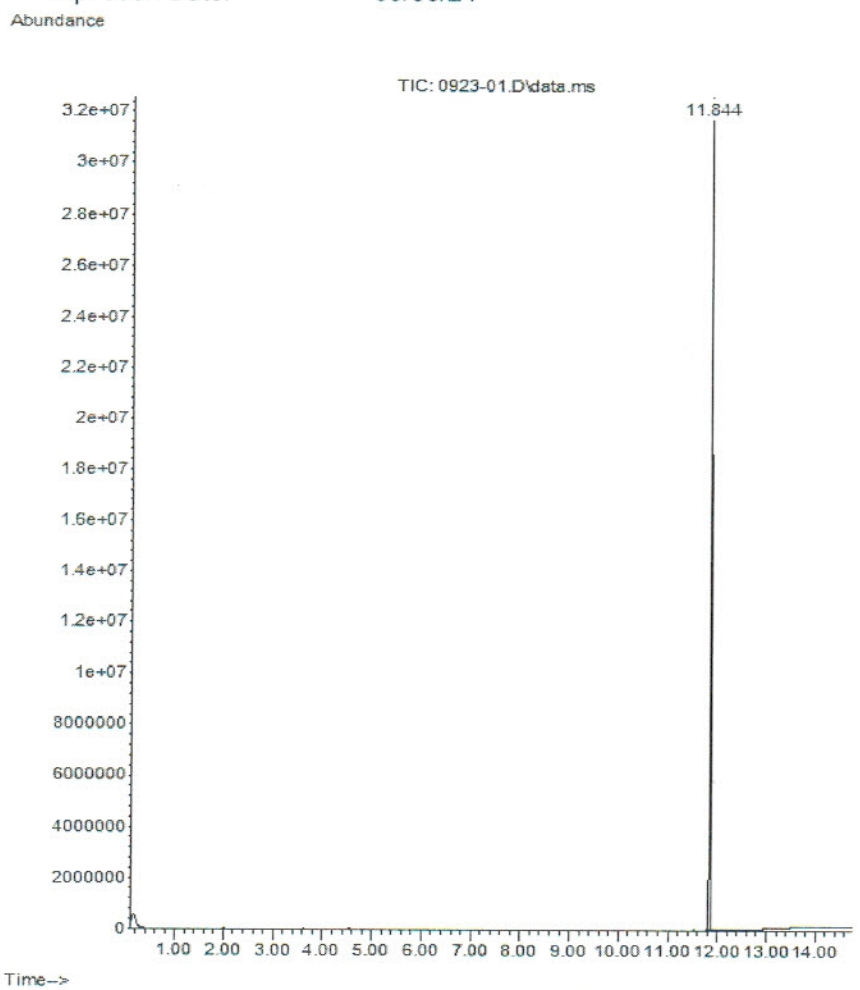
CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



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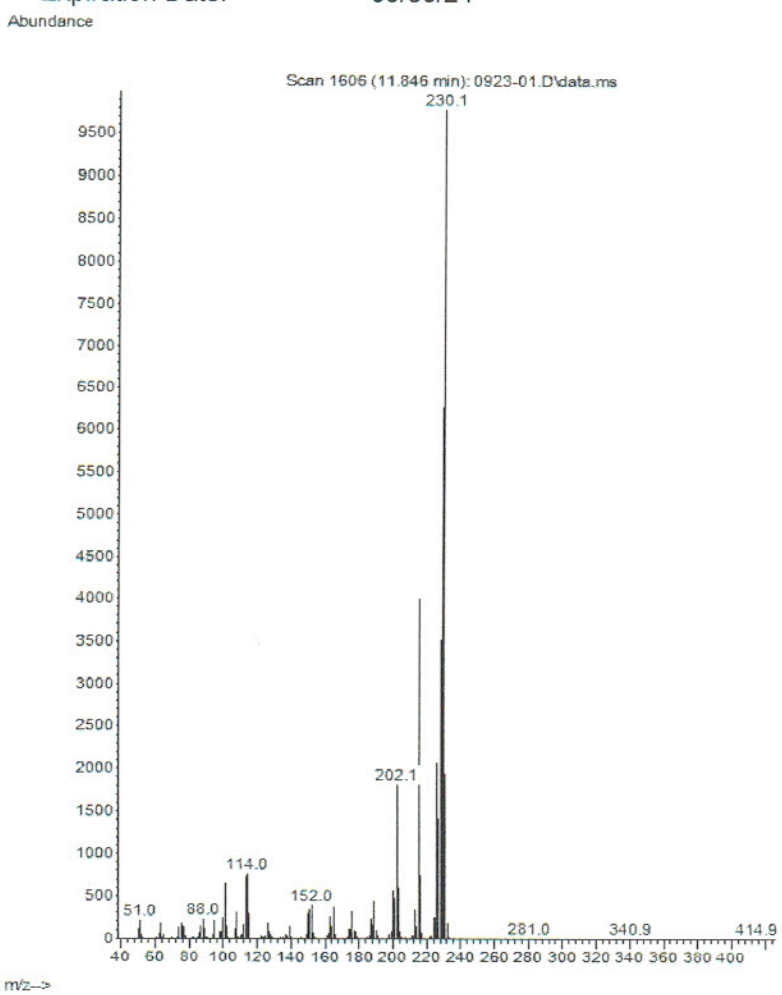
CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24



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CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

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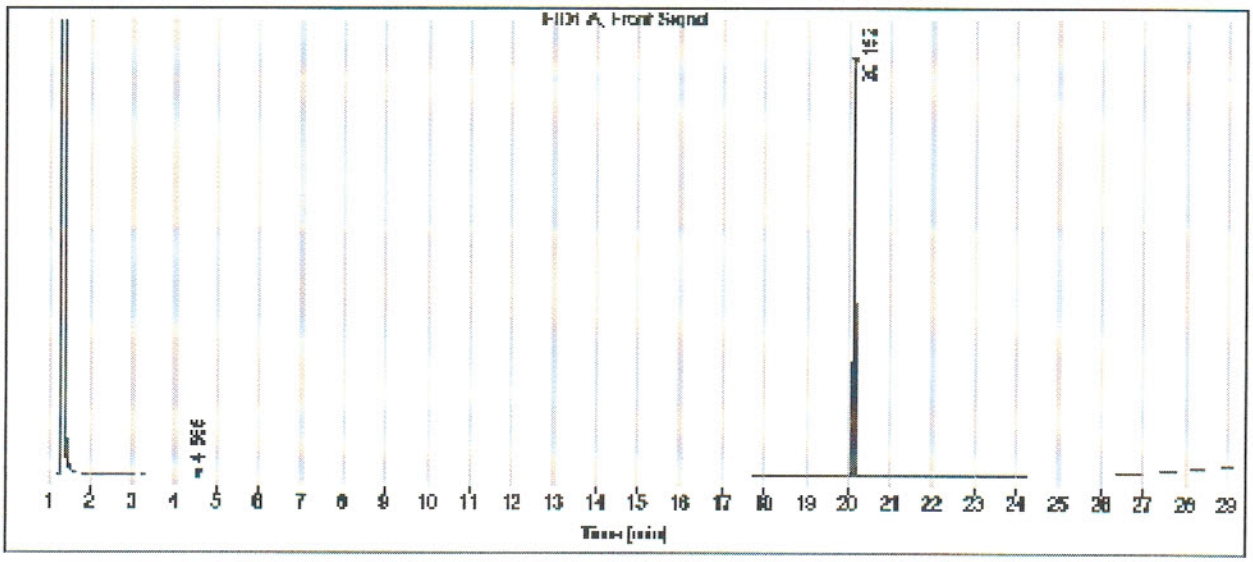
Gas

CERTIFICATE OF ANALYSIS

Data file:	C:\CHEM3\		
Sample name:	N-12693		
Instrument:	GC 2	**Sample type:**	Sample
Injection date:	9/23/2019 9:56:34 AM	**Location:**	Vial 141
Acq. method:	SCREEN.M	**Injection volume:**	1.0uL
Column name:	HP-5		



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210902A		
Standard Name	50,000 ug/mL Oil Std for RRO-In DCM	Type:	Secondary
Date Prepared	9/2/2021	BY:	Jillian L Bostwick
Date Expires:	9/1/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	.625 g of 30W and 40 W each LCS for Oil range		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EB867	14196	25	mL	6/18/

Final Volume: 25 mL

Stock Source		Base Units	Amount Added
DRO210901B	40W Motor Oil-Valvoline	ug/mL	0.6261 g
DRO210901A	30W Motor Oil-Valvoline	ug/mL	0.6254 g

Analytes		CAS	Conc: ug/mL
A	30W Motor Oil		10000
A	30W-Motor oil		0
A	40W Motor Oil		10000
A	40W-Motor oil		0

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210901B		
Standard Name	40W Motor Oil-Valvoline	Type:	Primary
Date Prepared	9/1/2021	BY:	Jillian L Bostwick
Date Expires:	9/1/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:			

Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method and Oil

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 40 Motor Oil	14231		mL	9/1/2

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A 40W-Motor oil		1

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210901A		
Standard Name	30W Motor Oil-Valvoline	Type:	Primary
Date Prepared	9/1/2021	BY:	Jillian L Bostwick
Date Expires:	9/1/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:			

Comments: Used to make 2nd Source Standard for AK103 method.

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 30 Motor Oil	14232		mL	9/1/2

Final Volume: mL

Stock Source	**Base Units**	**Amount Added**
Analytes	**CAS**	Conc: **ug/mL**
A 30W-Motor oil		1

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211129A		
Standard Name	Triacontane SURR 1000 ug/mL	Type:	Secondary
Date Prepared	11/29/2021	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	2X dilution of Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC735	14518	5	mL	10/14

Final Volume: 10 mL

Stock Source		**Base Units**	**Amount Added**
DRO211006A	Triacontane SURR 2000 ug/mL	ug/mL	5 mL

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			1000

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO211006A		
Standard Name	Triacontane SURR 2000 ug/mL	Type:	Secondary
Date Prepared	10/6/2021	BY:	Jillian L Bostwick
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:			
Lot Number:			
Balance ID:	BAL-DRO		
Comments:	Triacontane SURR 2000 ug/mL		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	50	mL	7/22/

Final Volume: 50 mL

Stock Source		**Base Units**	**Amount Added**
DRO210406A	Triacontane-d62 Surr For AK103 RRO	ug/mL	0.1001 g

Analytes		**CAS**	Conc:	**ug/mL**
A	Triacontane-d62			2000

Page: *1 of 1*

Energy Laboratories Inc

Standard LOG

Standard ID:	DRO210406A		
Standard Name	Triacontane-d62 Surr For AK103 RRO	Type:	Neat
Date Prepared	4/6/2021	BY:	Ann Nebel
Date Expires:	4/6/2026		
Department	dropr	Status:	New
Vendor:	Sigma-Aldrich		
Lot Number:	MBBC4347		
Balance ID:			
Comments:	Alaska surr [for AK103 RRO]		

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Triacontane-d62-98 atom % D	13736		mL	4/6/2

Final Volume: mL

Stock Source **Base Units** **Amount Added**

Analytes **CAS** Conc: **ug/mL**

A Triacontane-d62

Page: *1 of 1*

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Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Triacontane-d_{62} - 98 atom % D

$CD_3(CD_2)_{28}CD_3$

Product Number:	**451789**
Batch Number:	**MBBC4347**
Brand:	ALDRICH
CAS Number:	93952-07-9
MDL Number:	MFCD00209794
Formula:	C30D62
Formula Weight:	485.20 g/mol
Quality Release Date:	27 APR 2018

ID #: 13736
Opened:
Triacontane-d62-98 atom % D
Expires: 4/6/2026
Rec'd: 4/6/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C

Greg Abernathy, Supervisor
Quality Control
Miamisburg, Ohio US