

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

03-Nov-21

Run ID GCFID-HP5-B\_211102A

<b>Run Start Date:</b> 11/2/2021
<b>Analyst:</b> Ann Nebel
<b>Ical:</b>
<b>Column ID:</b>
<b>Comments:</b> 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						
<b>Analyte</b>	<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
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						
<b>Analyte</b>	<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
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						
<b>Analyte</b>	<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
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	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
		CCV_1102HP508r, DRO ;1102HP5 , DRO211025A	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0
		DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0
		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
		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
		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
		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
		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
		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
		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
		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
		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
		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
		DCM-Baseline Check-V15	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0
		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

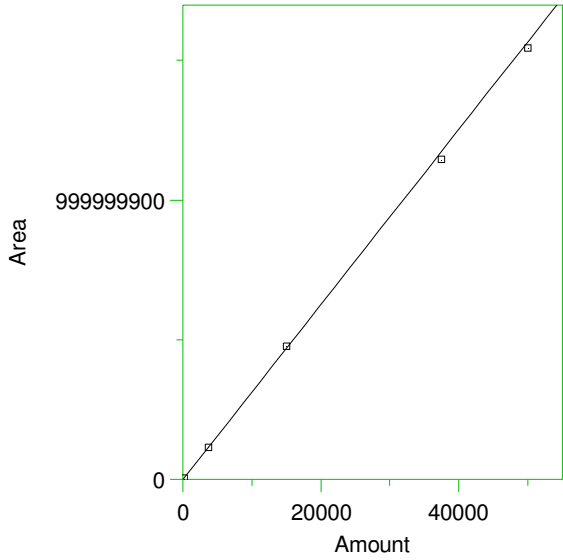
No default component

Method of calculating data point averages: Equal weight for all updates

No calibration update report

All levels are normal data points.

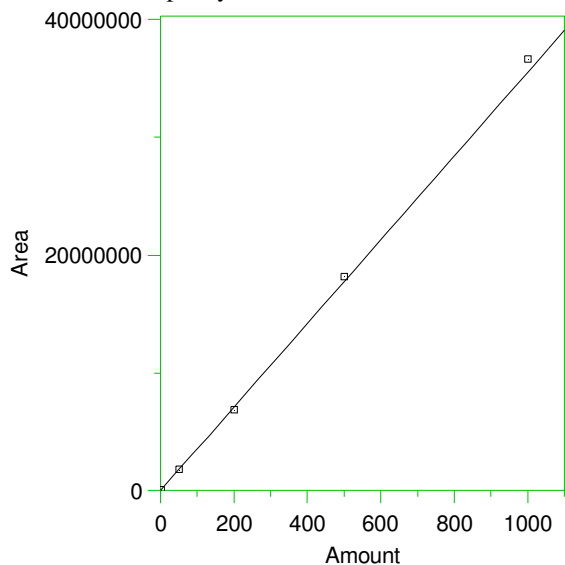
1 DRO Range Start



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

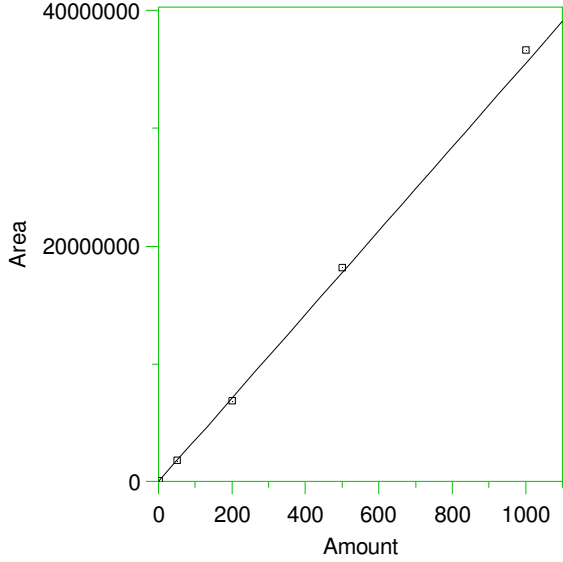
2 \*o-Terphenyl



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

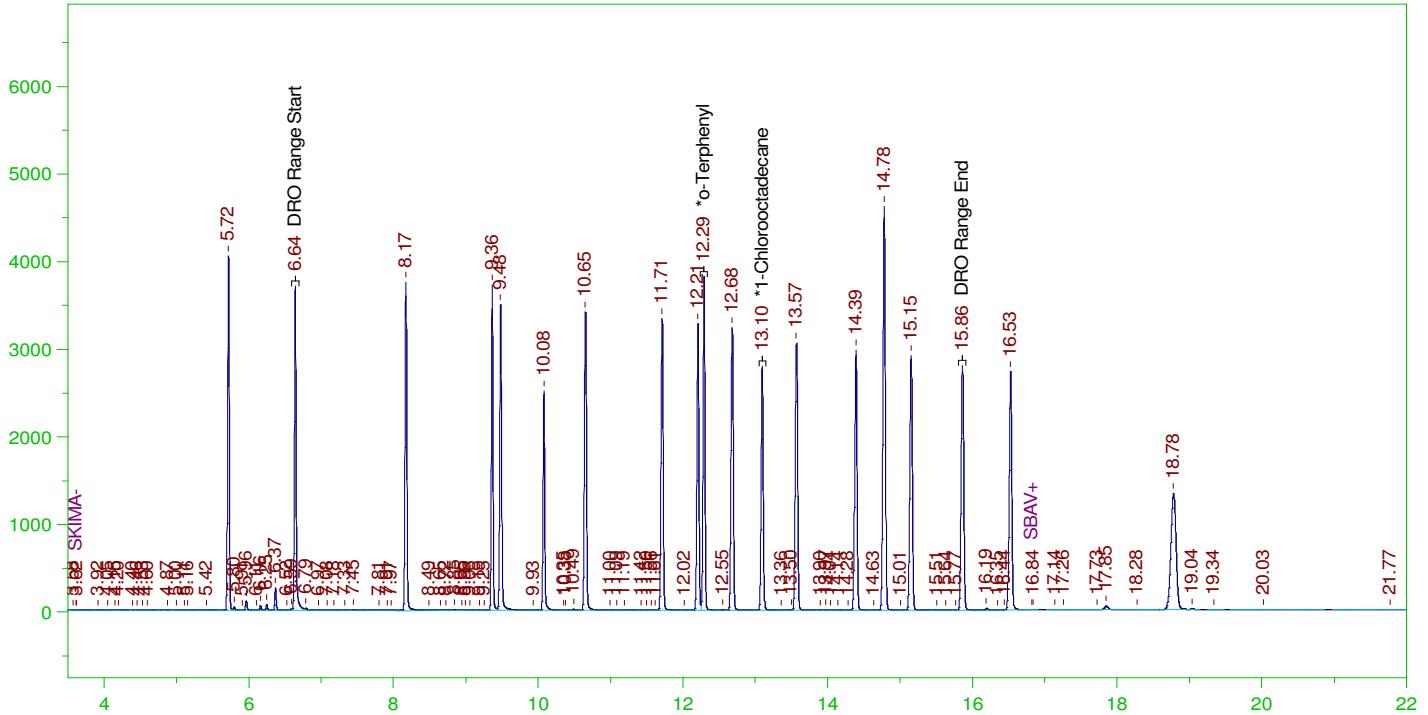


Expected retention time: 13.1 minutes  
 Search window: 0.05 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 $Y = 35509.21 X + 0$   
 Average CF fit with equal weighting, 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

G:\org\HP5\DAT\HP5110221\_b\1102HP5.0003.RAW

CCV\_1102HP508r, DRO ;1102HP5 , DRO211025A



**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\_DRO21102IA.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

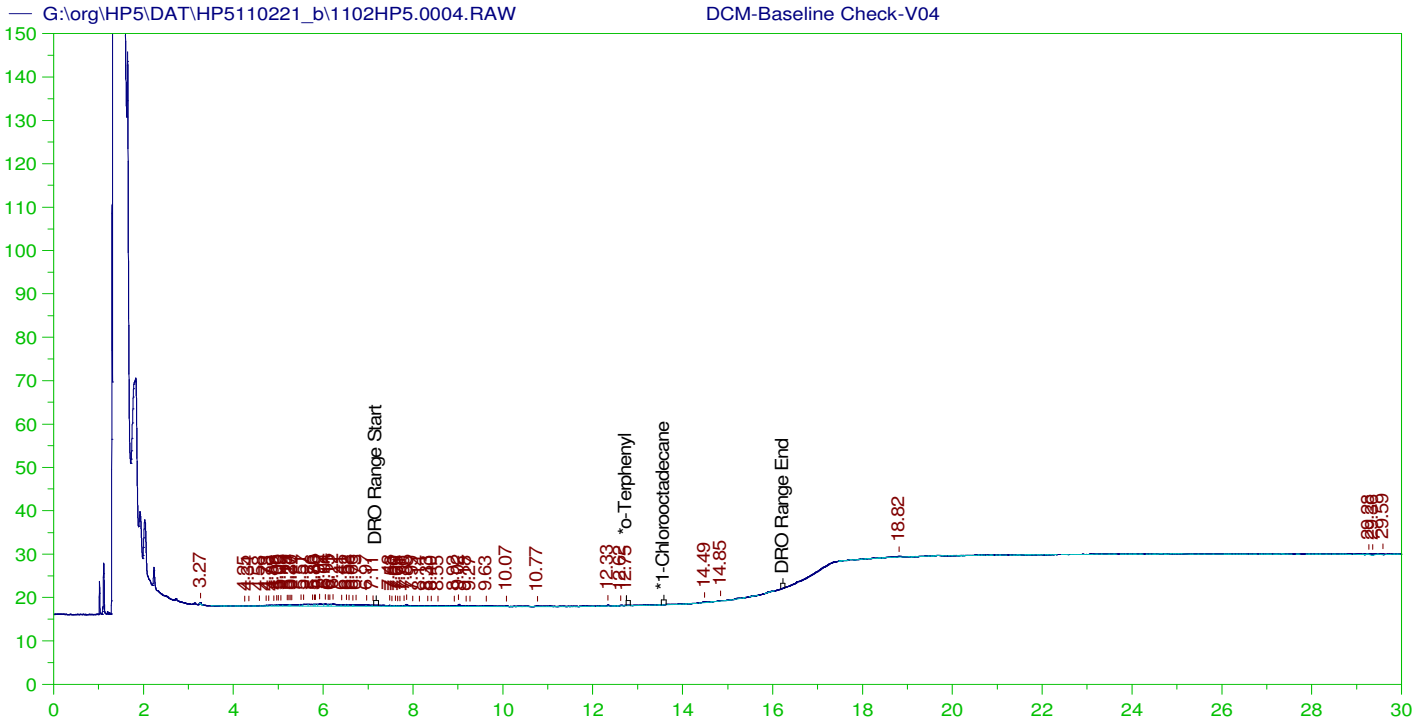
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.292	200.	201.539	100.77
*1-Chlorooctadecane	13.095	200.	163.573	81.79

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

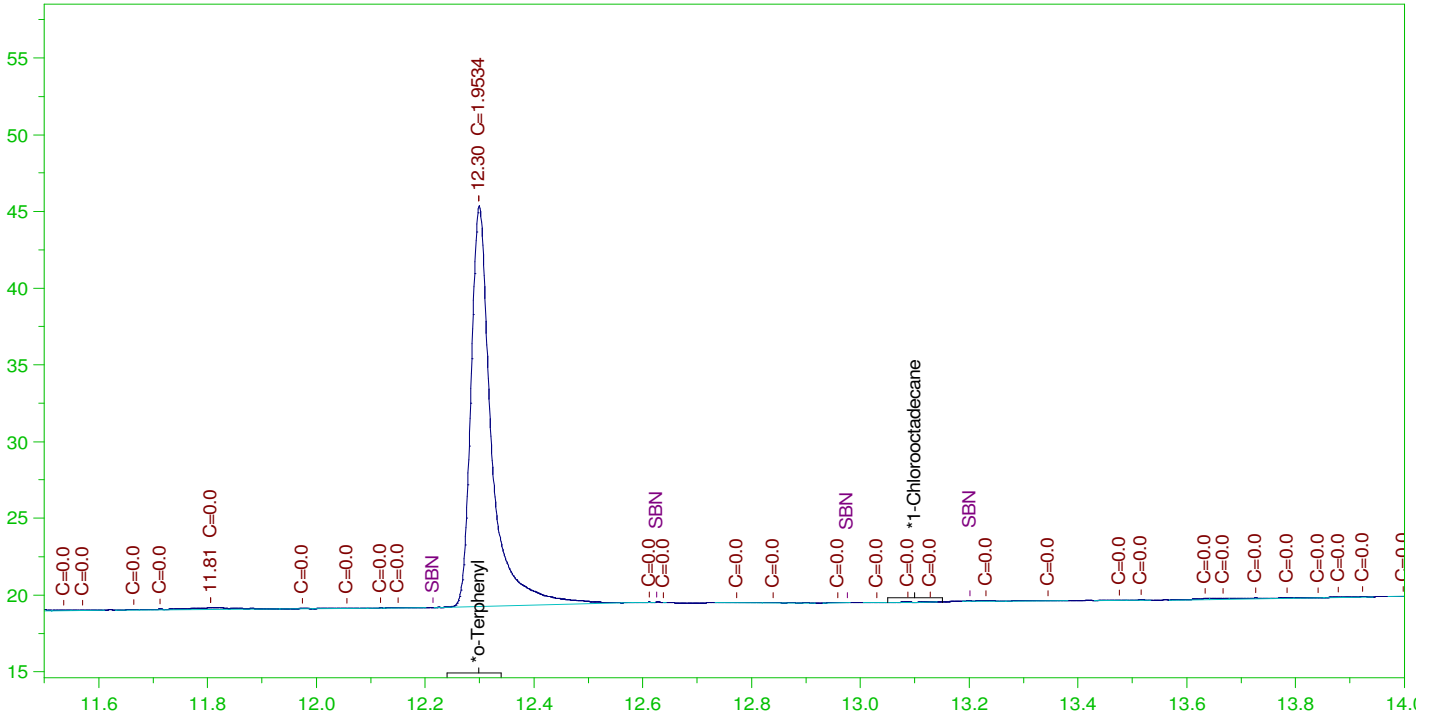
Mean RF for TEH: 29457.33  
 Rt range for Diesel Range Organics: 7.125 to 16.28

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

G:\org\HP5\DAT\HP5110221\_b\1102HP5.0005.RAW

CCV\_1102HP505r, CAL1 ;1102HP5 , 2 ug per mL OTP



**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.	.	.	-

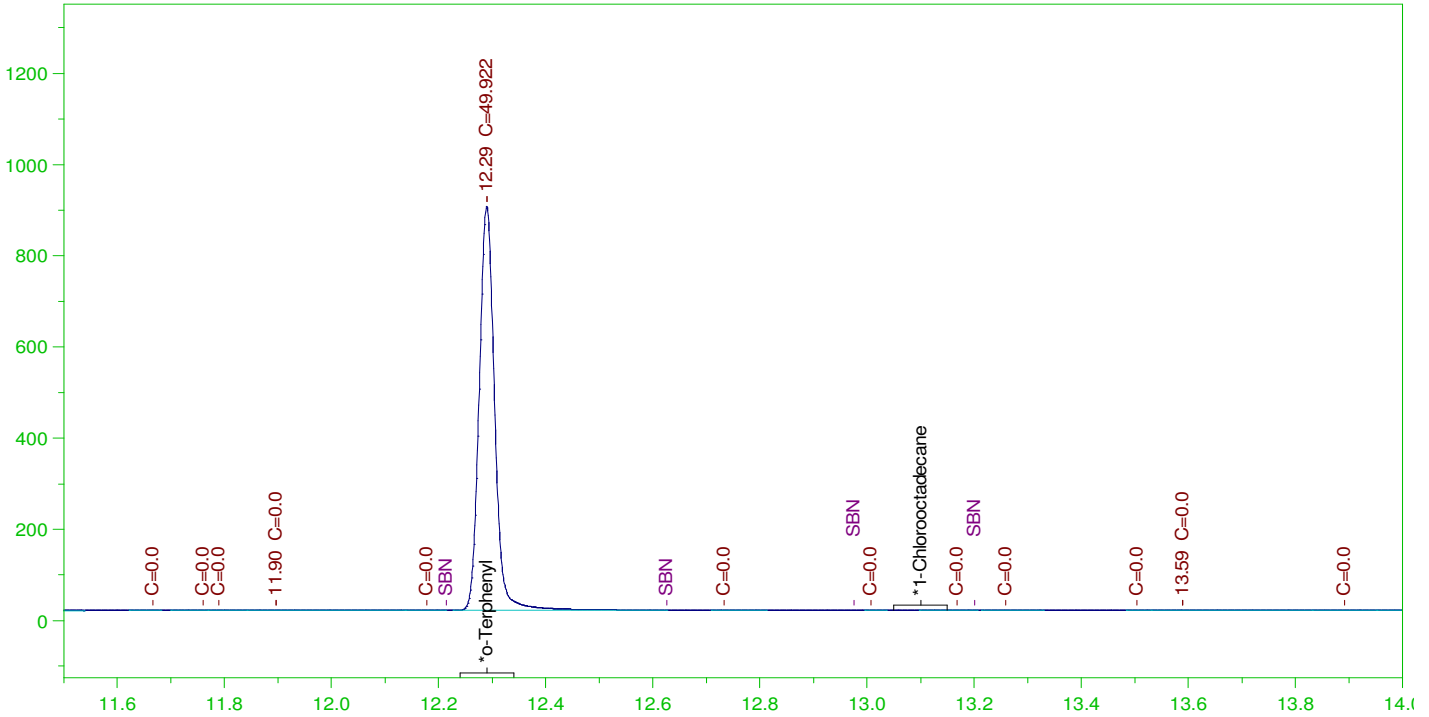
DRO Area:37026.36 DRO Amount: 1.180944  
 TEH Area:88429.33 TEH Amount: 2.820425

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

G:\org\HP5\DAT\HP5110221\_b\1102HP5.0006.RAW

CCV\_1102HP506r, CAL2 ;1102HP5 , 50 ug per mL OTP



**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

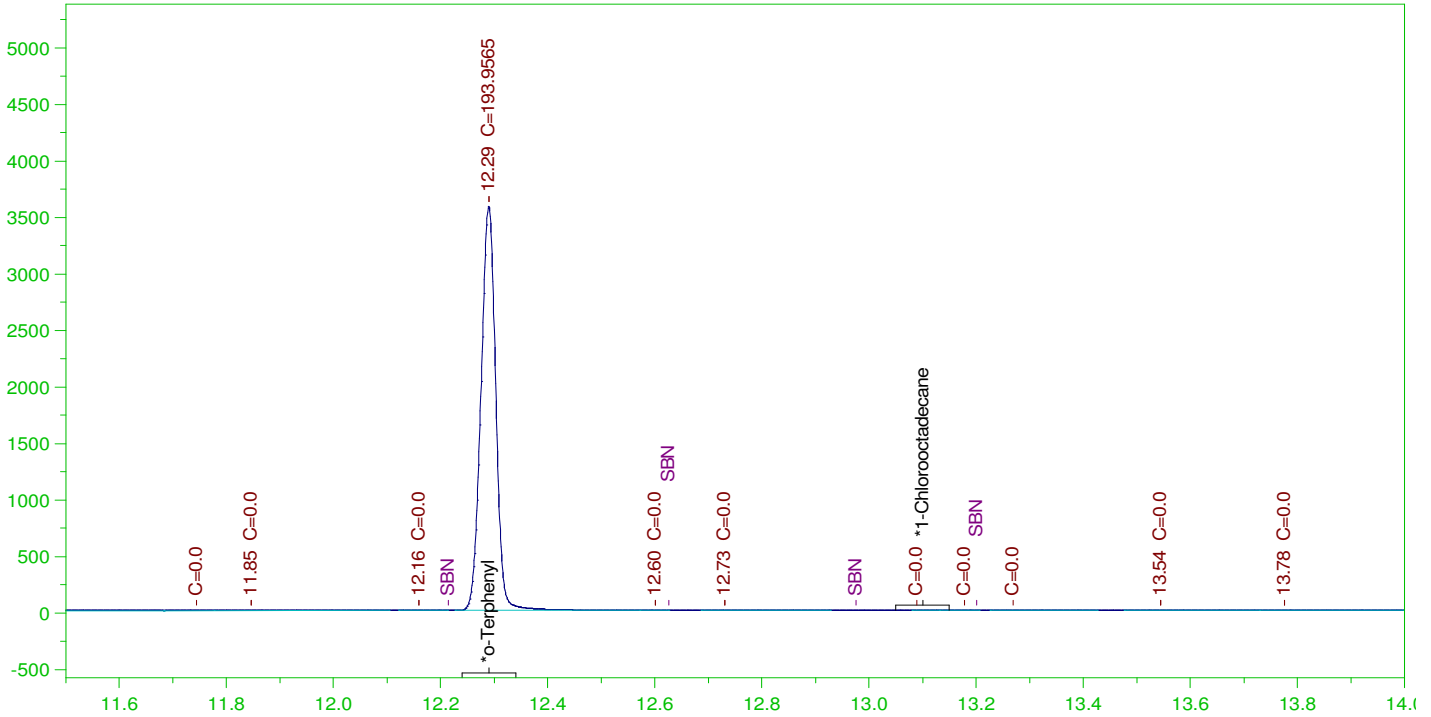
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	.	.	85-115

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



G:\org\HP5\DAT\HP5110221\_b\1102HP5.0007.RAW

CCV\_1102HP507r, CAL3 ;1102HP5 , 200 ug per mL OTP



**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

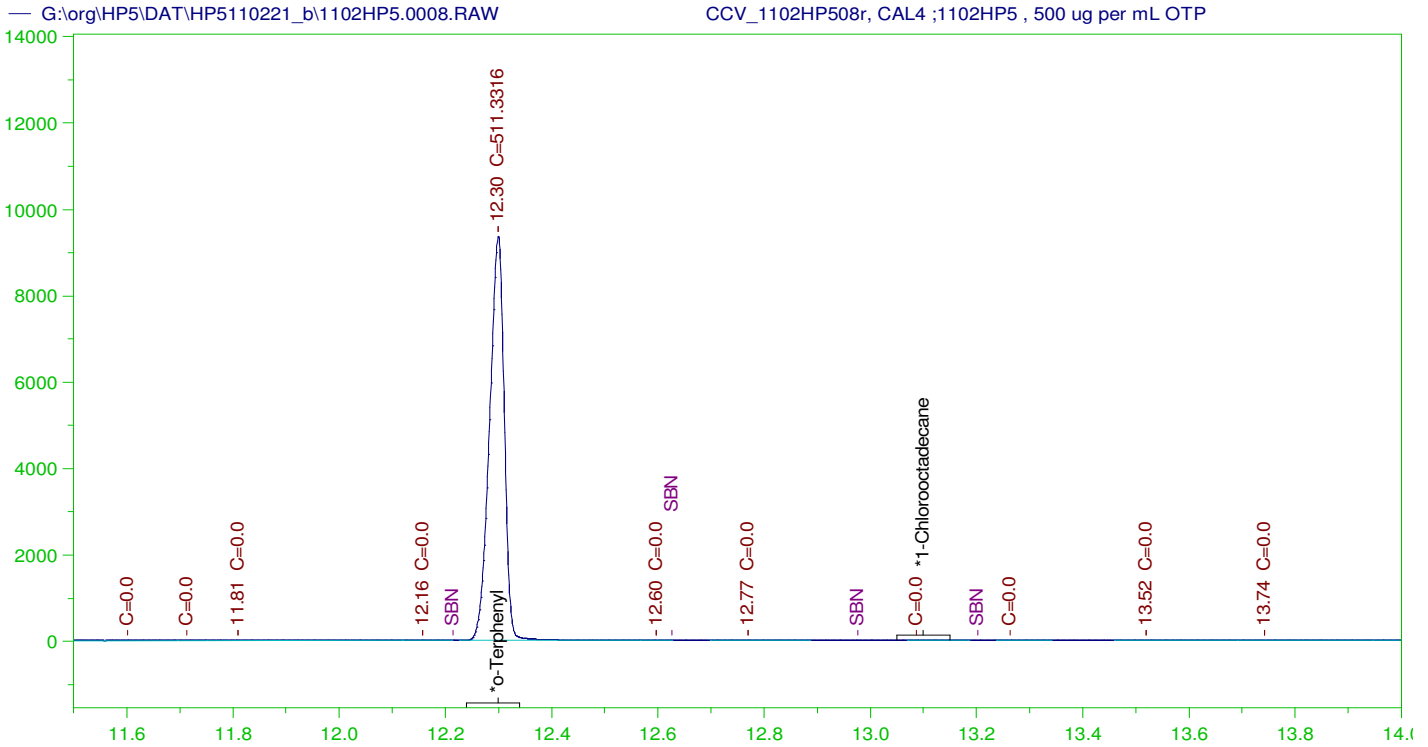
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.29	200.	193.957	96.98
*1-Chlorooctadecane	15.779	200.	.	-

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

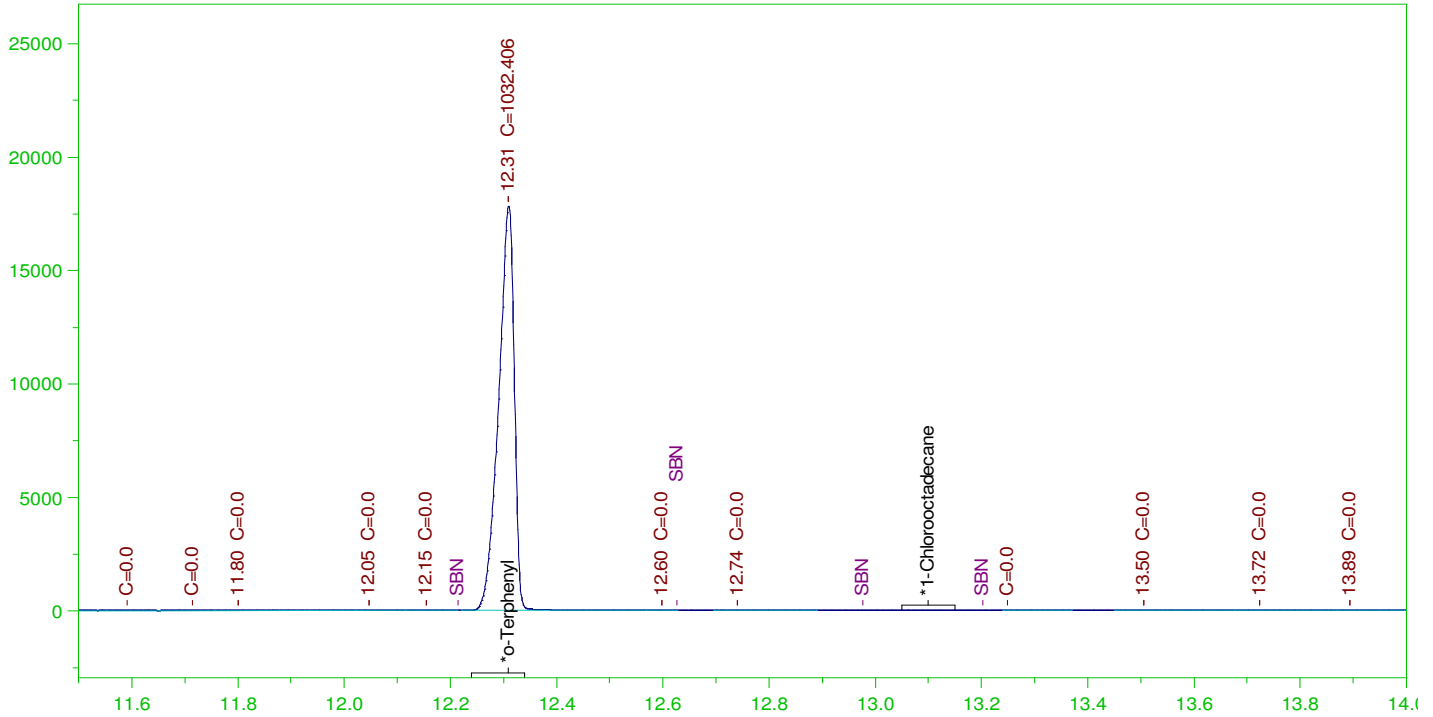
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0008.RAW

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

G:\org\HP5\DAT\HP5110221\_b\1102HP5.0009.RAW

CCV\_1102HP509r, CAL5 ;1102HP5 , 1000 ug per mL OTP



**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

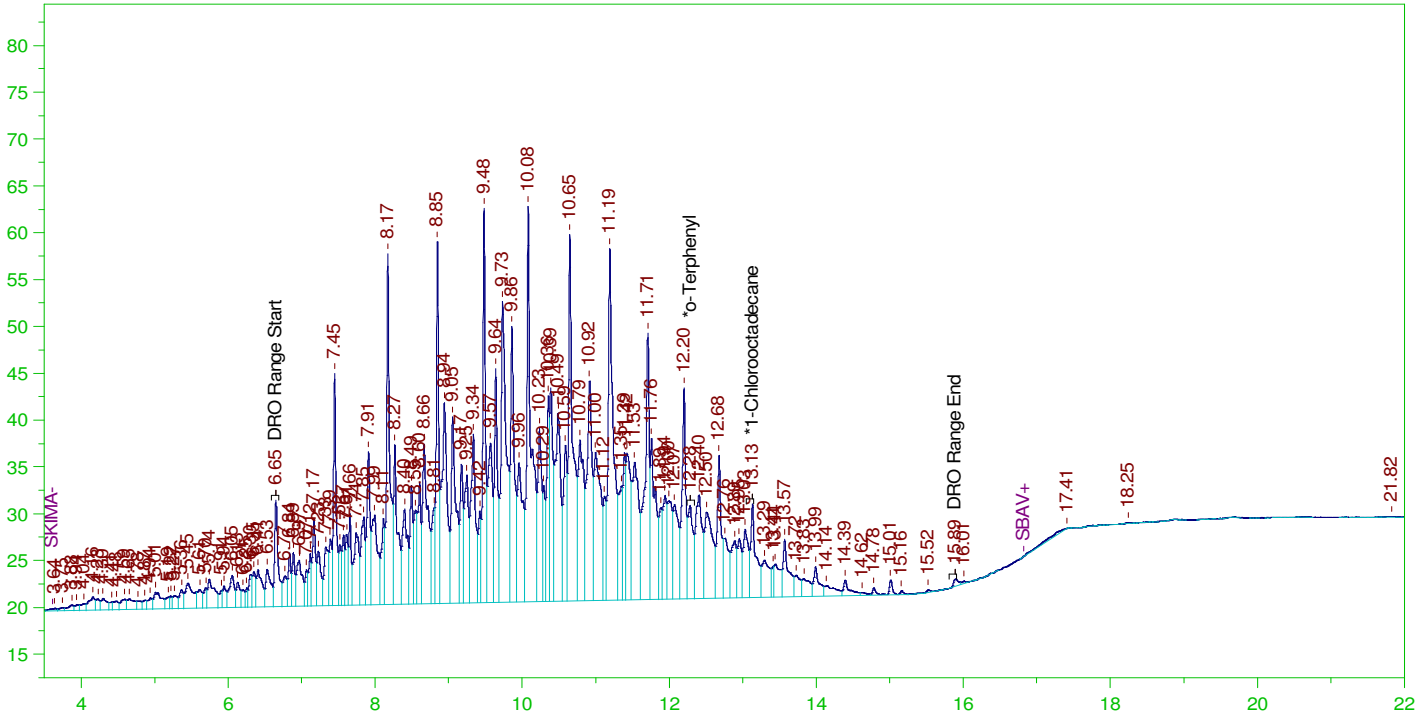
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0009.RAW

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

G:\org\HP5\DAT\HP5110221\_b\1102HP5.0010.RAW

CCV\_1102HP510r, CAL1 ;1102HP5 , 150 ug per mL Diesel



**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

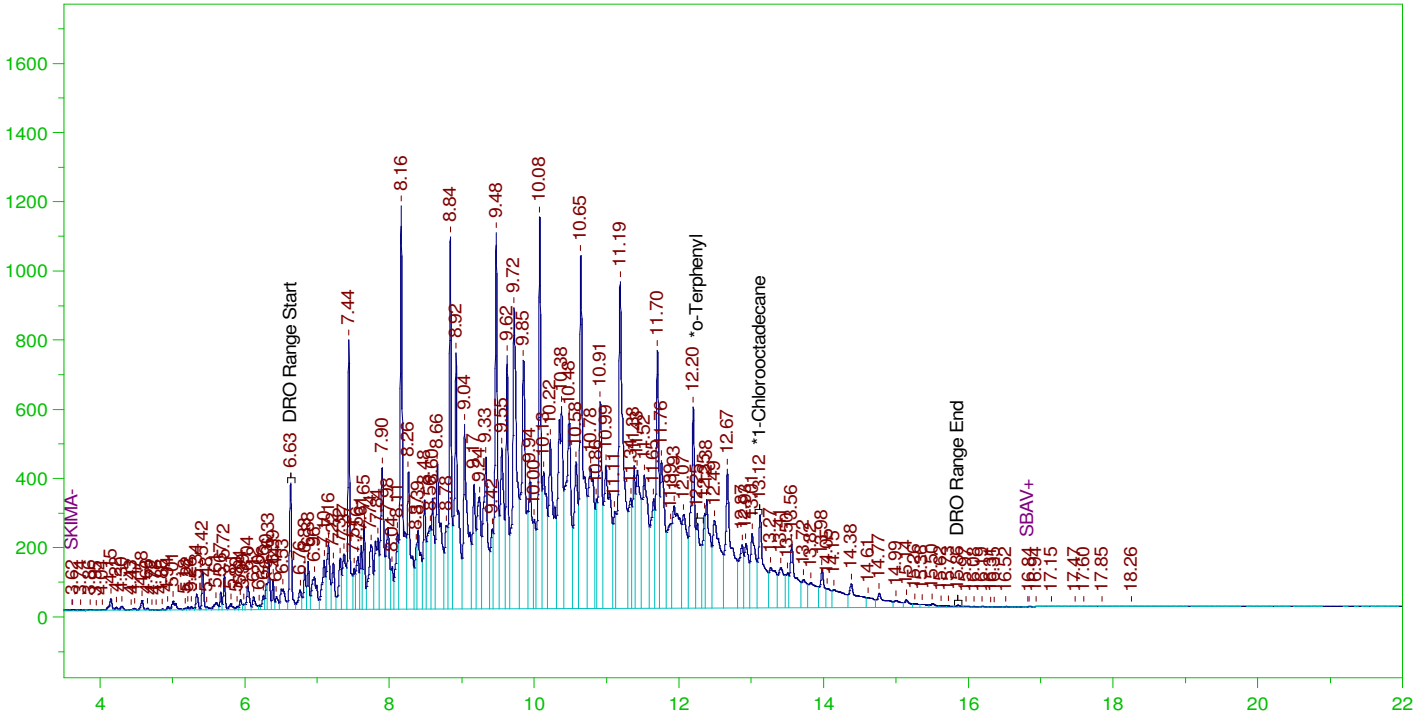
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0010.RAW

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

G:\org\HP5\DAT\HP5110221\_b\1102HP5.0011.RAW

CCV\_1102HP511r, CAL2 ;1102HP5 , 3750 ug per mL Diesel



**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

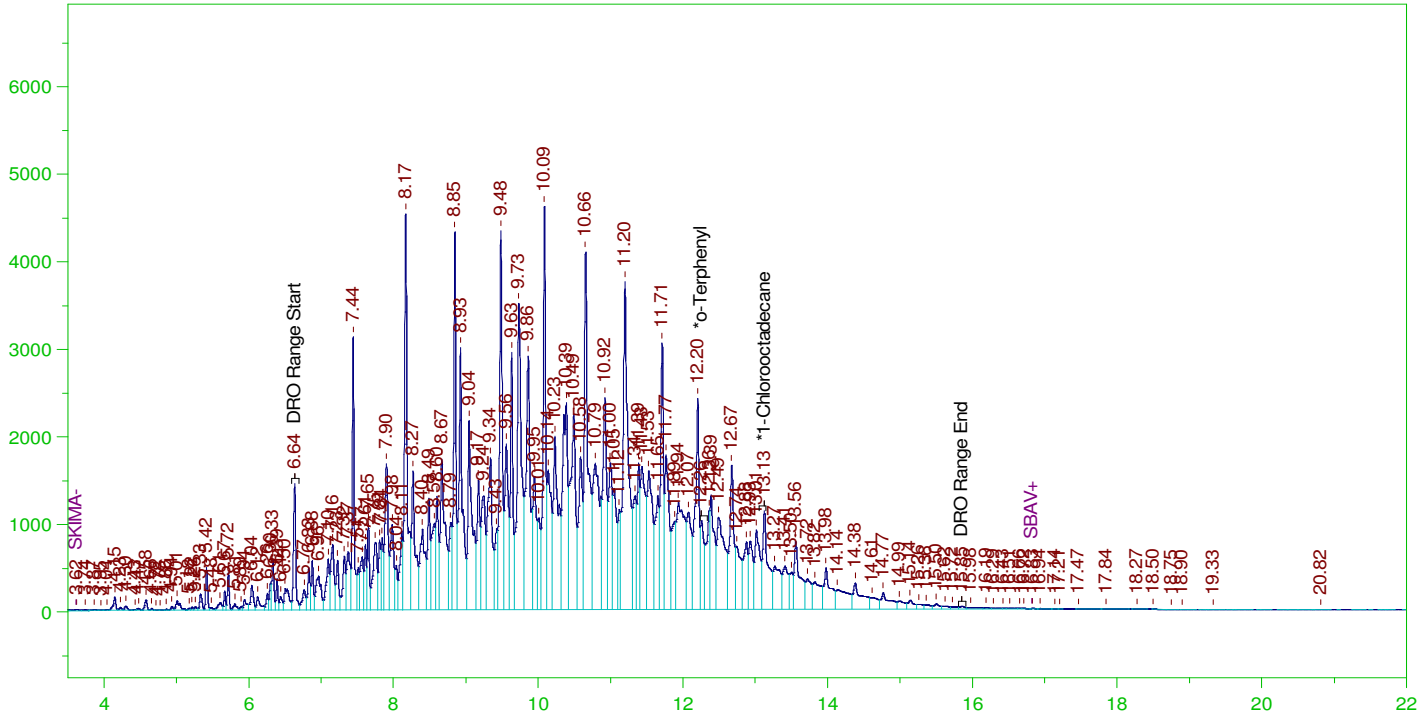
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0011.RAW

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

G:\org\HP5\DAT\HP5110221\_b\1102HP5.0012.RAW

CCV\_1102HP512r, CAL3 ;1102HP5 , 15000 ug per mL Diesel



**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

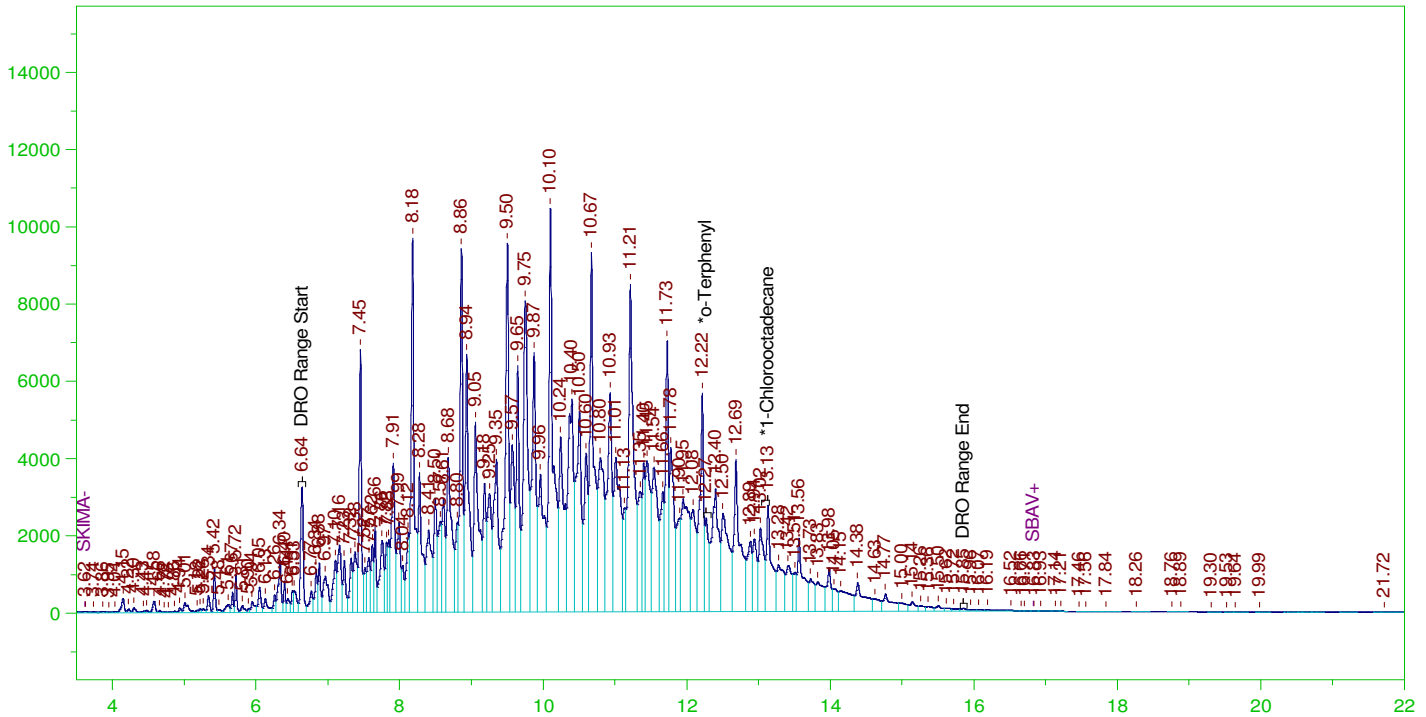
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0012.RAW

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

G:\org\HP5\DAT\HP5110221\_b\1102HP5.0013.RAW

CCV\_1102HP513r, CAL4 ;1102HP5 , 37500ug per mL Diesel



**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

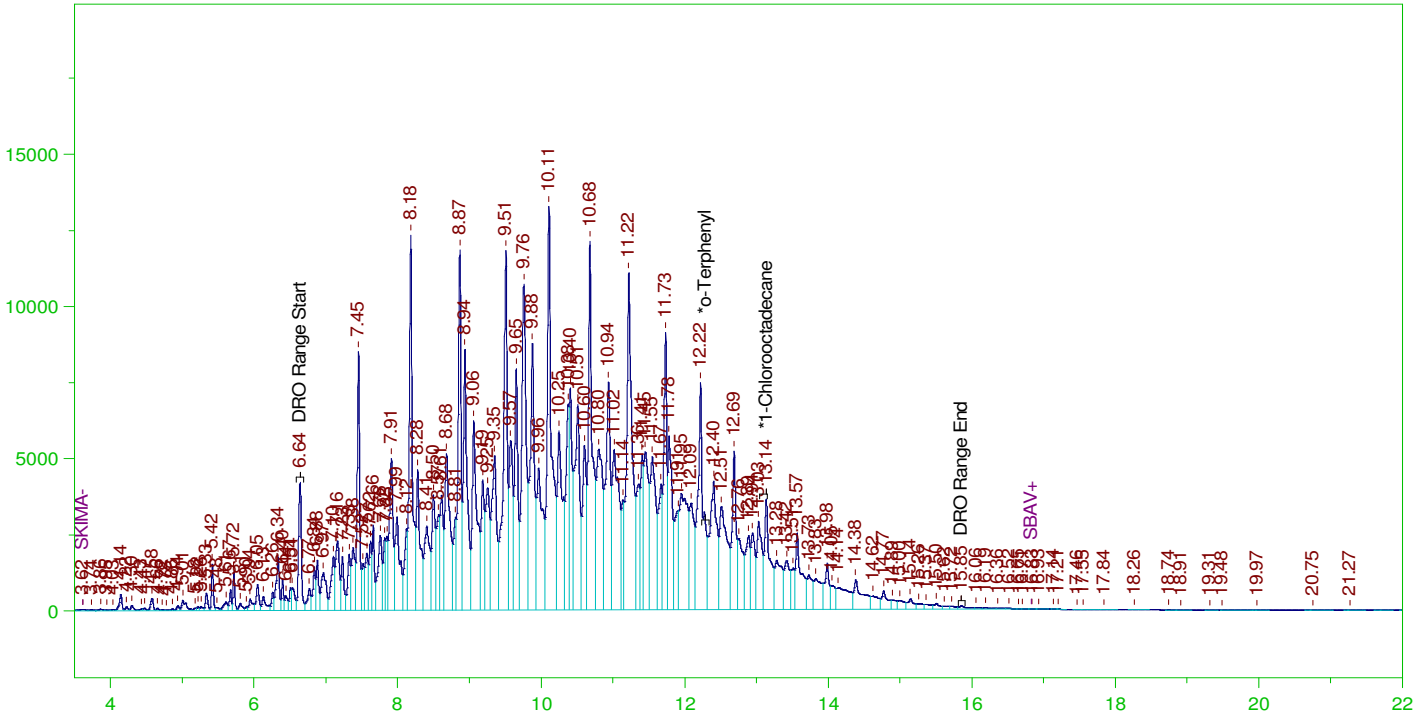
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0013.RAW

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\1102HP5.0014.RAW

CCV\_1102HP514r, CAL5 ;1102HP5 , 50000 ug per mL Diesel



**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 -

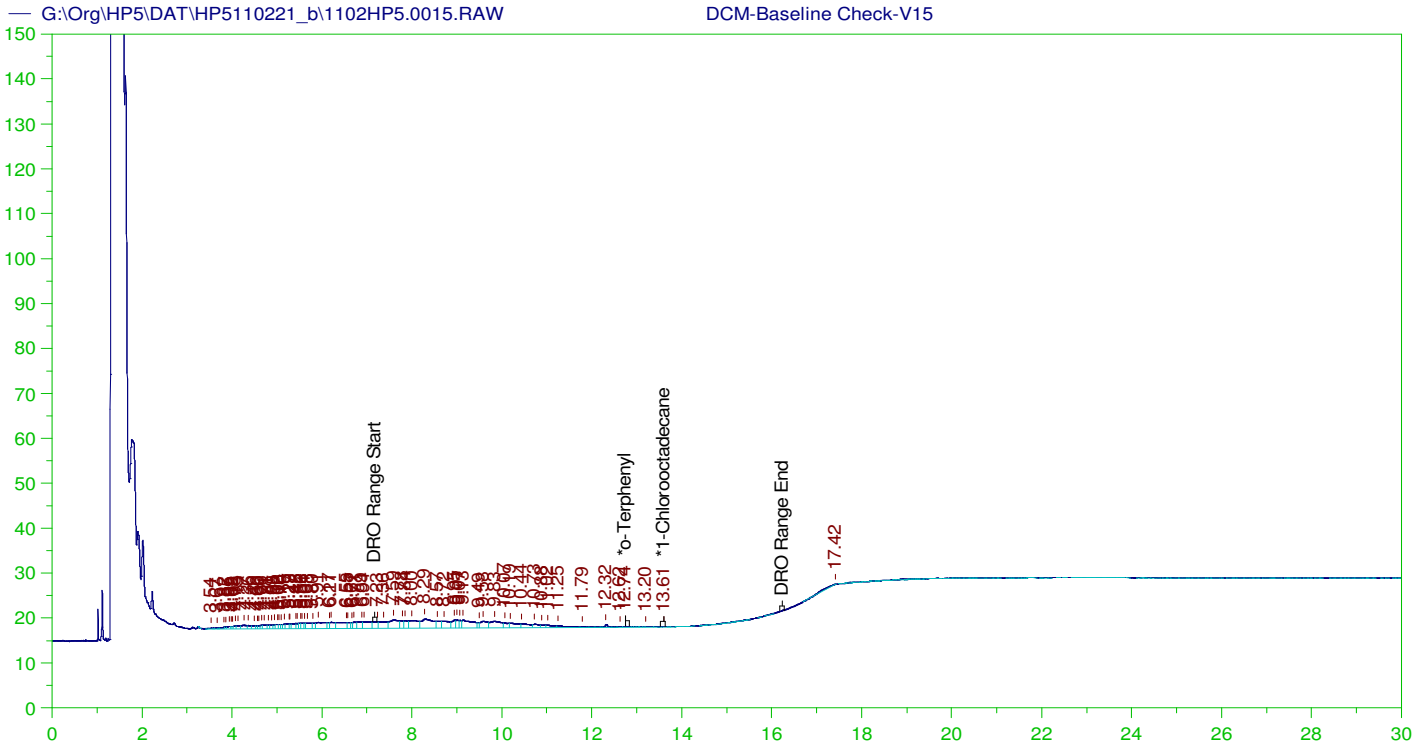
DRO Area: 1.507978E+09 DRO Amount: 48096.49  
 TEH Area: 1.54564E+09 TEH Amount: 49297.7

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





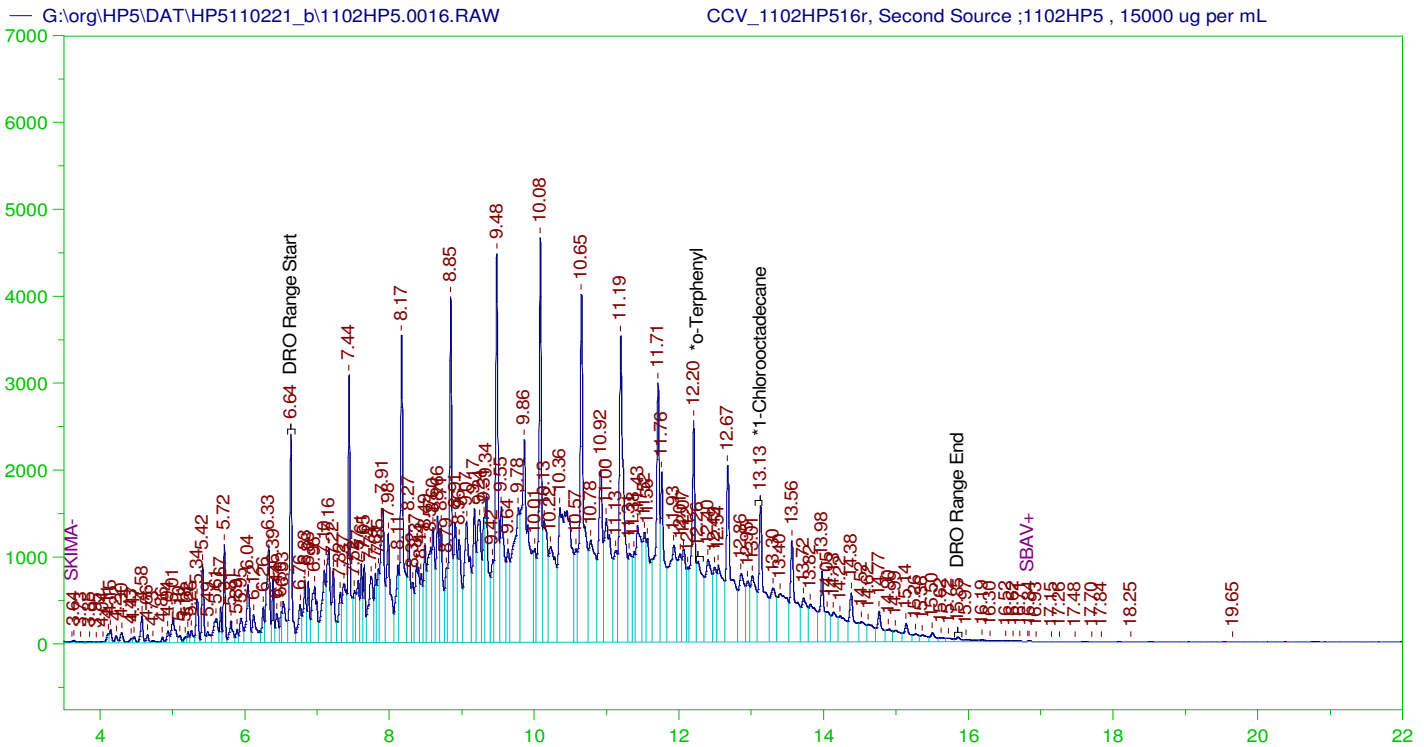
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manul Integrations
		CCV_1102HP508r, DRO ;1102HP5 ,DRO211025A	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	No integrations
		DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0	No integrations
		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 Baseline 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.
		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 Baseline 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.
		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 Baseline 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.
		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 Baseline 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.
		CCV_1102HP509r, CAL5 ;1102HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211011A + 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 Baseline 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.
		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 baseline. Assigned Set Baseline All Valley on at 16.83
		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 baseline. Assigned Set Baseline All Valley on at 17.5
		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 baseline. Assigned Set Baseline All Valley on at 17.5
		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 baseline. Assigned Set Baseline All Valley on at 17.5
		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 baseline. Assigned Set Baseline All Valley on at 17.5
		DCM-Baseline Check-V15	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0	No integrations
		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 baseline. 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

<b>Run Start Date:</b> 2/18/2021
<b>Analyst:</b> Ann Nebel
<b>Ical:</b>
<b>Column ID:</b>
<b>Comments:</b> 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						
<b>Analyte</b>	<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
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						
<b>Analyte</b>	<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
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						
<b>Analyte</b>	<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
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 Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
		Marker_0218HP501r, DRO C40_0218HP5_ , DRO210204A	G:\Org\HP5\Methods\CSC210212.met	1	1	1	1	0
		DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
		CCV_0218HP503r, CAL1_0218HP5_ , 150 ug per mL Oil (10 uL of Cal4 + 990 uL DCM(13510)	G:\Org\HP5\Methods\DR_OIL-021803-AA-L0.MET	1	1	1	1	0
		DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
		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
		DCM-Baseline Check-V06	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
		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
		DCM-Baseline Check-V08	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
		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
		DCM-Baseline Check-V10	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
		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
		DCM-Baseline Check-V12	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
		DCM-Baseline Check-V13	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
		DCM-Baseline Check-V14	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
		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

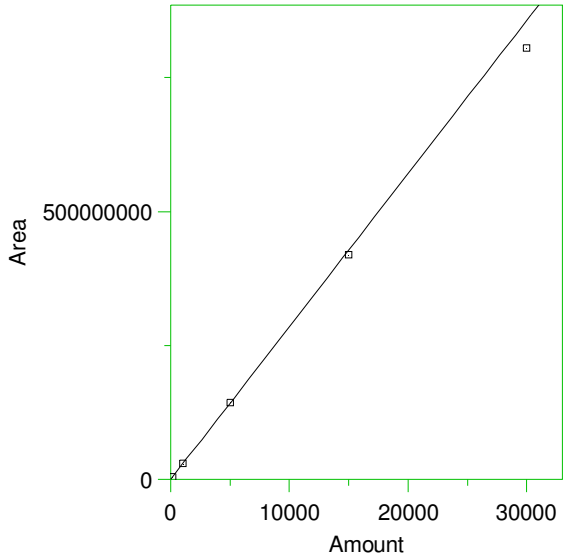
No default component

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

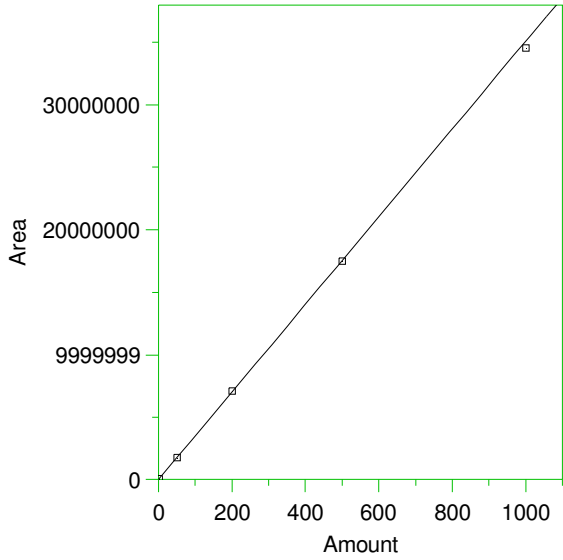
$Y = 28542.41 X + 0$

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



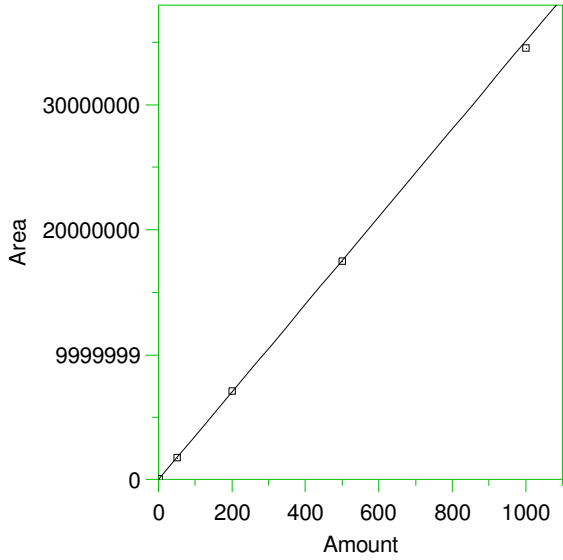
2 \*o-Terphenyl



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%

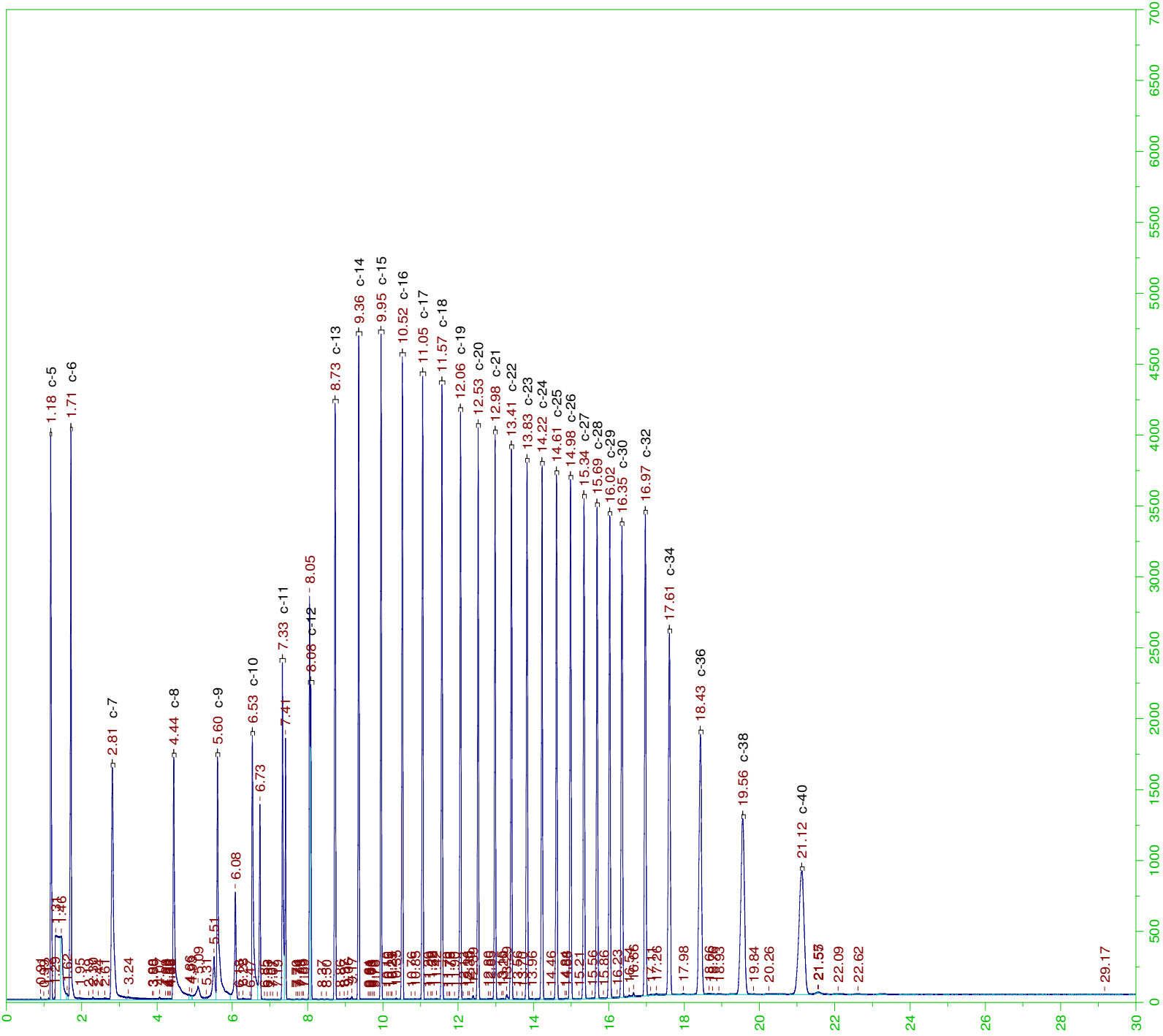
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	70648.41	35324.2	0.721	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0011.BND	1/11/2021 9:44:43 AM
2	50	1746406	34928.12	-0.408	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0012.BND	1/11/2021 9:44:50 AM
3	200	7110604	35553.02	1.374	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0013.BND	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

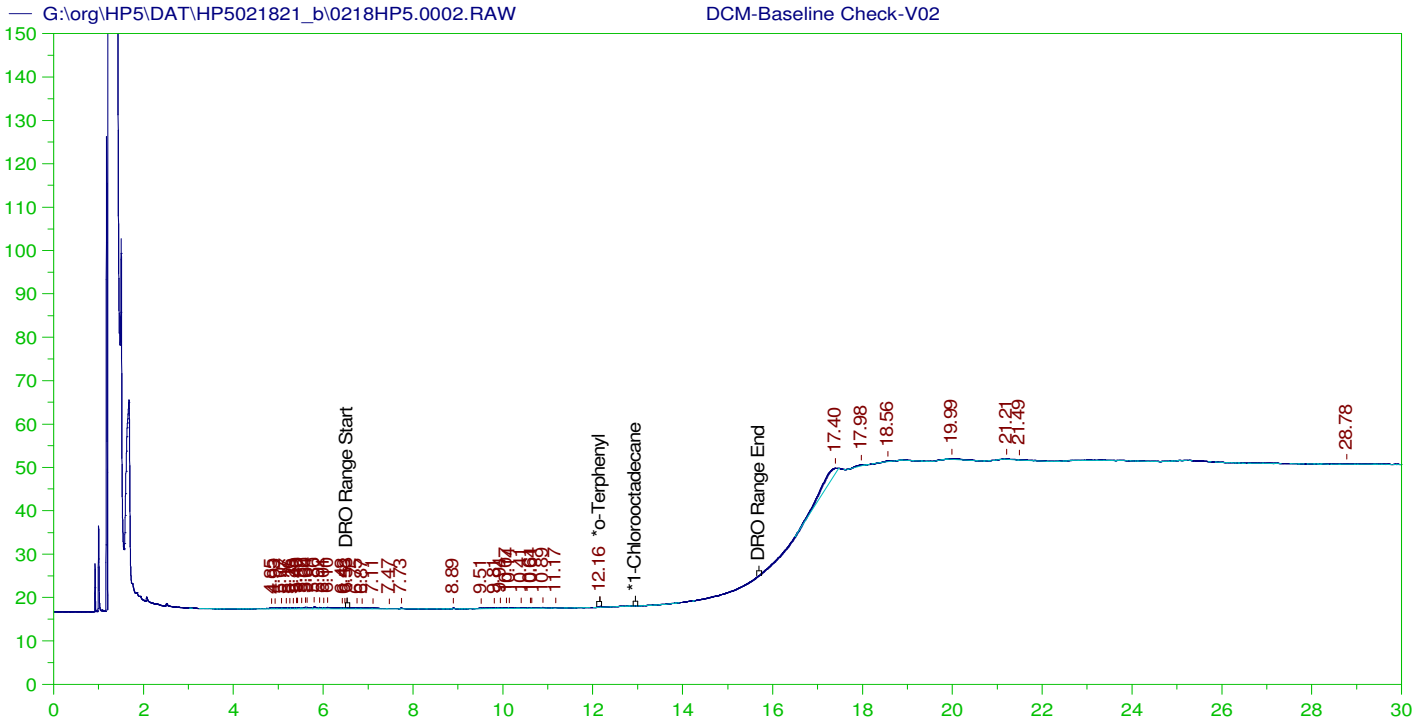
3 \*1-Chlorooctadecane



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





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

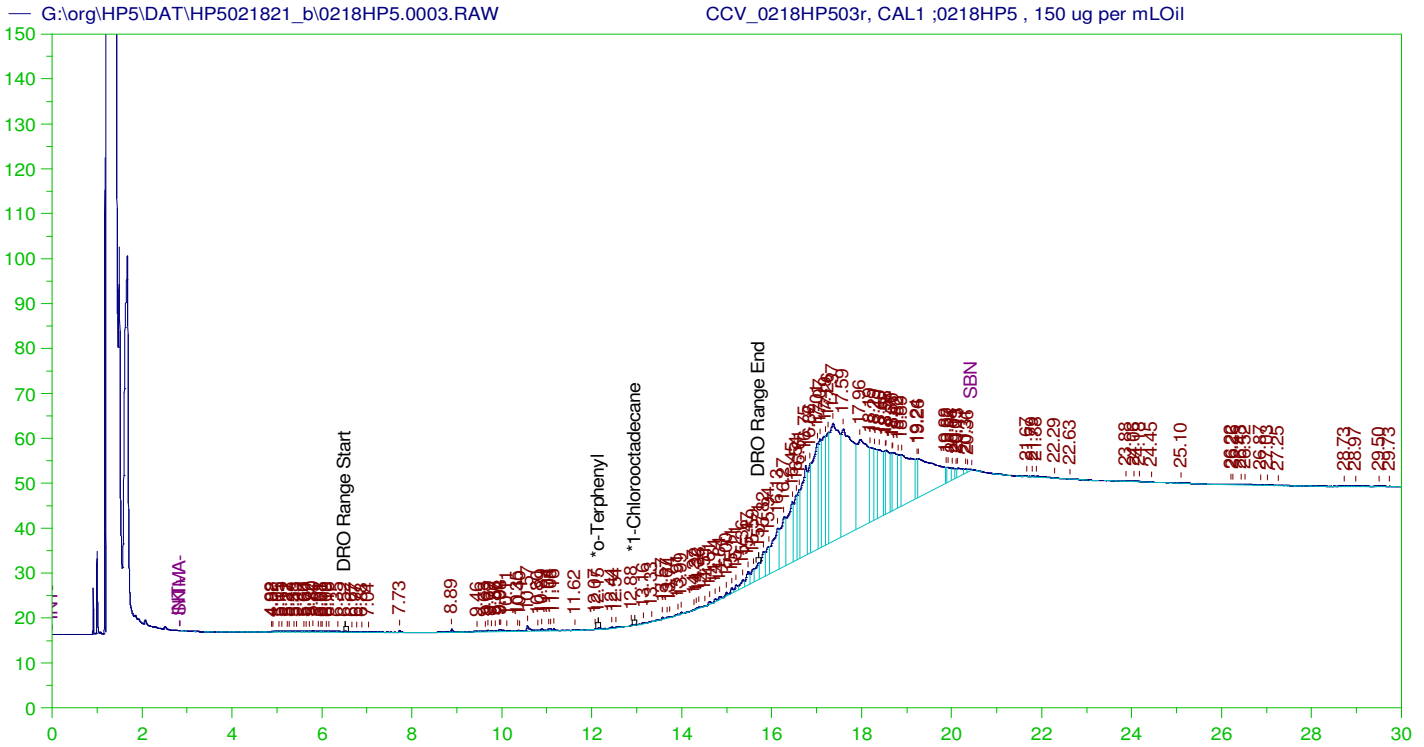
Sample Name: DCM-Baseline Check-V02  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0002.RAW  
 Date & Time Acquired: 2/18/2021 11:21:40 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

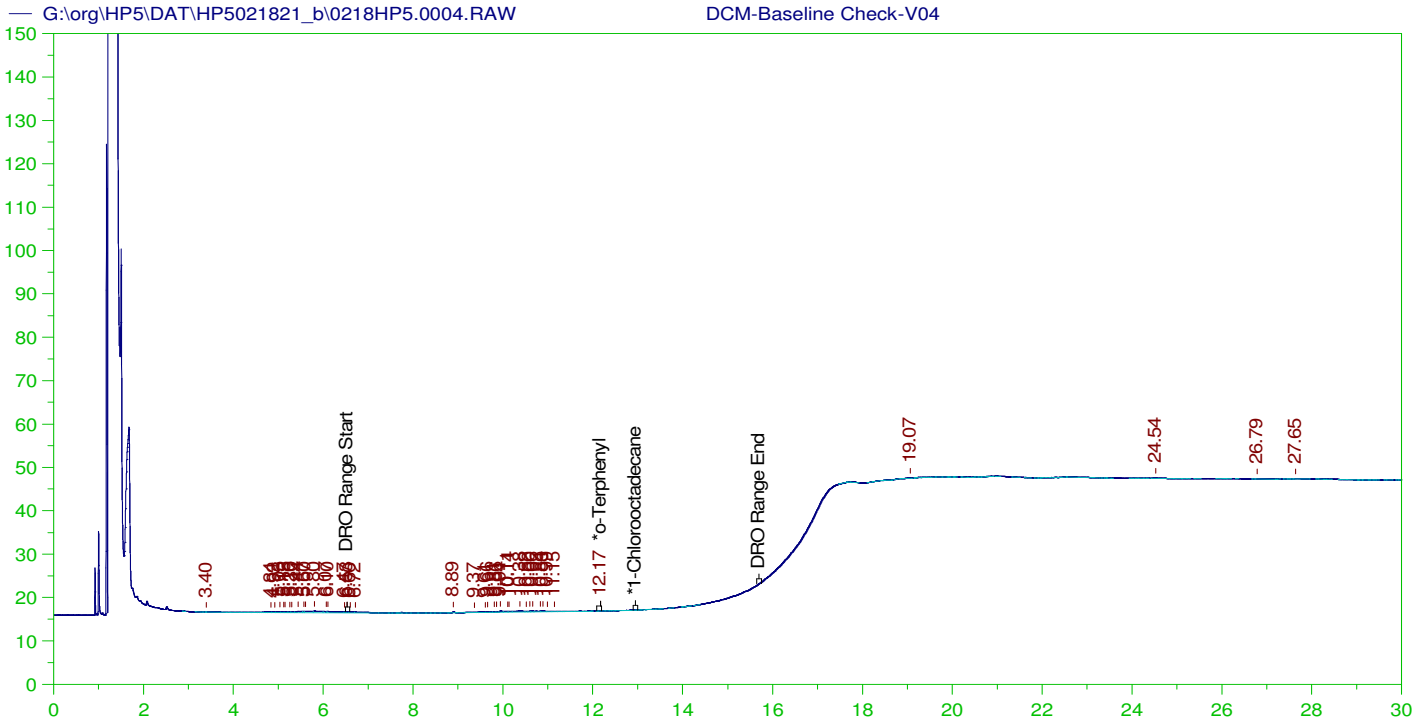
Mean RF for TEH: 29457.33

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**

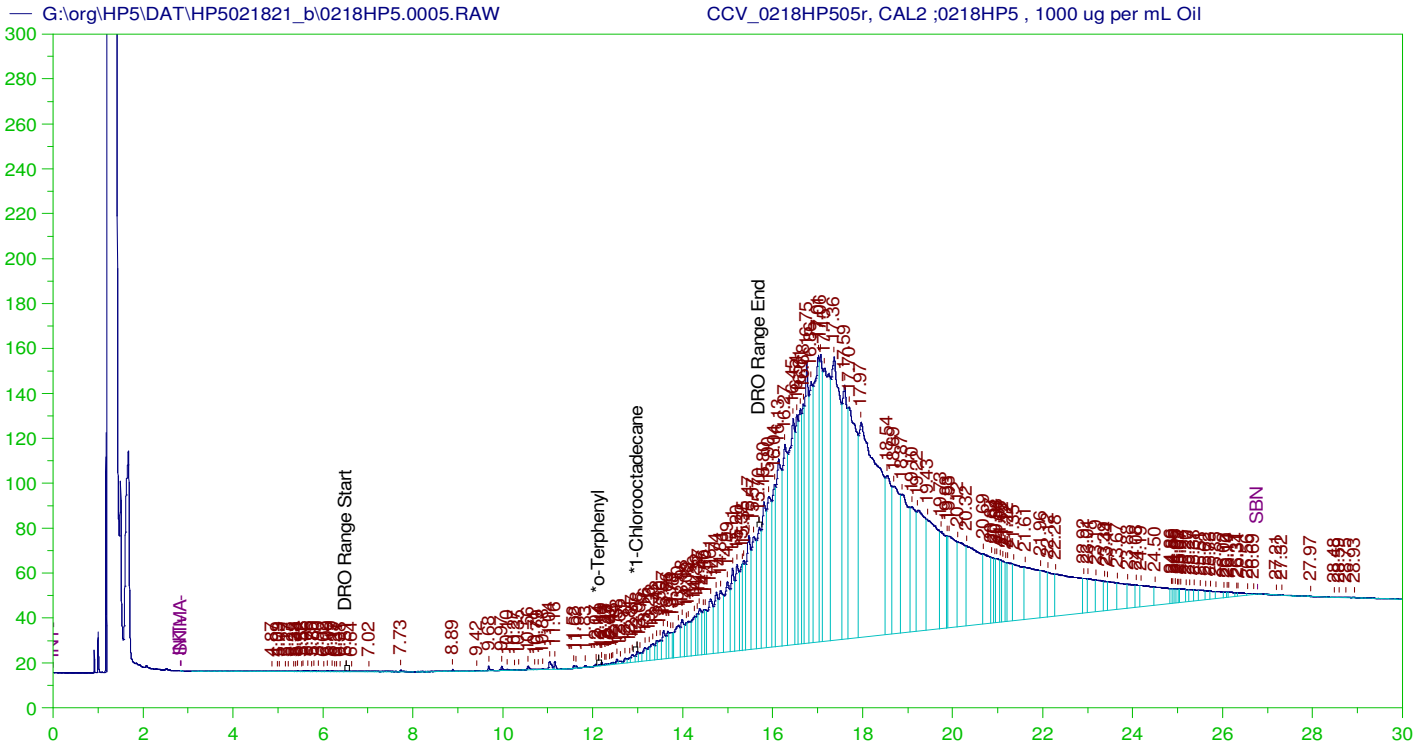
Sample Name: DCM-Baseline Check-V04  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0004.RAW  
 Date & Time Acquired: 2/18/2021 12:45:36 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

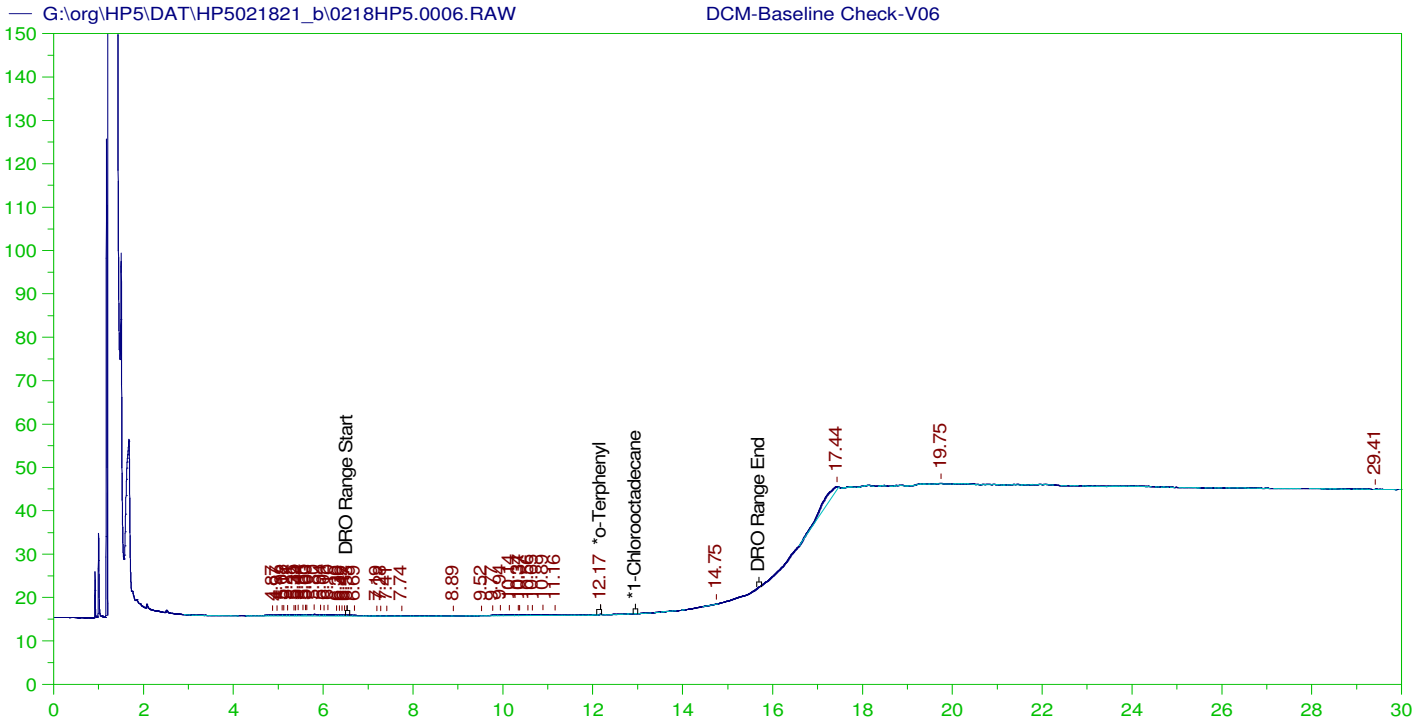
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.136	200.	.034	.02
*1-Chlorooctadecane	12.983	200.	.496	.25

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**

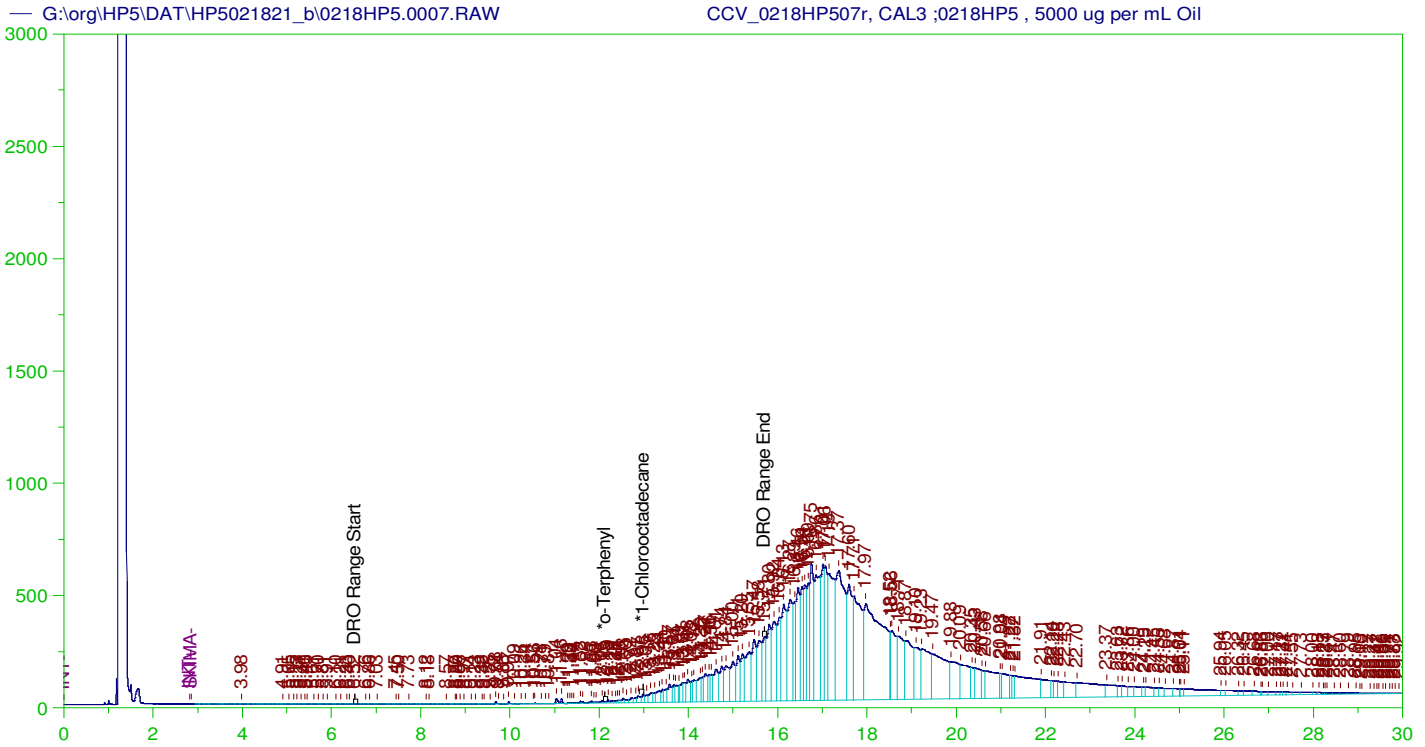
Sample Name: DCM-Baseline Check-V06  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0006.RAW  
 Date & Time Acquired: 2/18/2021 2:09:12 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

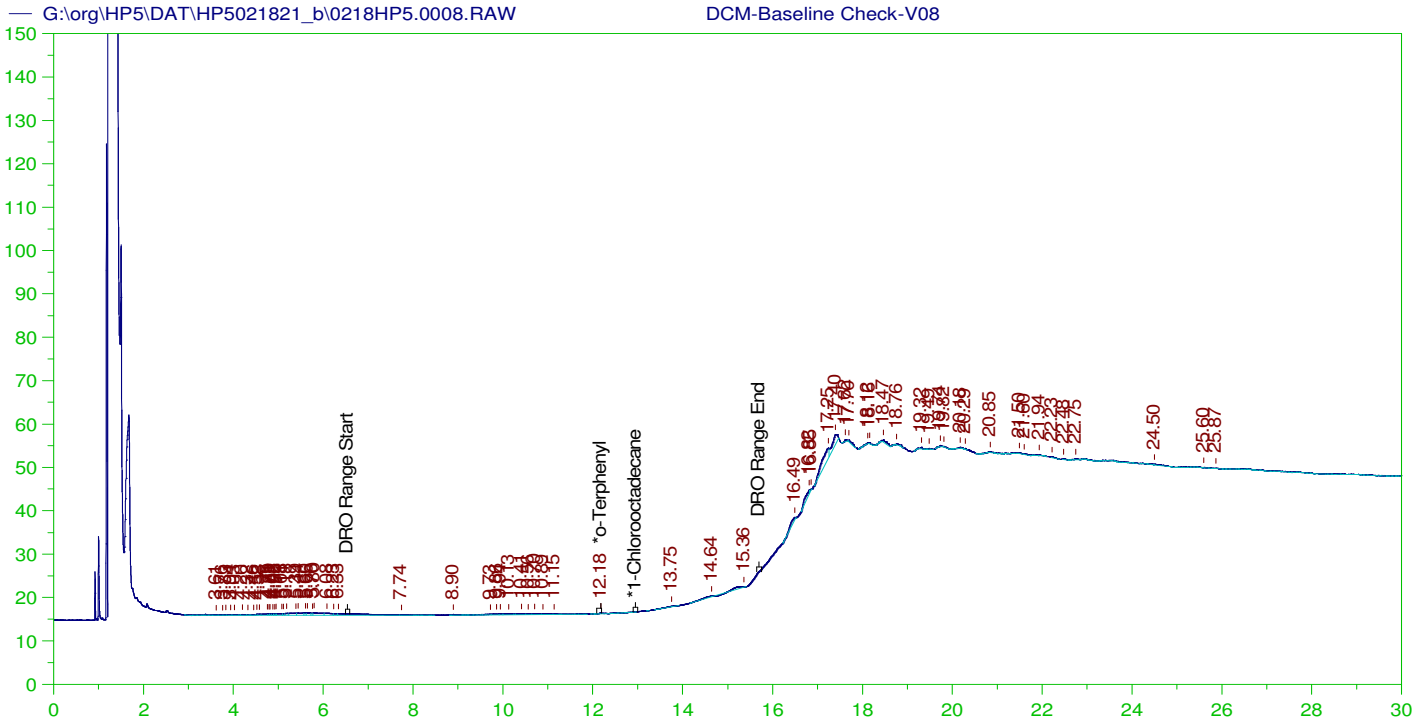
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.129	200.	.538	.27	-
*1-Chlorooctadecane	12.981	200.	4.244	2.12	-

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



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

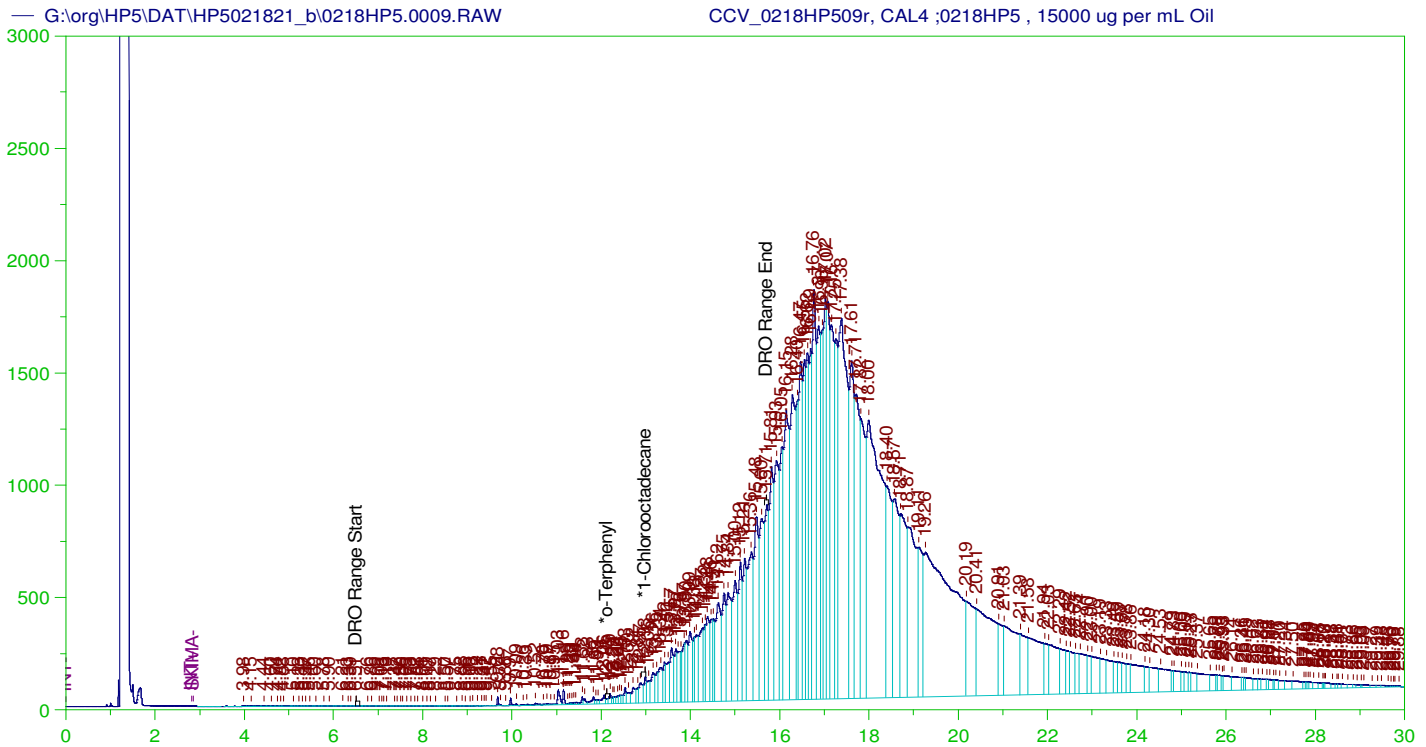
Sample Name: DCM-Baseline Check-V08  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0008.RAW  
 Date & Time Acquired: 2/18/2021 3:32:46 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

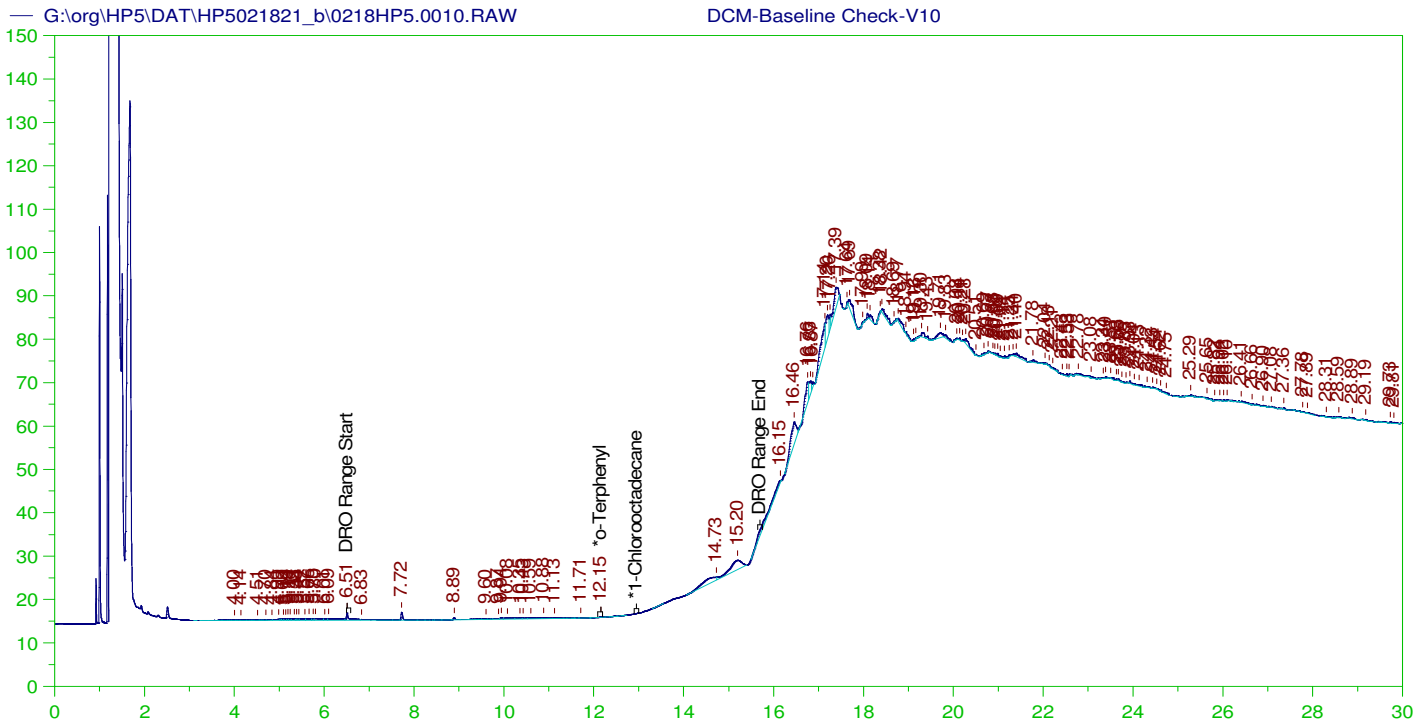
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.124	200.	1.888	.94	-
*1-Chlorooctadecane	12.984	200.	13.129	6.56	-

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



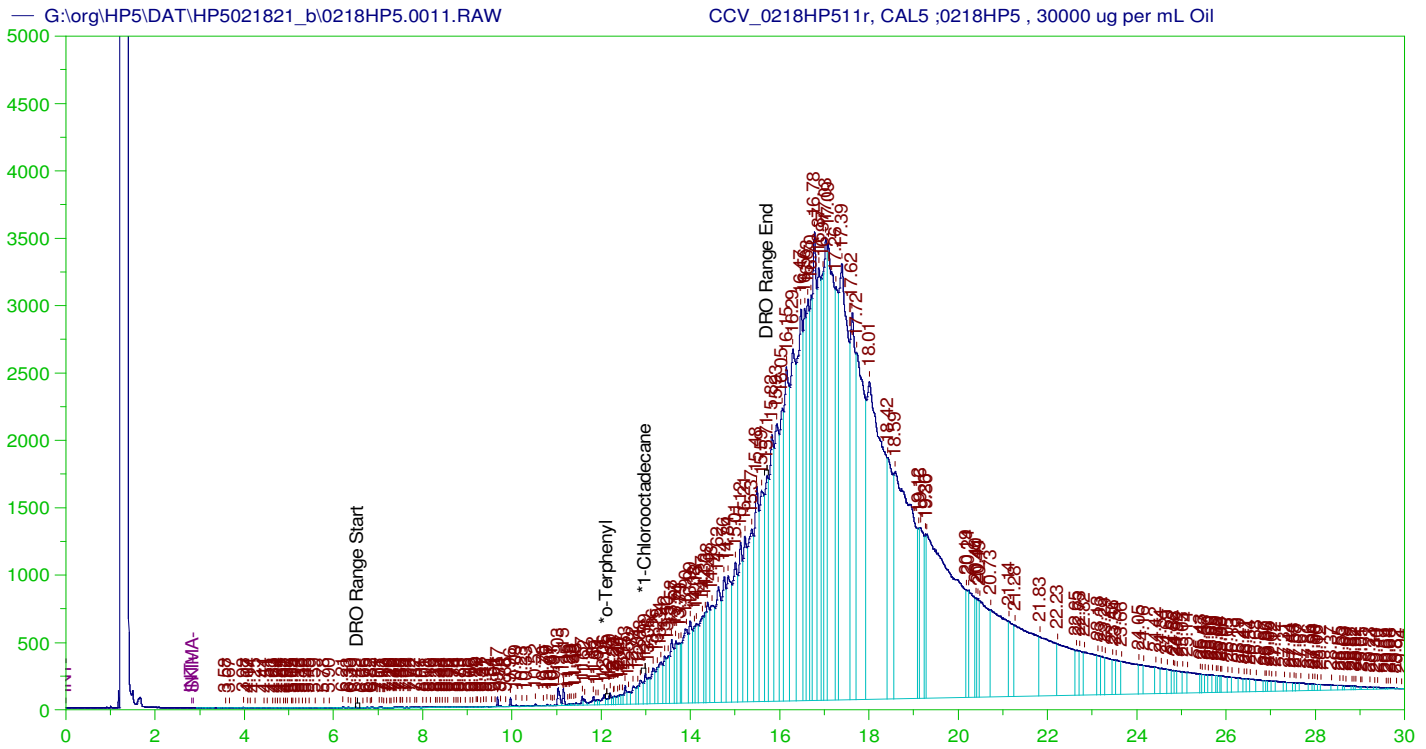
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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

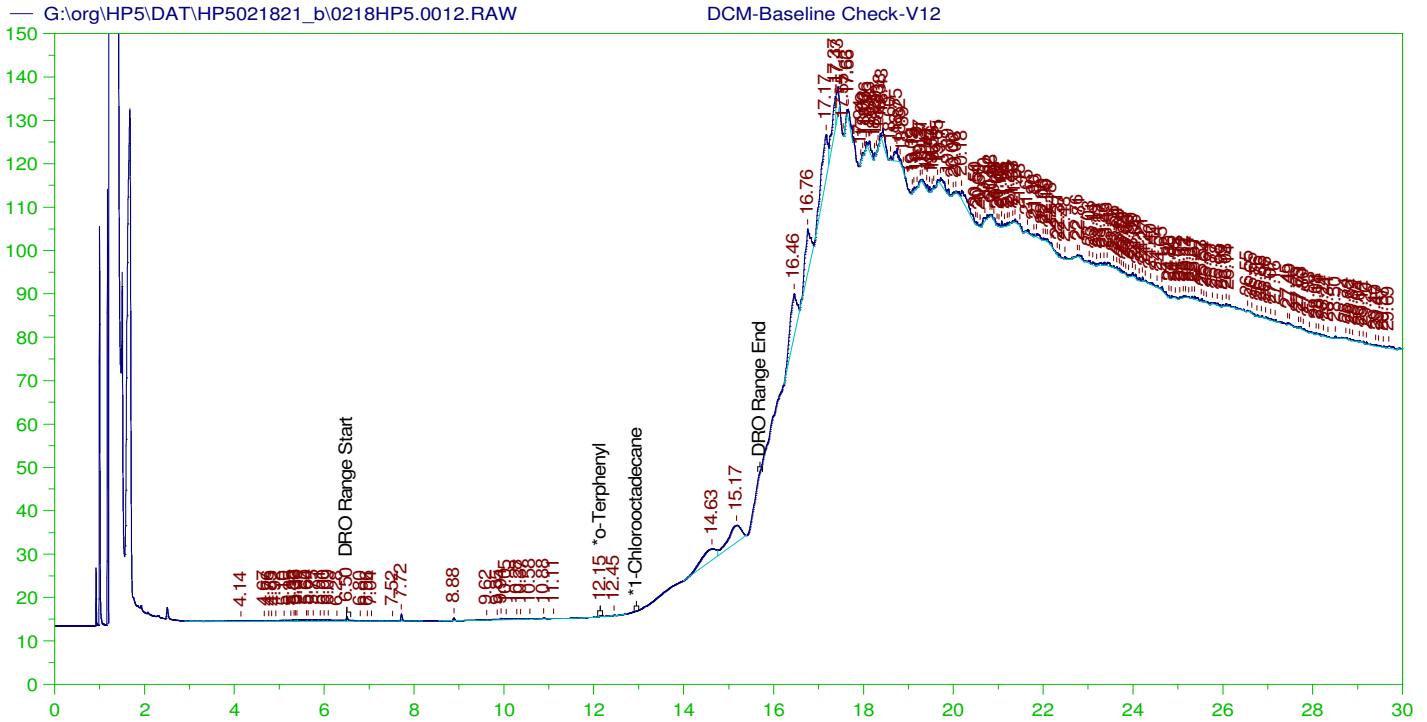
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.128	200.	3.828	1.91	-
*1-Chlorooctadecane	12.985	200.	28.22	14.11	-

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



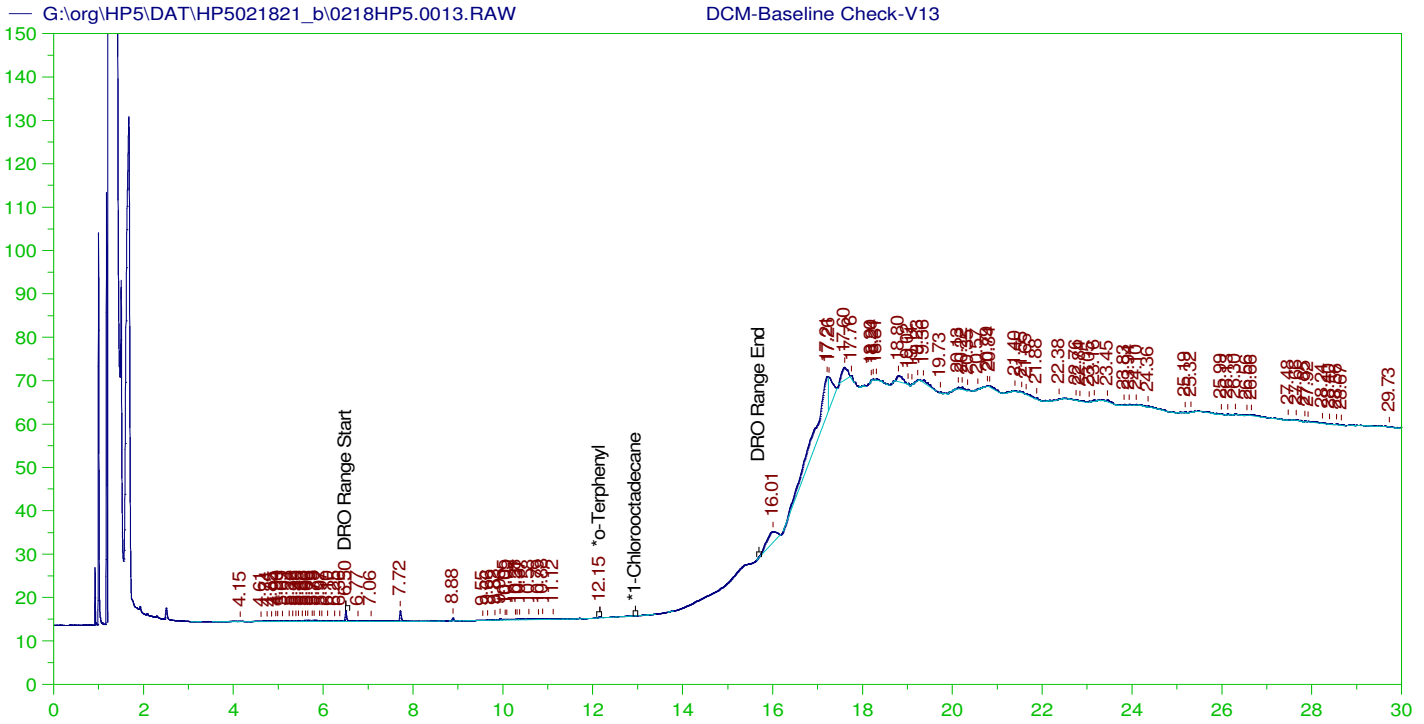
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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**

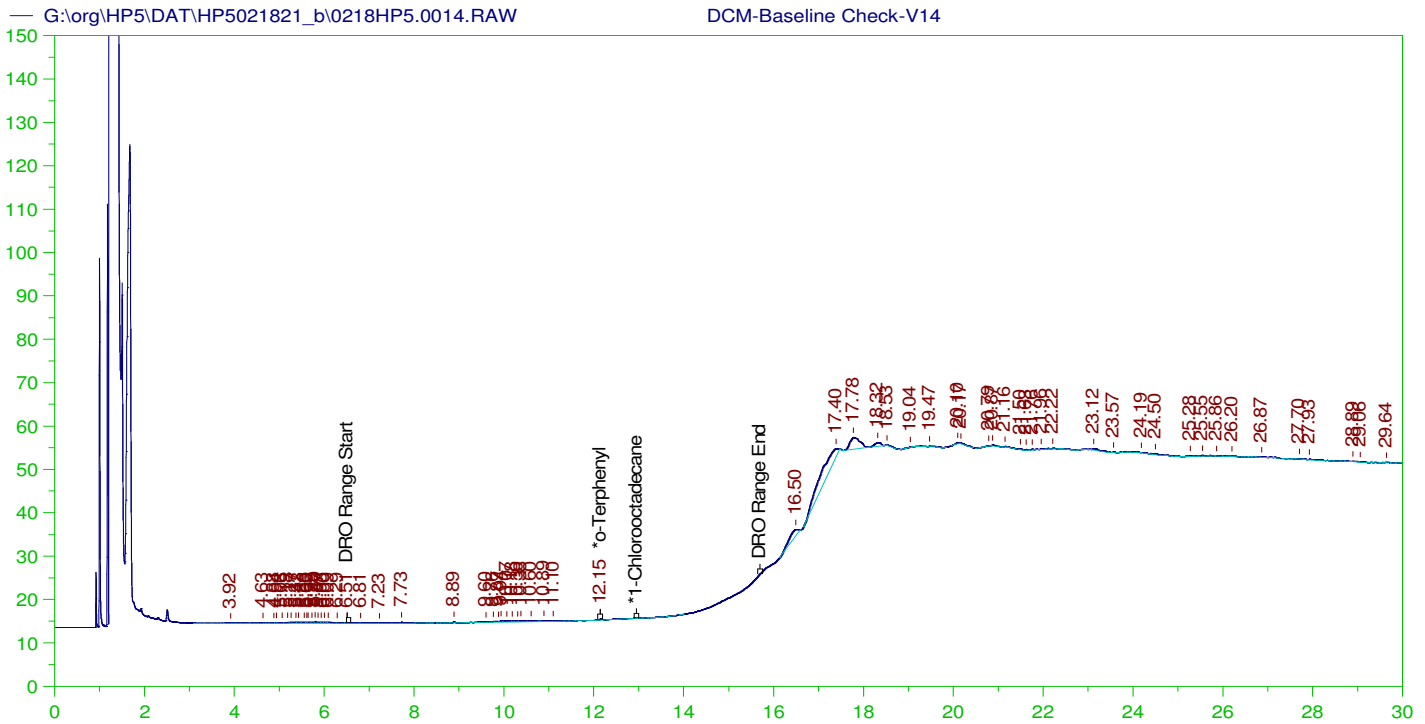
Sample Name: DCM-Baseline Check-V13  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0013.RAW  
 Date & Time Acquired: 2/18/2021 7:03:01 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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**

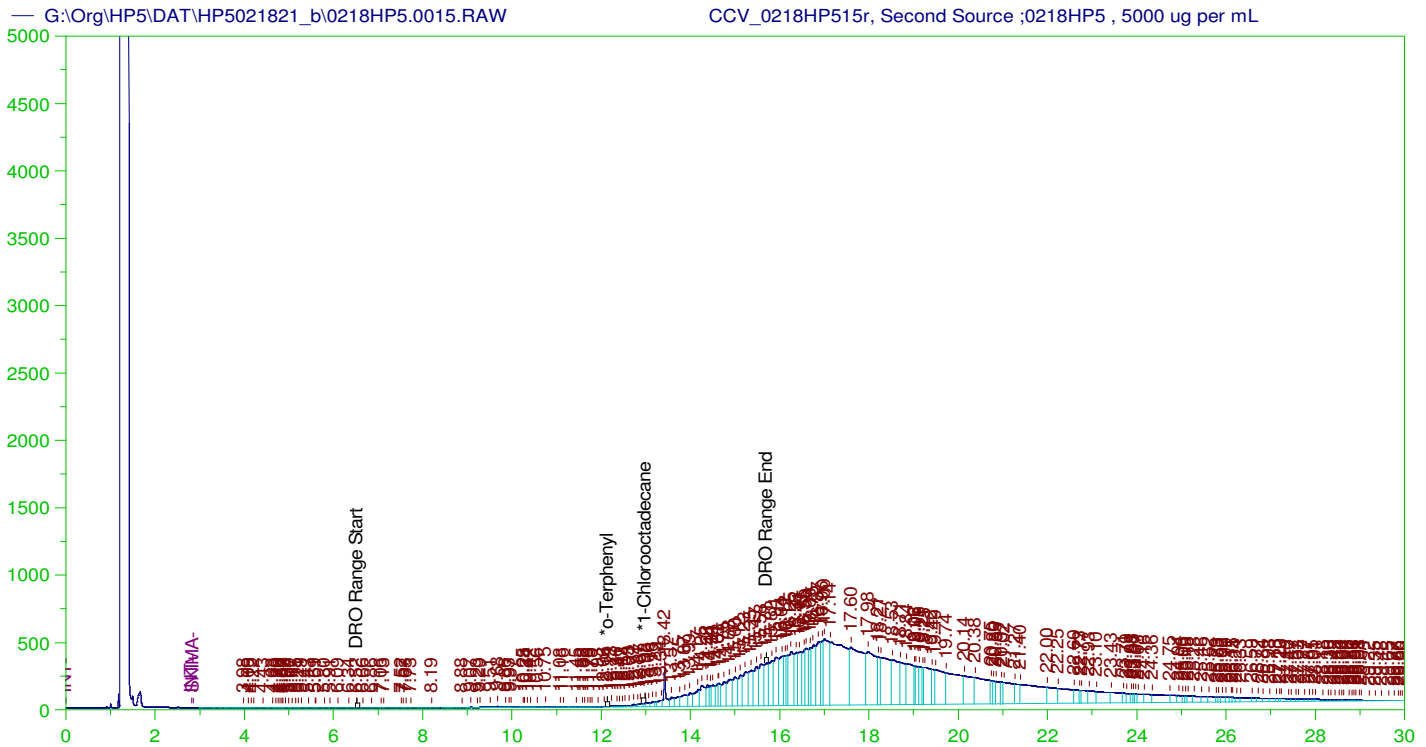
Sample Name: DCM-Baseline Check-V14  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0014.RAW  
 Date & Time Acquired: 2/18/2021 7:45:21 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	1.62	85-115
*1-Chlorooctadecane	12.984	.2	.003	1.62	85-115

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj	IS	Cal ID	Manual Integration
		Marker_0218HP501r, DRO C40 ;0218HP5 , DRO210204A	G:\Org\HP5\Methods\CSC210212.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		CCV_0218HP503r, CAL1 ;0218HP5 , 150 ug per mL Oil (10 uL of Cal4 + 990 uL DCM(13510))	G:\Org\HP5\Methods\DR_OIL-021803-AA-L0.MET						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 20.91 changed peak width and scale was set at 150 for the Yaxis.
		DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		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						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 26.79 changed peak width and scale was set at 300 for the Yaxis.
		DCM-Baseline Check-V06	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		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						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Scale was set at 3000 for the Yaxis.
		DCM-Baseline Check-V08	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		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						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Scale was set at 3000 for the Yaxis.
		DCM-Baseline Check-V10	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		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						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Scale was set at 5000 for the Yaxis.
		DCM-Baseline Check-V12	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V13	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V14	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		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						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. 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

<b>Run Start Date:</b> 10/17/2021
<b>Analyst:</b> Ann Nebel
<b>Ical:</b>
<b>Column ID:</b>
<b>Comments:</b> 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
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14777567	CCV_1017HP50	HC-8015-DRO-	CAL1		10/17/2021 3:30:	1	R368813		0	0	
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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
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14777568	CCV_1017HP50	HC-8015-DRO-	CAL2		10/17/2021 4:12:	1	R368813		0	0	
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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
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14777569	CCV_1017HP50	HC-8015-DRO-	CAL3		10/17/2021 4:55:	1	R368813		0	0	
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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
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14777570	CCV_1017HP50	HC-8015-DRO-	CAL4		10/17/2021 5:38:	1	R368813		0	0	
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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					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14777571	CCV_1017HP50	HC-8015-DRO-	CAL5		10/17/2021 6:20:	1	R368813			0	0					
n-Triacontane	S	mg/L		0.9372648		1	0	0	0.002	0.002	0	94%	80	120	0%	

Write Sequence	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 Triacotane (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 Triacotane (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 Triacotane (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 Triacotane (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 Triacotane (500 uL 2000 ug/mL Triacotane 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

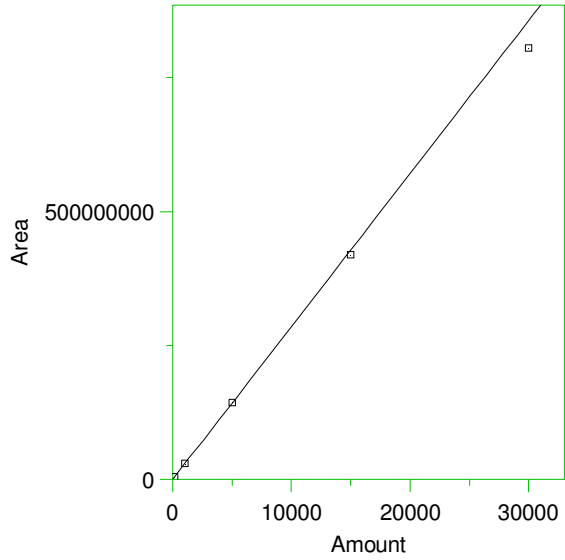
No default component

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

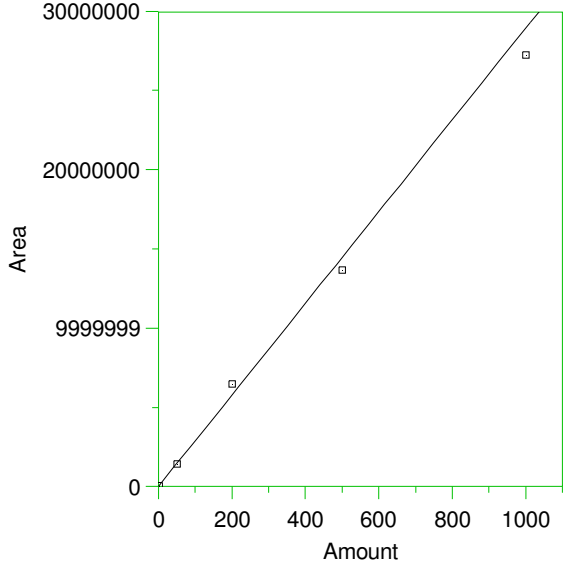
$Y = 28542.41 X + 0$

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

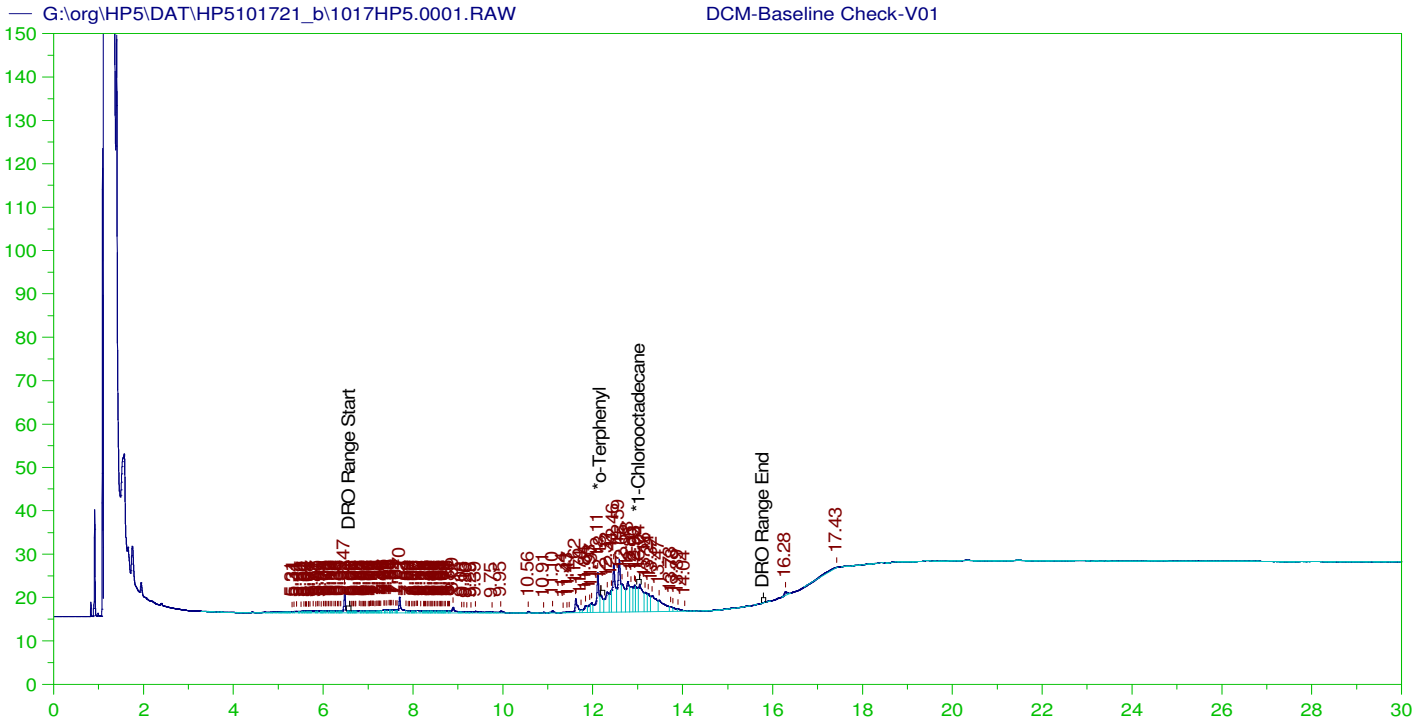
\*#Triacontane



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





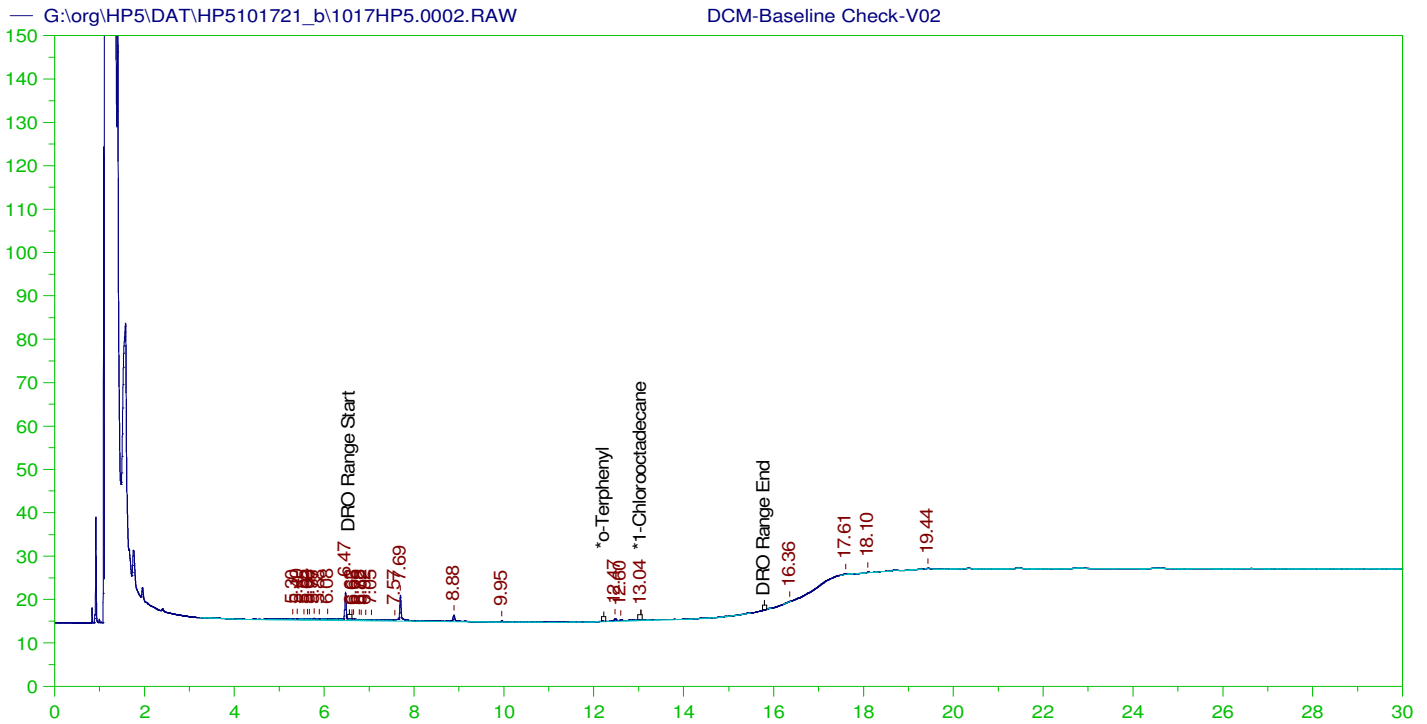
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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**

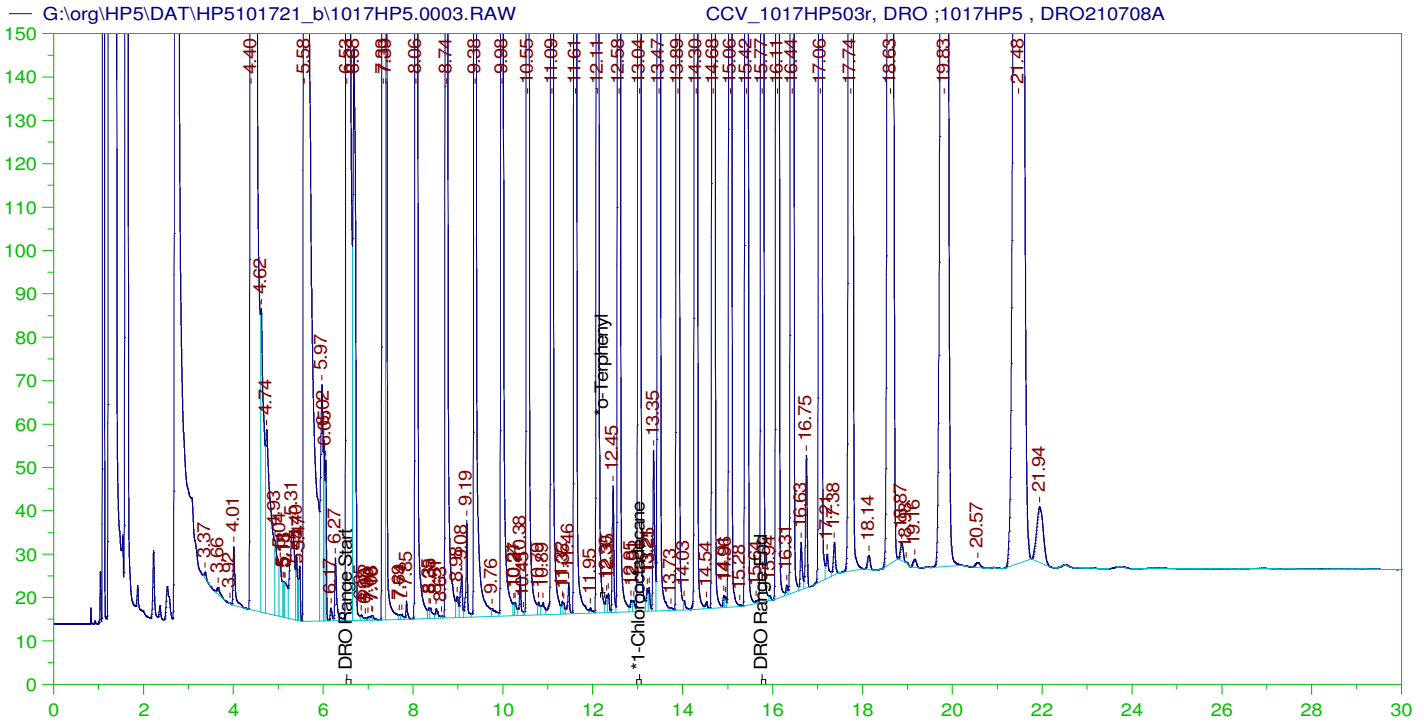
Sample Name: DCM-Baseline Check-V02  
 Raw File: G:\org\HP5\DAT\HP5101721\_b\1017HP5.0002.RAW  
 Date & Time Acquired: 10/17/2021 1:22:21 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HS-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108Hs.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

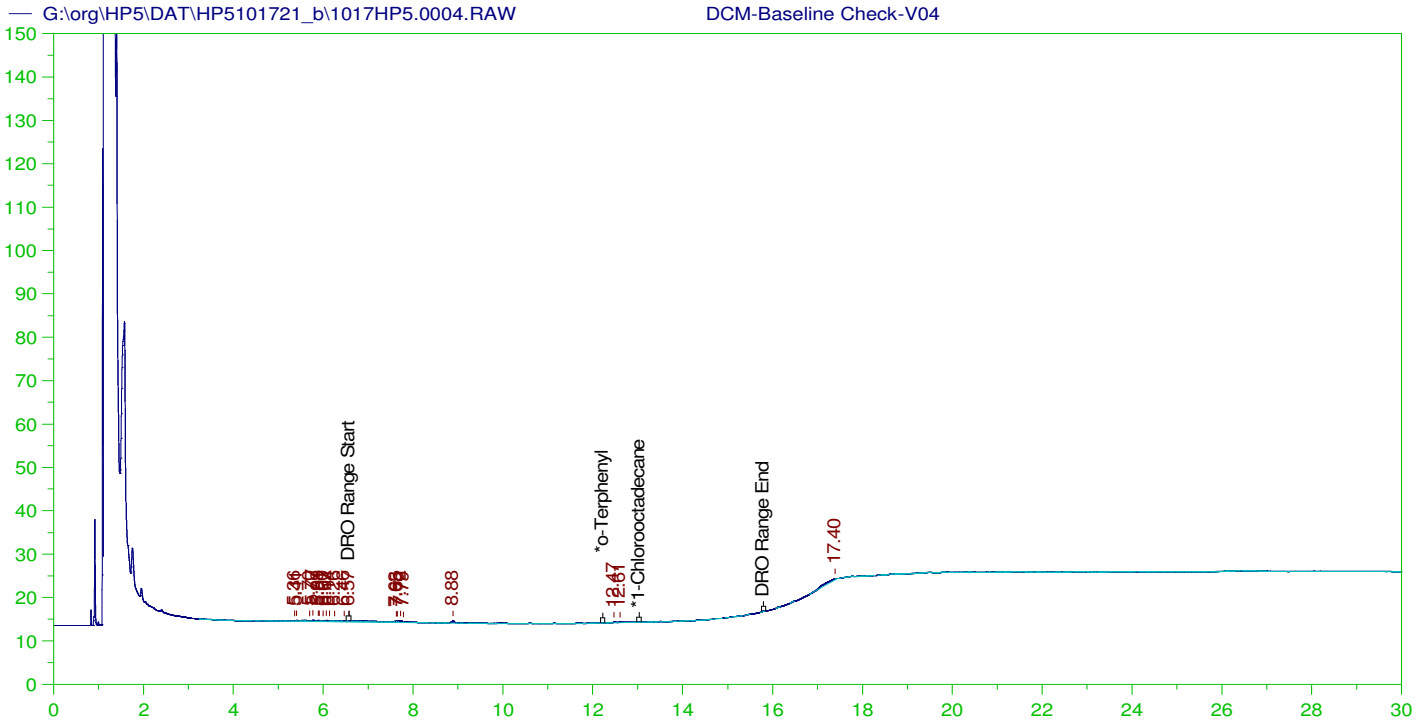
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.982	200.	.	-
*1-Chlorooctadecane	13.037	200.	255.634	127.82 -

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



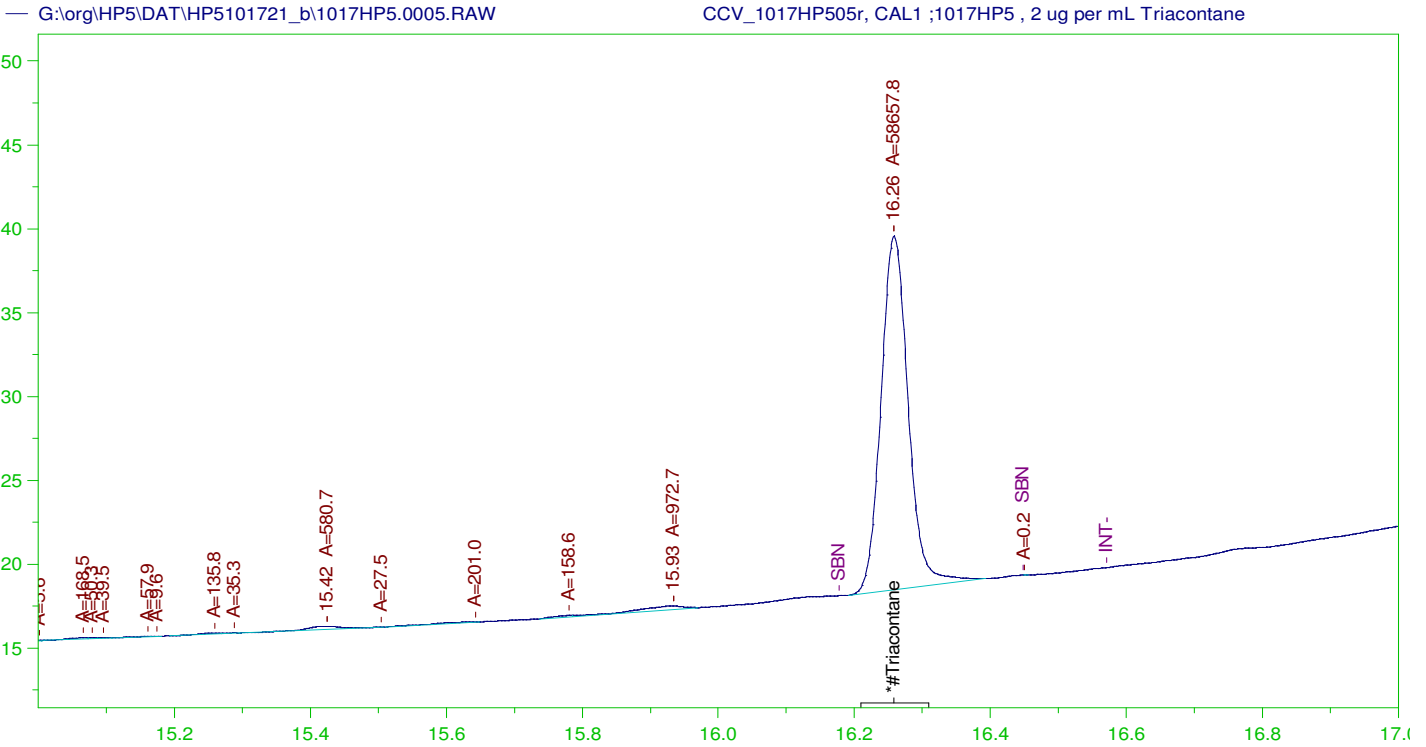
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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

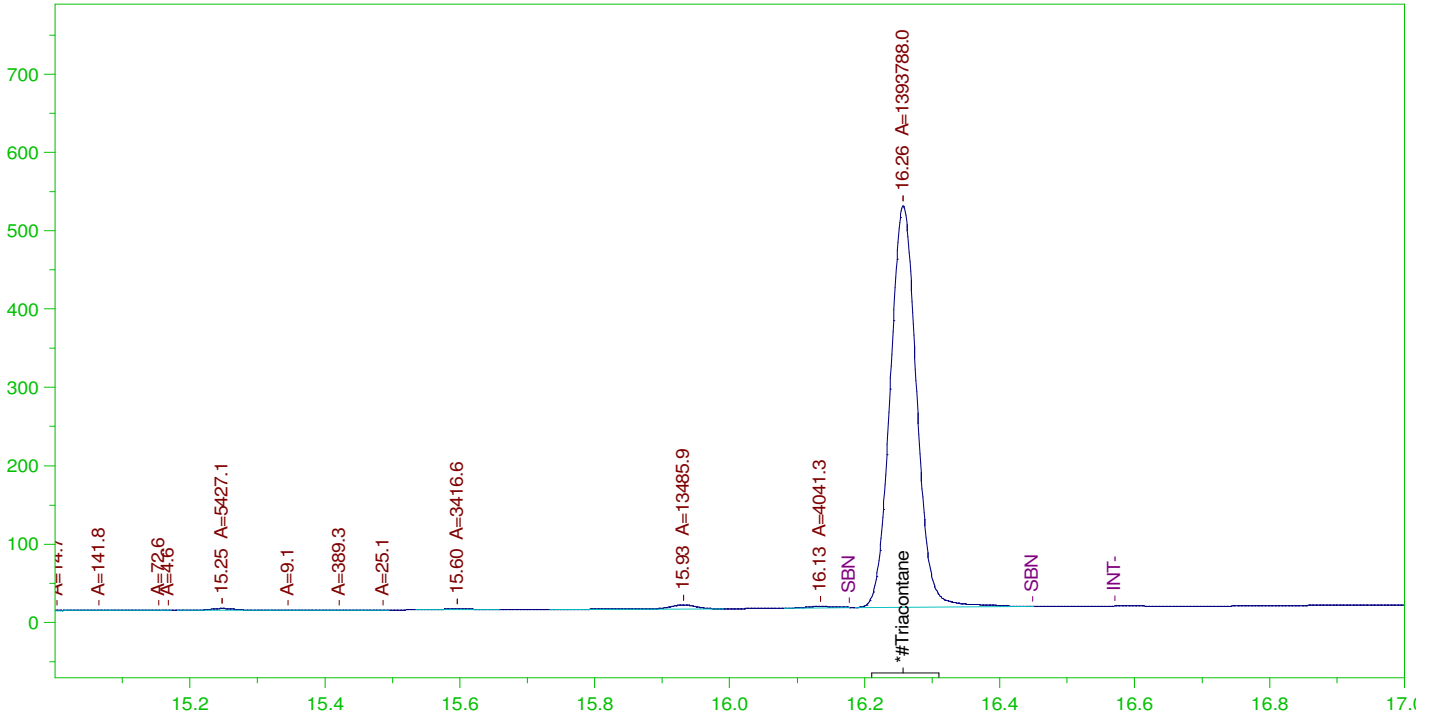
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	75-125	

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

G:\org\HP5\DAT\HP5101721\_b\1017HP5.0006.RAW

CCV\_1017HP506r, CAL2 ;1017HP5 , 50 ug per mL Triacontane



**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

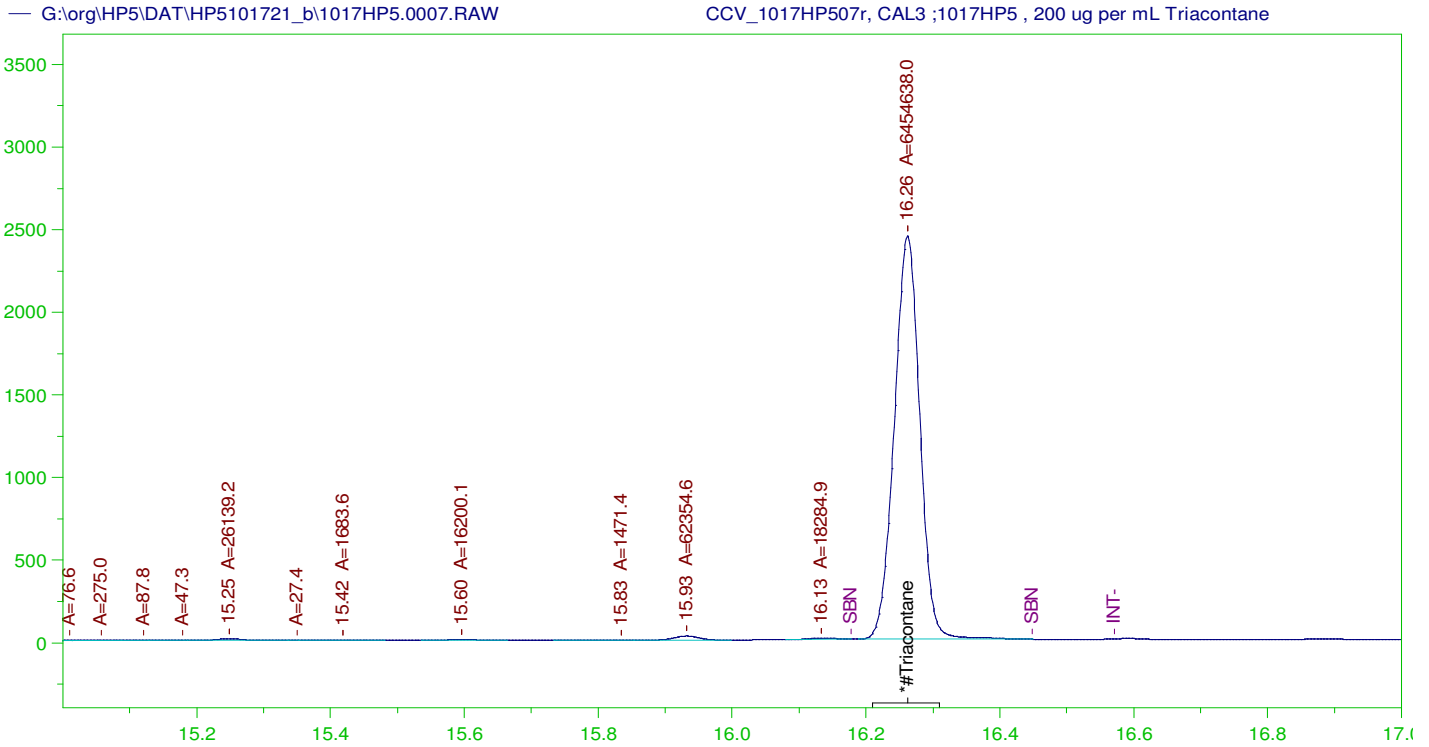
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.257	500.	48.178	9.64	-

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

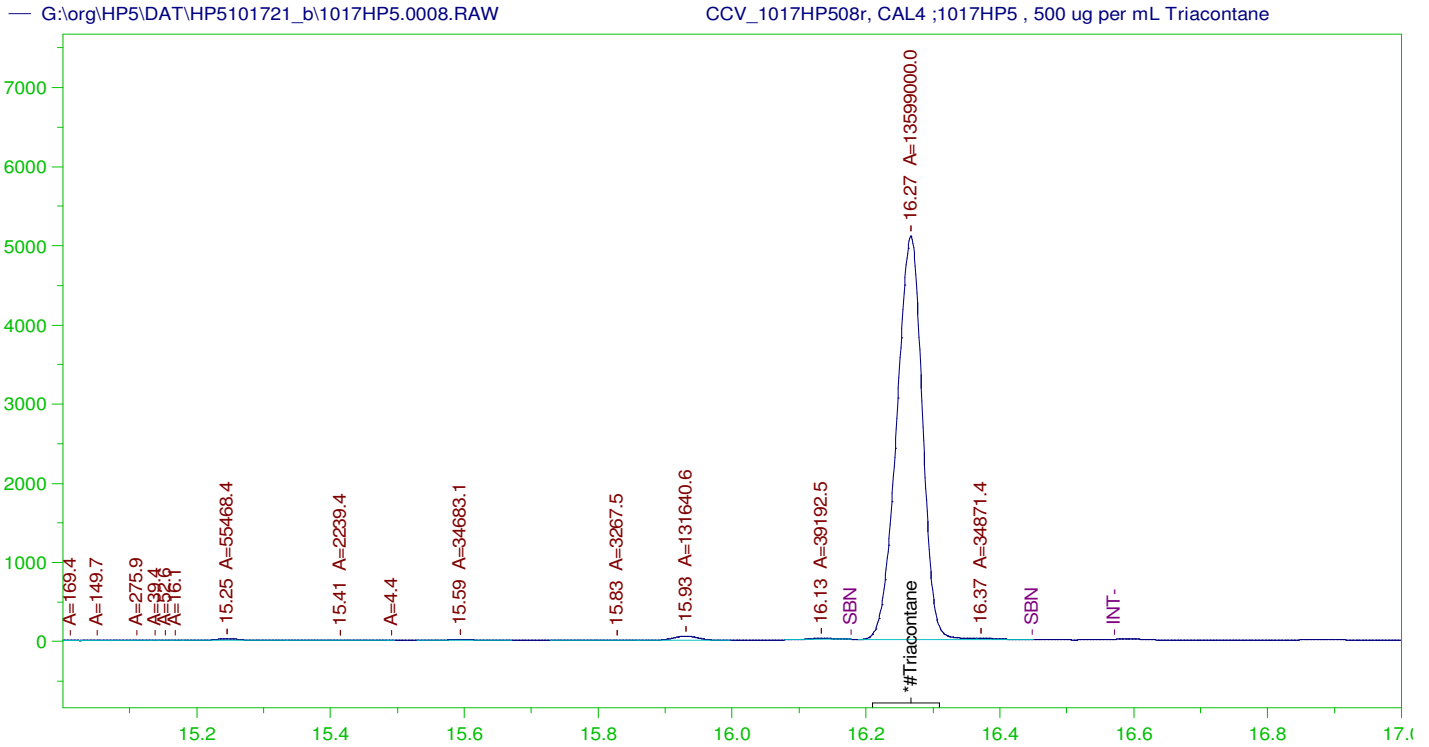
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.262	500.	223.111	44.62

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

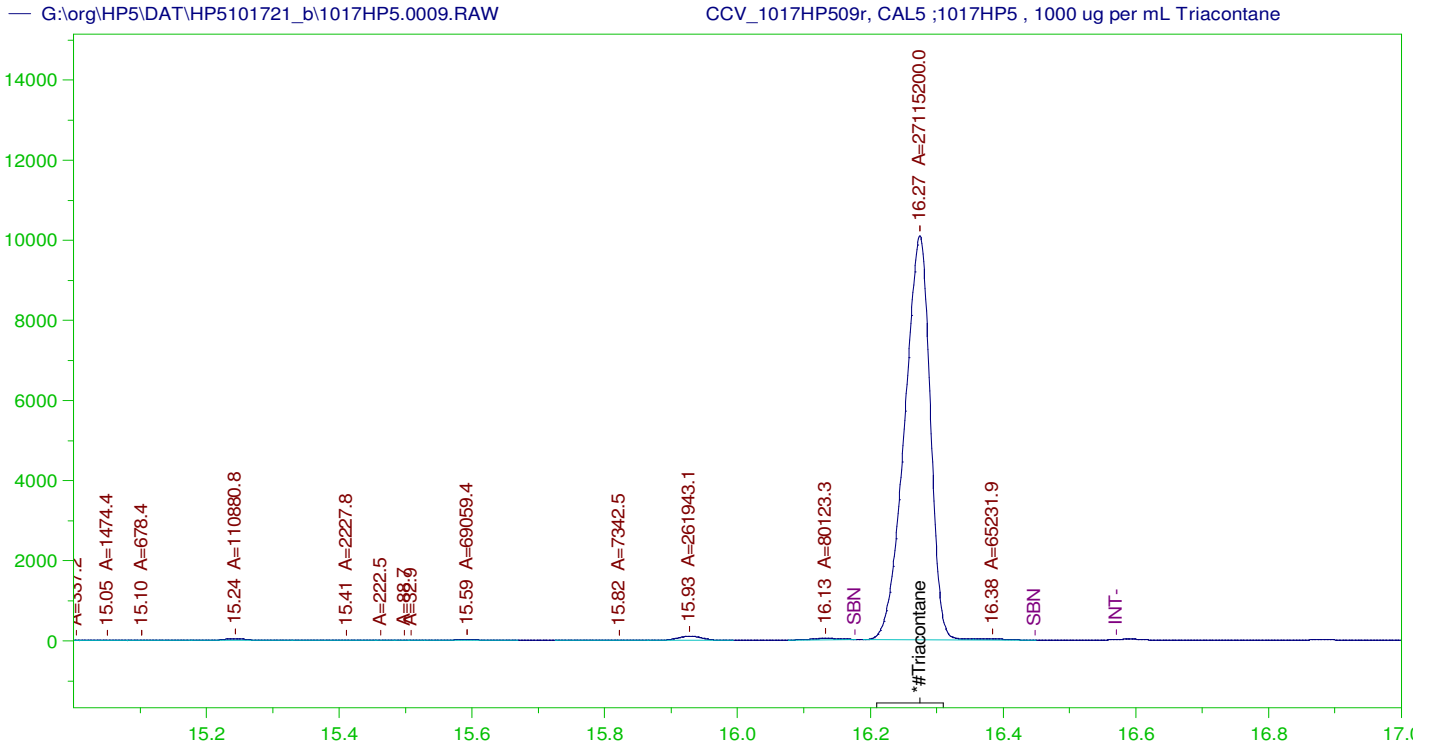
RRO Area:496538.4 RRO AMOUNT: 17.39651

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	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 Triacotane (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 Baseline 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 Triacotane (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 Baseline 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 Triacotane (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 Baseline 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 Triacotane (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 Baseline 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 Triacotane (500 uL 2000 ug/mL Triacotane 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 Baseline 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**  
 Prep Batch **161934** Prep Temp: **NA °C**

Technician: **Jillian L Bostwick**  
 Batch Units: **ML**

Prep Start Date: **12/6/2021 3:40:05 PM**  
 Prep End Date: **12/7/2021 1:18:00 PM**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-161934			1000	0	0	1.00	0.001		12/6/2021	12/7/2021
Start time: 3:30 PM, 12/06/2021. End time: 12/07/2021 at 9:30 AM. SGT on remaining sample by ALN on 12/8/2021										
LCS-161934			1000	0	0	1.00	0.001		12/6/2021	12/7/2021
All bottles were completely used, defaced and disposed of on 12/06/2021 SGT on remaining sample by ALN on 12/8/2021										
LCSD-161934			1000	0	0	1.00	0.001		12/6/2021	12/7/2021
SGT on remaining sample by ALN on 12/8/2021										
LCS-161934-RRO			1000	0	0	1.00	0.001		12/6/2021	12/7/2021
SGT on remaining sample by ALN on 12/9/2021										
LCSD-161934-RRO			1000	0	0	1.00	0.001		12/6/2021	12/7/2021
SGT on remaining sample by ALN on 12/9/2021										
B21120381-003A	Ground Water	2	990	0	0	1.00	0.00101		12/6/2021	12/7/2021
Bottle 1/2. Clear. SGT on remaining sample by ALN on 12/8/2021										
B21120381-003AMS	Ground Water	2	1030	0	0	1.00	0.000971		12/6/2021	12/7/2021
Bottle 2/2. Clear. SGT on remaining sample by ALN on 12/8/2021										
B21120381-004B	Drinking Water	2	1030	0	0	1.00	0.000971		12/6/2021	12/7/2021
Bottle 1/2. Clear, orange sediment. SGT on remaining sample by ALN on 12/8/2021										
B21120381-004BMS-RRO	Drinking Water	2	1010	0	0	1.00	0.00099		12/6/2021	12/7/2021
Bottle 2/2. Clear, orange sediment. SGT on remaining sample by ALN on 12/9/2021										
B21120381-001A	Ground Water	2	1020	0	0	1.00	0.00098		12/6/2021	12/7/2021
Bottle 1/2. Clear. SGT on remaining sample by ALN on 12/9/2021										
B21120381-002A	Ground Water	2	1030	0	0	1.00	0.000971		12/6/2021	12/7/2021
Bottle 1/2. Clear. SGT on remaining sample by ALN on 12/9/2021										
B21120381-005B	Drinking Water	2	1020	0	0	1.00	0.00098		12/6/2021	12/7/2021
Bottle 1/2. Clear. SGT on remaining sample by ALN on 12/9/2021										
B21120381-006B	Drinking Water	2	1040	0	0	1.00	0.000962		12/6/2021	12/7/2021
Bottle 1/2. Clear. SGT on remaining sample by ALN on 12/8/2021										
B21120381-007B	Drinking Water	2	1020	0	0	1.00	0.00098		12/6/2021	12/7/2021
Bottle 1/2. Clear. SGT on remaining sample by ALN on 12/8/2021										

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
14518	Dichloromethane EC735	10/14/2023
14563	4ML, Amber Vial, 171001407106	11/30/2022

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP211130 14446	DCM RINSED FILTER PAPER	all	1	4/6/2026
Sulfate 11/30/21 (	Baked Sodium Sulfate	all	Varies	11/19/2026
DRO211129A	Triacontane SURR 1000 ug/mL	all except LCS/D,	100 uL	4/6/2026
DRO211112C	OTP/COD 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 Code: **HC-3520-DRO**  
 Prep Batch **161934** Prep Temp: **NA °C**

Technician: **Jillian L Bostwick**  
 Batch Units: **ML**

Prep Start Date: **12/6/2021 3:40:05 PM**  
 Prep End Date: **12/7/2021 1:18:00 PM**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
B21120381-008B	Drinking Water	2	1000	0	0	1.00	0.001		12/6/2021	12/7/2021
Bottle 1/2. Clear. SGT on remaining sample by ALN on 12/9/2021										
B21120396-001B	Drinking Water	2	960	0	0	1.00	0.00104		12/6/2021	12/7/2021
Bottle 1/2. Clear. SGT on remaining sample by ALN on 12/9/2021										

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
14518	Dichloromethane EC735	10/14/2023
14563	4ML, Amber Vial, 171001407106	11/30/2022

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP211130 14446	DCM RINSED FILTER PAPER	all	1	4/6/2026
Sulfate 11/30/21 (	Baked Sodium Sulfate	all	Varies	11/19/2026
DRO211129A	Triacontane SURR 1000 ug/mL	all except LCS/D,	100 uL	4/6/2026
DRO211112C	OTP/COD 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

09-Dec-21

Run ID GCFID-HP5-B\_211207B

<b>Run Start Date:</b> 12/7/2021
<b>Analyst:</b> Ann Nebel
<b>Ical:</b>
<b>Column ID:</b>
<b>Comments:</b> 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
DRO211110A	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO211201A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026
DRO211203A	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023
DRO211203B	ALASKA MARKER-200ug/mL					MARKER	5/31/2022

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14910042	MARKER_1207	HC-8015-DRO-	SAMP		12/7/2021 9:54:0	1	R371406		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		2.198142		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.59144		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2119295		0.2	0	0	0.000429	0.002	0	106%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.198142		0	0	0	0.0389	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					
14910043	CCV_1207HP51	HC-8015-DRO-	CCV		12/7/2021 10:37:	1	R371406		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		4.864100098		5	0	0	0.0879	0.3	0	97%	80	120	0%	
n-Triacontane	S	mg/L		0.2109013		0.2	0	0	0.000336	0.002	0	105%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14910044	CCV_1207HP51	HC-8015-DRO-	CCV		12/7/2021 11:20:	1	R371406		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		15.13212		15	0	0	0.0389	0.3	0	101%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.65601		15	0	0	0.0749	0.3	50	104%	80	120	0%	
o-Terphenyl	S	mg/L		0.2057686		0.2	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					
14910045	LCS-161934	HC-8015-DRO-	LCS-DOD		12/8/2021 12:46:	1	161934	12/6/2021 3:	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		12.72758		15	0	0	0.0389	0.3	0	85%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		13.62434		15	0	0	0.0749	0.3	50	91%	60	132	0%	
o-Terphenyl	S	mg/L		0.1853771		0.2	0	0	0.000429	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					
14910046	LCSD-161934	HC-8015-DRO-	LCSD-DOD		12/8/2021 1:30:1	1	161934	12/6/2021 3:	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		12.57444		15	0	12.72758	0.0389	0.3	0	84%	36	132	1%	
Total Extractable Hydrocarbons	A	mg/L		13.46439		15	0	13.62434	0.0749	0.3	50	90%	60	132	1%	
o-Terphenyl	S	mg/L		0.1805906		0.2	0	0	0.000429	0.002	0	90%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14910047	MB-161934	HC-8015-DRO-	MBLK		12/8/2021 2:13:2	1	161934	12/6/2021 3:	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		0.0929		0.1	0	0	0.000336	0.002	0	93%	50	150	0%	
o-Terphenyl	S	mg/L		0.189124		0.2	0	0	0.000429	0.002	0	95%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14910048	B21120381-006	HC-8015-DRO-	SAMP		12/8/2021 2:56:2	1	161934	12/6/2021 3:	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					
14910048	B21120381-006	HC-8015-DRO-	SAMP		12/8/2021 2:56:2	1	161934	12/6/2021 3:	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		0.05233606		0	0	0	0.0374218	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.1422126		0	0	0	0.0845598	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.4388961		0	0	0	0.0720538	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.086		0.0962	0	0	0.0003232	0.001924	0	89%	50	150	0%	
o-Terphenyl	S	mg/L		0.1478939		0.1924	0	0	0.0004127	0.002	0	77%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14910049	B21120381-007	HC-8015-DRO-	SAMP		12/8/2021 3:39:4	1	161934	12/6/2021 3:	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		0.6364316		0	0	0	0.038122	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.584471226		0	0	0	0.086142	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		1.395782		0	0	0	0.073402	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0952		0.098	0	0	0.0003293	0.00196	0	97%	50	150	0%	
o-Terphenyl	S	mg/L		0.1879826		0.196	0	0	0.0004204	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					
14910050	B21120381-003	HC-8015-DRO-	SAMP		12/8/2021 5:49:2	1	161934	12/6/2021 3:	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		0.1080928		0	0	0	0.039289	0.303	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.228315741		0	0	0	0.088779	0.303	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.4708131		0	0	0	0.075649	0.303	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0931		0.101	0	0	0.0003394	0.00202	0	92%	50	150	0%	
o-Terphenyl	S	mg/L		0.1461235		0.202	0	0	0.0004333	0.00202	0	72%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14910051	B21120381-003	HC-8015-DRO-	MS-DOD		12/8/2021 6:32:3	1	161934	12/6/2021 3:	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		13.57835		14.565	0.1080928	0	0.0377719	0.3	0	92%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		14.80603		14.565	0.4708131	0	0.0727279	0.3	50	98%	60	132	0%	
o-Terphenyl	S	mg/L		0.1893492		0.1942	0	0	0.0004166	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					
14910052	B21120381-004	HC-8015-DRO-	SAMP		12/8/2021 7:59:0	1	161934	12/6/2021 3:	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		0.2293505		0	0	0	0.0377719	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.451913029		0	0	0	0.0853509	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		0.7863455		0	0	0	0.0727279	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0931		0.0971	0	0	0.0003263	0.001942	0	96%	50	150	0%	
o-Terphenyl	S	mg/L		0.1604218		0.1942	0	0	0.0004166	0.002	0	83%	56	125	0%	
TEH(Oil Range)	X	mg/L		0.709358692		0	0	0	0.0853509	0.3	0	0%	0	0	0%	U

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14910053	MARKER_1207	HC-8015-DRO-	SAMP		12/8/2021 9:25:3	1	R371406				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		2.237288		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.650931		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2151289		0.2	0	0	0.000429	0.002	0	108%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.237288		0	0	0	0.0389	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					
14910054	CCV_1207HP53	HC-8015-DRO-	CCV		12/8/2021 10:08:	1	R371406				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		4.990338867		5	0	0	0.0879	0.3	0	100%	80	120	0%	
n-Triacontane	S	mg/L		0.2126136		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					
14910055	CCV_1207HP53	HC-8015-DRO-	CCV		12/8/2021 10:51:	1	R371406				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		15.50816		15	0	0	0.0389	0.3	0	103%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		16.0612		15	0	0	0.0749	0.3	50	107%	80	120	0%	
o-Terphenyl	S	mg/L		0.2137005		0.2	0	0	0.000429	0.002	0	107%	80	120	0%	



Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14911607	B21120381-008	HC-8015-DRO-	SAMP		12/8/2021 12:17:	1	161934	12/6/2021 3:	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		0.09679382		0	0	0	0.0389	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.271407694		0	0	0	0.0879	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.4667303		0	0	0	0.0749	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0927		0.1	0	0	0.000336	0.002	0	93%	50	150	0%	
o-Terphenyl	S	mg/L		0.1865131		0.2	0	0	0.000429	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					
14911608	B21120381-005	HC-8015-DRO-	SAMP		12/8/2021 1:00:3	1	161934	12/6/2021 3:	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		1.316467		0	0	0	0.038122	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		1.178747773		0	0	0	0.086142	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		2.7161		0	0	0	0.073402	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0906		0.098	0	0	0.0003293	0.00196	0	92%	50	150	0%	
o-Terphenyl	S	mg/L		0.1780797		0.196	0	0	0.0004204	0.002	0	91%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14911609	B21120381-002	HC-8015-DRO-	SAMP		12/8/2021 3:08:4	1	161934	12/6/2021 3:	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		2.273332		0	0	0	0.0377719	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		1.337488532		0	0	0	0.0853509	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.731069		0	0	0	0.0727279	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0948		0.0971	0	0	0.0003263	0.001942	0	98%	50	150	0%	
o-Terphenyl	S	mg/L		0.1332022		0.1942	0	0	0.0004166	0.002	0	69%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14911610	B21120396-001	HC-8015-DRO-	SAMP		12/8/2021 3:51:4	1	161934	12/6/2021 3:	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		0.9223635		0	0	0	0.040456	0.312	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		1.058337927		0	0	0	0.091416	0.312	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		2.222692		0	0	0	0.077896	0.312	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.1		0.104	0	0	0.0003494	0.00208	0	96%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14911610	B21120396-001	HC-8015-DRO-	SAMP		12/8/2021 3:51:4	1	161934	12/6/2021 3:	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.2076251		0.208	0	0	0.0004462	0.00208	0	100%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14911611	B21120381-004	HC-8015-DRO-	MS-DOD		12/8/2021 4:34:4	1	161934	12/6/2021 3:	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		5.046186447		4.95	0.7093587	0	0.087021	0.3	0	88%	41	113	0%	
n-Triacontane	S	mg/L		0.0897		0.099	0	0	0.0003326	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					
14911612	LCS-161934-RR	HC-8015-DRO-	LCS-DOD		12/8/2021 6:01:4	1	161934	12/6/2021 3:	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		5.027945995		5	0	0	0.0879	0.3	0	101%	41	113	0%	
n-Triacontane	S	mg/L		0.0943		0.1	0	0	0.000336	0.002	0	94%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14911613	LCSD-161934-R	HC-8015-DRO-	LCSD-DOD		12/8/2021 7:28:4	1	161934	12/6/2021 3:	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		4.747872829		5	0	5.027946	0.0879	0.3	0	95%	41	113	6%	
n-Triacontane	S	mg/L		0.0898		0.1	0	0	0.000336	0.002	0	90%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14911614	MARKER_1207	HC-8015-DRO-	SAMP		12/8/2021 8:55:3	1	R371406		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		2.147052		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.509387		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2072486		0.2	0	0	0.000429	0.002	0	104%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.147052		0	0	0	0.0389	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					
14911615	CCV_1207HP54	HC-8015-DRO-	CCV		12/8/2021 9:39:0	1	R371406		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	5.082771484			5	0	0	0.0879	0.3	0	102%	80	120	0%	
n-Triacontane	S	mg/L	0.2123238			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					
14911616	CCV_1207HP55	HC-8015-DRO-	CCV		12/8/2021 10:22:	1	R371406		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	14.84164			15	0	0	0.0389	0.3	0	99%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L	15.34764			15	0	0	0.0749	0.3	50	102%	80	120	0%	
o-Terphenyl	S	mg/L	0.2047225			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					
14911617	B21120381-001	HC-8015-DRO-	SAMP		12/9/2021 7:02:1	1	161934	12/6/2021 3:	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	0.5733661			0	0	0	0.038122	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L	0.646443188			0	0	0	0.086142	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L	1.302269			0	0	0	0.073402	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L	0.0879			0.098	0	0	0.0003293	0.00196	0	90%	50	150	0%	
o-Terphenyl	S	mg/L	0.1797093			0.196	0	0	0.0004204	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					
14911618	MARKER_1207	HC-8015-DRO-	SAMP		12/9/2021 8:28:3	1	R371406		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L	2.242263			0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L	3.656779			0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L	0.2166354			0.2	0	0	0.000429	0.002	0	108%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L	2.242263			0	0	0	0.0389	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					
14911619	CCV_1207HP56	HC-8015-DRO-	CCV		12/9/2021 9:11:4	1	R371406		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					
14911619	CCV_1207HP56	HC-8015-DRO-	CCV		12/9/2021 9:11:4	1	R371406		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	4.867654297			5	0	0	0.0879	0.3	0	97%	80	120	0%	
n-Triacontane	S	mg/L	0.2031274			0.2	0	0	0.000336	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					
14911620	CCV_1207HP56	HC-8015-DRO-	CCV		12/9/2021 9:55:0	1	R371406		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	15.13806			15	0	0	0.0389	0.3	0	101%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L	15.64937			15	0	0	0.0749	0.3	50	104%	80	120	0%	
o-Terphenyl	S	mg/L	0.2079261			0.2	0	0	0.000429	0.002	0	104%	80	120	0%	

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

10-Dec-21

Run ID GCFID-HP5-B\_211209A

<b>Run Start Date:</b> 12/9/2021
<b>Analyst:</b> Ann Nebel
<b>Ical:</b>
<b>Column ID:</b>
<b>Comments:</b> 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
DRO211203A	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023
DRO211203B	ALASKA MARKER-200ug/mL					MARKER	5/31/2022
DRO211207A	Carbon Scan STD-Marker					MARKER	3/5/2028

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914785	MARKER_1209	HC-8015-DRO-	SAMP		12/9/2021 12:52:	1	R371557		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		2.449864		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		4.000949		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.234353		0.2	0	0	0.000429	0.002	0	117%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.449864		0	0	0	0.0389	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					
14914786	CCV_1209HP50	HC-8015-DRO-	CCV		12/9/2021 1:35:0	1	R371557		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		4.80243848		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L		0.2101251		0.2	0	0	0.000336	0.002	0	105%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914787	CCV_1209HP50	HC-8015-DRO-	CCV		12/9/2021 2:17:3	1	R371557		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		15.08813		15	0	0	0.0389	0.3	0	101%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.64161		15	0	0	0.0749	0.3	50	104%	80	120	0%	
o-Terphenyl	S	mg/L		0.2058479		0.2	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					
14914788	LCS-161934	HC-8015-DRO-	LCS-DOD		12/9/2021 3:43:0	1	161934	12/6/2021 3:	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		13.2223		15	0	0	0.0389	0.3	0	88%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		14.09184		15	0	0	0.0329	0.3	0	94%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.2030204		0.2	0	0	0.000429	0.002	0	102%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914789	LCSD-161934	HC-8015-DRO-	LCSD-DOD		12/9/2021 4:25:5	1	161934	12/6/2021 3:	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		13.00503		15	0	13.2223	0.0389	0.3	0	87%	36	132	2%	
Total Extractable Hydrocarbons (SGT	A	mg/L		13.8712		15	0	14.09184	0.0329	0.3	0	92%	60	132	2%	
o-Terphenyl (SGT)	S	mg/L		0.1927299		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					
14914790	MB-161934	HC-8015-DRO-	MBLK		12/9/2021 5:08:5	1	161934	12/6/2021 3:	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		0.095		0.1	0	0	0.000336	0.002	0	95%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1986719		0.2	0	0	0.000429	0.002	0	99%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914791	B21120381-006	HC-8015-DRO-	SAMP		12/9/2021 5:51:5	1	161934	12/6/2021 3:	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					
14914791	B21120381-006	HC-8015-DRO-	SAMP		12/9/2021 5:51:5	1	161934	12/6/2021 3:	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		0.0831		0.0962	0	0	0.0003232	0.001924	0	86%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1512419		0.1924	0	0	0.0004127	0.001924	0	79%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914792	B21120381-007	HC-8015-DRO-	SAMP		12/9/2021 6:35:0	1	161934	12/6/2021 3:	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		0.04282313		0	0	0	0.032242	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.0892		0.098	0	0	0.0003293	0.00196	0	91%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.186953		0.196	0	0	0.0004204	0.00196	0	95%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914793	B21120381-003	HC-8015-DRO-	SAMP		12/9/2021 8:01:0	1	161934	12/6/2021 3:	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	0.039289	0.303	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.088779	0.303	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.033229	0.303	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0867		0.101	0	0	0.0003394	0.00202	0	86%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1414388		0.202	0	0	0.0004333	0.00202	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					
14914794	B21120381-003	HC-8015-DRO-	MS-DOD		12/9/2021 8:44:0	1	161934	12/6/2021 3:	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		12.09924		14.565	0	0	0.0377719	0.3	0	83%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		12.90182		14.565	0	0	0.0319459	0.3	0	89%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1759492		0.1942	0	0	0.0004166	0.002	0	91%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914795	B21120381-004	HC-8015-DRO-	SAMP		12/9/2021 9:27:1	1	161934	12/6/2021 3:	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	0.05974681			0	0	0	0.0319459	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.086		0.0971	0	0	0.0003263	0.001942	0	89%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L	0.1535403			0.1942	0	0	0.0004166	0.001942	0	79%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914796	B21120381-008	HC-8015-DRO-	SAMP		12/9/2021 10:53:	1	161934	12/6/2021 3:	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	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0329	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0765		0.1	0	0	0.000336	0.002	0	76%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L	0.166992			0.2	0	0	0.000429	0.002	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					
14914797	MARKER_1209	HC-8015-DRO-	SAMP		12/10/2021 12:1	1	R371557				0	0				
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		2.214572		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.611377		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L	0.2114085			0.2	0	0	0.000429	0.002	0	106%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.214572		0	0	0	0.0389	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					
14914798	CCV_1209HP52	HC-8015-DRO-	CCV		12/10/2021 1:02:	1	R371557				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		4.76552539		5	0	0	0.0879	0.3	0	95%	80	120	0%	
n-Triacontane	S	mg/L		0.2096783		0.2	0	0	0.000336	0.002	0	105%	80	120	0%	



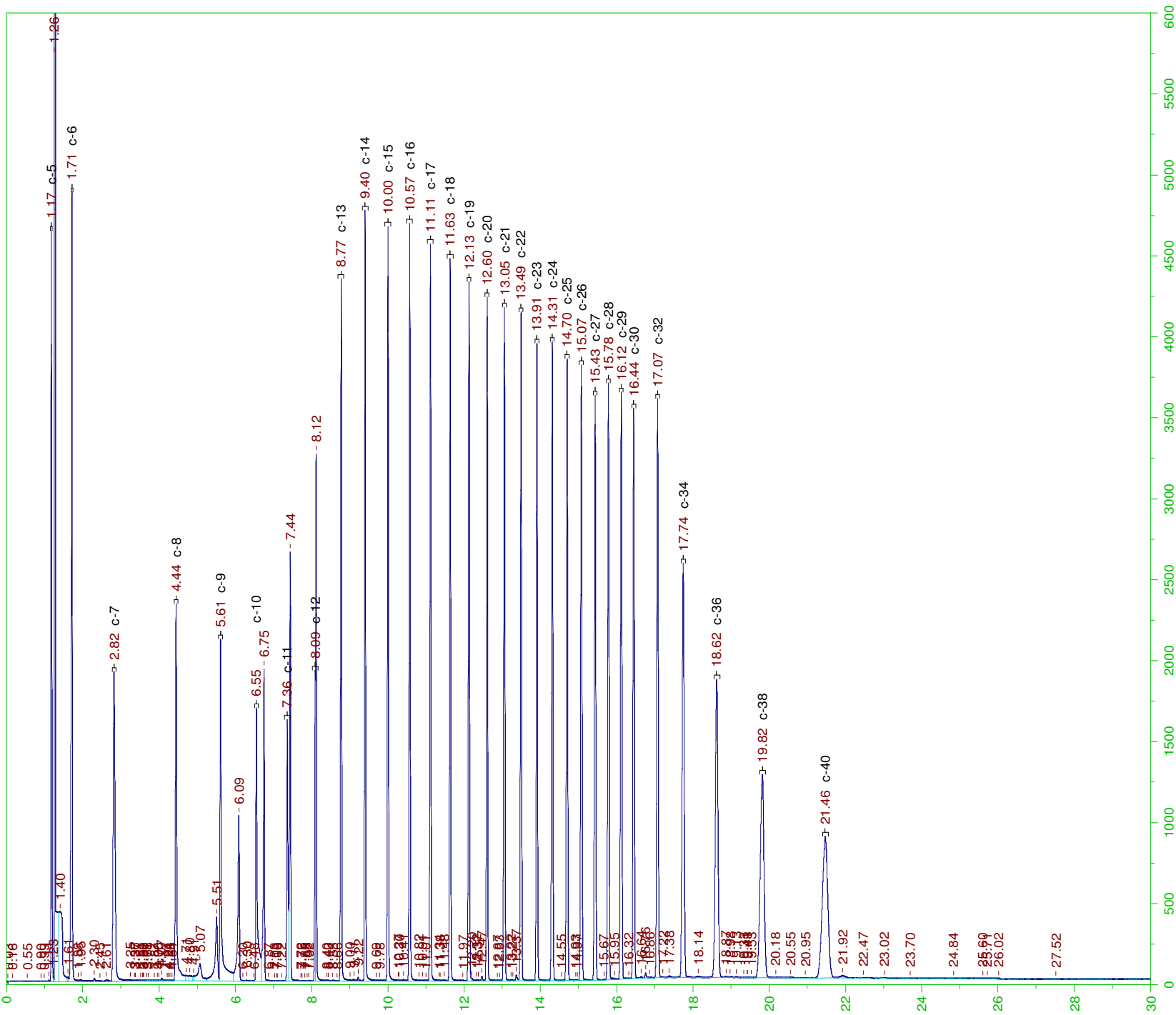
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914799	CCV_1209HP52	HC-8015-DRO-	CCV		12/10/2021 1:45:	1	R371557			0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		15.2516		15	0	0	0.0389	0.3	0	102%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.77638		15	0	0	0.0749	0.3	50	105%	80	120	0%	
o-Terphenyl	S	mg/L		0.2079912		0.2	0	0	0.000429	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					
14914800	B21120381-005	HC-8015-DRO-	SAMP		12/10/2021 3:11:	1	161934	12/6/2021 3:		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		0.0833		0.098	0	0	0.0003293	0.00196	0	85%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.177224		0.196	0	0	0.0004204	0.00196	0	90%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914801	B21120381-001	HC-8015-DRO-	SAMP		12/10/2021 3:54:	1	161934	12/6/2021 3:		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		0.06635249		0	0	0	0.038122	0.3	0	0%	0	0	0%	J
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		0.08300415		0	0	0	0.032242	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.0823		0.098	0	0	0.0003293	0.00196	0	84%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.179725		0.196	0	0	0.0004204	0.00196	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					
14914802	B21120396-001	HC-8015-DRO-	SAMP		12/10/2021 5:20:	1	161934	12/6/2021 3:		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	0.040456	0.312	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.091416	0.312	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.04151133		0	0	0	0.034216	0.312	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.0875		0.104	0	0	0.0003494	0.00208	0	84%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1934936		0.208	0	0	0.0004462	0.00208	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					
14914803	B21120381-002	HC-8015-DRO-	SAMP		12/10/2021 6:03:	1	161934	12/6/2021 3:	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		0.4239798		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		0.4494523		0	0	0	0.0319459	0.3	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0862		0.0971	0	0	0.0003263	0.001942	0	89%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1274182		0.1942	0	0	0.0004166	0.001942	0	66%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914804	B21120381-004	HC-8015-DRO-	MS-DOD		12/10/2021 6:45:	1	161934	12/6/2021 3:	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		4.67086697		4.95	0	0	0.087021	0.3	0	94%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.0861		0.099	0	0	0.0003326	0.002	0	87%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914805	LCS-161934-RR	HC-8015-DRO-	LCS-DOD		12/10/2021 8:11:	1	161934	12/6/2021 3:	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		5.32594490		5	0	0	0.0879	0.3	0	107%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.0992		0.1	0	0	0.000336	0.002	0	99%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914806	LCSD-161934-R	HC-8015-DRO-	LCSD-DOD		12/10/2021 9:37:	1	161934	12/6/2021 3:	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		5.15867519		5	0	5.3259449	0.0879	0.3	0	103%	41	113	3%	
n-Triacontane (SGT)	S	mg/L		0.0961		0.1	0	0	0.000336	0.002	0	96%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914807	MARKER_1209	HC-8015-DRO-	SAMP		12/10/2021 11:0	1	R371557		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		2.18375		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.560249		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2077859		0.2	0	0	0.000429	0.002	0	104%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914807	MARKER_1209	HC-8015-DRO-	SAMP		12/10/2021 11:0	1	R371557		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)	X	mg/L		2.18375		0	0	0	0.0389	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					
14914808	CCV_1209HP53	HC-8015-DRO-	CCV		12/10/2021 11:4	1	R371557		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		4.93971973		5	0	0	0.0879	0.3	0	99%	80	120	0%	
n-Triacontane	S	mg/L		0.2159767		0.2	0	0	0.000336	0.002	0	108%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14914809	CCV_1209HP53	HC-8015-DRO-	CCV		12/10/2021 12:2	1	R371557		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		14.99698		15	0	0	0.0389	0.3	0	100%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.55018		15	0	0	0.0749	0.3	50	104%	80	120	0%	
o-Terphenyl	S	mg/L		0.2048075		0.2	0	0	0.000429	0.002	0	102%	80	120	0%	

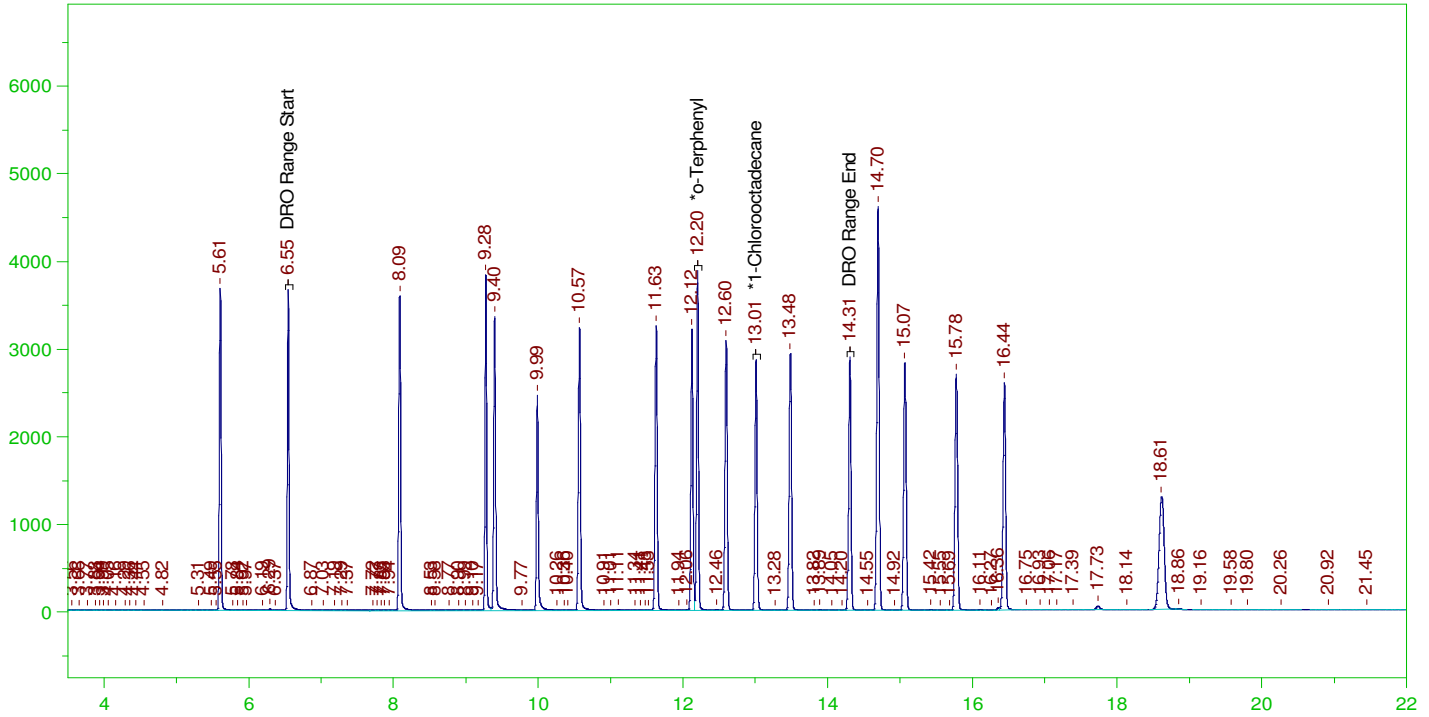
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	G:\org\HP5\DAT\HP5120721_b\1207HP5.15	MARKER 1207HP515r, C40 ;1207HP5 , DRO211110A		G:\org\HP5\Methods\CSC211207.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.16	MARKER 1207HP516r, DRO ;1207HP5 , DRO211203B		G:\Org\HP5\Methods\DC 8015-24-IE-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.17	CCV_1207HP517r, DRO ;1207HP5 , DRO211201A		G:\Org\HP5\Methods\DC ORO-AG-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.18	CCV_1207HP518r, DRO ;1207HP5 , DRO211203A		G:\Org\HP5\Methods\DC 8015-24-IE-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.19	DCM-Baseline Check-V19		G:\Org\HP5\Methods\DR 8015-IB-L-EXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.20	LCS-161934 ;1207HP5 ,		G:\Org\HP5\Methods\DS 8015-120720-IE-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.21	LCS-161934 ;1207HP5 ,		G:\Org\HP5\Methods\DS 8015-24-IE-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.22	MB-161934 ;1207HP5 ,		G:\Org\HP5\Methods\DR 8015-C24T-IE-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.23	B21120381-006B ;1207HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DR OROS-AG-L%.MET	1040	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.24	B21120381-007B ;1207HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DS 8015-C24T-IE-L%.MET	1020	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.25	B21120381-008B ;1207HP5 , \$HC-8015-DRO-W, needs rr		G:\Org\HP5\Methods\DS 8015-C24T-IE-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.26	DCM-Baseline Check-V26		G:\Org\HP5\Methods\DR 8015-IB-L-EXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.27	B21120381-003A ;1207HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DS 8015-C24T-IE-L%.met	990	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.28	B21120381-003AMS ;1207HP5 ,		G:\Org\HP5\Methods\DS OROS-AG-L%.MET	1030	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.29	DCM-Baseline Check-V29		G:\Org\HP5\Methods\DS 8015-120720-IE-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.30	B21120381-004B ;1207HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DS 8015-24-IE-L%.met	1030	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.31	MARKER 1207HP531r, C40 ;1207HP5 , DRO211110A		G:\Org\HP5\Methods\DC ORO-AG-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.32	MARKER 1207HP532r, DRO ;1207HP5 , DRO211203B		G:\Org\HP5\Methods\DC 8015-24-IE-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.33	CCV_1207HP533r, DRO ;1207HP5 , DRO211201A		G:\Org\HP5\Methods\DC ORO-AG-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.34	CCV_1207HP534r, DRO ;1207HP5 , DRO211203A		G:\Org\HP5\Methods\DC 8015-24-IE-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.35	DCM-Baseline Check-V35		G:\Org\HP5\Methods\DS 8015-24-IE-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.36	B21120381-008B ;1207HP5 , \$HC-8015-DRO-W, RR		G:\Org\HP5\Methods\DR 8015-IB-L-EXP.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.37	B21120381-005B ;1207HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DS 8015-C24T-IE-L%.MET	1020	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.38	B21120381-001A ;1207HP5 , \$HC-8015-DRO-W, needs rr		G:\Org\HP5\Methods\DS 8015-120724-IE-L%.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.39	DCM-Baseline Check-V39		G:\Org\HP5\Methods\DR 8015-IB-L-EXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.40	B21120381-002A ;1207HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DS 8015-120724-IE-L%.met	1030	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.41	B21120396-001B ;1207HP5 , \$HC-8015-DRO-W,		G:\Org\HP5\Methods\DS OROS-120724-AG-L%.MET	960	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.42	B21120381-004BMS-RRO ;1207HP5 ,		G:\Org\HP5\Methods\DS 8015-C24T-IE-L%.MET	1010	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.43	DCM-Baseline Check-V43		G:\Org\HP5\Methods\DS ORO-AG-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.44	LCS-161934-RRO ;1207HP5 ,		G:\Org\HP5\Methods\DR 8015-IB-L-EXP.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.45	DCM-Baseline Check-V45		G:\Org\HP5\Methods\DS ORO-AG-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.46	LCS-161934-RRO ;1207HP5 ,		G:\Org\HP5\Methods\DR 8015-IB-L-EXP.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.47	MARKER 1207HP547r, C40 ;1207HP5 , DRO211110A		G:\Org\HP5\Methods\DC ORO-AG-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.48	MARKER 1207HP548r, DRO ;1207HP5 , DRO211203B		G:\Org\HP5\Methods\DC 8015-24-IE-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.49	CCV_1207HP549r, DRO ;1207HP5 , DRO211201A		G:\Org\HP5\Methods\DC ORO-AG-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.50	CCV_1207HP550r, DRO ;1207HP5 , DRO211203A		G:\Org\HP5\Methods\DC 8015-24-IE-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.51	DCM-Baseline Check-V51		G:\Org\HP5\Methods\DS 8015-24-IE-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.62	B21120381-001A ;1207HP5 , \$HC-8015-DRO-W, RR		G:\Org\HP5\Methods\DR 8015-IB-L-EXP.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.63	MARKER 1207HP563r, C40 ;1207HP5 , DRO211110A		G:\Org\HP5\Methods\DS 8015-120724-AG-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.64	MARKER 1207HP564r, DRO ;1207HP5 , DRO211203B		G:\Org\HP5\Methods\DS 8015-C24T-IE-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.65	CCV_1207HP565r, DRO ;1207HP5 , DRO211201A		G:\org\HP5\Methods\CSC211207.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5120721_b\1207HP5.66	CCV_1207HP566r, DRO ;1207HP5 , DRO211203A		G:\Org\HP5\Methods\DC 8015-24-IE-L%.met	1	1	1	1	0

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
G:\org\HP5\DAT\HP5120921_b\1209HP5.01r	b\1209HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.02r	b\1209HP5.02r	DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.03r	b\1209HP5.03r	MARKER 1209HP503r, C40 ;1209HP5 , DRO211207A	G:\Org\HP5\Methods\DCSC211209.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.04r	b\1209HP5.04r	MARKER 1209HP504r, DRO ;1209HP5 , DRO211203B	G:\Org\HP5\Methods\DC_8015-24-IF-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.05r	b\1209HP5.05r	CCV_1209HP505r, RRO ;1209HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AH-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.06r	b\1209HP5.06r	CCV_1209HP506r, DRO ;1209HP5 , DRO211203A	G:\Org\HP5\Methods\DC_8015-24-IF-L%.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.07r	b\1209HP5.07r	DCM-Baseline Check-V07	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.08r	b\1209HP5.08r	LCS-161934 ;1209HP5 , SGT	G:\Org\HP5\Methods\DR_8015-24-IF-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.09r	b\1209HP5.09r	LCS-161934 ;1209HP5 , SGT	G:\Org\HP5\Methods\DR_8015-24-IF-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.10r	b\1209HP5.10r	MB-161934 ;1209HP5 , SGT	G:\Org\HP5\Methods\DR_8015-24-IF-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.11r	b\1209HP5.11r	B21120381-006B ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	1040	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.12r	b\1209HP5.12r	B21120381-007B ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.13r	b\1209HP5.13r	DCM-Baseline Check-V13	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.14r	b\1209HP5.14r	B21120381-003A ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	990	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.15r	b\1209HP5.15r	B21120381-003AMS ;1209HP5 , SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.16r	b\1209HP5.16r	B21120381-004B ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-24-IF-L%.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.17r	b\1209HP5.17r	DCM-Baseline Check-V17	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.18r	b\1209HP5.18r	B21120381-008B ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.19r	b\1209HP5.19r	MARKER 1209HP519r, C40 ;1209HP5 , DRO211207A	G:\Org\HP5\Methods\DCSC211209.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.20r	b\1209HP5.20r	MARKER 1209HP520r, DRO ;1209HP5 , DRO211203B	G:\Org\HP5\Methods\DC_8015-24-IF-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.21r	b\1209HP5.21r	CCV_1209HP521r, RRO ;1209HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AH-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.22r	b\1209HP5.22r	CCV_1209HP522r, DRO ;1209HP5 , DRO211203A	G:\Org\HP5\Methods\DC_ORO-AH-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.23r	b\1209HP5.23r	DCM-Baseline Check-V23	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.24r	b\1209HP5.24r	B21120381-005B ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.25r	b\1209HP5.25r	B21120381-001A ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.26r	b\1209HP5.26r	DCM-Baseline Check-V26	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.27r	b\1209HP5.27r	B21120396-001B ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	960	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.28r	b\1209HP5.28r	B21120381-002A ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.29r	b\1209HP5.29r	B21120381-004BMS-RRO ;1209HP5 , SGT	G:\Org\HP5\Methods\DR_8015-C24-IF-L%.met	1010	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.30r	b\1209HP5.30r	DCM-Baseline Check-V30	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.31r	b\1209HP5.31r	LCS-161934-RRO ;1209HP5 , SGT	G:\Org\HP5\Methods\DR_8015-24-IF-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.32r	b\1209HP5.32r	DCM-Baseline Check-V32	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.33r	b\1209HP5.33r	LCS-161934-RRO ;1209HP5 , SGT	G:\Org\HP5\Methods\DR_8015-24-IF-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.34r	b\1209HP5.34r	MARKER 1209HP534r, C40 ;1209HP5 , DRO211207A	G:\Org\HP5\Methods\DCSC211209.met	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.35r	b\1209HP5.35r	MARKER 1209HP535r, DRO ;1209HP5 , DRO211203B	G:\Org\HP5\Methods\DC_8015-24-IF-L%.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.36r	b\1209HP5.36r	CCV_1209HP536r, RRO ;1209HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AH-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5120921_b\1209HP5.37r	b\1209HP5.37r	CCV_1209HP537r, DRO ;1209HP5 , DRO211203A	G:\Org\HP5\Methods\DC_8015-24-IF-L%.met	1	1	1	1	0



G:\org\HP5\DAT\HP5120721\_b\1207HP5.0016.RAW

MARKER\_1207HP516r, DRO ;1207HP5 , DRO211203B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

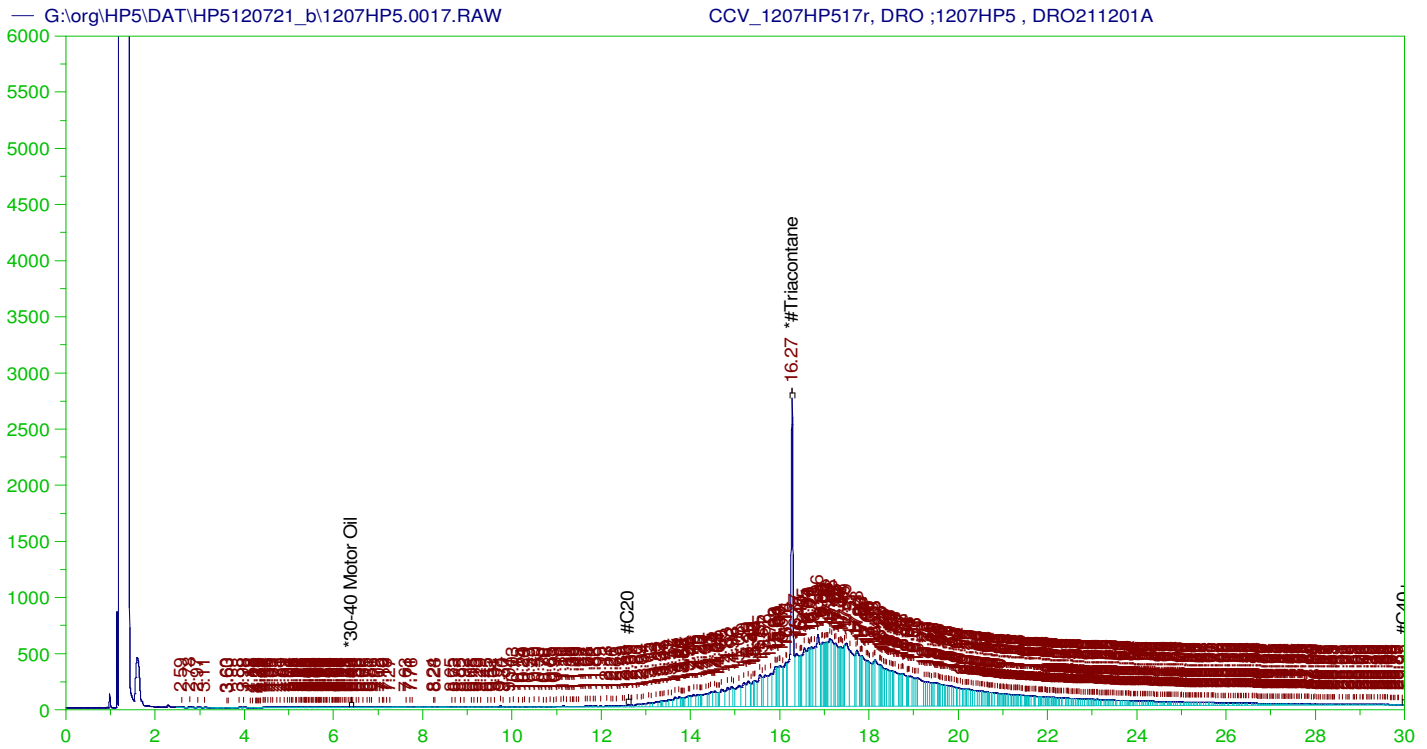
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 Date & Time Acquired: 12/7/2021 9:54:07 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.203	.2	.212	105.96
*1-Chlorooctadecane	13.01	.2	.171	85.29

DRO Area: 6.891877E+07 DRO Amount: 2.198142  
 TEH Area: 1.126031E+08 TEH Amount: 3.59144



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1207HP517r, DRO ;1207HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0017.RAW  
 Date & Time Acquired: 12/7/2021 10:37:27 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.274	500.	353.279	70.66	-

~~RRQ~~ TEH (Oil Range) Area:1.388331E+08 ~~RRQ~~ TEH (Oil Range) AMOUNT: 4864.1

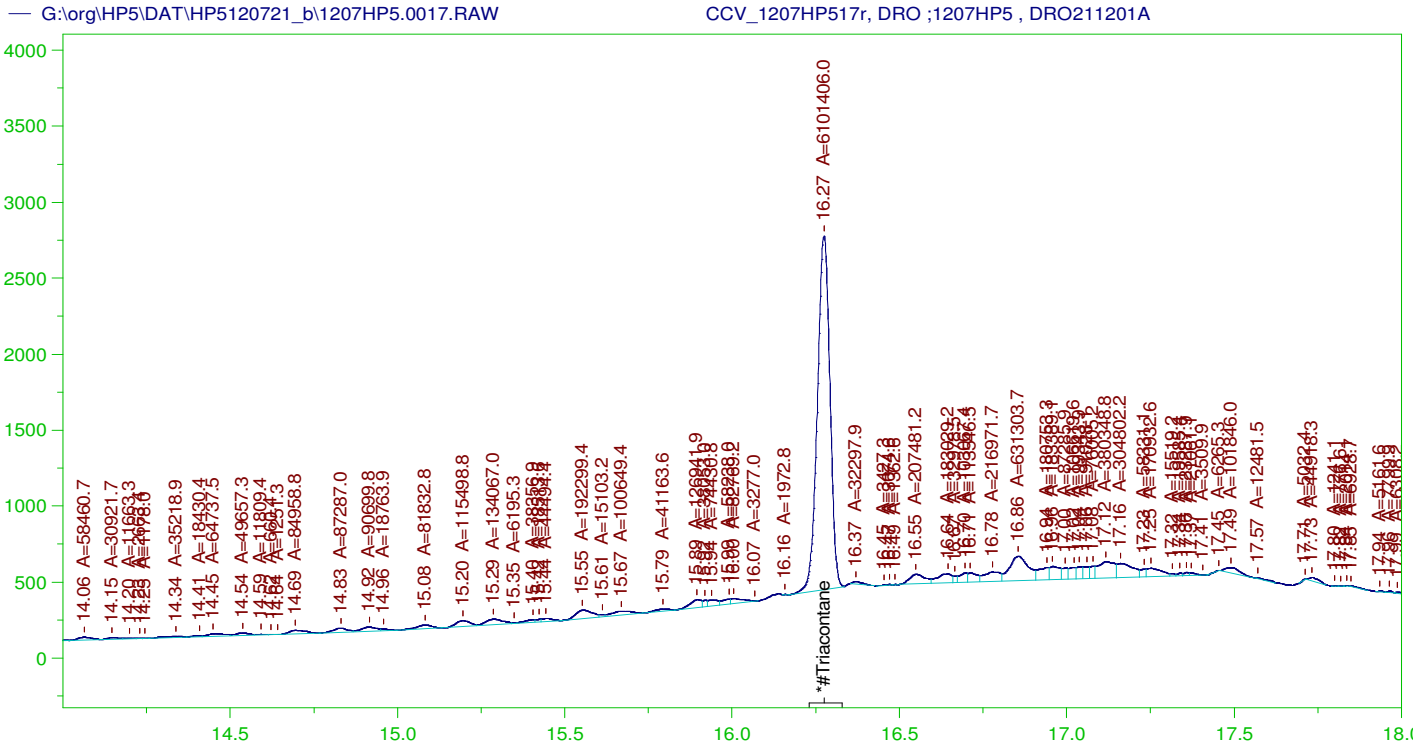
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0017.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.018	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.274	200.	353.279	176.64	75-125

AMN 12/15/2021





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1207HP517r, DRO ;1207HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0017.RAW  
 Date & Time Acquired: 12/7/2021 10:37:27 PM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.274	500.	210.901	42.18

RRO Area:5991801 RRO AMOUNT: 209.9262

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0017.RAW

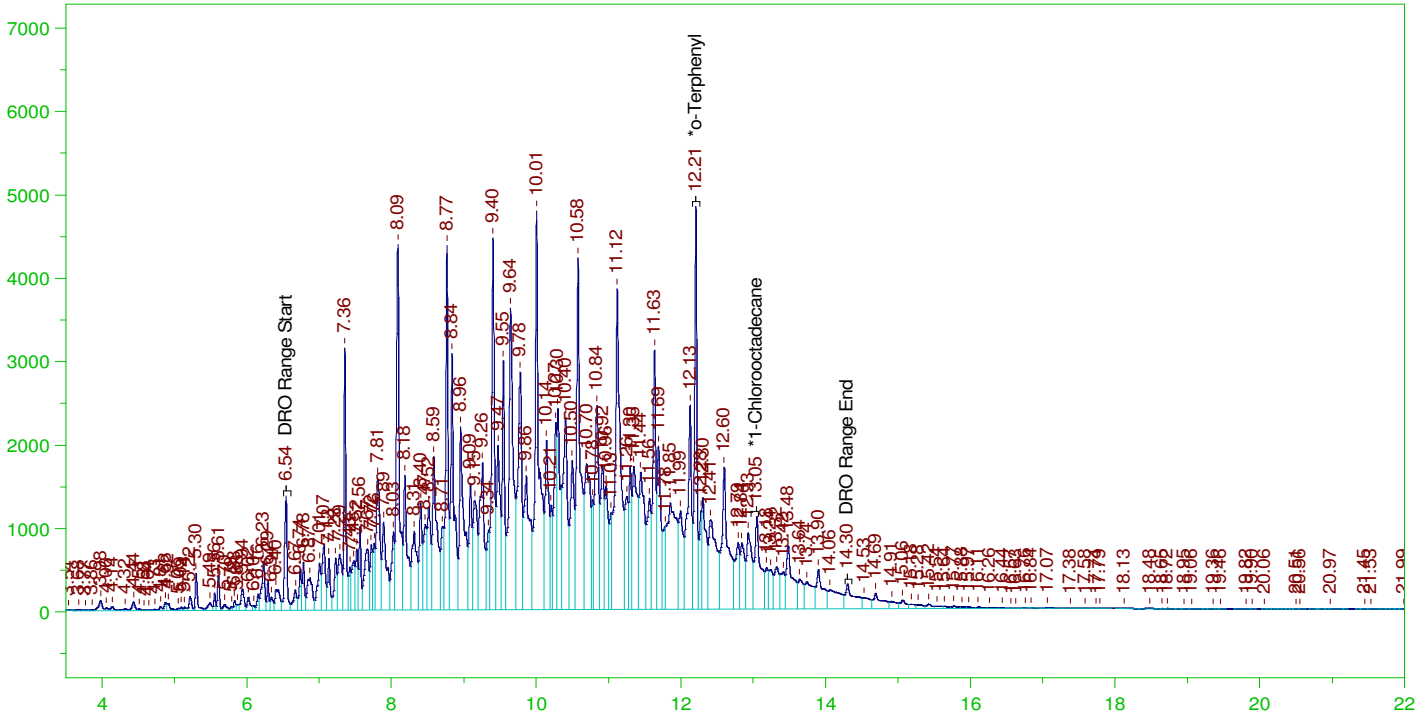
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.018	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.274	200.	210.901	105.45	75-125

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0018.RAW

CCV\_1207HP518r, DRO ;1207HP5 , DRO211203A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1207HP518r, DRO ;1207HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0018.RAW  
 Date & Time Acquired: 12/7/2021 11:20:36 PM  
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 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

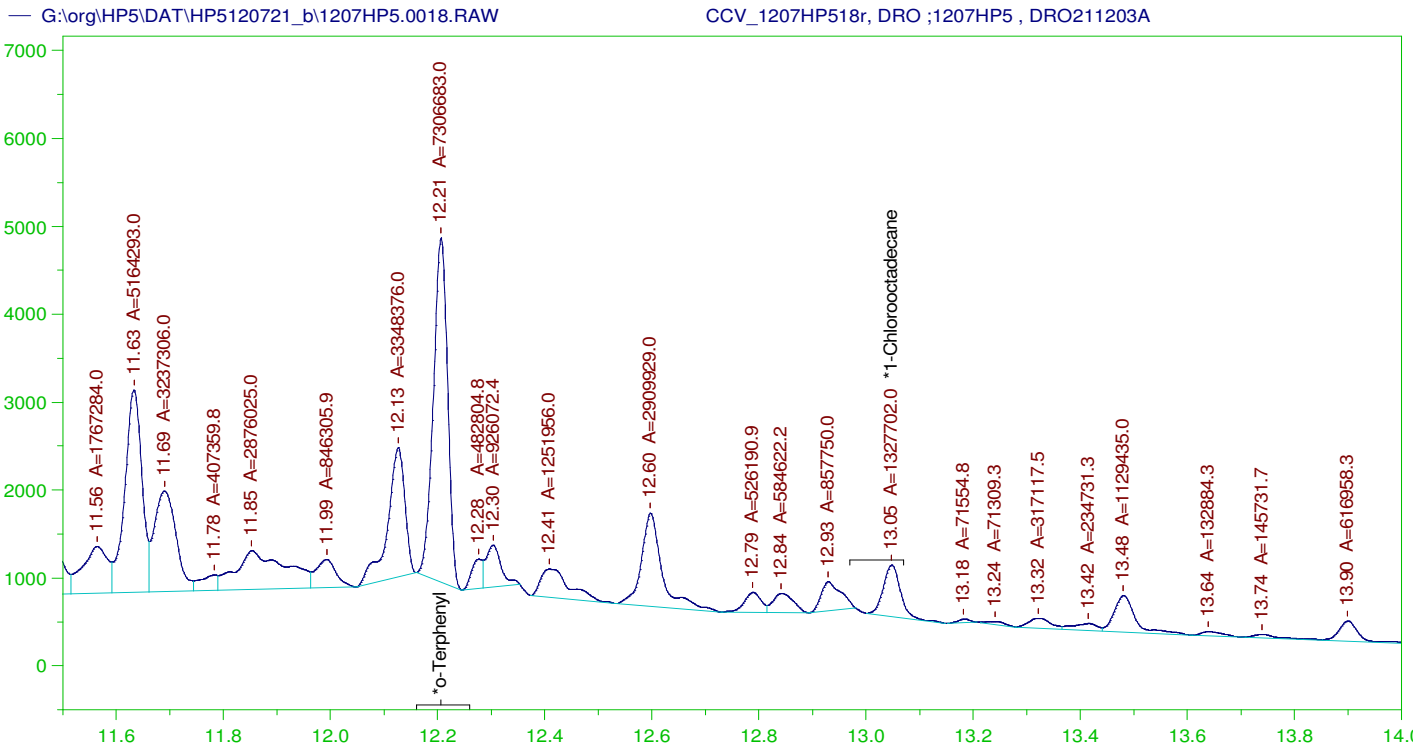
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.206	200.	338.254	169.13
*1-Chlorooctadecane	13.048	200.	164.218	82.11

DRO Area: 4.744403E+08 DRO Amount: 15132.12  
 TEH Area: 4.908658E+08 TEH Amount: 15656.01

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0018.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15656.01	104.37	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.206	200.	338.254	169.13	85-115
*1-Chlorooctadecane	13.048	200.	164.218	82.11	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1207HP518r, DRO ;1207HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0018.RAW  
 Date & Time Acquired: 12/7/2021 11:20:36 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.51 to 14.37

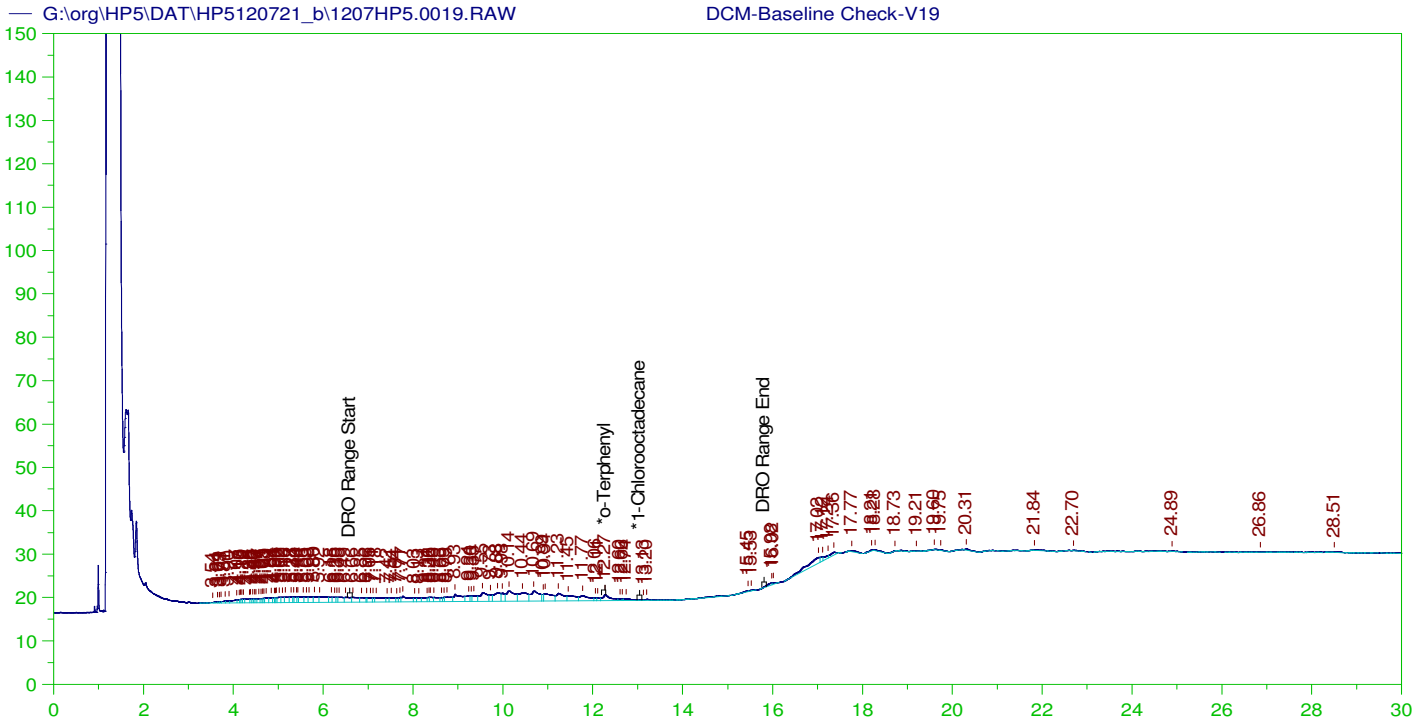
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.206	200.	205.769	102.88
*1-Chlorooctadecane	13.048	200.	37.39	18.7

DRO Area: 2.659892E+08 DRO Amount: 8483.642  
 TEH Area: 2.763575E+08 TEH Amount: 8814.333

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0018.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8814.33	58.76	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.206	200.	205.769	102.88	85-115
*1-Chlorooctadecane	13.048	200.	37.39	18.7	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V19  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0019.RAW  
 Date & Time Acquired: 12/8/2021 12:03:48 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

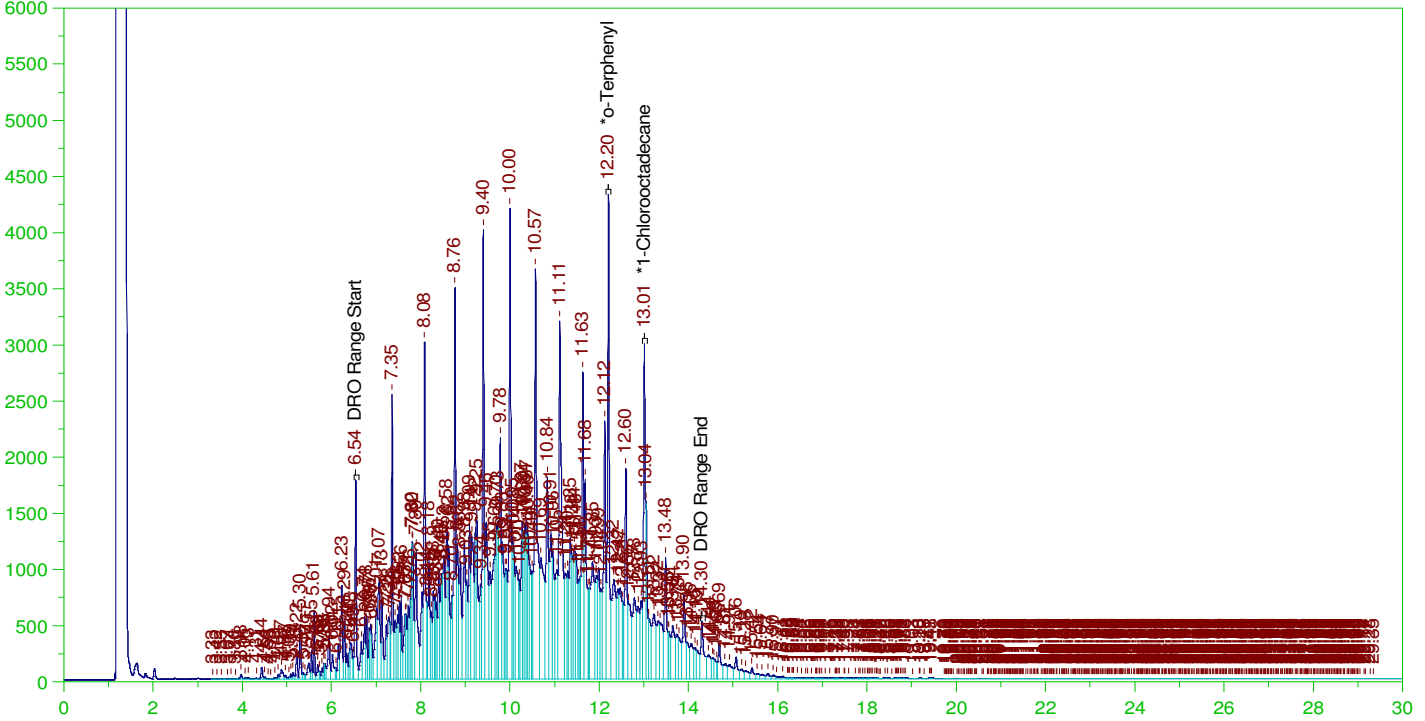
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.272	200.	.444	.22
*1-Chlorooctadecane	29.872	200.	.	.

DRO Area: 419317.4 DRO Amount: 13.374  
 TEH Area: 685951.4 TEH Amount: 21.8782

Batch ID: 161934

LCS-161934 ;1207HP5 ,

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0020.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-161934 ;1207HP5 ,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0020.RAW  
Date & Time Acquired: 12/8/2021 12:46:56 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-120720-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

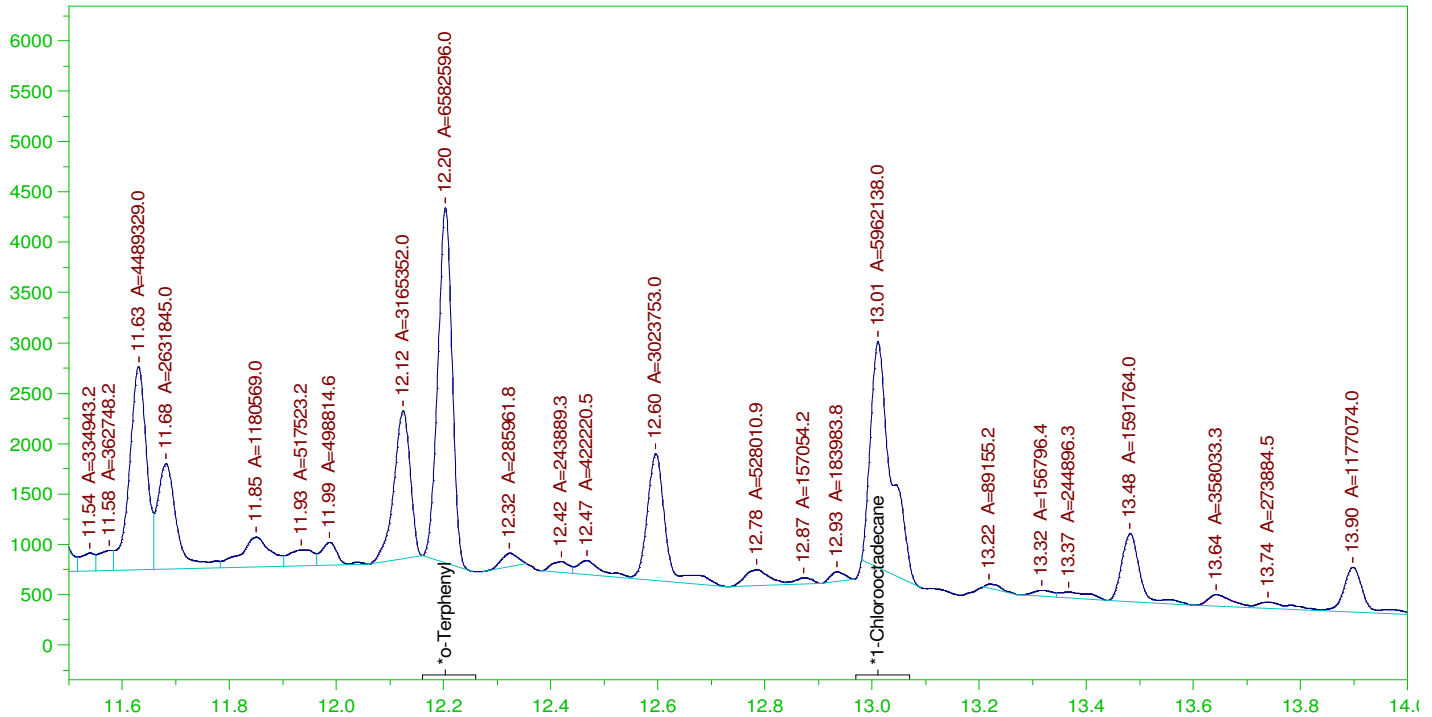
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.203	.2	.318	159.07	-
*1-Chlorooctadecane	13.011	.2	.226	113.16	-

DRO Area:3.990503E+08 DRO Amount: 12.72758  
TEH Area:4.271666E+08 TEH Amount: 13.62434

Batch ID: 161934  
G:\org\HP5\DAT\HP5120721\_b\1207HP5.0020.RAW LCS-161934 ;1207HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-161934 ;1207HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0020.RAW  
 Date & Time Acquired: 12/8/2021 12:46:56 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

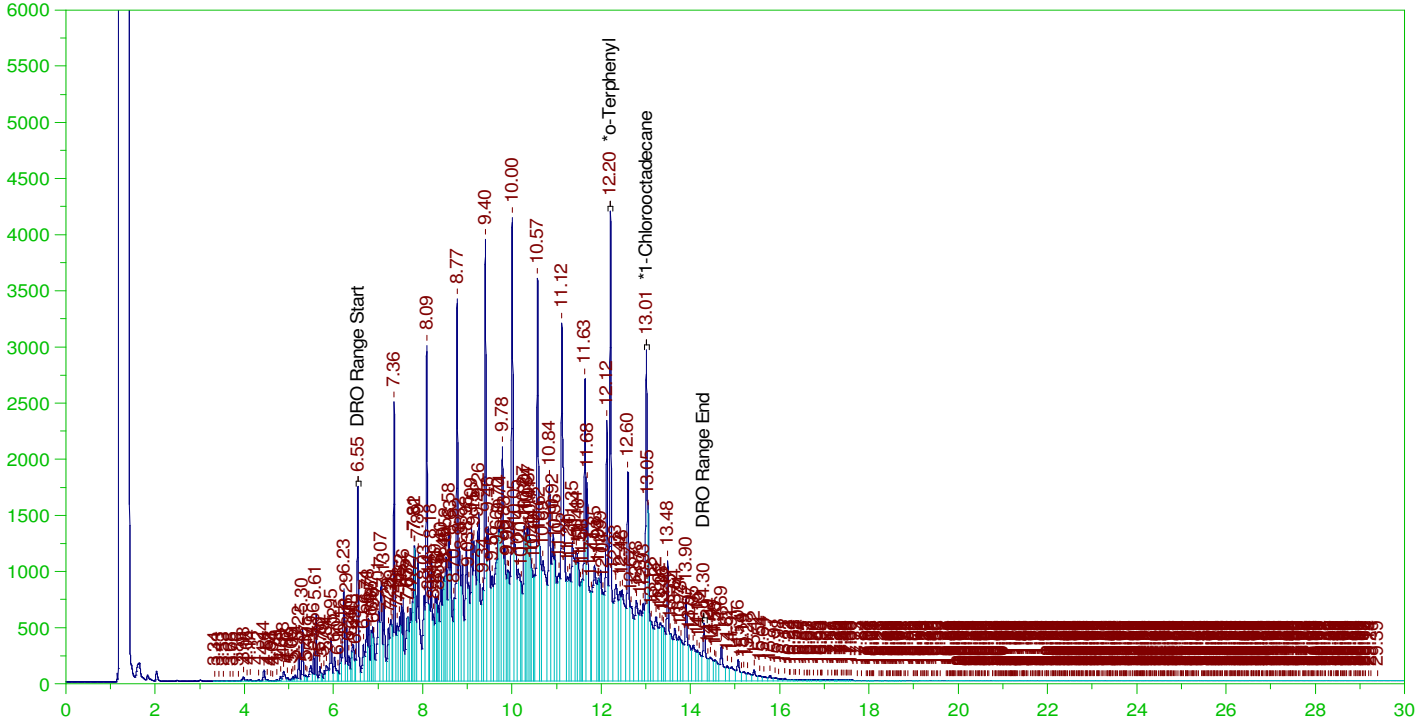
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.203	.2	.185	92.69
*1-Chlorooctadecane	13.011	.2	.168	83.95

DRO Area: 1.95808E+08 DRO Amount: 6.245233  
 TEH Area: 2.09954E+08 TEH Amount: 6.696415

Batch ID: 161934

LCSD-161934 ;1207HP5 ,

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0021.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCSD-161934 ;1207HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0021.RAW  
 Date & Time Acquired: 12/8/2021 1:30:11 AM  
 Method File: G:\Org\HP5\Methods\D3\_8015-120721-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

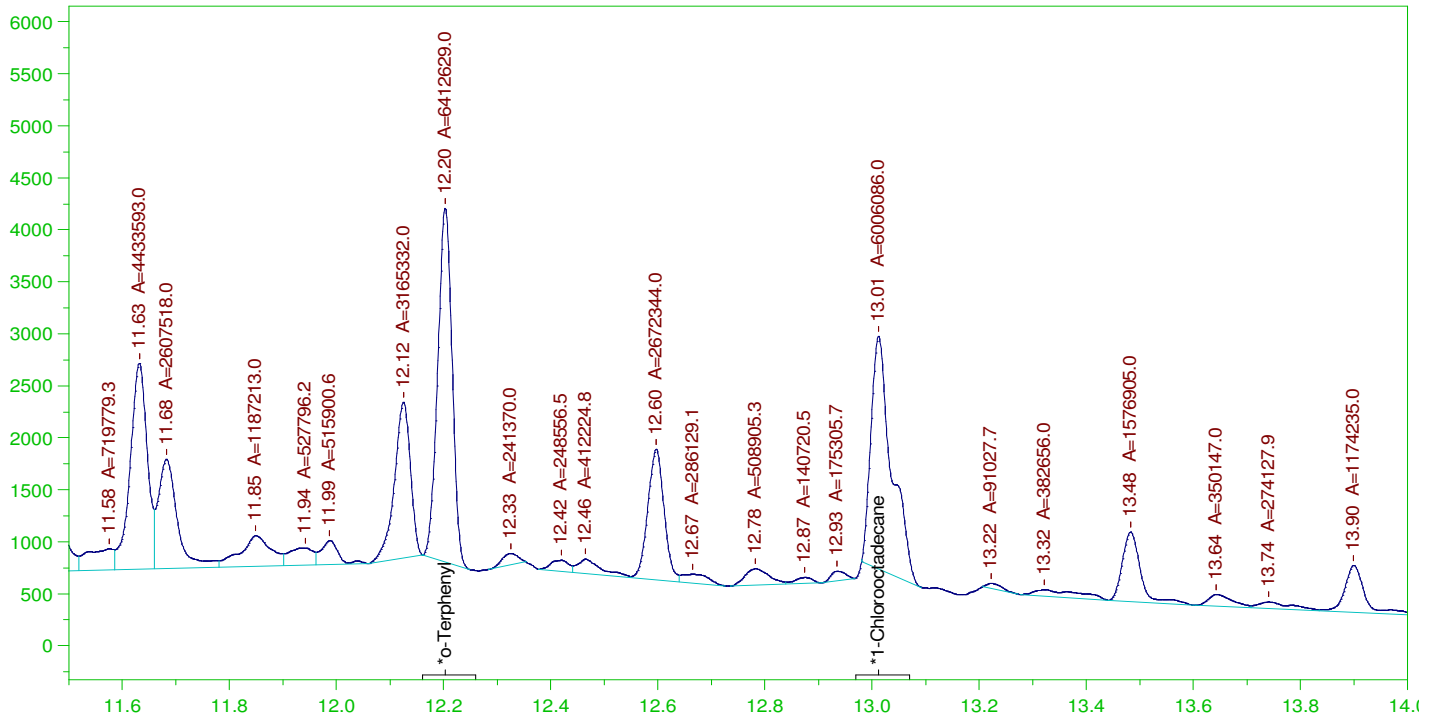
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.203	.2	.315	157.41
*1-Chlorooctadecane	13.012	.2	.23	115.11

DRO Area: 3.942488E+08 DRO Amount: 12.57444  
 TEH Area: 4.221515E+08 TEH Amount: 13.46439

Batch ID: 161934  
G:\org\HP5\DAT\HP5120721\_b\1207HP5.0021.RAW LCSD-161934 ;1207HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCSD-161934 ;1207HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0021.RAW  
 Date & Time Acquired: 12/8/2021 1:30:11 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

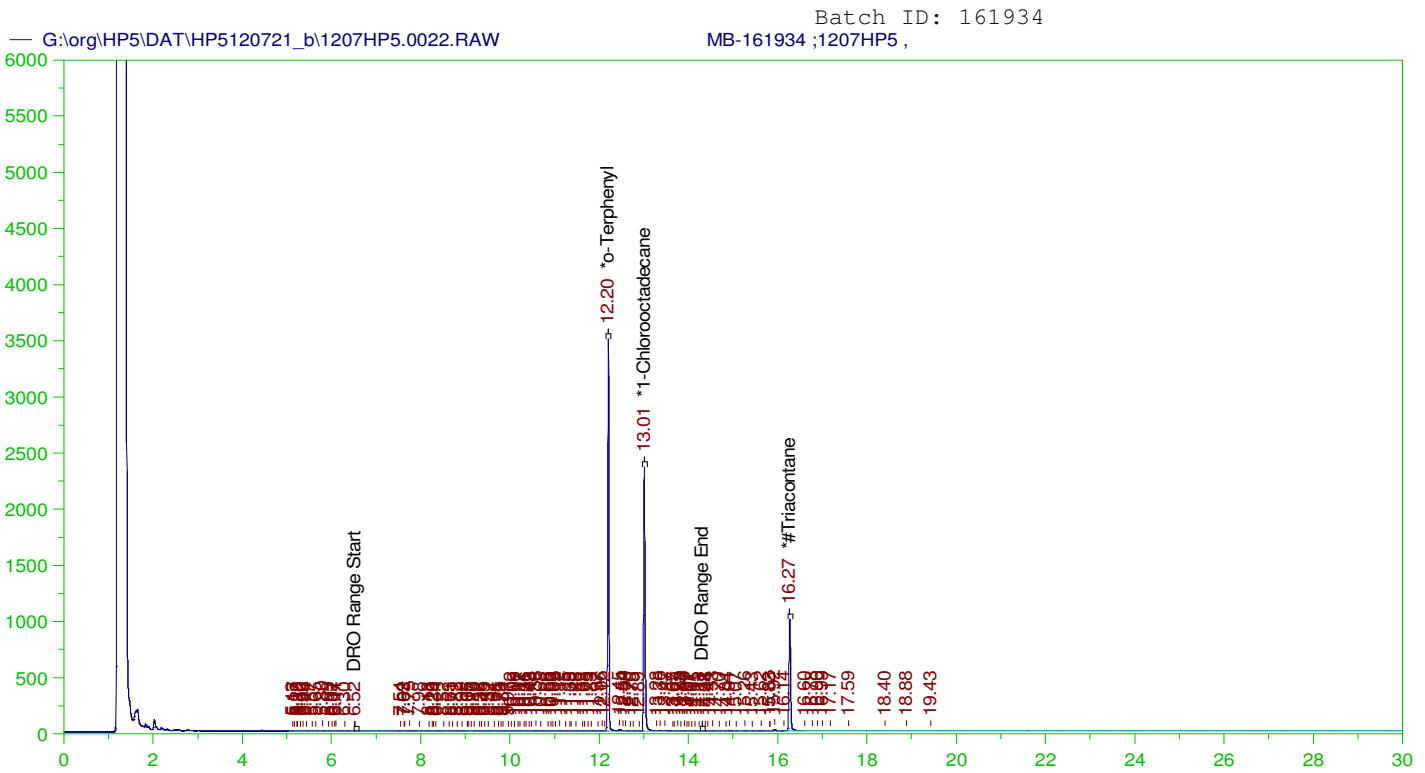
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.203	.2	.181	90.3
*1-Chlorooctadecane	13.012	.2	.169	84.57

DRO Area: 1.938037E+08 DRO Amount: 6.181307  
 TEH Area: 2.077161E+08 TEH Amount: 6.625038





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

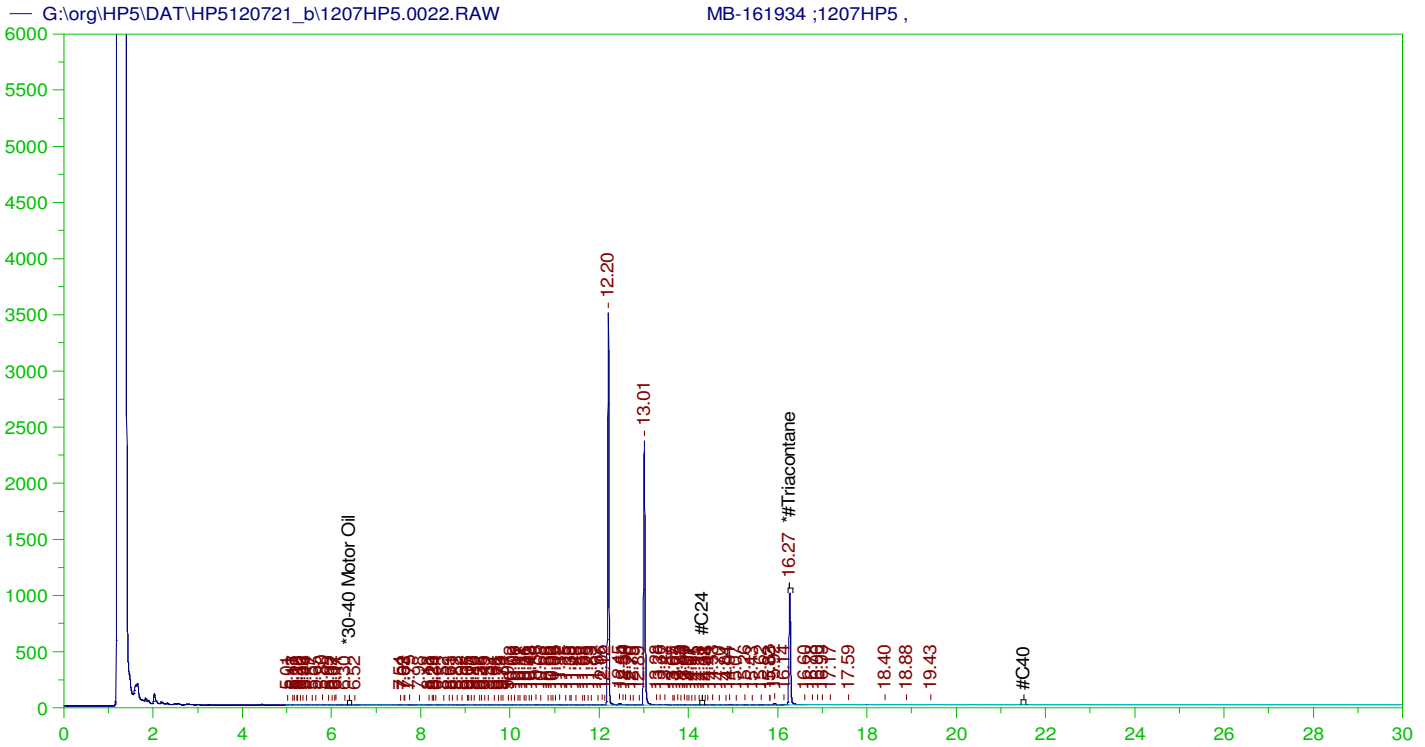
Sample Name: MB-161934 ;1207HP5 ,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0022.RAW  
Date & Time Acquired: 12/8/2021 2:13:20 AM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.2	.2	.19	95.11	-
*1-Chlorooctadecane	13.01	.2	.15	75.04	-
*#Triacontane	16.267	.2	.094	46.87	-

DRO Area: 644421.9 DRO Amount: 2.055363E-02  
TEH Area: 903893.9 TEH Amount: 2.882941E-02



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: MB-161934 ;1207HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0022.RAW  
 Date & Time Acquired: 12/8/2021 2:13:20 AM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-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: 14.26 to 21.56

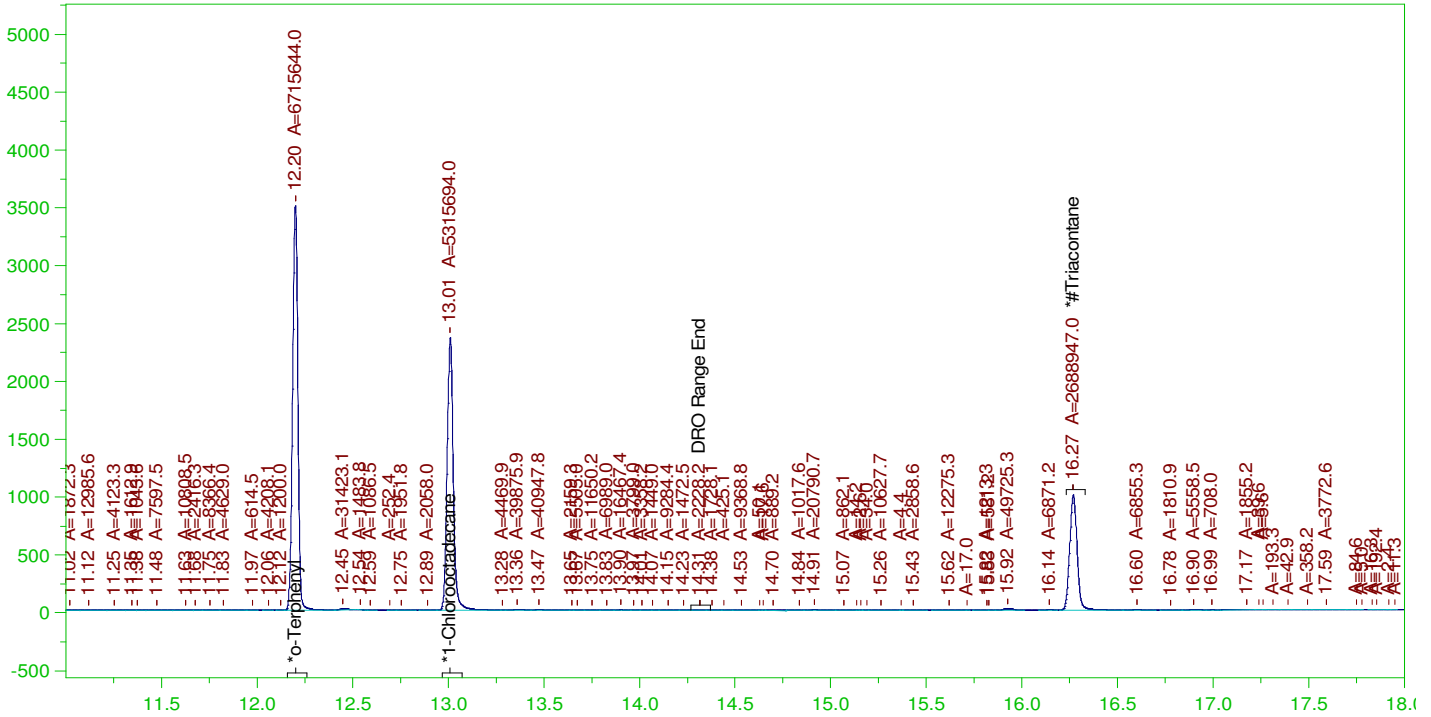
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.267	.5	.094	18.75

RRO Area:165686.2 RRO AMOUNT: 5.804913E-03

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0022.RAW

MB-161934 ;1207HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-161934 ;1207HP5 ,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0022.RAW  
Date & Time Acquired: 12/8/2021 2:13:20 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.2	.2	.189	94.56	-
*1-Chlorooctadecane	13.01	.2	.15	74.85	-
*#Triacontane	16.267	.2	.093	46.47	-

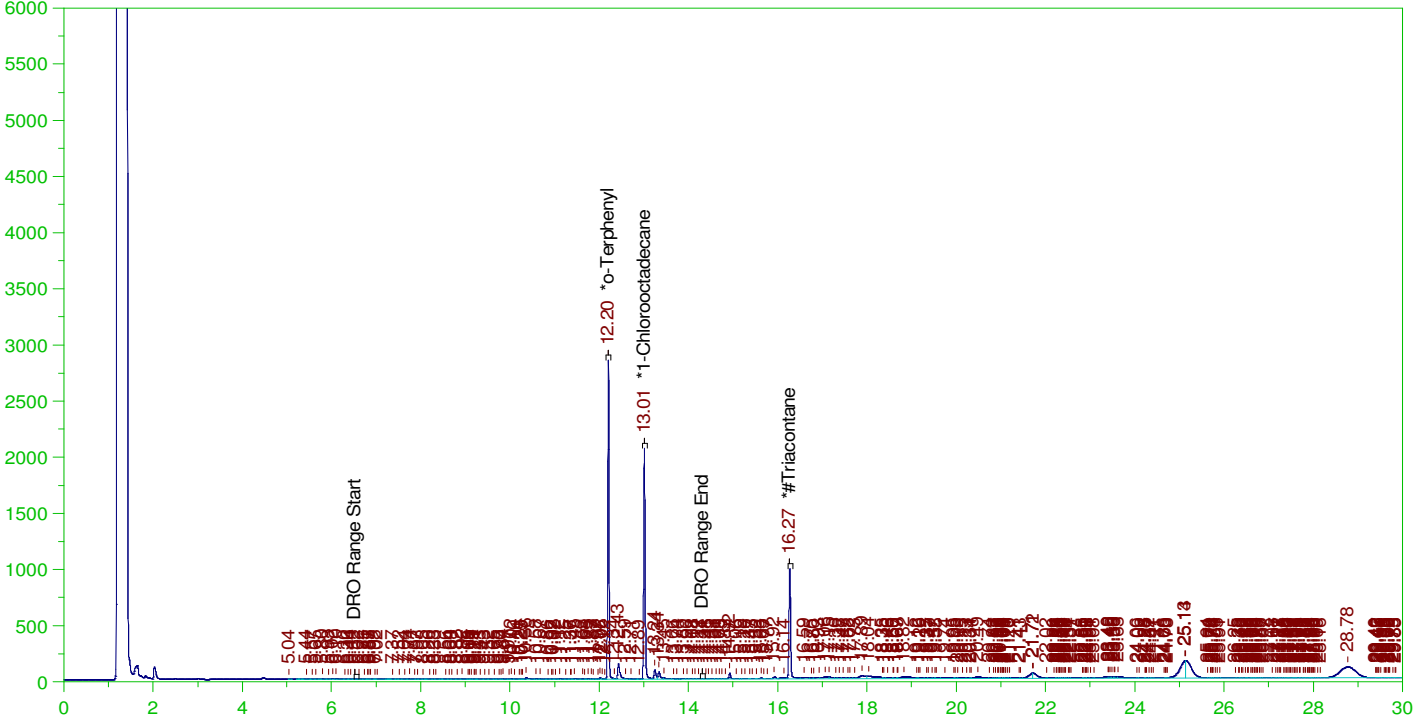
DRO Area:489846.8 DRO Amount: 1.562351E-02  
TEH Area:936280 TEH Amount: 2.986235E-02

ERH2014 (RHMW08)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0023.RAW

Batch ID: 161934

B21120381-006B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-006B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0023.RAW  
Date & Time Acquired: 12/8/2021 2:56:28 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.201	.192	.148	77.17	-
*1-Chlorooctadecane	13.011	.192	.125	64.81	-
*#Triacontane	16.267	.192	.091	47.27	-

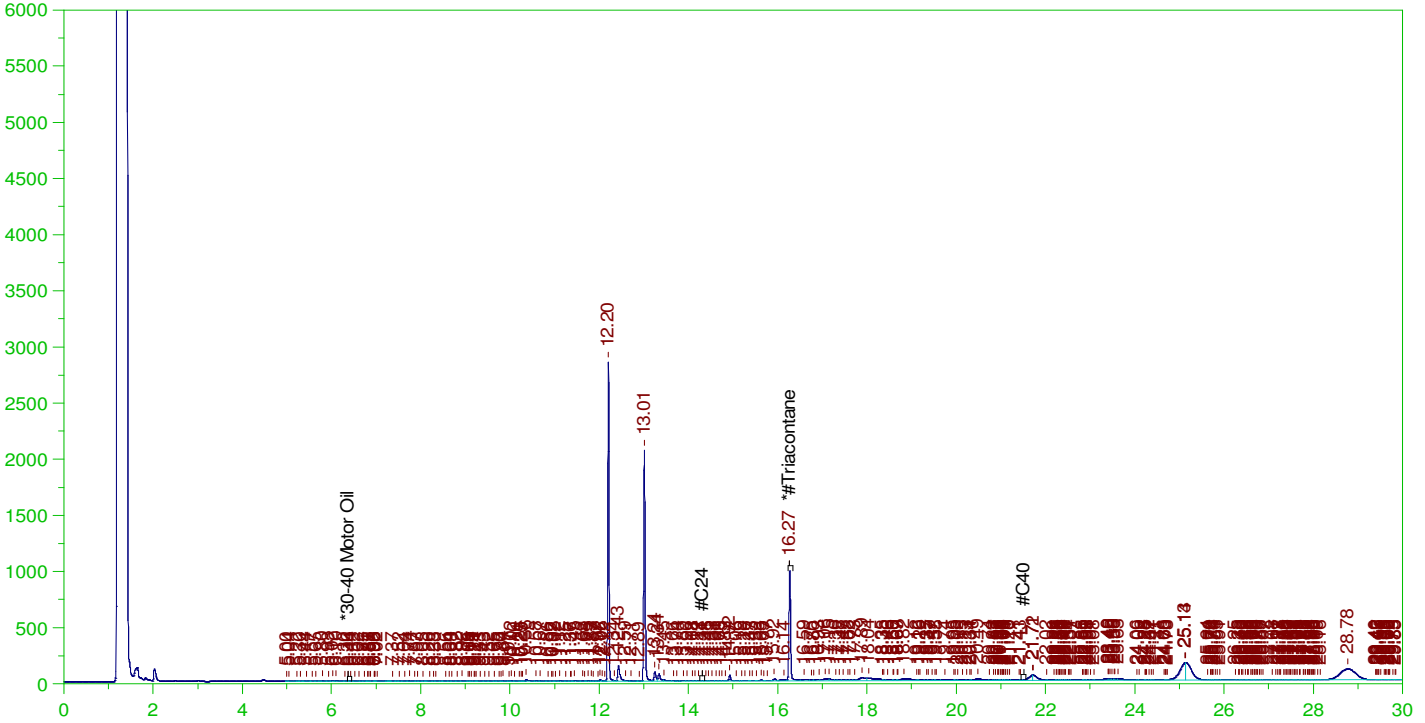
DRO Area:1706539 DRO Amount: 5.233606E-02  
TEH Area:1.431123E+07 TEH Amount: 0.4388961

ERH2014 (RHMW08)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0023.RAW

Batch ID: 161934

B21120381-006B ;1207HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-006B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0023.RAW  
Date & Time Acquired: 12/8/2021 2:56:28 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-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: 14.26 to 21.56

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.267	.481	.091	18.91

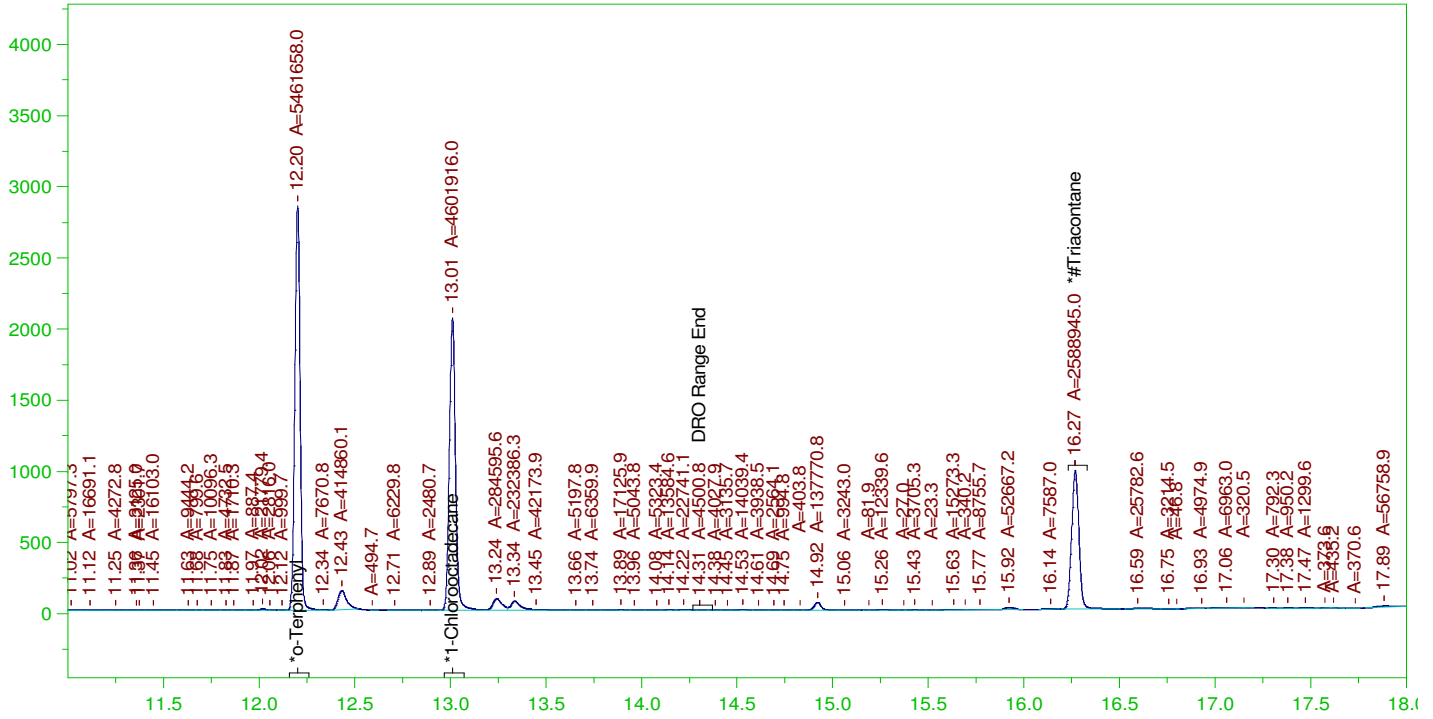
RRO Area:4221454 RRO AMOUNT: 0.1422126

ERH2014 (RHMW08)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0023.RAW

B21120381-006B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-006B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0023.RAW  
Date & Time Acquired: 12/8/2021 2:56:28 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.201	.192	.148	76.9
*1-Chlorooctadecane	13.011	.192	.125	64.8
*#Triacontane	16.267	.192	.086	44.74

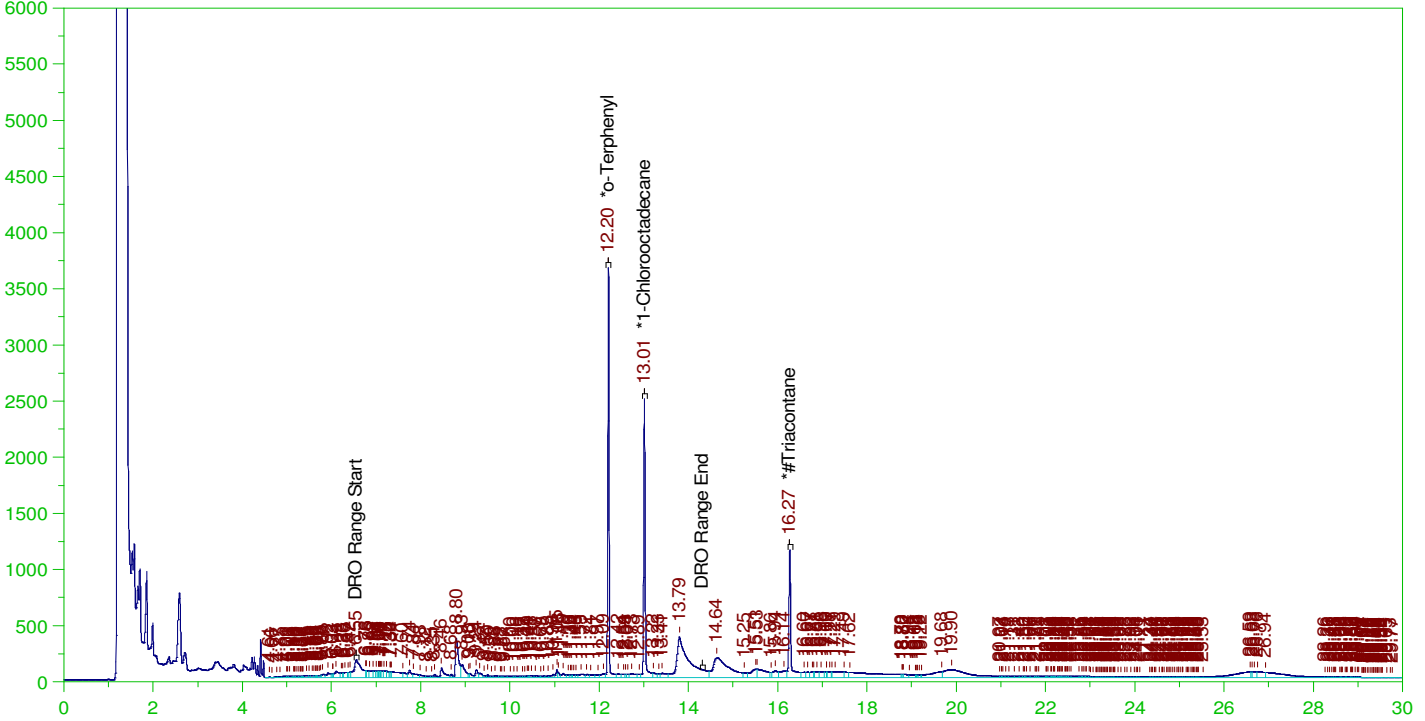
DRO Area:1488682 DRO Amount: 4.565486E-02  
TEH Area:4949549 TEH Amount: 0.1517926

ERH2018 (RHMW2254-01)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0024.RAW

Batch ID: 161934

B21120381-007B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-007B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0024.RAW  
Date & Time Acquired: 12/8/2021 3:39:42 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-120724-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.203	.196	.198	100.86	-
*1-Chlorooctadecane	13.012	.196	.16	81.74	-
*#Triacontane	16.268	.196	.126	64.21	-

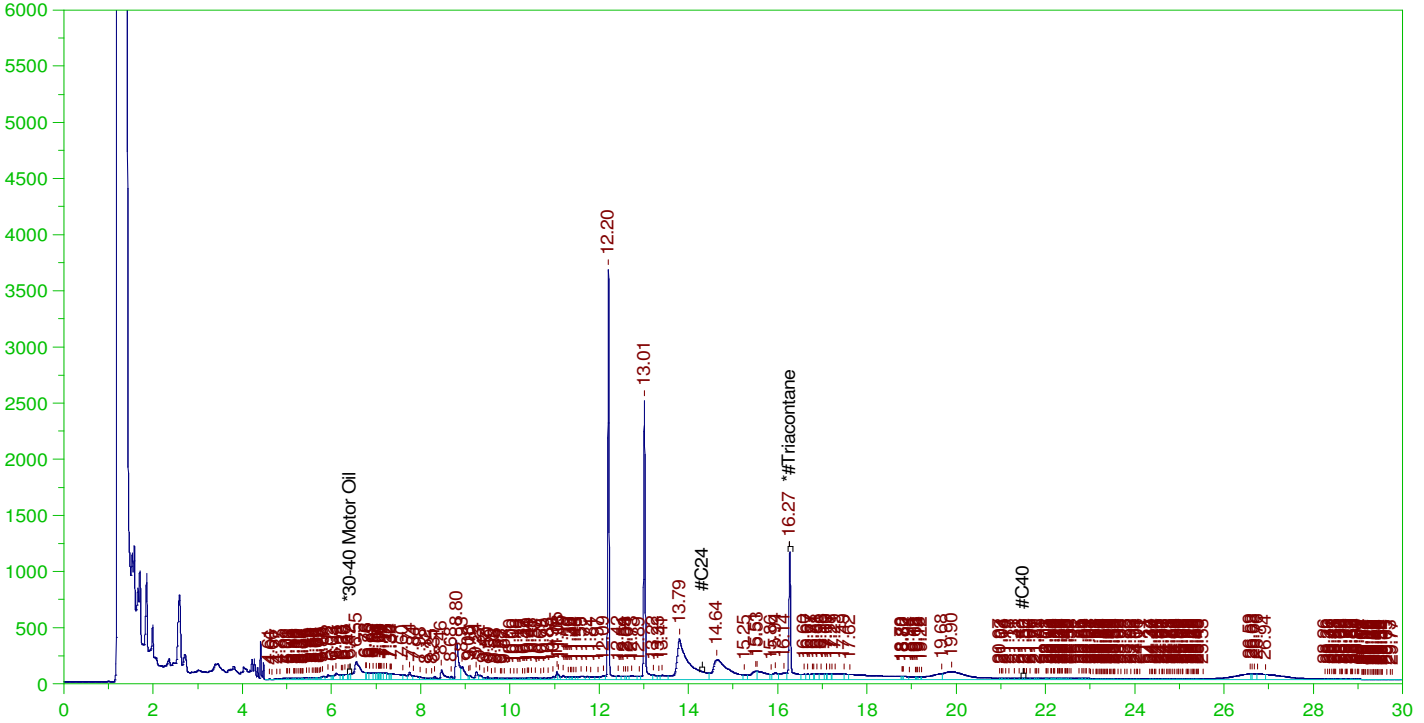
DRO Area:2.035325E+07 DRO Amount: 0.6364316  
TEH Area:4.463746E+07 TEH Amount: 1.395782

ERH2018 (RHMW2254-01)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0024.RAW

Batch ID: 161934

B21120381-007B ;1207HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-007B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0024.RAW  
Date & Time Acquired: 12/8/2021 3:39:42 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-120724-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-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: 14.26 to 21.56

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.268	.49	.126	25.69

RRO Area:1.701586E+07 RRO AMOUNT: 0.5844712

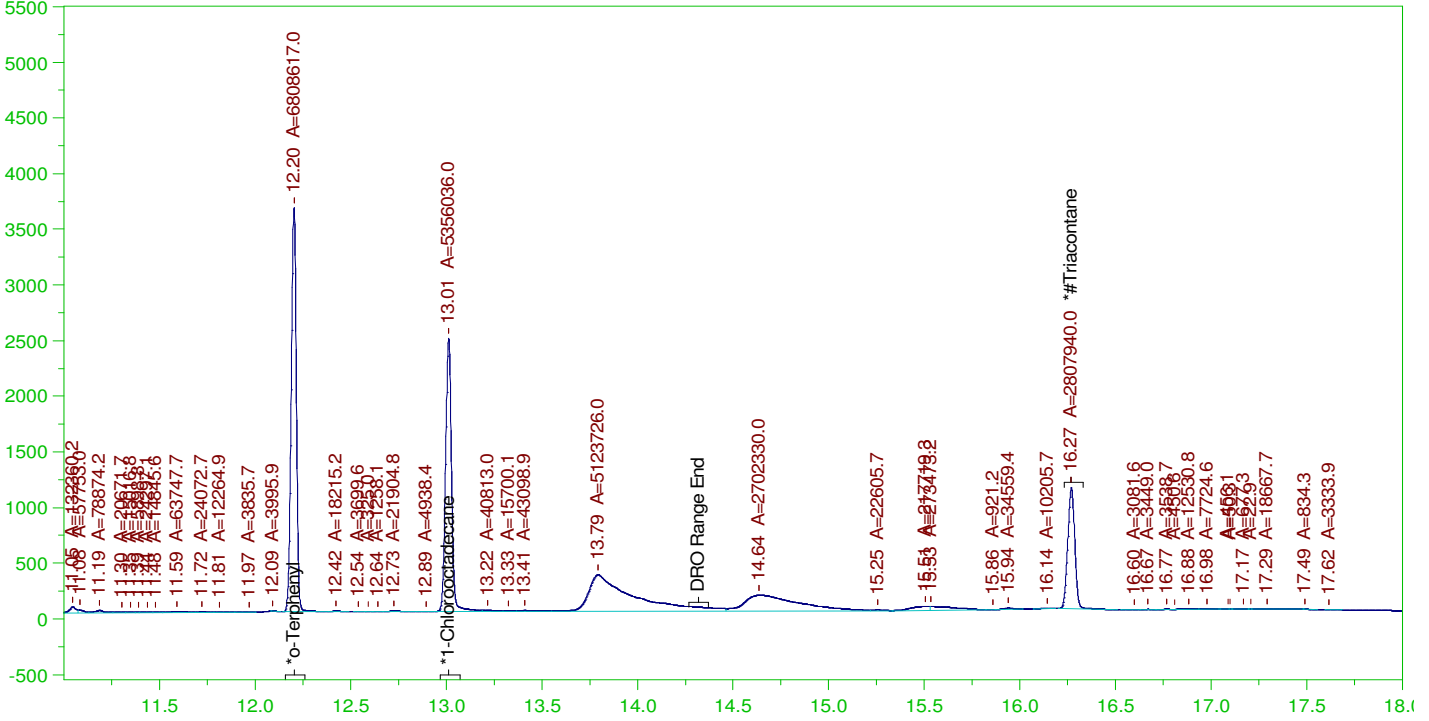


ERH2018 (RHMW2254-01)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0024.RAW

B21120381-007B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-007B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0024.RAW  
Date & Time Acquired: 12/8/2021 3:39:42 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.203	.196	.188	95.87	-
*1-Chlorooctadecane	13.012	.196	.148	75.42	-
*#Triacontane	16.268	.196	.095	48.53	-

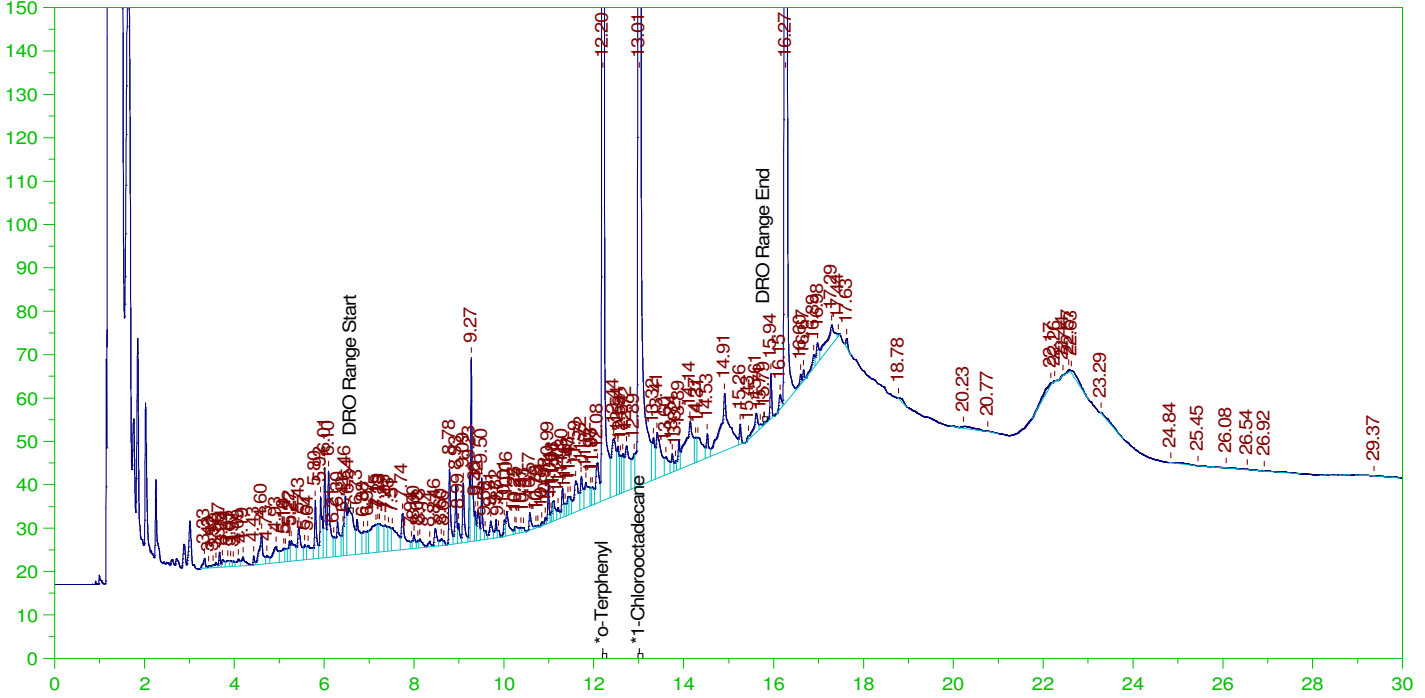
DRO Area:1.421763E+07 DRO Amount: 0.4445752  
TEH Area:2.427053E+07 TEH Amount: 0.7589225

ERH2020 (OWDFM01)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0025.RAW

B21120381-008B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

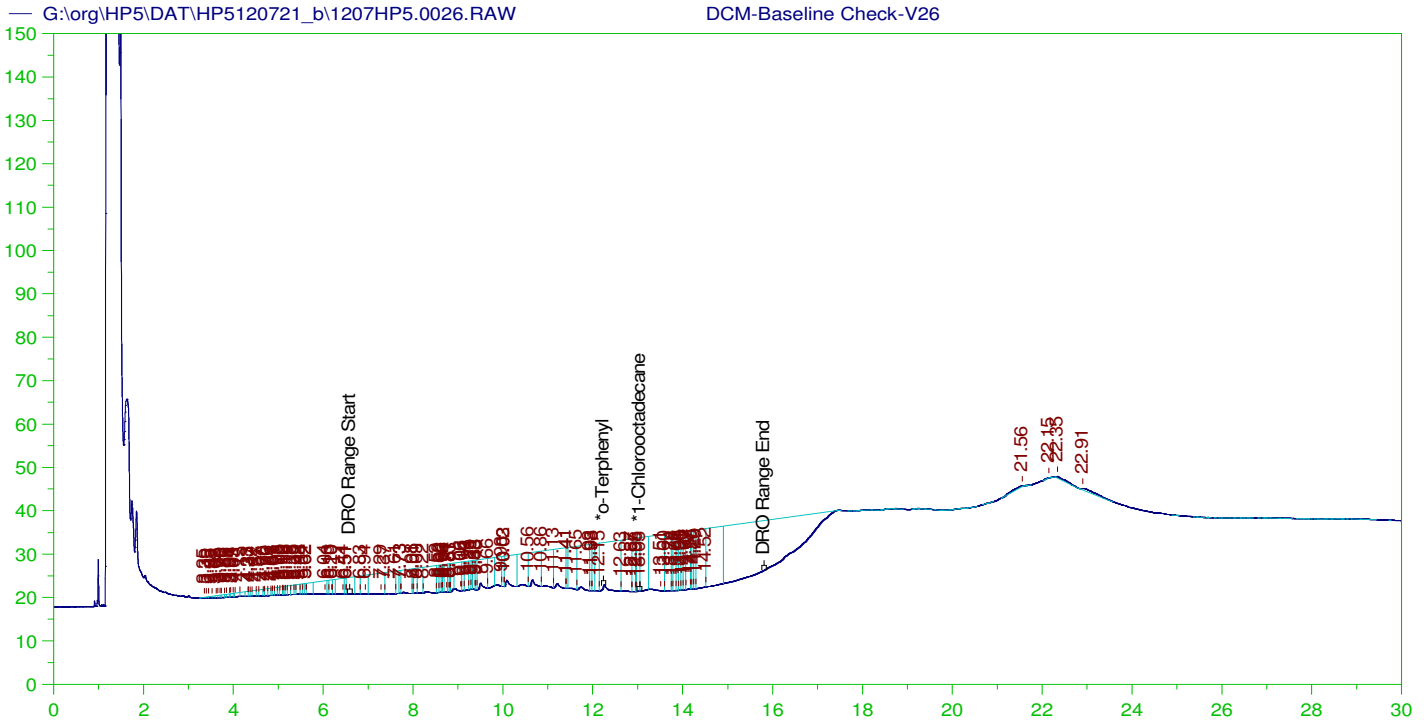
Sample Name: B21120381-008B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0025.RAW  
Date & Time Acquired: 12/8/2021 4:22:59 AM  
Method File: G:\Org\HP5\Methods\DR\_8015-IB-LEXP.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IB.CAL  
Sample Weight: 1000 Dilution: 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	12.203	.2	.19	94.84
*1-Chlorooctadecane	13.013	.2	.154	77.12

DRO Area:2151027 DRO Amount: 6.860632E-02  
TEH Area:5823366 TEH Amount: 0.1857344



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V26  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0026.RAW  
 Date & Time Acquired: 12/8/2021 5:06:13 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	29.743	200.	.	-
*1-Chlorooctadecane	13.045	200.	4.049	2.02

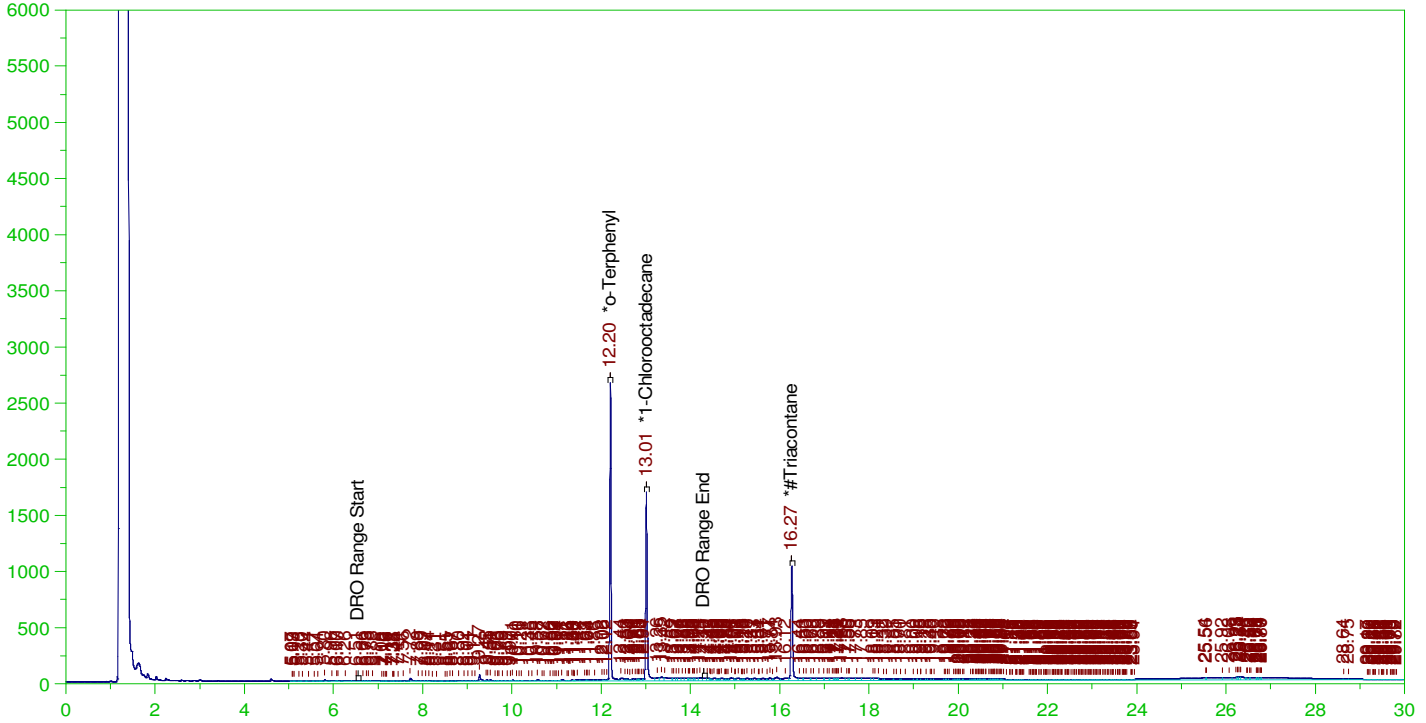
DRO Area:4181006 DRO Amount: 133.3518  
 TEH Area:3307425 TEH Amount: 105.4893

ERH2009 (RHMW03)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0027.RAW

Batch ID: 161934

B21120381-003A ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-003A ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0027.RAW  
Date & Time Acquired: 12/8/2021 5:49:23 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.202	.202	.151	74.68	-
*1-Chlorooctadecane	13.011	.202	.113	55.86	-
*#Triacontane	16.268	.202	.101	50.07	-

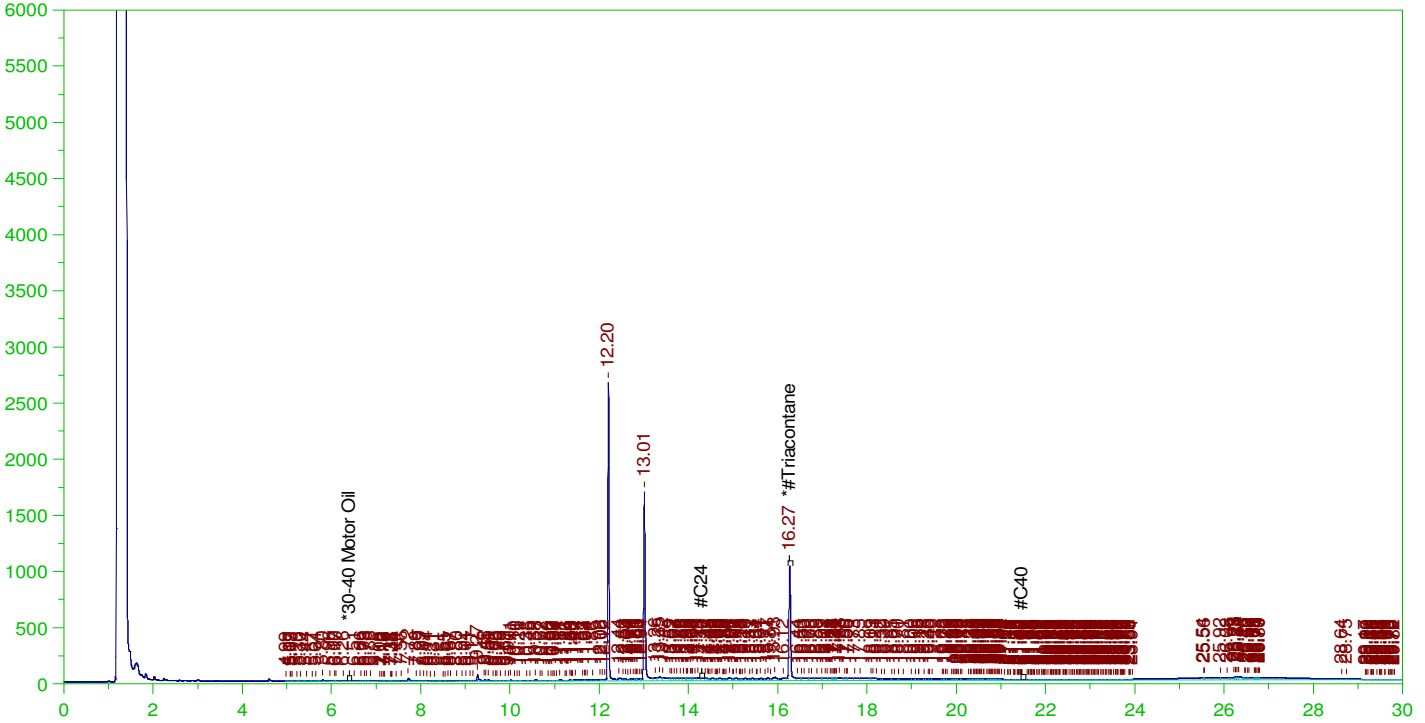
DRO Area:3355163 DRO Amount: 0.1080928  
TEH Area:1.461388E+07 TEH Amount: 0.4708131

ERH2009 (RHMW03)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0027.RAW

Batch ID: 161934

B21120381-003A ;1207HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-003A ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0027.RAW  
Date & Time Acquired: 12/8/2021 5:49:23 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-SAMP.CAL  
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
Rt range for Residual Range Organics: 14.26 to 21.56

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.268	.505	.101	20.03

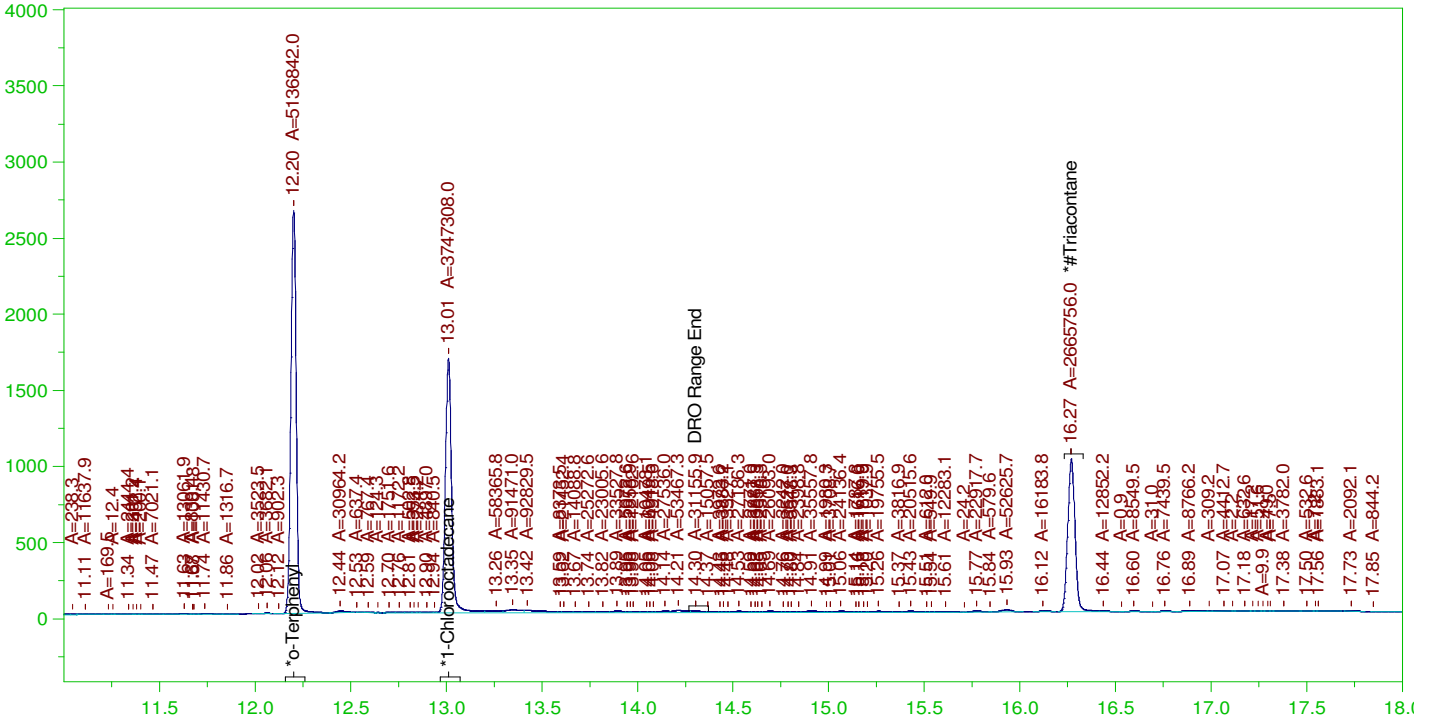
RRO Area:6451515 RRO AMOUNT: 0.2283157

ERH2009 (RHMW03)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0027.RAW

B21120381-003A ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-003A ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0027.RAW  
Date & Time Acquired: 12/8/2021 5:49:23 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

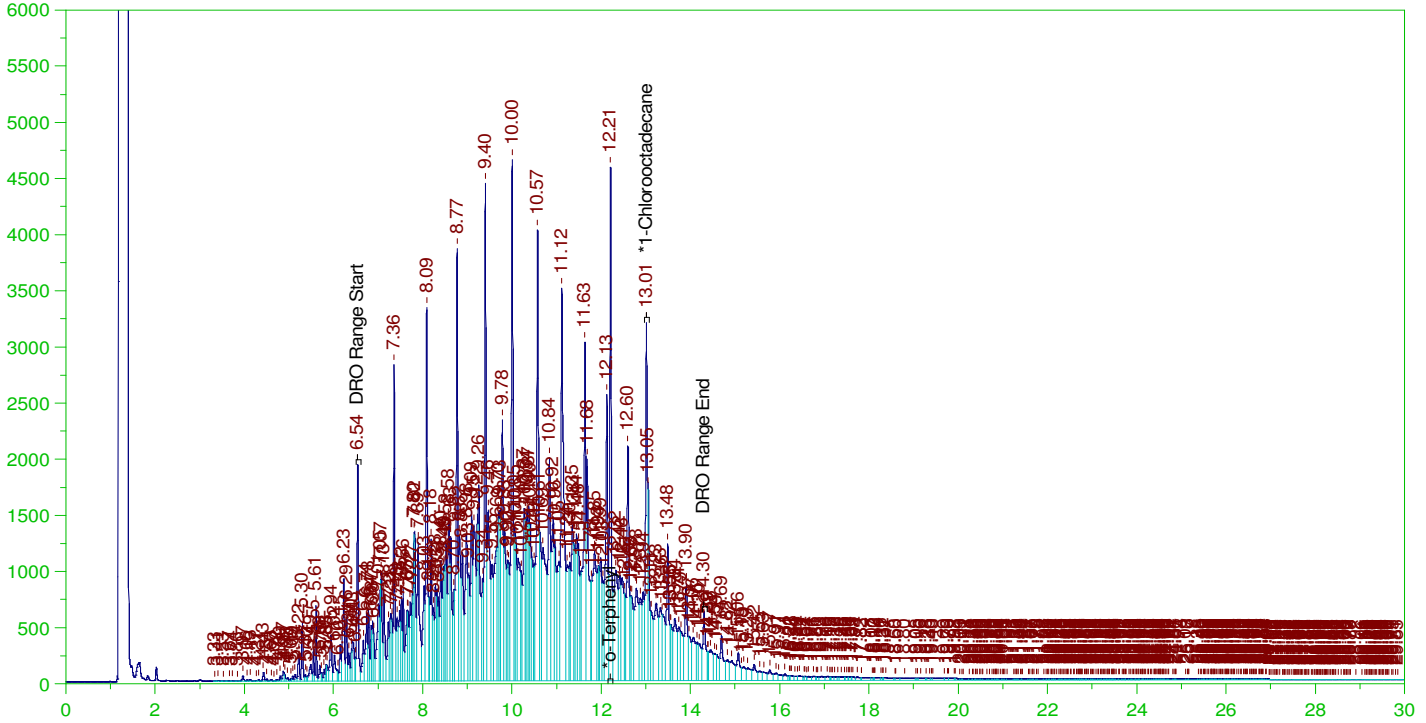
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.202	.202	.146	72.33	-
*1-Chlorooctadecane	13.011	.202	.107	52.77	-
*#Triacontane	16.268	.202	.093	46.07	-

DRO Area:1219932 DRO Amount: 3.930235E-02  
TEH Area:2101762 TEH Amount: 6.771215E-02

Batch ID: 161934

B21120381-003AMS ;1207HP5 ,

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0028.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-003AMS ;1207HP5 ,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0028.RAW  
Date & Time Acquired: 12/8/2021 6:32:31 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-120720-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

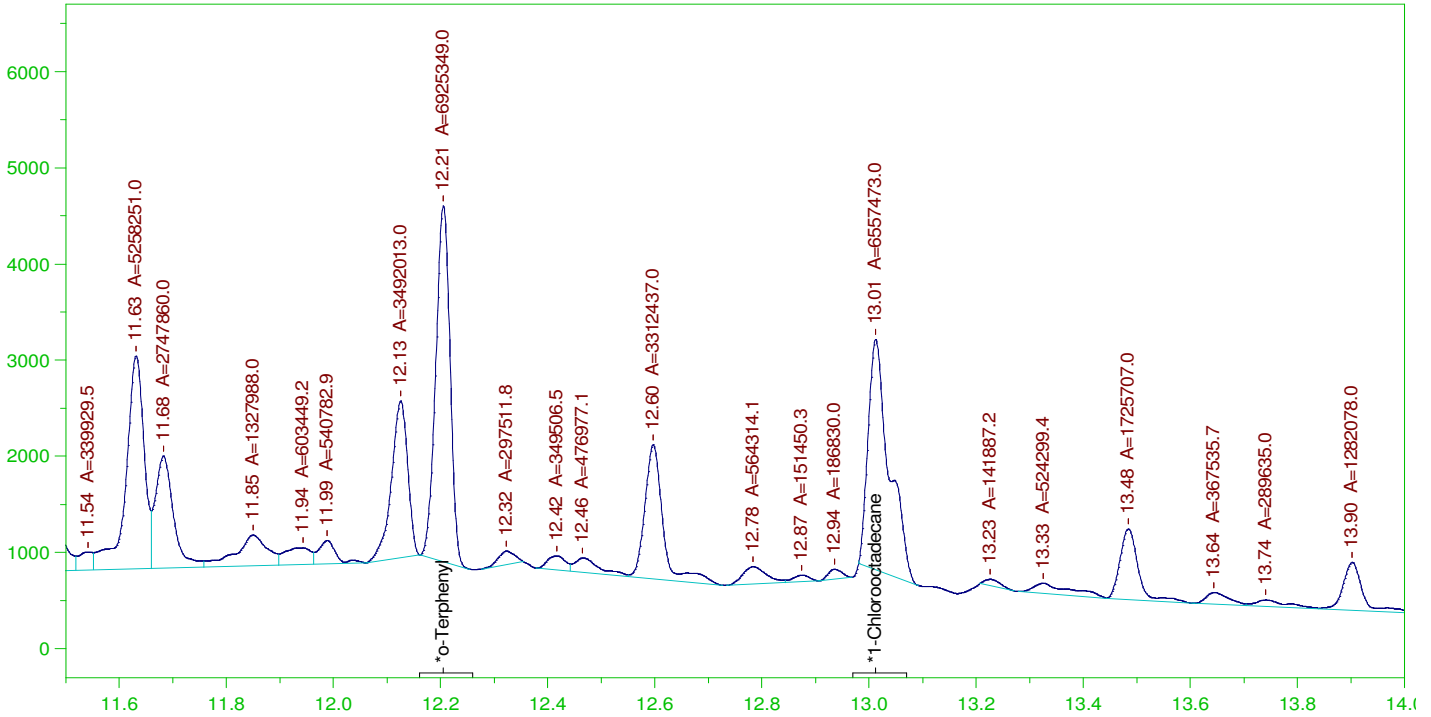
Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.205	.194	.331	170.68	-
*1-Chlorooctadecane	13.012	.194	.235	121.2	-

DRO Area: 4.384962E+08 DRO Amount: 13.57835  
TEH Area: 4.781427E+08 TEH Amount: 14.80603

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0028.RAW

Batch ID: 161934  
B21120381-003AMS ;1207HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-003AMS ;1207HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0028.RAW  
 Date & Time Acquired: 12/8/2021 6:32:31 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1030 Dilution: 1 S.A.: 1

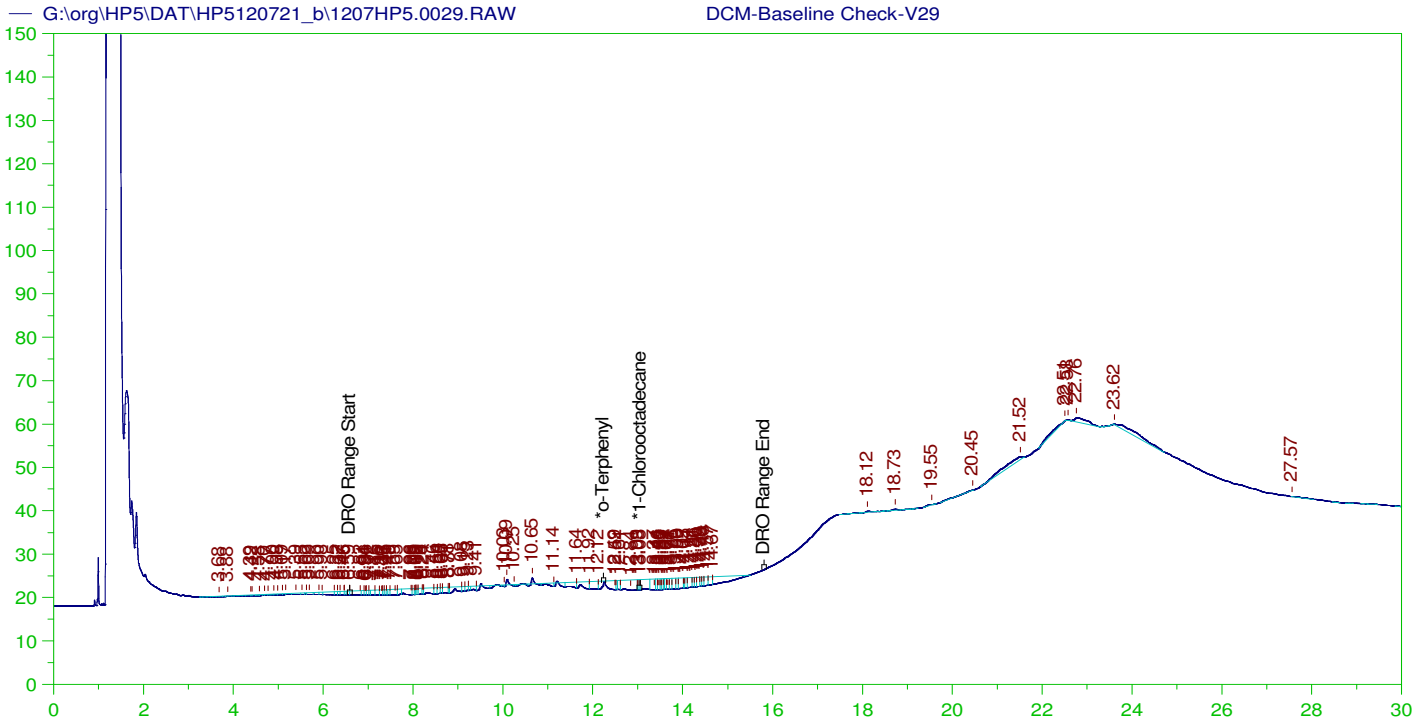
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.205	.194	.189	97.51
*1-Chlorooctadecane	13.012	.194	.179	92.33

DRO Area: 2.113633E+08 DRO Amount: 6.545016  
 TEH Area: 2.262791E+08 TEH Amount: 7.006893





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V29  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0029.RAW  
 Date & Time Acquired: 12/8/2021 7:15:42 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	29.967	200.	.	-
*1-Chlorooctadecane	13.053	200.	.835	.42

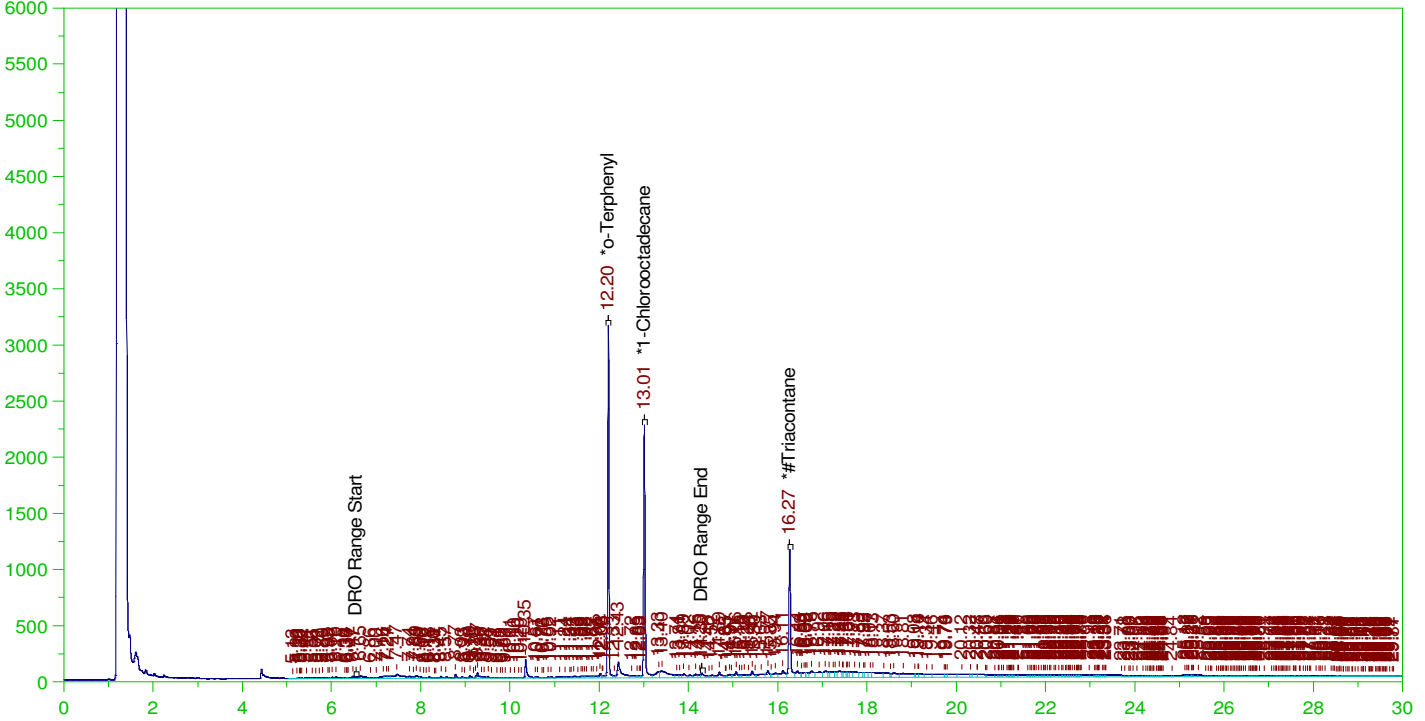
DRO Area: 601425.5 DRO Amount: 19.18227  
 TEH Area: 774379.9 TEH Amount: 24.6986

ERH2011 (RHMW05)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0030.RAW

B21120381-004B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-004B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0030.RAW  
Date & Time Acquired: 12/8/2021 7:59:02 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-120730-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.2	.194	.165	85.13	-
*1-Chlorooctadecane	13.01	.194	.14	72.17	-
*#Triacontane	16.265	.194	.109	56.35	-

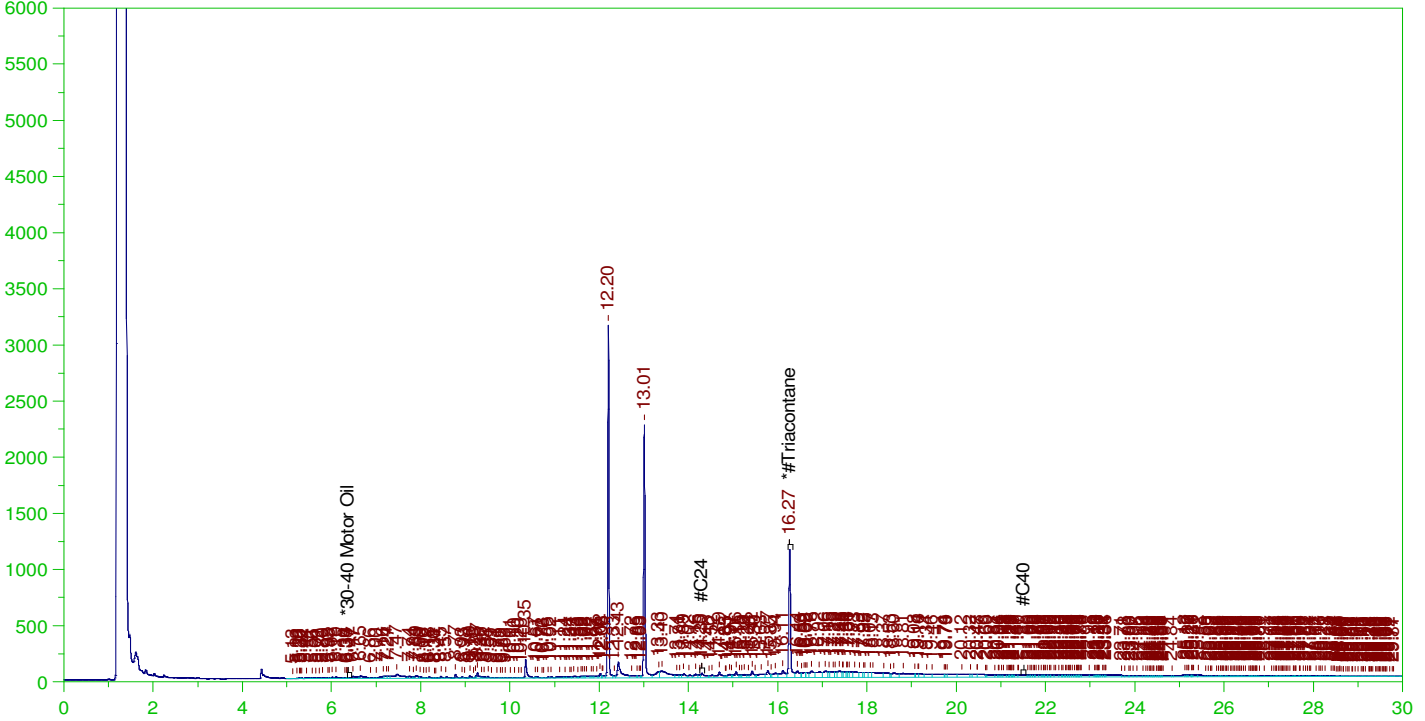
DRO Area:7406595 DRO Amount: 0.2293505  
TEH Area:2.539407E+07 TEH Amount: 0.7863455

ERH2011 (RHMW05)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0030.RAW

B21120381-004B ;1207HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-004B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0030.RAW  
Date & Time Acquired: 12/8/2021 7:59:02 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-120730-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-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: 14.26 to 21.56

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.265	.485	.109	22.54

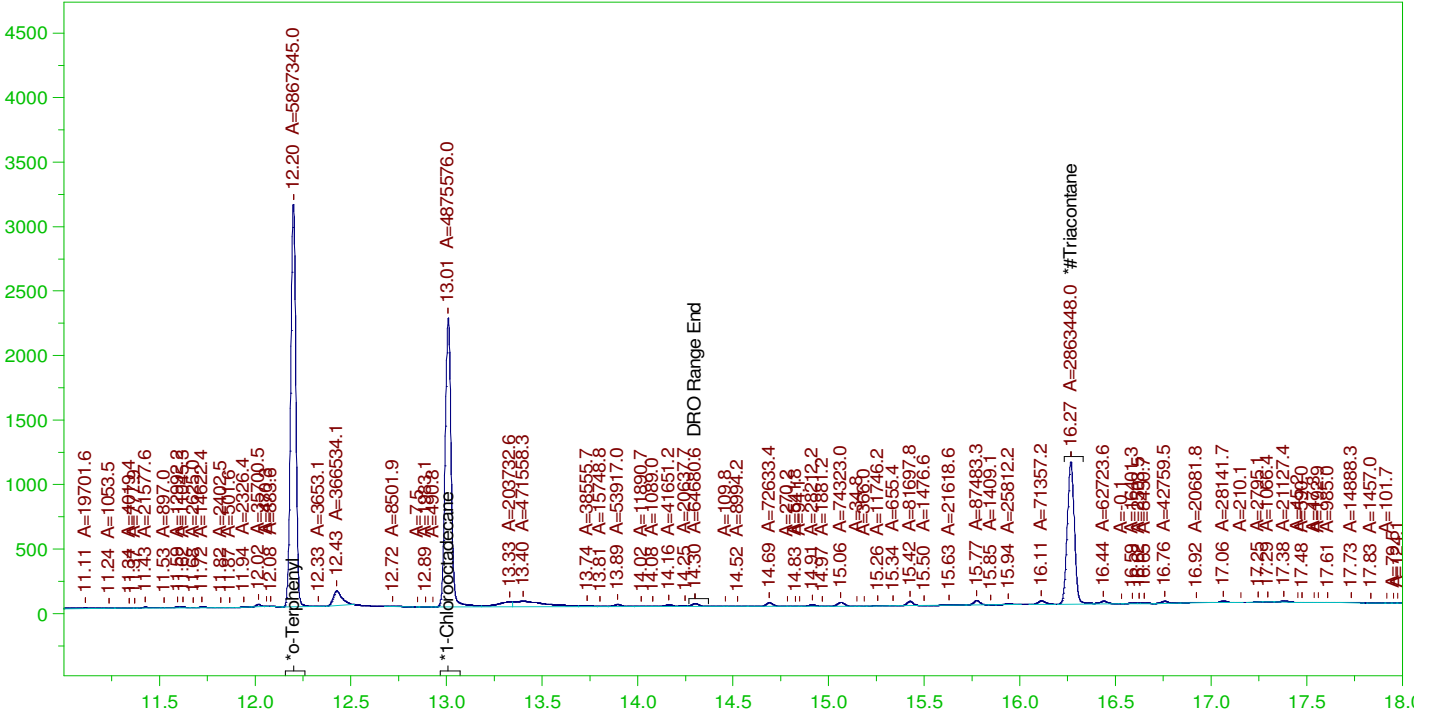
RRO Area:1.328565E+07 RRO AMOUNT: 0.451913

ERH2011 (RHMW05)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0030.RAW

Batch ID: 161934

B21120381-004B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

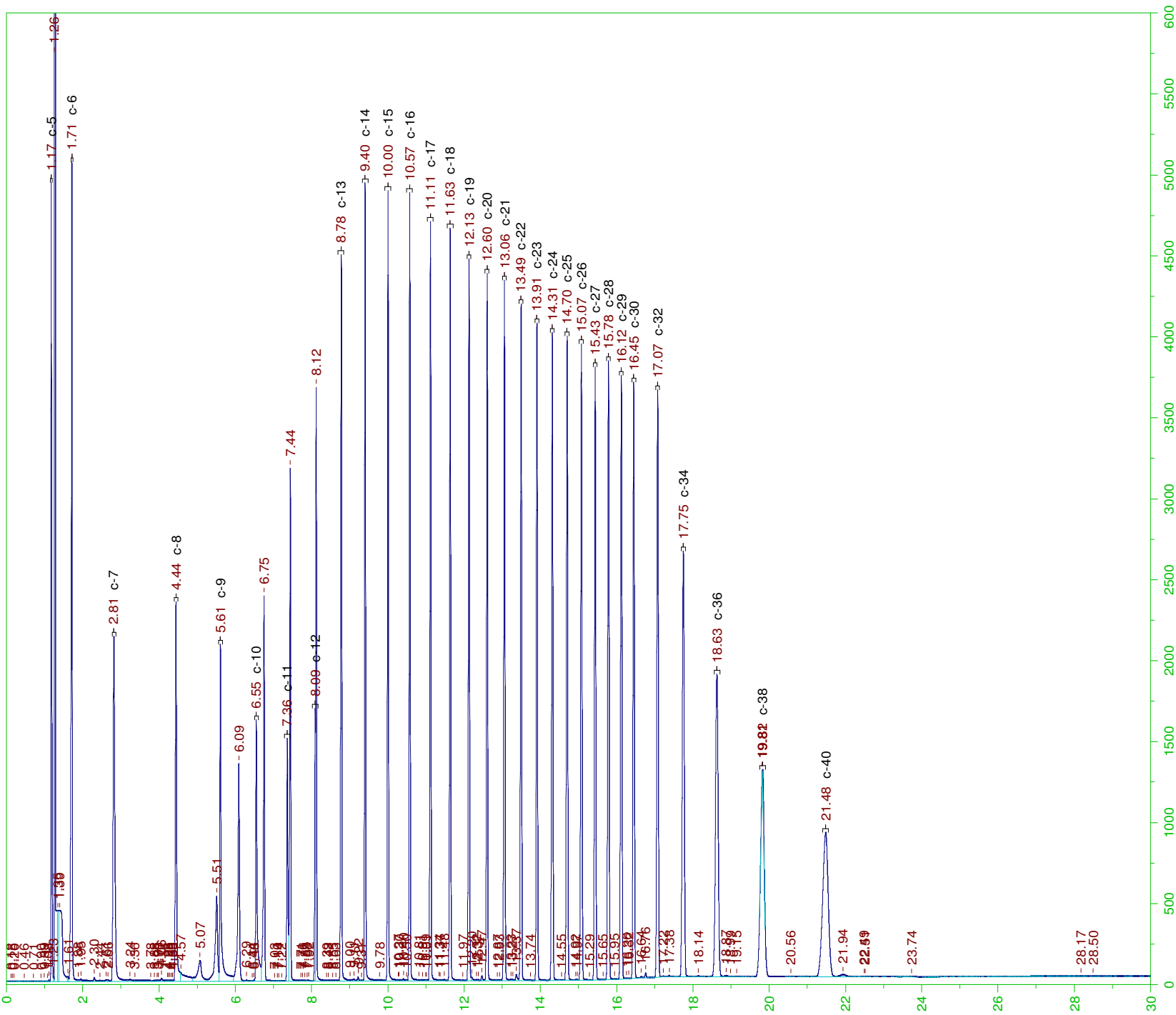
Sample Name: B21120381-004B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0030.RAW  
Date & Time Acquired: 12/8/2021 7:59:02 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1030 Dilution: 1 S.A.: 1

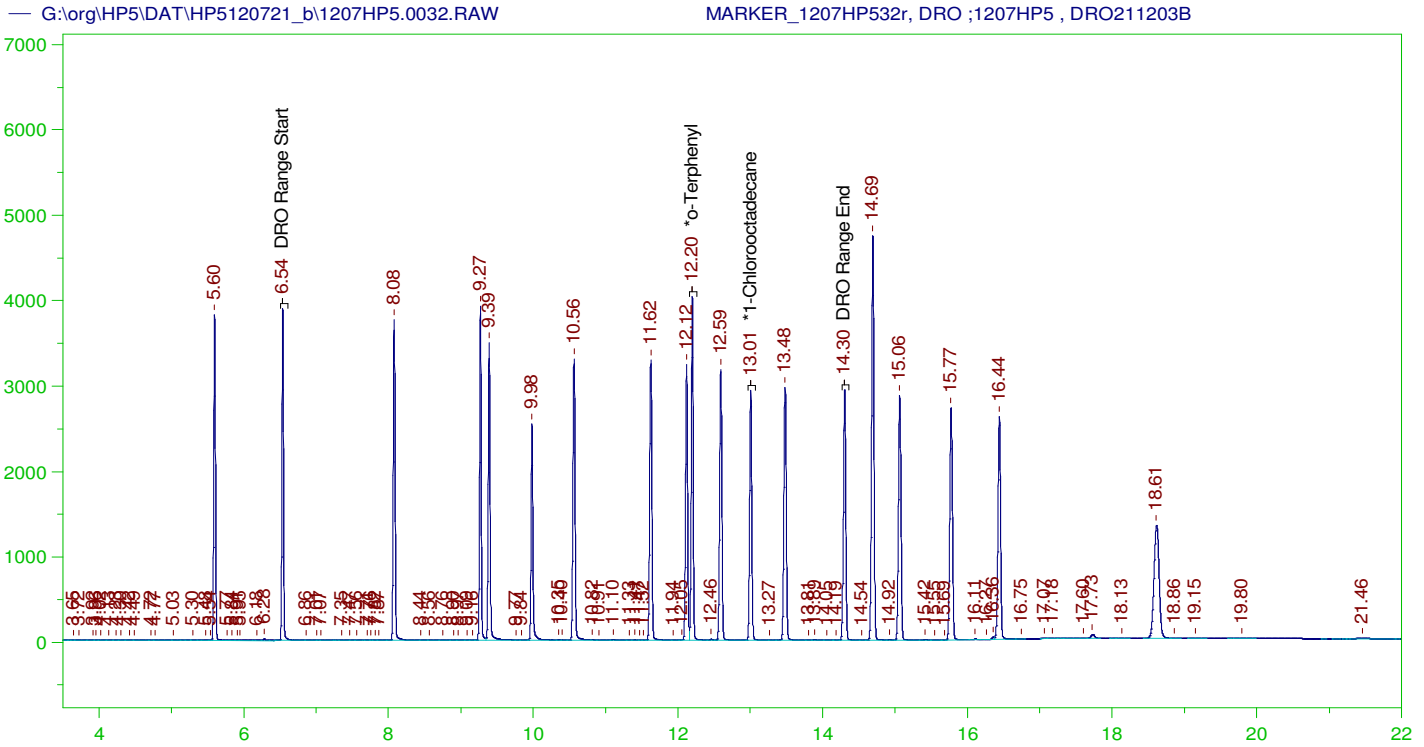
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.2	.194	.16	82.62	-
*1-Chlorooctadecane	13.01	.194	.133	68.65	-
*#Triacontane	16.265	.194	.096	49.49	-

DRO Area:4077260 DRO Amount: 0.1262552  
TEH Area:6056319 TEH Amount: 0.1875382





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

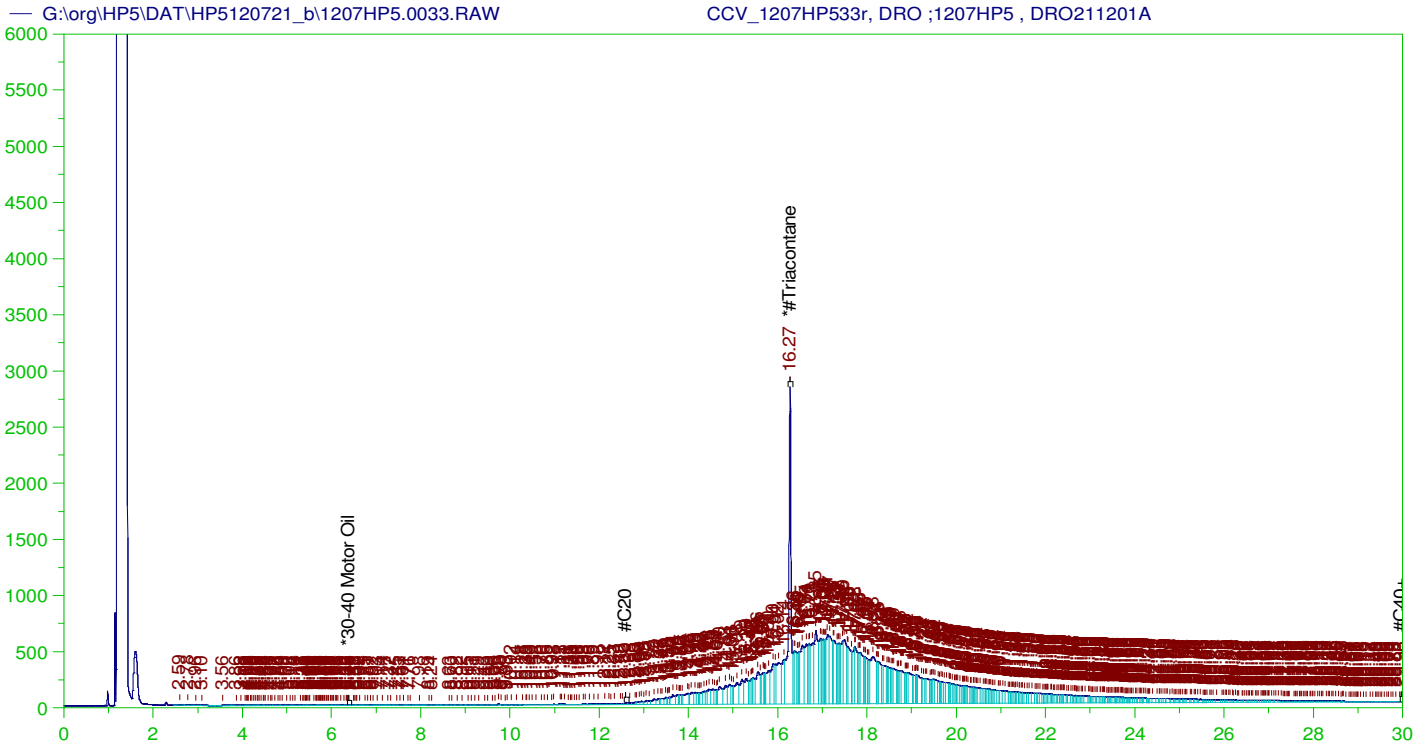
Sample Name: MARKER\_1207HP532r, DRO ;1207HP5 , DRO211203B  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0032.RAW  
 Date & Time Acquired: 12/8/2021 9:25:39 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.198	.2	.215	107.56
*1-Chlorooctadecane	13.005	.2	.173	86.58

DRO Area: 7.014612E+07 DRO Amount: 2.237288  
 TEH Area: 1.144683E+08 TEH Amount: 3.650931



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1207HP533r, DRO ;1207HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0033.RAW  
 Date & Time Acquired: 12/8/2021 10:08:39 AM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.274	500.	361.469	72.29	-

~~RRQ~~ TEH (Oil Range) Area:1.424363E+08 ~~RRQ~~ TEH (Oil Range) AMOUNT: 4990.339

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0033.RAW

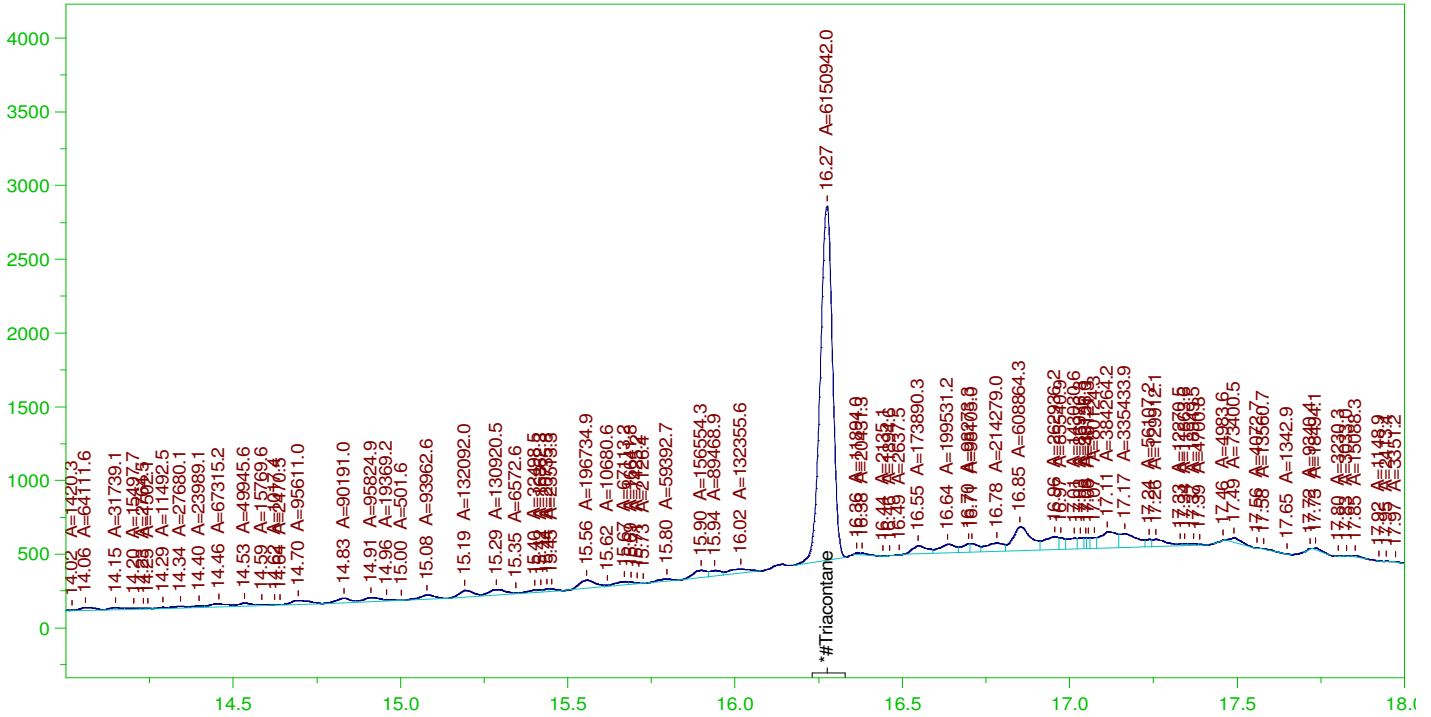
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.039	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.274	200.	361.469	180.73	75-125

AMN 12/15/2021

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0033.RAW

CCV\_1207HP533r, DRO ;1207HP5 , DRO211201A



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1207HP533r, DRO ;1207HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0033.RAW  
 Date & Time Acquired: 12/8/2021 10:08:39 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.274	500.	212.614	42.52	-

RRO Area:5980724 RRO AMOUNT: 209.5382

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0033.RAW

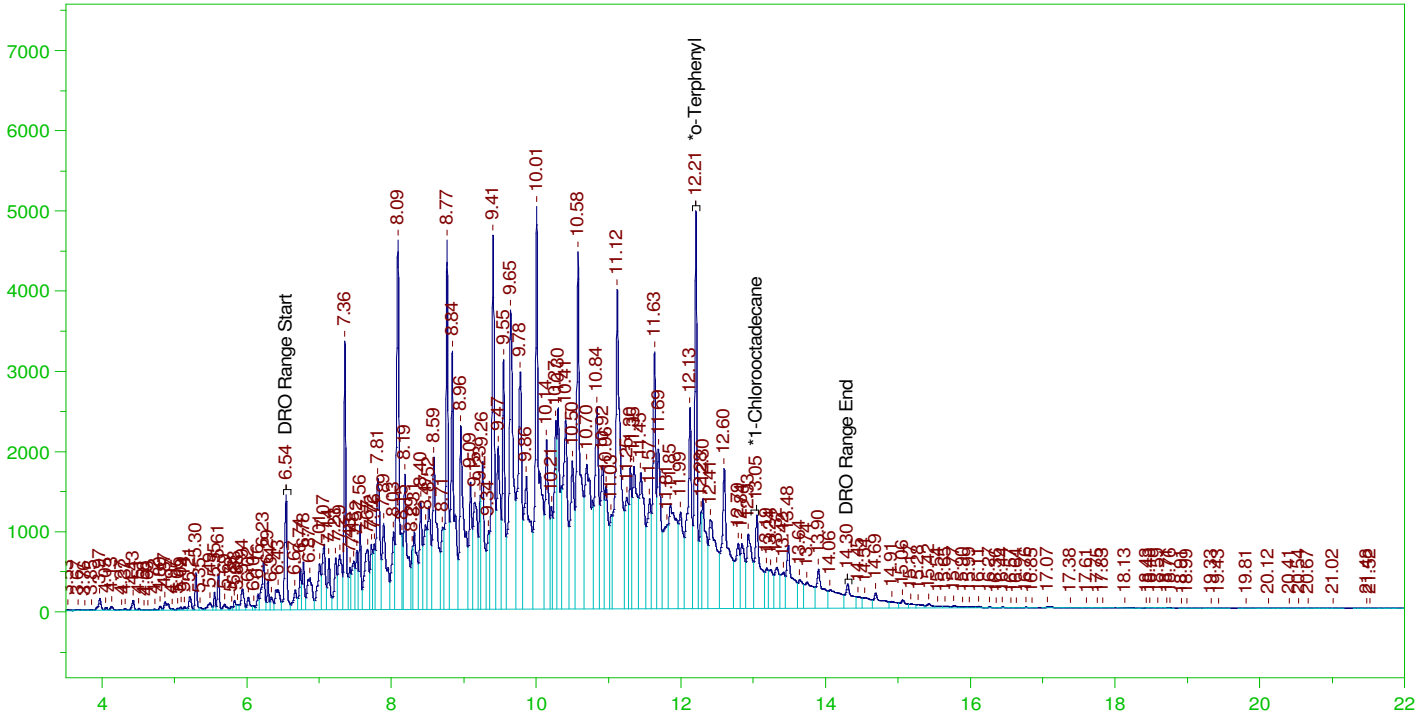
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.039	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.274	200.	212.614	106.31	75-125



G:\org\HP5\DAT\HP5120721\_b\1207HP5.0034.RAW

CCV\_1207HP534r, DRO ;1207HP5 , DRO211203A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1207HP534r, DRO ;1207HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0034.RAW  
 Date & Time Acquired: 12/8/2021 10:51:50 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.207	200.	350.	175.
*1-Chlorooctadecane	13.048	200.	169.217	84.61

DRO Area: 4.862304E+08 DRO Amount: 15508.16  
 TEH Area: 5.035699E+08 TEH Amount: 16061.2

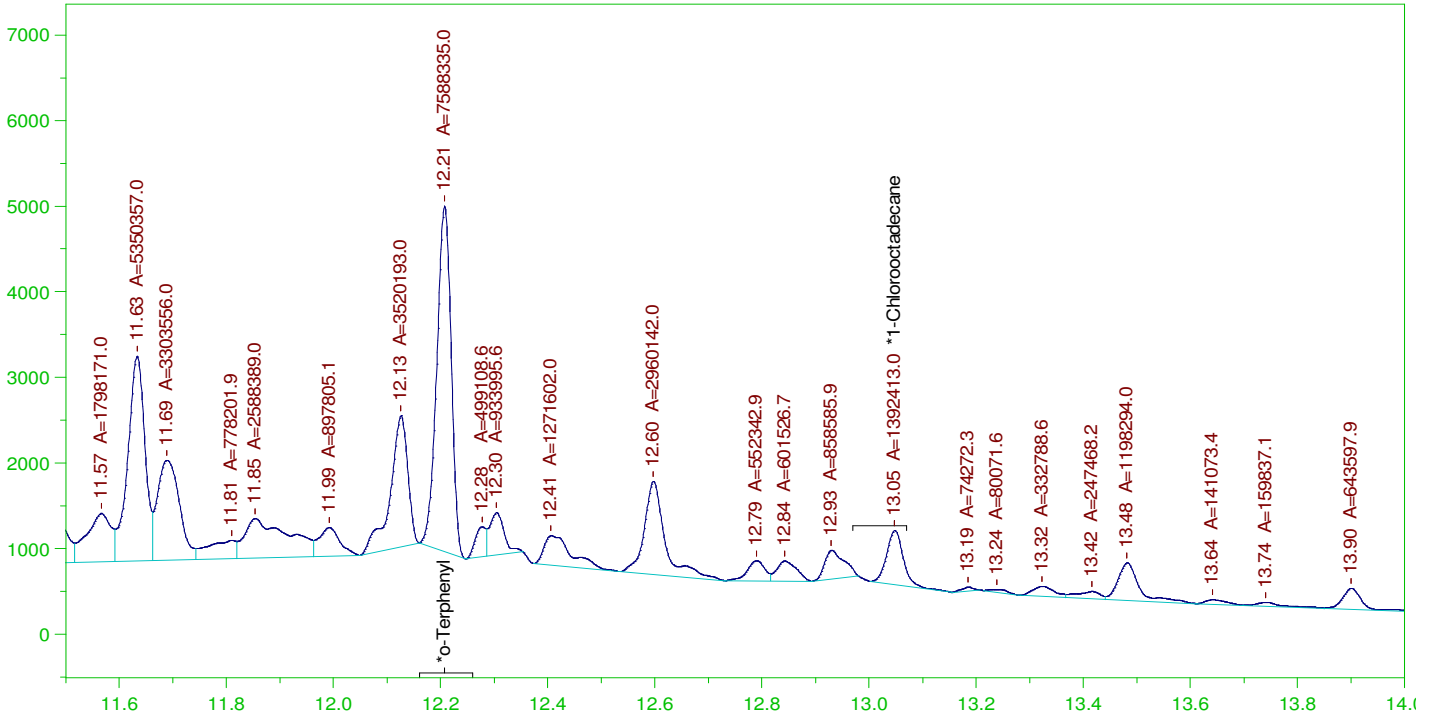
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0034.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	16061.2	107.07	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.207	200.	350.	175.	85-115
*1-Chlorooctadecane	13.048	200.	169.217	84.61	85-115

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0034.RAW

CCV\_1207HP534r, DRO ;1207HP5 , DRO211203A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1207HP534r, DRO ;1207HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0034.RAW  
 Date & Time Acquired: 12/8/2021 10:51:50 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

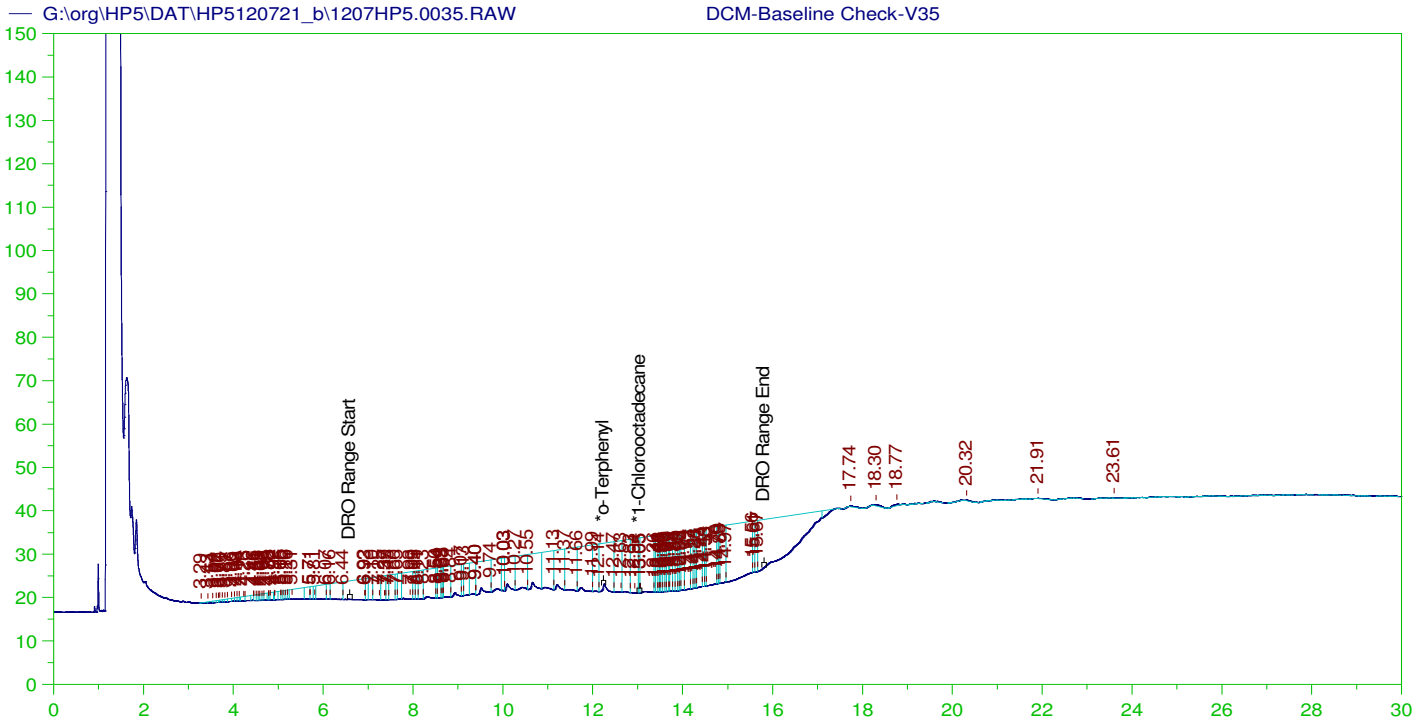
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.207	200.	213.701	106.85
*1-Chlorooctadecane	13.048	200.	39.213	19.61

DRO Area: 2.739076E+08 DRO Amount: 8736.196  
 TEH Area: 2.847518E+08 TEH Amount: 9082.066

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0034.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	9082.07	60.55	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.207	200.	213.701	106.85	85-115
*1-Chlorooctadecane	13.048	200.	39.213	19.61	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V35  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0035.RAW  
 Date & Time Acquired: 12/8/2021 11:34:38 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	29.804	200.	.	-
*1-Chlorooctadecane	13.05	200.	.835	.42 -

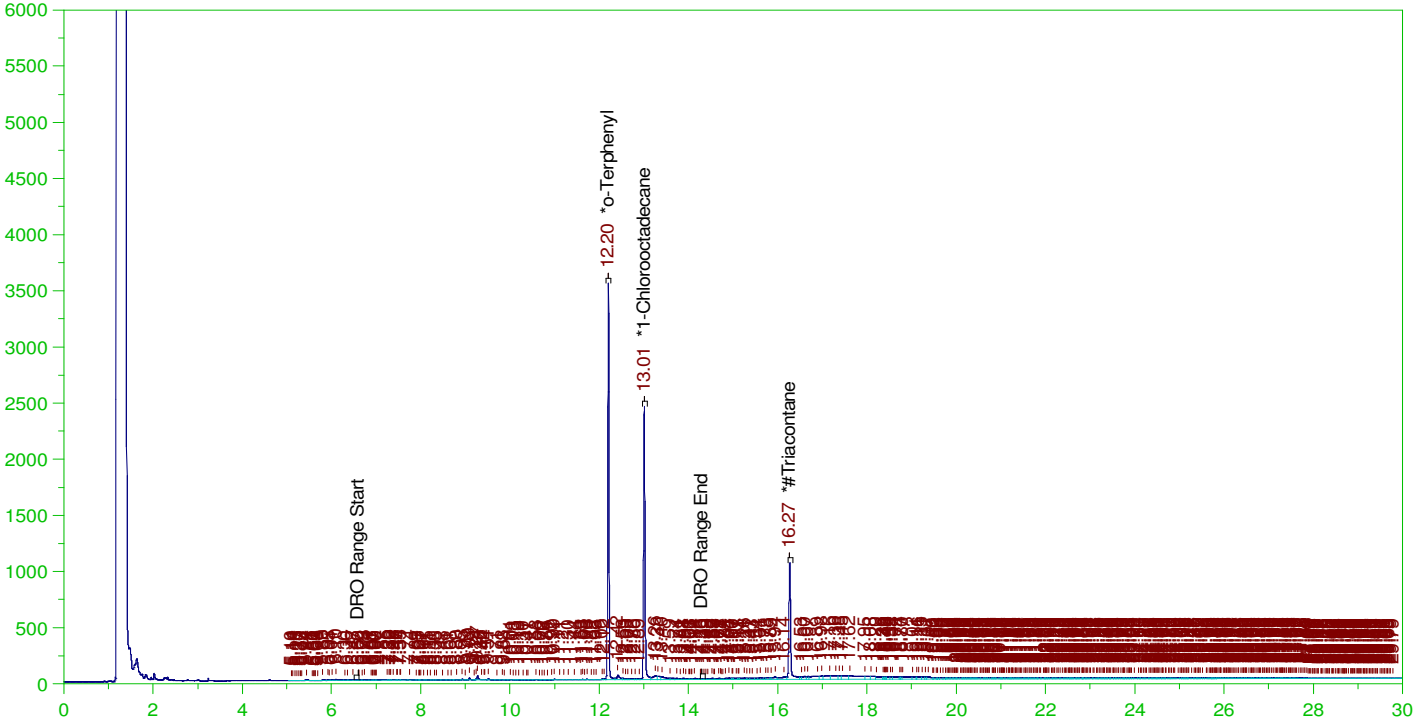
DRO Area: 5724255 DRO Amount: 182.5733  
 TEH Area: 6085376 TEH Amount: 194.0911

ERH2020 (OWDFMW01)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0036.RAW

Batch ID: 161934

B21120381-008B ;1207HP5 , \$HC-8015-DRO-W, RR



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-008B ;1207HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0036.RAW  
 Date & Time Acquired: 12/8/2021 12:17:35 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-C24T-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.201	.2	.19	95.11	-
*1-Chlorooctadecane	13.009	.2	.152	76.17	-
*#Triacontane	16.266	.2	.106	52.92	-

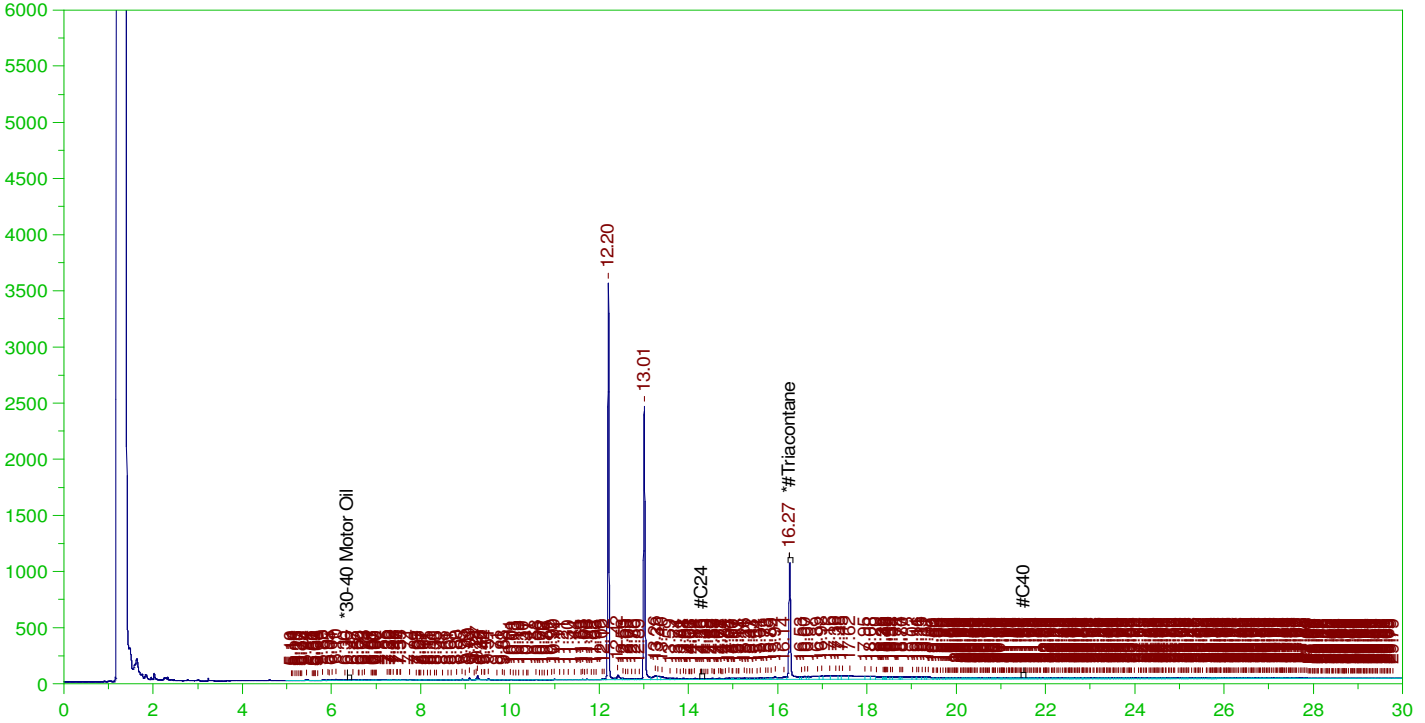
DRO Area:3034795 DRO Amount: 9.679382E-02  
 TEH Area:1.463348E+07 TEH Amount: 0.4667303

ERH2020 (OWDFMW01)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0036.RAW

Batch ID: 161934

B21120381-008B ;1207HP5 , \$HC-8015-DRO-W, RR



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-008B ;1207HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0036.RAW  
 Date & Time Acquired: 12/8/2021 12:17:35 PM  
 Method File: G:\Org\HP5\Methods\D3\_OROS-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-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: 14.26 to 21.56

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.266	.5	.106	21.17

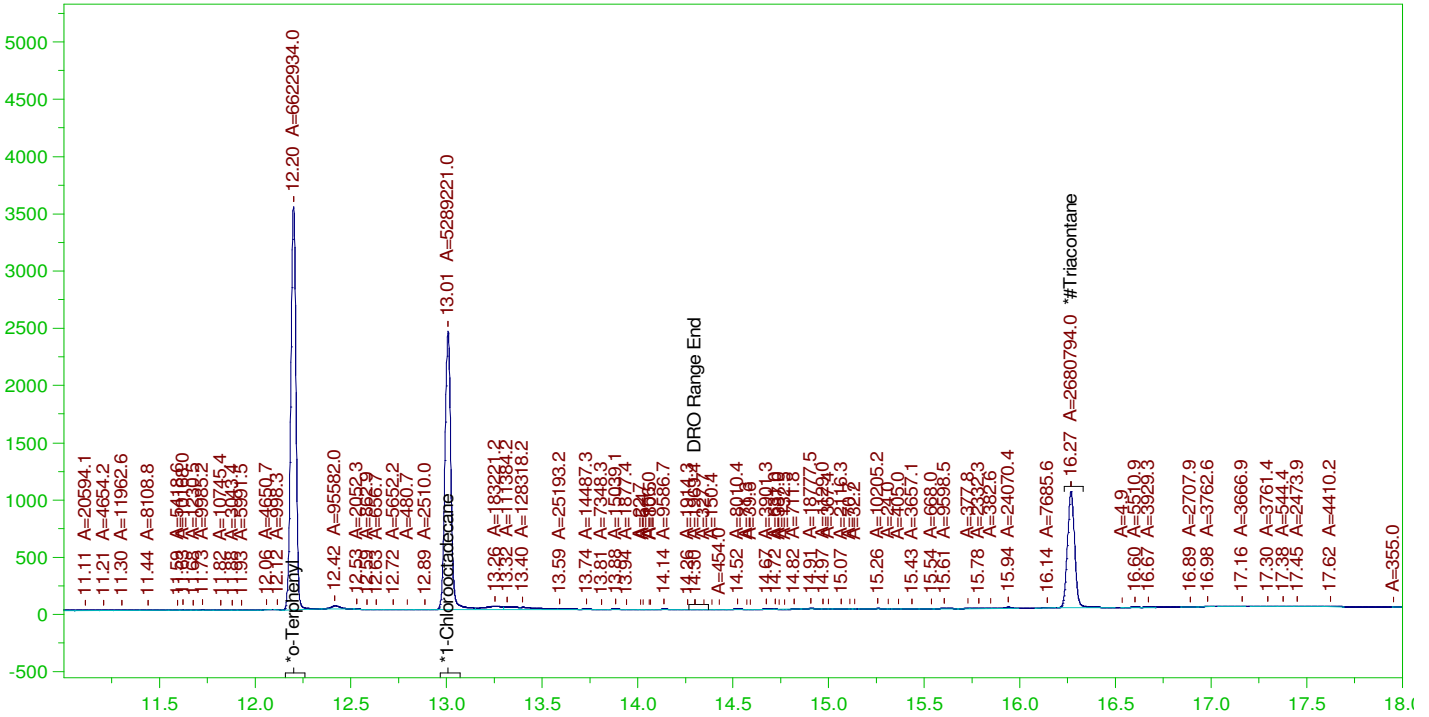
RRO Area:7746630 RRO AMOUNT: 0.2714077

ERH2020 (OWDFMW01)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0036.RAW

B21120381-008B ;1207HP5 , \$HC-8015-DRO-W, RR



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-008B ;1207HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0036.RAW  
 Date & Time Acquired: 12/8/2021 12:17:35 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-120736-IE-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.201	.2	.187	93.26	-
*1-Chlorooctadecane	13.009	.2	.149	74.48	-
*#Triacontane	16.266	.2	.093	46.33	-

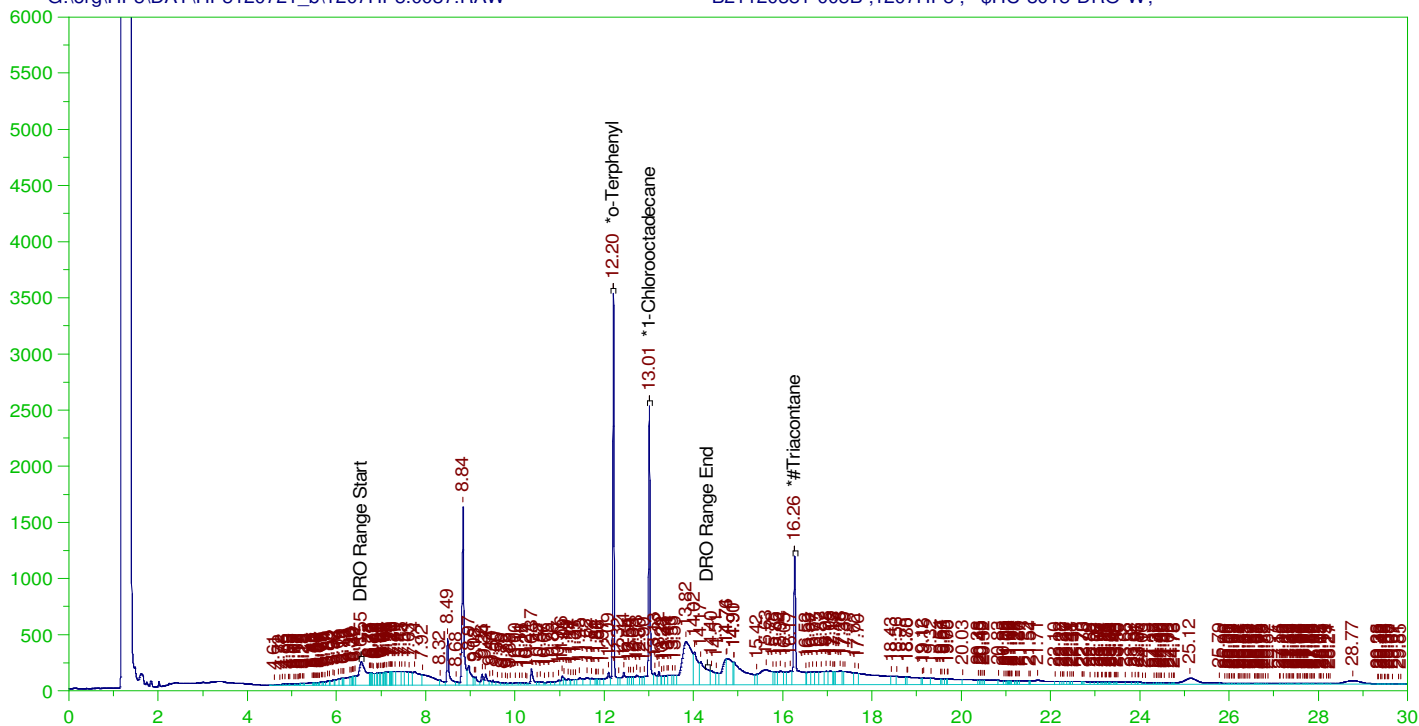
DRO Area:1846594 DRO Amount: 5.889652E-02  
 TEH Area:2614250 TEH Amount: 8.338065E-02

ERH2013 (RHMW08)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0037.RAW

B21120381-005B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-005B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0037.RAW  
Date & Time Acquired: 12/8/2021 1:00:36 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-120724-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.203	.196	.195	99.22	-
*1-Chlorooctadecane	13.01	.196	.164	83.64	-
*#Triacontane	16.265	.196	.162	82.67	-

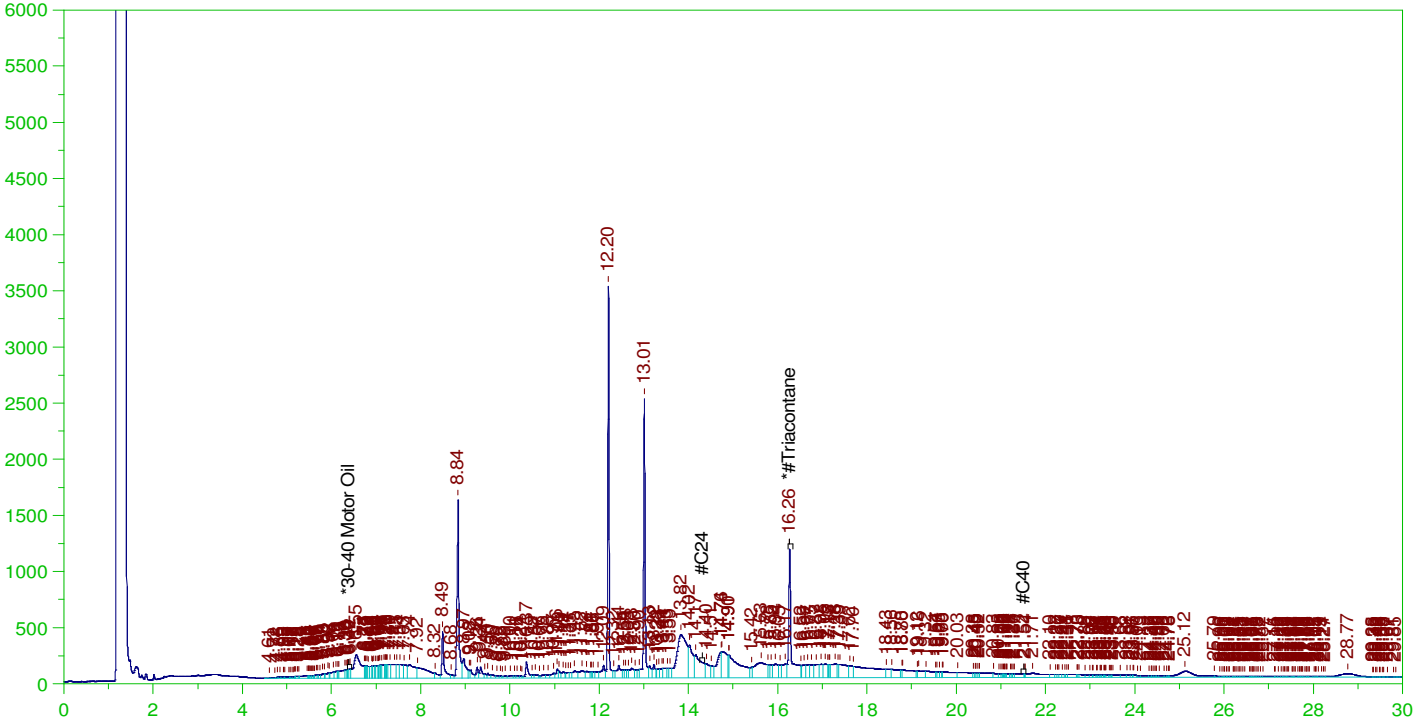
DRO Area: 4.210094E+07 DRO Amount: 1.316467  
TEH Area: 8.686158E+07 TEH Amount: 2.7161

ERH2013 (RHMW08)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0037.RAW

B21120381-005B ;1207HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-005B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0037.RAW  
Date & Time Acquired: 12/8/2021 1:00:36 PM  
Method File: G:\Org\HP5\Methods\D3\_OROS-120724-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-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: 14.26 to 21.56

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.265	.49	.162	33.07	-

RRO Area:3.431719E+07 RRO AMOUNT: 1.178748

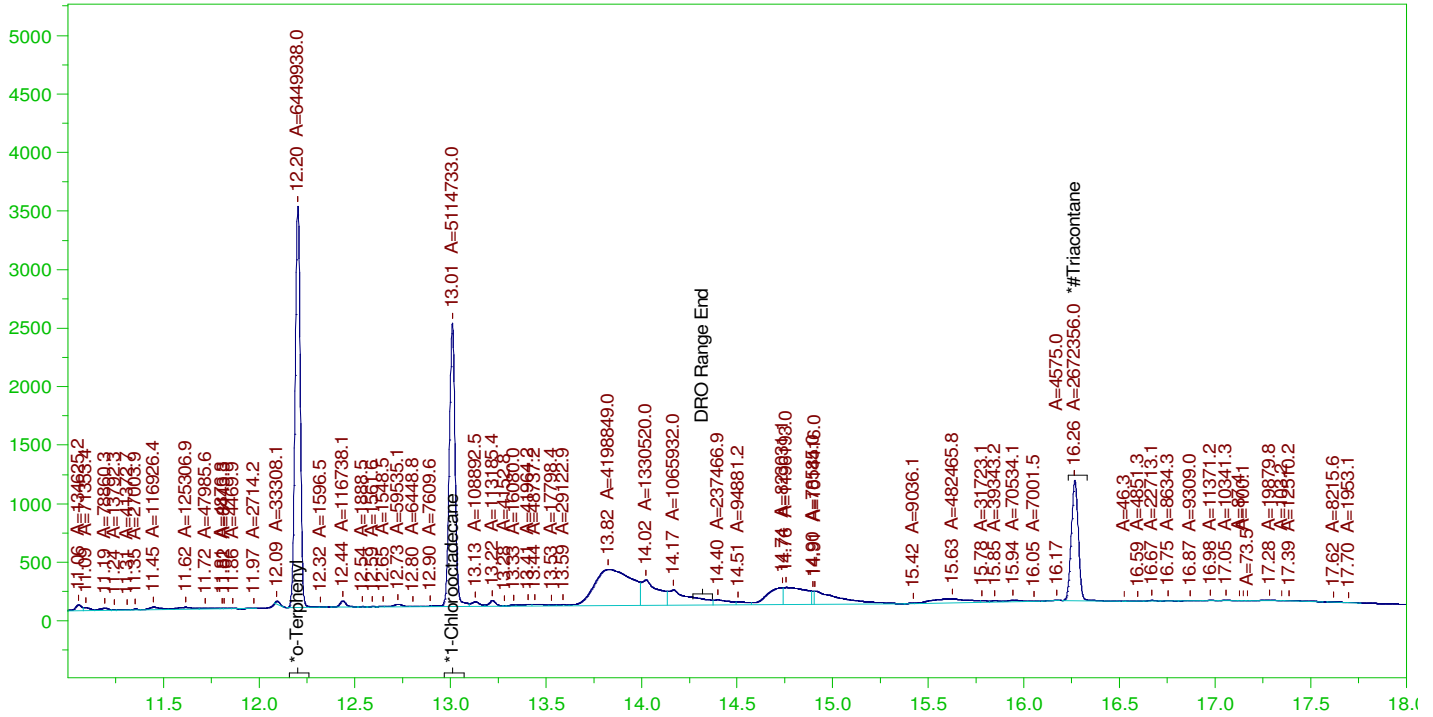


ERH2013 (RHMW08)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0037.RAW

B21120381-005B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-005B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0037.RAW  
Date & Time Acquired: 12/8/2021 1:00:36 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.203	.196	.178	90.82
*1-Chlorooctadecane	13.01	.196	.141	72.02
*#Triacontane	16.265	.196	.091	46.19

DRO Area: 2.780176E+07 DRO Amount: 0.8693413

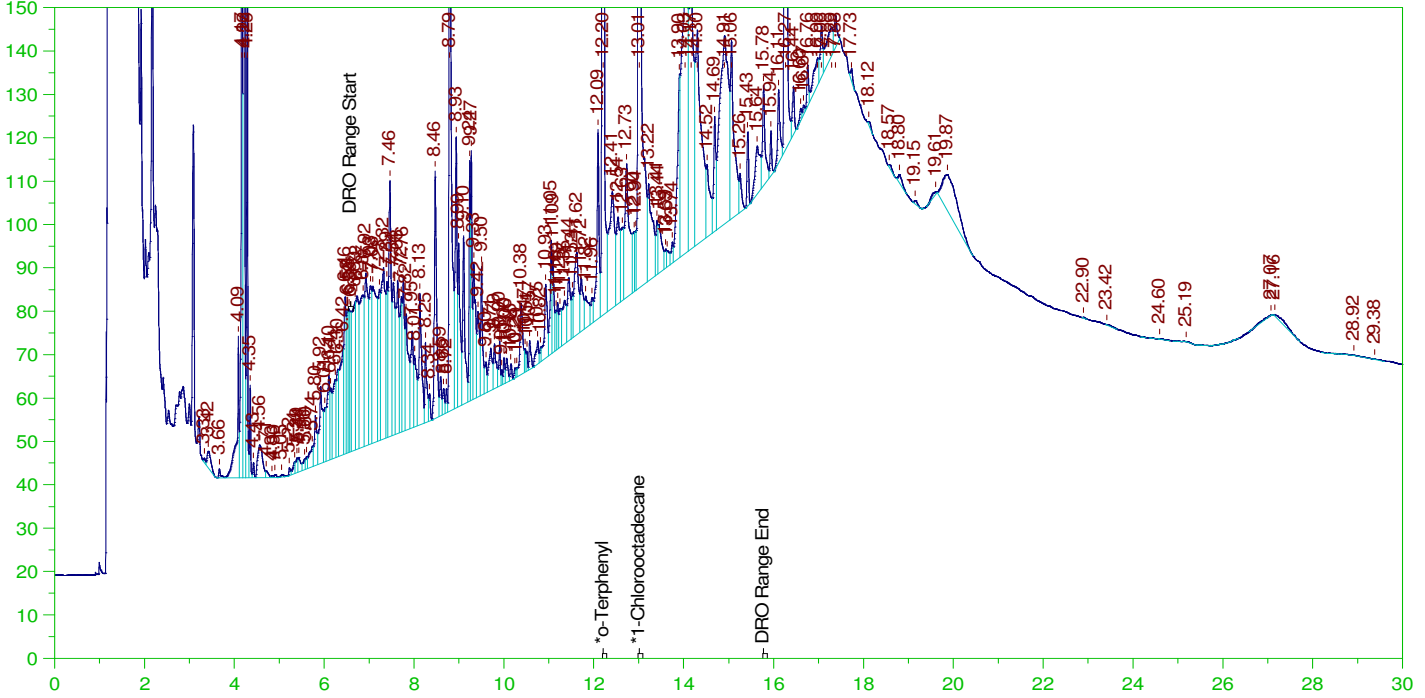
TEH Area: 3.657055E+07 TEH Amount: 1.143535

ERH2003 (RHMW01R)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0038.RAW

B21120381-001A ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

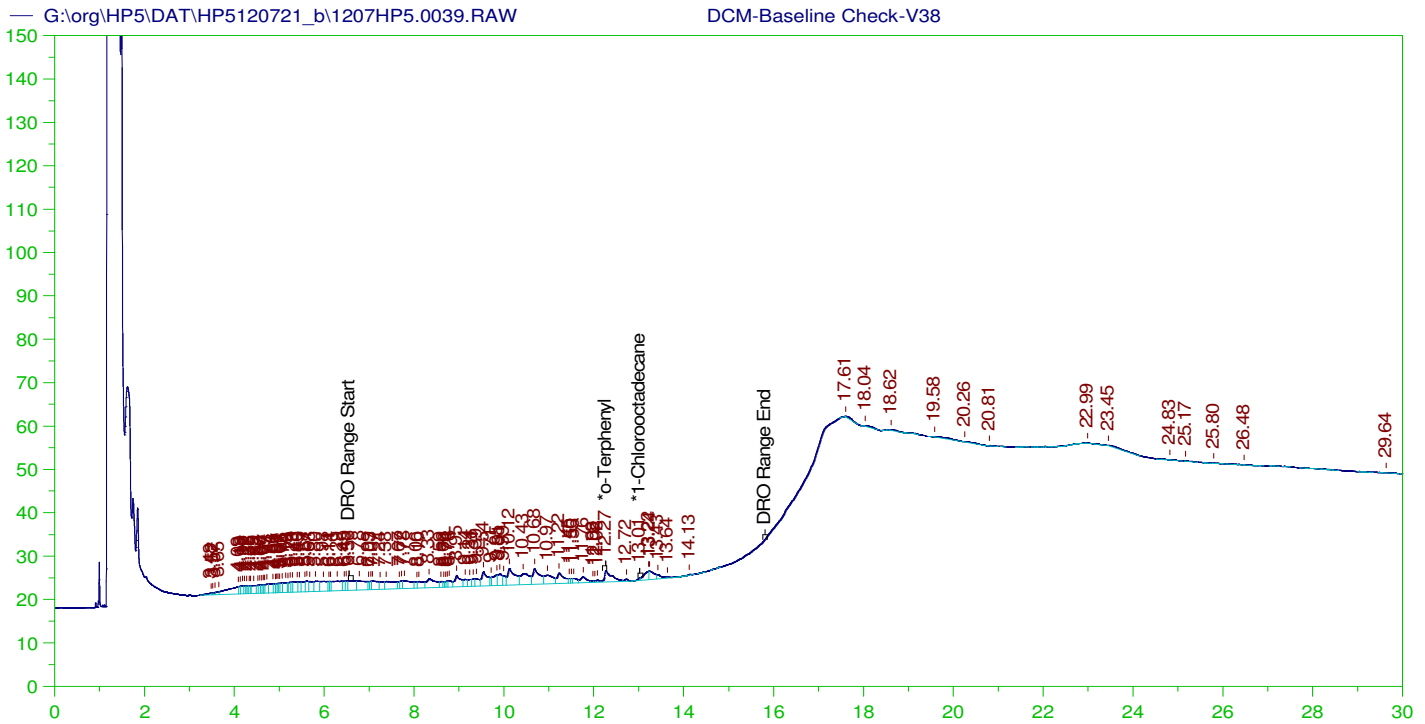
Sample Name: B21120381-001A ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0038.RAW  
Date & Time Acquired: 12/8/2021 1:43:29 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-IB-LEXP.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IB.CAL  
Sample Weight: 1020 Dilution: 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	12.205	.196	.185	94.4
*1-Chlorooctadecane	13.012	.196	.15	76.52

DRO Area:1.021496E+07 DRO Amount: 0.3194146  
TEH Area:1.591446E+07 TEH Amount: 0.4976339



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V38  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0039.RAW  
 Date & Time Acquired: 12/8/2021 2:26:12 PM  
 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	12.269	200.	.811	.41	-
*1-Chlorooctadecane	13.015	200.	.05	.02	-

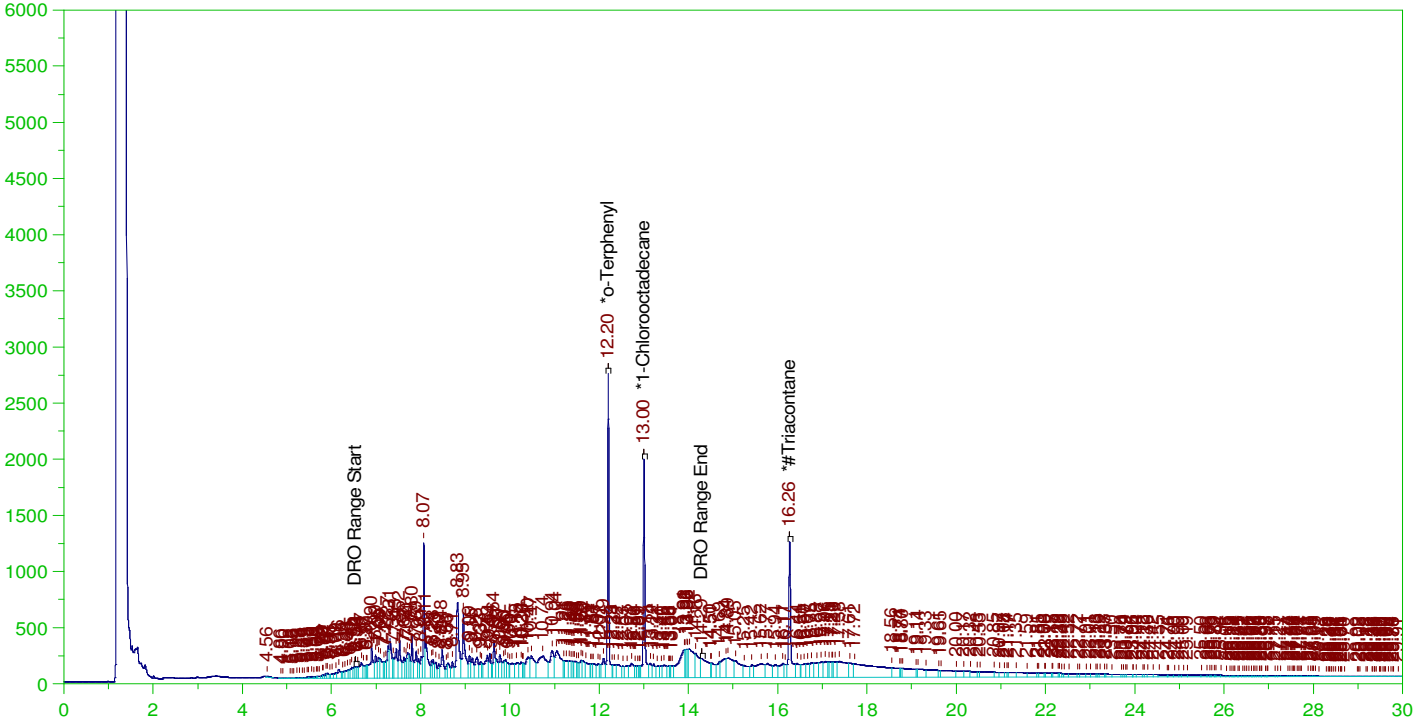
DRO Area:618123.7 DRO Amount: 19.71486  
 TEH Area:996977.6 TEH Amount: 31.79828

ERH2006 (RHMW02)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0040.RAW

B21120381-002A ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-002A ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0040.RAW  
Date & Time Acquired: 12/8/2021 3:08:48 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-120724-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.198	.194	.159	81.78	-
*1-Chlorooctadecane	13.005	.194	.138	70.89	-
*#Triacontane	16.265	.194	.14	72.29	-

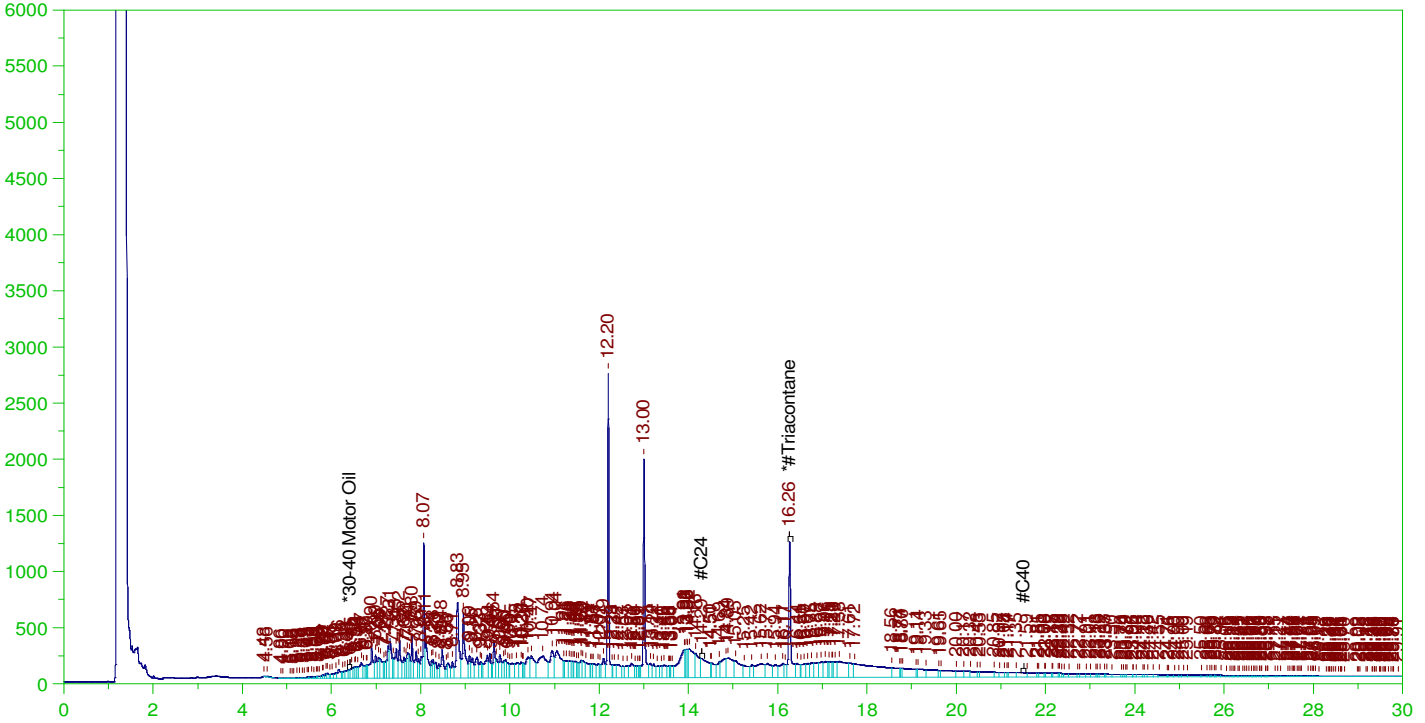
DRO Area: 7.34145E+07 DRO Amount: 2.273332  
TEH Area: 1.204903E+08 TEH Amount: 3.731069

ERH2006 (RHMW02)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0040.RAW

B21120381-002A ;1207HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-002A ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0040.RAW  
Date & Time Acquired: 12/8/2021 3:08:48 PM  
Method File: G:\Org\HP5\Methods\D3\_OROS-120724-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-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: 14.26 to 21.56

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.265	.485	.14	28.92	-

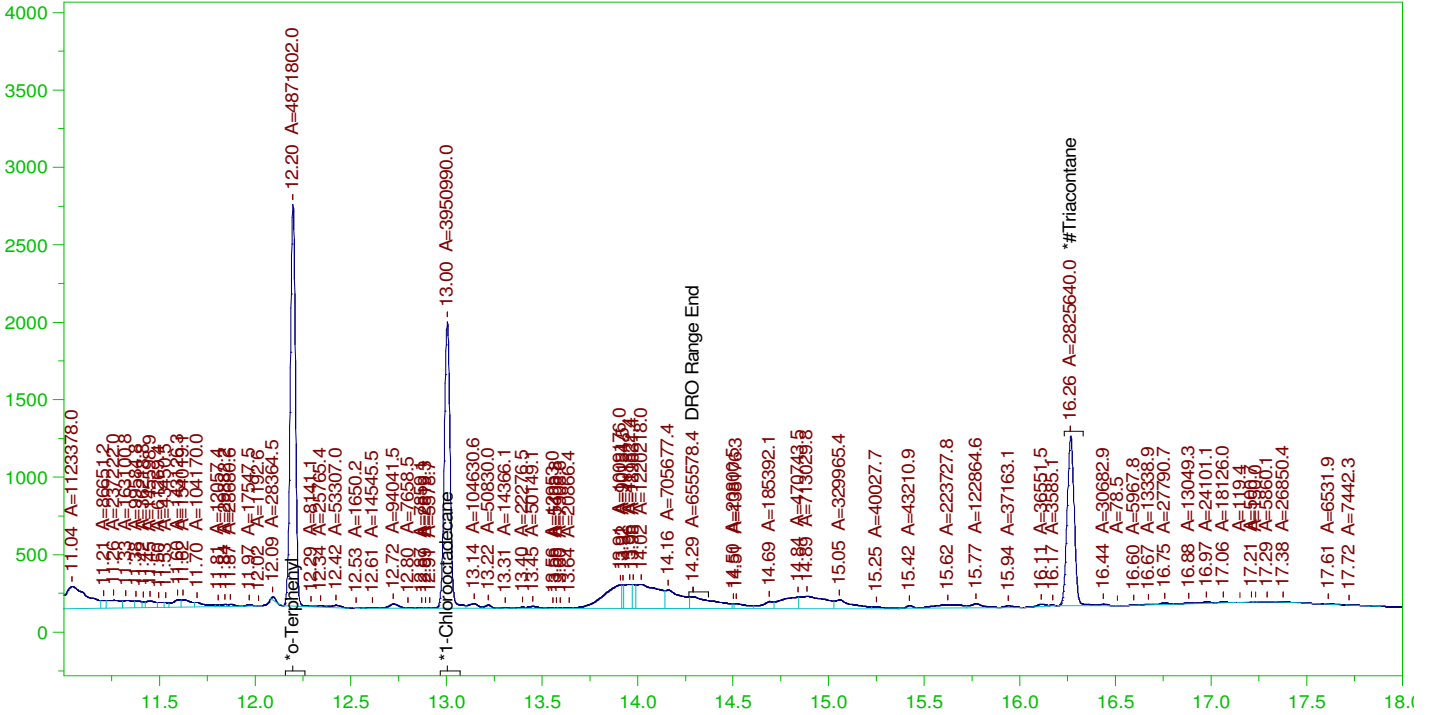
RRO Area:3.93204E+07 RRO AMOUNT: 1.337489

ERH2006 (RHMW02)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0040.RAW

B21120381-002A ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-002A ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0040.RAW  
Date & Time Acquired: 12/8/2021 3:08:48 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.198	.194	.133	68.6
*1-Chlorooctadecane	13.005	.194	.108	55.63
*#Triacontane	16.265	.194	.095	48.84

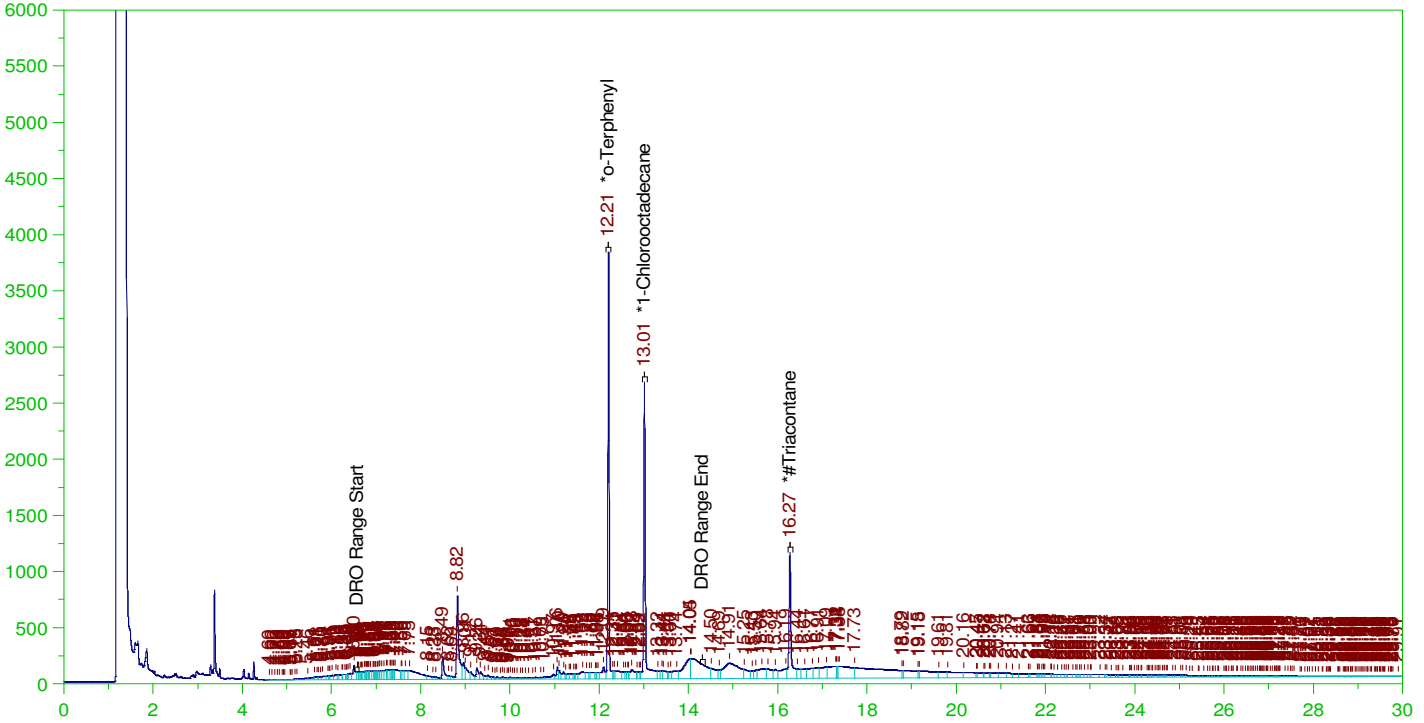
DRO Area:3.790862E+07 DRO Amount: 1.173867  
TEH Area:4.236758E+07 TEH Amount: 1.311942

ERH2016 (RHMW15-05)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0041.RAW

Batch ID: 161934

B21120396-001B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120396-001B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0041.RAW  
Date & Time Acquired: 12/8/2021 3:51:49 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-120724-IE-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.205	.208	.224	107.38	-
*1-Chlorooctadecane	13.013	.208	.206	98.68	-
*#Triacontane	16.27	.208	.139	66.62	-

DRO Area: 2.776228E+07 DRO Amount: 0.9223635

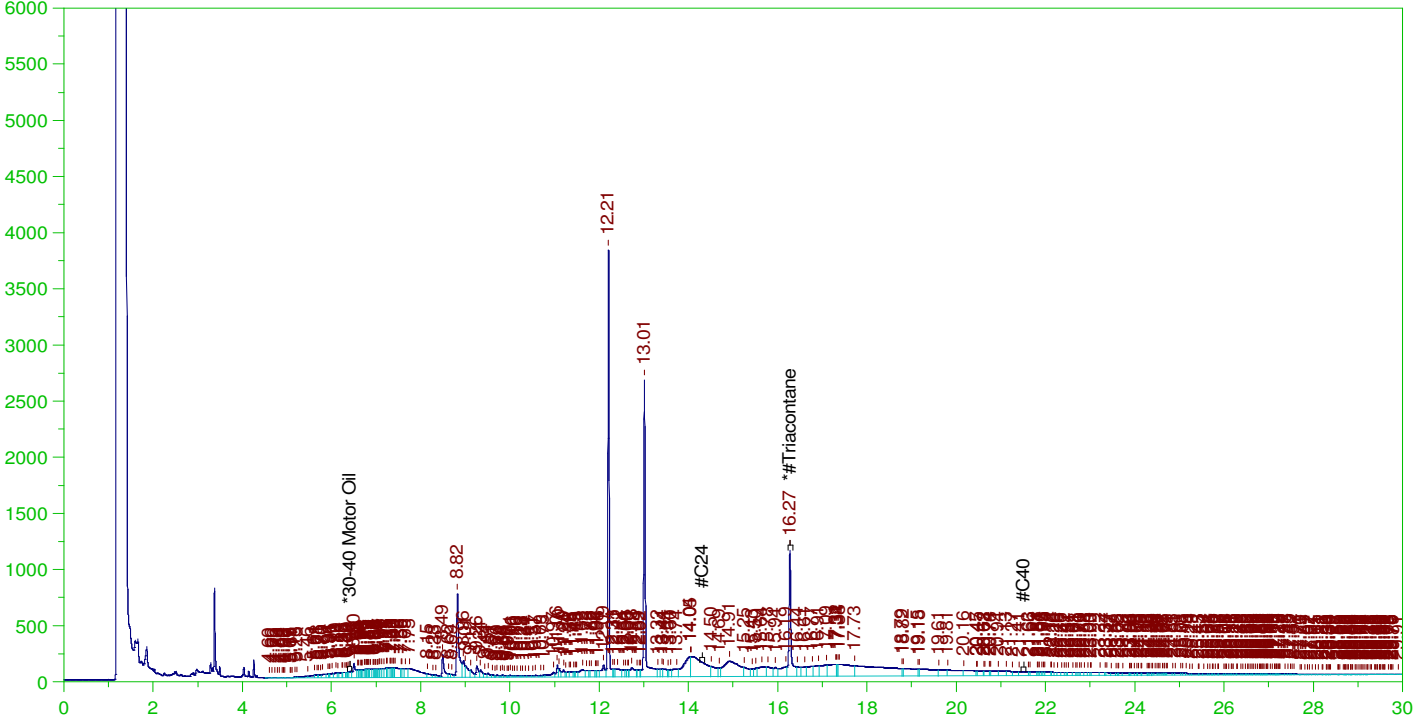
TEH Area: 6.690094E+07 TEH Amount: 2.222692

ERH2016 (RHMW15-05)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0041.RAW

Batch ID: 161934

B21120396-001B ;1207HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120396-001B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0041.RAW  
Date & Time Acquired: 12/8/2021 3:51:49 PM  
Method File: G:\Org\HP5\Methods\D3\_OROS-120724-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-SAMP.CAL  
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
Rt range for Residual Range Organics: 14.26 to 21.56

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.27	.521	.139	26.65	-

RRO Area:2.899922E+07 RRO AMOUNT: 1.058338

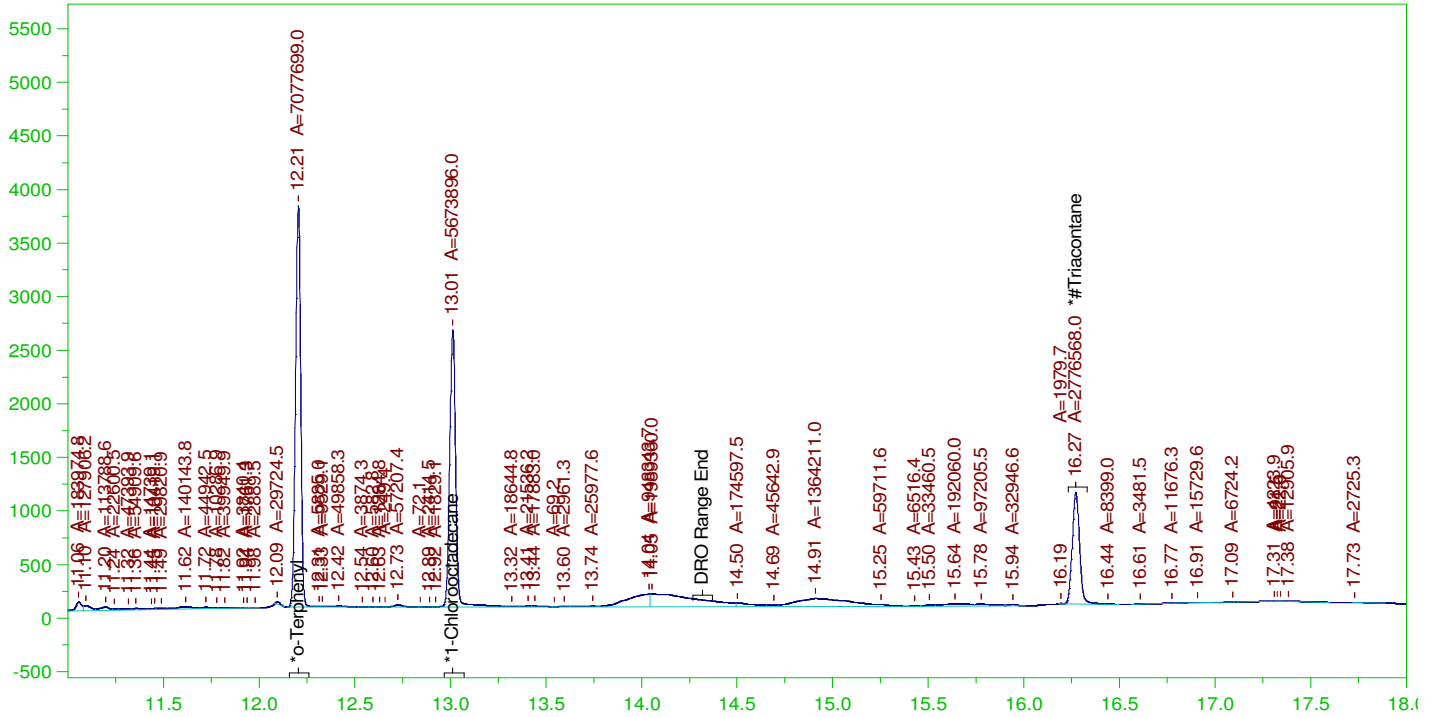


ERH2016 (RHMW15-05)

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0041.RAW

Batch ID: 161934

B21120396-001B ;1207HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

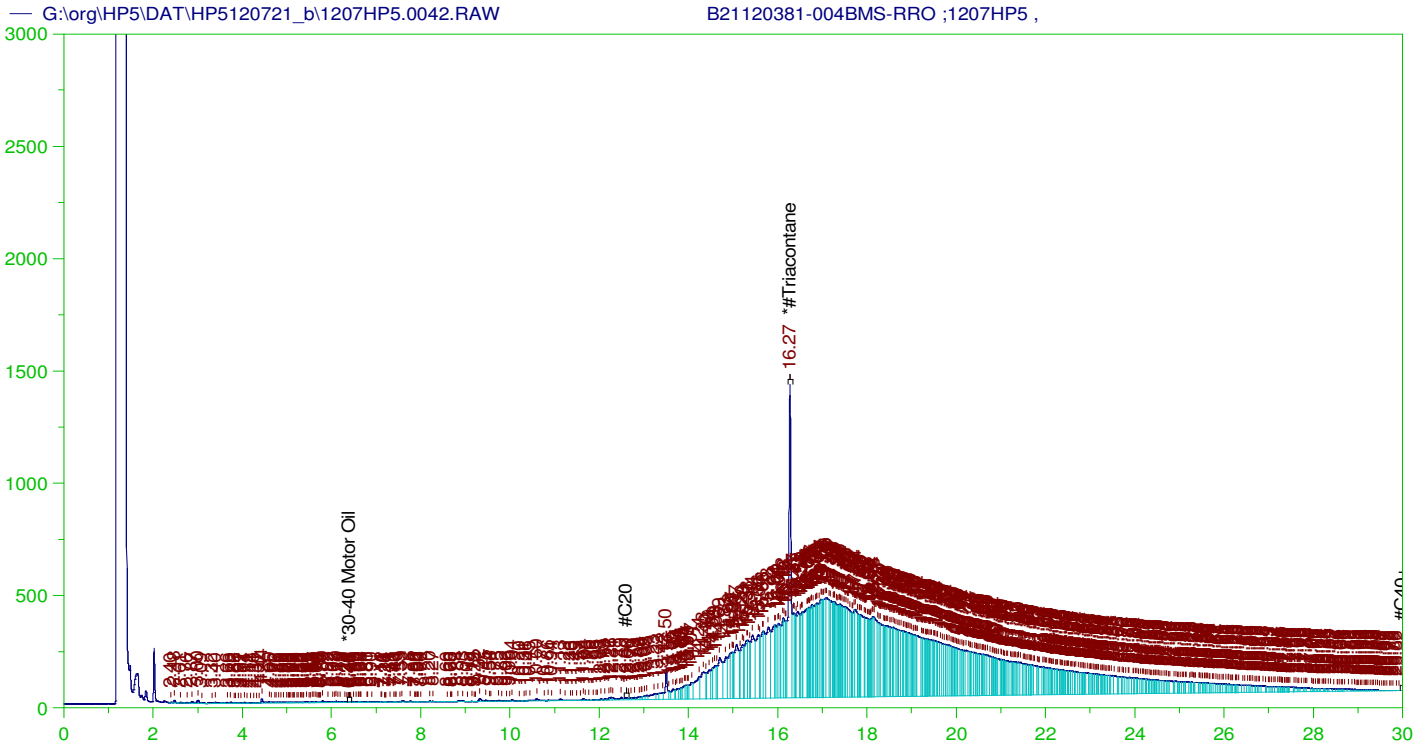
Sample Name: B21120396-001B ;1207HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0041.RAW  
Date & Time Acquired: 12/8/2021 3:51:49 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.205	.208	.208	99.66
*1-Chlorooctadecane	13.013	.208	.166	79.89
*#Triacontane	16.27	.208	.1	47.99

DRO Area:1.602417E+07 DRO Amount: 0.5323809  
TEH Area:2.300874E+07 TEH Amount: 0.7644336



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

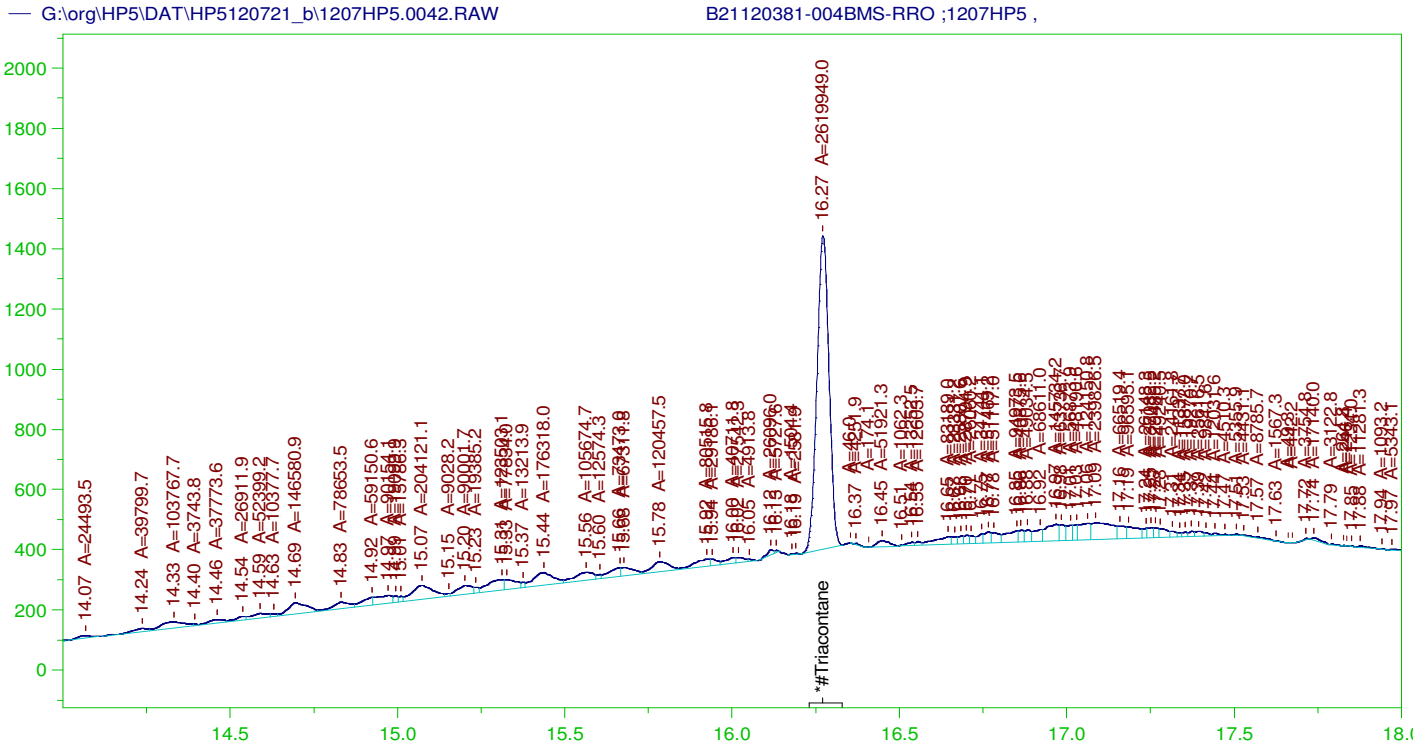
Sample Name: B21120381-004BMS-RRO ;1207HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0042.RAW  
 Date & Time Acquired: 12/8/2021 4:34:49 PM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.CAL  
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41  
 Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.271	.495	.181	36.5	-

~~RRO~~ TEH (Oil Range) Area:1.454706E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5.046186

AMN 12/15/2021



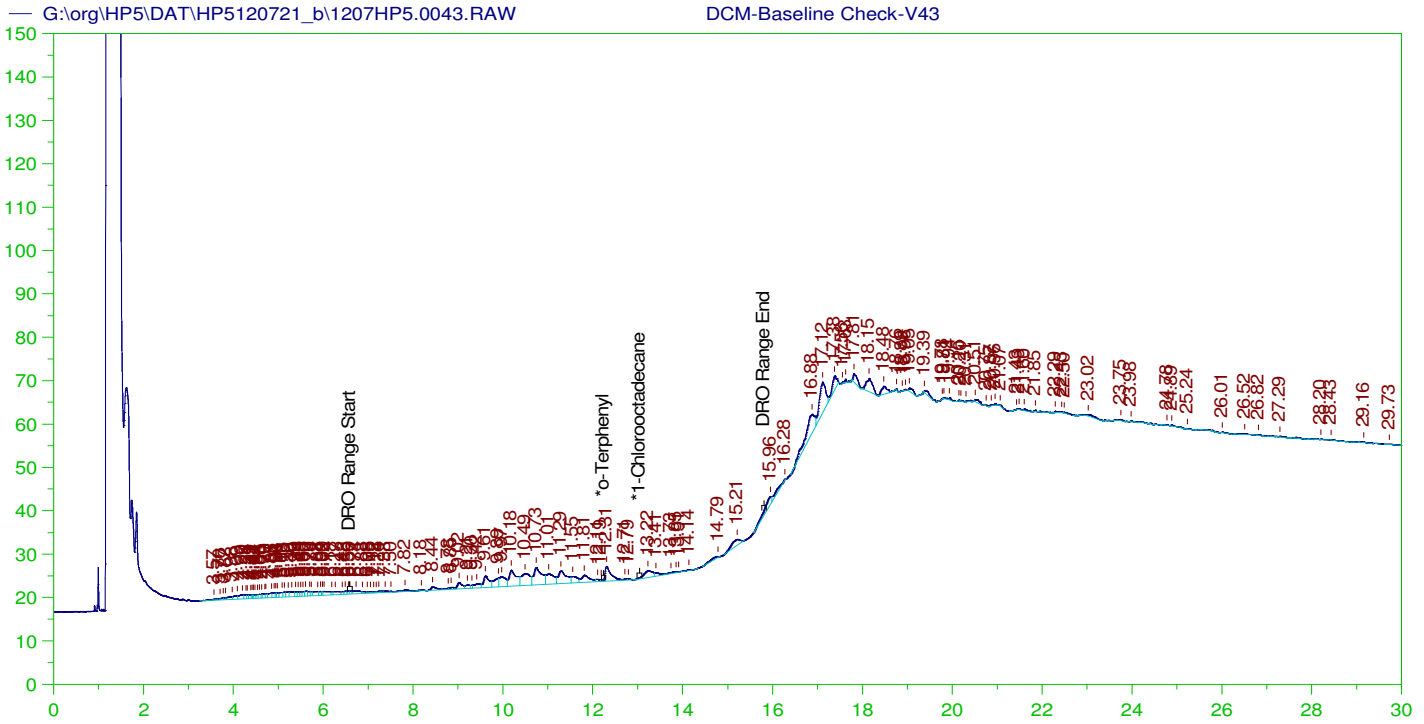
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-004BMS-RRO ;1207HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0042.RAW  
 Date & Time Acquired: 12/8/2021 4:34:49 PM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.CAL  
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.271	.495	.09	18.11

RRO Area:4414020 RRO AMOUNT: 0.1531166



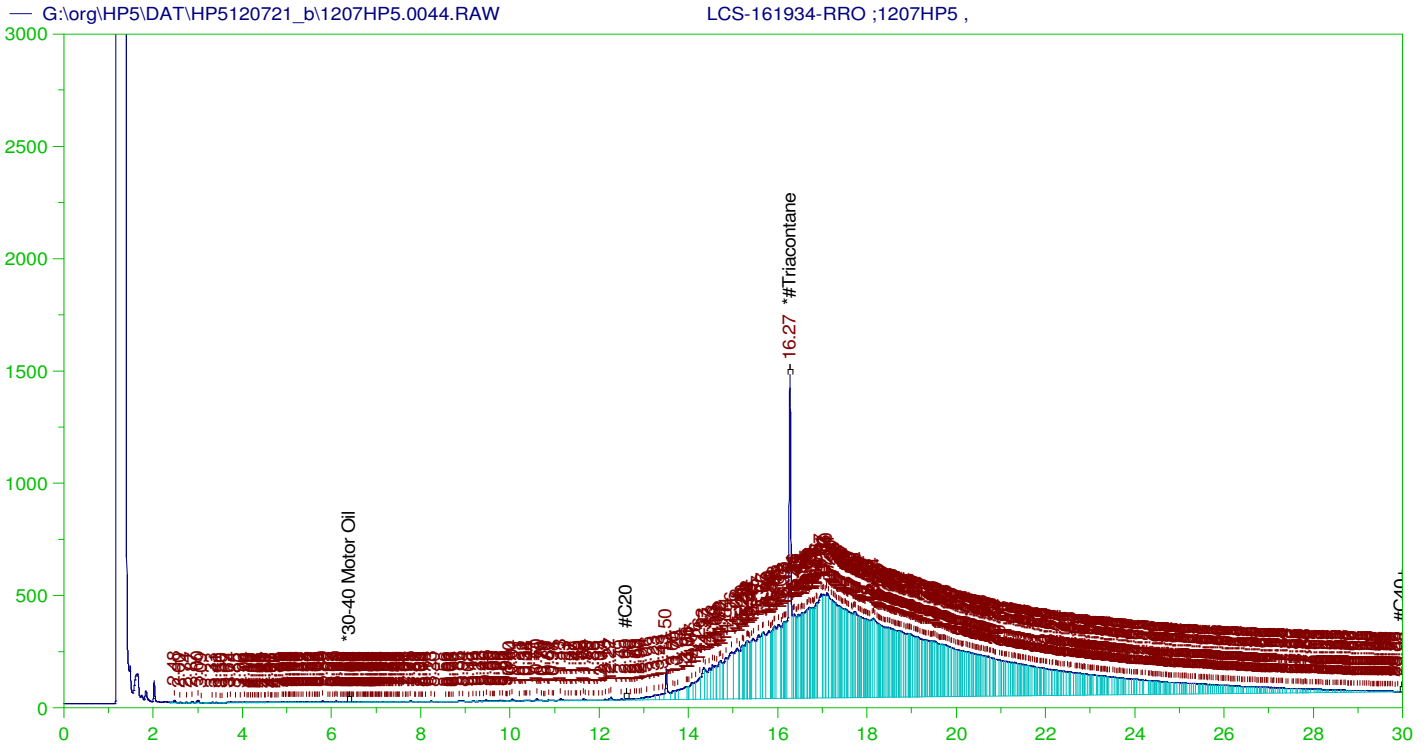
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V43  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0043.RAW  
 Date & Time Acquired: 12/8/2021 5:18:24 PM  
 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	29.73	200.	.	-
*1-Chlorooctadecane	29.73	200.	.	-

DRO Area:455632.5 DRO Amount: 14.53225  
 TEH Area:929536.3 TEH Amount: 29.64726



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-161934-RRO ;1207HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0044.RAW  
 Date & Time Acquired: 12/8/2021 6:01:40 PM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

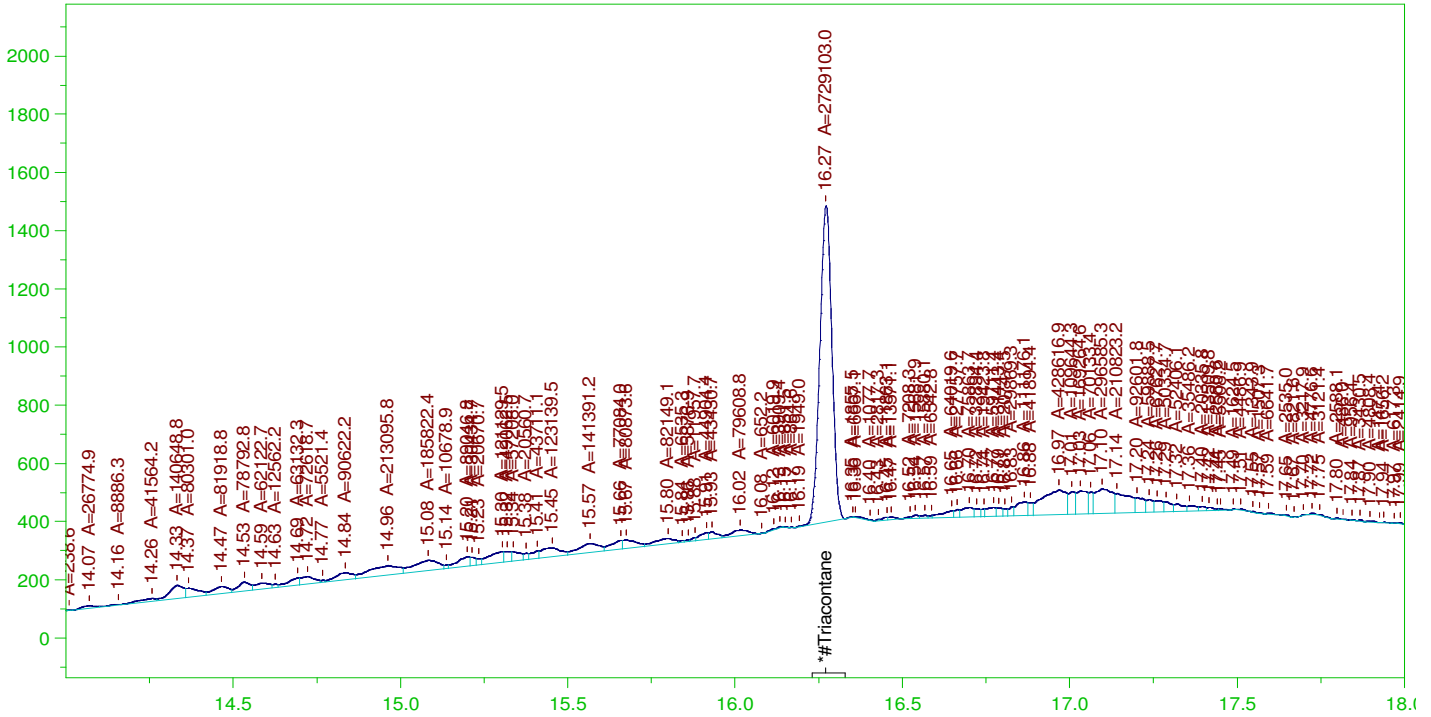
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.271	.5	.193	38.58	-

~~RRO~~ TEH (Oil Range) Area:1.435097E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5.027946

AMN 12/15/2021

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0044.RAW

LCS-161934-RRO ;1207HP5 ,



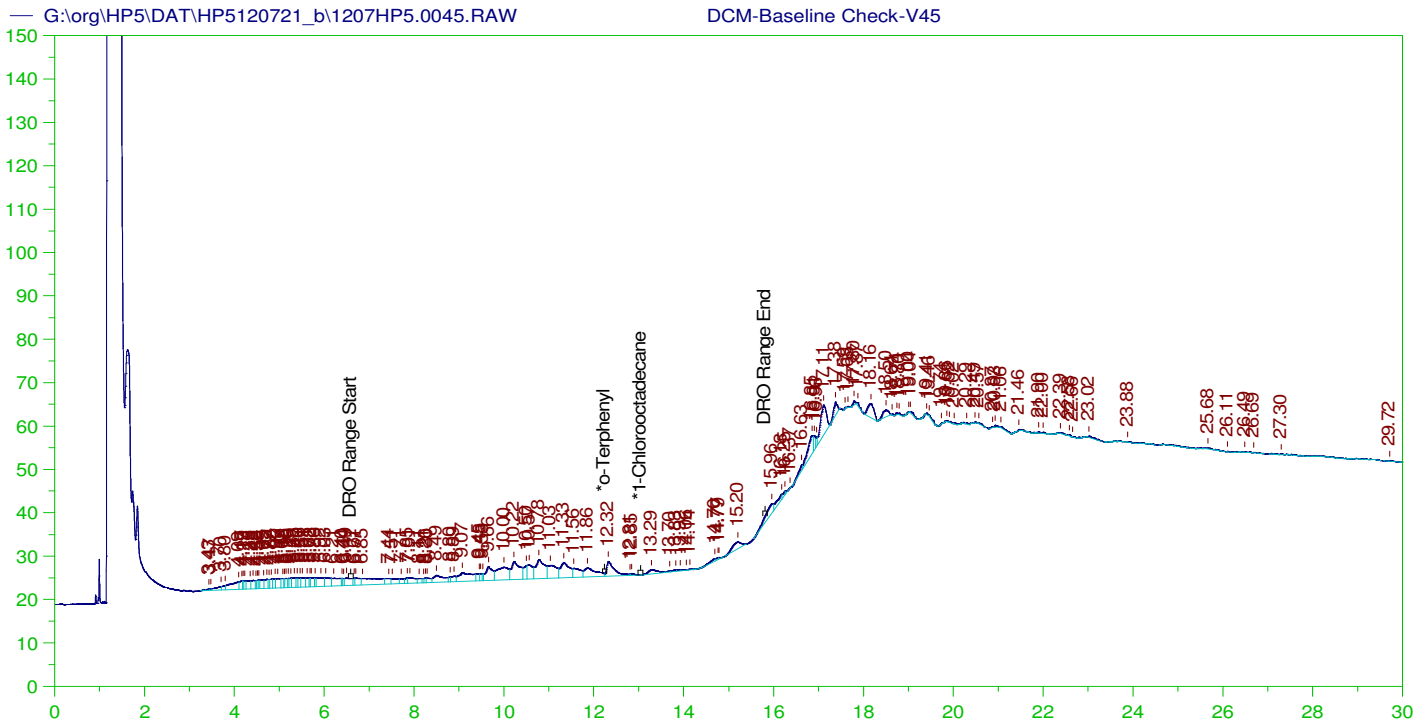
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-161934-RRO ;1207HP5 ,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0044.RAW  
Date & Time Acquired: 12/8/2021 6:01:40 PM  
Method File: G:\Org\HP5\Methods\DS\_ORO-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.271	.5	.094	18.87

RRO Area:5210125 RRO AMOUNT: 0.1825397



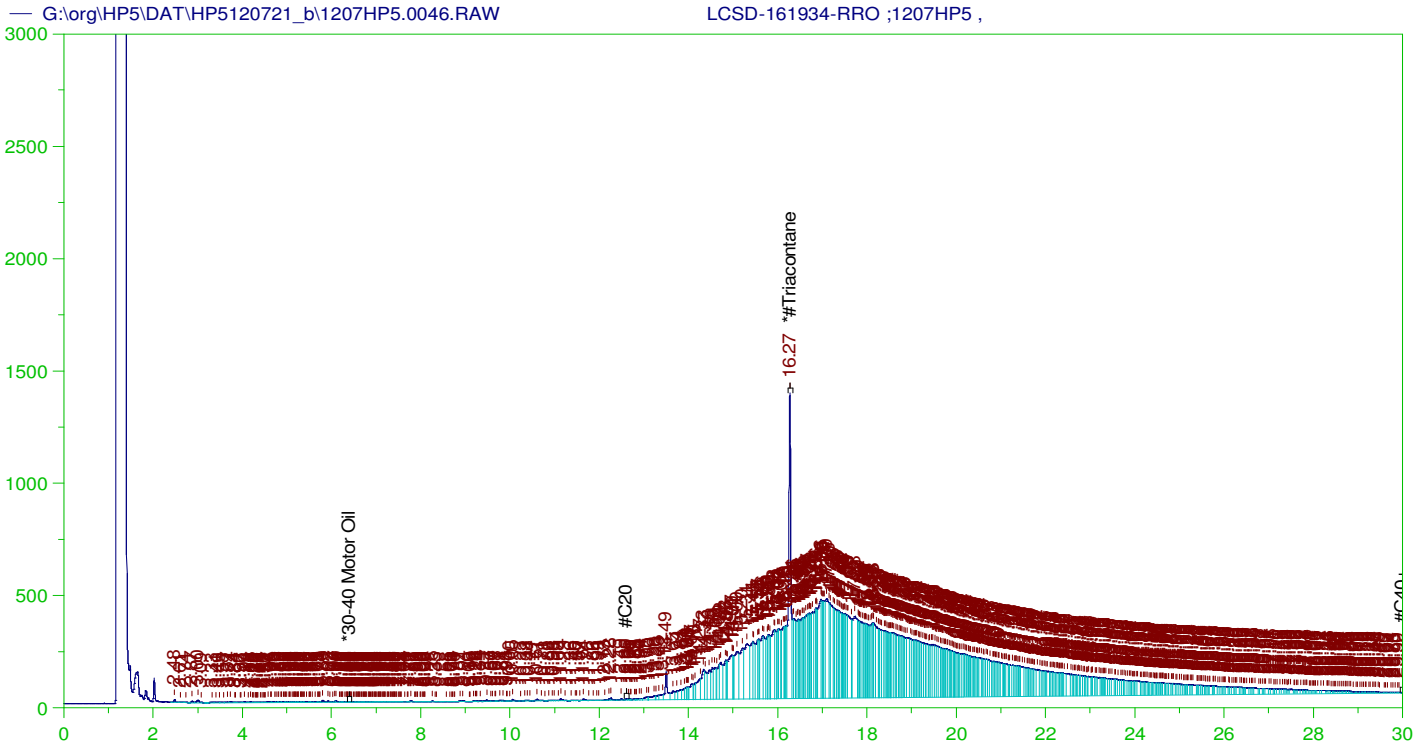
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V45  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0045.RAW  
 Date & Time Acquired: 12/8/2021 6:45:25 PM  
 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	29.972	200.	.	-
*1-Chlorooctadecane	29.972	200.	.	-

DRO Area: 734788.2 DRO Amount: 23.43583  
 TEH Area: 1385721 TEH Amount: 44.19714



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCSD-161934-RRO ;1207HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0046.RAW  
 Date & Time Acquired: 12/8/2021 7:28:48 PM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

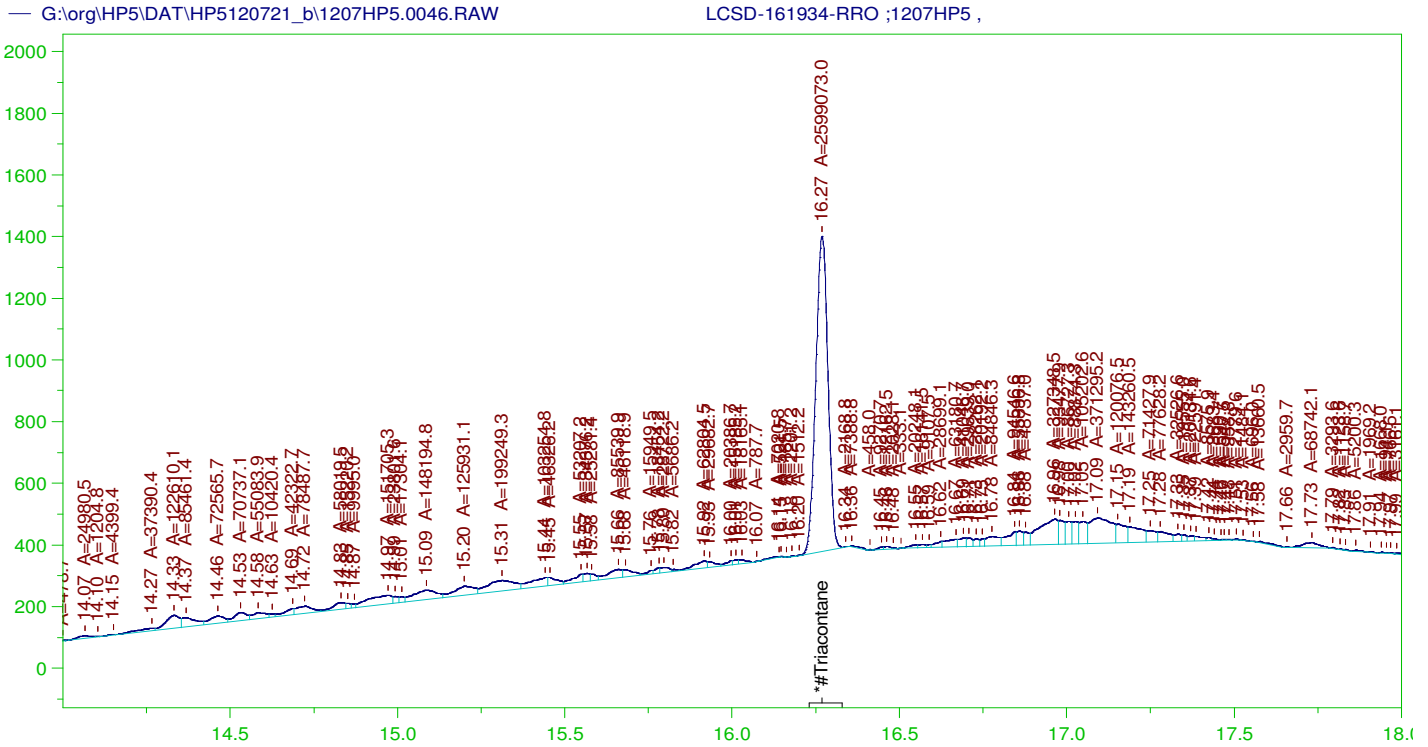
Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 28542.41  
 Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.268	.5	.176	35.13	-

~~RRO~~ TEH (Oil Range) Area:1.355157E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4.747873

AMN 12/15/2021





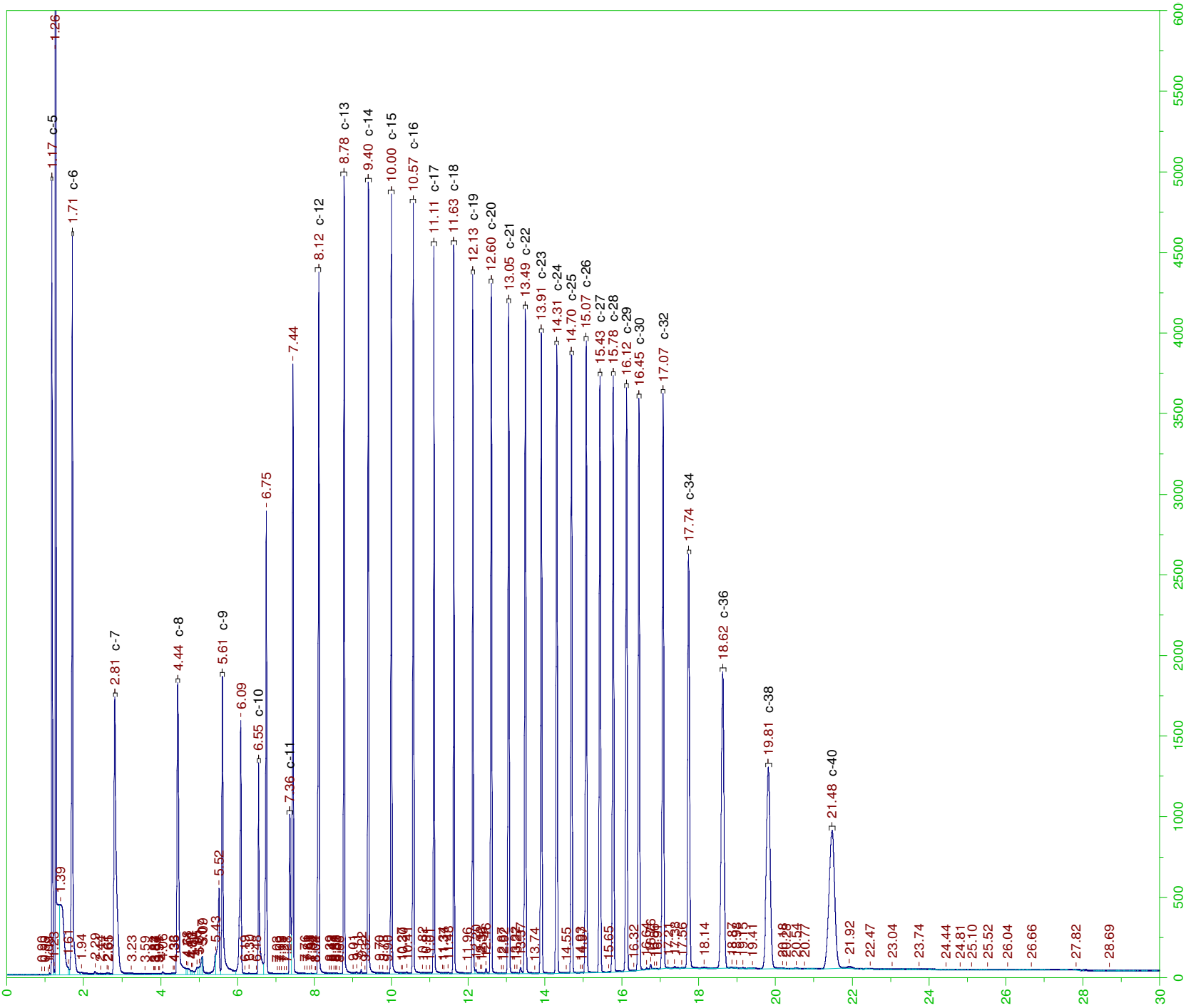
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCSD-161934-RRO ;1207HP5 ,  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0046.RAW  
Date & Time Acquired: 12/8/2021 7:28:48 PM  
Method File: G:\Org\HP5\Methods\DS\_ORO-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

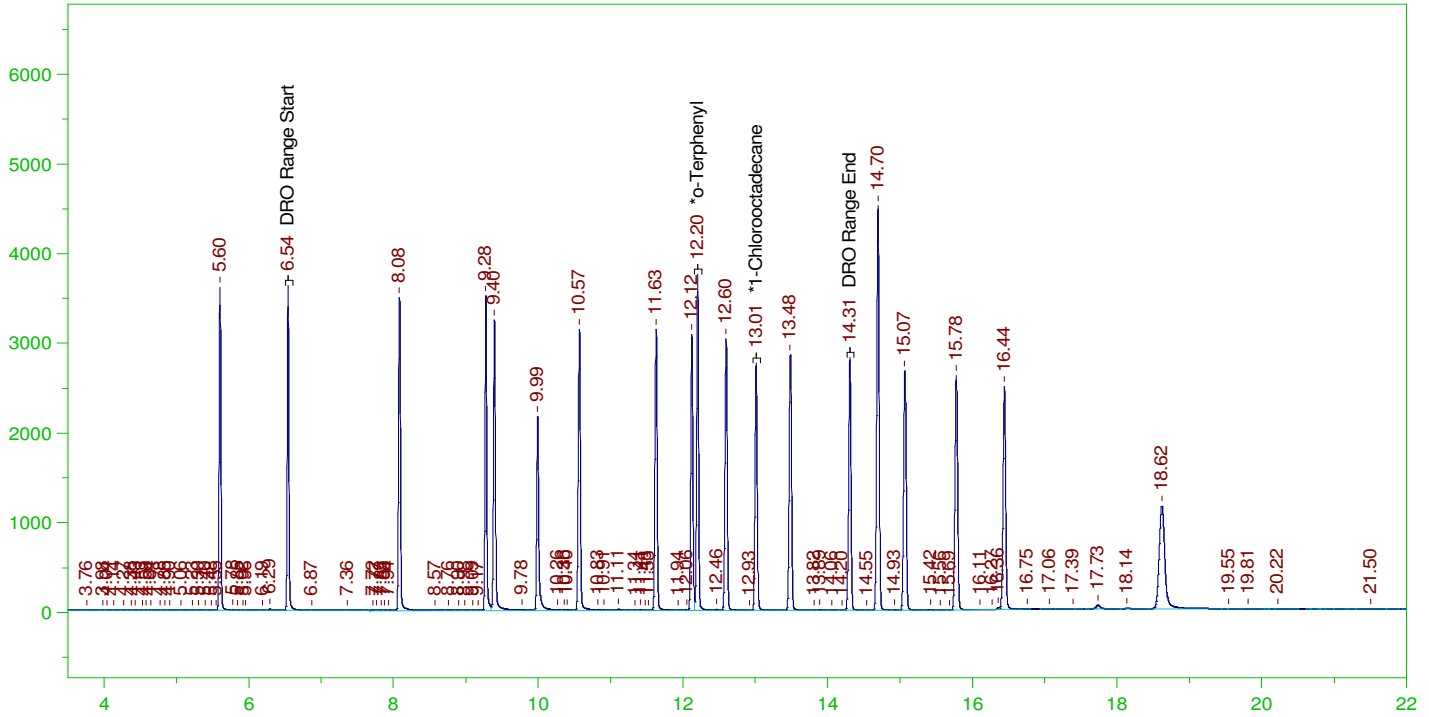
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.268	.5	.09	17.97

RRO Area:4797710 RRO AMOUNT: 0.1680906



G:\org\HP5\DAT\HP5120721\_b\1207HP5.0048.RAW

MARKER\_1207HP548r, DRO ;1207HP5 , DRO211203B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

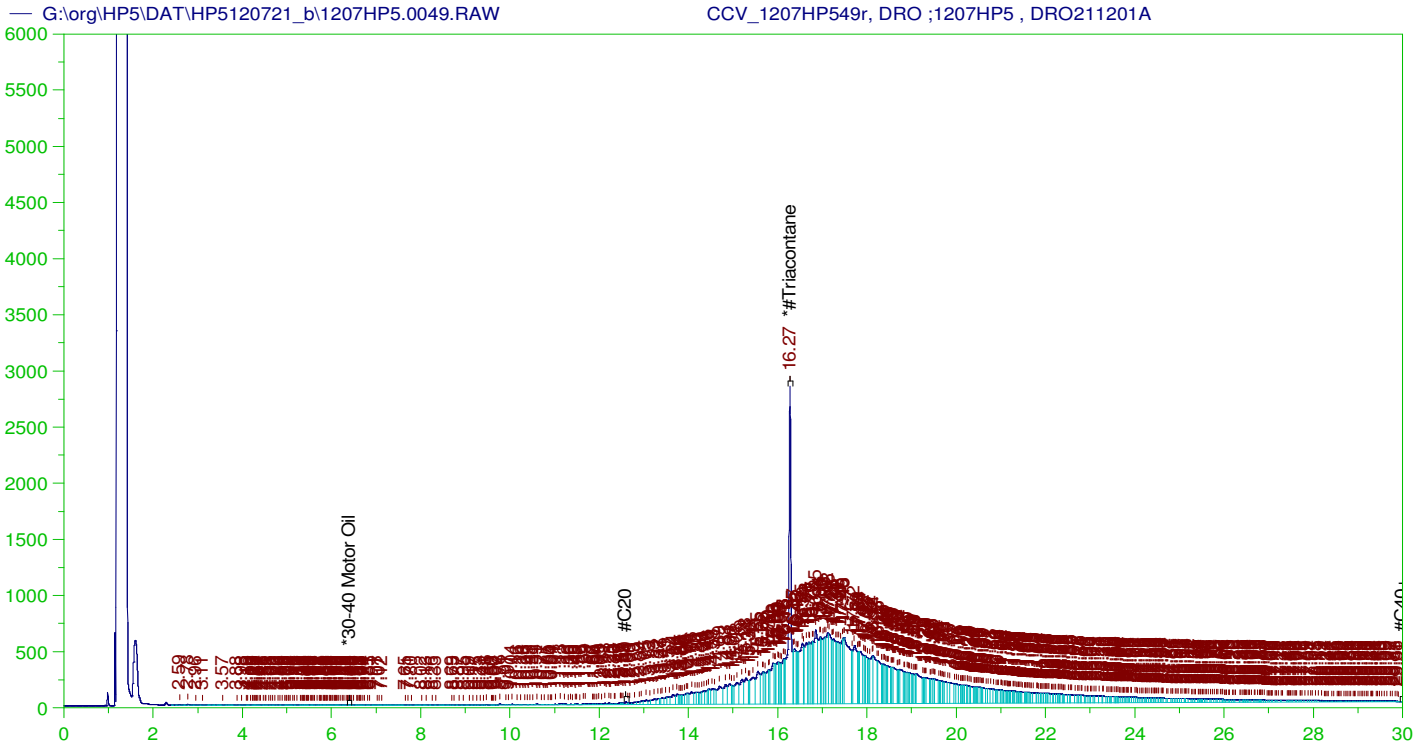
Sample Name: MARKER\_1207HP548r, DRO ;1207HP5 , DRO211203B  
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 Date & Time Acquired: 12/8/2021 8:55:39 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.203	.2	.207	103.62
*1-Chlorooctadecane	13.011	.2	.166	83.06

DRO Area: 6.731694E+07 DRO Amount: 2.147052  
 TEH Area: 1.100305E+08 TEH Amount: 3.509387



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1207HP549r, DRO ;1207HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0049.RAW  
 Date & Time Acquired: 12/8/2021 9:39:01 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.272	500.	356.009	71.2	-

~~RRO~~ TEH (Oil Range) Area:1.450745E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 5082.771

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0049.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.043	.	75-125

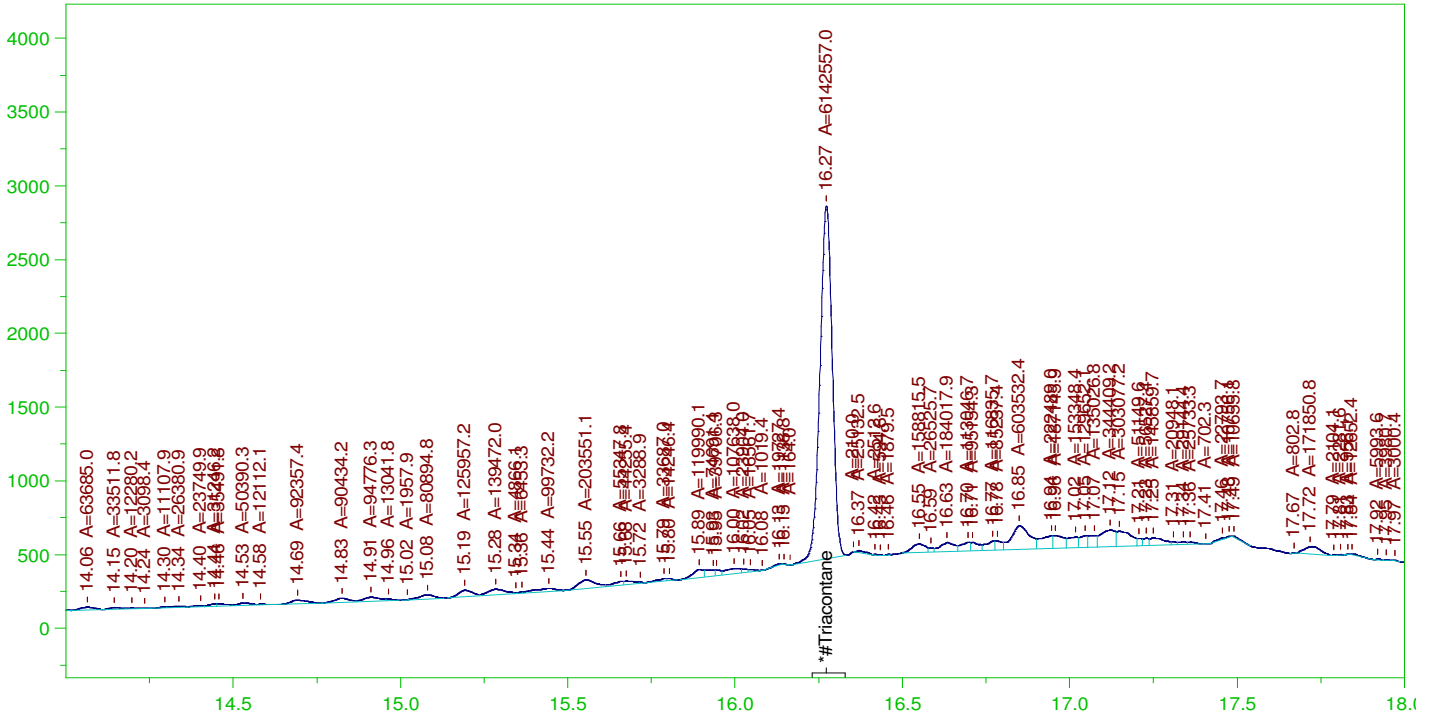
  

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.272	200.	356.009	178.	75-125

AMN 12/15/2021

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0049.RAW

CCV\_1207HP549r, DRO ;1207HP5 , DRO211201A



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1207HP549r, DRO ;1207HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0049.RAW  
 Date & Time Acquired: 12/8/2021 9:39:01 PM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

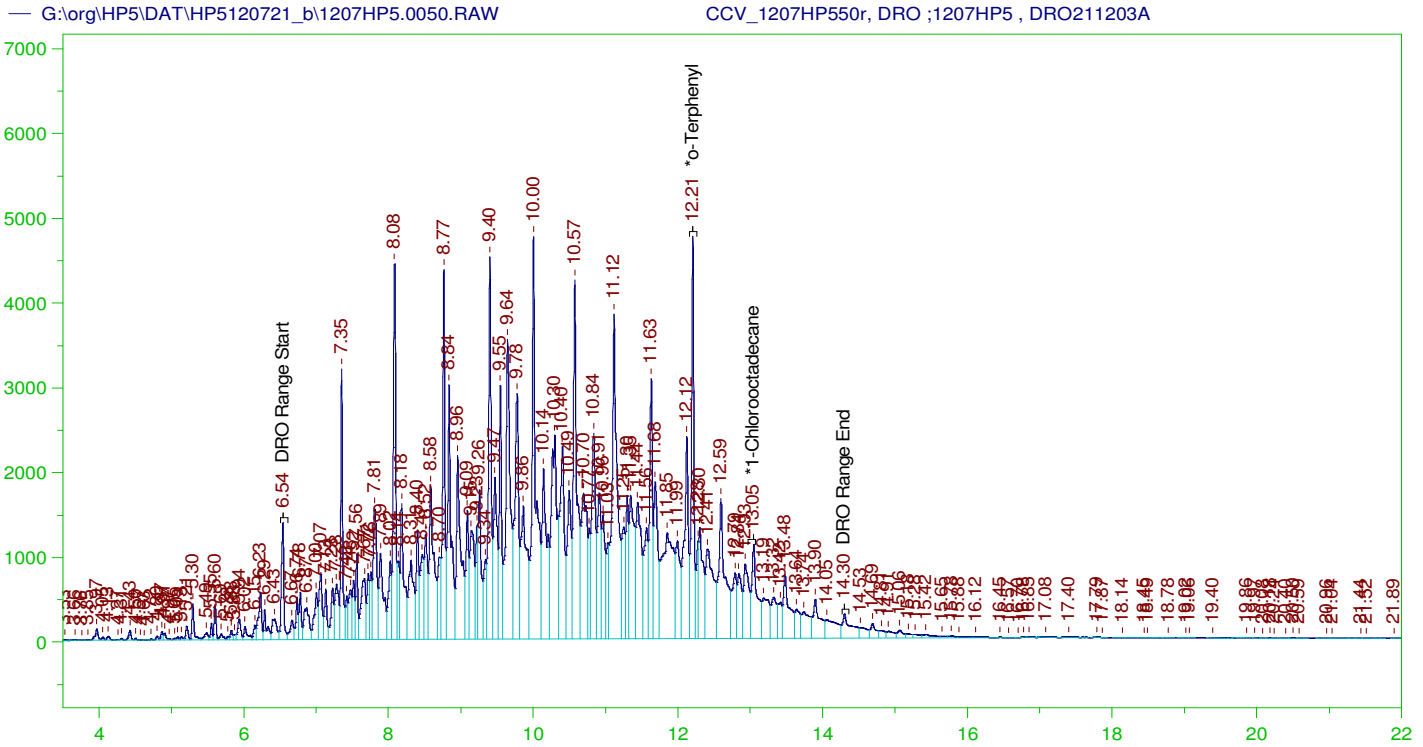
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.272	500.	212.324	42.46	-

RRO Area:5956073 RRO AMOUNT: 208.6745

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0049.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.043	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.272	200.	212.324	106.16	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1207HP550r, DRO ;1207HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0050.RAW  
 Date & Time Acquired: 12/8/2021 10:22:17 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.51 to 14.37

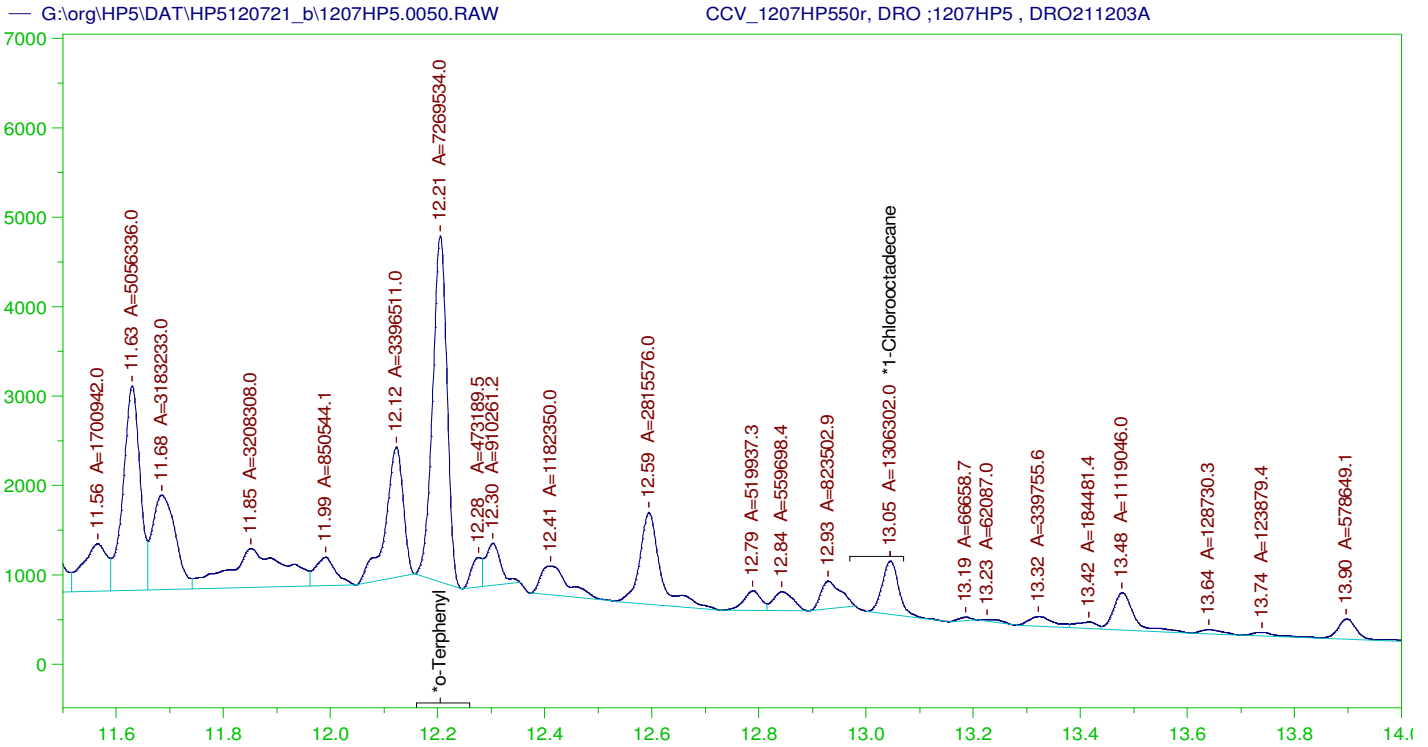
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.205	200.	336.688	168.34
*1-Chlorooctadecane	13.045	200.	161.636	80.82

DRO Area: 4.653329E+08 DRO Amount: 14841.64  
 TEH Area: 4.811975E+08 TEH Amount: 15347.64

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0050.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15347.64	102.32	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.205	200.	336.688	168.34	85-115
*1-Chlorooctadecane	13.045	200.	161.636	80.82	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1207HP550r, DRO ;1207HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0050.RAW  
 Date & Time Acquired: 12/8/2021 10:22:17 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

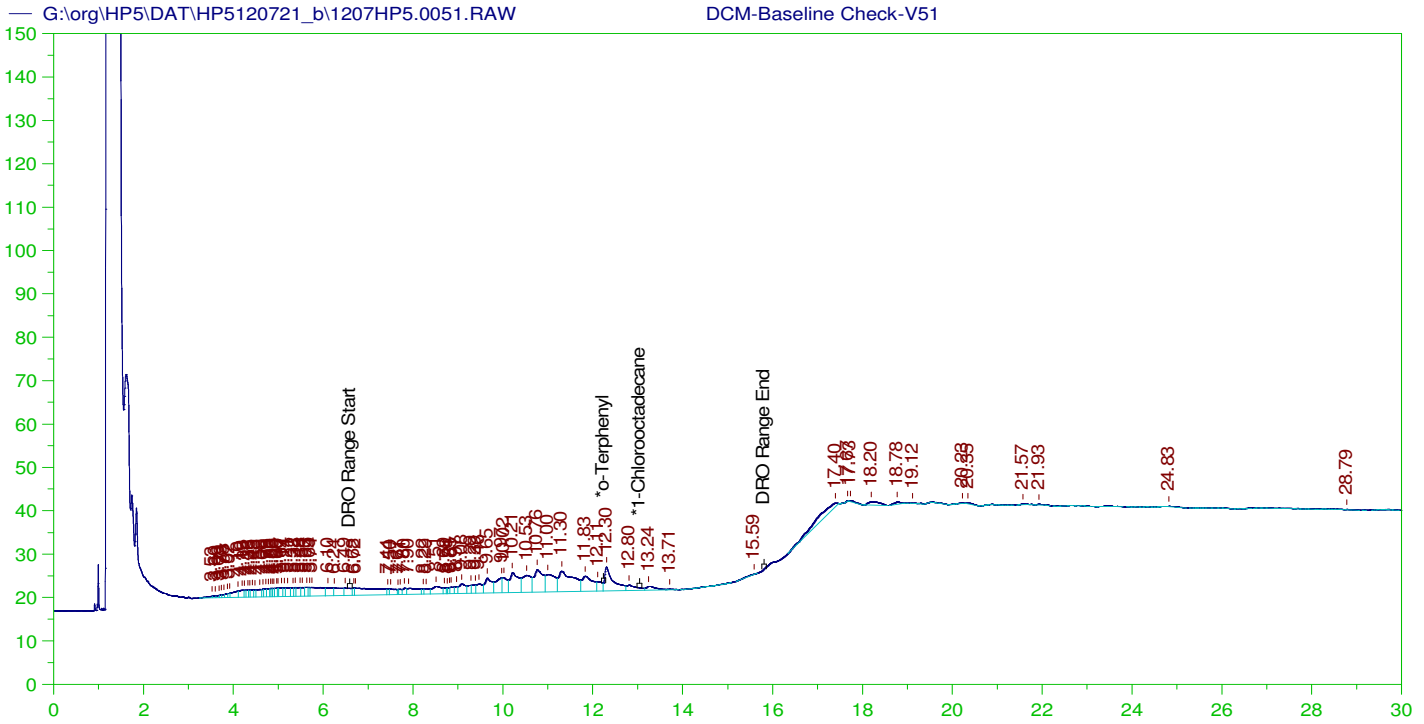
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.205	200.	204.723	102.36
*1-Chlorooctadecane	13.045	200.	36.788	18.39

DRO Area: 2.61222E+08 DRO Amount: 8331.594  
 TEH Area: 2.714816E+08 TEH Amount: 8658.817

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0050.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8658.82	57.73	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.205	200.	204.723	102.36	85-115
*1-Chlorooctadecane	13.045	200.	36.788	18.39	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V51  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0051.RAW  
 Date & Time Acquired: 12/8/2021 11:05:43 PM  
 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	29.823	200.	.	-
*1-Chlorooctadecane	29.823	200.	.	-

DRO Area:901012.6 DRO Amount: 28.73751  
 TEH Area:1313341 TEH Amount: 41.88858

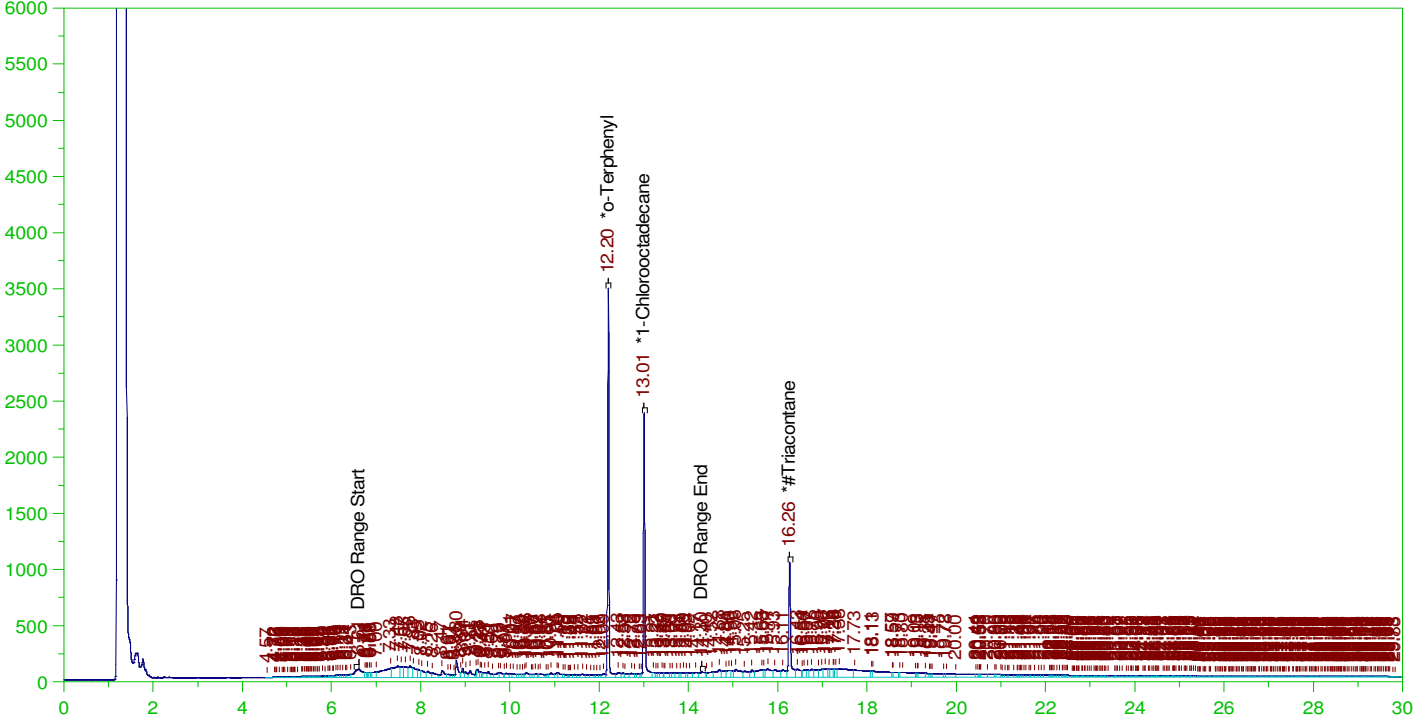


ERH2003 (RHMW01R)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0062.RAW

B21120381-001A ;1207HP5 , \$HC-8015-DRO-W, RR



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-001A ;1207HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0062.RAW  
 Date & Time Acquired: 12/9/2021 7:02:18 AM  
 Method File: G:\Org\HP5\Methods\D3\_8015-120724-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.2	.196	.189	96.58	-
*1-Chlorooctadecane	13.006	.196	.154	78.3	-
*#Triacontane	16.263	.196	.11	56.	-

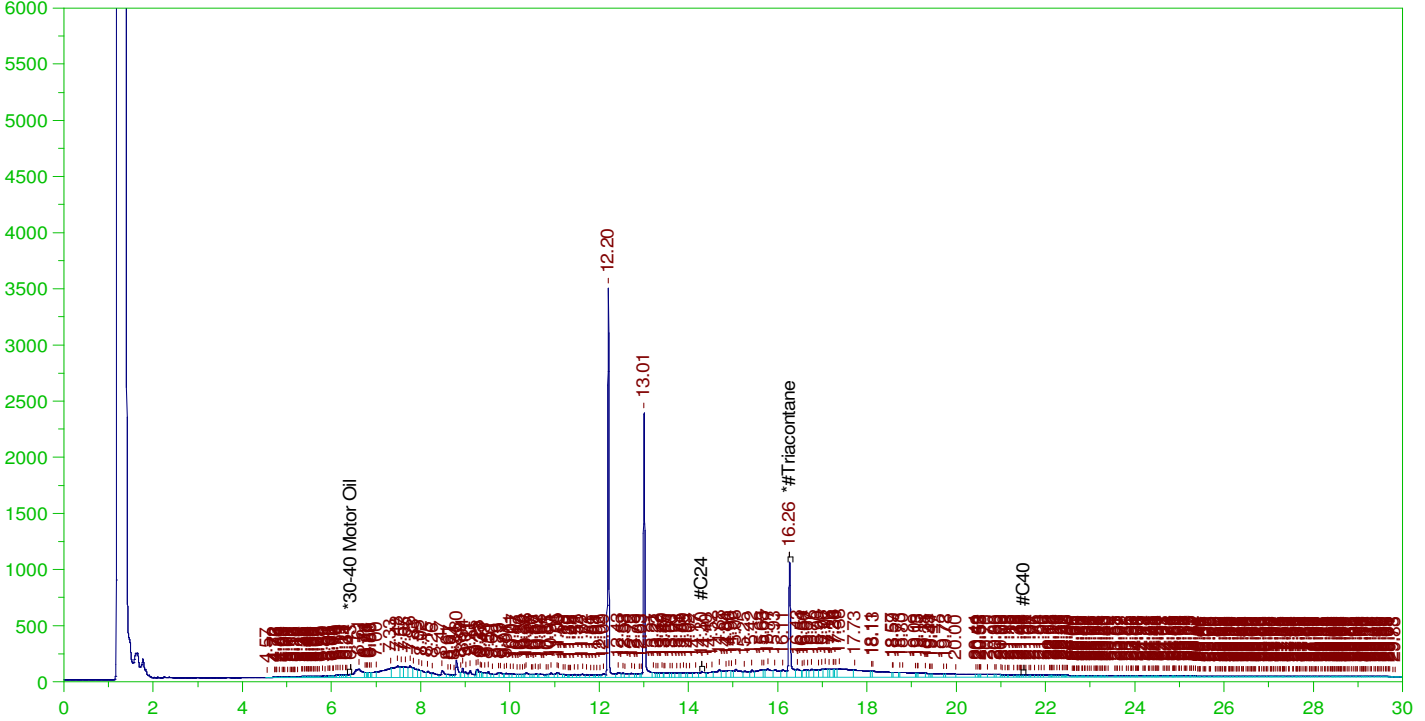
DRO Area:1.833639E+07 DRO Amount: 0.5733661  
 TEH Area:4.16469E+07 TEH Amount: 1.302269

ERH2003 (RHMW01R)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0062.RAW

B21120381-001A ;1207HP5 , \$HC-8015-DRO-W, RR



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-001A ;1207HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0062.RAW  
 Date & Time Acquired: 12/9/2021 7:02:18 AM  
 Method File: G:\Org\HP5\Methods\D3\_OROS-120724-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-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: 14.26 to 21.56

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.263	.49	.11	22.4

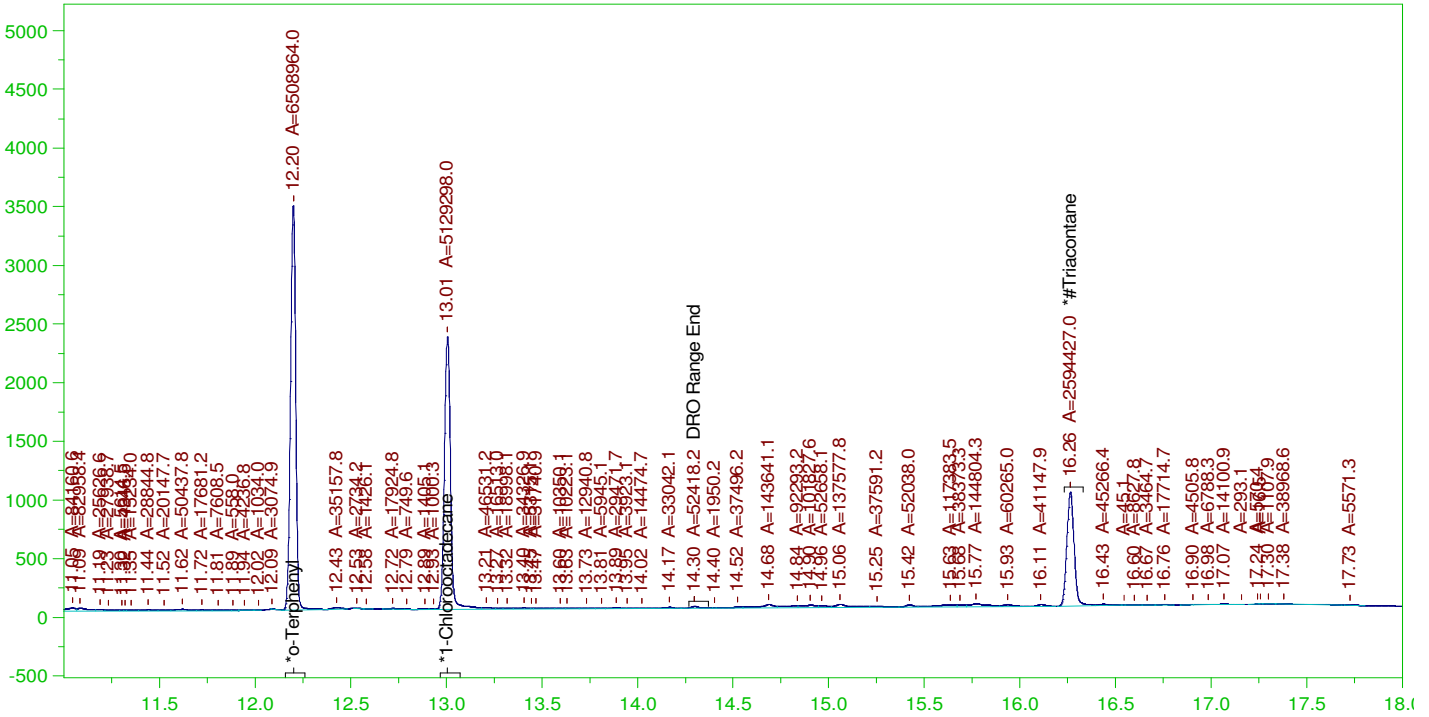
RRO Area:1.882007E+07 RRO AMOUNT: 0.6464432

ERH2003 (RHMW01R)

Batch ID: 161934

G:\org\HP5\DAT\HP5120721\_b\1207HP5.0062.RAW

B21120381-001A ;1207HP5 , \$HC-8015-DRO-W, RR



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

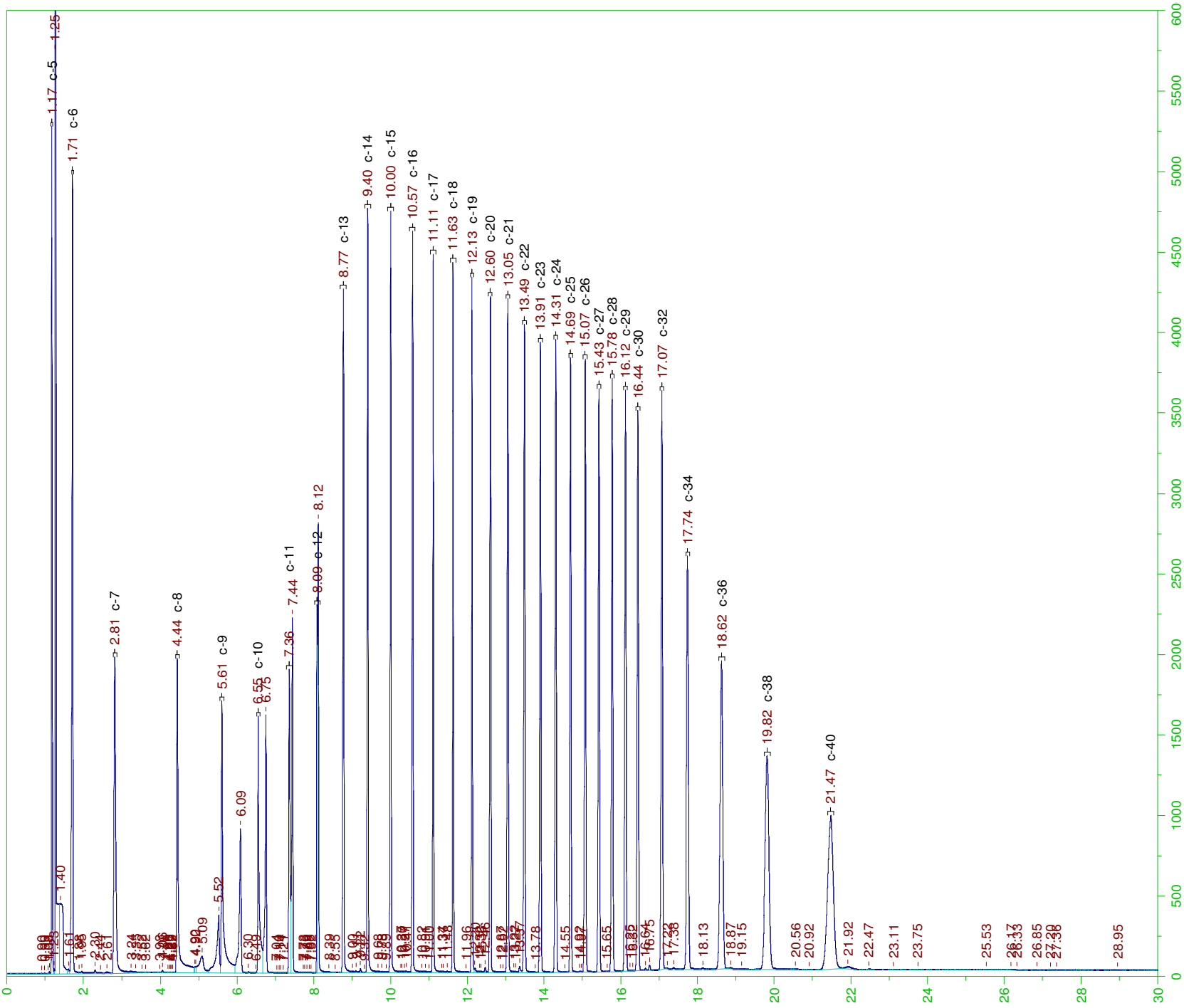
Sample Name: B21120381-001A ;1207HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0062.RAW  
 Date & Time Acquired: 12/9/2021 7:02:18 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

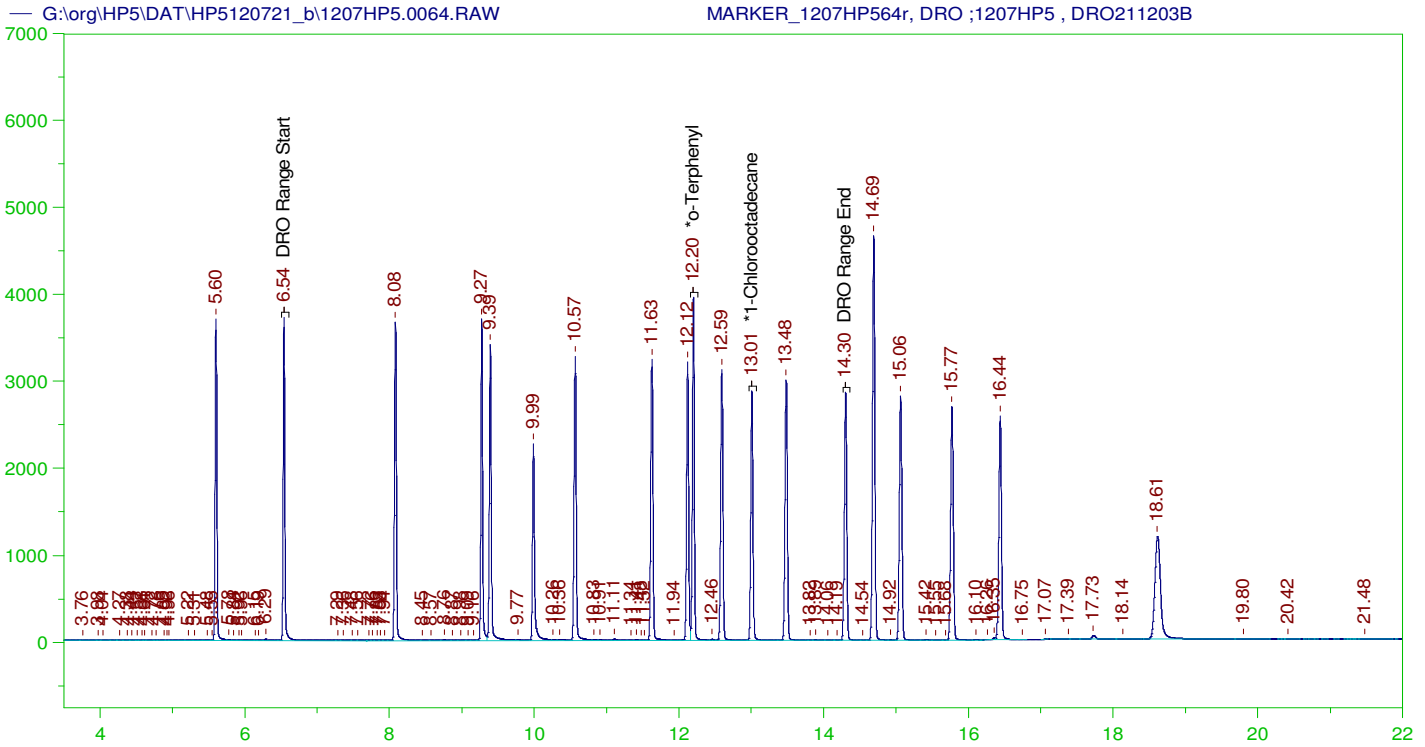
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.2	.196	.18	91.65	-
*1-Chlorooctadecane	13.006	.196	.142	72.22	-
*#Triacontane	16.263	.196	.088	44.84	-

DRO Area:1.10653E+07 DRO Amount: 0.3460042  
 TEH Area:1.370359E+07 TEH Amount: 0.4285017





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

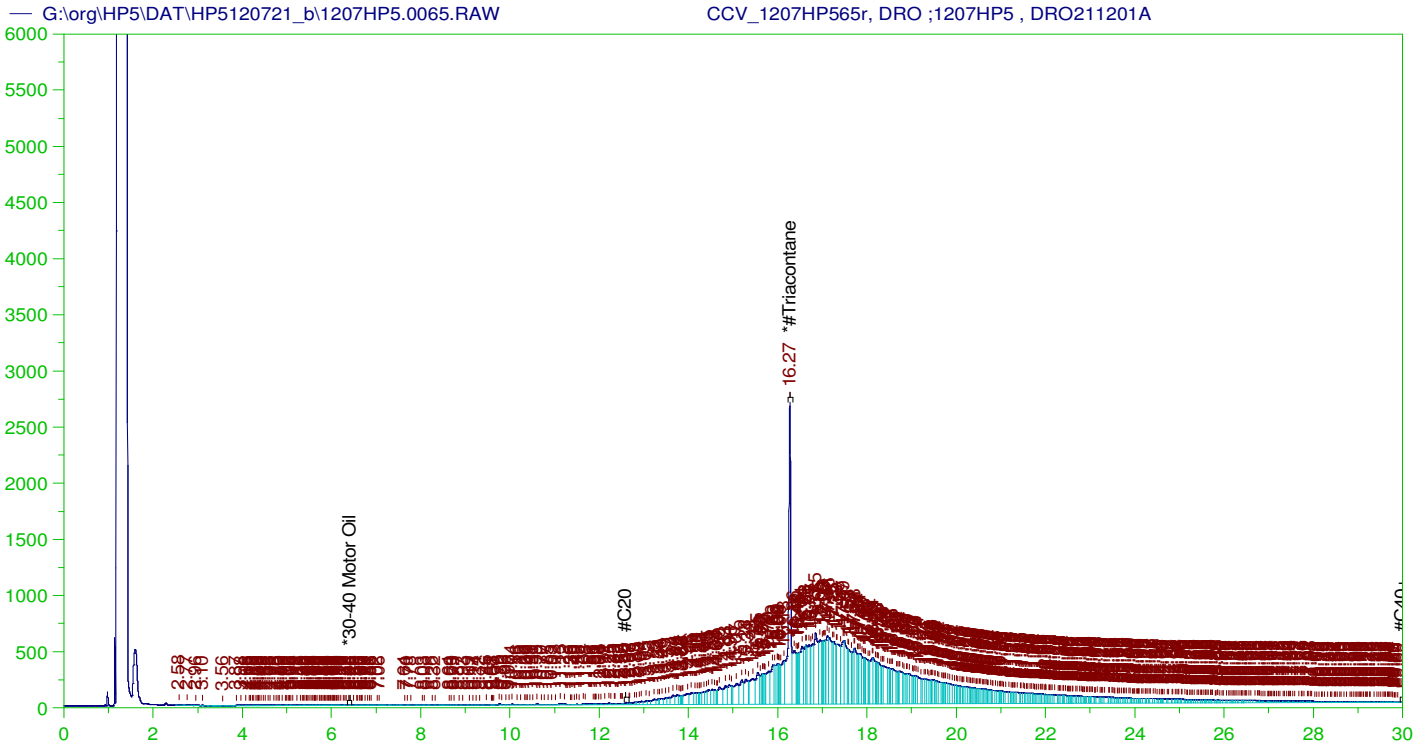
Sample Name: MARKER\_1207HP564r, DRO ;1207HP5 , DRO211203B  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0064.RAW  
 Date & Time Acquired: 12/9/2021 8:28:35 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.2	.2	.217	108.32
*1-Chlorooctadecane	13.008	.2	.173	86.54

DRO Area: 7.03021E+07 DRO Amount: 2.242263  
 TEH Area: 1.146517E+08 TEH Amount: 3.656779



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1207HP565r, DRO ;1207HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0065.RAW  
 Date & Time Acquired: 12/9/2021 9:11:48 AM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.269	500.	349.88	69.98	-

~~RRO~~ TEH (Oil Range) Area:1.389346E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4867.654

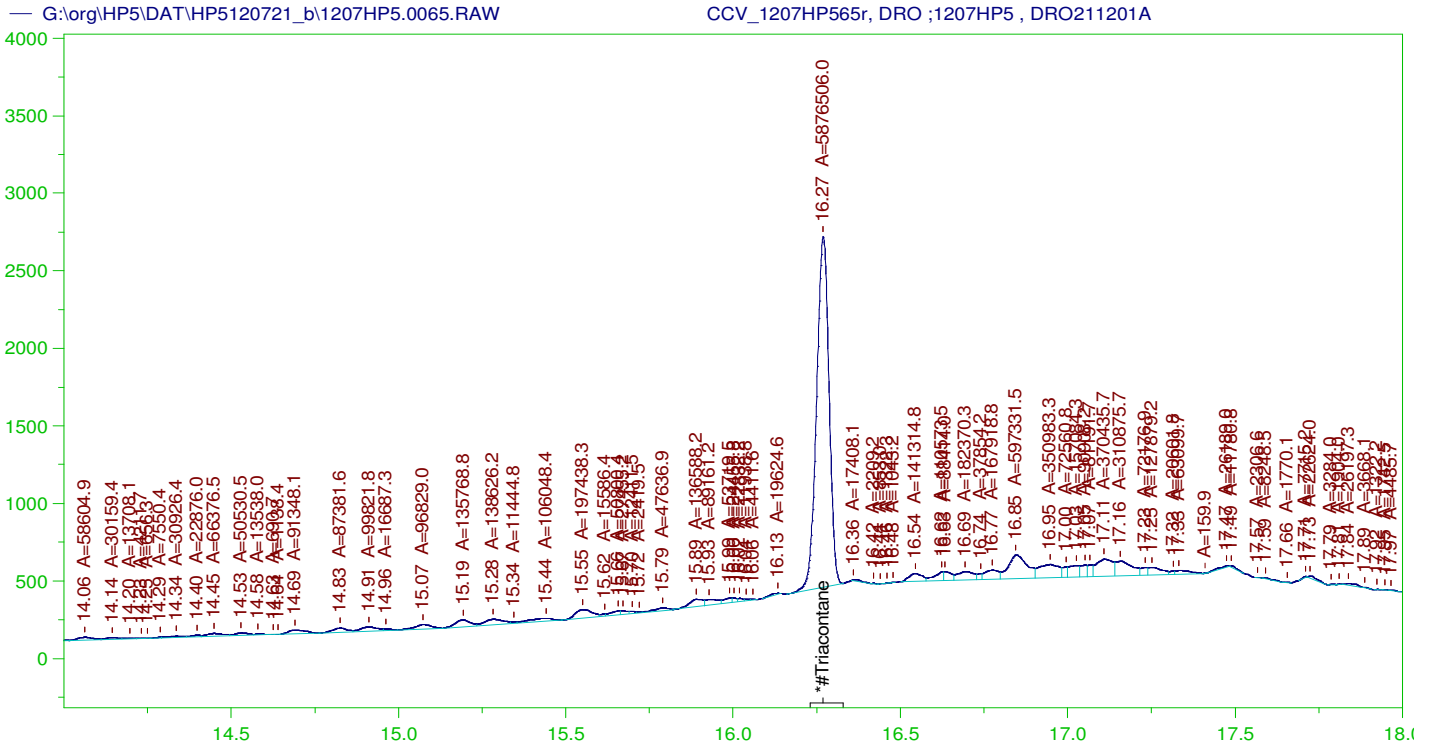
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COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.033	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	349.88	174.94	75-125

AMN 12/15/2021



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1207HP565r, DRO ;1207HP5 , DRO211201A  
Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0065.RAW  
Date & Time Acquired: 12/9/2021 9:11:48 AM  
Method File: G:\Org\HP5\Methods\DS\_ORO-AG-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.269	500.	203.127	40.63	-

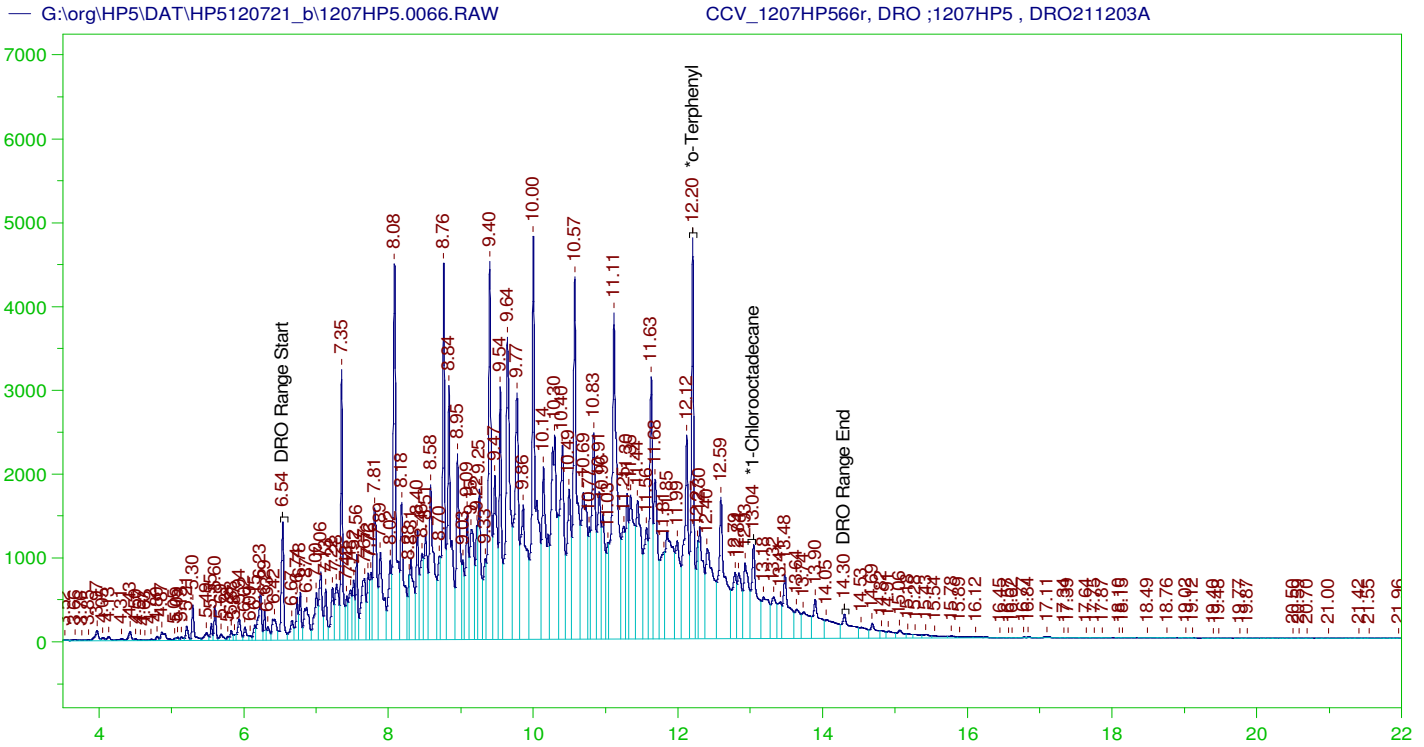
RRO Area:5649758 RRO AMOUNT: 197.9426

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0065.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.033	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	203.127	101.56	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1207HP566r, DRO ;1207HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0066.RAW  
 Date & Time Acquired: 12/9/2021 9:55:07 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.204	200.	341.971	170.99
*1-Chlorooctadecane	13.043	200.	161.124	80.56

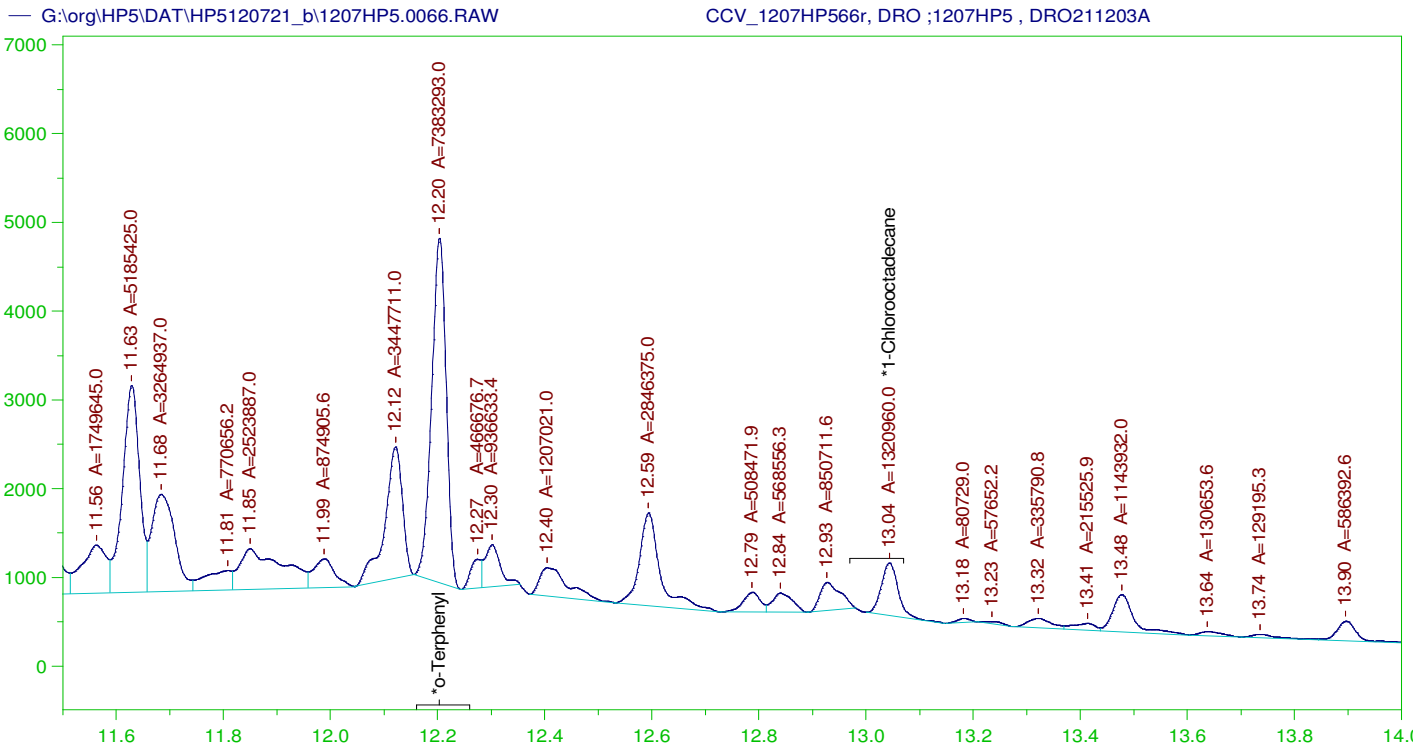
DRO Area: 4.746264E+08 DRO Amount: 15138.06  
 TEH Area: 4.906576E+08 TEH Amount: 15649.37

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0066.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15649.37	104.33	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.204	200.	341.971	170.99	85-115
*1-Chlorooctadecane	13.043	200.	161.124	80.56	85-115





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1207HP566r, DRO ;1207HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0066.RAW  
 Date & Time Acquired: 12/9/2021 9:55:07 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

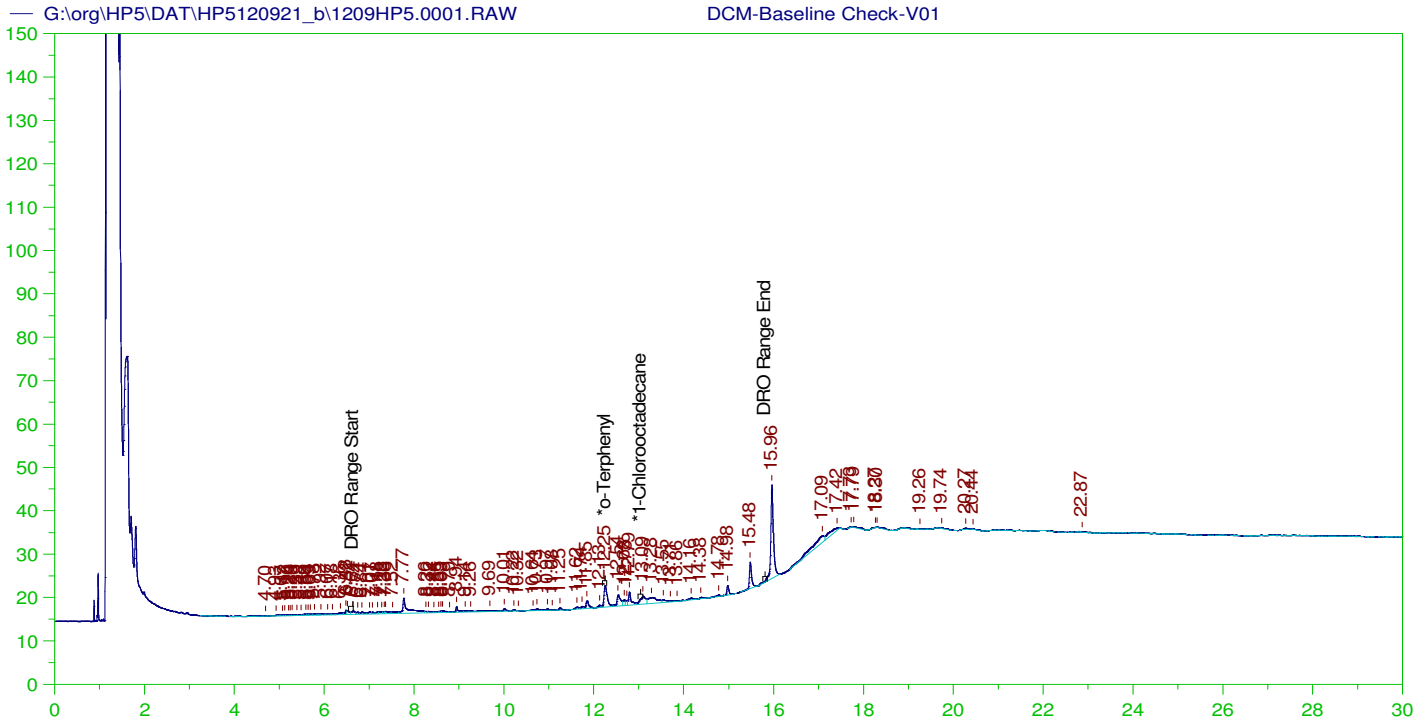
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.204	200.	207.926	103.96
*1-Chlorooctadecane	13.043	200.	37.2	18.6

DRO Area: 2.665449E+08 DRO Amount: 8501.363  
 TEH Area: 2.768014E+08 TEH Amount: 8828.491

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120721\_b\1207HP5.0066.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8828.49	58.86	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.204	200.	207.926	103.96	85-115
*1-Chlorooctadecane	13.043	200.	37.2	18.6	85-115



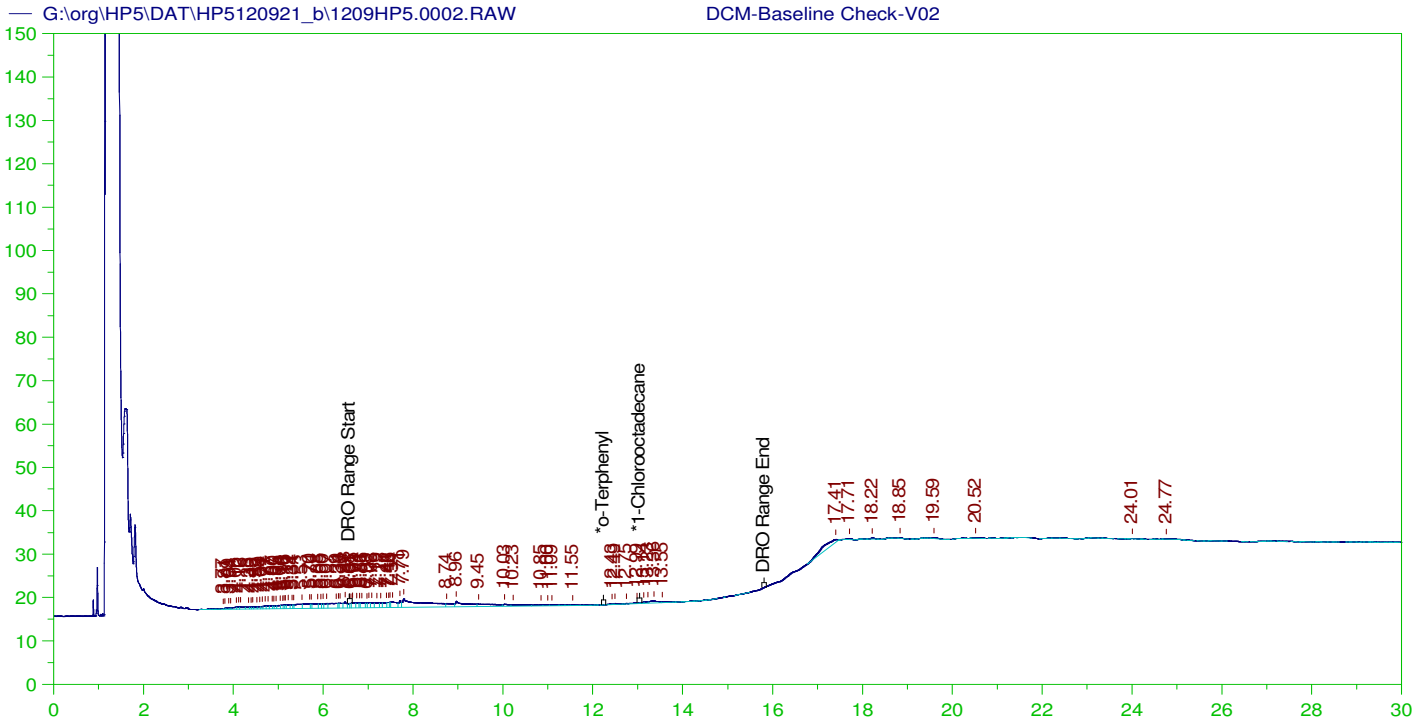
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V01  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0001.RAW  
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 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	12.254	200.	.723	.36
*1-Chlorooctadecane	29.956	200.	.	.

DRO Area: 207581.9 DRO Amount: 6.620757  
 TEH Area: 403251.3 TEH Amount: 12.86157



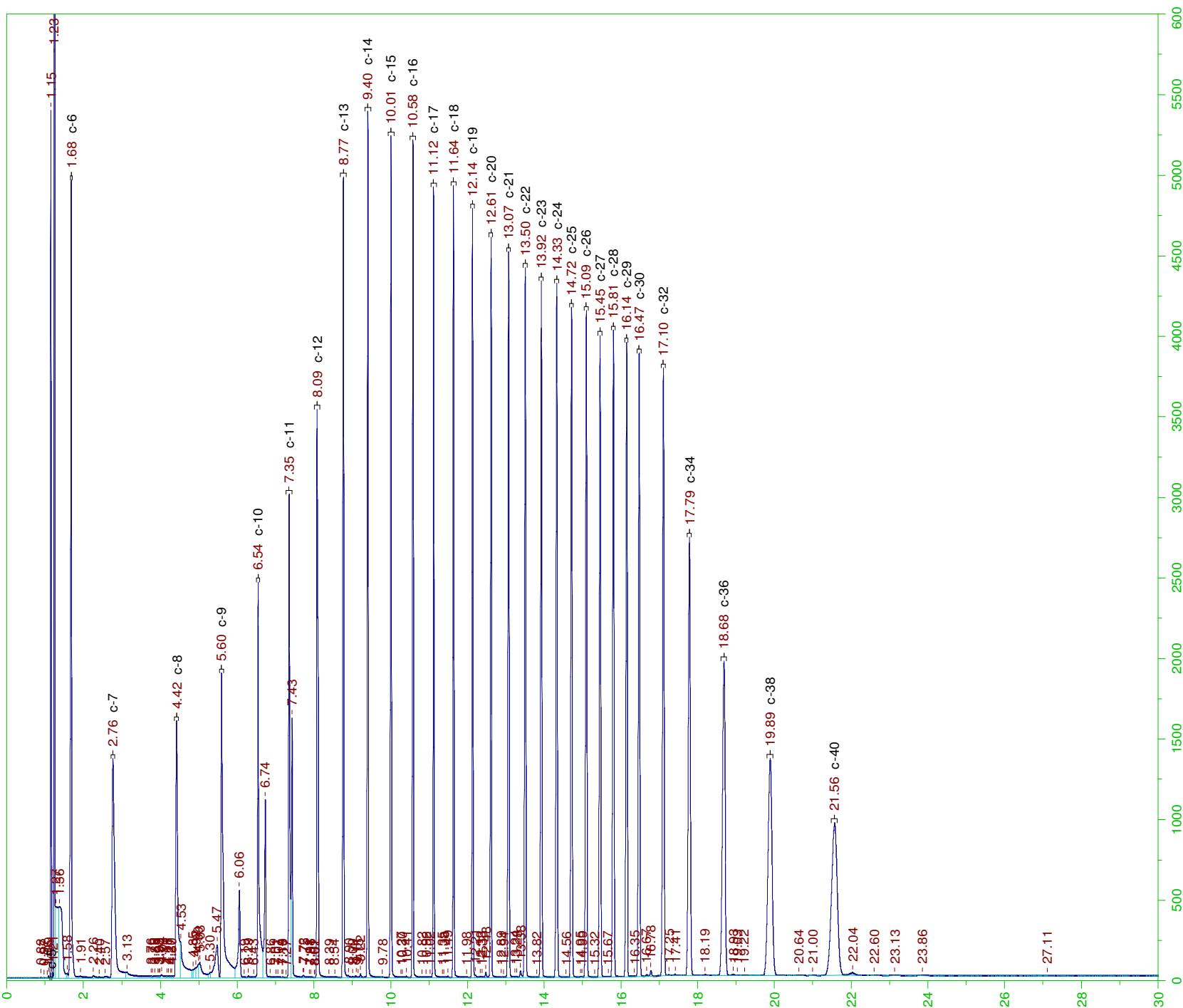
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V02  
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 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

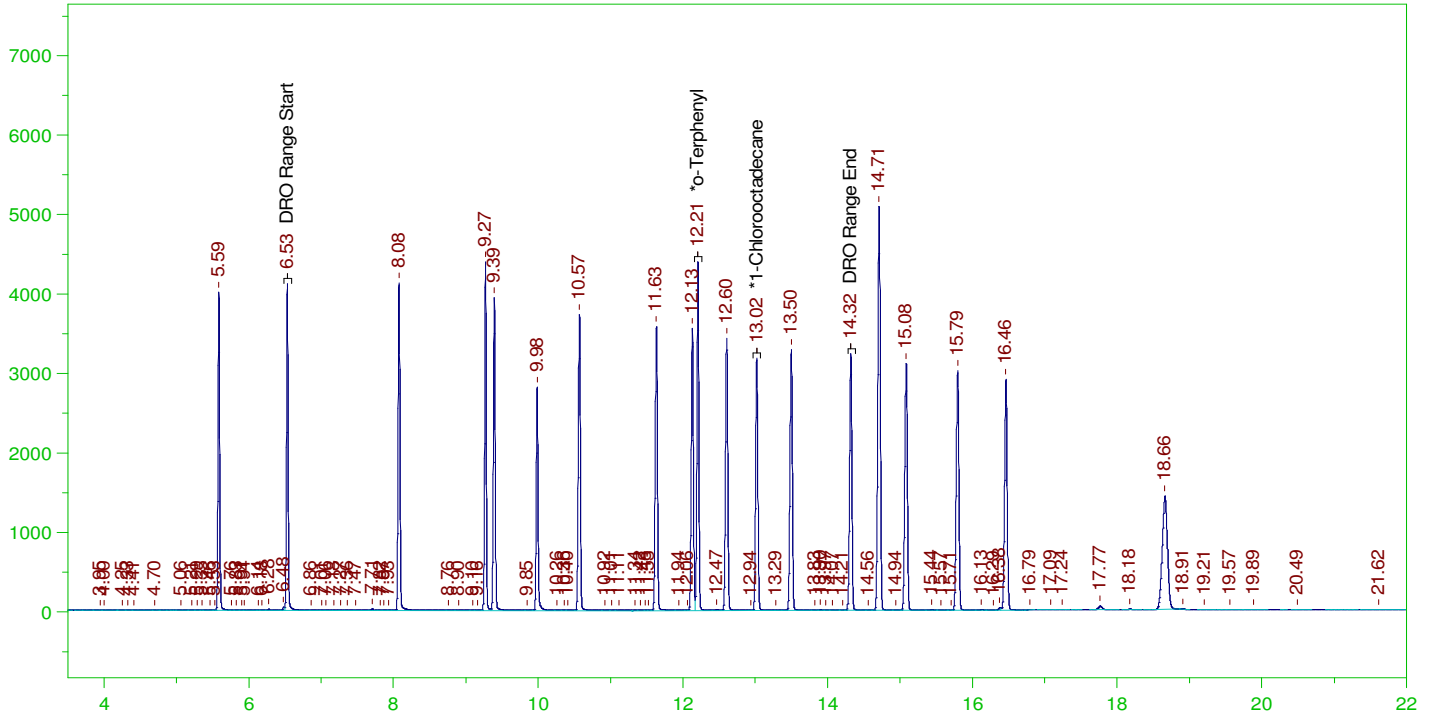
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.91	200.	.	-
*1-Chlorooctadecane	29.91	200.	.	-

DRO Area:213540.2 DRO Amount: 6.810795  
 TEH Area:387463.9 TEH Amount: 12.35804



G:\org\HP5\DAT\HP5120921\_b\1209HP5.0004.RAW

MARKER\_1209HP504r, DRO ;1209HP5 , DRO211203B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

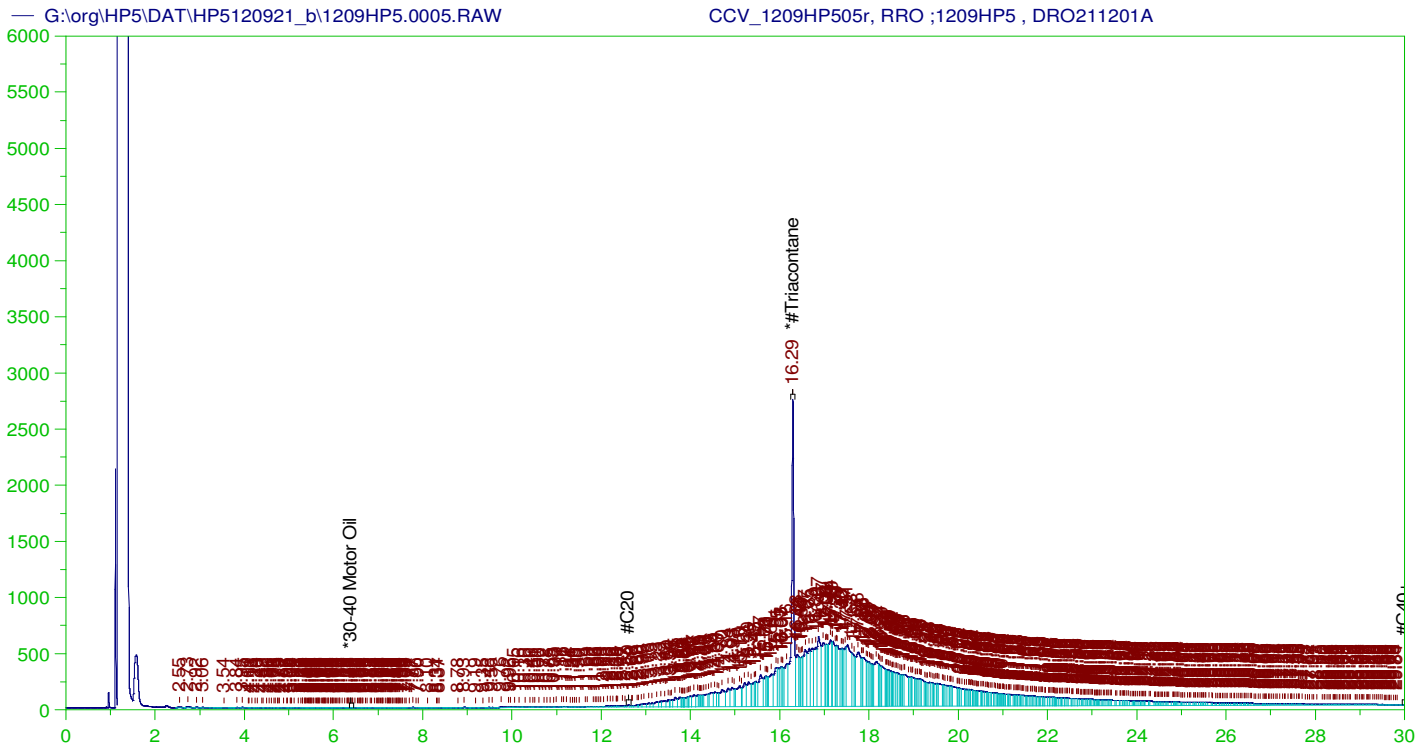
Sample Name: MARKER\_1209HP504r, DRO ;1209HP5 , DRO211203B  
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 Method File: G:\Org\HP5\Methods\DC\_8015-24-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.208	.2	.234	117.18
*1-Chlorooctadecane	13.02	.2	.19	94.93

DRO Area: 7.681106E+07 DRO Amount: 2.449864  
 TEH Area: 1.254425E+08 TEH Amount: 4.000949



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1209HP505r, RRO ;1209HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0005.RAW  
 Date & Time Acquired: 12/9/2021 1:35:02 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.294	500.	348.721	69.74	-

~~RRO~~ TEH(Oil Range) Area:1.370732E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4802.438

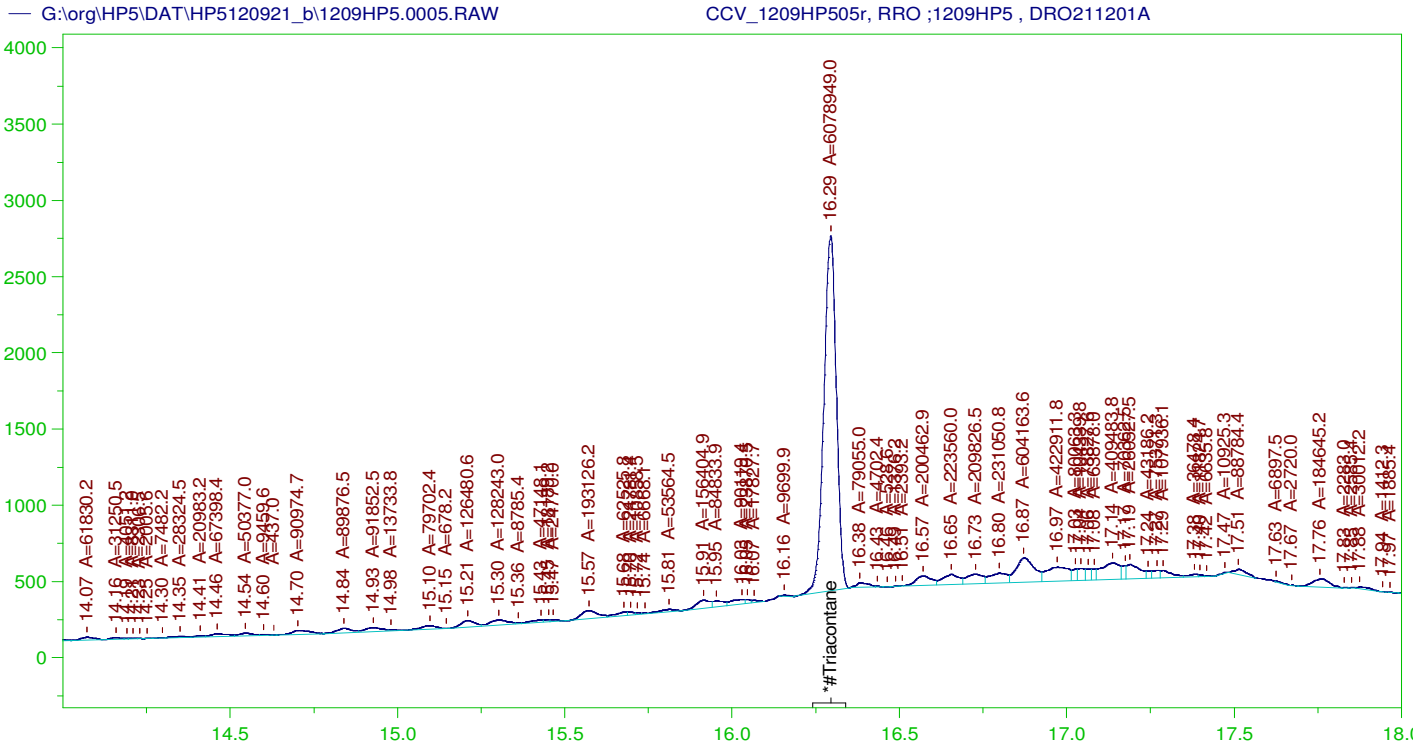
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0005.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.043	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.294	200.	348.721	174.36	75-125

AMN 12/15/2021



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1209HP505r, RRO ;1209HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0005.RAW  
 Date & Time Acquired: 12/9/2021 1:35:02 PM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.294	500.	210.125	42.03	-

RRO Area:6230391 RRO AMOUNT: 218.2854

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0005.RAW

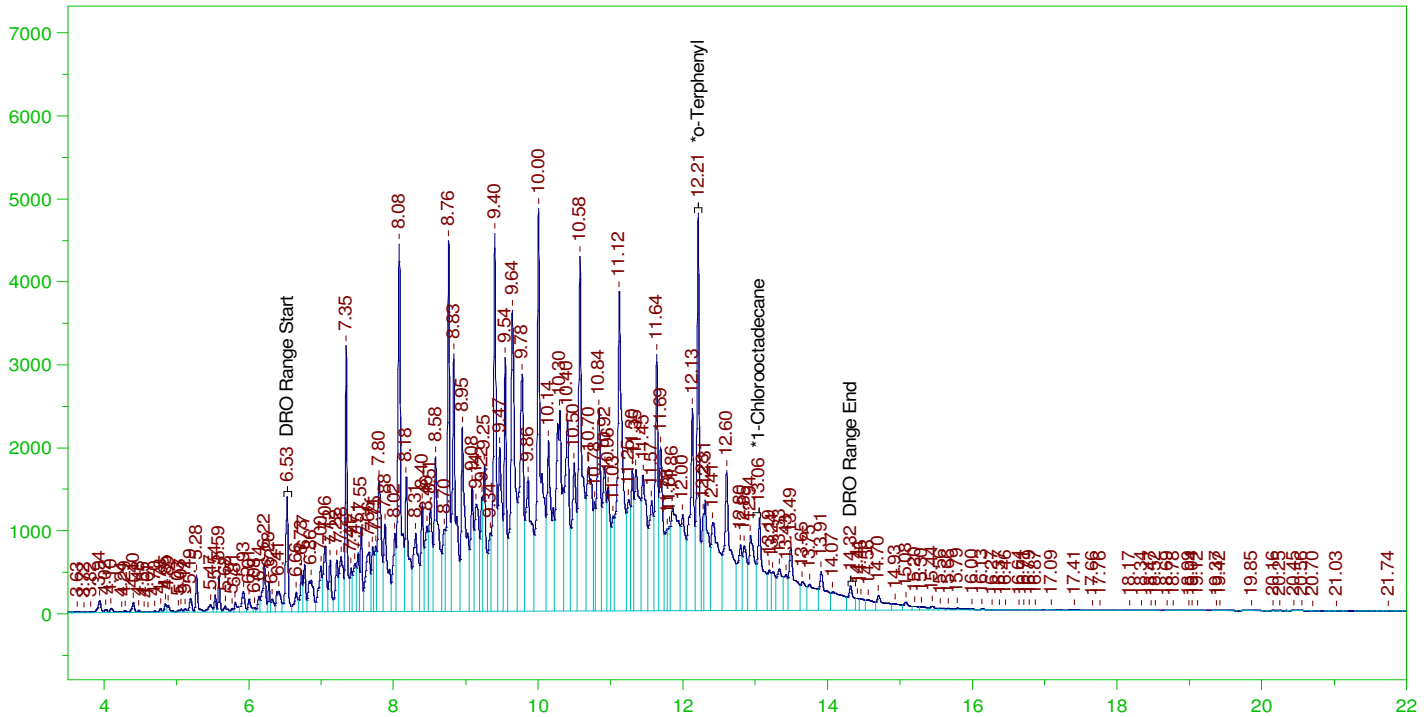
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.043	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.294	200.	210.125	105.06	75-125

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0006.RAW

CCV\_1209HP506r, DRO ;1209HP5 , DRO211203A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1209HP506r, DRO ;1209HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0006.RAW  
 Date & Time Acquired: 12/9/2021 2:17:35 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.21	200.	338.266	169.13
*1-Chlorooctadecane	13.056	200.	159.874	79.94

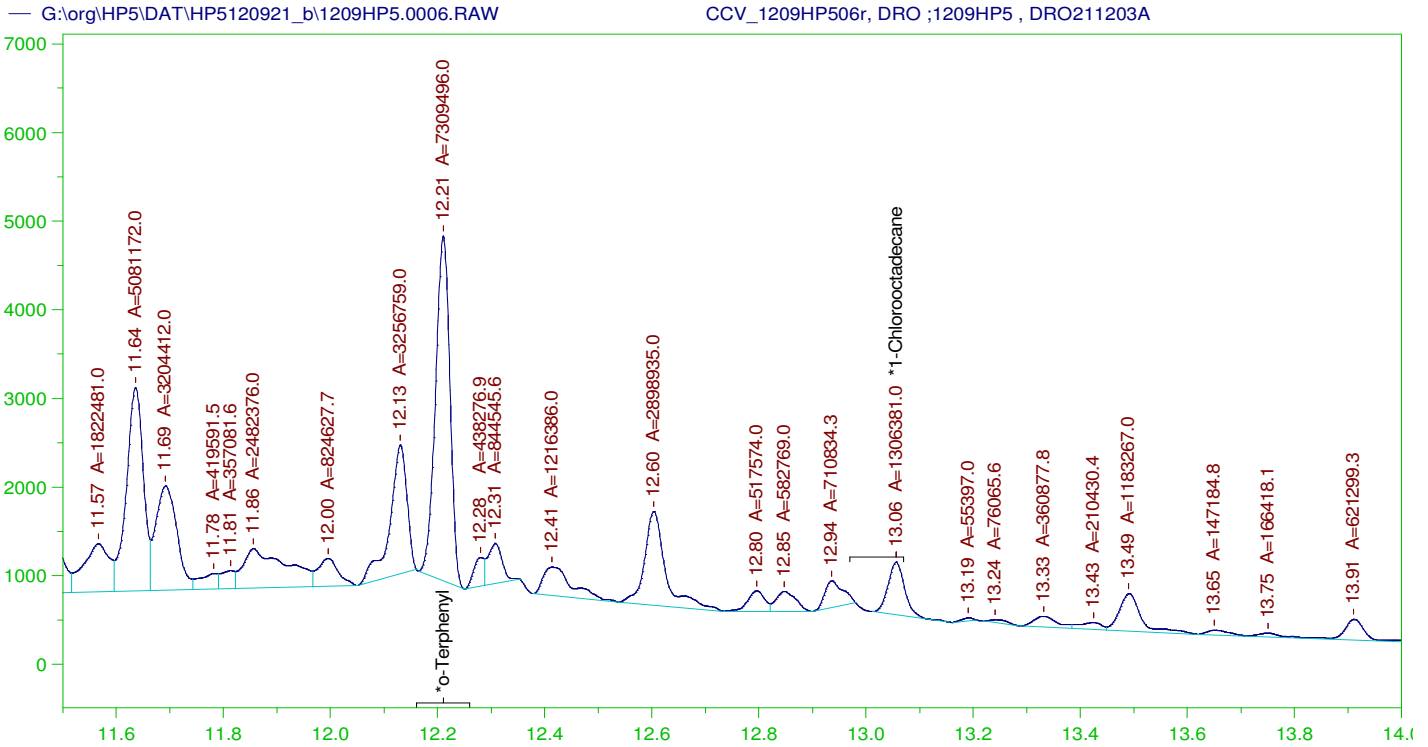
DRO Area: 4.730609E+08 DRO Amount: 15088.13  
 TEH Area: 4.904146E+08 TEH Amount: 15641.62

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0006.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15641.62	104.28	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.21	200.	338.266	169.13	85-115
*1-Chlorooctadecane	13.056	200.	159.874	79.94	85-115





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1209HP506r, DRO ;1209HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0006.RAW  
 Date & Time Acquired: 12/9/2021 2:17:35 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IF-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

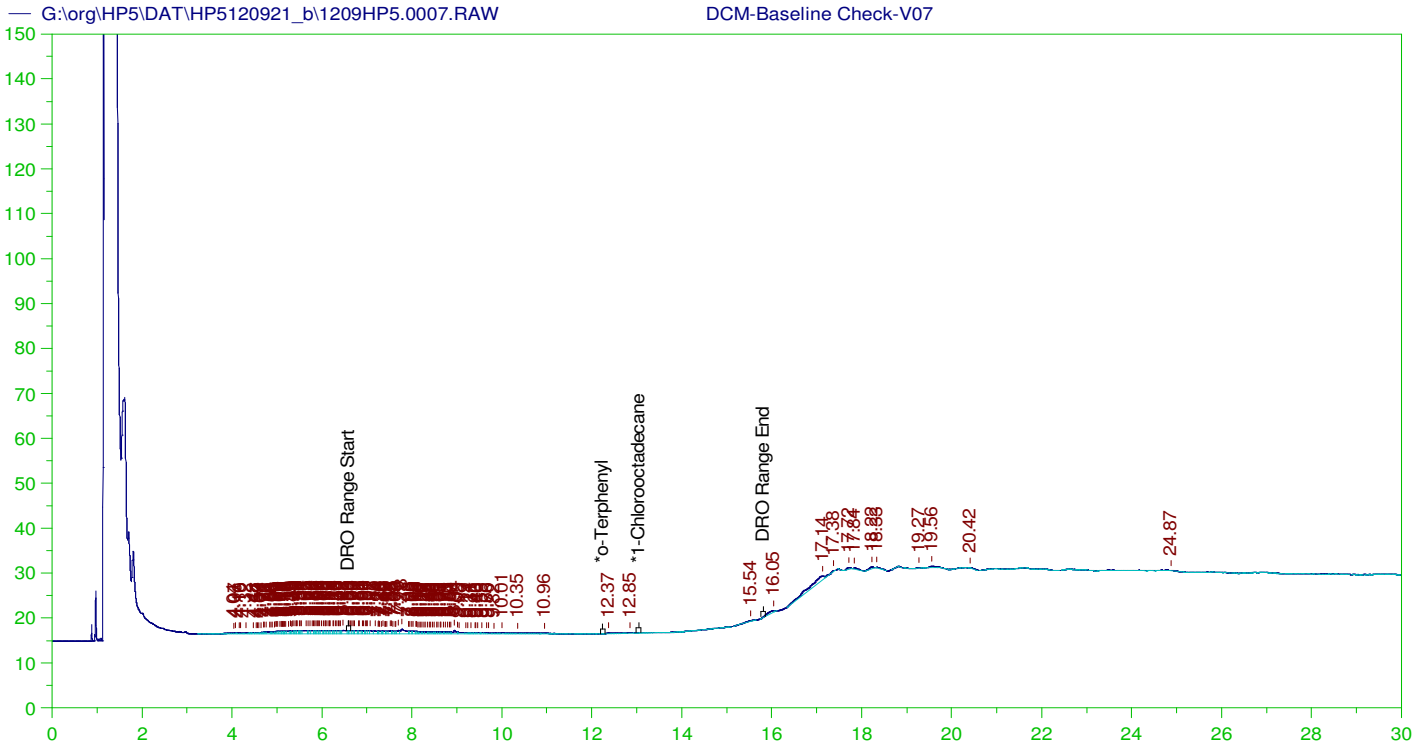
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.21	200.	205.848	102.92
*1-Chlorooctadecane	13.056	200.	36.79	18.39

DRO Area: 2.653106E+08 DRO Amount: 8461.996  
 TEH Area: 2.759162E+08 TEH Amount: 8800.26

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0006.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8800.26	58.67	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.21	200.	205.848	102.92	85-115
*1-Chlorooctadecane	13.056	200.	36.79	18.39	85-115



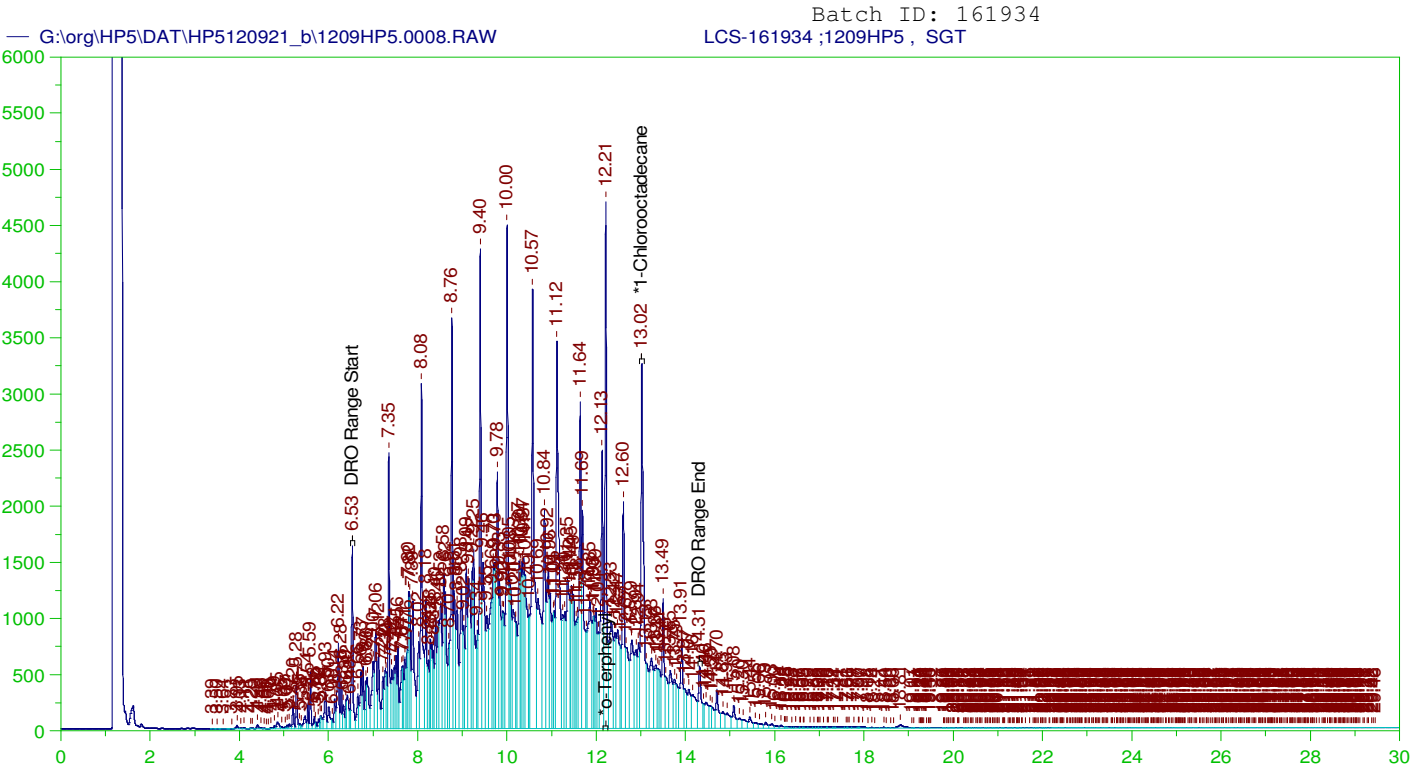
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V07  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0007.RAW  
 Date & Time Acquired: 12/9/2021 3:00:13 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	29.954	200.	.	.
*1-Chlorooctadecane	29.954	200.	.	.

DRO Area:126974.8 DRO Amount: 4.049821  
 TEH Area:278209 TEH Amount: 8.873386



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-161934 ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0008.RAW  
 Date & Time Acquired: 12/9/2021 3:43:06 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-24-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

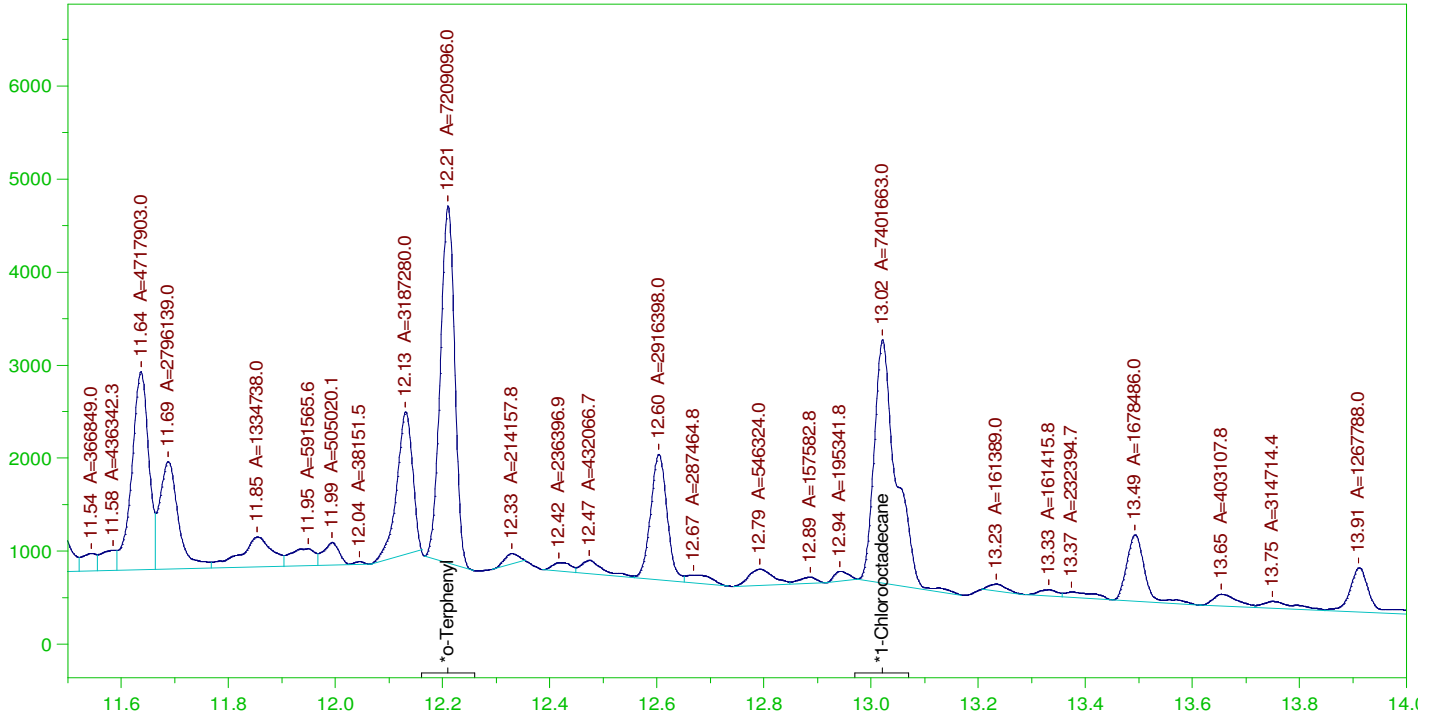
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.21	.2	.347	173.71	-
*1-Chlorooctadecane	13.021	.2	.353	176.7	-

DRO Area: 4.145612E+08 DRO Amount: 13.2223  
 TEH Area: 4.41824E+08 TEH Amount: 14.09184

Batch ID: 161934  
G:\org\HP5\DAT\HP5120921\_b\1209HP5.0008.RAW LCS-161934 ;1209HP5 , SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-161934 ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0008.RAW  
 Date & Time Acquired: 12/9/2021 3:43:06 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IF-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

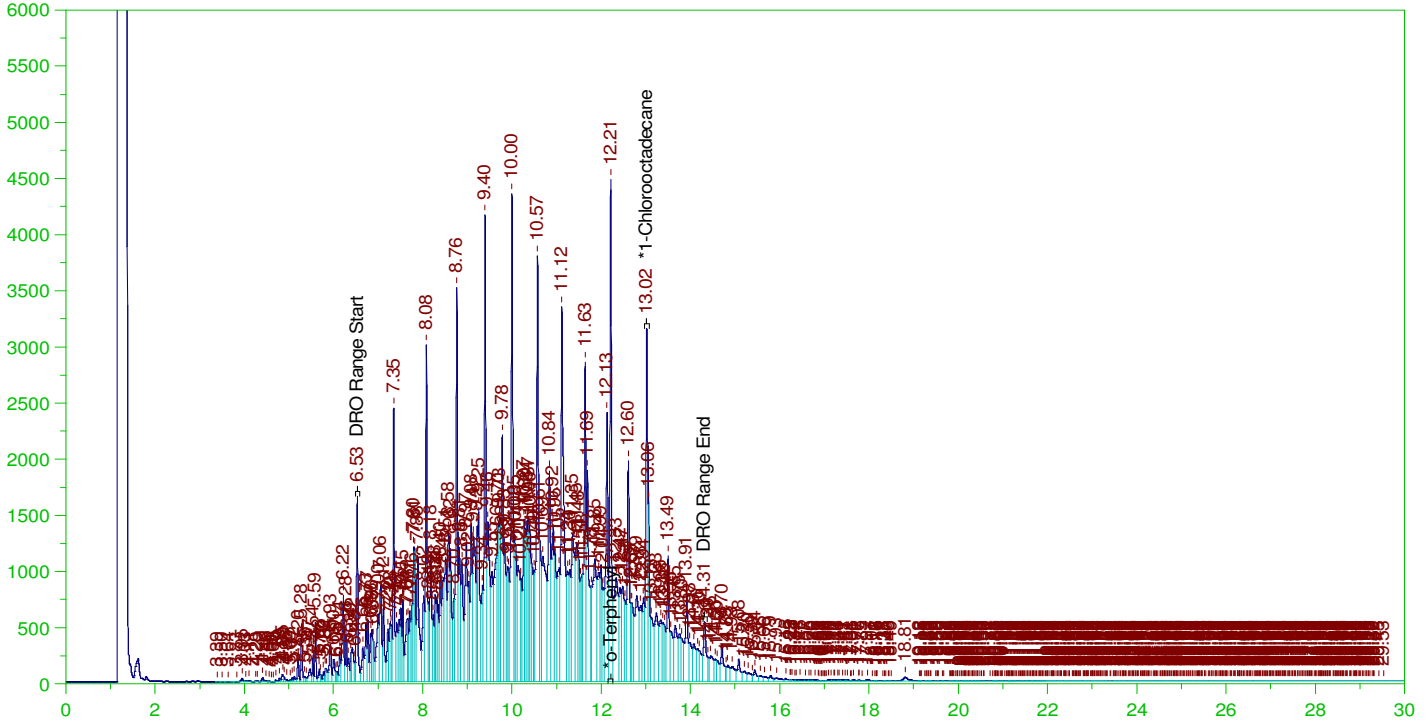
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.21	.2	.203	101.51
*1-Chlorooctadecane	13.021	.2	.208	104.22

DRO Area: 2.002693E+08 DRO Amount: 6.387525  
 TEH Area: 2.122876E+08 TEH Amount: 6.770846

Batch ID: 161934

LCSD-161934 ;1209HP5 , SGT

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0009.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

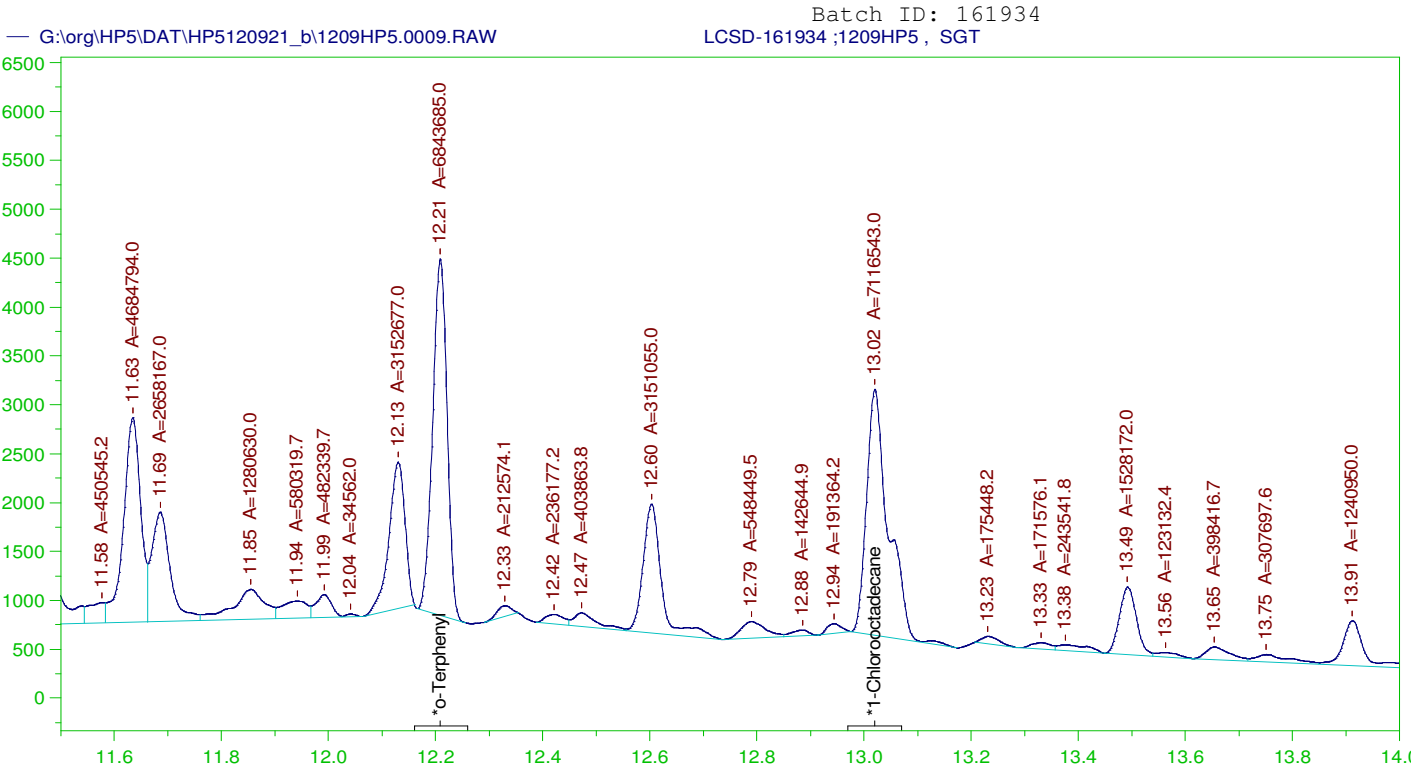
Sample Name: LCSD-161934 ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0009.RAW  
 Date & Time Acquired: 12/9/2021 4:25:50 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-120909-24-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.209	.2	.331	165.63	-
*1-Chlorooctadecane	13.02	.2	.236	118.07	-

DRO Area: 4.077493E+08 DRO Amount: 13.00503  
 TEH Area: 4.349064E+08 TEH Amount: 13.8712



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

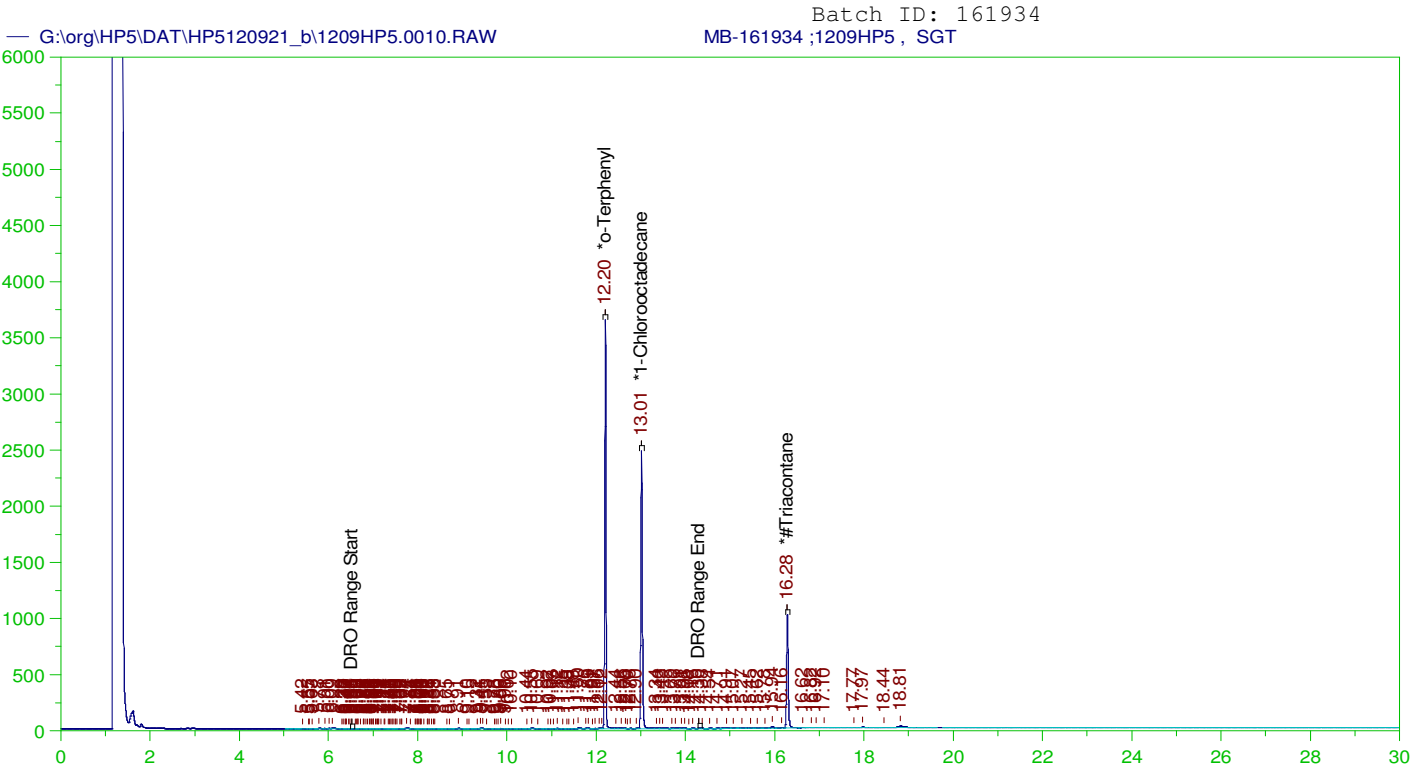
Sample Name: LCSD-161934 ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0009.RAW  
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 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.209	.2	.193	96.36
*1-Chlorooctadecane	13.02	.2	.2	100.21

DRO Area:1.957327E+08 DRO Amount: 6.242832  
 TEH Area:2.079757E+08 TEH Amount: 6.633318



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

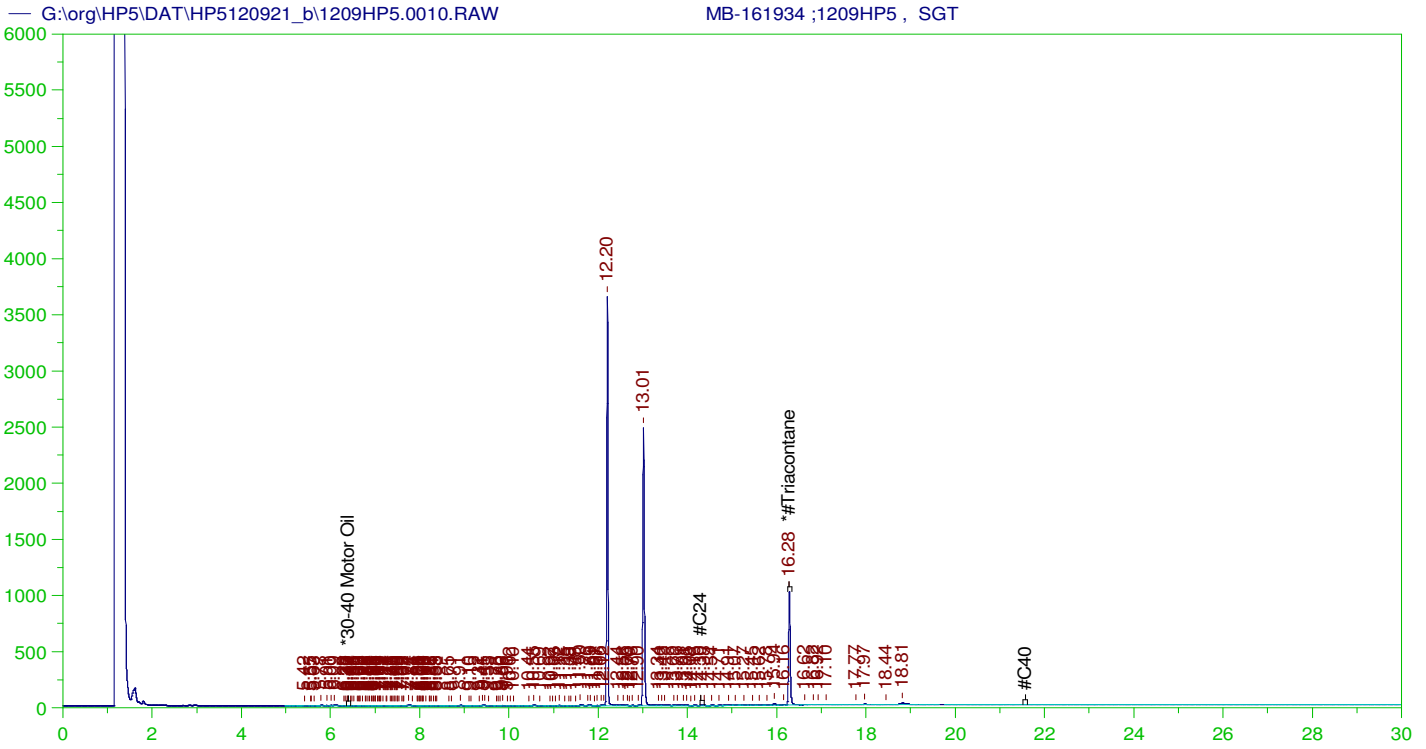
Sample Name: MB-161934 ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0010.RAW  
 Date & Time Acquired: 12/9/2021 5:08:52 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.201	.2	.199	99.58	-
*1-Chlorooctadecane	13.014	.2	.16	79.81	-
*#Triacontane	16.282	.2	.096	47.83	-

DRO Area:354244.2 DRO Amount: 0.0112985  
 TEH Area:673529.2 TEH Amount: 0.021482



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: MB-161934 ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0010.RAW  
 Date & Time Acquired: 12/9/2021 5:08:52 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-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: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.282	.5	.096	19.13

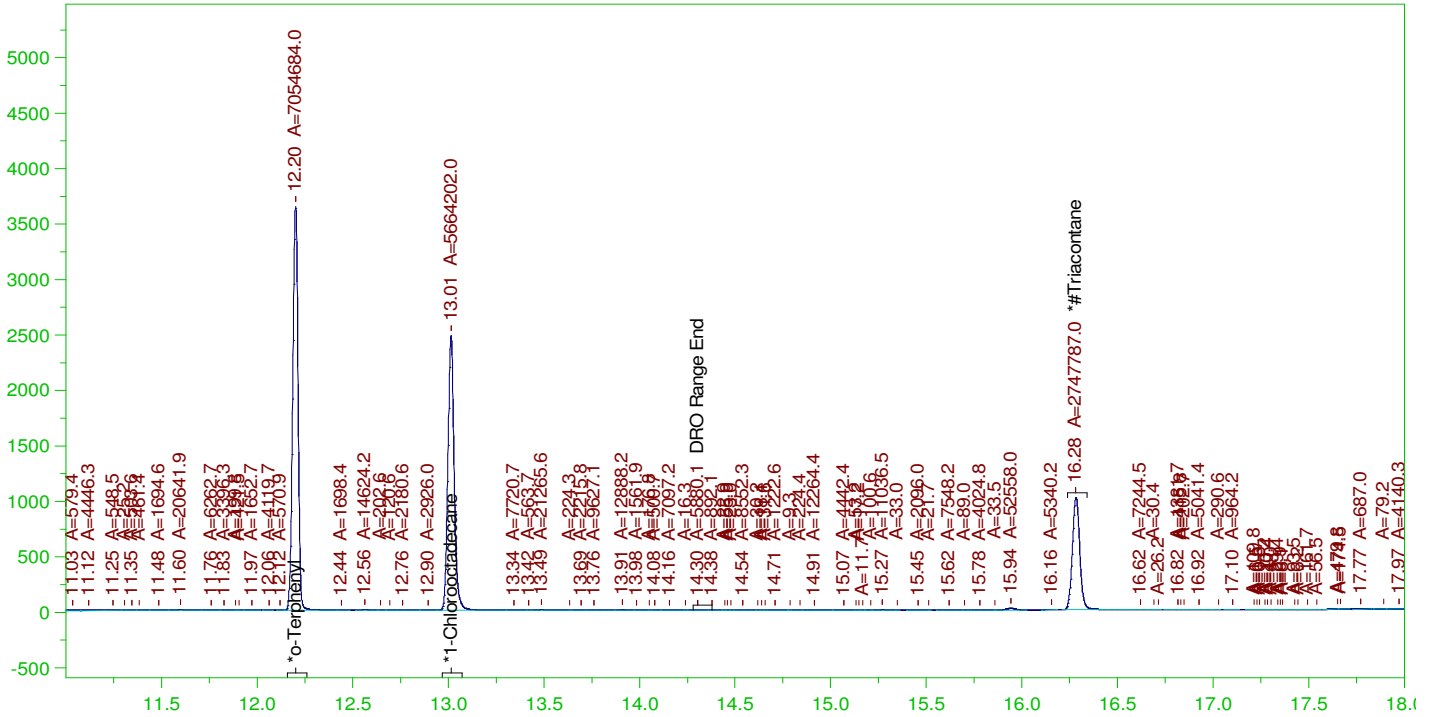
RRO Area:237733.2 RRO AMOUNT: 8.32912E-03



Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0010.RAW

MB-161934 ;1209HP5 , SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-161934 ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0010.RAW  
 Date & Time Acquired: 12/9/2021 5:08:52 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.201	.2	.199	99.34
*1-Chlorooctadecane	13.014	.2	.16	79.76
*#Triacontane	16.282	.2	.095	47.49

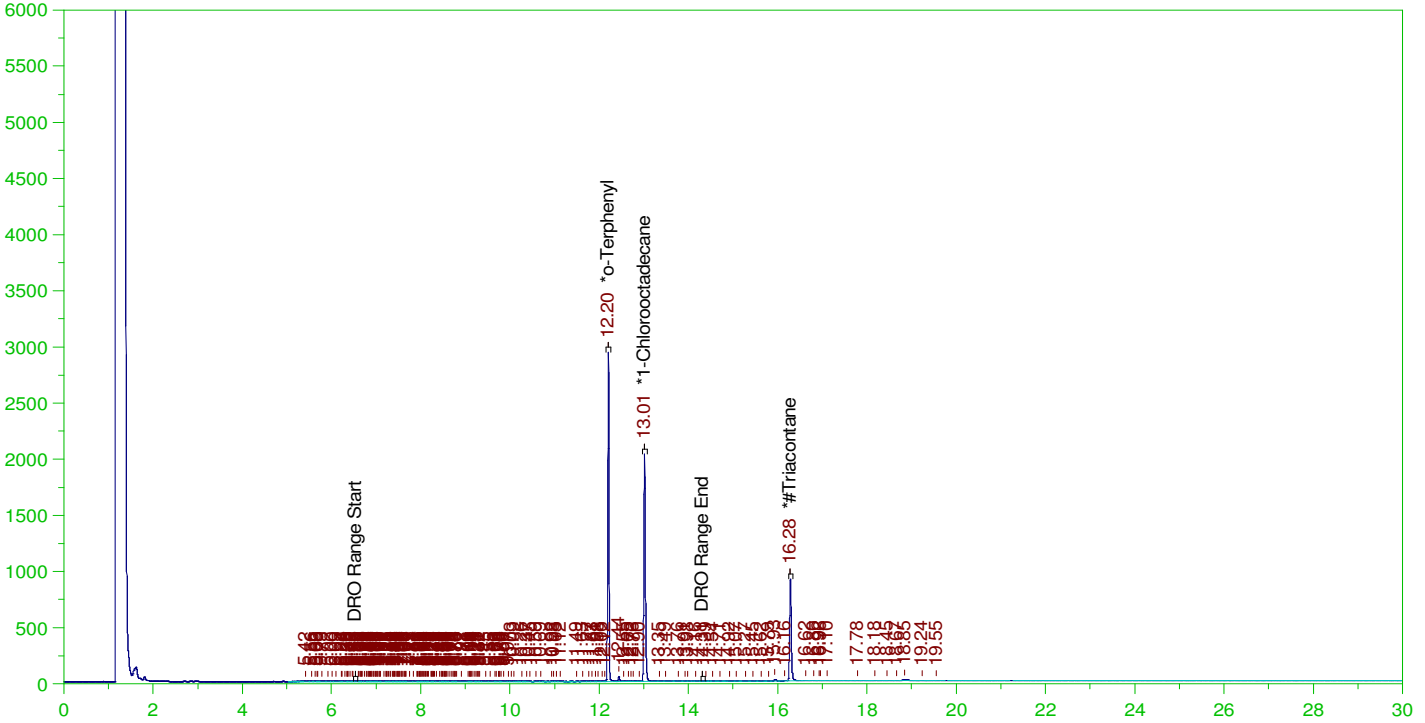
DRO Area:356952.6 DRO Amount: 1.138489E-02  
 TEH Area:742596 TEH Amount: 2.368486E-02

ERH2014 (RHMW08)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0011.RAW

B21120381-006B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-006B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0011.RAW  
 Date & Time Acquired: 12/9/2021 5:51:58 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.201	.192	.152	78.89	-
*1-Chlorooctadecane	13.014	.192	.128	66.73	-
*#Triacontane	16.283	.192	.084	43.42	-

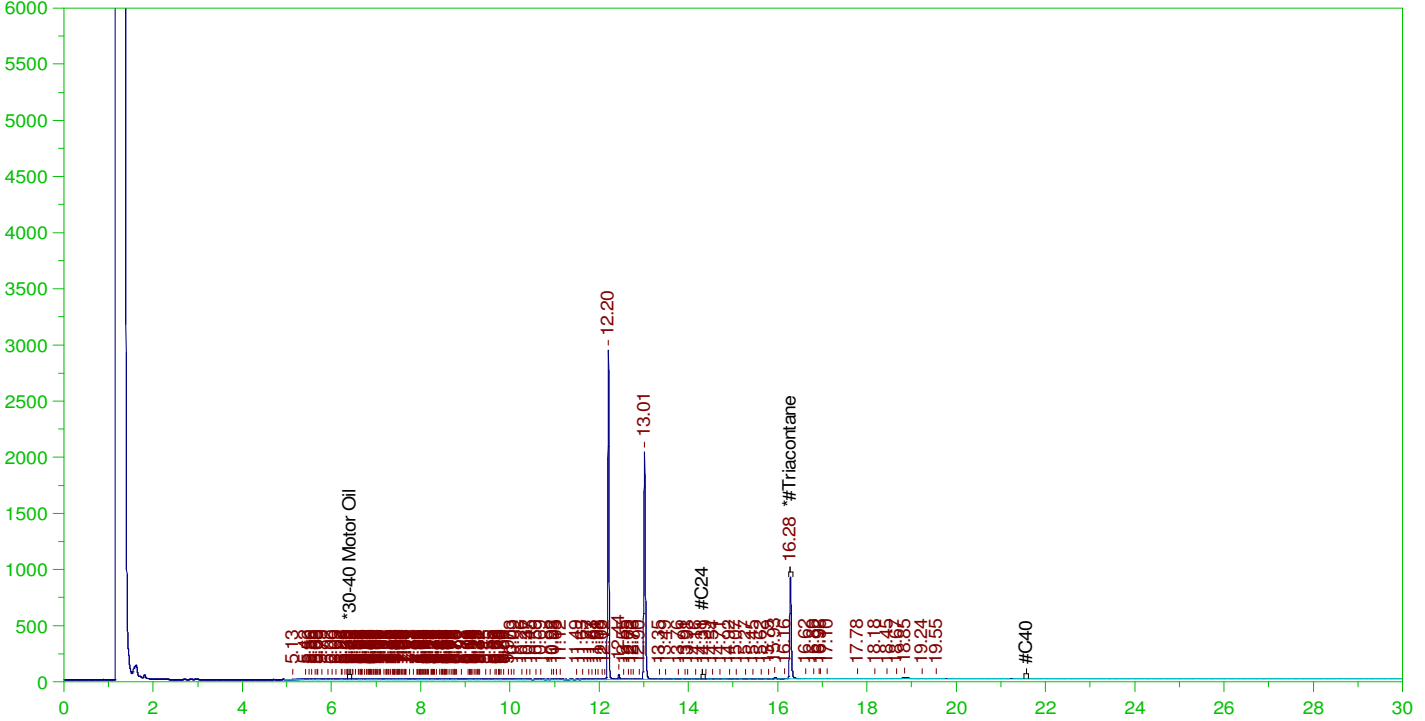
DRO Area:471251.8 DRO Amount: 1.445233E-02  
 TEH Area:771238.8 TEH Amount: 2.365232E-02

ERH2014 (RHMW08)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0011.RAW

B21120381-006B ;1209HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-006B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0011.RAW  
 Date & Time Acquired: 12/9/2021 5:51:58 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-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: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.283	.481	.084	17.37

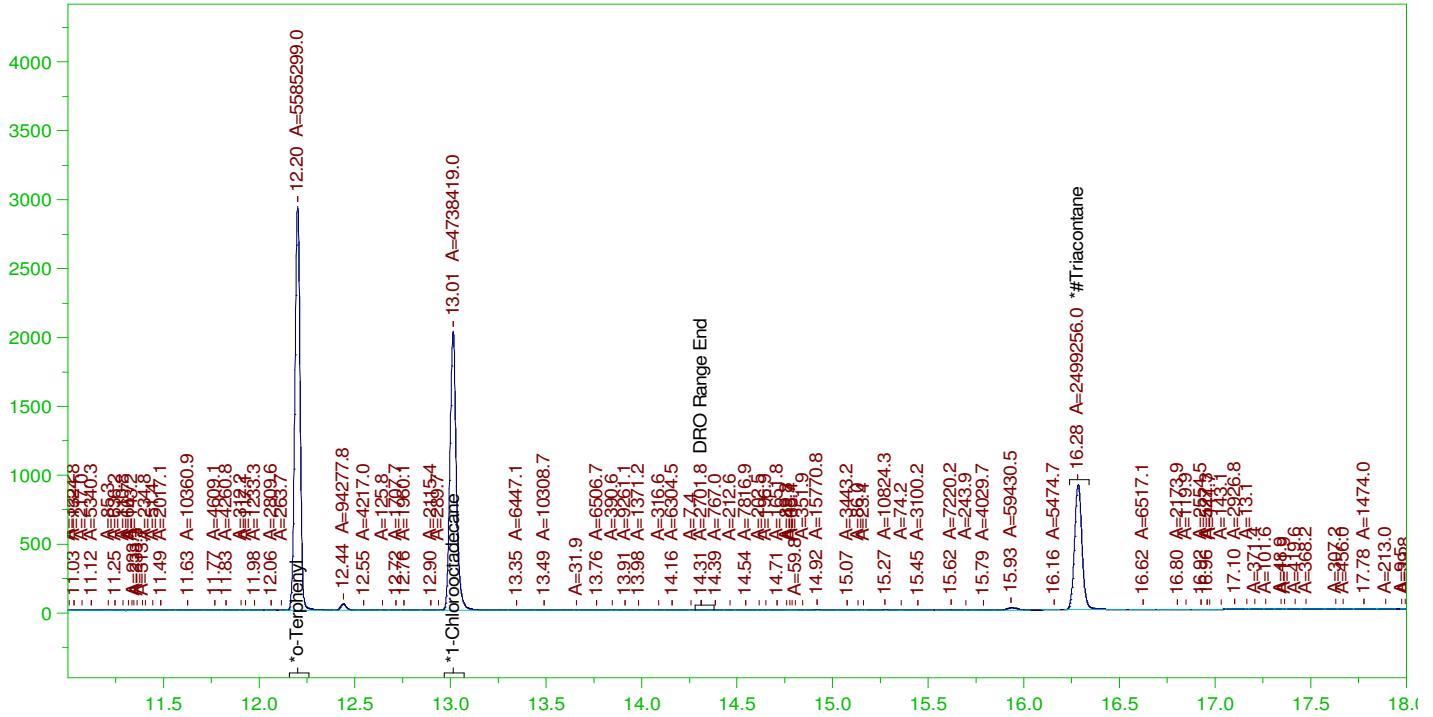
RRO Area:177739.5 RRO AMOUNT: 5.987701E-03

ERH2014 (RHMW08)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0011.RAW

B21120381-006B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-006B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0011.RAW  
 Date & Time Acquired: 12/9/2021 5:51:58 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.201	.192	.151	78.65	-
*1-Chlorooctadecane	13.014	.192	.128	66.72	-
*#Triacontane	16.283	.192	.083	43.19	-

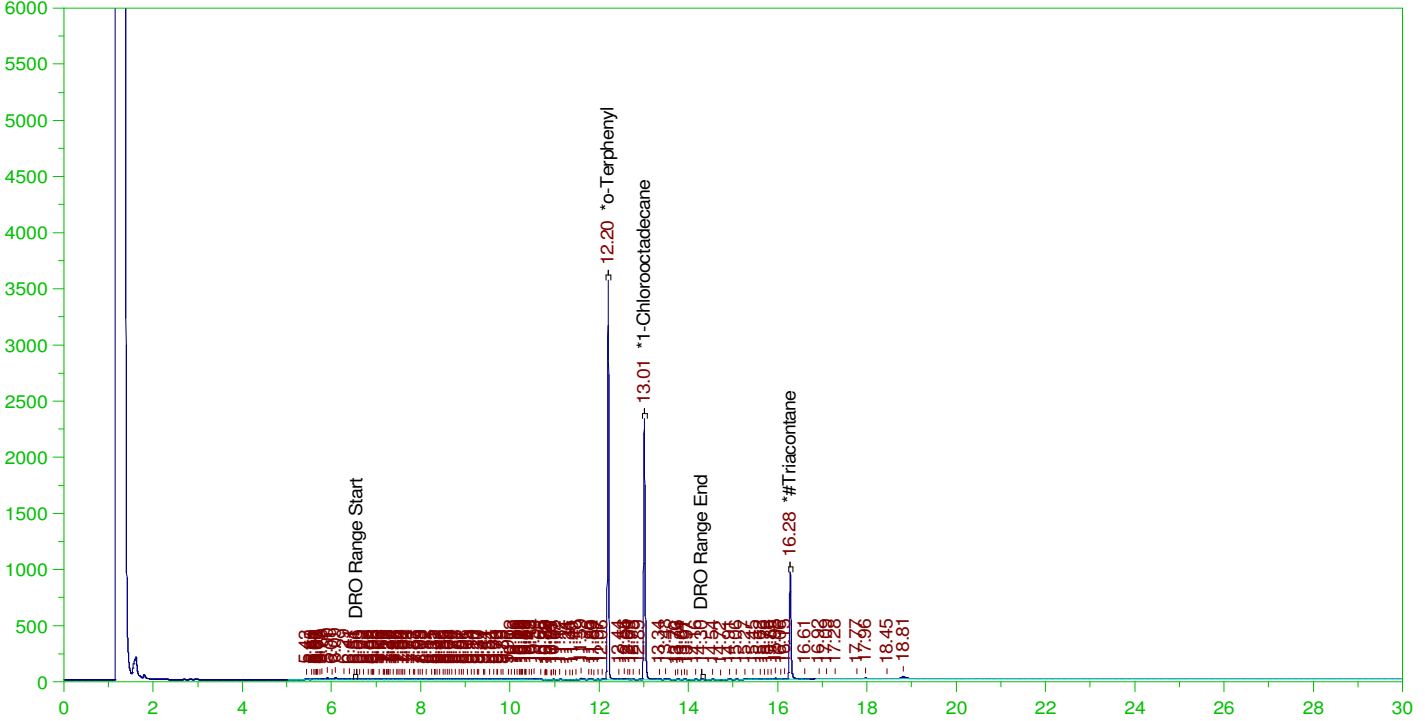
DRO Area:548747.6 DRO Amount: 1.682897E-02  
 TEH Area:984088.3 TEH Amount: 3.017998E-02

ERH2018 (RHMW2254-01)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0012.RAW

B21120381-007B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-007B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0012.RAW  
 Date & Time Acquired: 12/9/2021 6:35:02 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.197	.196	.187	95.54	-
*1-Chlorooctadecane	13.01	.196	.149	76.06	-
*#Triacontane	16.277	.196	.09	45.79	-

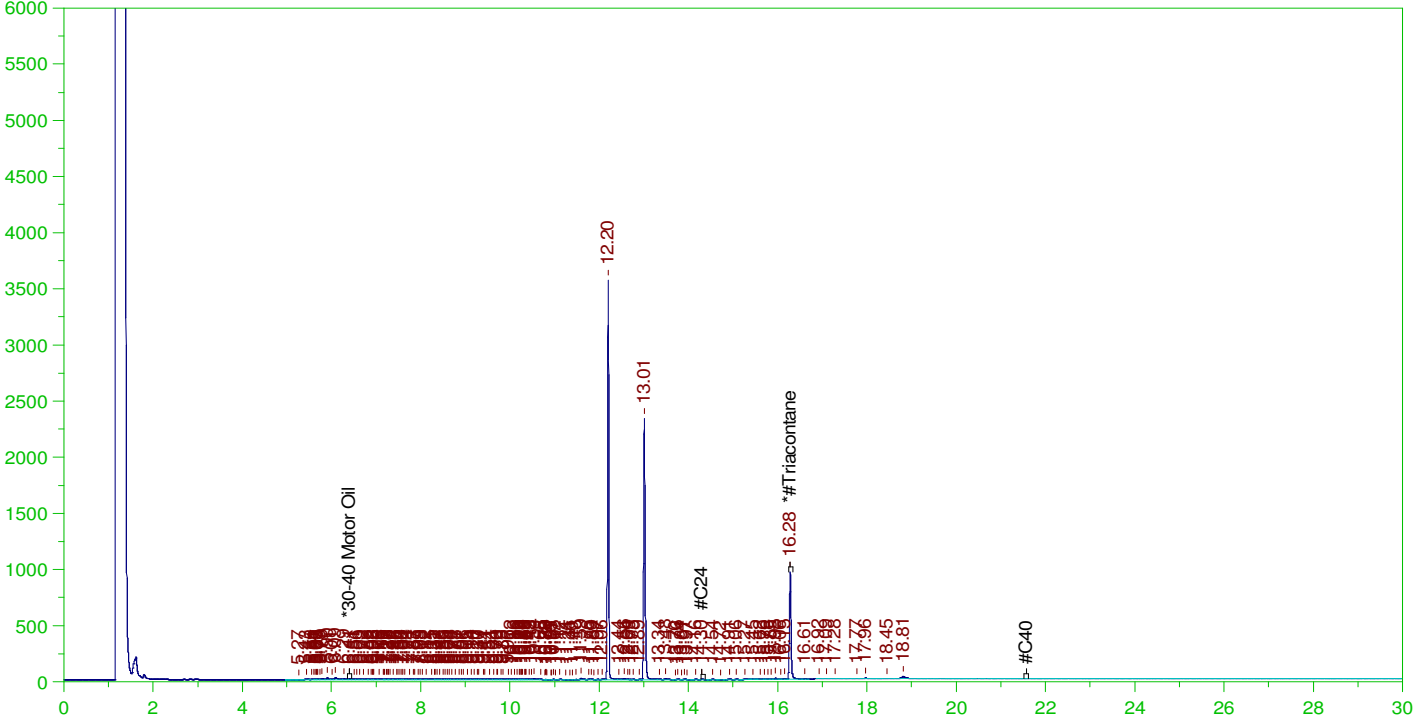
DRO Area:844241.1 DRO Amount: 2.639882E-02  
 TEH Area:1369495 TEH Amount: 4.282313E-02

ERH2018 (RHMW2254-01)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0012.RAW

B21120381-007B ;1209HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-007B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0012.RAW  
 Date & Time Acquired: 12/9/2021 6:35:02 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-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: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.277	.49	.09	18.32

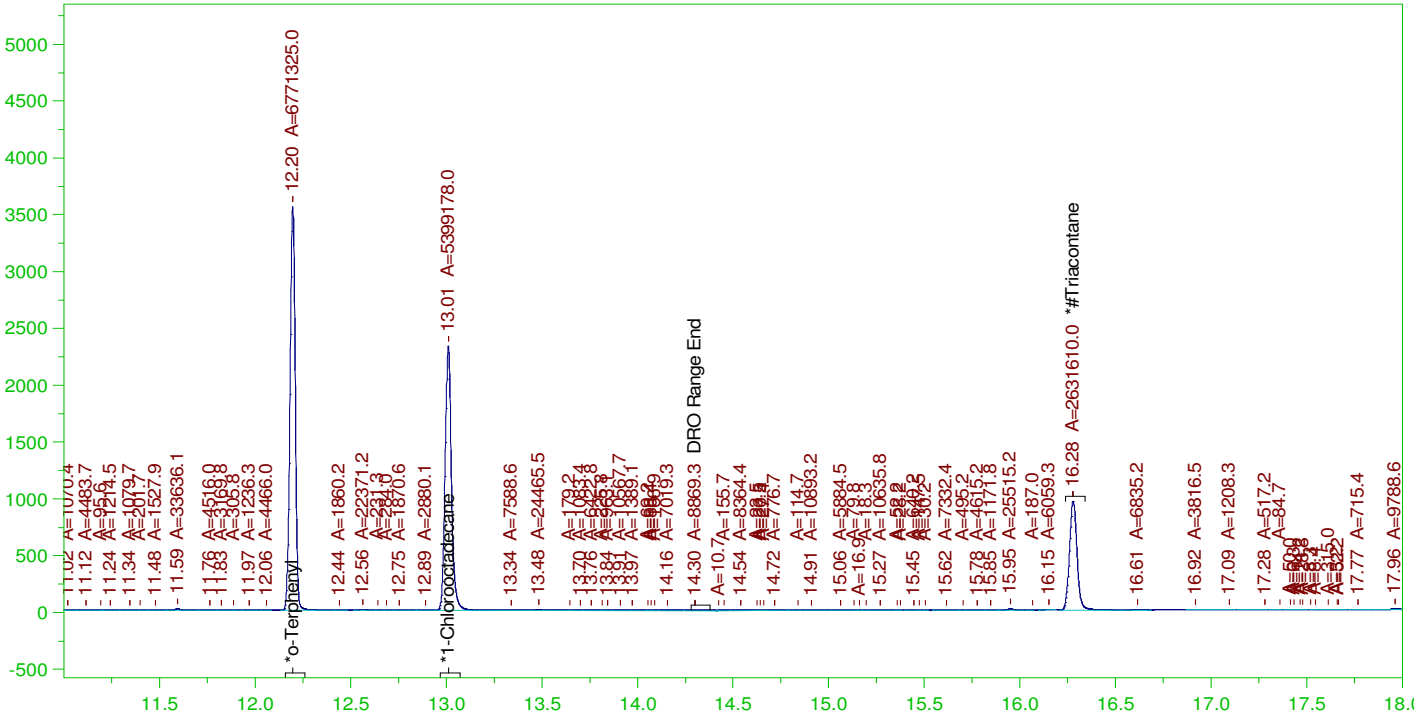
RRO Area:257618.6 RRO AMOUNT: 8.848841E-03

ERH2018 (RHMW2254-01)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0012.RAW

B21120381-007B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

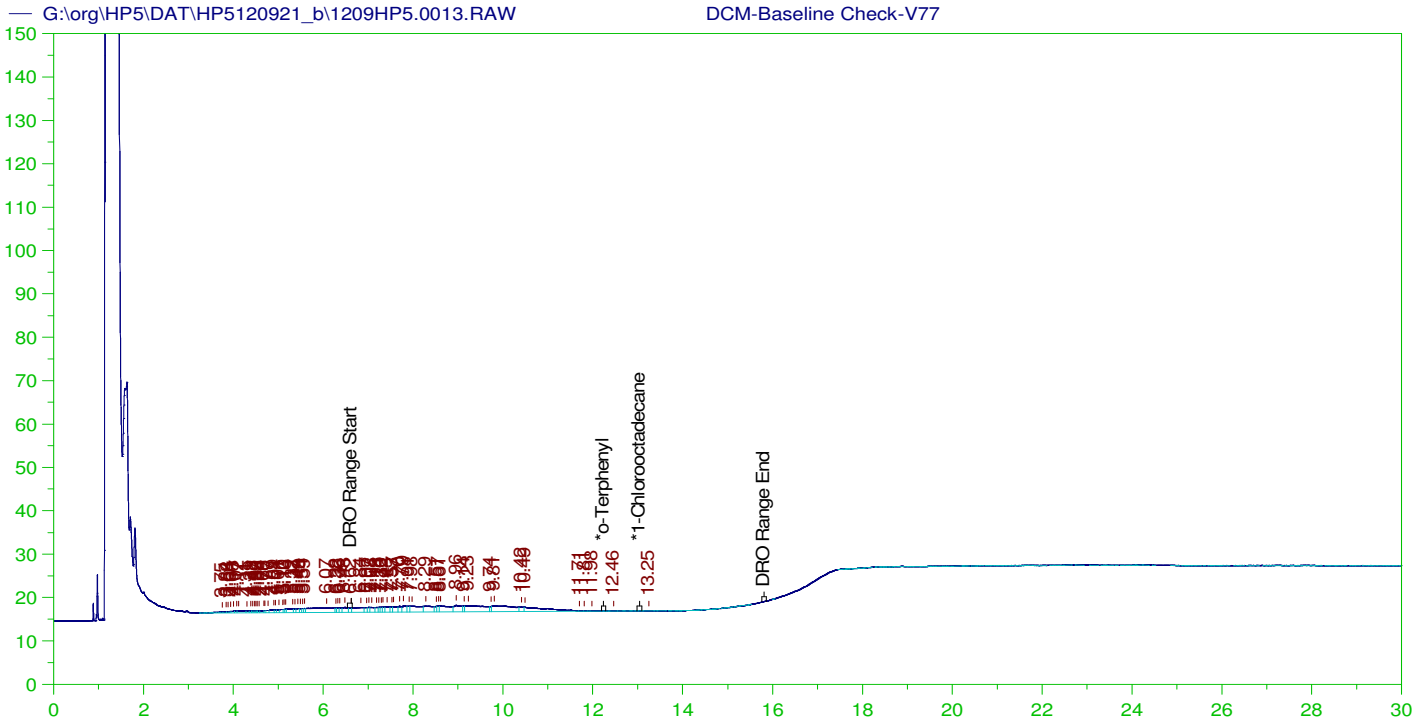
Sample Name: B21120381-007B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0012.RAW  
 Date & Time Acquired: 12/9/2021 6:35:02 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.197	.196	.187	95.35
*1-Chlorooctadecane	13.01	.196	.149	76.03
*#Triacontane	16.277	.196	.089	45.48

DRO Area:892746.8 DRO Amount: 2.791556E-02  
 TEH Area:1541948 TEH Amount: 4.821564E-02



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V77  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0013.RAW  
 Date & Time Acquired: 12/9/2021 7:18:04 PM  
 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	29.958	200.	.	-
*1-Chlorooctadecane	29.958	200.	.	-

DRO Area:323776.1 DRO Amount: 10.32673  
 TEH Area:448332.4 TEH Amount: 14.29942

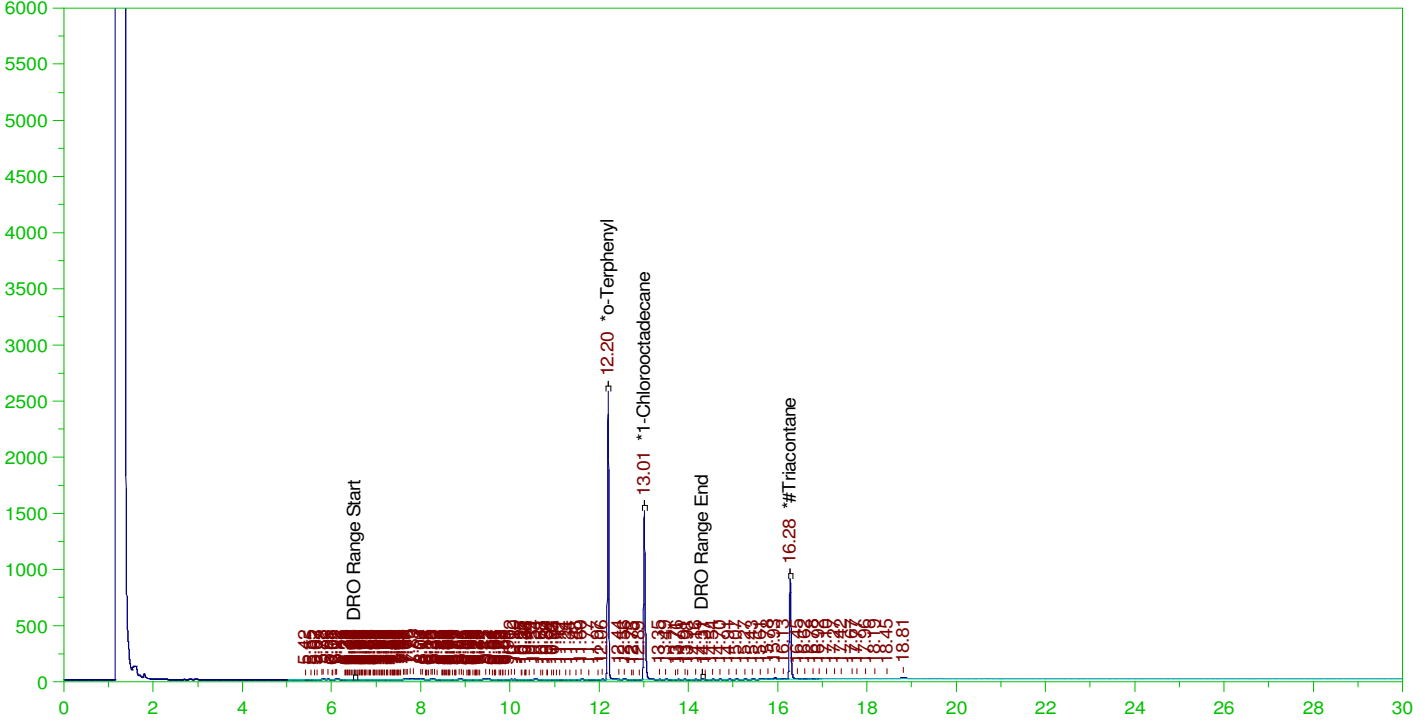


ERH2009 (RHMW03)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0014.RAW

B21120381-003A ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-003A ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0014.RAW  
 Date & Time Acquired: 12/9/2021 8:01:06 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.196	.202	.142	70.16	-
*1-Chlorooctadecane	13.01	.202	.105	51.76	-
*#Triacontane	16.275	.202	.087	43.17	-

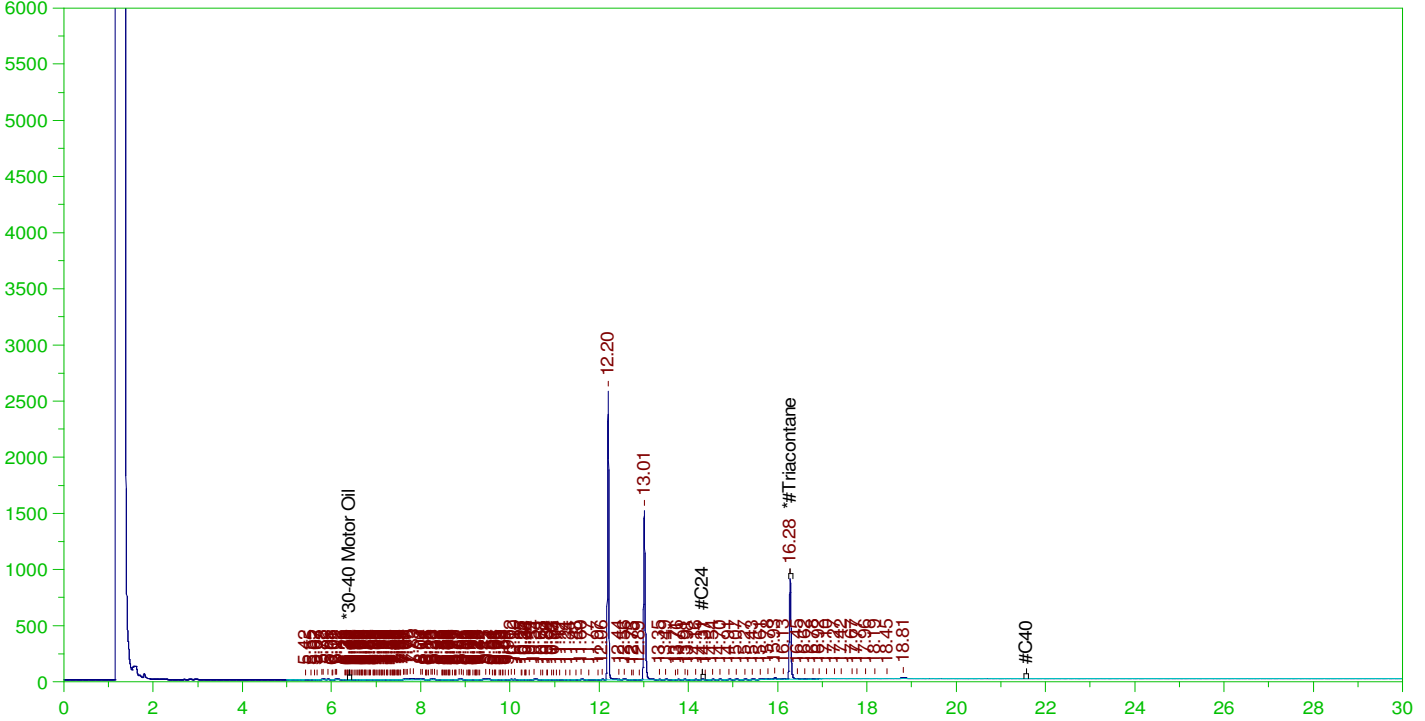
DRO Area:484330.2 DRO Amount: 1.560359E-02  
 TEH Area:859158.1 TEH Amount: 2.767937E-02

ERH2009 (RHMW03)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0014.RAW

B21120381-003A ;1209HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-003A ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0014.RAW  
 Date & Time Acquired: 12/9/2021 8:01:06 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-SAMP.CAL  
 Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.275	.505	.087	17.27

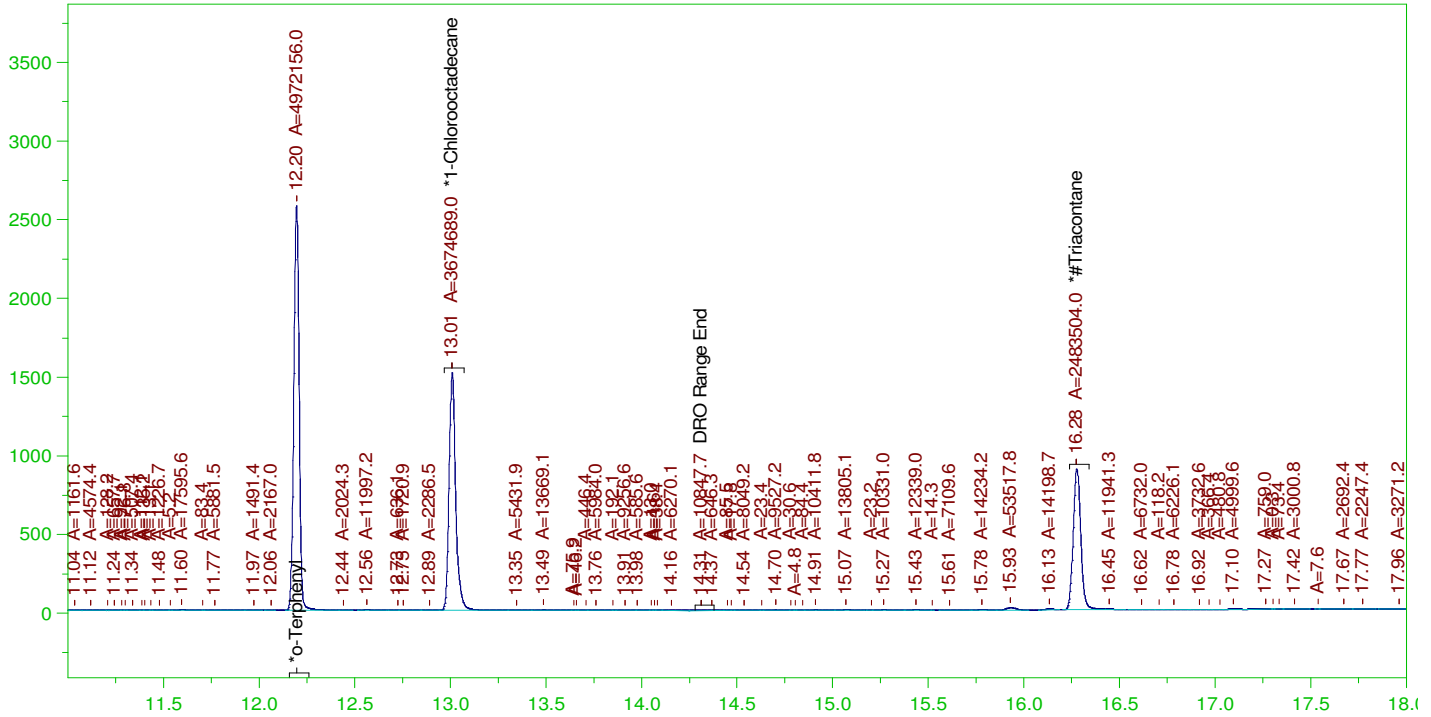
RRO Area:308275.6 RRO AMOUNT: 1.090971E-02

ERH2009 (RHMW03)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0014.RAW

B21120381-003A ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-003A ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0014.RAW  
 Date & Time Acquired: 12/9/2021 8:01:06 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 990 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

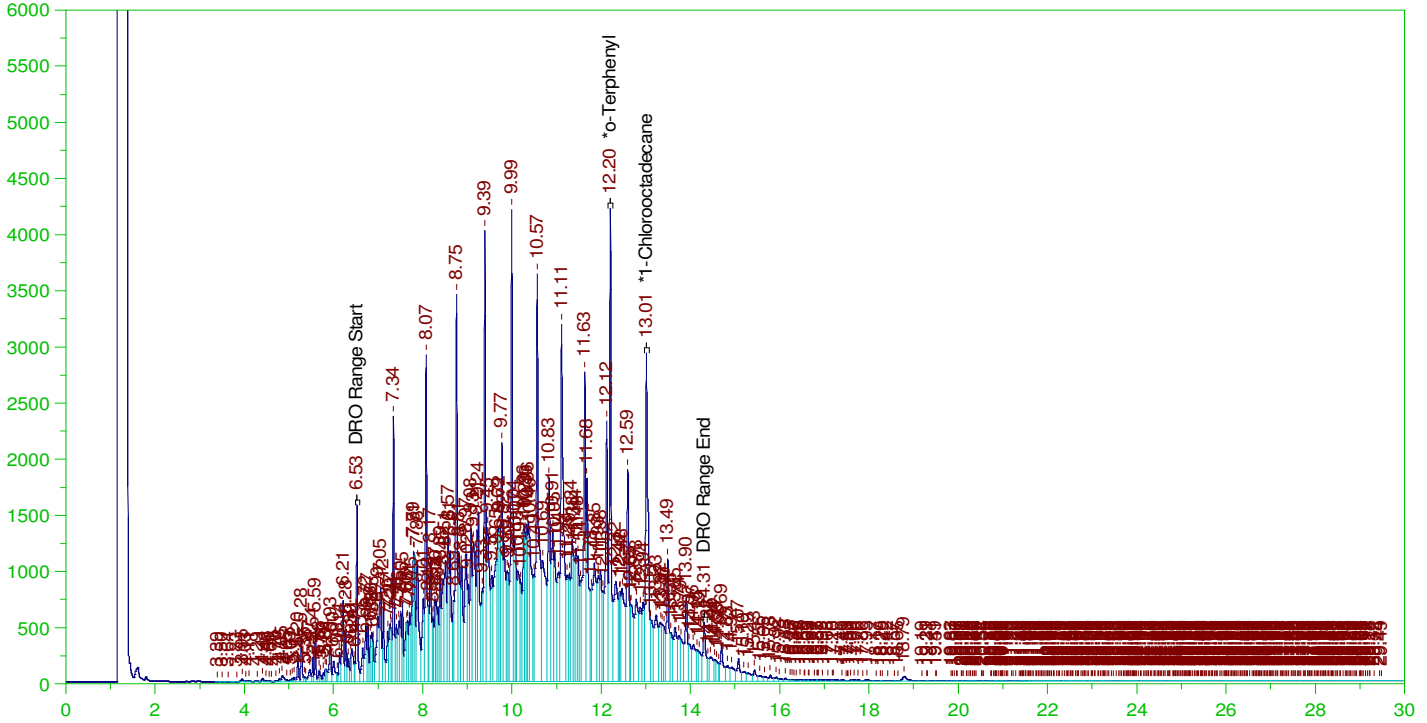
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.196	.202	.141	70.01
*1-Chlorooctadecane	13.01	.202	.105	51.74
*#Triacontane	16.275	.202	.087	42.92

DRO Area:524241.7 DRO Amount: 1.688941E-02  
 TEH Area:973241.8 TEH Amount: 3.135478E-02

Batch ID: 161934

B21120381-003AMS ;1209HP5 , SGT

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0015.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-003AMS ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0015.RAW  
 Date & Time Acquired: 12/9/2021 8:44:09 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-24-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1030 Dilution: 1 S.A.: 1

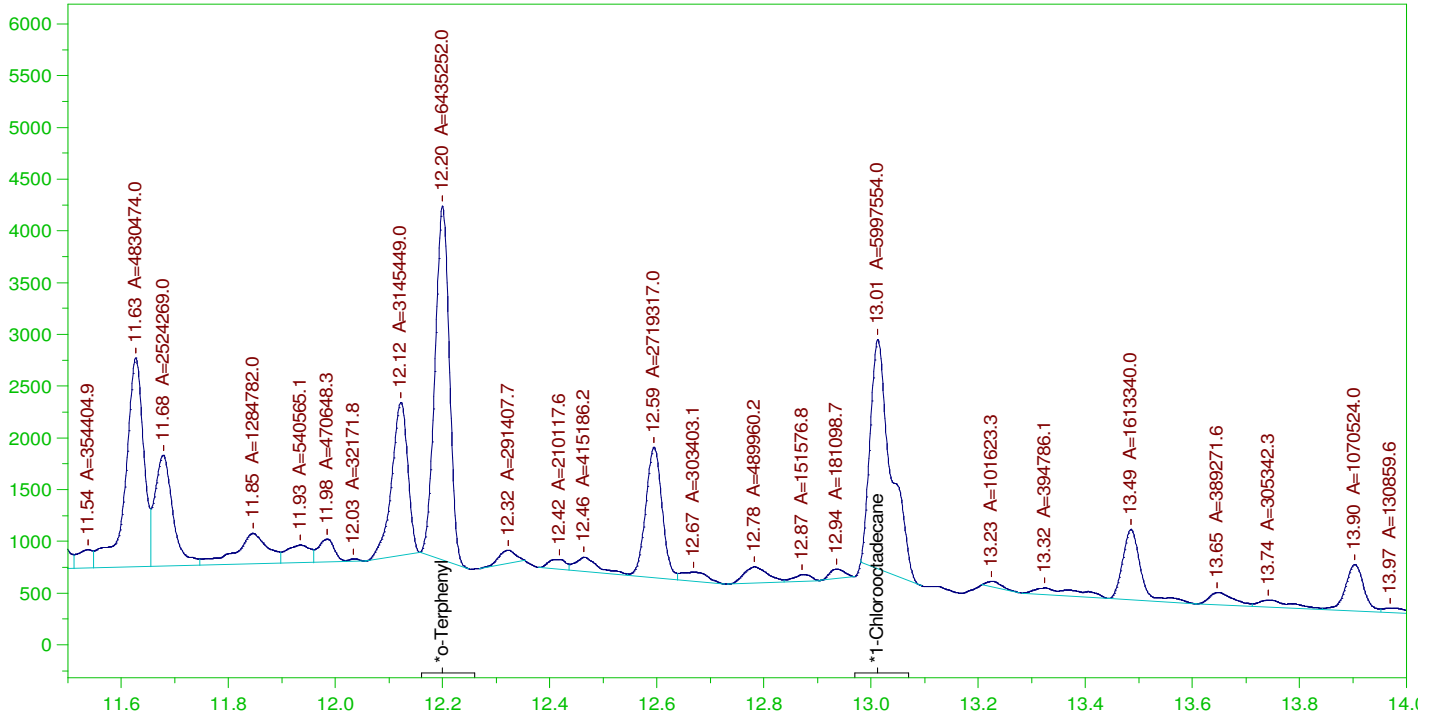
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.2	.194	.3	154.51	-
*1-Chlorooctadecane	13.013	.194	.308	158.68	-

DRO Area: 3.907303E+08 DRO Amount: 12.09924  
 TEH Area: 4.166487E+08 TEH Amount: 12.90182

Batch ID: 161934  
G:\org\HP5\DAT\HP5120921\_b\1209HP5.0015.RAW B21120381-003AMS ;1209HP5 , SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-003AMS ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0015.RAW  
 Date & Time Acquired: 12/9/2021 8:44:09 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IF-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.2	.194	.176	90.61	-
*1-Chlorooctadecane	13.013	.194	.164	84.45	-

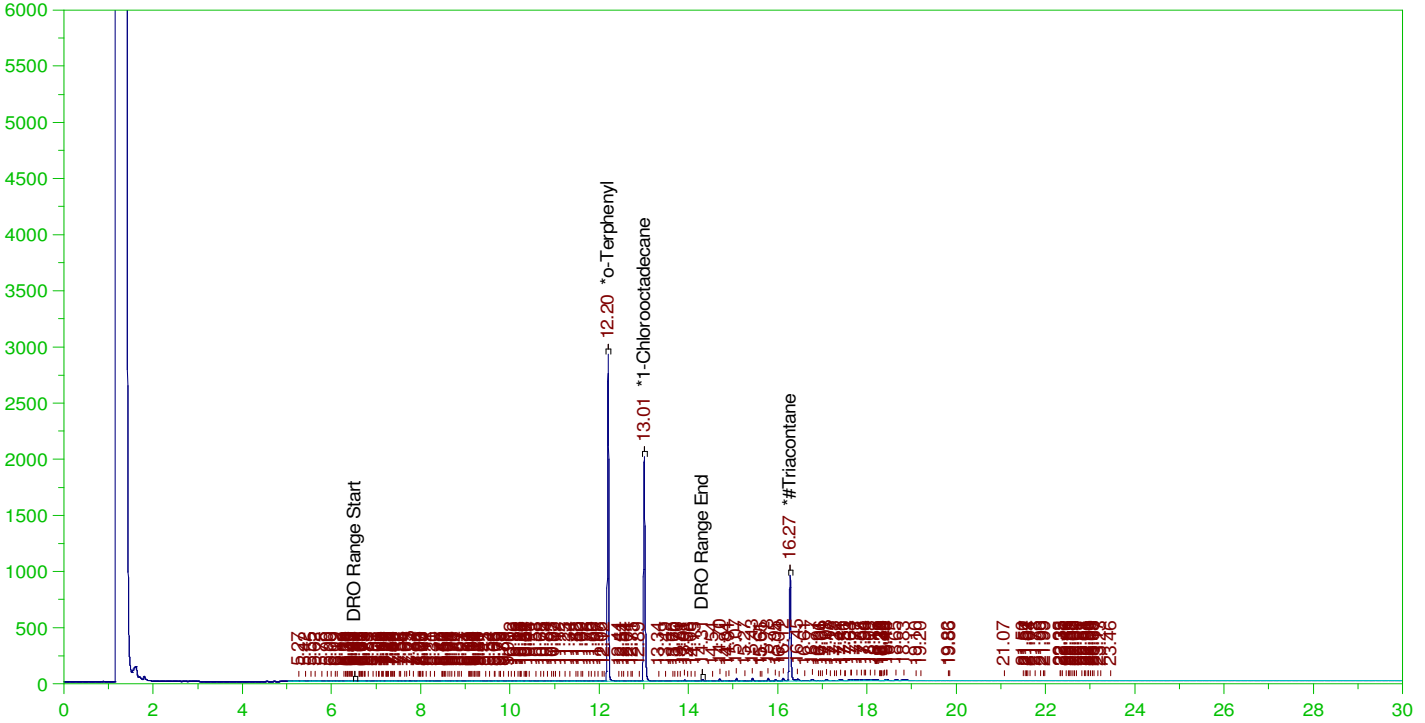
DRO Area: 1.891115E+08 DRO Amount: 5.855972  
 TEH Area: 2.005538E+08 TEH Amount: 6.210289

ERH2011 (RHMW05)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0016.RAW

B21120381-004B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-004B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0016.RAW  
 Date & Time Acquired: 12/9/2021 9:27:12 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-120916-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.195	.194	.154	79.36	-
*1-Chlorooctadecane	13.008	.194	.128	66.09	-
*#Triacontane	16.275	.194	.087	44.8	-

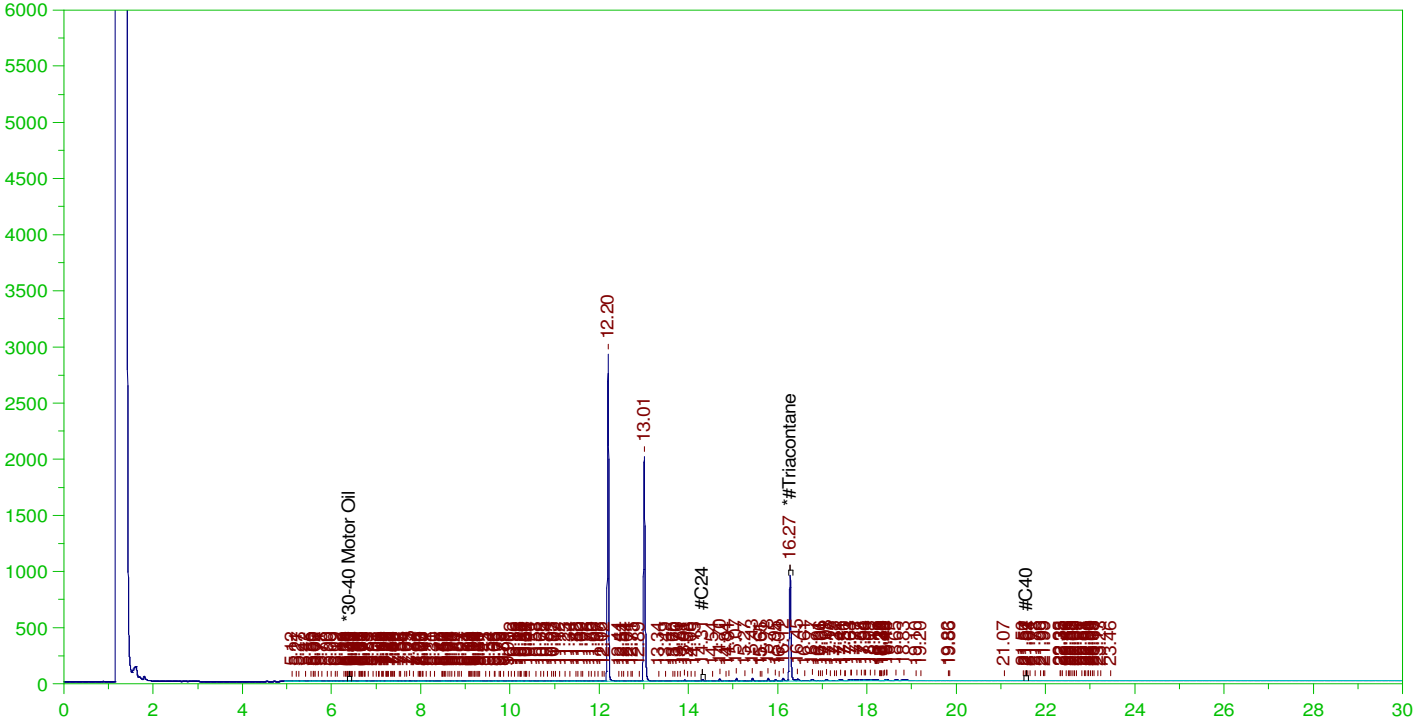
DRO Area:565289.9 DRO Amount: 0.0175046  
 TEH Area:1929451 TEH Amount: 5.974681E-02

ERH2011 (RHMW05)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0016.RAW

B21120381-004B ;1209HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-004B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0016.RAW  
 Date & Time Acquired: 12/9/2021 9:27:12 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-120916-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-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: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.275	.485	.087	17.92

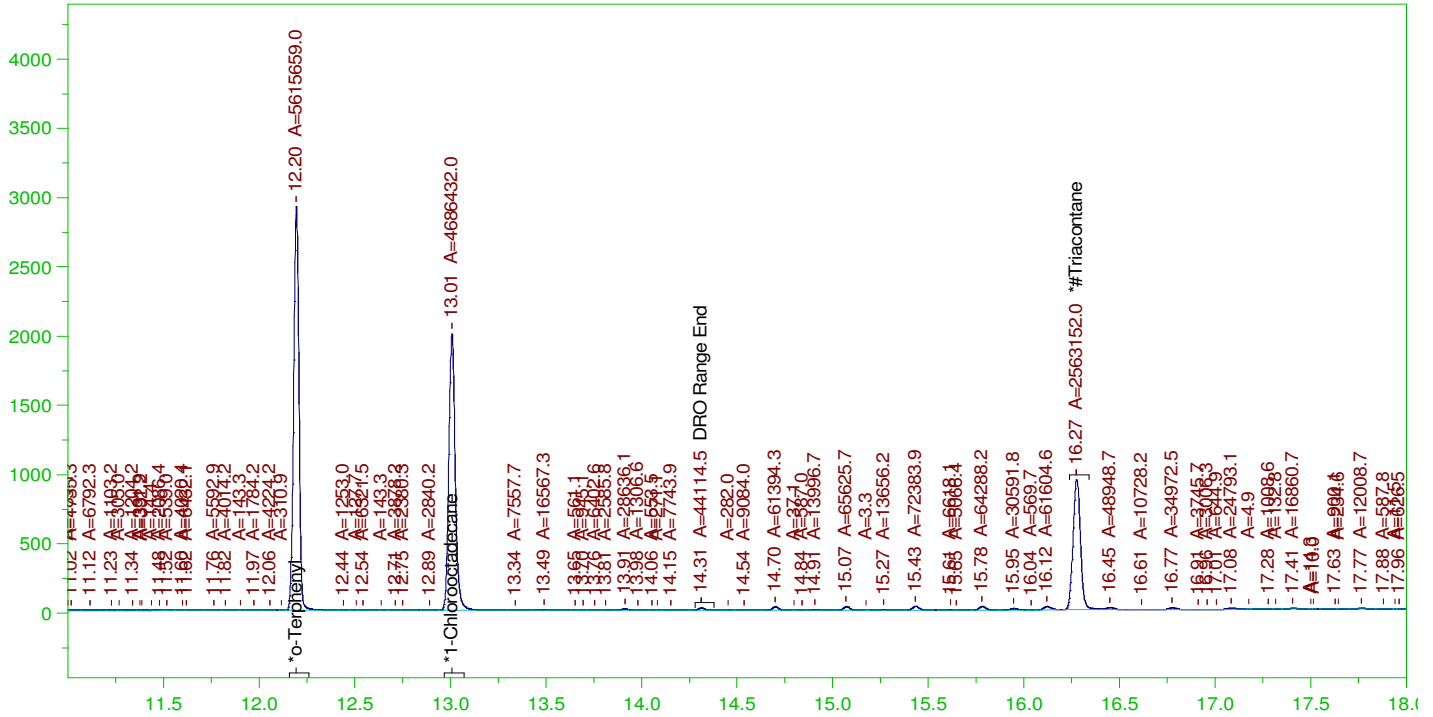
RRO Area:1224251 RRO AMOUNT: 4.164307E-02

ERH2011 (RHMW05)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0016.RAW

B21120381-004B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-004B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0016.RAW  
 Date & Time Acquired: 12/9/2021 9:27:12 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1030 Dilution: 1 S.A.: 1

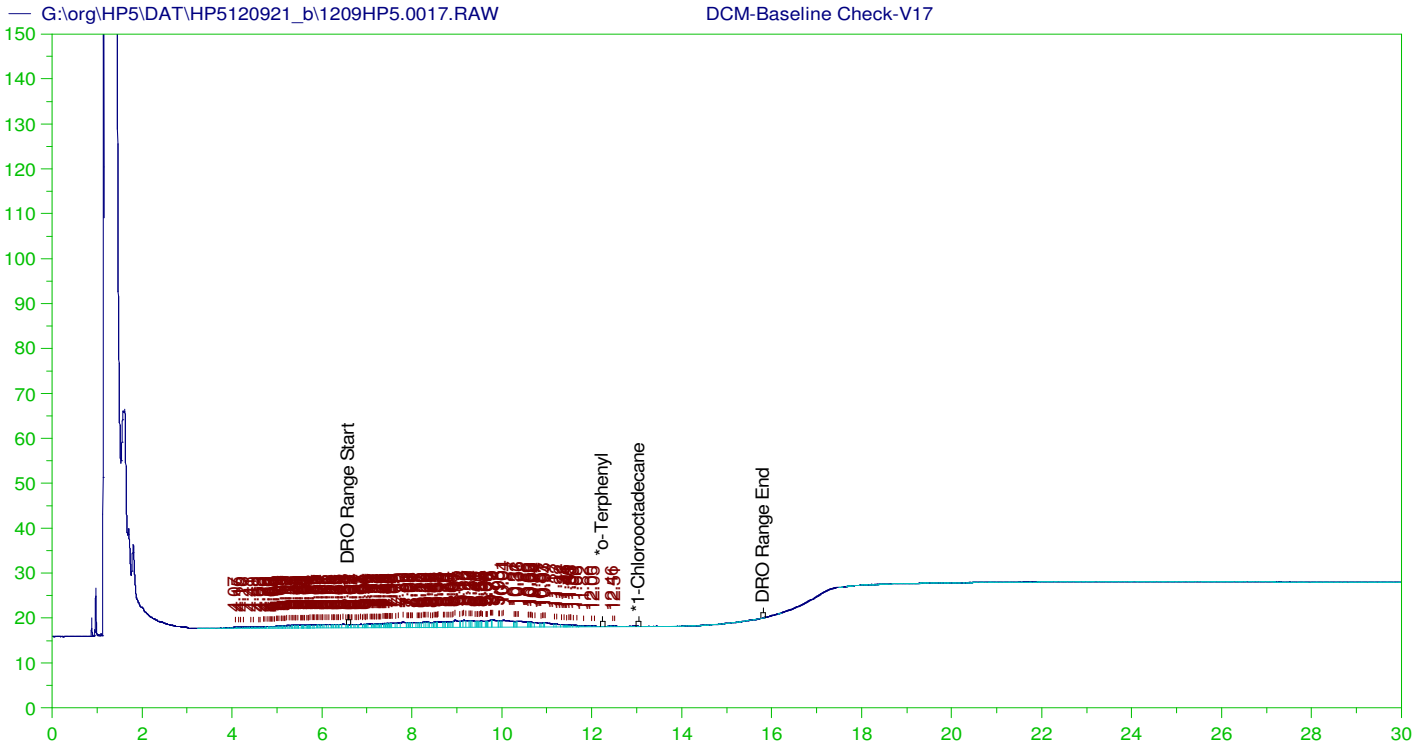
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.195	.194	.154	79.07
*1-Chlorooctadecane	13.008	.194	.128	65.99
*#Triacontane	16.275	.194	.086	44.3

DRO Area:599670.3 DRO Amount: 1.856922E-02  
 TEH Area:1422379 TEH Amount: 4.404499E-02





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V17  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0017.RAW  
 Date & Time Acquired: 12/9/2021 10:10:13 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	29.964	200.	.	-
*1-Chlorooctadecane	29.964	200.	.	-

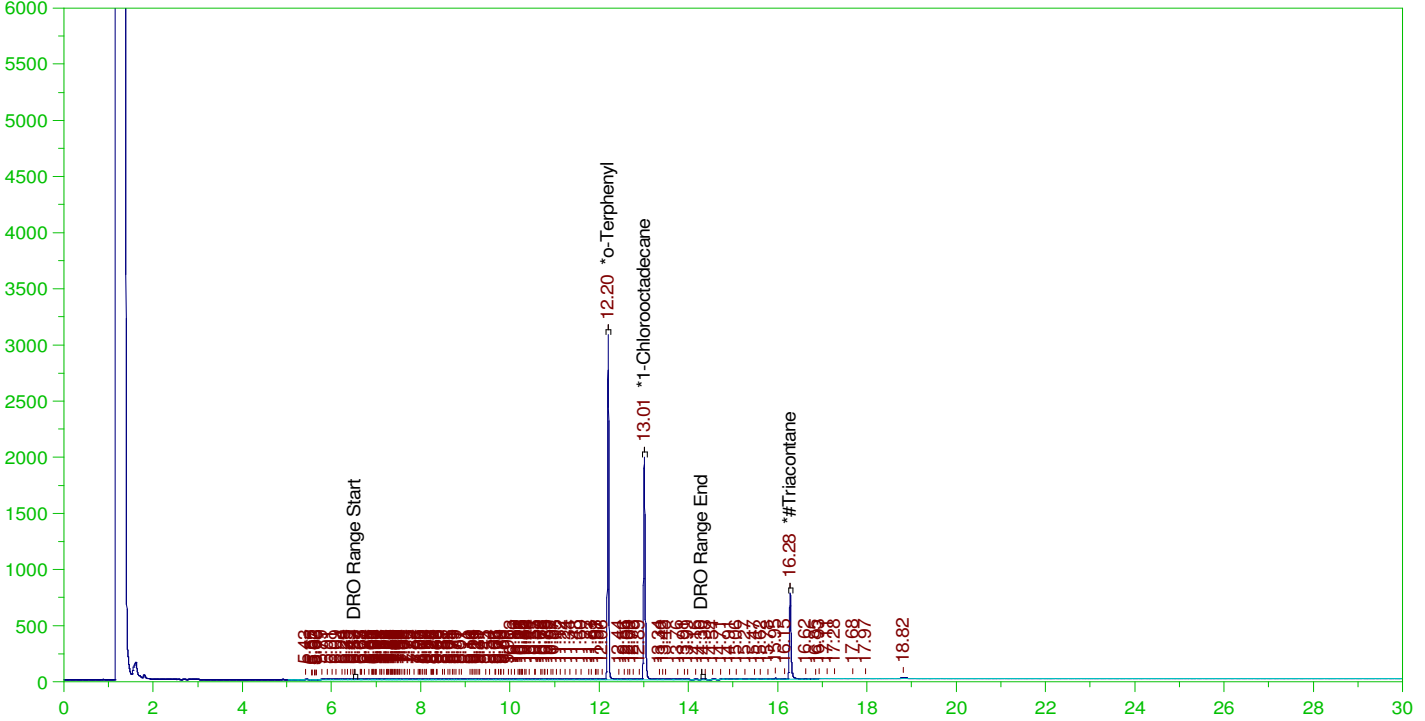
DRO Area:328404.8 DRO Amount: 10.47436  
 TEH Area:417660.6 TEH Amount: 13.32115

ERH2020 (OWDFMW01)

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0018.RAW

Batch ID: 161934

B21120381-008B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-008B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0018.RAW  
 Date & Time Acquired: 12/9/2021 10:53:15 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.197	.2	.167	83.72	-
*1-Chlorooctadecane	13.01	.2	.134	67.07	-
*#Triacontane	16.277	.2	.077	38.54	-

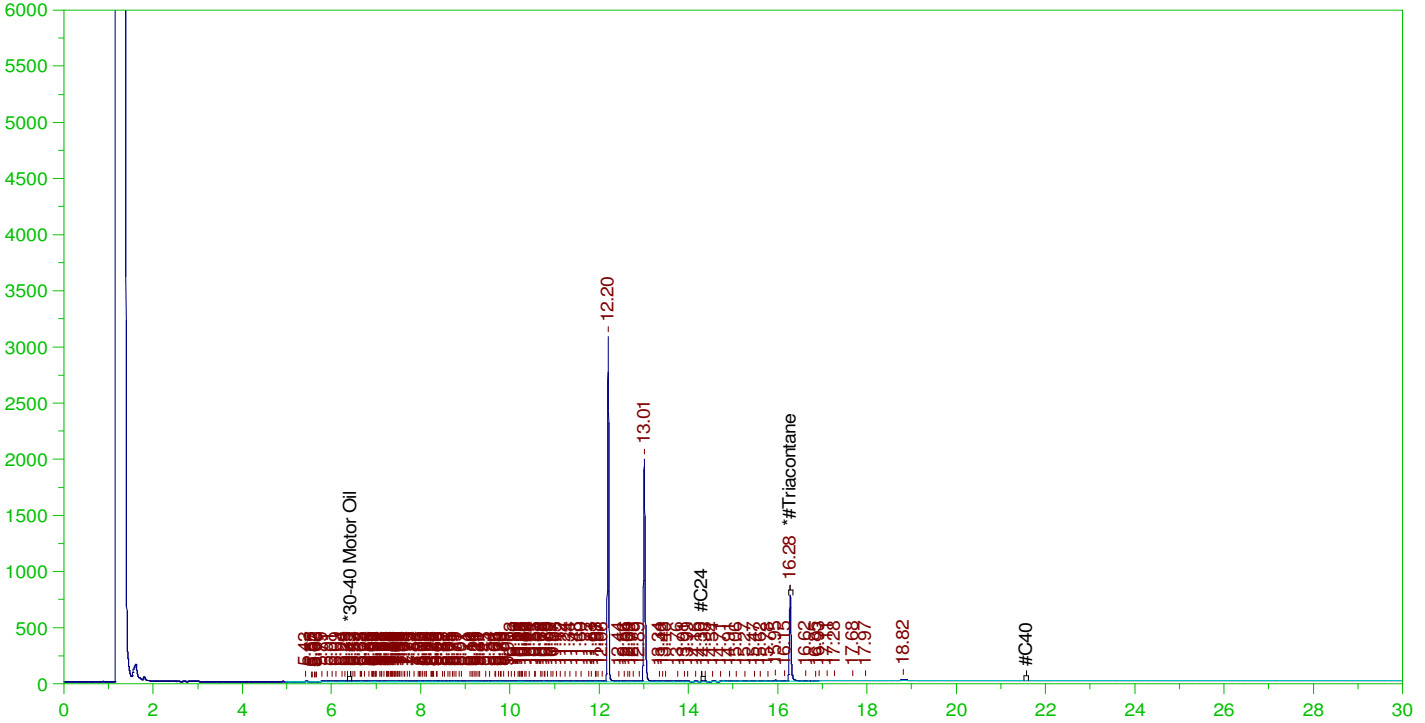
DRO Area:527800.4 DRO Amount: 1.683402E-02  
 TEH Area:850606.4 TEH Amount: 2.712982E-02

ERH2020 (OWDFMW01)

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0018.RAW

Batch ID: 161934

B21120381-008B ;1209HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-008B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0018.RAW  
 Date & Time Acquired: 12/9/2021 10:53:15 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-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: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.277	.5	.077	15.42

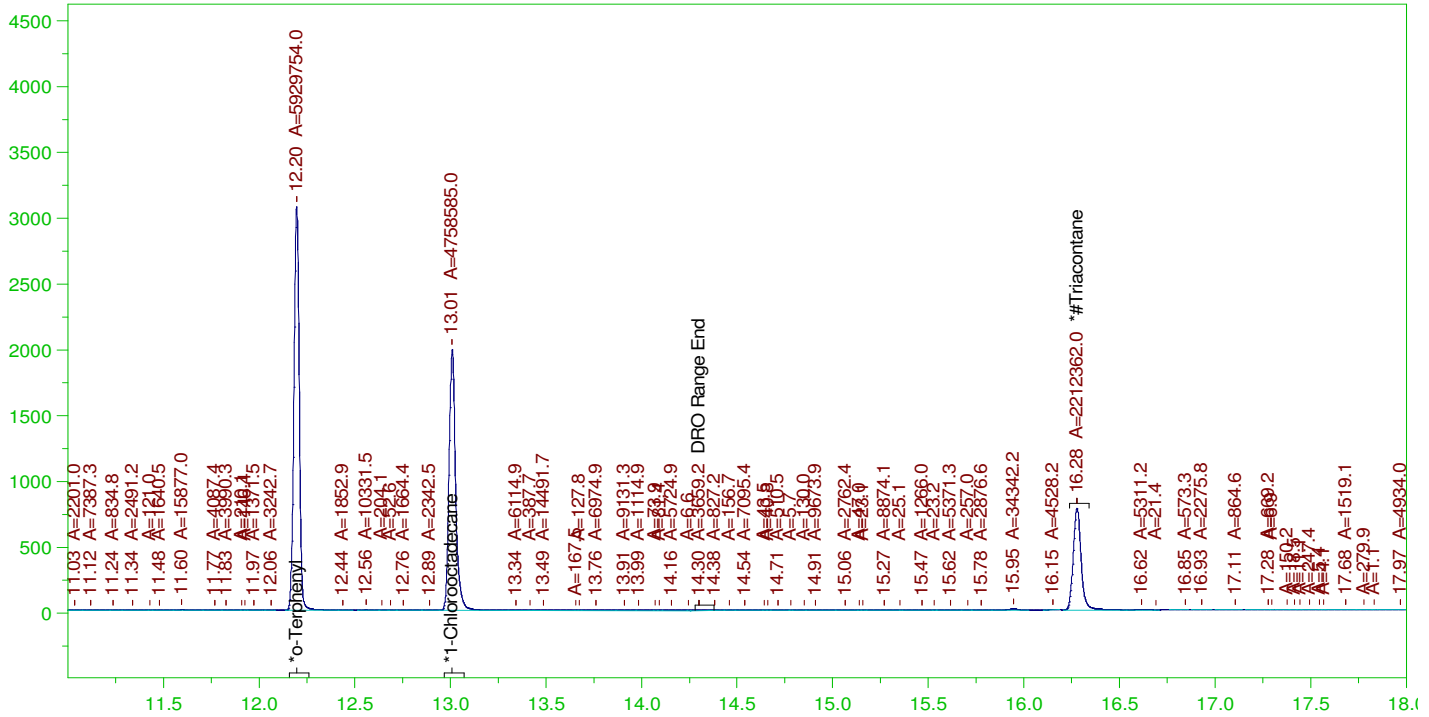
RRO Area:198386.6 RRO AMOUNT: 6.95059E-03

ERH2020 (OWDFMW01)

Batch ID: 161934

G:\Org\HP5\DAT\HP5120921\_b\1209HP5.0018.RAW

B21120381-008B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

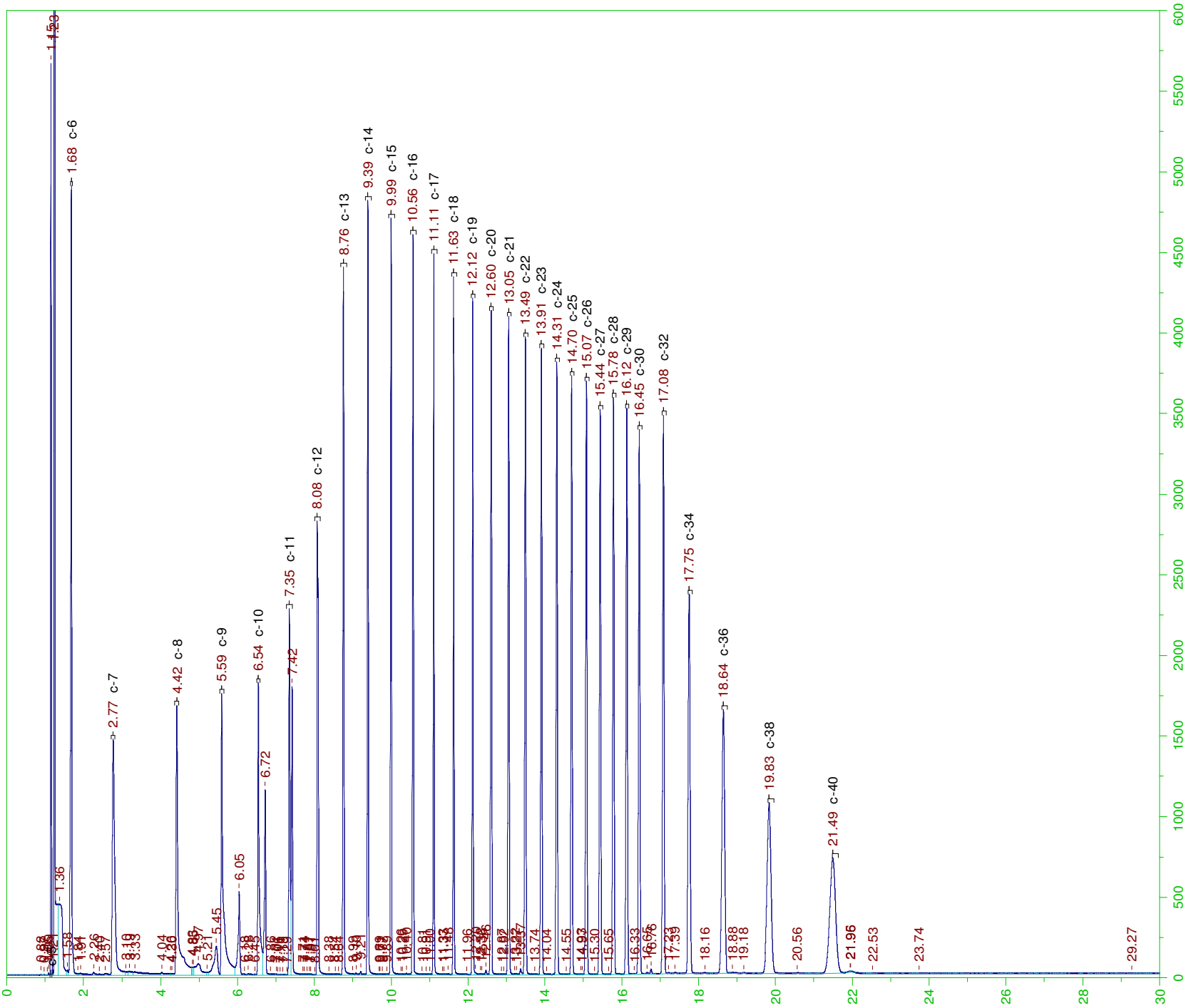
Sample Name: B21120381-008B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\Org\HP5\DAT\HP5120921\_b\1209HP5.0018.RAW  
 Date & Time Acquired: 12/9/2021 10:53:15 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

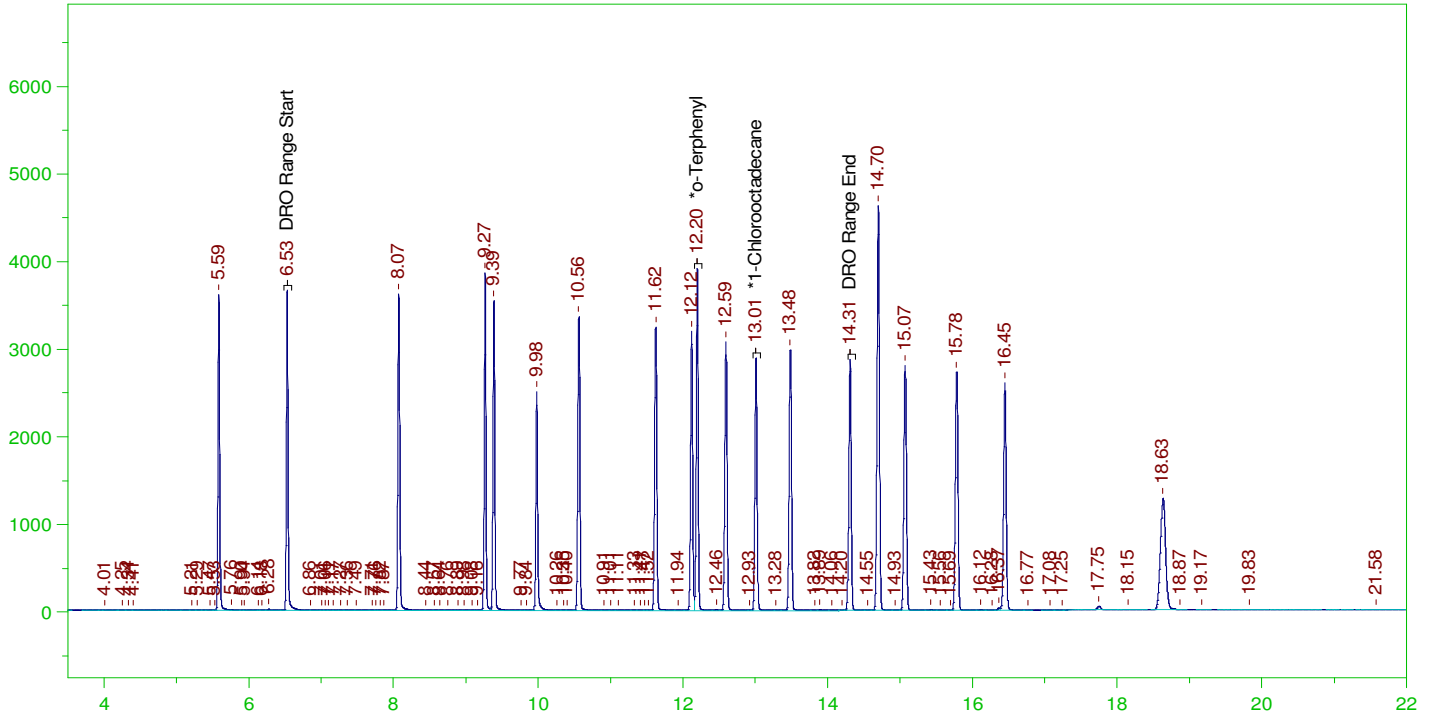
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.197	.2	.167	83.5	-
*1-Chlorooctadecane	13.01	.2	.134	67.	-
*#Triacontane	16.277	.2	.076	38.24	-

DRO Area:474021.7 DRO Amount: 1.511877E-02  
 TEH Area:848205.8 TEH Amount: 2.705325E-02



G:\org\HP5\DAT\HP5120921\_b\1209HP5.0020.RAW

MARKER\_1209HP520r, DRO ;1209HP5 , DRO211203B



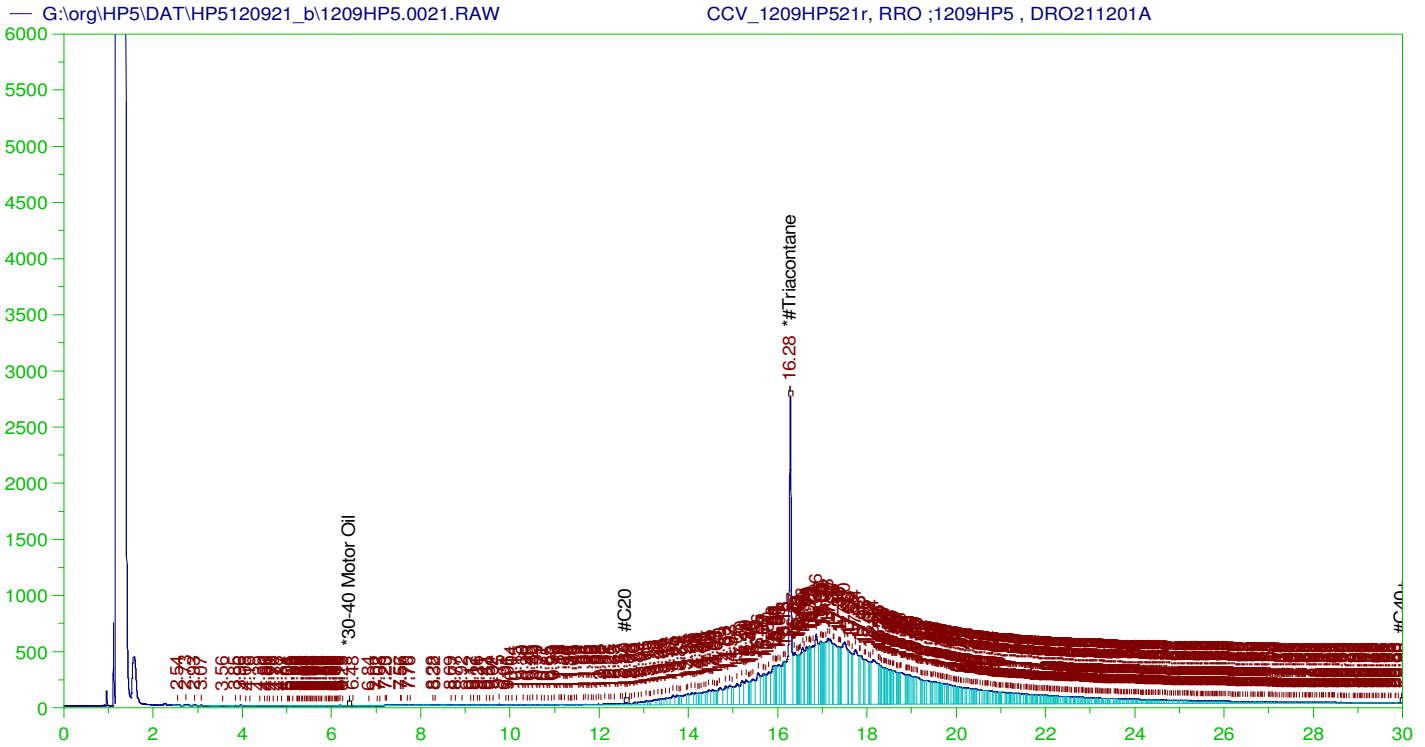
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MARKER\_1209HP520r, DRO ;1209HP5 , DRO211203B  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0020.RAW  
 Date & Time Acquired: 12/10/2021 12:19:11 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.198	.2	.211	105.7
*1-Chlorooctadecane	13.01	.2	.171	85.53

DRO Area: 6.943391E+07 DRO Amount: 2.214572  
 TEH Area: 1.132282E+08 TEH Amount: 3.611377



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1209HP521r, RRO ;1209HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0021.RAW  
 Date & Time Acquired: 12/10/2021 1:02:13 AM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.28	500.	350.632	70.13	-

RRO TEH(Oil Range) Area:1.360196E+08 RRO TEH(Oil Range) AMOUNT: 4765.525

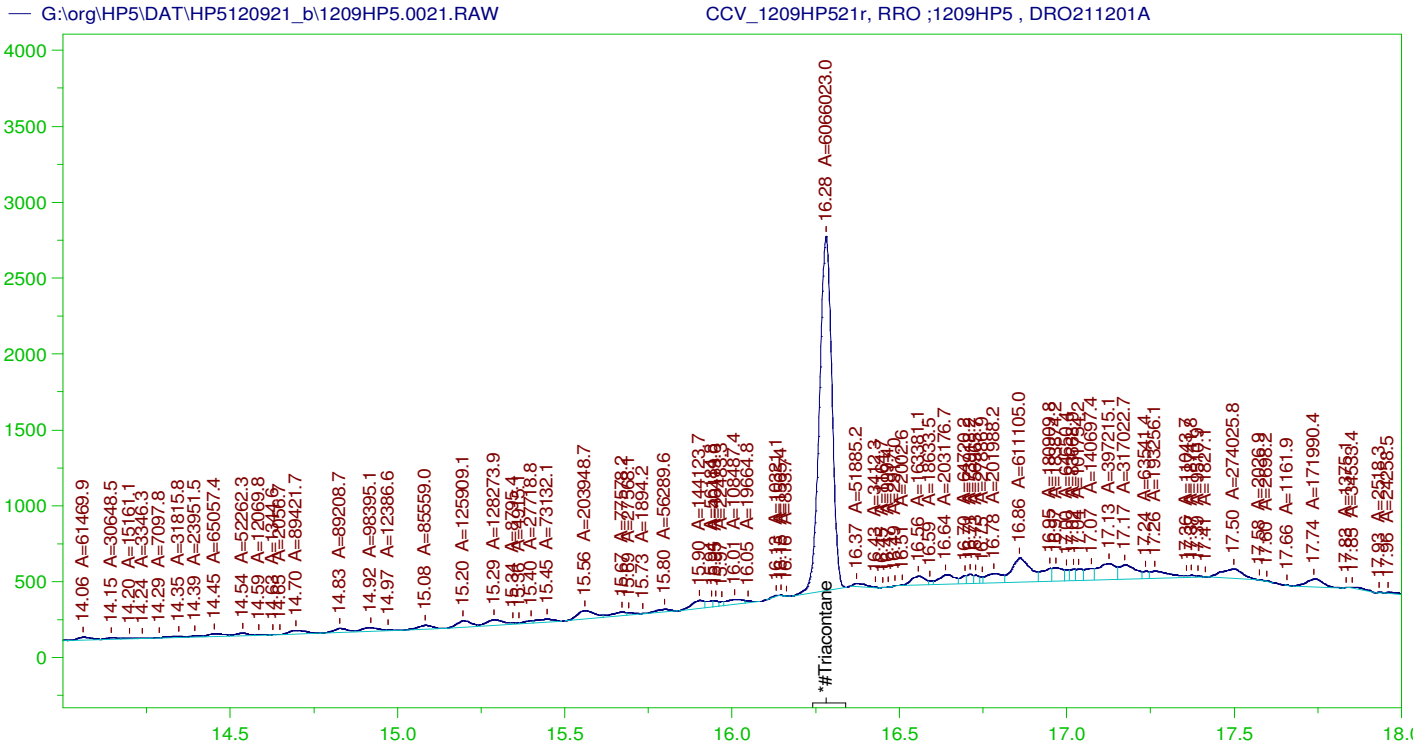
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0021.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.28	200.	350.632	175.32	75-125

AMN 12/15/2021



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1209HP521r, RRO ;1209HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0021.RAW  
 Date & Time Acquired: 12/10/2021 1:02:13 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.28	500.	209.678	41.94	-

RRO Area:6446072 RRO AMOUNT: 225.8419

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0021.RAW

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

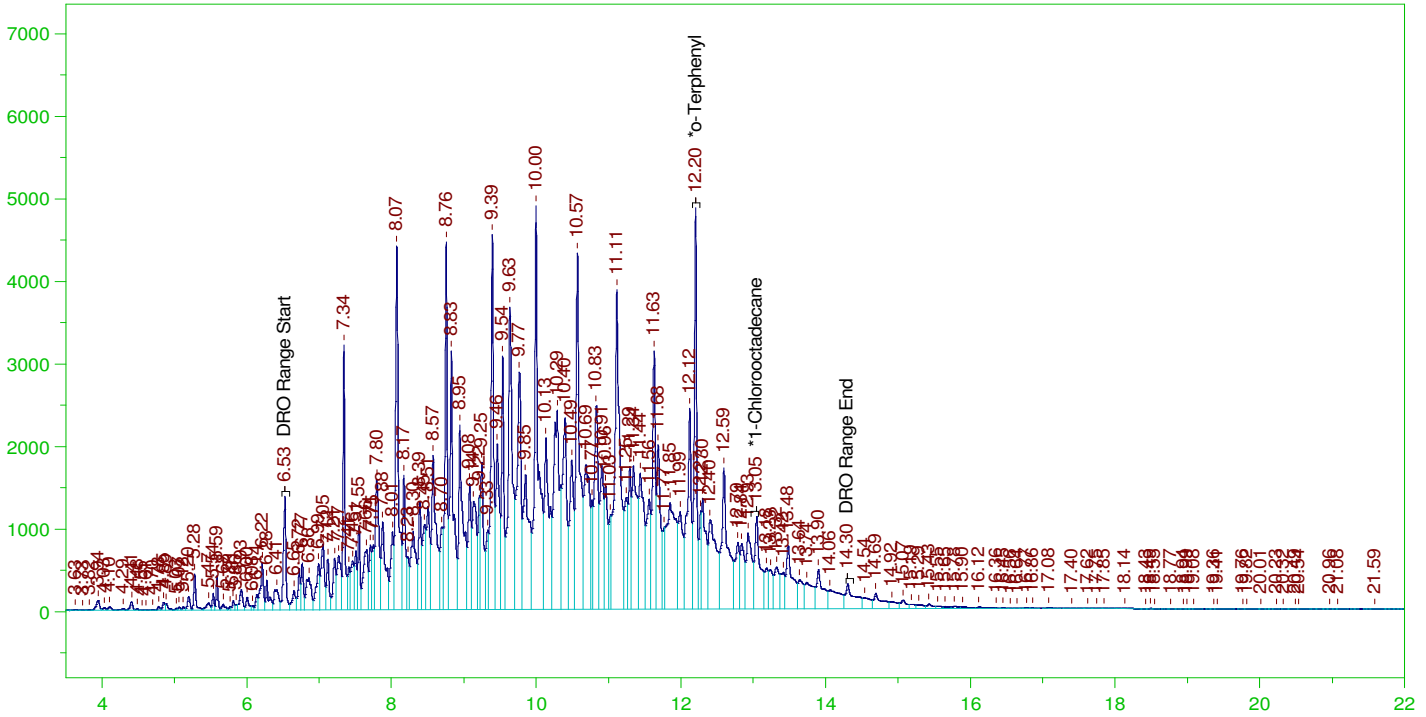
  

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.28	200.	209.678	104.84	75-125



G:\org\HP5\DAT\HP5120921\_b\1209HP5.0022.RAW

CCV\_1209HP522r, DRO ;1209HP5 , DRO211203A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1209HP522r, DRO ;1209HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0022.RAW  
 Date & Time Acquired: 12/10/2021 1:45:09 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

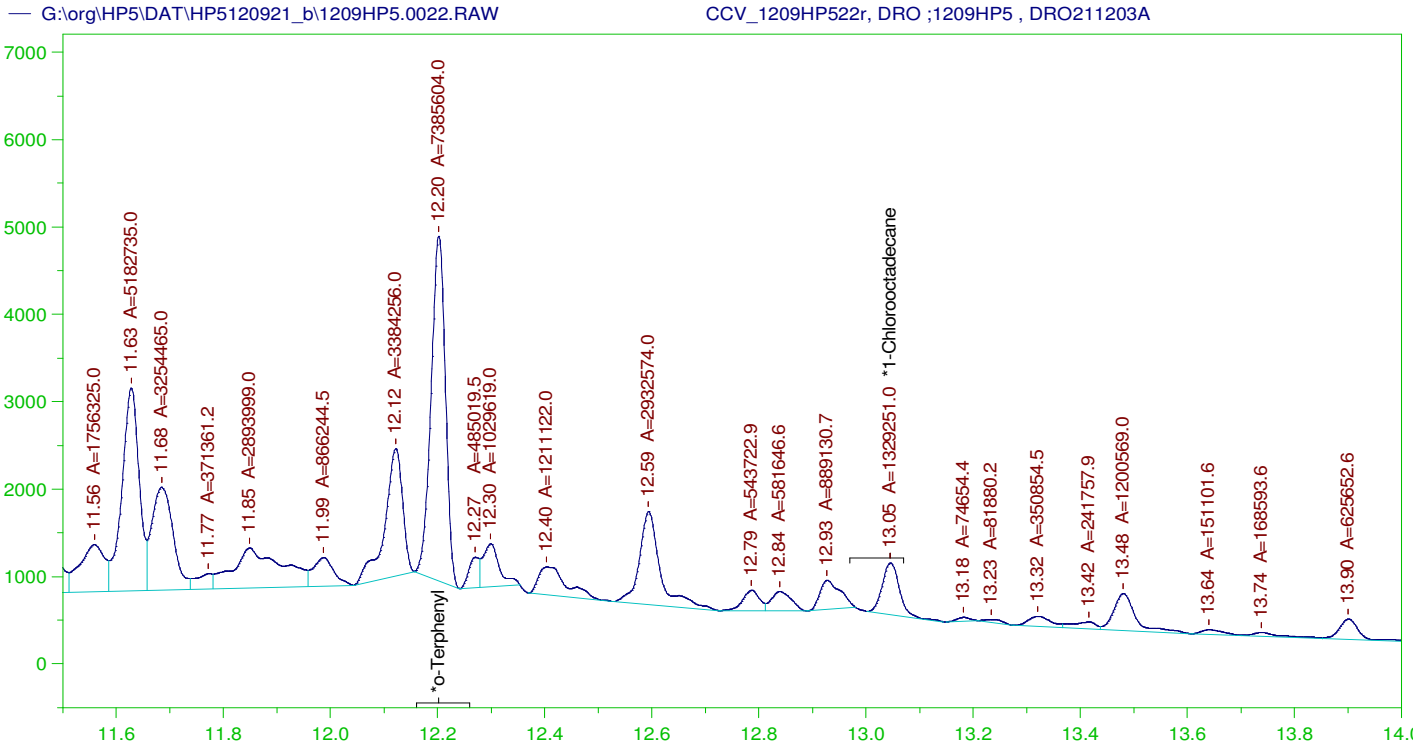
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.202	200.	340.435	170.22
*1-Chlorooctadecane	13.045	200.	160.042	80.02

DRO Area: 4.781863E+08 DRO Amount: 15251.6  
 TEH Area: 4.946398E+08 TEH Amount: 15776.38

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0022.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15776.38	105.18	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.202	200.	340.435	170.22	85-115
*1-Chlorooctadecane	13.045	200.	160.042	80.02	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1209HP522r, DRO ;1209HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0022.RAW  
 Date & Time Acquired: 12/10/2021 1:45:09 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IF-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

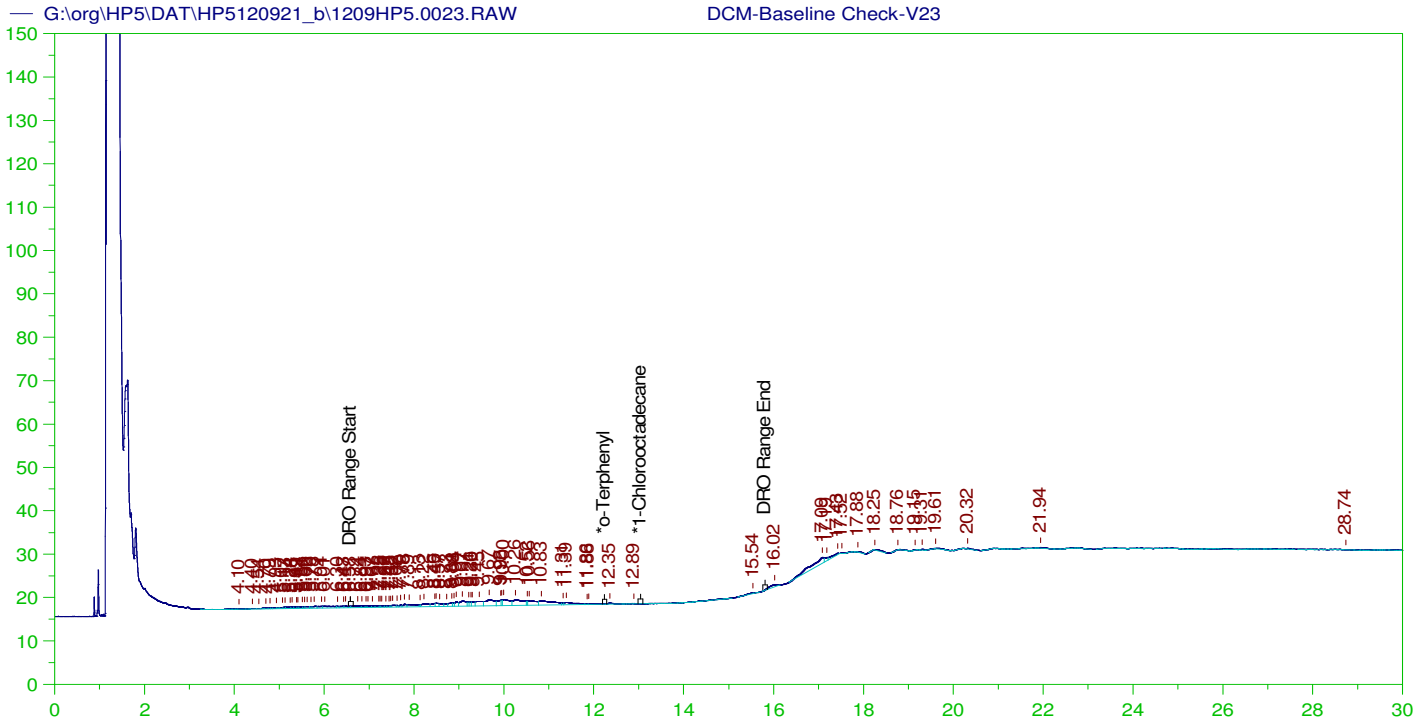
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.202	200.	207.991	104.
*1-Chlorooctadecane	13.045	200.	37.434	18.72

DRO Area: 2.677018E+08 DRO Amount: 8538.262  
 TEH Area: 2.781192E+08 TEH Amount: 8870.522

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0022.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8870.52	59.14	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.202	200.	207.991	104.	85-115
*1-Chlorooctadecane	13.045	200.	37.434	18.72	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V23  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0023.RAW  
 Date & Time Acquired: 12/10/2021 2:28:10 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	29.97	200.	.	-
*1-Chlorooctadecane	29.97	200.	.	-

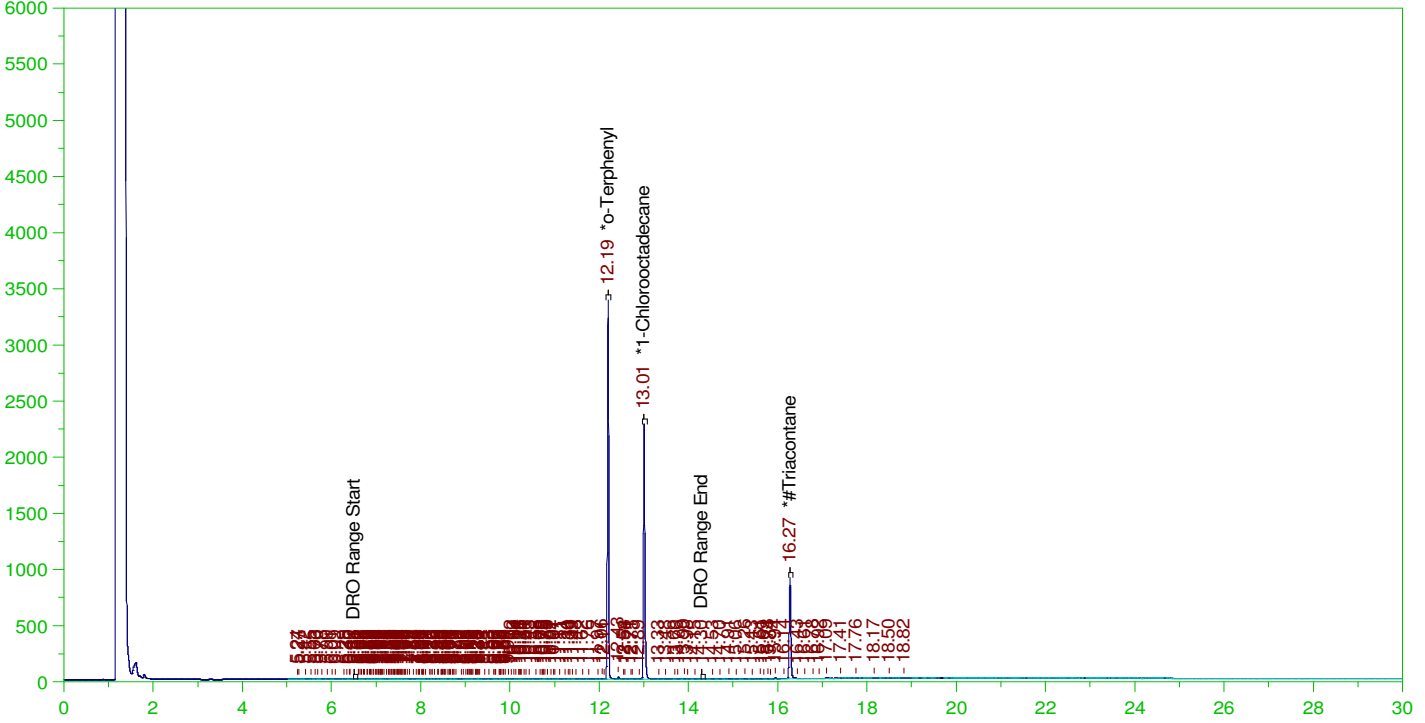
DRO Area:231080.9 DRO Amount: 7.370251  
 TEH Area:345407.8 TEH Amount: 11.01667

ERH2013 (RHMW08)

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0024.RAW

Batch ID: 161934

B21120381-005B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-005B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0024.RAW  
 Date & Time Acquired: 12/10/2021 3:11:06 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.195	.196	.178	90.68	-
*1-Chlorooctadecane	13.006	.196	.144	73.68	-
*#Triacontane	16.273	.196	.084	42.71	-

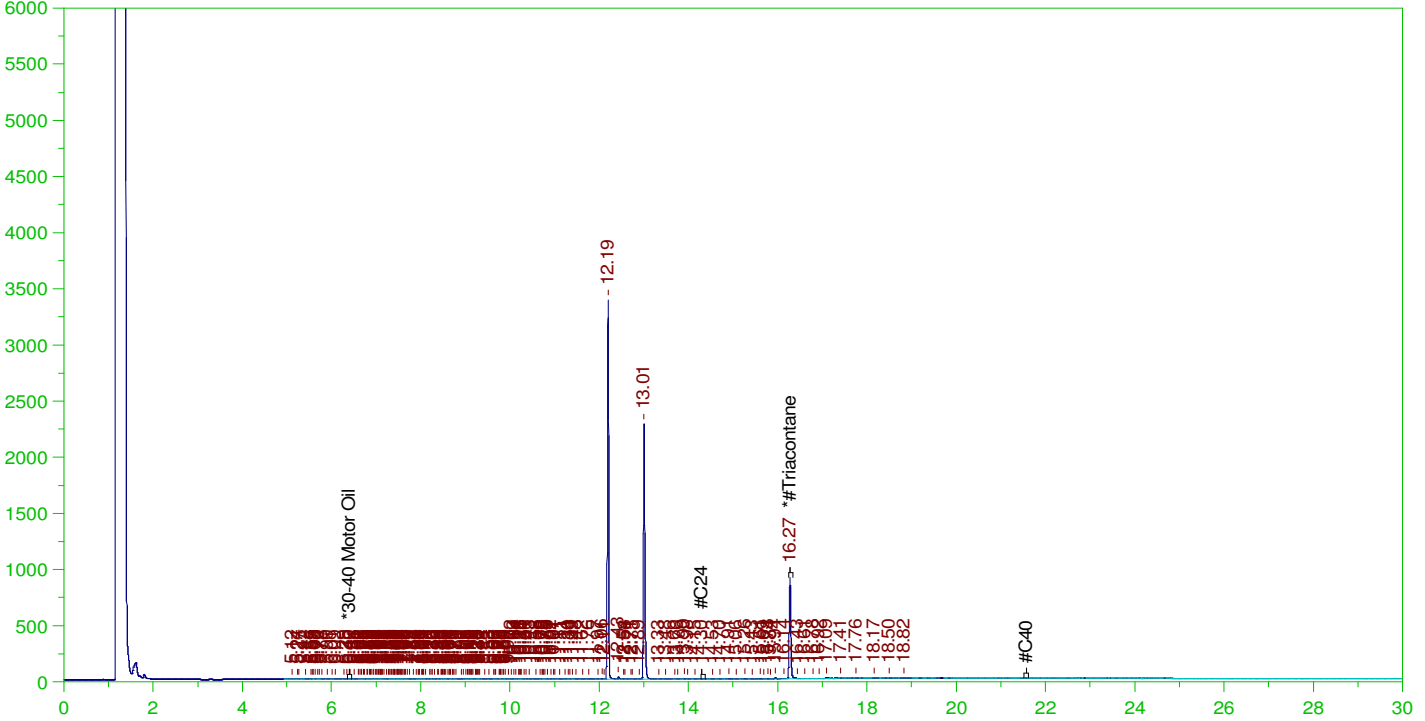
DRO Area:551963.8 DRO Amount: 1.725952E-02  
 TEH Area:797586.8 TEH Amount: 2.493998E-02

ERH2013 (RHMW08)

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0024.RAW

Batch ID: 161934

B21120381-005B ;1209HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-005B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0024.RAW  
 Date & Time Acquired: 12/10/2021 3:11:06 AM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-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: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.273	.49	.084	17.08	-

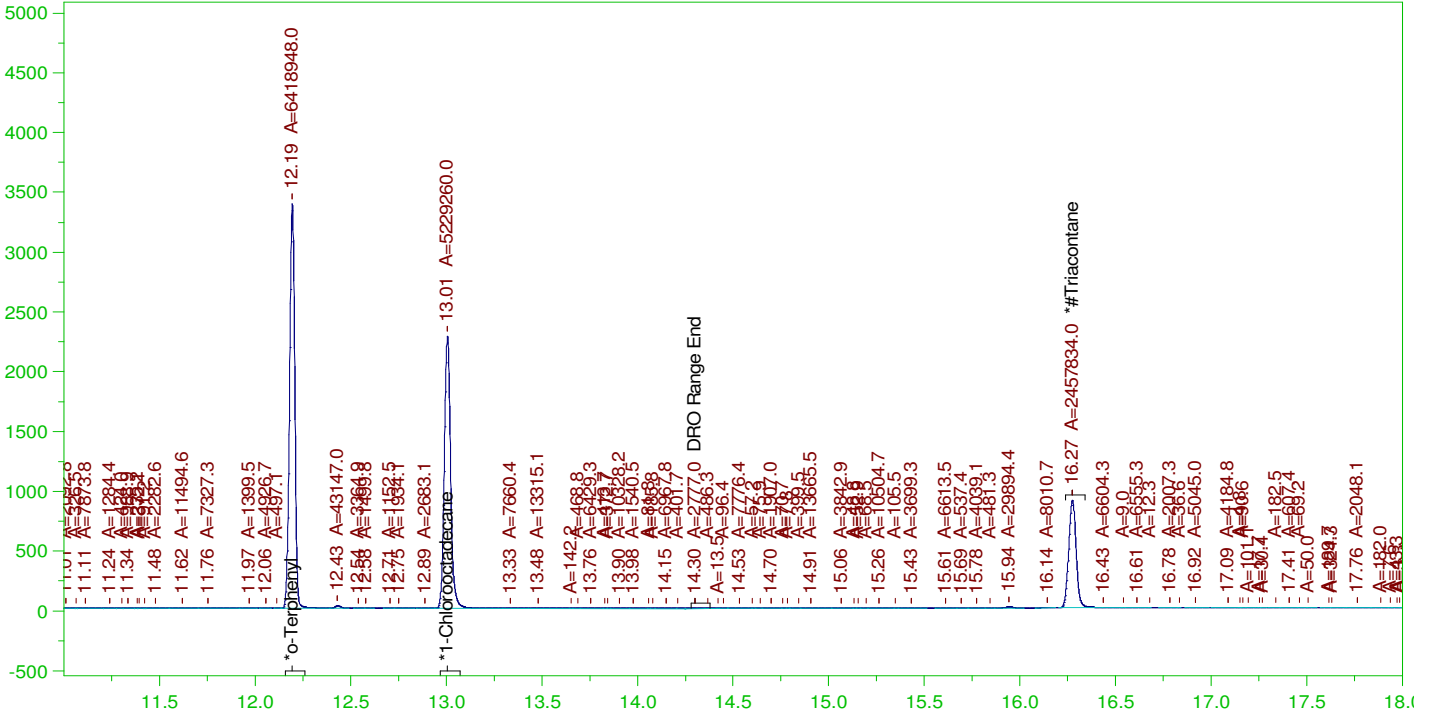
RRO Area:157279 RRO AMOUNT: 5.402314E-03

ERH2013 (RHMW08)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0024.RAW

B21120381-005B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-005B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0024.RAW  
 Date & Time Acquired: 12/10/2021 3:11:06 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.195	.196	.177	90.38
*1-Chlorooctadecane	13.006	.196	.144	73.63
*#Triacontane	16.273	.196	.083	42.48

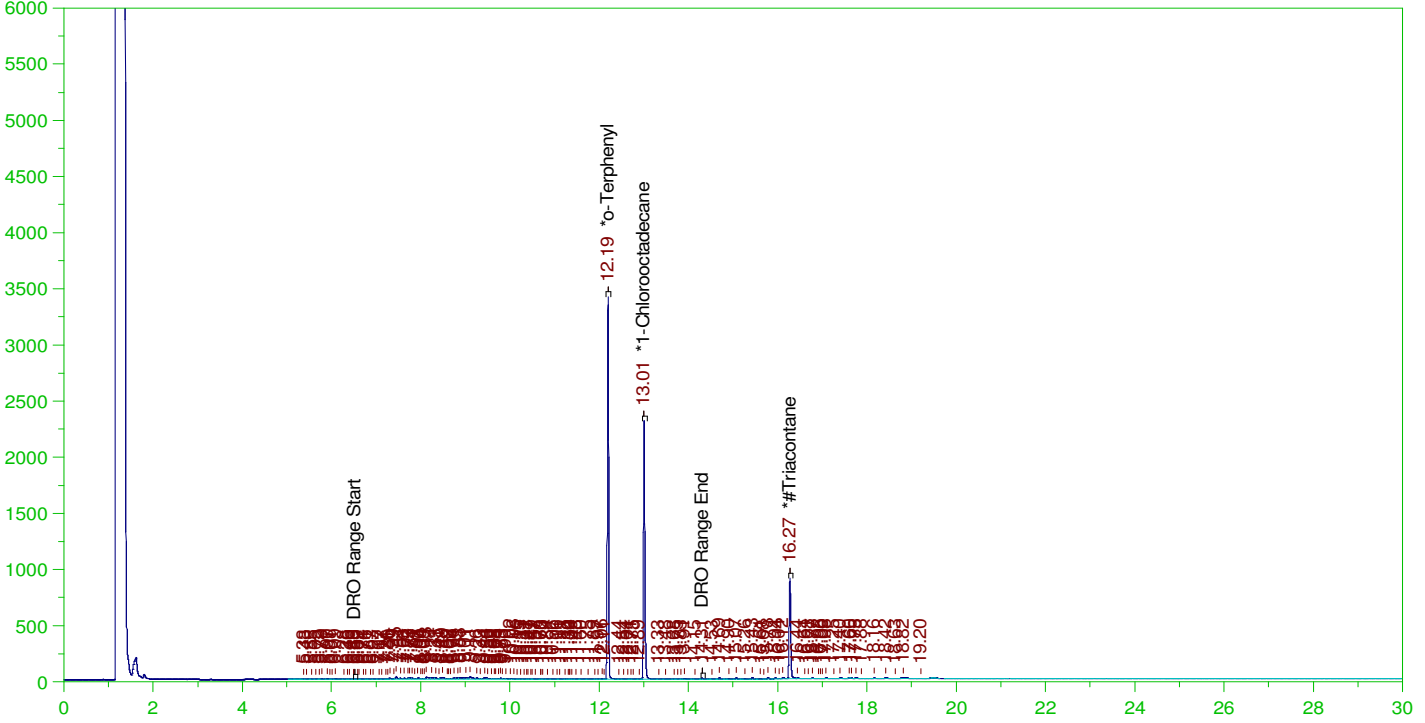
DRO Area:542438.8 DRO Amount: 1.696168E-02  
 TEH Area:880233.4 TEH Amount: 2.752428E-02

ERH2003 (RHMW01R)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0025.RAW

B21120381-001A ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-001A ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0025.RAW  
 Date & Time Acquired: 12/10/2021 3:54:02 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.193	.196	.18	91.89	-
*1-Chlorooctadecane	13.005	.196	.145	73.79	-
*#Triacontane	16.271	.196	.083	42.18	-

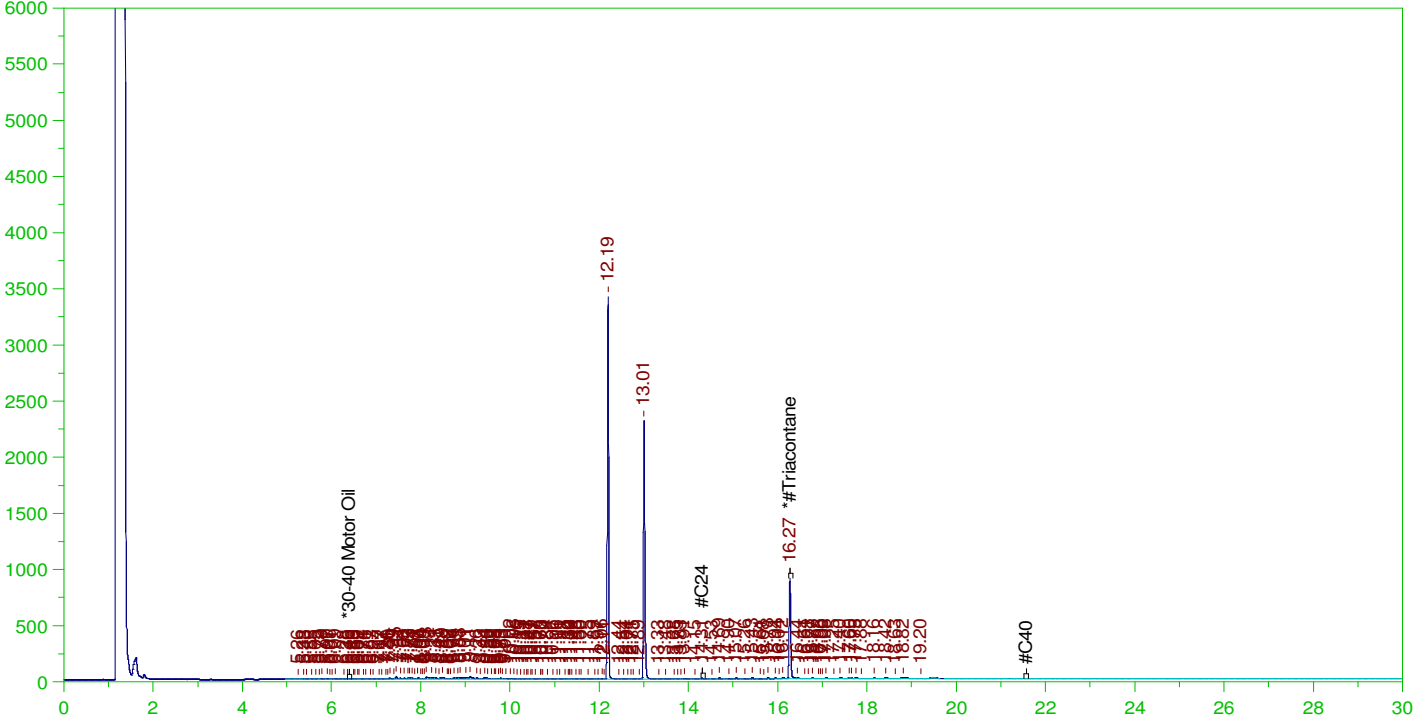
DRO Area: 2121970 DRO Amount: 6.635249E-02  
 TEH Area: 2654494 TEH Amount: 8.300415E-02

ERH2003 (RHMW01R)

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0025.RAW

Batch ID: 161934

B21120381-001A ;1209HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-001A ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0025.RAW  
 Date & Time Acquired: 12/10/2021 3:54:02 AM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-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: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.271	.49	.083	16.87	-

RRO Area:435461.8 RRO AMOUNT: 1.495751E-02

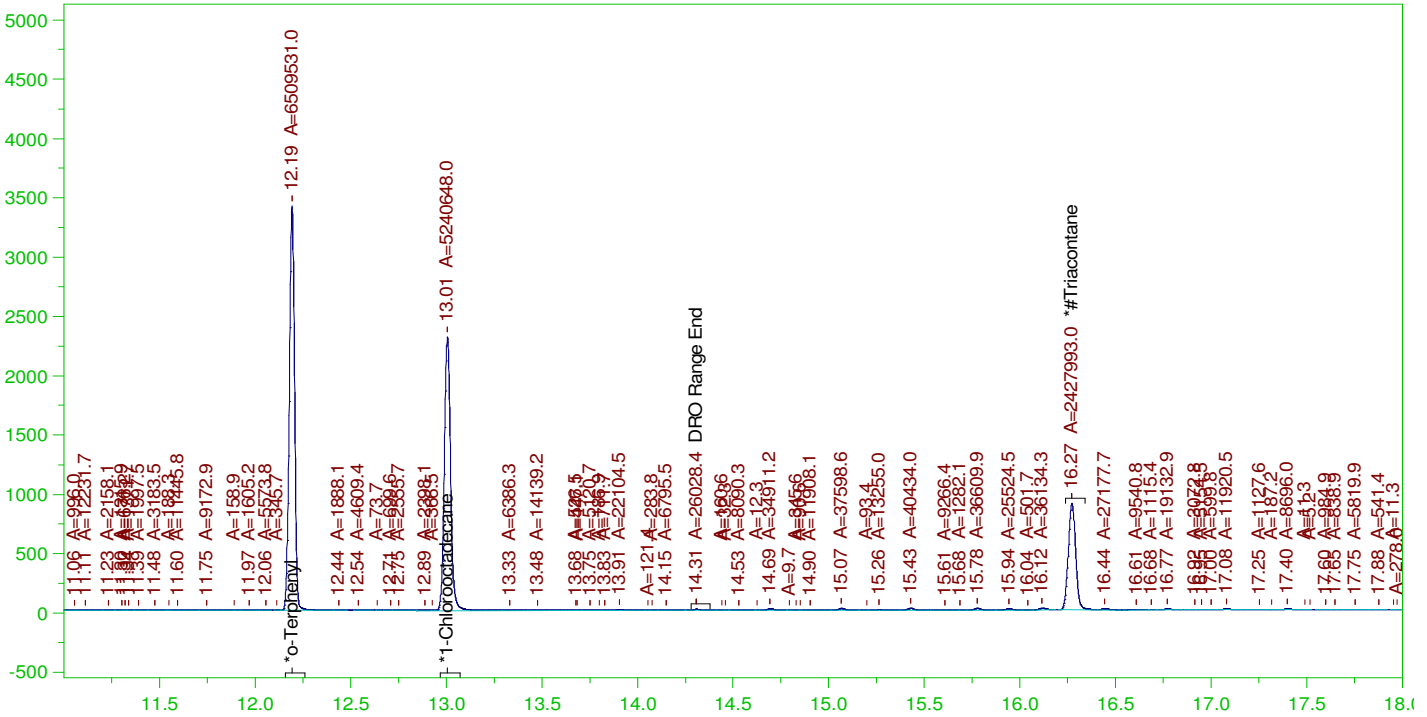


ERH2003 (RHMW01R)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0025.RAW

B21120381-001A ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

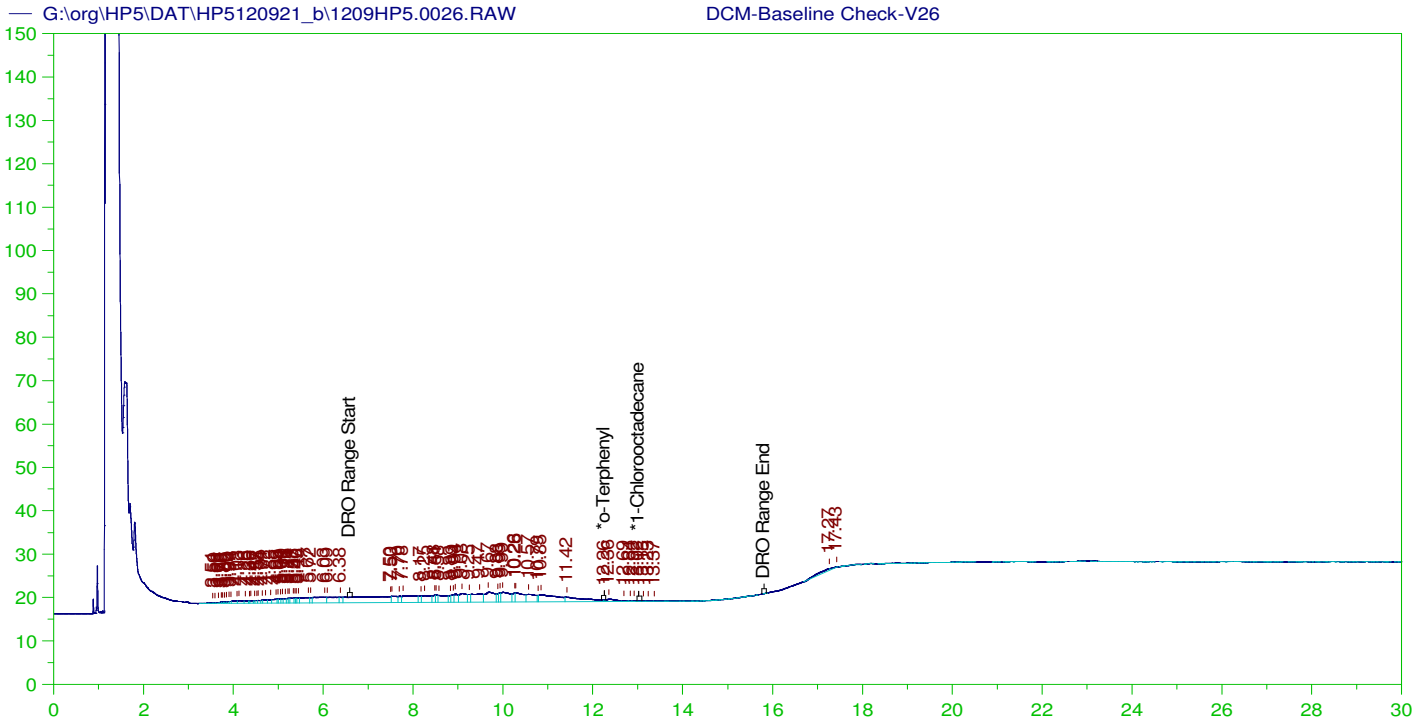
Sample Name: B21120381-001A ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0025.RAW  
 Date & Time Acquired: 12/10/2021 3:54:02 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.193	.196	.18	91.66
*1-Chlorooctadecane	13.005	.196	.145	73.79
*#Triacontane	16.271	.196	.082	41.96

DRO Area:2099810 DRO Amount: 6.565956E-02  
 TEH Area:2698927 TEH Amount: 8.439355E-02



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V26  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0026.RAW  
 Date & Time Acquired: 12/10/2021 4:37:03 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	12.261	200.	.019	.01	-
*1-Chlorooctadecane	13.019	200.	.025	.01	-

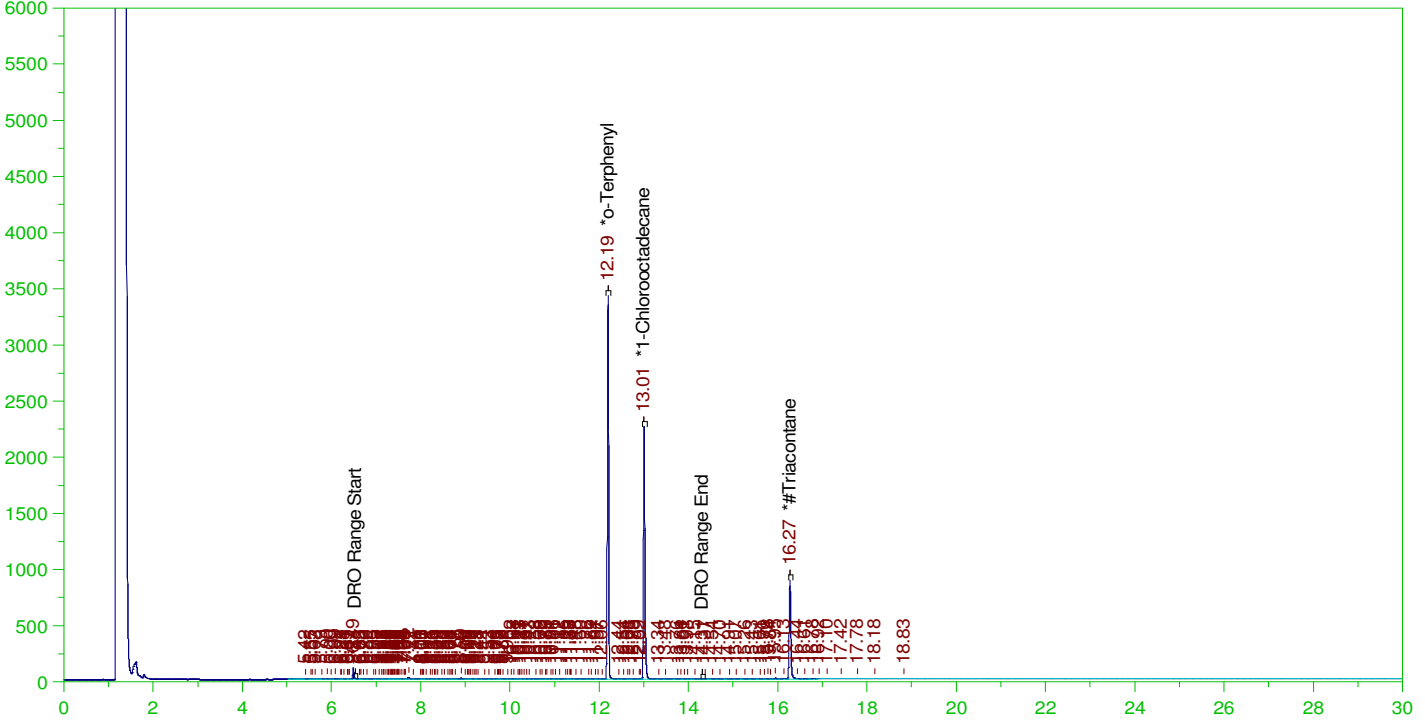
DRO Area: 519795.7 DRO Amount: 16.57872  
 TEH Area: 694732.6 TEH Amount: 22.15827

ERH2016 (RHMW15-05)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0027.RAW

B21120396-001B ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120396-001B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0027.RAW  
 Date & Time Acquired: 12/10/2021 5:20:05 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.194	.208	.194	93.13	-
*1-Chlorooctadecane	13.006	.208	.155	74.22	-
*#Triacontane	16.272	.208	.088	42.23	-

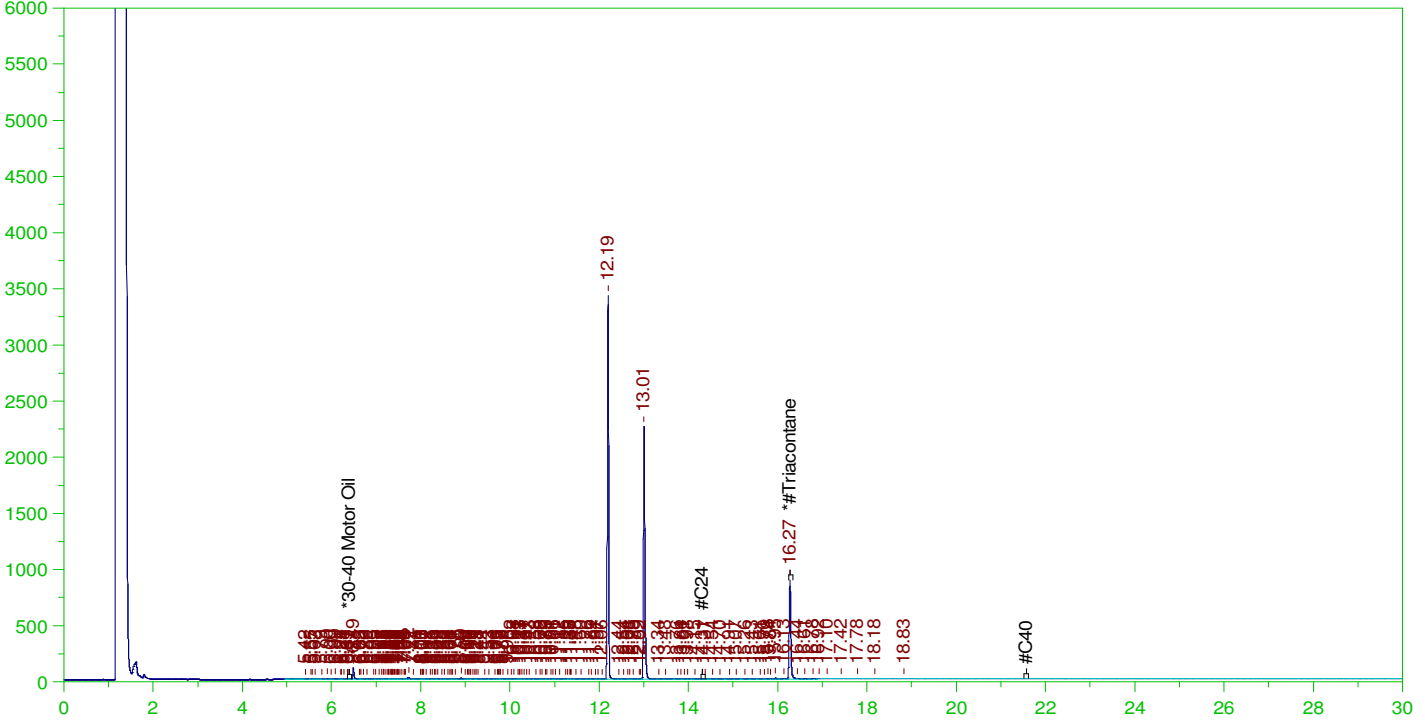
DRO Area:698465.8 DRO Amount: 2.320557E-02  
 TEH Area:1249452 TEH Amount: 4.151133E-02

ERH2016 (RHMW15-05)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0027.RAW

B21120396-001B ;1209HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120396-001B ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0027.RAW  
 Date & Time Acquired: 12/10/2021 5:20:05 AM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-SAMP.CAL  
 Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.272	.521	.088	16.89

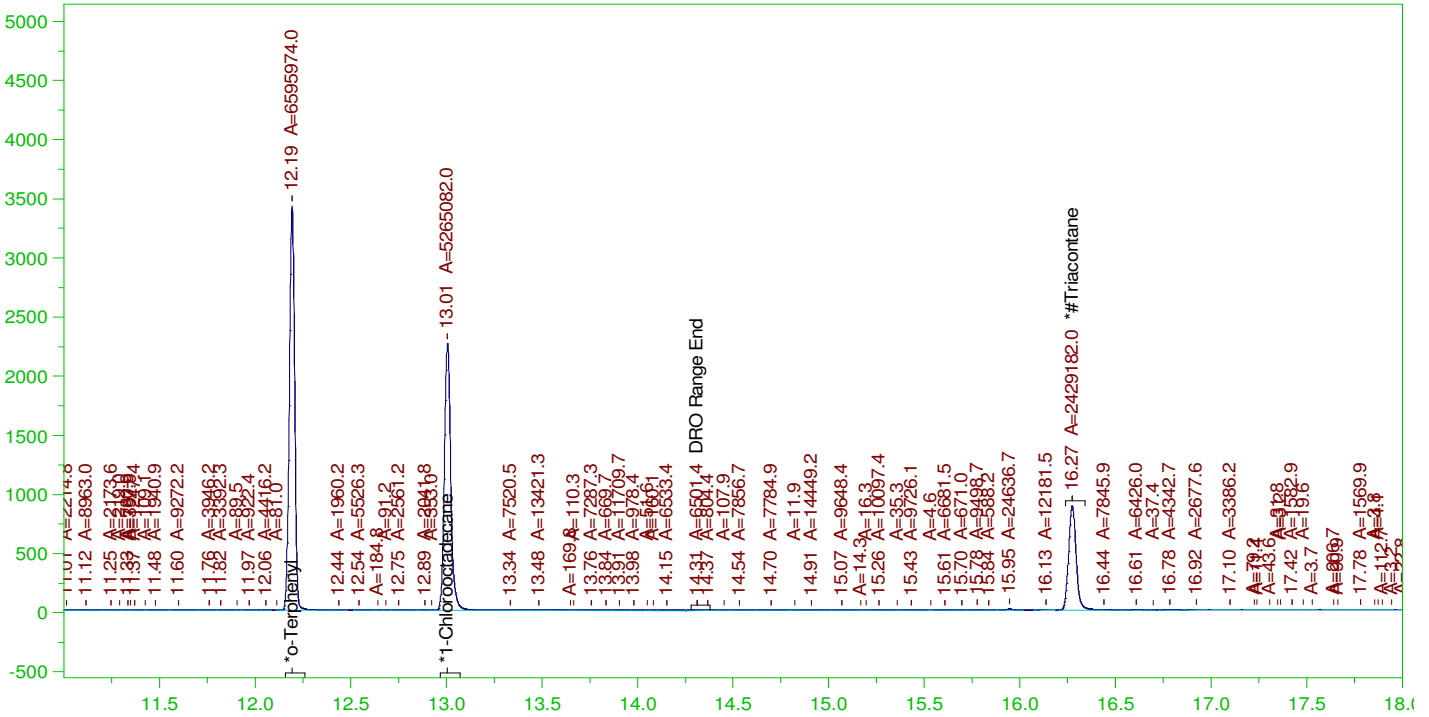
RRO Area:180972.8 RRO AMOUNT: 6.604673E-03

ERH2016 (RHMW15-05)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0027.RAW

B21120396-001B ; 1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120396-001B ; 1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0027.RAW  
 Date & Time Acquired: 12/10/2021 5:20:05 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.194	.208	.193	92.88	-
*1-Chlorooctadecane	13.006	.208	.154	74.14	-
*#Triacontane	16.272	.208	.087	41.98	-

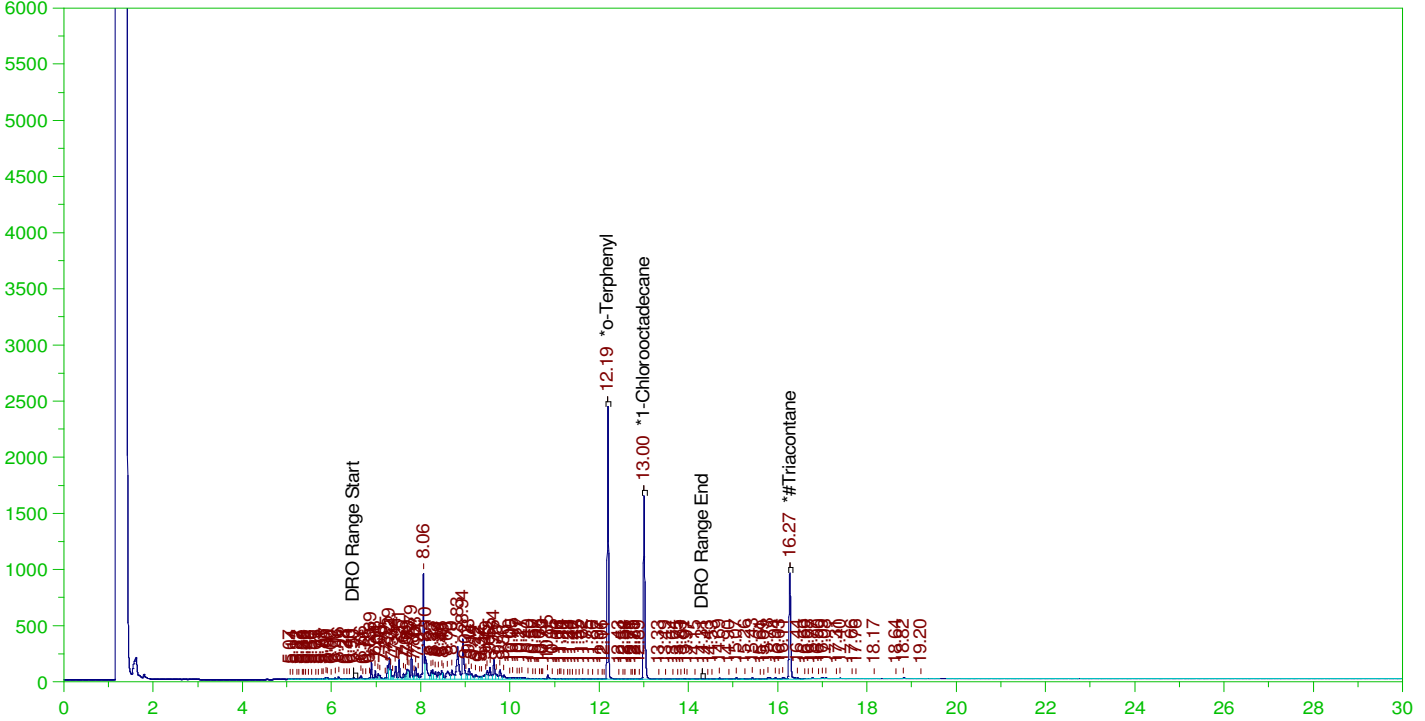
DRO Area: 621495.5 DRO Amount: 2.064833E-02  
 TEH Area: 1243620 TEH Amount: 4.131755E-02

ERH2006 (RHMW02)

Batch ID: 161934

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0028.RAW

B21120381-002A ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-002A ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0028.RAW  
 Date & Time Acquired: 12/10/2021 6:03:02 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.191	.194	.128	66.04	-
*1-Chlorooctadecane	13.004	.194	.106	54.75	-
*#Triacontane	16.269	.194	.087	44.67	-

DRO Area:1.369191E+07 DRO Amount: 0.4239798  
 TEH Area:1.451452E+07 TEH Amount: 0.4494523

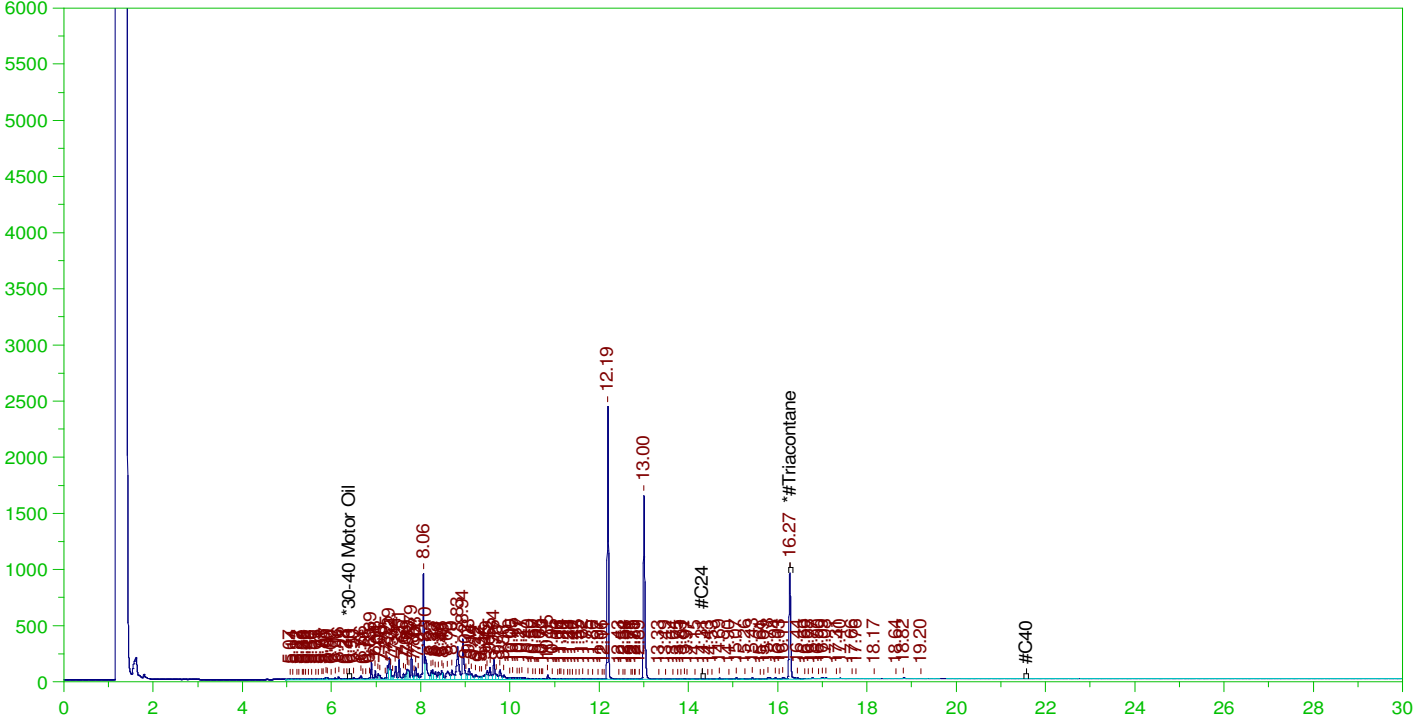


ERH2006 (RHMW02)

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0028.RAW

Batch ID: 161934

B21120381-002A ;1209HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-002A ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0028.RAW  
 Date & Time Acquired: 12/10/2021 6:03:02 AM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH-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: 14.28 to 21.62

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.269	.485	.087	17.87

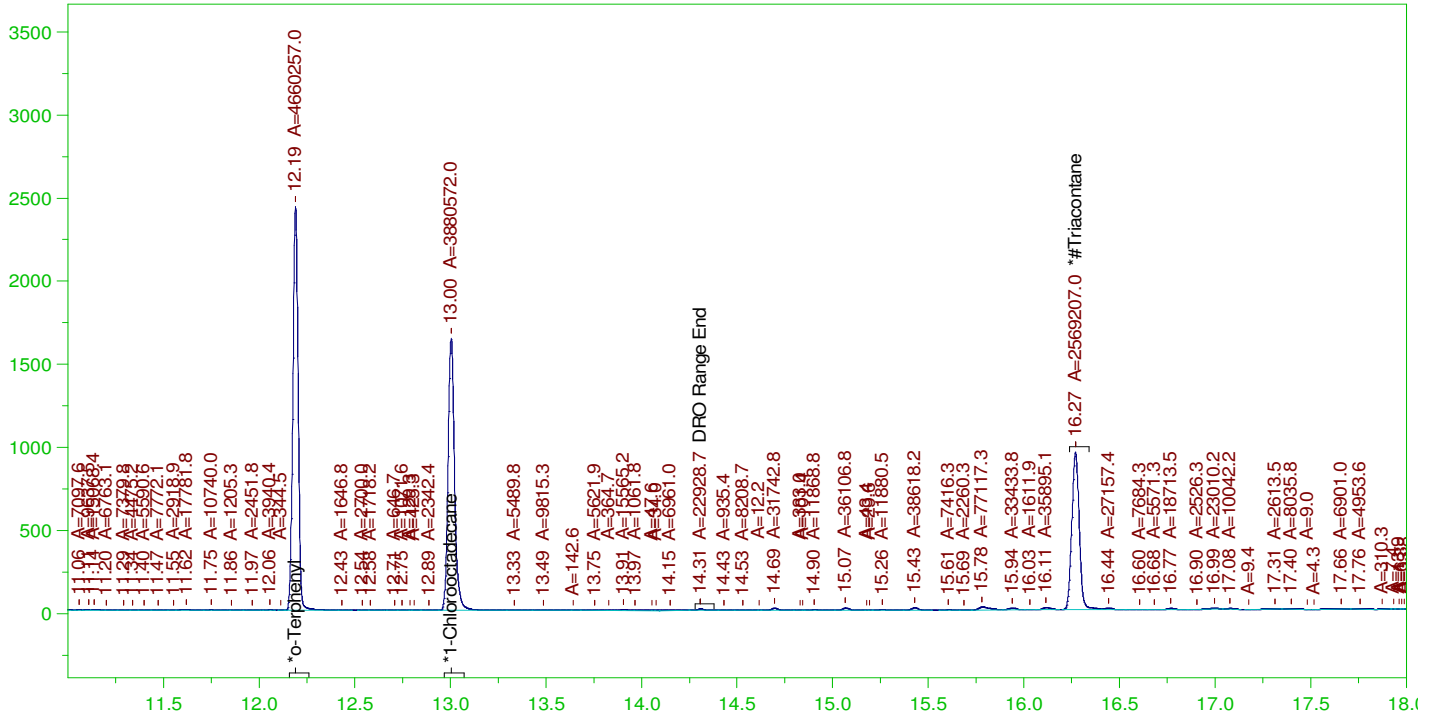
RRO Area:501392.1 RRO AMOUNT: 1.705492E-02

ERH2006 (RHMW02)

Batch ID: 161934

G:\Org\HP5\DAT\HP5120921\_b\1209HP5.0028.RAW

B21120381-002A ;1209HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21120381-002A ;1209HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\Org\HP5\DAT\HP5120921\_b\1209HP5.0028.RAW  
 Date & Time Acquired: 12/10/2021 6:03:02 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IF-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24-Tri.CAL  
 Sample Weight: 1030 Dilution: 1 S.A.: 1

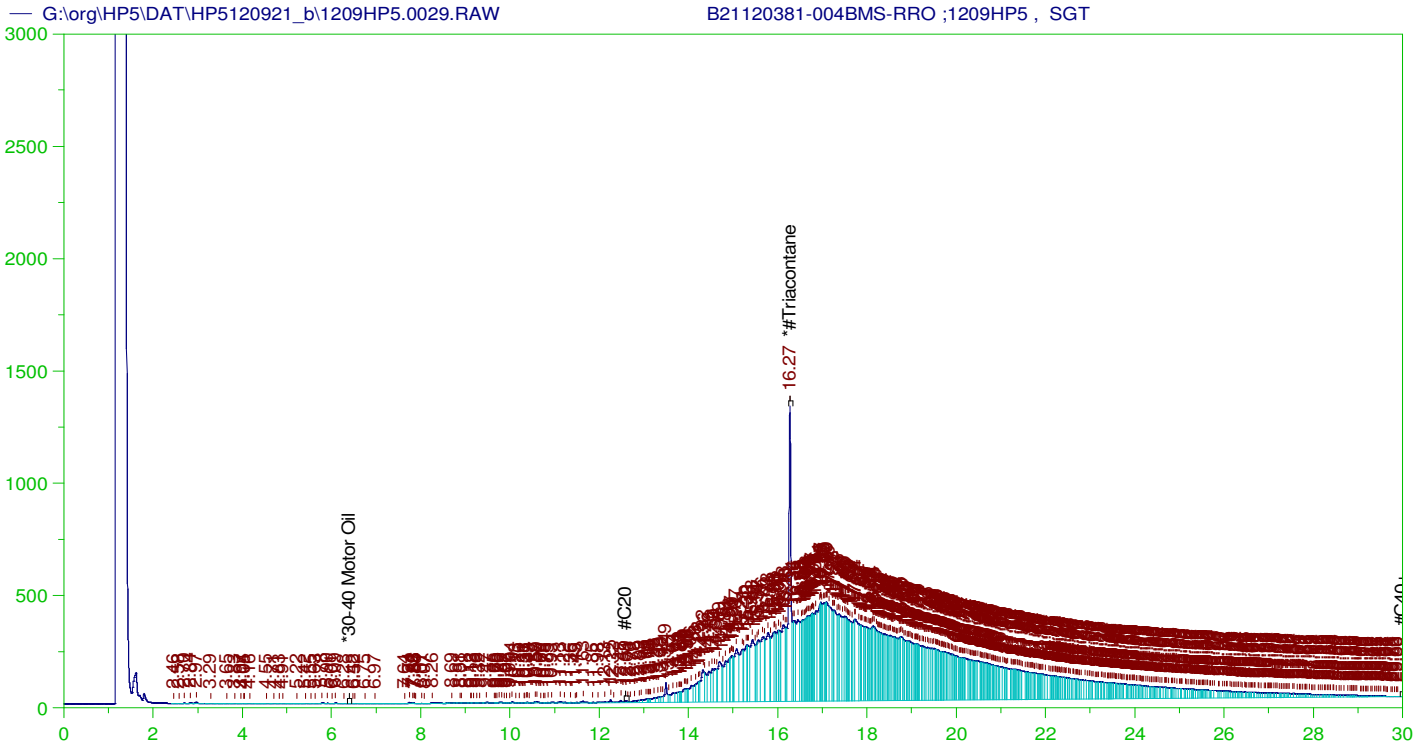
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.191	.194	.127	65.62
*1-Chlorooctadecane	13.004	.194	.106	54.64
*Triacontane	16.269	.194	.086	44.4

DRO Area: 1.338437E+07 DRO Amount: 0.4144565  
 TEH Area: 1.421696E+07 TEH Amount: 0.4402383





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-004BMS-RRO ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0029.RAW  
 Date & Time Acquired: 12/10/2021 6:45:57 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.CAL  
 Sample Weight: 1010 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: 12.56 to 30.05

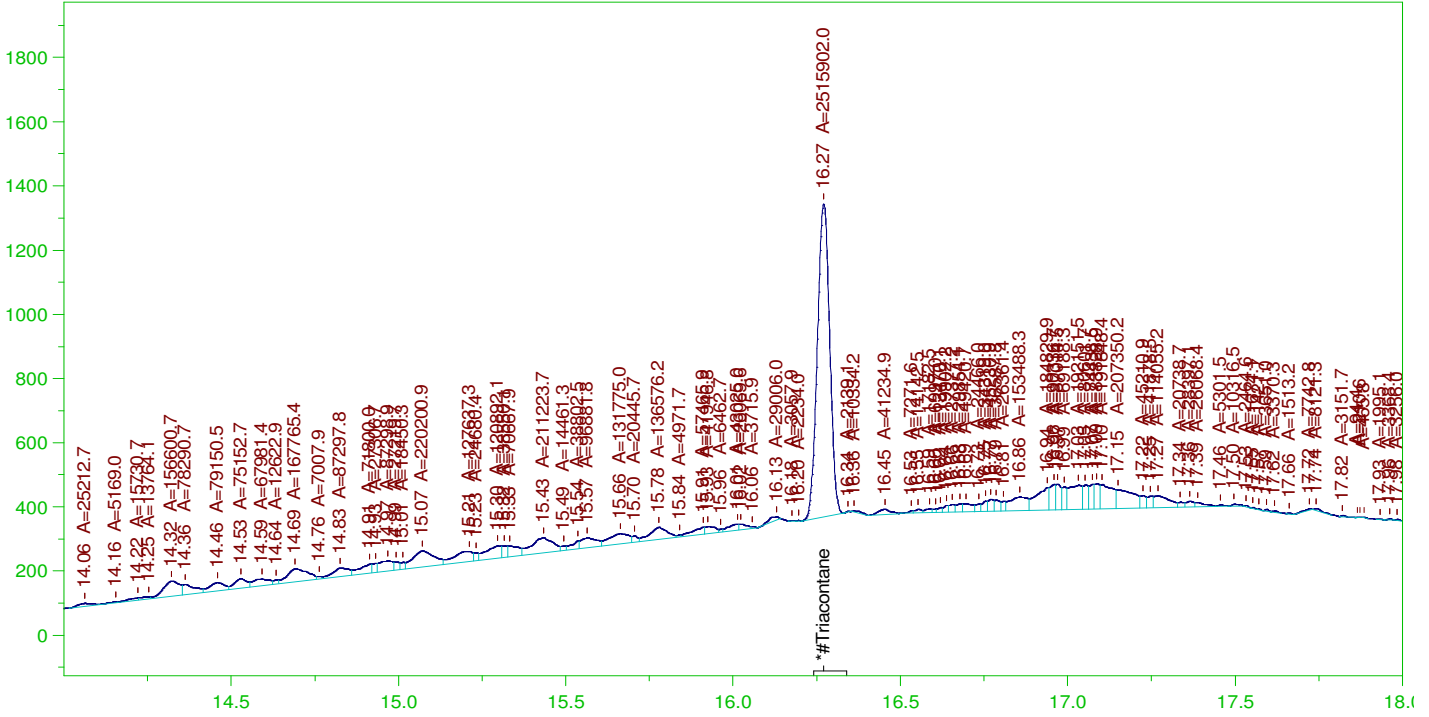
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.27	.495	.172	34.79	-

RRO TEH(Oil Range) Area:1.34651E+08 RRO TEH(Oil Range) AMOUNT: 4.670867

AMN 12/15/2021

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0029.RAW

B21120381-004BMS-RRO ;1209HP5 , SGT



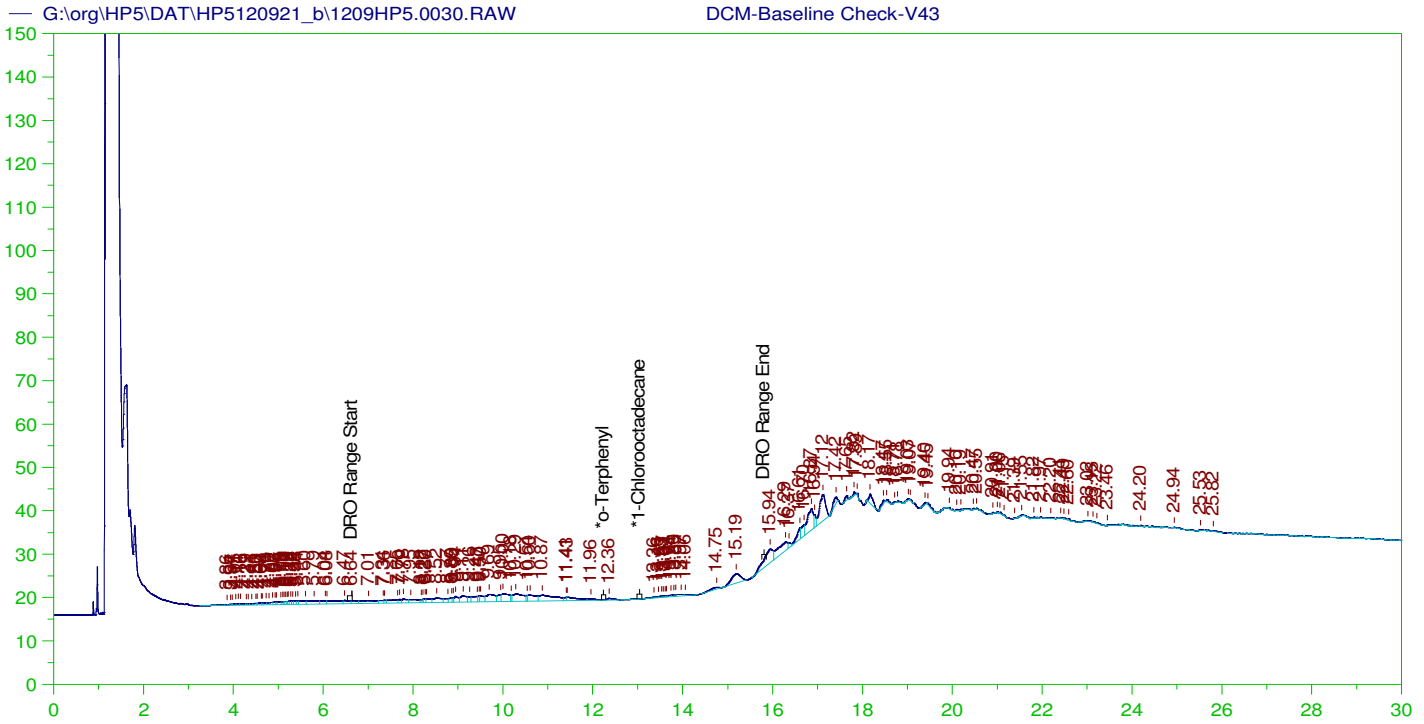
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21120381-004BMS-RRO ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0029.RAW  
 Date & Time Acquired: 12/10/2021 6:45:57 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.CAL  
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.27	.495	.086	17.39

RRO Area:5122037 RRO AMOUNT: 0.1776768



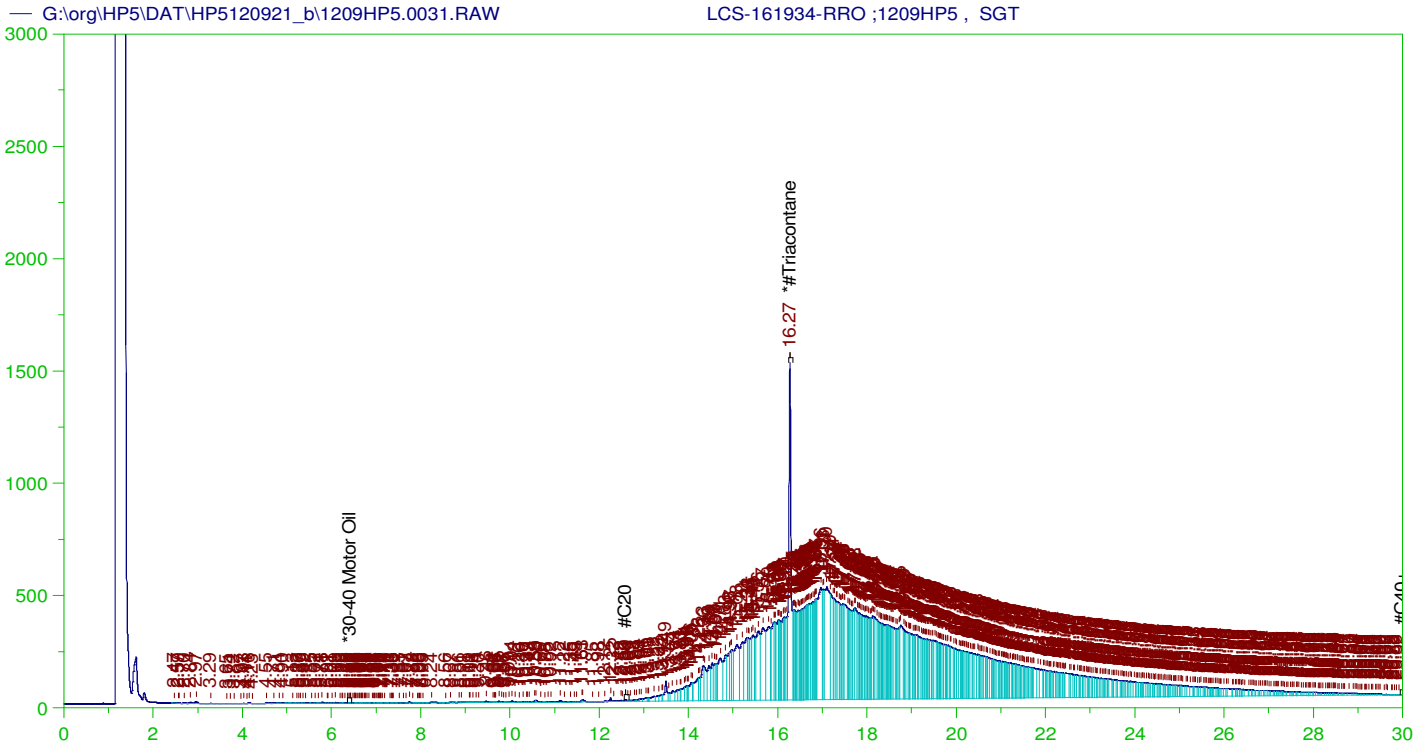
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V43  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0030.RAW  
 Date & Time Acquired: 12/10/2021 7:28:50 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	29.954	200.	.	-
*1-Chlorooctadecane	29.954	200.	.	-

DRO Area: 365828.8 DRO Amount: 11.66799  
 TEH Area: 792180.2 TEH Amount: 25.26633



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

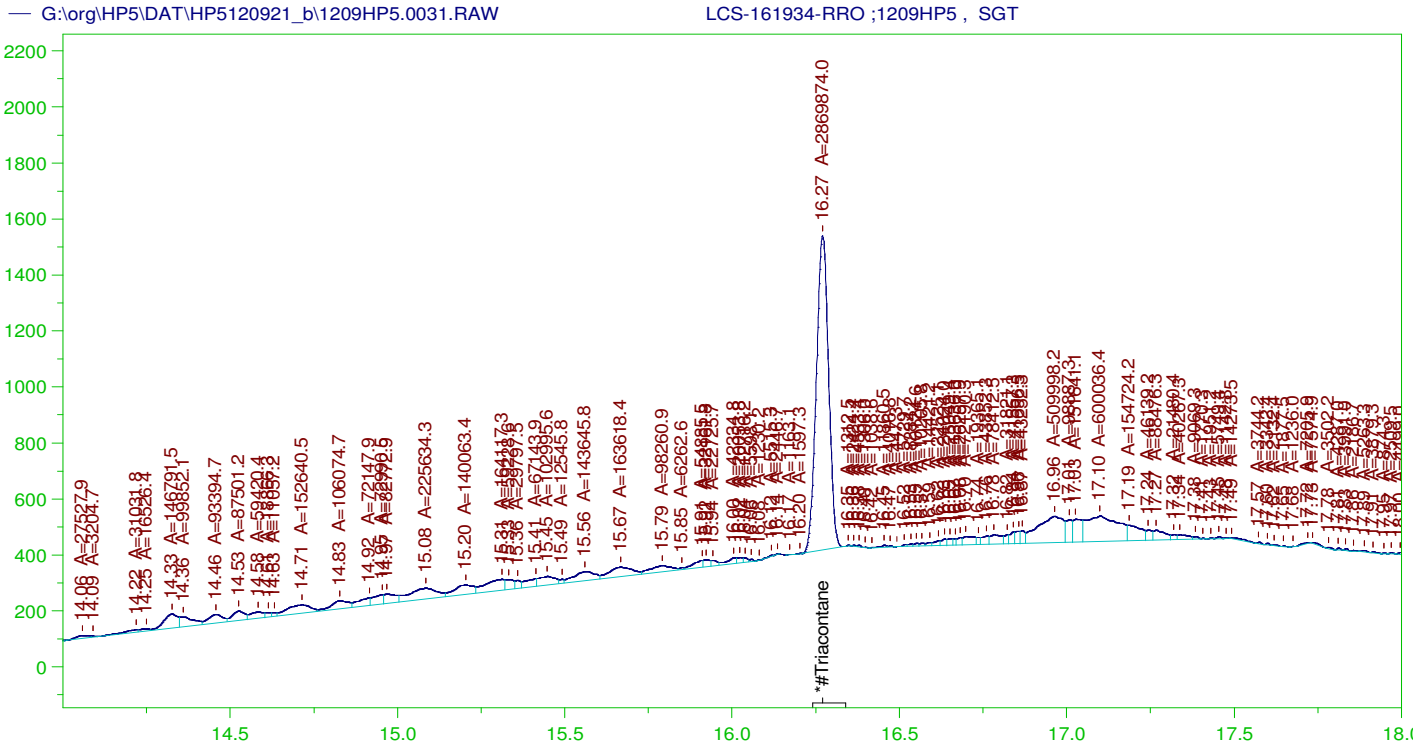
Sample Name: LCS-161934-RRO ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0031.RAW  
 Date & Time Acquired: 12/10/2021 8:11:46 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 28542.41  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.27	.5	.197	39.46

RRO TEH(Oil Range) Area:1.520153E+08 RRO TEH(Oil Range) AMOUNT: 5.325945

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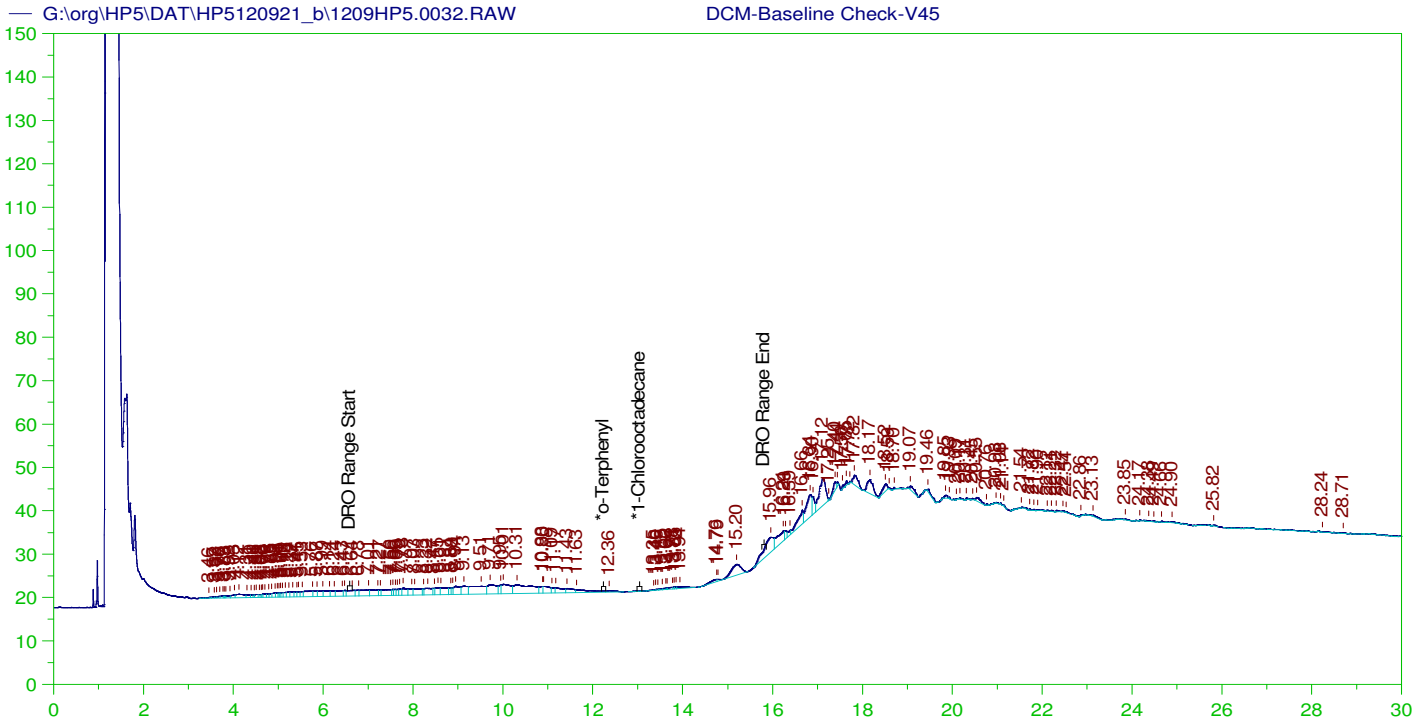
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-161934-RRO ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0031.RAW  
 Date & Time Acquired: 12/10/2021 8:11:46 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.27	.5	.099	19.84

RRO Area:5447879 RRO AMOUNT: 0.1908696



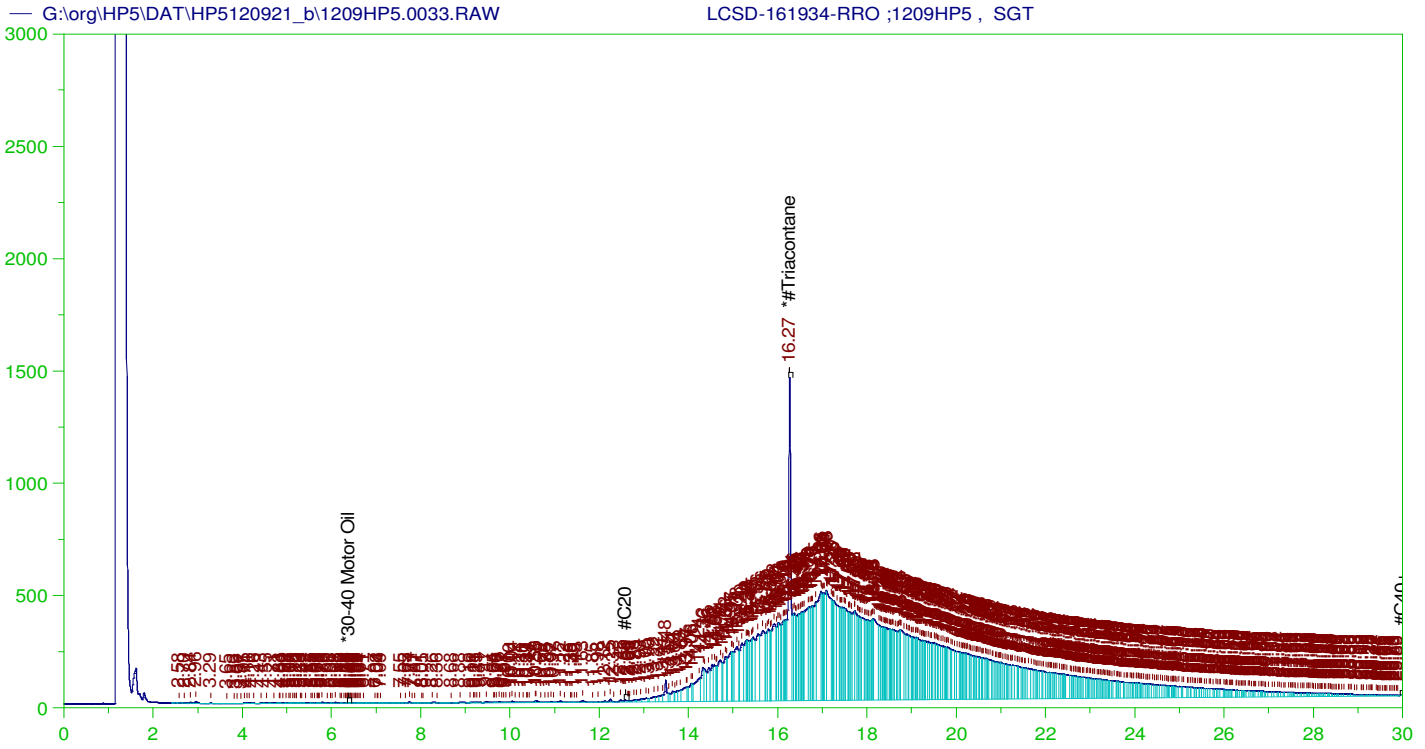
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V45  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0032.RAW  
 Date & Time Acquired: 12/10/2021 8:54:44 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	29.967	200.	.	-
*1-Chlorooctadecane	29.967	200.	.	-

DRO Area: 549841.8 DRO Amount: 17.53703  
 TEH Area: 1124329 TEH Amount: 35.86011



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCSD-161934-RRO ;1209HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0033.RAW  
 Date & Time Acquired: 12/10/2021 9:37:27 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.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: 12.56 to 30.05

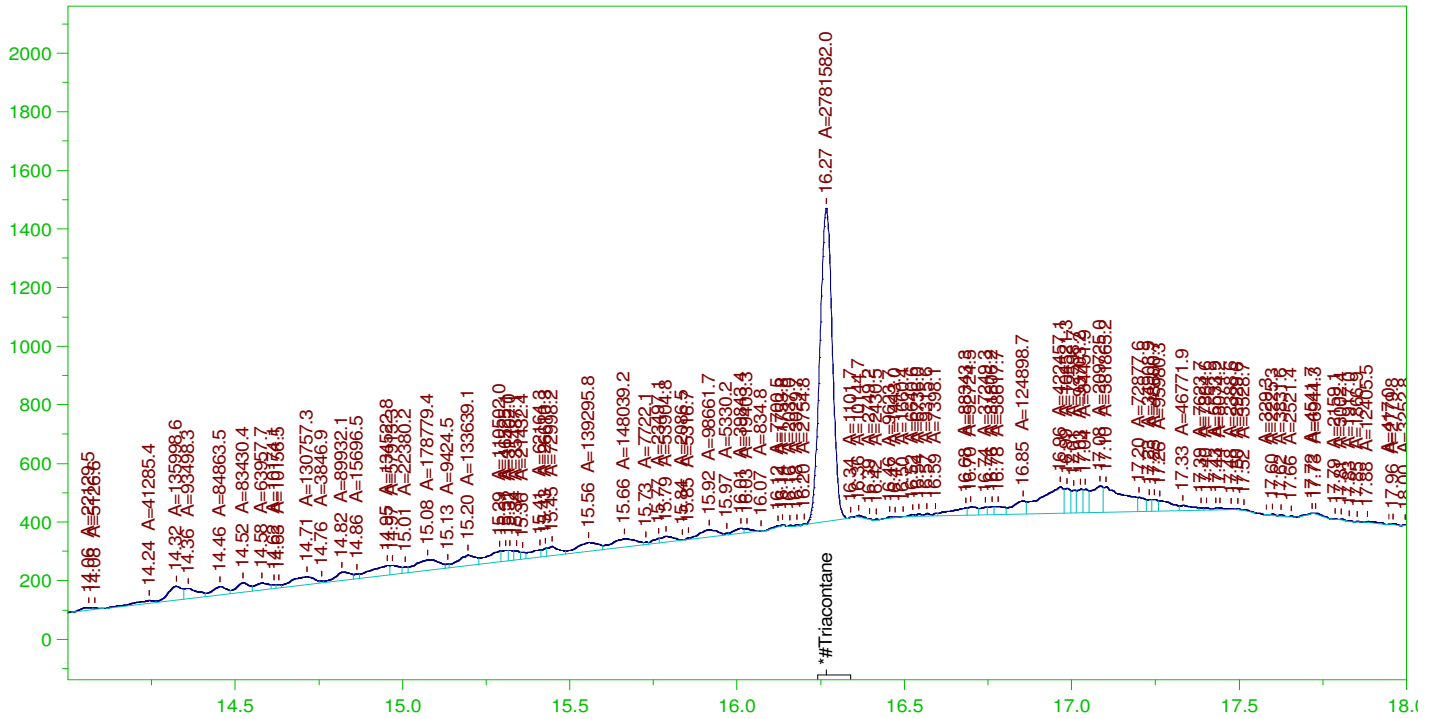
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.266	.5	.19	38.01	-

~~RRO~~ TEH(Oil Range) Area:1.47241E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 5.158675

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G:\org\HP5\DAT\HP5120921\_b\1209HP5.0033.RAW

LCSD-161934-RRO ;1209HP5 , SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

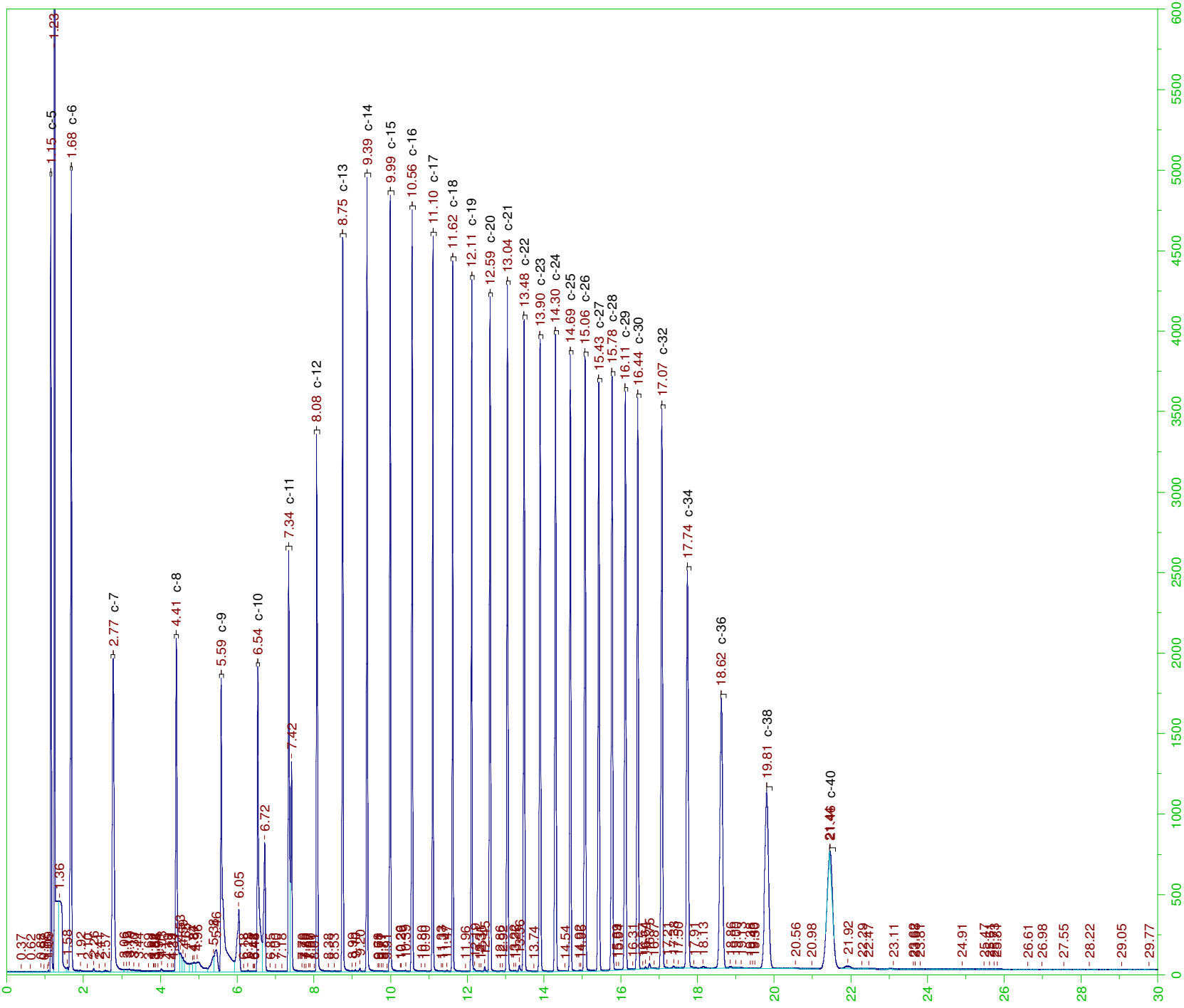
Sample Name: LCSD-161934-RRO ;1209HP5 , SGT  
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 Date & Time Acquired: 12/10/2021 9:37:27 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.266	.5	.096	19.23

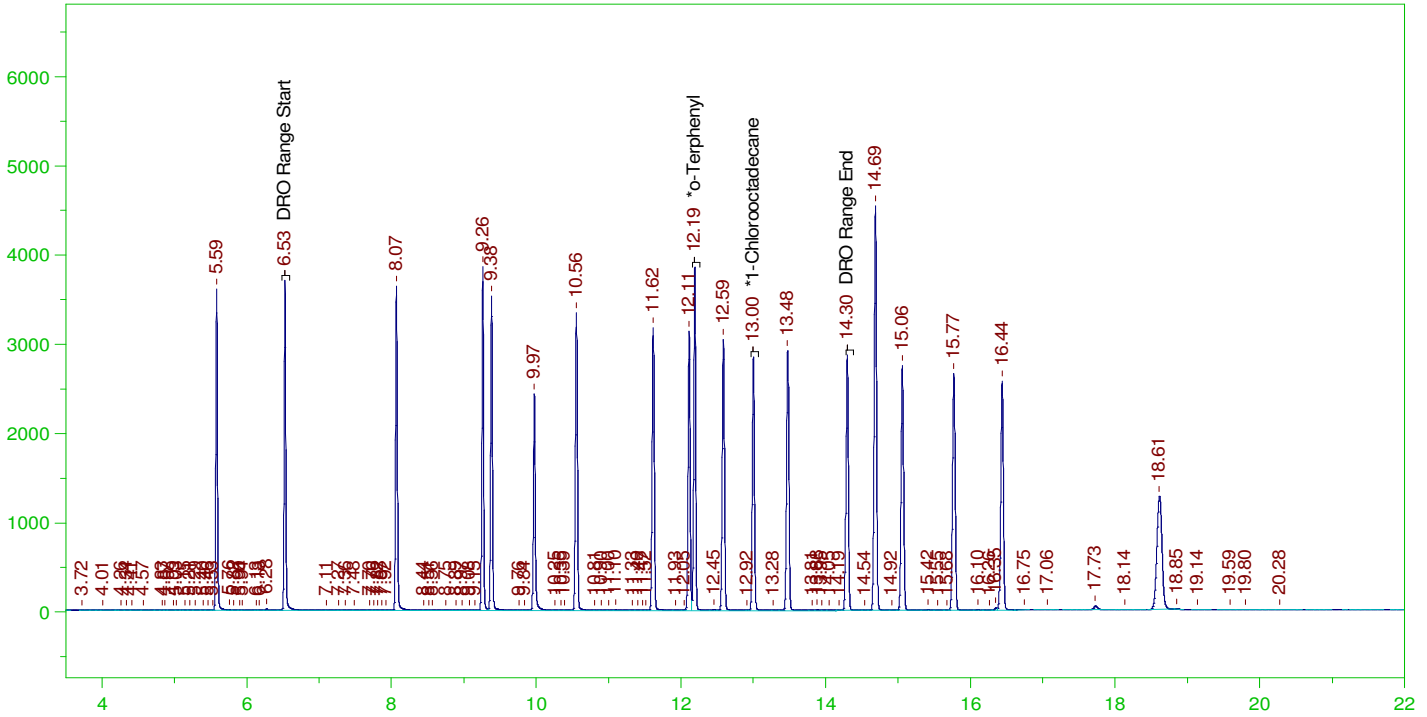
RRO Area:5047598 RRO AMOUNT: 0.1768455





G:\org\HP5\DAT\HP5120921\_b\1209HP5.0035.RAW

MARKER\_1209HP535r, DRO ;1209HP5 , DRO211203B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

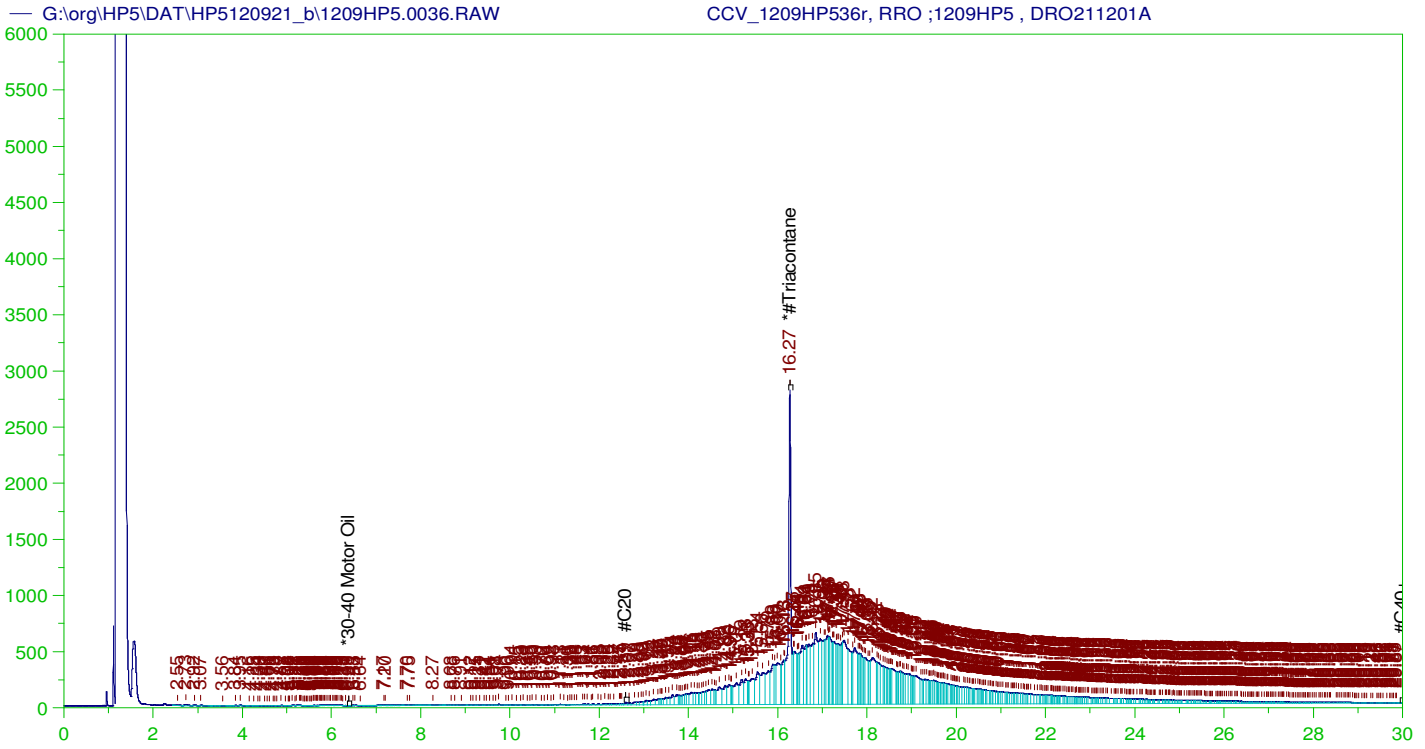
Sample Name: MARKER\_1209HP535r, DRO ;1209HP5 , DRO211203B  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0035.RAW  
 Date & Time Acquired: 12/10/2021 11:03:36 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.19	.2	.208	103.89
*1-Chlorooctadecane	13.001	.2	.168	84.07

DRO Area: 6.846754E+07 DRO Amount: 2.18375  
 TEH Area: 1.116252E+08 TEH Amount: 3.560249



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1209HP536r, RRO ;1209HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0036.RAW  
 Date & Time Acquired: 12/10/2021 11:46:35 AM  
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 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.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: 12.56 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.269	500.	357.757	71.55	-

~~RRO~~ TEH(Oil Range) Area:1.409915E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4939.72

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0036.RAW

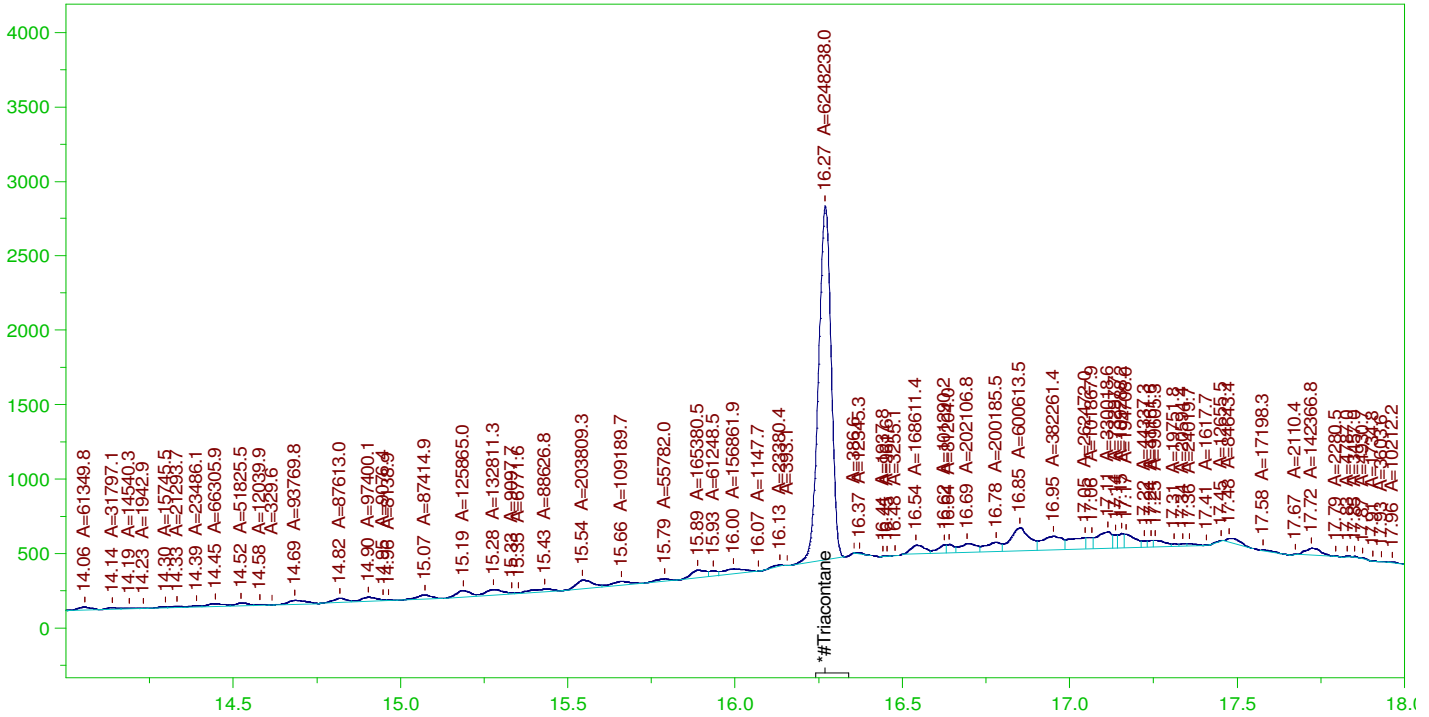
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.018	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	357.757	178.88	75-125

AMN 12/15/2021

G:\org\HP5\DAT\HP5120921\_b\1209HP5.0036.RAW

CCV\_1209HP536r, RRO ;1209HP5 , DRO211201A



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1209HP536r, RRO ;1209HP5 , DRO211201A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0036.RAW  
 Date & Time Acquired: 12/10/2021 11:46:35 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AH-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AH.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: 12.56 to 30.05

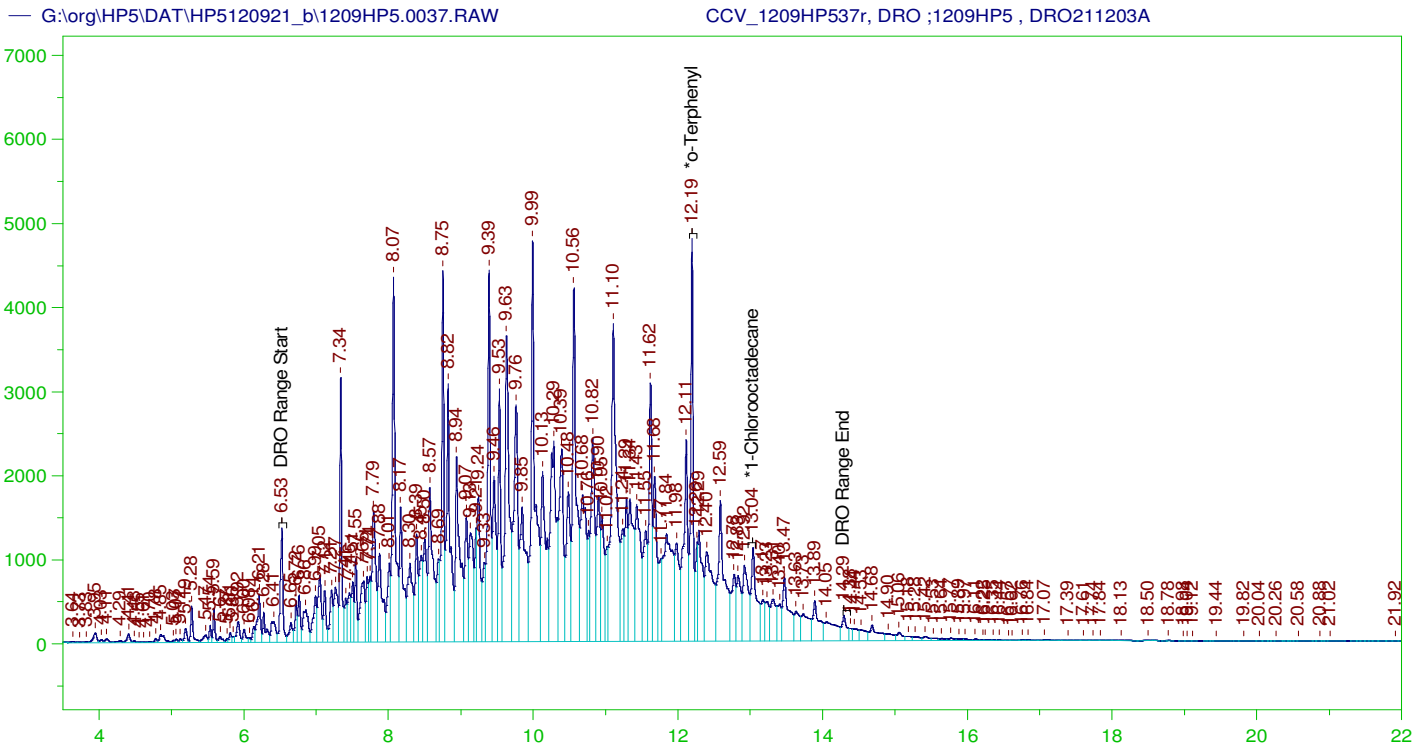
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.269	500.	215.977	43.2

RRO Area:6086241 RRO AMOUNT: 213.235

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0036.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.018	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	215.977	107.99	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1209HP537r, DRO ;1209HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0037.RAW  
 Date & Time Acquired: 12/10/2021 12:29:26 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IF-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.49 to 14.38

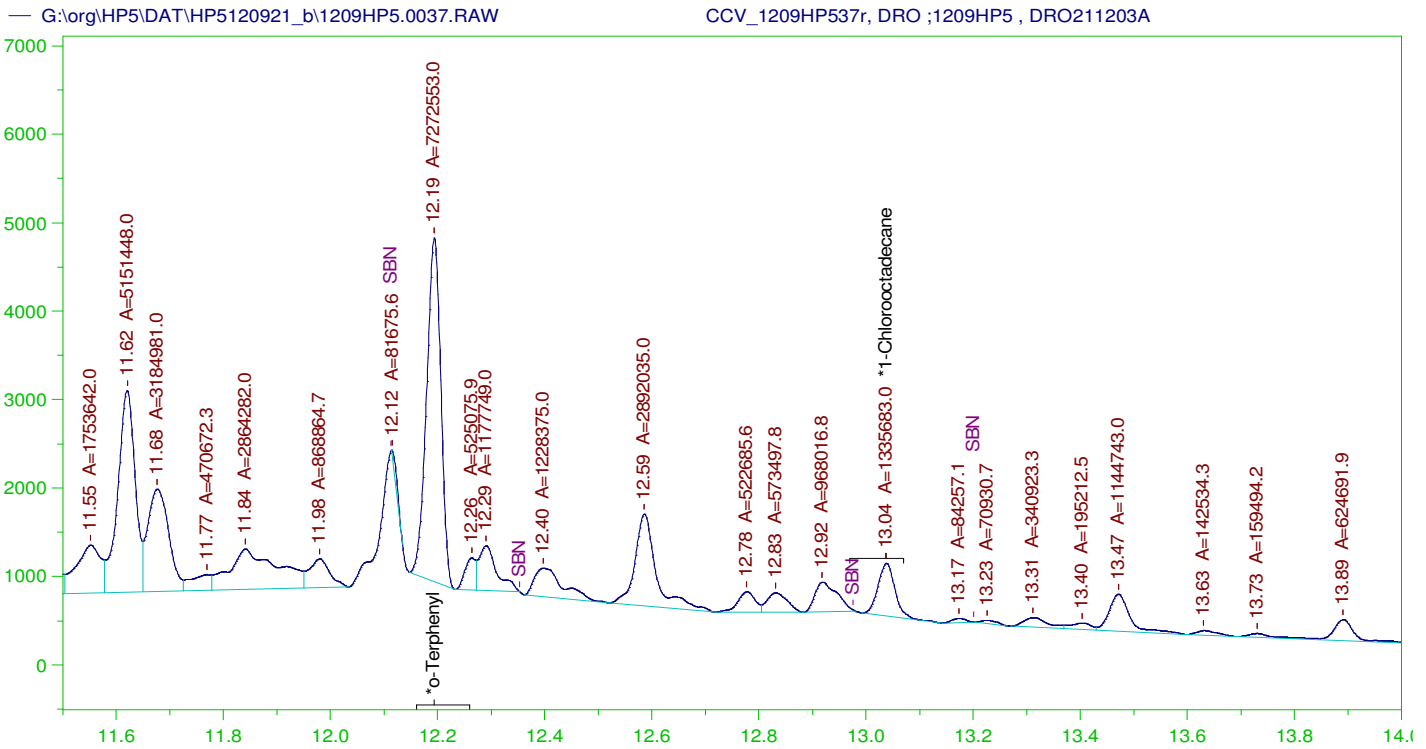
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.194	200.	337.021	168.51
*1-Chlorooctadecane	13.038	200.	160.346	80.17

DRO Area: 4.702032E+08 DRO Amount: 14996.98  
 TEH Area: 4.875477E+08 TEH Amount: 15550.18

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0037.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15550.18	103.67	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.194	200.	337.021	168.51	85-115
*1-Chlorooctadecane	13.038	200.	160.346	80.17	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1209HP537r, DRO ;1209HP5 , DRO211203A  
 Raw File: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0037.RAW  
 Date & Time Acquired: 12/10/2021 12:29:26 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-120937-IF-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IF-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.49 to 14.38

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.194	200.	204.808	102.4
*1-Chlorooctadecane	13.038	200.	37.615	18.81

DRO Area: 2.618916E+08 DRO Amount: 8352.947  
 TEH Area: 2.721743E+08 TEH Amount: 8680.911

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120921\_b\1209HP5.0037.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8680.91	57.87	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.194	200.	204.808	102.4	85-115
*1-Chlorooctadecane	13.038	200.	37.615	18.81	85-115

Write Sequence	Data File	Sample Name	Insert Entries(Have the first cell for entries selected)	Method	Weight	Dil Factor	Ampl Inj.	IS	Cal ID	Manual Integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.15		MARKER_1207HP515r_C40_1207HP5_DRO21110A		G:\org\HP5\Methods\CSC211207.met		1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.16		MARKER_1207HP516r_DRO_1207HP5_DRO211203B		G:\org\HP5\Methods\DC_8015-24-IE-L%.met	1000	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.17		CCV_1207HP517r_DRO_1207HP5_DRO21201A		G:\org\HP5\Methods\DC_ORO-AG-L%.MET G:\org\HP5\Methods\DS_ORO-AG-L%.MET		1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 16.14 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.18		CCV_1207HP518r_DRO_1207HP5_DRO21203A		G:\org\HP5\Methods\DC_8015-24-IE-L%.met G:\org\HP5\Methods\DS_8015-24-IE-L%.met		1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.16 minutes and slightly after the surrogate peak at 12.35 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.19		DCM-Baseline Check-V19		G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.20		LCS-161934_1207HP5		G:\org\HP5\Methods\D3_8015-120720-IE-L%.met G:\org\HP5\Methods\DS_8015-24-IE-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 baseline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.16 minutes and slightly after the surrogate peak at 12.35 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.21		LCS-161934_1207HP5		G:\org\HP5\Methods\D3_8015-120721-IE-L%.met G:\org\HP5\Methods\DS_8015-24-IE-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 baseline with Split placed at 13.04 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.16 minutes and slightly after the surrogate peak at 12.35 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.22		MB-161934_1207HP5		G:\org\HP5\Methods\DR_8015-C241-IE-L%.met G:\org\HP5\Methods\DR_OROS-AG-L%.MET G:\org\HP5\Methods\DS_8015-C241-IE-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 baseline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.23		B21120381-006B_1207HP5_SHC-8015-DRO-W		G:\org\HP5\Methods\D3_8015-C241-IE-L%.met G:\org\HP5\Methods\D3_OROS-AG-L%.MET G:\org\HP5\Methods\DS_8015-C241-IE-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 baseline. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.24		B21120381-007B_1207HP5_SHC-8015-DRO-W		G:\org\HP5\Methods\D3_8015-120724-IE-L%.met G:\org\HP5\Methods\D3_OROS-120724-AG-L%.MET G:\org\HP5\Methods\DS_8015-C241-IE-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 baseline with turn on integration moved to 4.48 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.25		B21120381-008B_1207HP5_SHC-8015-DRO-W_needs rr		G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1000	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.26		DCM-Baseline Check-V26		G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.27		B21120381-003A_1207HP5_SHC-8015-DRO-W		G:\org\HP5\Methods\D3_OROS-AG-L%.MET G:\org\HP5\Methods\DS_8015-C241-IE-L%.MET	990	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 baseline. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.28		B21120381-003AMS_1207HP5		G:\org\HP5\Methods\D3_8015-120720-IE-L%.met G:\org\HP5\Methods\DS_8015-24-IE-L%.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline with peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.29		DCM-Baseline Check-V29		G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.30		B21120381-004B_1207HP5_SHC-8015-DRO-W		G:\org\HP5\Methods\D3_8015-120730-IE-L%.met G:\org\HP5\Methods\D3_OROS-120730-AG-L%.MET G:\org\HP5\Methods\DS_8015-24-IE-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 the reference to the baseline and peak width adjusted. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.31		MARKER_1207HP531r_C40_1207HP5_DRO21110A		G:\org\HP5\Methods\CSC211207.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.32		MARKER_1207HP532r_DRO_1207HP5_DRO21203B		G:\org\HP5\Methods\DC_8015-24-IE-L%.met	1000	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.33		CCV_1207HP533r_DRO_1207HP5_DRO21201A		G:\org\HP5\Methods\DC_ORO-AG-L%.MET G:\org\HP5\Methods\DS_ORO-AG-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 16.14 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.34		CCV_1207HP534r_DRO_1207HP5_DRO21203A		G:\org\HP5\Methods\DC_8015-24-IE-L%.met G:\org\HP5\Methods\DS_8015-24-IE-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 baseline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.16 minutes and slightly after the surrogate peak at 12.35 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.35		DCM-Baseline Check-V35		G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.36		B21120381-008B_1207HP5_SHC-8015-DRO-W_RR		G:\org\HP5\Methods\D3_8015-C241-IE-L%.met G:\org\HP5\Methods\D3_OROS-AG-L%.MET G:\org\HP5\Methods\DS_8015-C241-IE-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 the reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.37		B21120381-005B_1207HP5_SHC-8015-DRO-W		G:\org\HP5\Methods\D3_8015-120724-IE-L%.met G:\org\HP5\Methods\D3_OROS-120724-AG-L%.MET G:\org\HP5\Methods\DS_8015-C241-IE-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 baseline with turn on integration moved to 4.48 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.38		B21120381-001A_1207HP5_SHC-8015-DRO-W_needs rr		G:\org\HP5\Methods\DR_8015-C241-IE-L0.met	1020	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.39		DCM-Baseline Check-V39		G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.40		B21120381-002A_1207HP5_SHC-8015-DRO-W		G:\org\HP5\Methods\D3_8015-120724-IE-L%.met G:\org\HP5\Methods\D3_OROS-120724-AG-L%.MET G:\org\HP5\Methods\DS_8015-C241-IE-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 baseline with turn on integration moved to 4.48 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.

G:\org\HP5\DAT\HP5120721_b1207HP5.41	B21120396-001B ;1207HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-120724-IE-L%.met G:\Org\HP5\Methods\D3_OROS-120724-AG-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IE-L%.MET	960	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 baseline with turn on integration moved to 4-48 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.42	B21120381-004BMS-RR0 ;1207HP5 ,	G:\Org\HP5\Methods\D3_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-L%.MET	1010	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline 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 15-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.43	DCM-Baseline Check-V43	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.44	LCS-161934-RR0 ;1207HP5 ,	G:\Org\HP5\Methods\D3_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-L%.MET	1000	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline 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 15-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.45	DCM-Baseline Check-V45	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.46	LCS-161934-RR0 ;1207HP5 ,	G:\Org\HP5\Methods\D3_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-L%.MET	1000	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline 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 15-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.47	MARKER_1207HP547r_C40 ;1207HP5_DRO21110A	g:\org\HP5\Methods\CS_C211207.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.48	MARKER_1207HP548r_DRO ;1207HP5_DRO211203B	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.49	CCV_1207HP549r_DRO ;1207HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline 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 15-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.50r	CCV_1207HP550r_DRO ;1207HP5 , DRO211203A	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met G:\Org\HP5\Methods\DS_8015-24-IE-L%.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.16 minutes and slightly after the surrogate peak at 12.35 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.51	DCM-Baseline Check-V51	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.52r	B21120381-001A ;1207HP5 , \$HC-8015-DRO-W, RR	G:\Org\HP5\Methods\D3_8015-120724-IE-L%.met G:\Org\HP5\Methods\D3_OROS-120724-AG-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IE-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 baseline with turn on integration moved to 4-48 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.53r	MARKER_1207HP563r_C40 ;1207HP5_DRO21110A	g:\org\HP5\Methods\CS_C211207.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.54r	MARKER_1207HP564r_DRO ;1207HP5_DRO211203B	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120721_b1207HP5.55r	CCV_1207HP565r_DRO ;1207HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline 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 15-18 minutes.
G:\org\HP5\DAT\HP5120721_b1207HP5.56r	CCV_1207HP566r_DRO ;1207HP5 , DRO211203A	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met G:\Org\HP5\Methods\DS_8015-24-IE-L%.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.16 minutes and slightly after the surrogate peak at 12.35 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.

*Ann Nebel*

Digitally signed by  
Ann Nebel  
Date: 2021.12.15 14:20:15 -07:00





G:\org\HP5\DAT\HP5120921_b1209HP5.25r	B21120381-001A ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-IF-L%.met G:\Org\HP5\Methods\DR_OROS-AH-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IF-L%.MET	1020	1	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 baseline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120921_b1209HP5.26r G:\org\HP5\DAT\HP5120921_b1209HP5.27r	DCM-Baseline Check-V26 B21120396-001B ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met G:\Org\HP5\Methods\DR_8015-C24T-IF-L%.met G:\Org\HP5\Methods\DR_OROS-AH-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IF-L%.MET	960	1	1	1	1	0	No integrations The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120921_b1209HP5.28r	B21120381-002A ;1209HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-IF-L%.met G:\Org\HP5\Methods\DR_OROS-AH-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IF-L%.MET	1030	1	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 baseline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.08 minutes and 16.18 minutes and slightly after the surrogate peaks at 12.52 and 16.53 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5120921_b1209HP5.29r	B21120381-004BMS-RRO ;1209HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-AH-L%.MET G:\Org\HP5\Methods\DS_ORO-AH-L%.MET	1010	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline 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 15-18 minutes.
G:\org\HP5\DAT\HP5120921_b1209HP5.30r G:\org\HP5\DAT\HP5120921_b1209HP5.31r	DCM-Baseline Check-V30 LCS-161934-RRO ;1209HP5 , SGT	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met G:\Org\HP5\Methods\D3_ORO-AH-L%.MET G:\Org\HP5\Methods\DS_ORO-AH-L%.MET	1000	1	1	1	1	0	No integrations The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline 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 15-18 minutes.
G:\org\HP5\DAT\HP5120921_b1209HP5.32r G:\org\HP5\DAT\HP5120921_b1209HP5.33r	DCM-Baseline Check-V32 LCS-161934-RRO ;1209HP5 , SGT	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met G:\Org\HP5\Methods\D3_ORO-AH-L%.MET G:\Org\HP5\Methods\DS_ORO-AH-L%.MET	1000	1	1	1	1	0	No integrations The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline 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 15-18 minutes.
G:\org\HP5\DAT\HP5120921_b1209HP5.34r G:\org\HP5\DAT\HP5120921_b1209HP5.35r	MARKER_1209HP534r, C40 ;1209HP5 , DRO211207A MARKER_1209HP535r, DRO ;1209HP5 , DRO211203B	G:\org\HP5\Methods\CSC211209.met G:\Org\HP5\Methods\DC_8015-24-IF-L%.met	1000	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120921_b1209HP5.36r	CCV_1209HP536r, RRO ;1209HP5 , DRO211201A	G:\Org\HP5\Methods\DC_ORO-AH-L%.MET G:\Org\HP5\Methods\DS_ORO-AH-L%.MET	1	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline 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 15-18 minutes.
G:\org\HP5\DAT\HP5120921_b1209HP5.37r	CCV_1209HP537r, DRO ;1209HP5 , DRO211203A	G:\Org\HP5\Methods\DC_8015-24-IF-L%.met G:\Org\HP5\Methods\DS_8015-24-IF-L%.met	1	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 baseline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.16 minutes and slightly after the surrogate peak at 12.35 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.

*Ann Nebel*

Digitally signed by  
Ann Nebel  
Date: 2021.12.15 14:20:31 -07:00

# Energy Laboratories Inc

# Spike LOG

Standard ID: DRO211101A  
Standard Name: OTP-4000 ug/mL DCM  
Date Prepared: 11/1/2021  
Date Expires: 9/30/2024  
Department: dropr  
Vendor:  
Lot Number:  
Balance ID: BAL-DRO  
Comments: Used to Prep DRO-8015 ICAL and CCV Solutions

Type: Secondary  
BY: Ann Nebel  
Status: Open

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC328	14408	25	mL	8/19/

**Final Volume:** 25 mL

Stock Source

DRO200430B O-Terphenyl

**Base Units**

ug/mL

**Amount Added**

0.1012 g

Analtes

A O-Terphenyl

**CAS**

84-15-1

Conc:

**ug/mL**

4000

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO200430B  
Standard Name: O-Terphenyl  
Date Prepared: 4/30/2020  
Date Expires: 9/30/2024  
Department: dropr  
Vendor: Chemservice  
Lot Number: 9972100  
Balance ID:  
Comments: ID#: 6271

Type: Neat  
BY: Ann Nebel  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	12650	500	mg	9/30/

Final Volume: mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**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](mailto:info@chemservice.com) • [www.chemservice.com](http://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

Energyl Laboratories Inc 1120 So. 27th Street  
Billings MT 59107

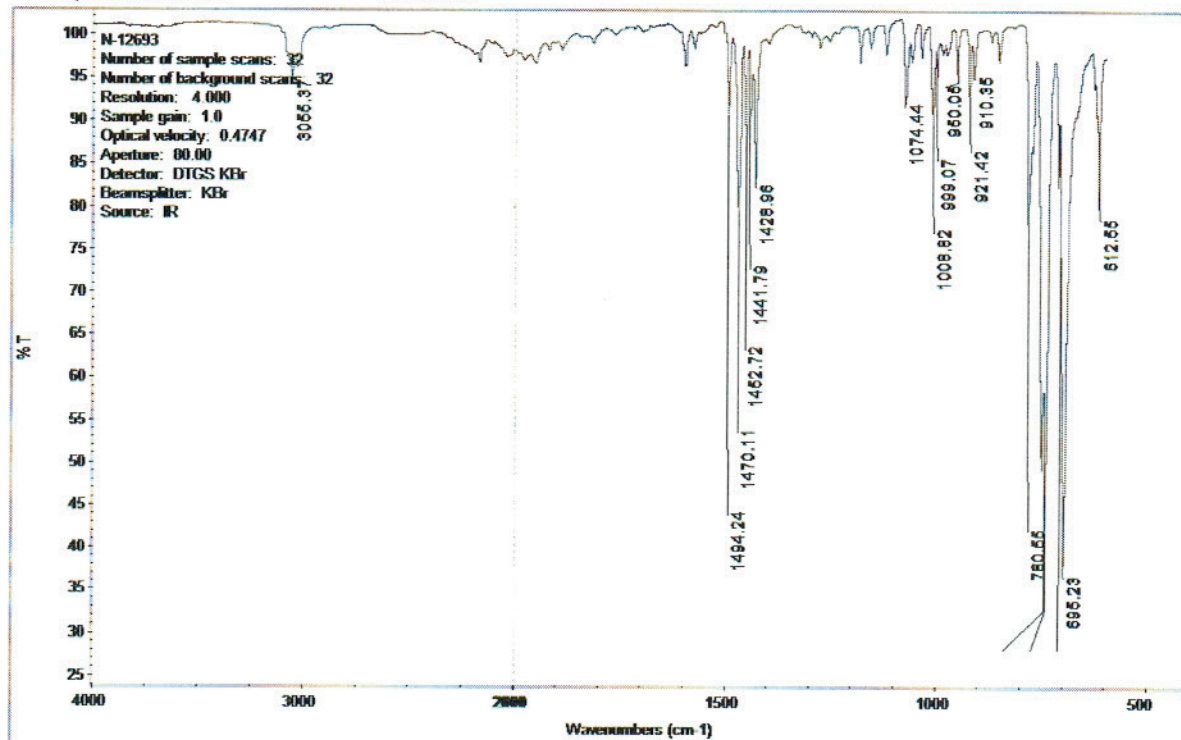
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015





## 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

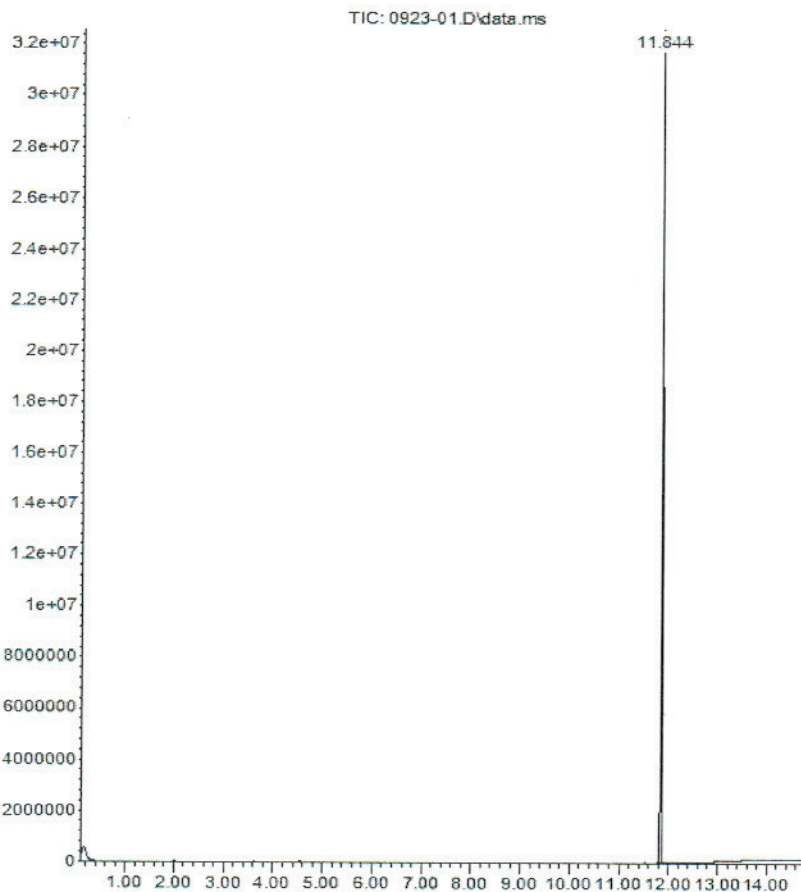
ERIN.M Mon Sep 23 10:55:51 2019

## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24

Abundance



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



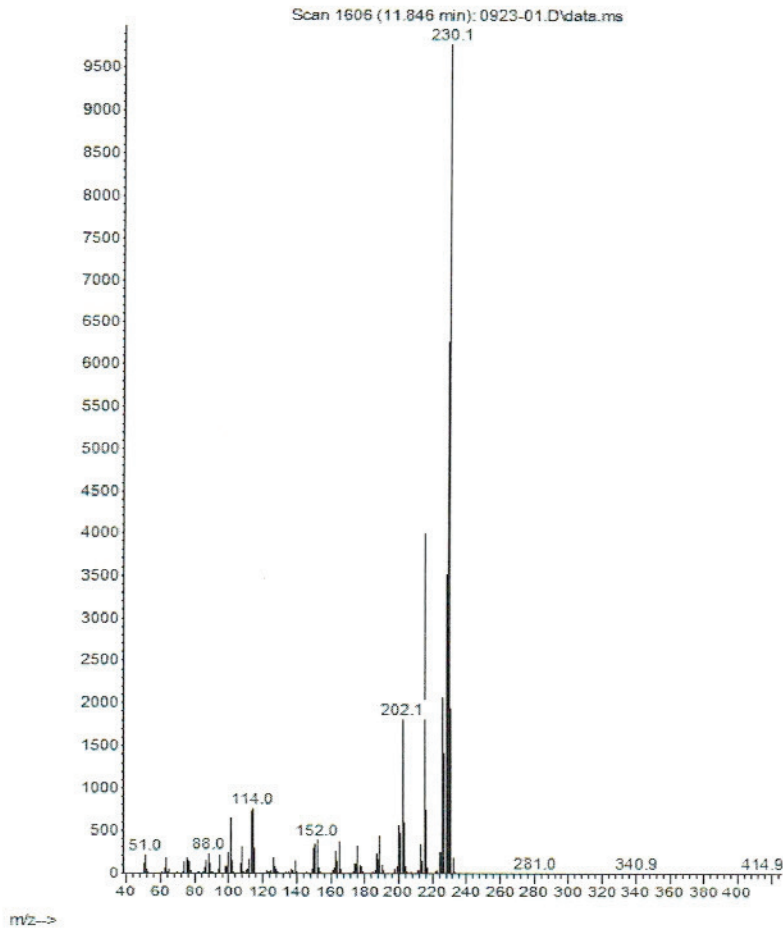


## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24

Abundance



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015.



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](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



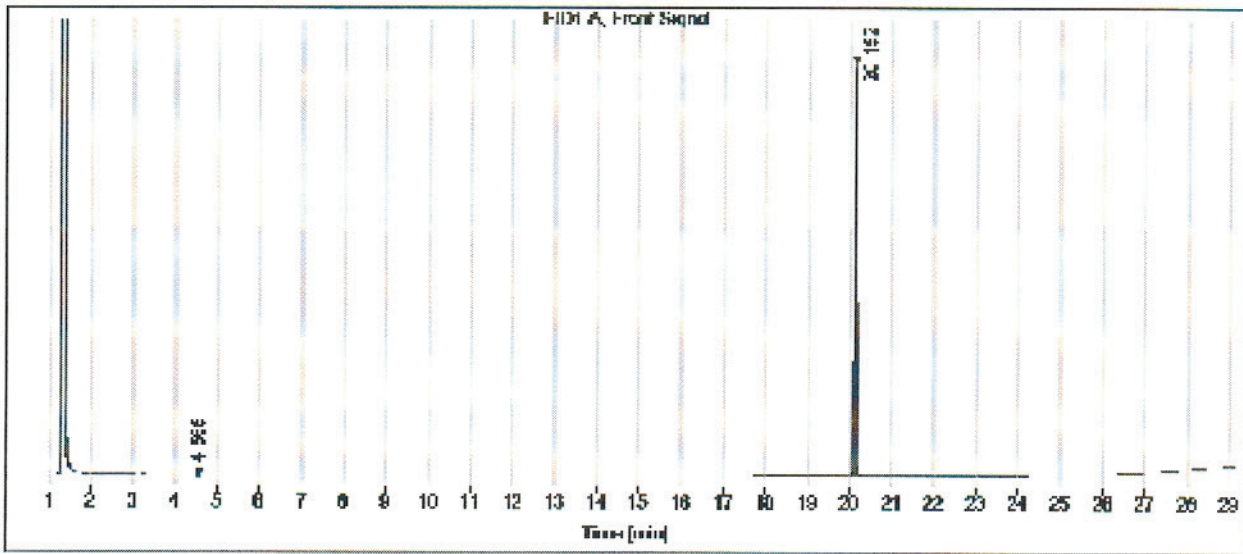
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

Gas

Data file: C:\CHEM3\  
 Sample name: N-12893  
 Instrument: GC 2  
 Injection date: 8/23/2019 9:58:34 AM  
 Acq. method: SCREEN.M  
 Column name: HP-5

## CERTIFICATE OF ANALYSIS

Location: Vial 141  
 Injection volume: 1.0uL



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		

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO211012A  
Standard Name Diesel Fuel #2 50,000 ug/mL in DCM  
Date Prepared 10/12/2021  
Date Expires: 4/30/2023  
Department dropr  
Vendor: Sigma-Aldrich  
Lot Number: LRAC6316  
Balance ID:  
Comments: Diesel Fuel #2 For CCVs.

Type: Primary  
BY: Ann Nebel  
Status: New

---

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**

**Analtes**

**CAS**

Conc: ug/mL

Diesel Fuel #2

0

# Certificate of Analysis

Certified  
Reference  
Material

Diesel Fuel No. 2

## 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

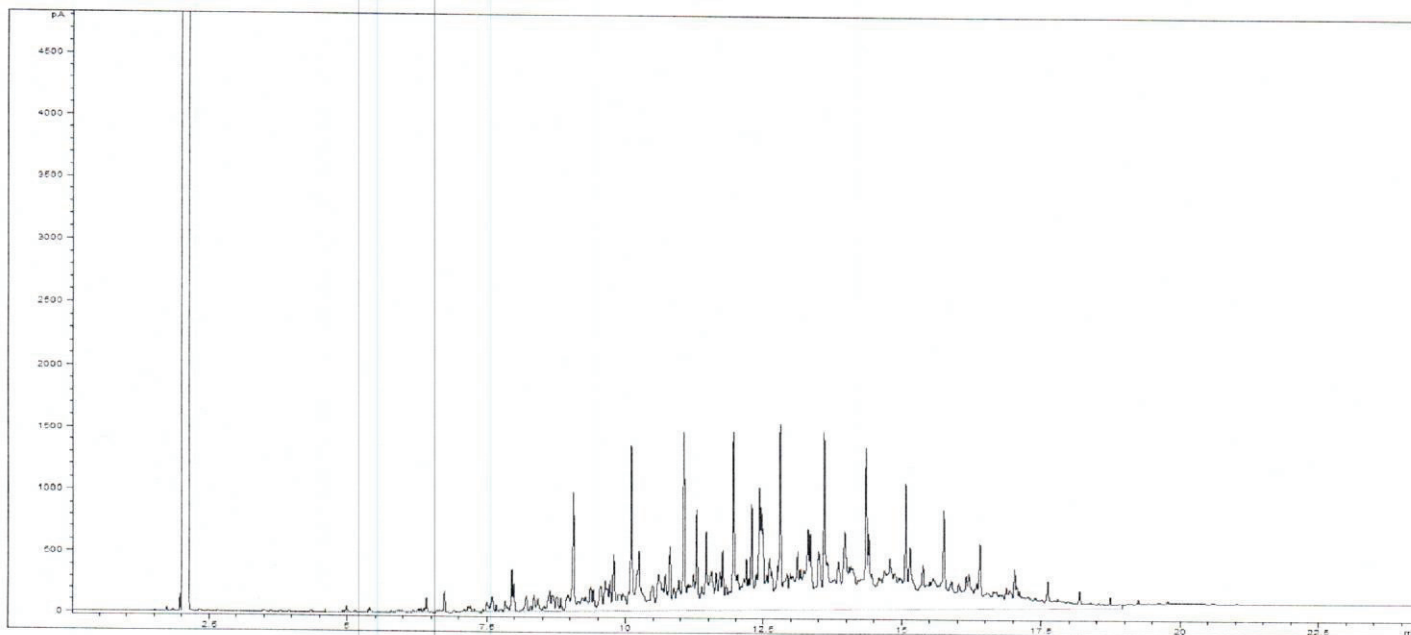
Rec'd: 10/12/2021

Energy Laboratories Inc 1120 So. 27th Street  
Billings MT 59107

## Certified Values

Analyte	Certified Value <sup>1,4</sup>	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: H<sub>2</sub>, 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



**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:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

**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.

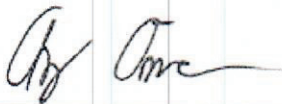
**Traceability:** The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual 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.

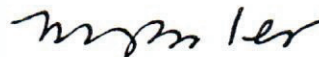
Expiration is at end of month given on certificate and label.

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



# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO180918C  
Standard Name: 50,000 ug/mL Oil Std For AK103 RRO-In DC  
Date Prepared: 9/18/2018  
Date Expires: 8/31/2025  
Department: dropr  
Vendor: Restek  
Lot Number: A0140080  
Balance ID: Sartorius 4 place balance

Type: Primary  
BY: Ann Nebel  
Status: Open

Comments:

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Residual Range Calibration Standard	10787	1	mL	8/31/

**Final Volume:** 1 mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**CAS**

Conc: **ug/mL**



# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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) CAS # 64742-65-0.F (Lot A0126386) Purity ----%	50,113.0 µg/mL	+/- 293.4226	µg/mL	Gravimetric
			+/- 1,492.4284	µg/mL	Unstressed
			+/- 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

Energyl Laboratories Inc 1120 So. 27th Street  
Billings MT 59107



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

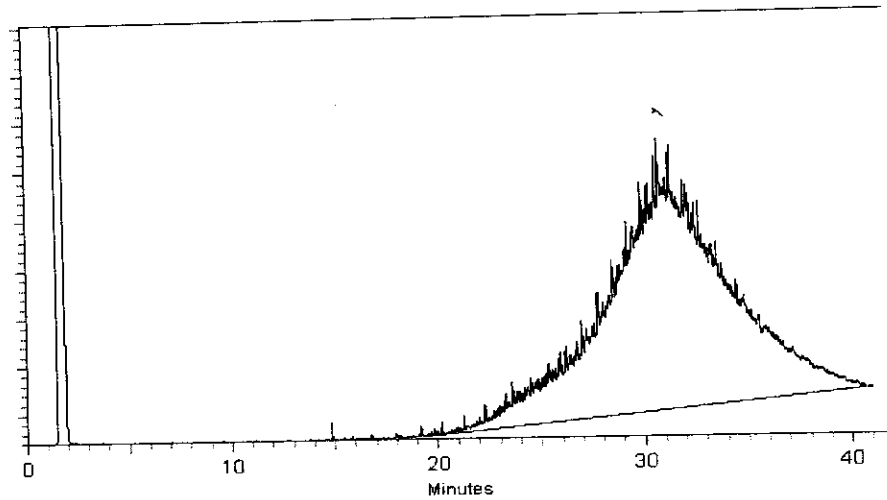
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**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*  
Brandon Reish - Mix Technician

Date Mixed: 28-Jul-2018

Balance: B345965662

*Diane Shaffer*  
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  
Date Prepared: 10/6/2021  
Date Expires: 4/6/2026  
Department: dropr  
Vendor:  
Lot Number:  
Balance ID: BAL-DRO  
Comments: Triacontane SURR 2000 ug/mL

Type: Secondary  
BY: Jillian L Bostwick  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	50	mL	7/22/

**Final Volume:** 50 mL

**Stock Source**  
DRO210406A Triacontane-d62 Surr For AK103 RRO

**Base Units**  
ug/mL

**Amount Added**  
0.1001 g

**Analtes**  
A Triacontane-d62

**CAS**

Conc: **ug/mL**  
2000

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO210406A  
Standard Name: Triacontane-d62 Surr For AK103 RRO  
Date Prepared: 4/6/2021  
Date Expires: 4/6/2026  
Department: dropr  
Vendor: Sigma-Aldrich  
Lot Number: MBBC4347  
Balance ID:  
Comments: Alaska surr [for AK103 RRO]

Type: Neat  
BY: Ann Nebel  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Triacontane-d62-98 atom % D	13736		mL	4/6/2026

Final Volume: mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**CAS**

Conc: ug/mL

A Triacontane-d62

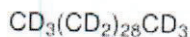
1

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

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: \_\_\_\_\_

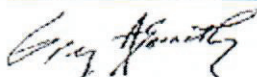
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

Energx 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

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO211012B  
 Standard Name: #2 Diesel in Acetone 150,000 ug/mL  
 Date Prepared: 10/12/2021  
 Date Expires: 11/5/2023  
 Department: dropr  
 Vendor:  
 Lot Number:  
 Balance ID: BAL-DRO  
 Comments: #2 Diesel in Acetone 150,000 ug/mL.

Type: Secondary  
 BY: Ann Nebel  
 Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone EA662	14050	25	mL	1/7/2

**Final Volume:** 25 mL

**Stock Source**

DRO181105A #2 Diesel (NEAT)

**Base Units**

ug/mL

**Amount Added**

3.7507 g

**Analtes**

A #2 Diesel

**CAS**

68476-34-6

Conc:

**ug/mL**

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 Station 1240 S. 27th Billings, MT) 2nd Source

---

<u>Stock Source</u>	<u>Base Units</u>	<u>Final Volume:</u>	<u>Amount Added</u>
<u>Analvtes</u>	<u>CAS</u>	250 mL	
A #2 Diesel	68476-34-6	Conc:	ug/mL 1

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO210217A  
 Standard Name: 20,000 ug/mL Oil Std For AK103 RRO-In DC  
 Date Prepared: 2/17/2021  
 Date Expires: 8/23/2021  
 Department: dropr  
 Vendor:  
 Lot Number:  
 Balance ID: Sartorius 4 place balance  
 Type: Secondary  
 BY: Ann Nebel  
 Status: Expired  
 Comments:

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EA342	13510	25	mL	11/17

**Final Volume:** 25 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
DRO160823C 30W Motor Oil-Valvoline	ug/mL	0.2501 g
DRO160823D 40W Motor Oil-Valvoline	ug/mL	0.2527 g

<u>Analtes</u>	<u>CAS</u>	<u>Conc:</u>	<u>ug/mL</u>
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  
 Date Prepared: 8/23/2016  
 Date Expires: 8/23/2021  
 Department: dropr  
 Vendor:  
 Lot Number:  
 Balance ID:  
 Comments: Used to make 2nd Source Standard for AK103 method.

Type: Primary  
 BY: Todd C Cooper  
 Status: Expired

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

Analtes

CAS

Conc: ug/mL

A 30W-Motor oil

1



# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO160823D  
 Standard Name: 40W Motor Oil-Valvoline  
 Date Prepared: 8/23/2016  
 Date Expires: 8/23/2021  
 Department: dropr  
 Vendor:  
 Lot Number:  
 Balance ID:

Type: Primary  
 BY: Todd C Cooper  
 Status: Expired

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**

Analtes

**CAS**

Conc: ug/mL

A 40W-Motor oil

1

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO211203A  
 Standard Name: 8015 CCV-15,000ug/mL + 200 OTP  
 Date Prepared: 12/3/2021  
 Date Expires: 4/30/2023  
 Department: dropr  
 Vendor:  
 Lot Number:  
 Balance ID:  
 Comments: 8015DRO CCV MIX-15,000ug/mL +200 OTP #2 Diesel

Type: Secondary  
 BY: Ann Nebel  
 Status: Empty/Disposed

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC735	14518	2.6	mL	10/14

**Final Volume:** 4 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
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

<u>Analtes</u>	<u>CAS</u>	<u>Conc:</u>	<u>ug/mL</u>
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  
Date Prepared: 11/2/2021  
Date Expires: 4/30/2023  
Department: dropr  
Vendor: Sigma-Aldrich  
Lot Number: LRAC6316  
Balance ID:  
Comments: Diesel Fuel #2 For CCVs.

Type: Primary  
BY: Ann Nebel  
Status: New

---

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**

**Analtes**

**CAS**

Conc: ug/mL

Diesel Fuel #2

0

# 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

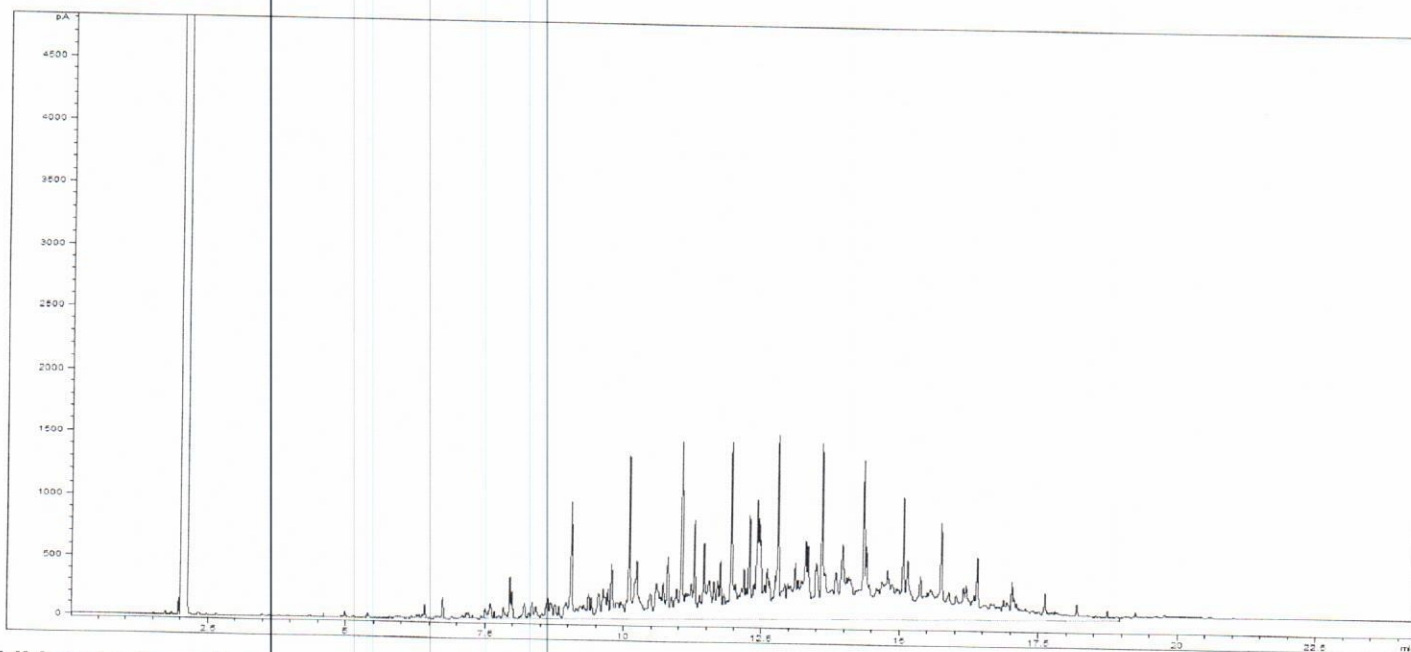
Rec'd: 11/2/2021

Energex Laboratories Inc 1120 So. 27th Street  
Billings MT 59107

## Certified Values

Analyte	Certified Value <sup>1,4</sup>	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: H<sub>2</sub>, 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



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:**

$$u_{CRM} = \sqrt{u_{char}^2 + u_{homogeneity}^2 + u_{stability}^2}$$

**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.

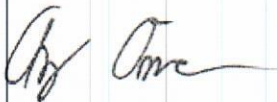
**Traceability:** The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual 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



# Energy Laboratories Inc

# Spike LOG

Standard ID: DRO211101A  
Standard Name: OTP-4000 ug/mL DCM  
Date Prepared: 11/1/2021  
Date Expires: 9/30/2024  
Department: dropr  
Vendor:  
Lot Number:  
Balance ID: BAL-DRO  
Comments: Used to Prep DRO-8015 ICAL and CCV Solutions

Type: Secondary  
BY: Ann Nebel  
Status: Open

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC328	14408	25	mL	8/19/

**Final Volume:** 25 mL

Stock Source

DRO200430B O-Terphenyl

**Base Units**

ug/mL

**Amount Added**

0.1012 g

Analtes

A O-Terphenyl

**CAS**

84-15-1

Conc:

**ug/mL**

4000

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO200430B  
Standard Name: O-Terphenyl  
Date Prepared: 4/30/2020  
Date Expires: 9/30/2024  
Department: dropr  
Vendor: Chemservice  
Lot Number: 9972100  
Balance ID:  
Comments: ID#: 6271

Type: Neat  
BY: Ann Nebel  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	12650	500	mg	9/30/

Final Volume: mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**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](mailto:info@chemservice.com) • [www.chemservice.com](http://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 C<sub>18</sub>H<sub>14</sub>  
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

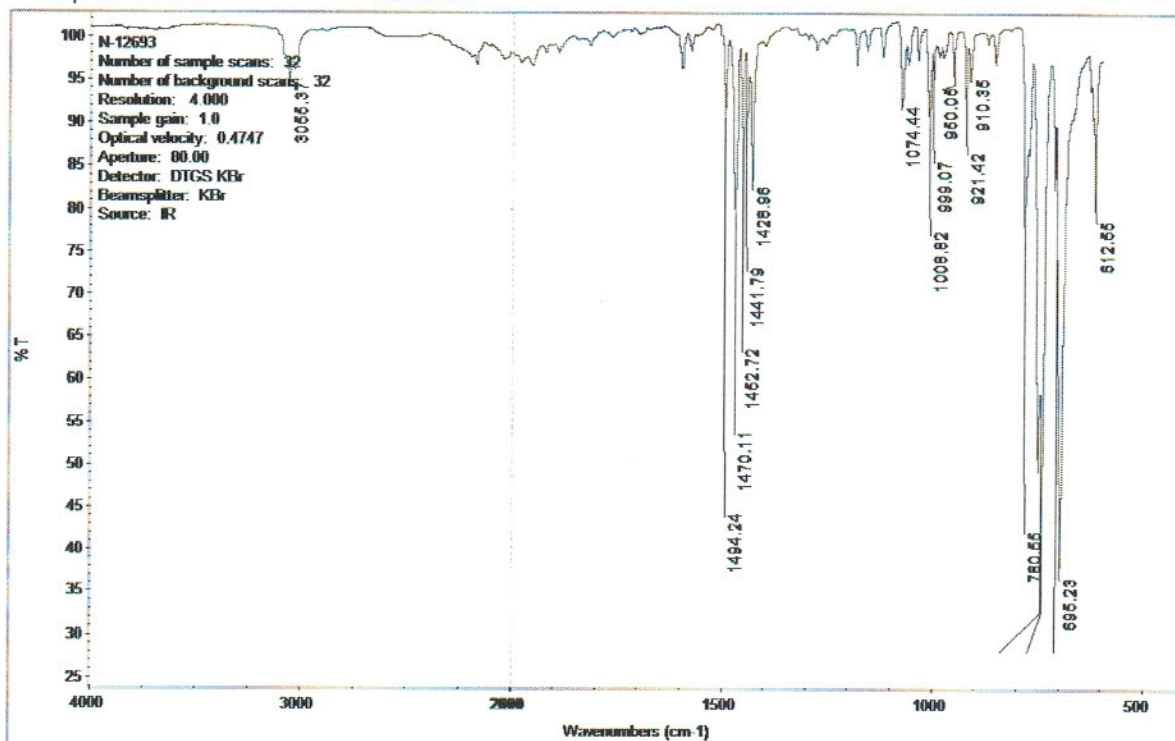
Energy Laboratories Inc 1120 So. 27th Street  
Billings MT 59107



## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



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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  
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

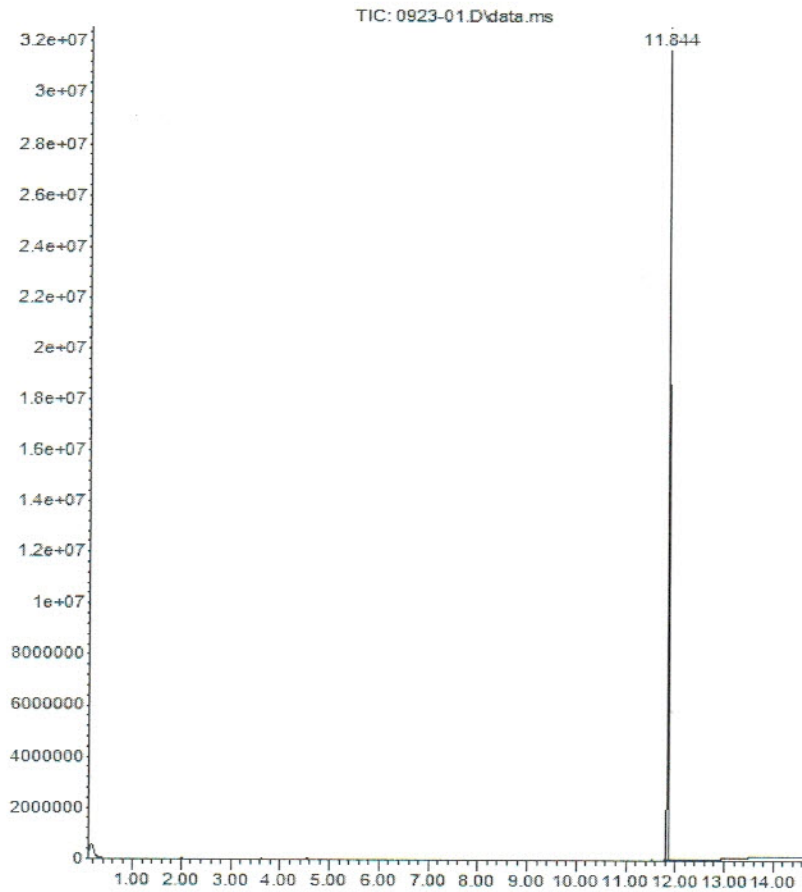
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
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## CERTIFICATE OF ANALYSIS

### Analysis Method:

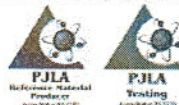
Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24

Abundance



Time-->

Chem. Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



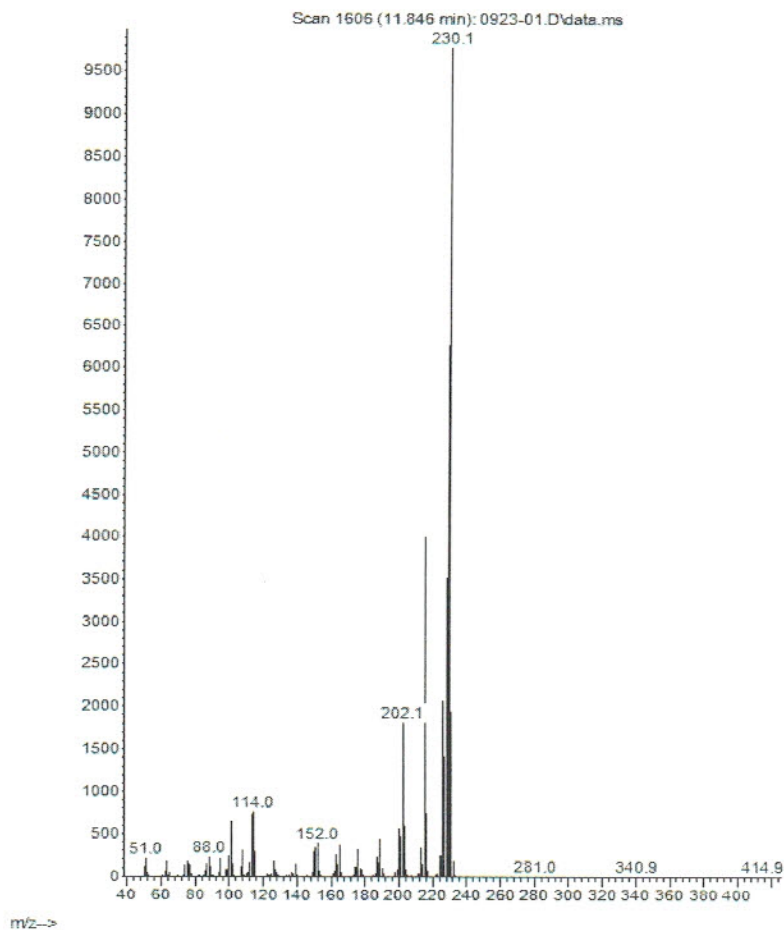
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
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## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24

Abundance



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



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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

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

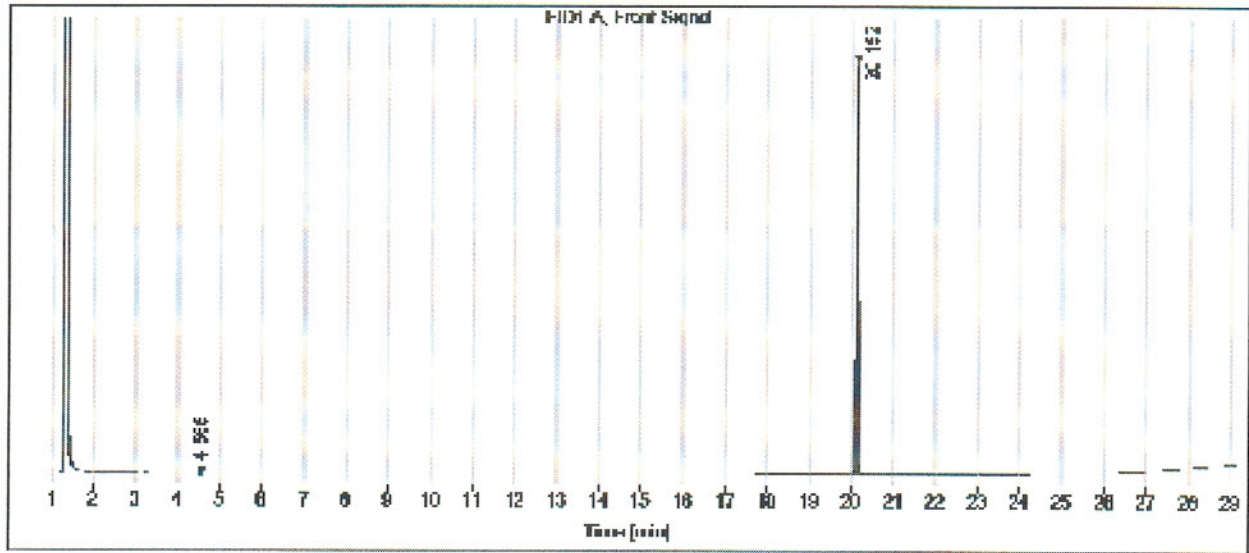


Gas

Data file: C:\CHEM3\  
 Sample name: N-12683  
 Instrument: GC 2  
 Injection date: 9/23/2019 9:58:34 AM  
 Acq. method: SCREEN.M  
 Column name: HP-5

## CERTIFICATE OF ANALYSIS

Sample type:   
 Location: Vial 141  
 Injection volume: 1.0uL



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: 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**

DRO210401B 50,000 ug/mL Oil Std For AK103 RRO-I  
DRO211129A Triacontane SURR 1000 ug/mL

**Base Units**

ug/mL  
ug/mL

**Amount Added**

400 µL  
800 µL

**Analtes**

A 30/40W Motor Oil  
A Triacontane-d62

**CAS**

Conc: **ug/mL**  
5000  
200



# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO210401B  
Standard Name: 50,000 ug/mL Oil Std For AK103 RRO-In DC  
Date Prepared: 4/1/2021  
Date Expires: 1/31/2028  
Department: dropr  
Vendor: Restek  
Lot Number: A0166827  
Balance ID: Sartorius 4 place balance

Type: Primary  
BY: Ann Nebel  
Status: Open

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**

Analtes

**CAS**

Conc: **ug/mL**





# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



### FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

**Catalog No. :** 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	Gravimetric	
			+/- 1,490.7309 µg/mL	Unstressed	
			+/- 1,589.8634 µg/mL	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:**

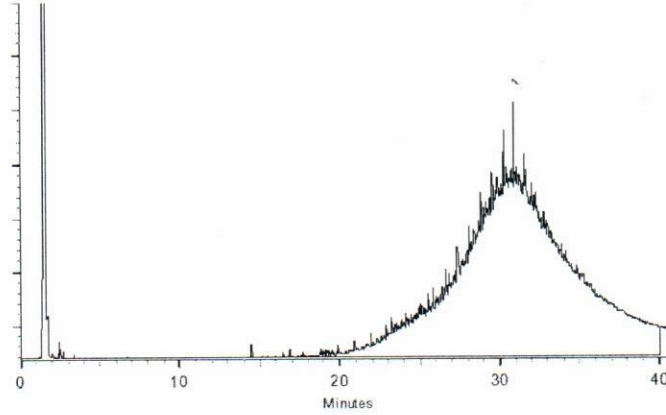
250°C

**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*  
Kylie Struble - Operations Technician I

**Date Mixed:** 02-Dec-2020

**Balance:** 1128353505

*Justin Albertson*  
Justin 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/ $\mu$ ECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

### Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://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](http://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: Triacotane SURR 1000 ug/mL  
Date Prepared: 11/29/2021  
Date Expires: 4/6/2026  
Department: dropr  
Vendor:  
Lot Number:  
Balance ID: BAL-DRO  
Comments: 2X dilution of Triacotane SURR 2000 ug/mL

Type: Secondary  
BY: Jillian L Bostwick  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC735	14518	5	mL	10/14

**Final Volume:** 10 mL

**Stock Source**  
DRO211006A Triacotane SURR 2000 ug/mL

**Base Units**  
ug/mL

**Amount Added**  
5 mL

**Analvtes**  
A Triacotane-d62

**CAS**

Conc: **ug/mL**  
1000

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO211006A  
Standard Name: Triacontane SURR 2000 ug/mL  
Date Prepared: 10/6/2021  
Date Expires: 4/6/2026  
Department: dropr  
Vendor:  
Lot Number:  
Balance ID: BAL-DRO  
Comments: Triacontane SURR 2000 ug/mL

Type: Secondary  
BY: Jillian L Bostwick  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	50	mL	7/22/

**Final Volume:** 50 mL

Stock Source  
DRO210406A Triacontane-d62 Surr For AK103 RRO

**Base Units**  
ug/mL

**Amount Added**  
0.1001 g

Analtes  
A Triacontane-d62

**CAS**

Conc: **ug/mL**  
2000

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO210406A  
Standard Name: Triacontane-d62 Surr For AK103 RRO  
Date Prepared: 4/6/2021  
Date Expires: 4/6/2026  
Department: dropr  
Vendor: Sigma-Aldrich  
Lot Number: MBBC4347  
Balance ID:  
Comments: Alaska surr [for AK103 RRO]

Type: Neat  
BY: Ann Nebel  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Triacontane-d62-98 atom % D	13736		mL	4/6/2026

Final Volume: mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**CAS**

Conc: ug/mL

A Triacontane-d62

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: [www.sigmaaldrich.com](http://www.sigmaaldrich.com)

Email USA: [techserv@sial.com](mailto:techserv@sial.com)

Outside USA: [eurtechserv@sial.com](mailto:eurtechserv@sial.com)

## Certificate of Analysis

Product Name:  
Triacontane-d62 - 98 atom % D

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: \_\_\_\_\_

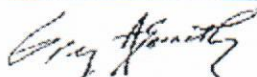
Triacontane-d62-98 atom % D

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

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO210902A  
 Standard Name: 50,000 ug/mL Oil Std for RRO-In DCM  
 Date Prepared: 9/2/2021  
 Date Expires: 9/1/2026  
 Department: dropr  
 Vendor:  
 Lot Number:  
 Balance ID: BAL-DRO  
 Comments: .625 g of 30W and 40 W each LCS for Oil range

Type: Secondary  
 BY: Jillian L Bostwick  
 Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EB867	14196	25	mL	6/18/

**Final Volume:** 25 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
DRO210901B 40W Motor Oil-Valvoline	ug/mL	0.6261 g
DRO210901A 30W Motor Oil-Valvoline	ug/mL	0.6254 g

<u>Analtes</u>	<u>CAS</u>	<u>Conc:</u>	<u>ug/mL</u>
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  
 Date Prepared: 9/1/2021  
 Date Expires: 9/1/2026  
 Department: dropr  
 Vendor:  
 Lot Number:  
 Balance ID:  
 Type: Primary  
 BY: Jillian L Bostwick  
 Status: New  
 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	9/1/2026

**Final Volume:** mL

**Stock Source**

**Base Units**

**Amount Added**

**Analtes**

**CAS**

Conc: **ug/mL**

A 40W-Motor oil

1

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO210901A  
Standard Name: 30W Motor Oil-Valvoline  
Date Prepared: 9/1/2021  
Date Expires: 9/1/2026  
Department: dropr  
Vendor:  
Lot Number:  
Balance ID:  
Type: Primary  
BY: Jillian L Bostwick  
Status: New  
Comments: Used to make 2nd Source Standard for AK103 method.

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 30 Motor Oil	14232		mL	9/1/26

Final Volume: mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**CAS**

Conc: ug/mL

A 30W-Motor oil

1

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO211112C  
 Standard Name: OTP/COD SURR 2000 ug/mL  
 Date Prepared: 11/12/2021  
 Date Expires: 9/30/2024  
 Department: dropr  
 Vendor:  
 Lot Number:  
 Balance ID: BAL-DRO  
 Comments: OTP/COD SURR 2000 ug/mL

Type: Secondary  
 BY: Jillian L Bostwick  
 Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	100	mL	7/22/

**Final Volume:** 100 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
DRO201014C 1-Chlorooctadecane	ug/mL	0.2 g
DRO201014B O-Terphenyl	ug/mL	0.061 g
DRO200430B O-Terphenyl	ug/mL	0.1392 g

<u>Analtes</u>	<u>CAS</u>	<u>Conc:</u>	<u>ug/mL</u>
A 1-Chlorooctadecane	3386-33-2		2000
A O-Terphenyl	84-15-1		2000

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO201014B  
Standard Name: O-Terphenyl  
Date Prepared: 10/14/2020  
Date Expires: 9/30/2024  
Department: dropr  
Vendor: Chemservice  
Lot Number: 10029300  
Balance ID:  
Comments: ID#: 6271

Type: Neat  
BY: Ann Nebel  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	13191	500	mg	9/30/

Final Volume: mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**CAS**

Conc: ug/mL

A O-Terphenyl

84-15-1

1

Am

# CHEM SERVICE INC.

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
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## CERTIFICATE OF ANALYSIS

### o-Terphenyl

CATALOG NUMBER	N-12693-500MG
LOT NUMBER	10029300
DATE CERTIFIED	09/23/19
EXPIRATION DATE	09/30/24
CAS NUMBER	84-15-1
MOLECULAR FORMULA	C18H14
MOLECULAR WEIGHT	230.32
STORAGE	Store at room temperature (20 - 25 °C).
HANDLING	See Safety Data Sheet
INTENDED USE	For laboratory use only.

<u>Analytical Test</u>	<u>Value</u>
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 #: 13191**  
 Opened: \_\_\_\_\_  
 o-Terphenyl  
**Expires: 9/30/2024**  
 Rec'd: 10/14/2020  
 Energv 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

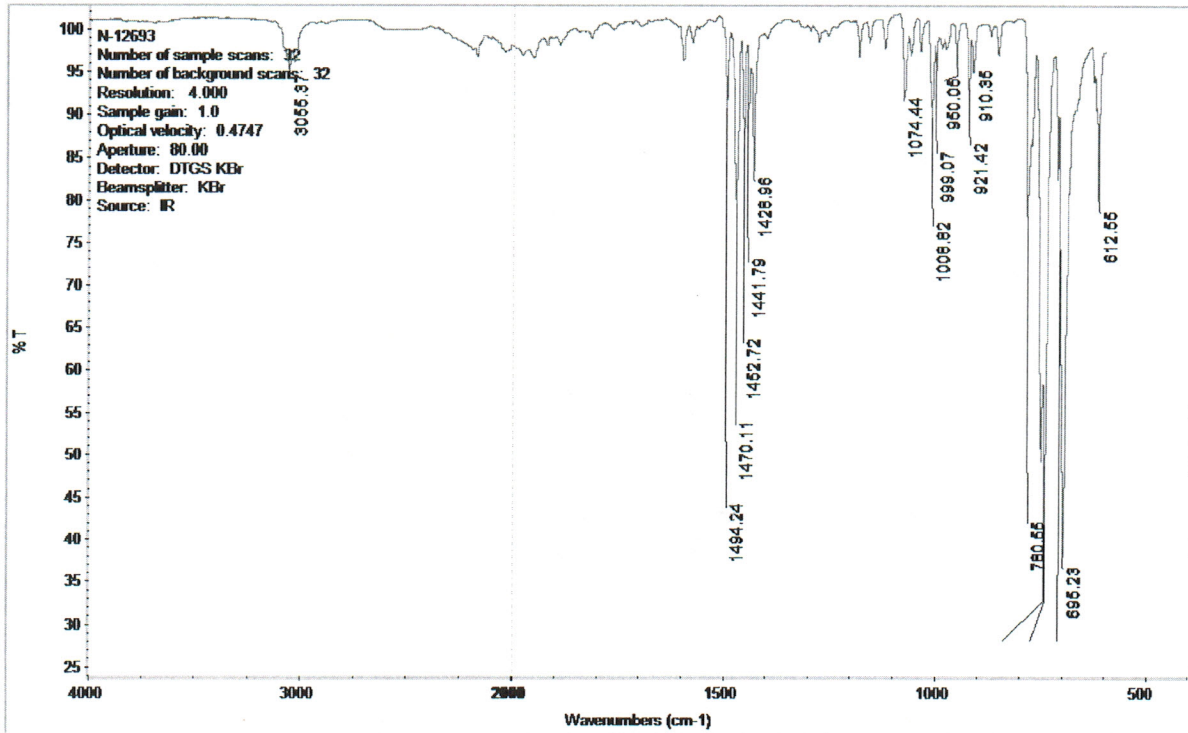
COA Form  
Revision 3 (3/2015)



## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 10029300  
Expiration Date: 09/30/24



660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
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[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 10029300  
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

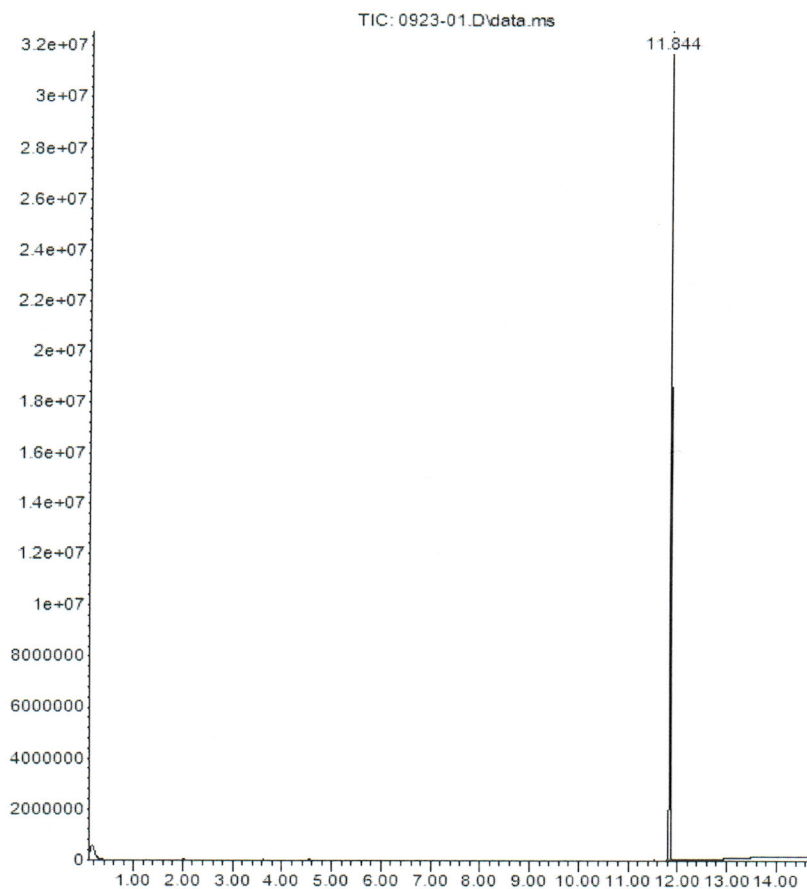
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### Analysis Method:

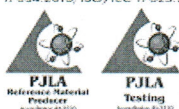
Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 10029300  
Expiration Date: 09/30/24

Abundance



Time-->

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



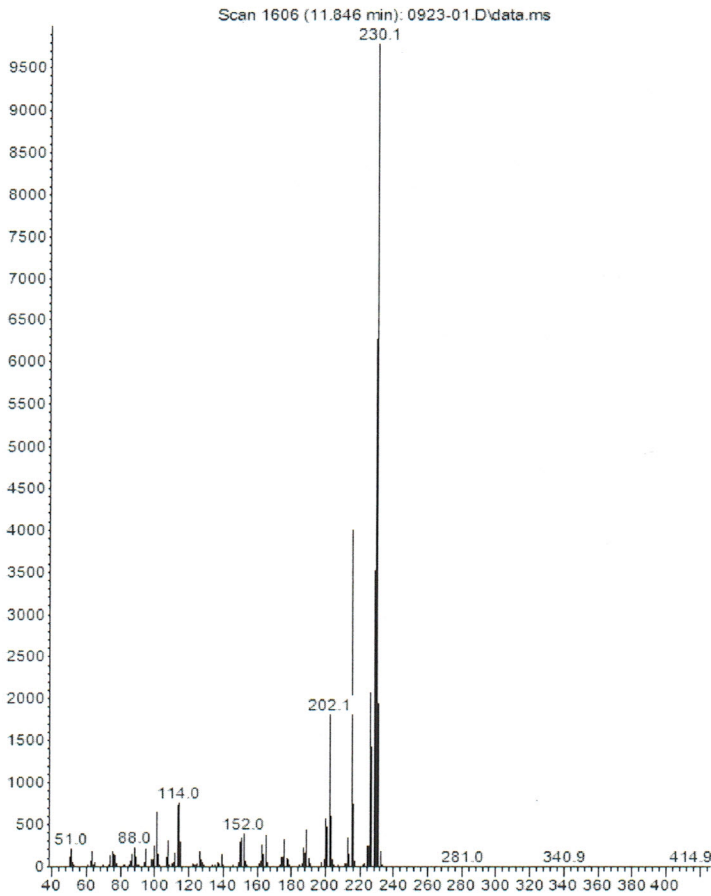


## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 10029300  
Expiration Date: 09/30/24

Abundance



m/z-->

## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	10029300
Expiration Date:	09/30/24

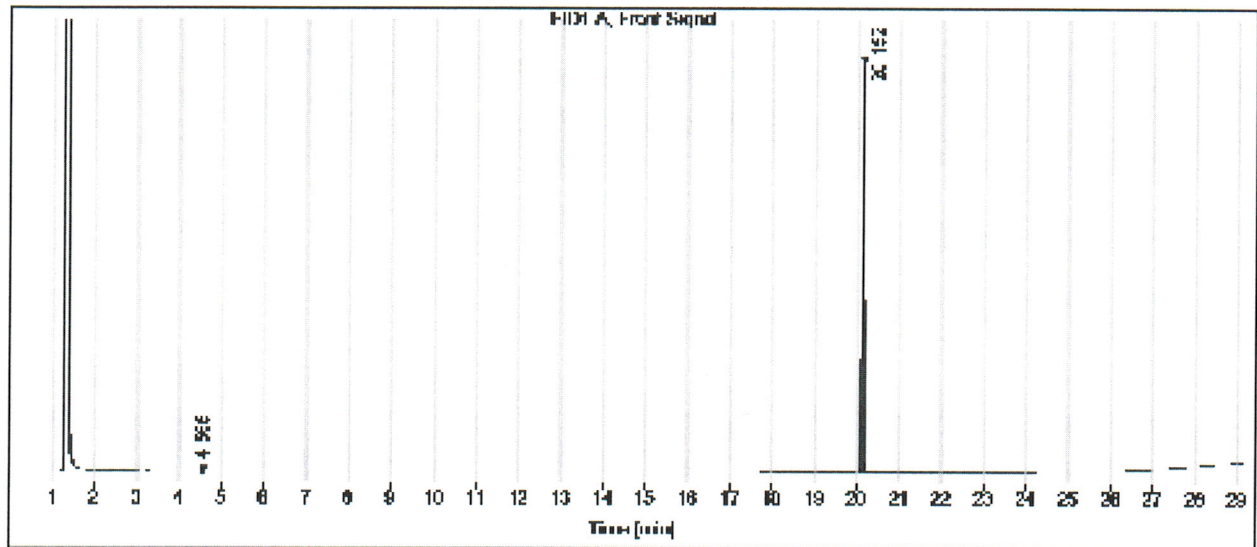
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

Gas

Data file: C:\CHEM3;  
 Sample name: N-12893  
 Instrument: GC 2  
 Injection date: 9/23/2019 9:58:34 AM  
 Acq. method: SCREEN.M  
 Column name: HP-5

## CERTIFICATE OF ANALYSIS

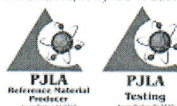
Sample type: Sample  
 Location: Vial 141  
 Injection volume: 1.0uL



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		

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO200430B  
Standard Name: O-Terphenyl  
Date Prepared: 4/30/2020  
Date Expires: 9/30/2024  
Department: dropr  
Vendor: Chemservice  
Lot Number: 9972100  
Balance ID:  
Comments: ID#: 6271

Type: Neat  
BY: Ann Nebel  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	12650	500	mg	9/30/

Final Volume: mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**CAS**

Conc: ug/mL

A O-Terphenyl

84-15-1

1

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## 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 C<sub>18</sub>H<sub>14</sub>  
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

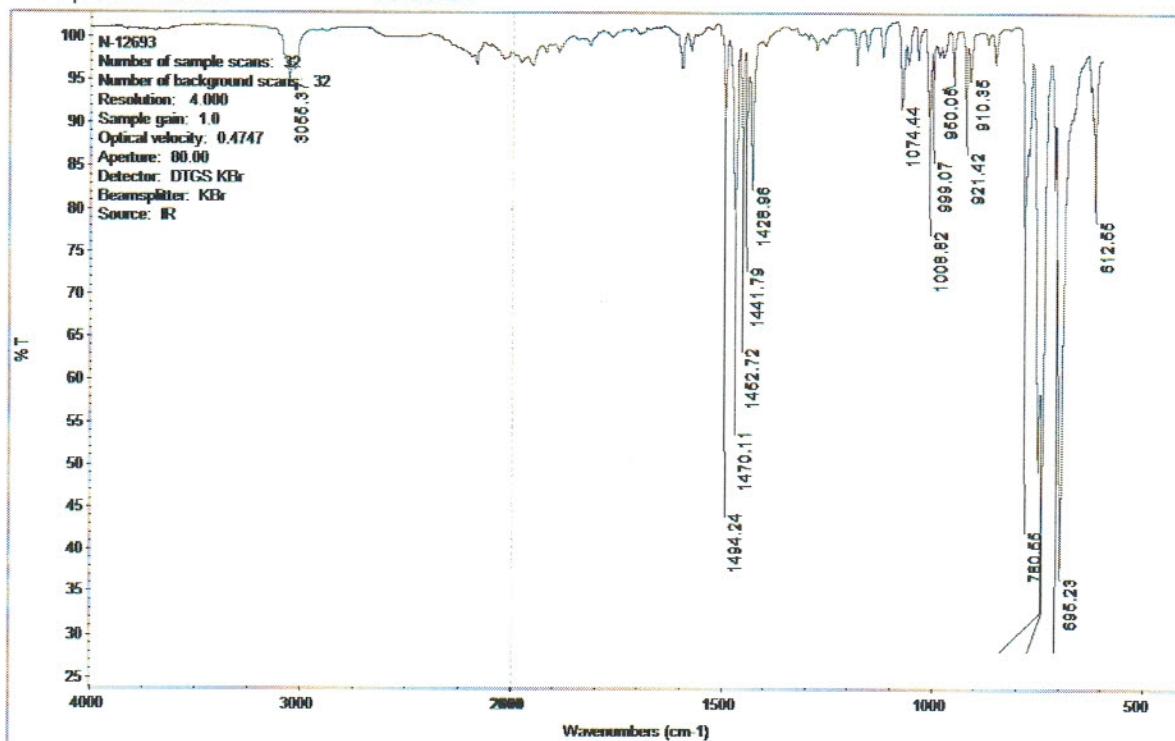
Rec'd: 4/30/2020

Energy Laboratories Inc 1120 So. 27th Street  
Billings MT 59107

## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015





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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  
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

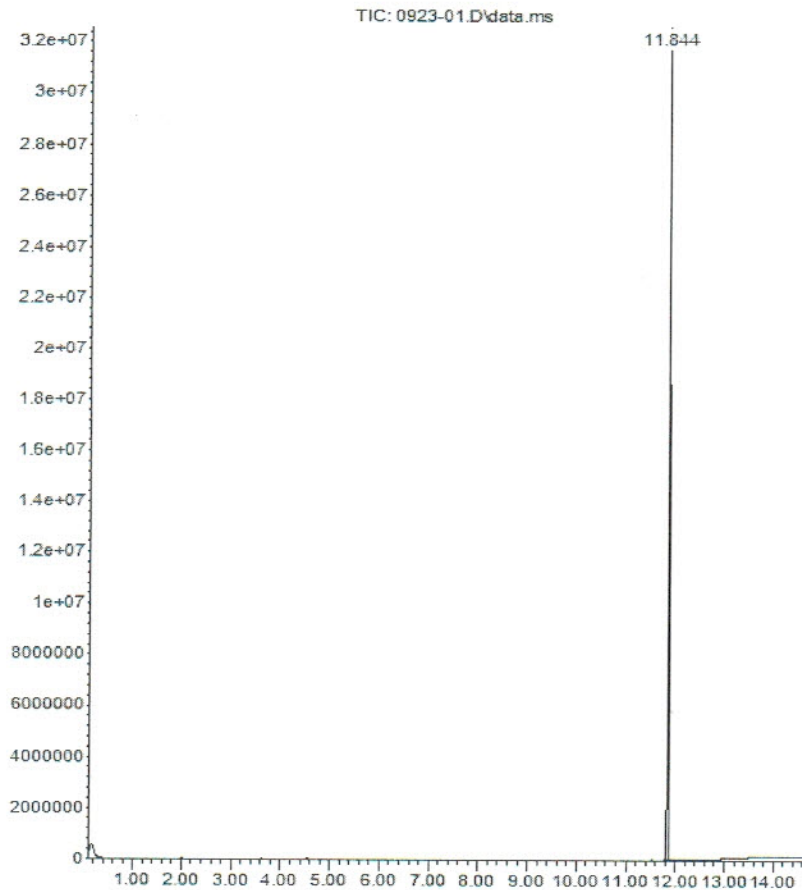
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### Analysis Method:

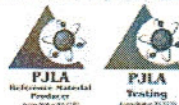
Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24

Abundance



Time-->

Chem. Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015





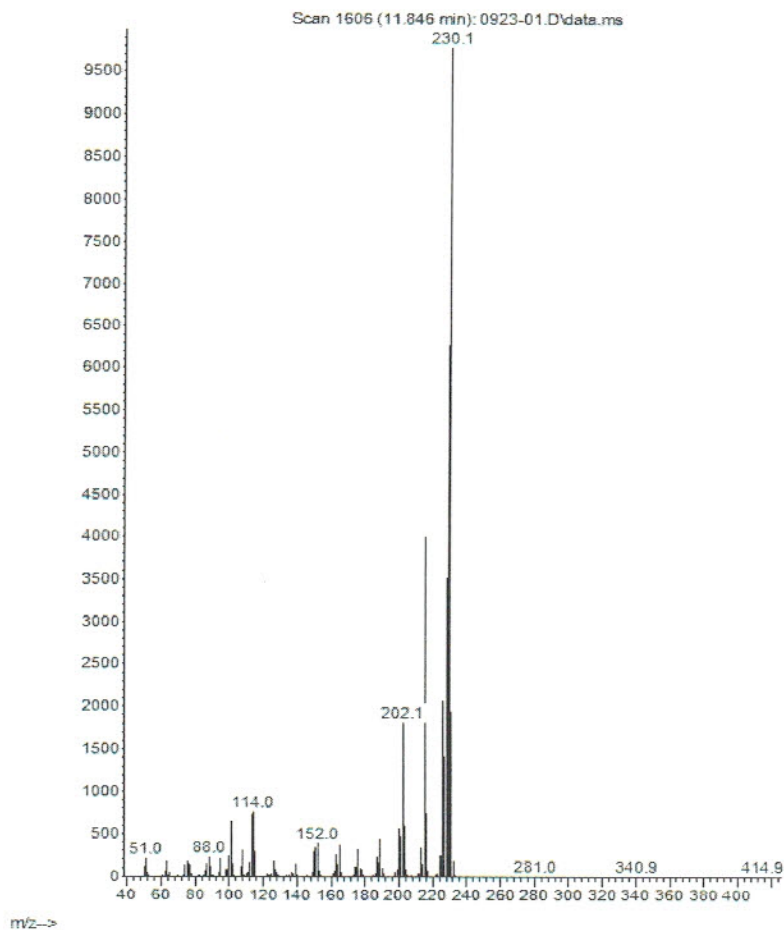
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24

Abundance



Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



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[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number:	N-12693-500MG
Description:	o-Terphenyl
Lot Number:	9972100
Expiration Date:	09/30/24

Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015

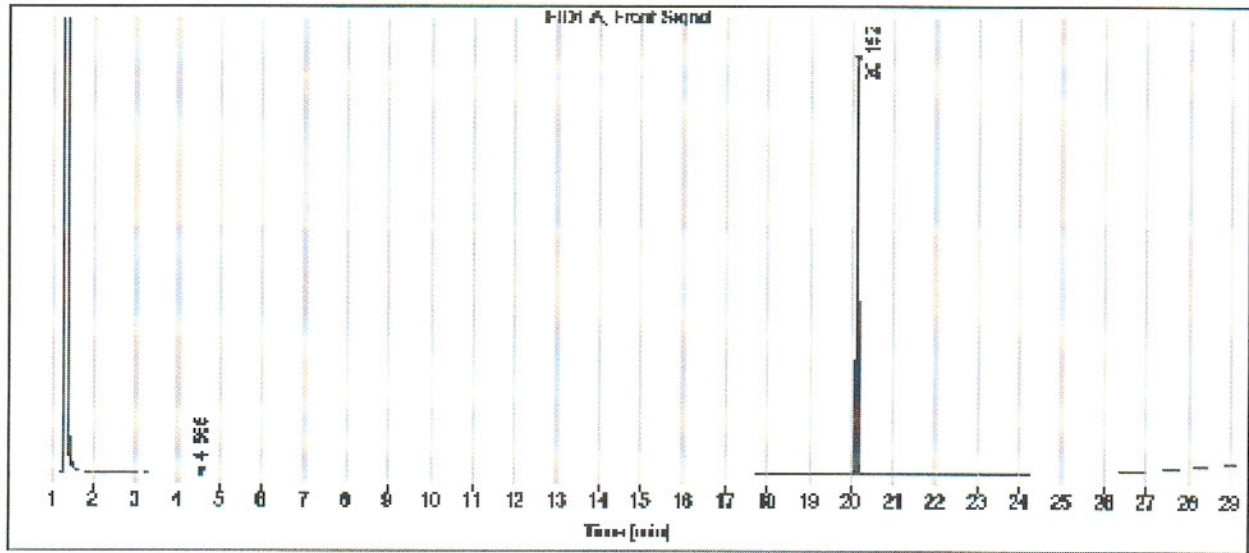


Gas

Data file: C:\CHEM3\  
 Sample name: N-12683  
 Instrument: GC 2  
 Injection date: 9/23/2019 9:58:34 AM  
 Acq. method: SCREEN.M  
 Column name: HP-5

## CERTIFICATE OF ANALYSIS

Sample type:   
 Location: Vial 141  
 Injection volume: 1.0uL



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: DRO211129A  
Standard Name: Triacotane SURR 1000 ug/mL  
Date Prepared: 11/29/2021  
Date Expires: 4/6/2026  
Department: dropr  
Vendor:  
Lot Number:  
Balance ID: BAL-DRO  
Comments: 2X dilution of Triacotane SURR 2000 ug/mL

Type: Secondary  
BY: Jillian L Bostwick  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC735	14518	5	mL	10/14

**Final Volume:** 10 mL

Stock Source  
DRO211006A Triacotane SURR 2000 ug/mL

**Base Units**  
ug/mL

**Amount Added**  
5 mL

Analtes  
A Triacotane-d62

**CAS**

Conc: **ug/mL**  
1000

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO211006A  
Standard Name: Triacontane SURR 2000 ug/mL  
Date Prepared: 10/6/2021  
Date Expires: 4/6/2026  
Department: dropr  
Vendor:  
Lot Number:  
Balance ID: BAL-DRO  
Comments: Triacontane SURR 2000 ug/mL

Type: Secondary  
BY: Jillian L Bostwick  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone DZ509	13553	50	mL	7/22/

**Final Volume:** 50 mL

Stock Source  
DRO210406A Triacontane-d62 Surr For AK103 RRO

**Base Units**  
ug/mL

**Amount Added**  
0.1001 g

Analtes  
A Triacontane-d62

**CAS**

Conc: **ug/mL**  
2000

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO210406A  
Standard Name: Triacontane-d62 Surr For AK103 RRO  
Date Prepared: 4/6/2021  
Date Expires: 4/6/2026  
Department: dropr  
Vendor: Sigma-Aldrich  
Lot Number: MBBC4347  
Balance ID:  
Comments: Alaska surr [for AK103 RRO]

Type: Neat  
BY: Ann Nebel  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Triacontane-d62-98 atom % D	13736		mL	4/6/26

Final Volume: mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**CAS**

Conc: ug/mL

A Triacontane-d62

3050 Spruce Street, Saint Louis, MO 63103, USA

Website: [www.sigmaaldrich.com](http://www.sigmaaldrich.com)

Email USA: [techserv@sial.com](mailto:techserv@sial.com)

Outside USA: [eurtechserv@sial.com](mailto:eurtechserv@sial.com)

## Certificate of Analysis

Product Name:  
Triacontane-d62 - 98 atom % D

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: \_\_\_\_\_

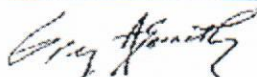
Triacontane-d62-98 atom % D

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

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