

# 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 DRO21101A + 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

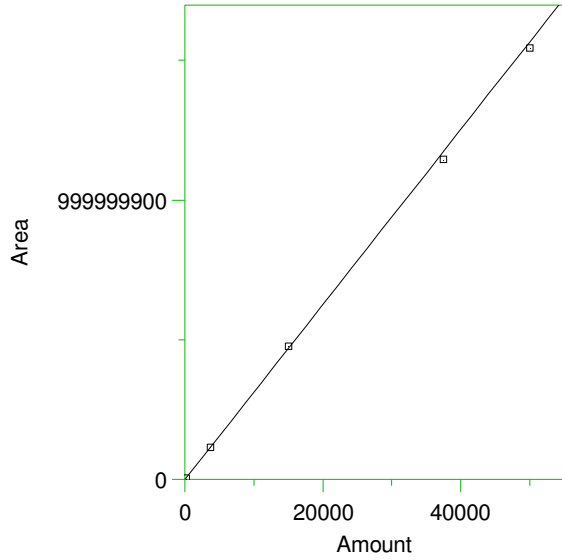
No default component

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

No calibration update report

All levels are normal data points.

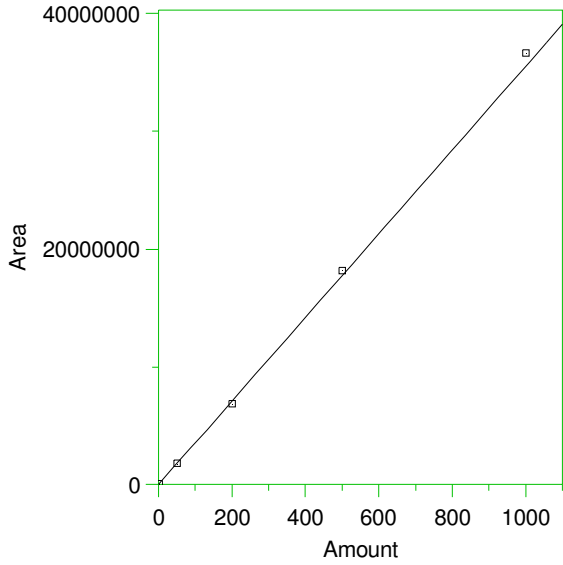
1 DRO Range Start



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

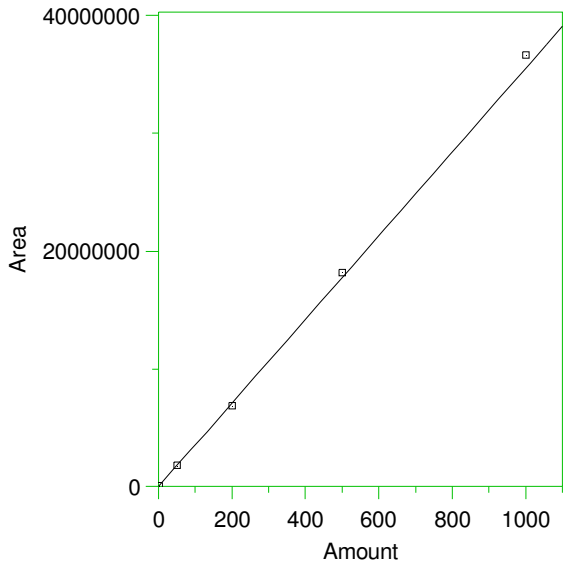
2 \*o-Terphenyl



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

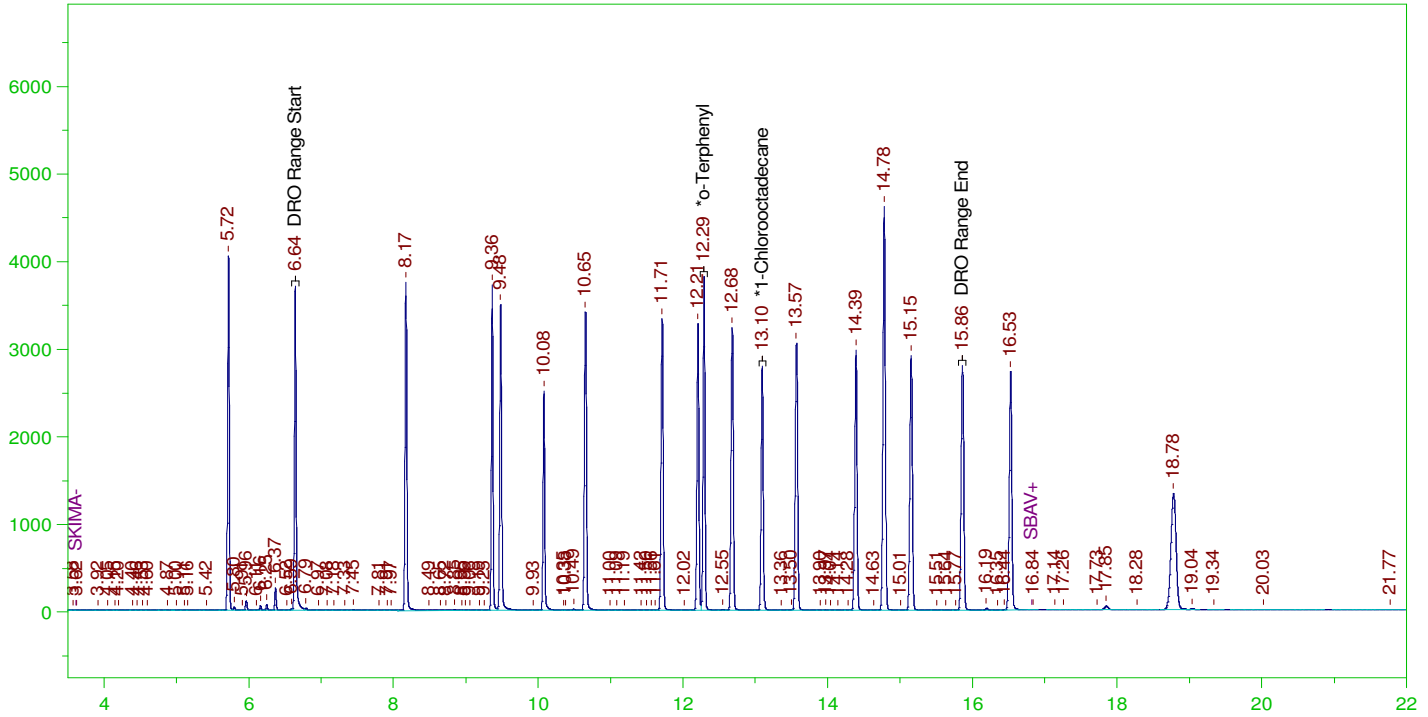
$Y = 35509.21 X + 0$

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

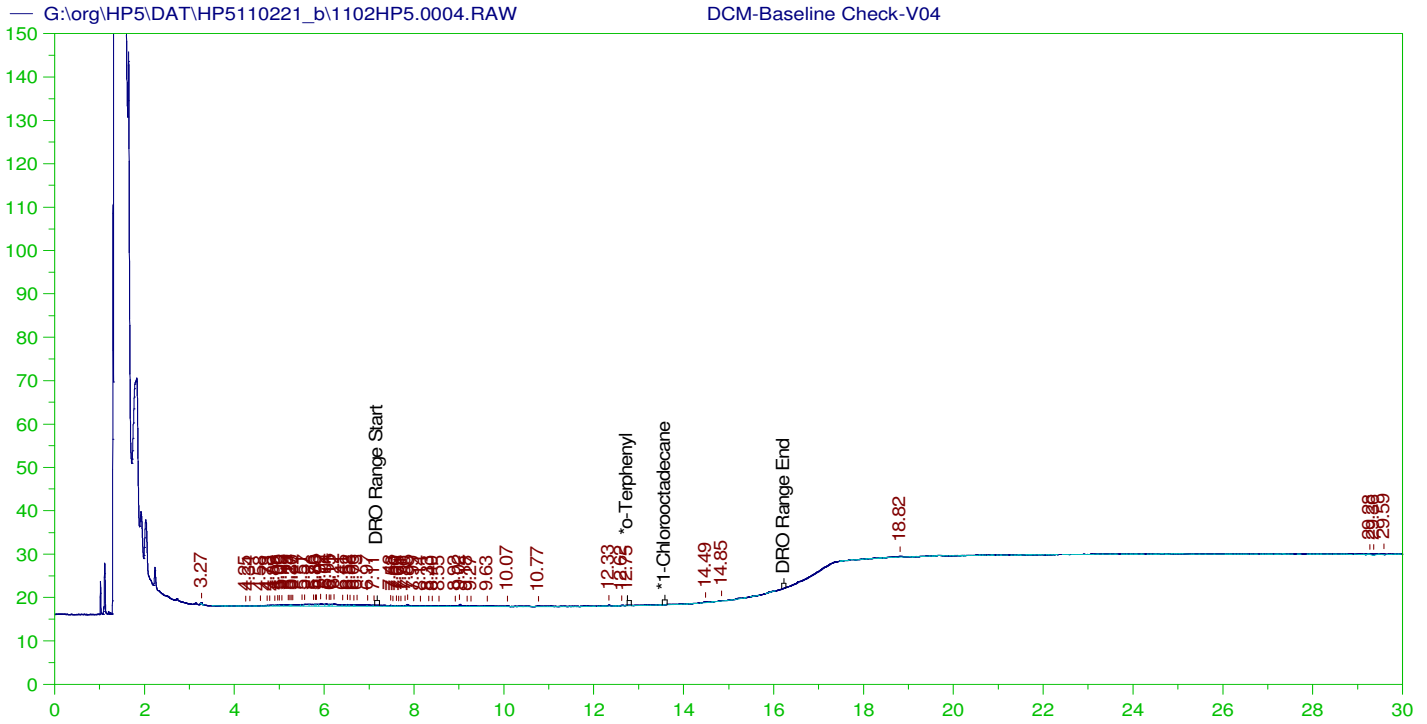
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.292	200.	201.539	100.77
*1-Chlorooctadecane	13.095	200.	163.573	81.79

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

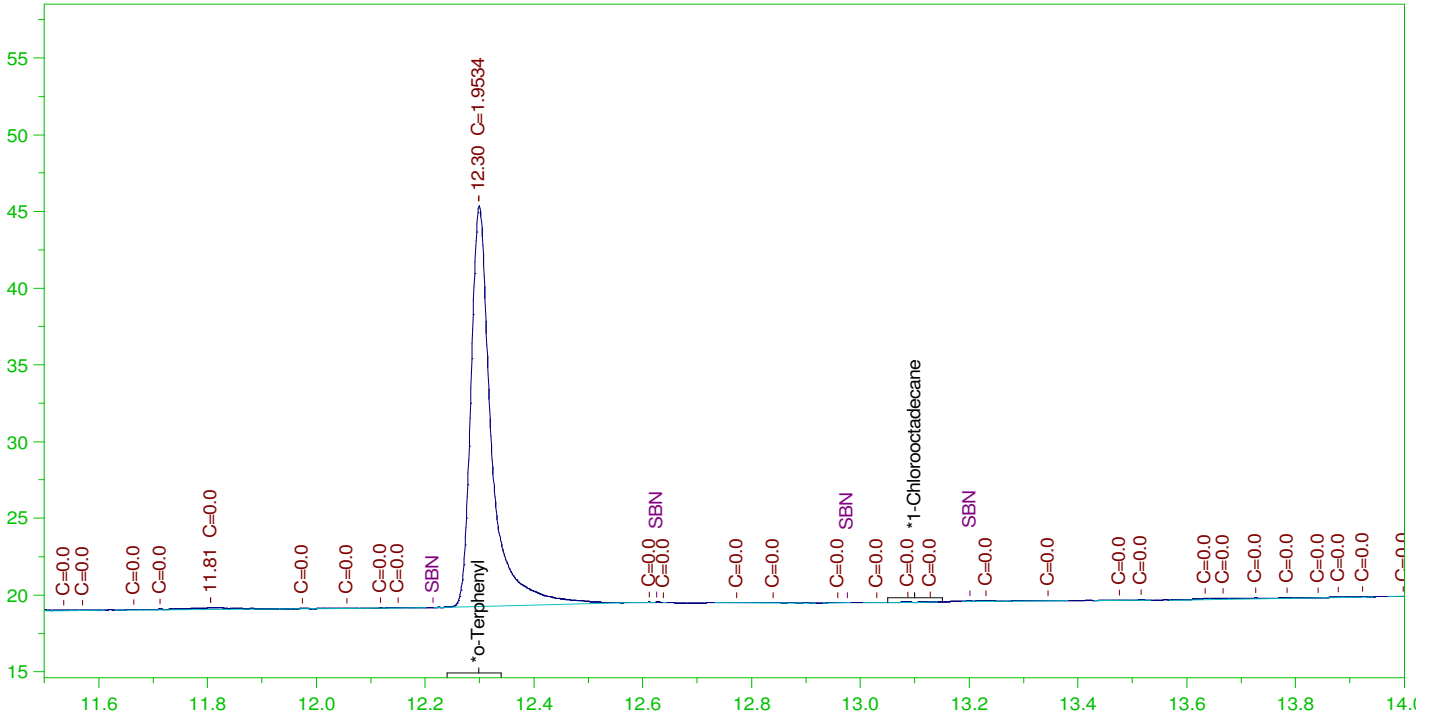
Mean RF for TEH: 29457.33  
 Rt range for Diesel Range Organics: 7.125 to 16.28

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.	.	.	-

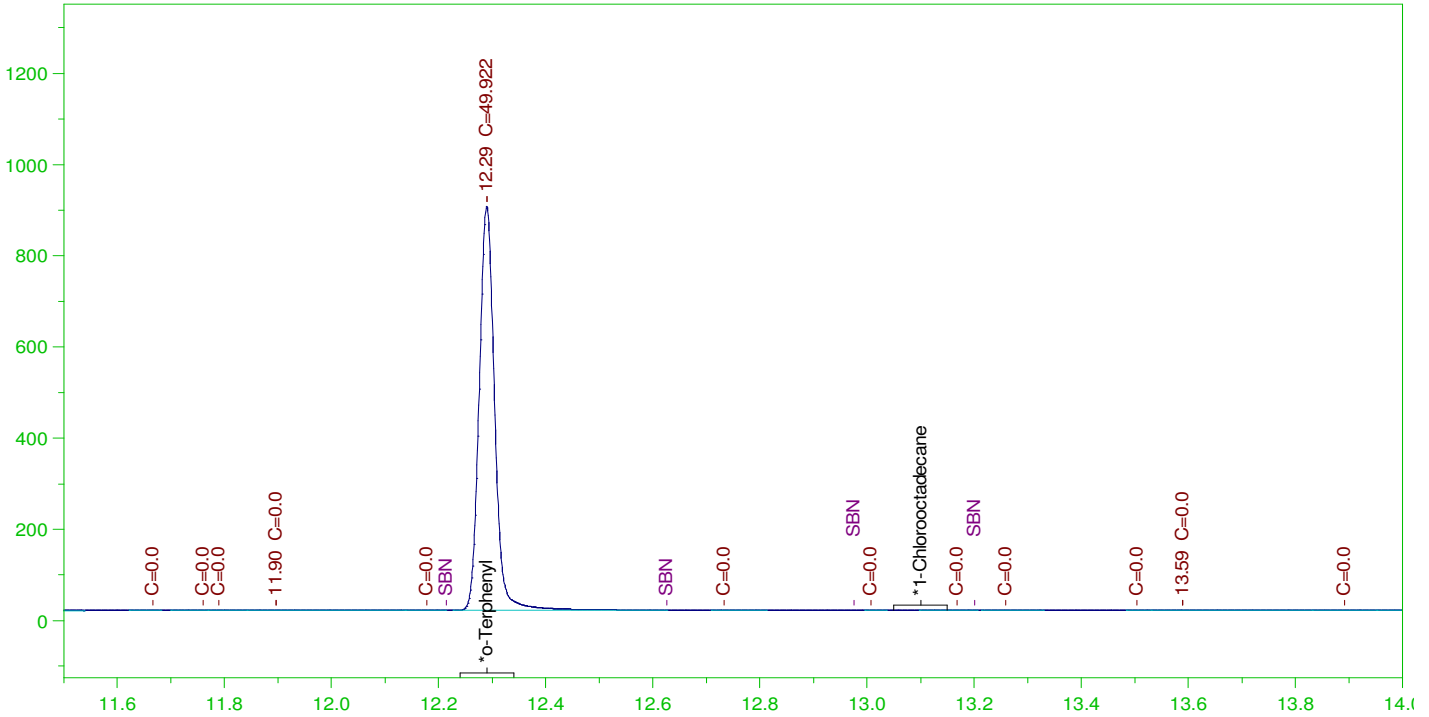
DRO Area:37026.36 DRO Amount: 1.180944  
 TEH Area:88429.33 TEH Amount: 2.820425

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

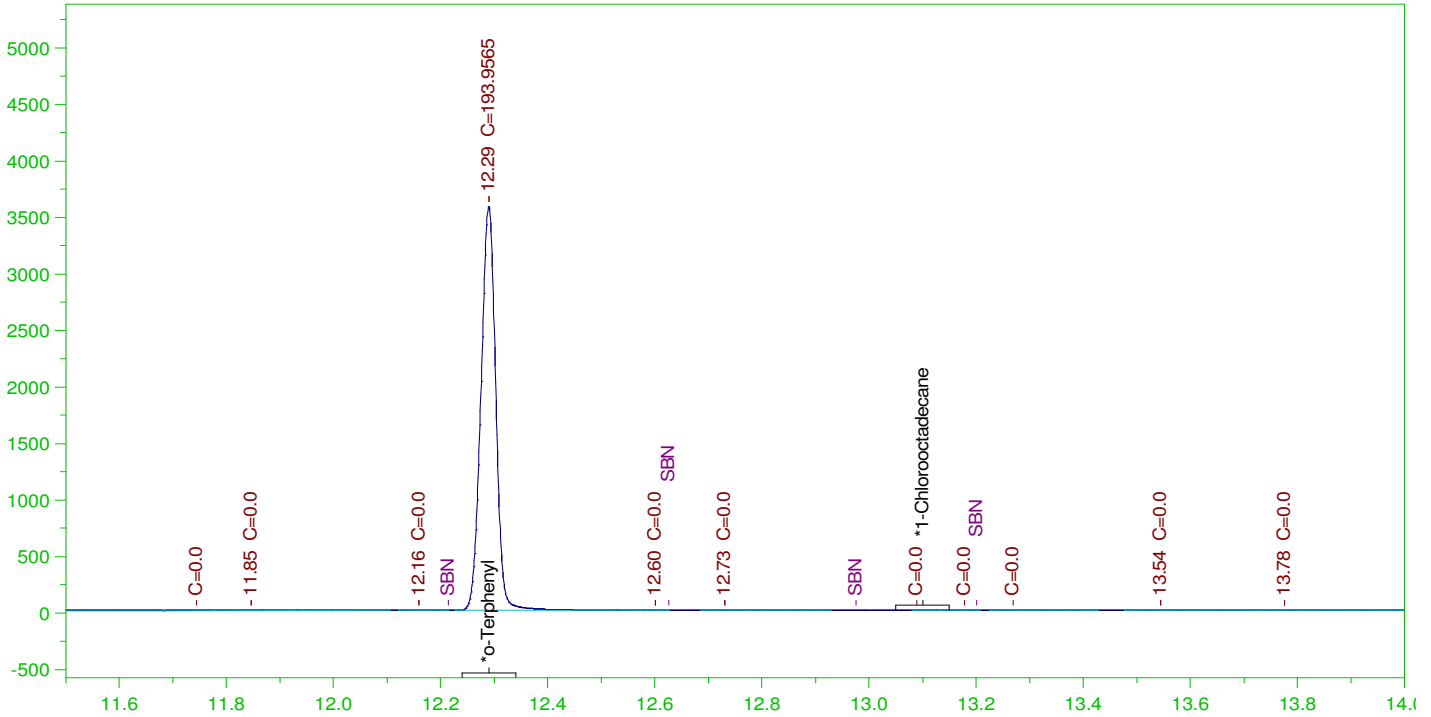
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0006.RAW  
 COMPOUND ACTUAL (NG) MEASURED (NG) %RECOVERY LIMITS  
 TOTAL DRO 15000. . . 85-115

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

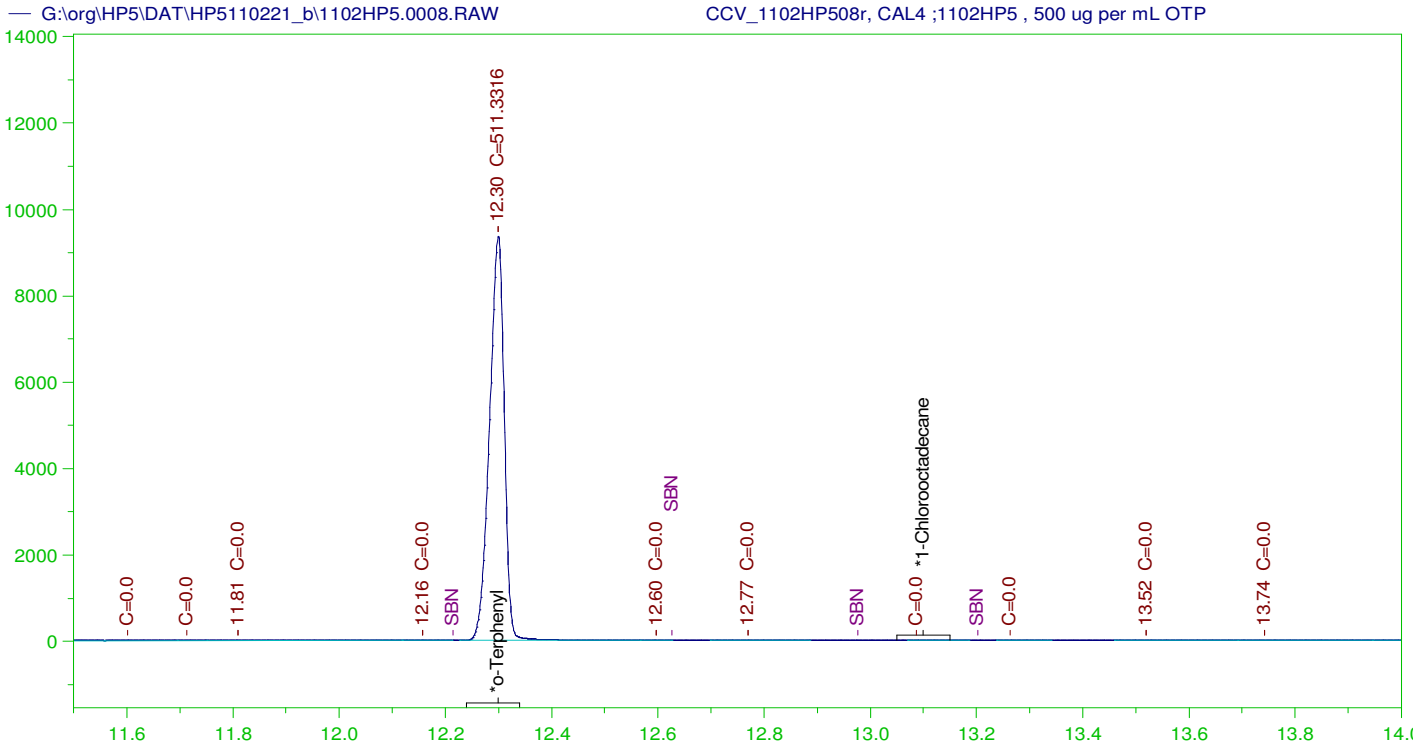
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.29	200.	193.957	96.98
*1-Chlorooctadecane	15.779	200.	.	-

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

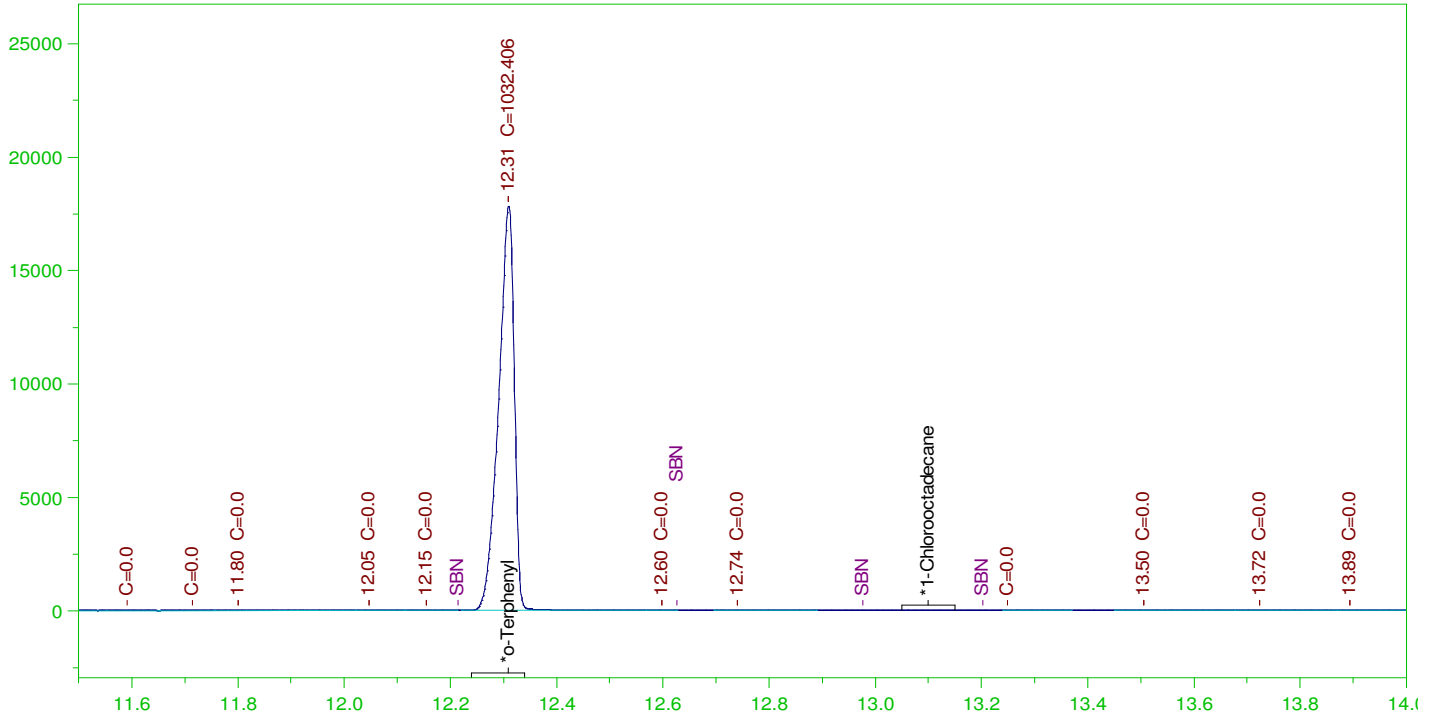
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0008.RAW

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

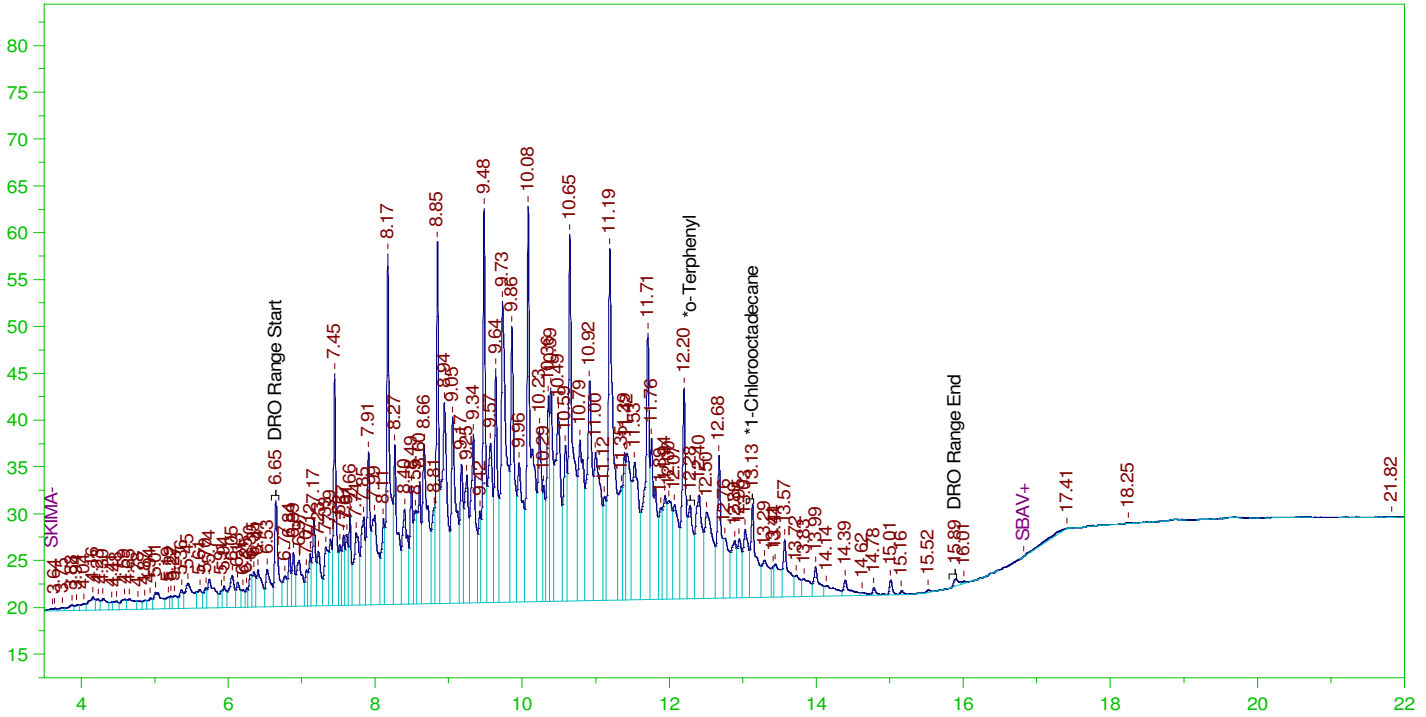
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0009.RAW

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

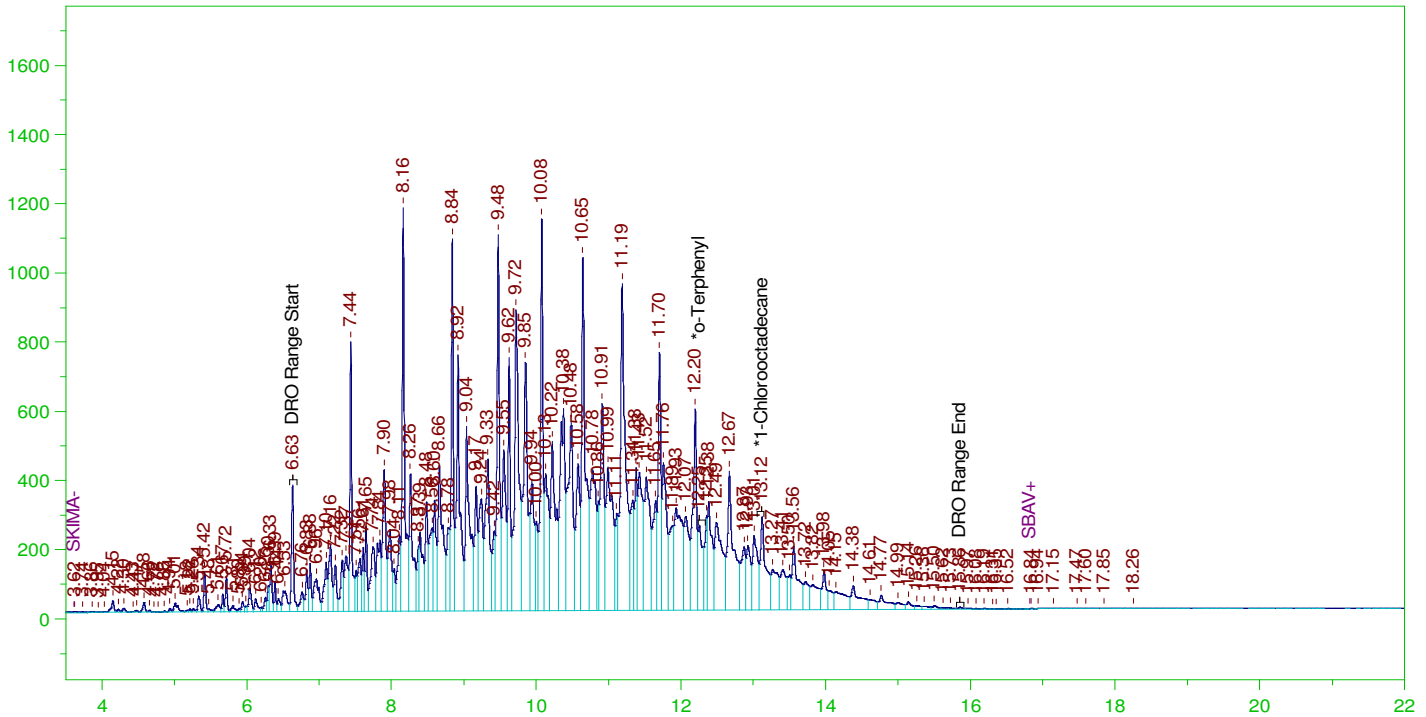
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0010.RAW

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

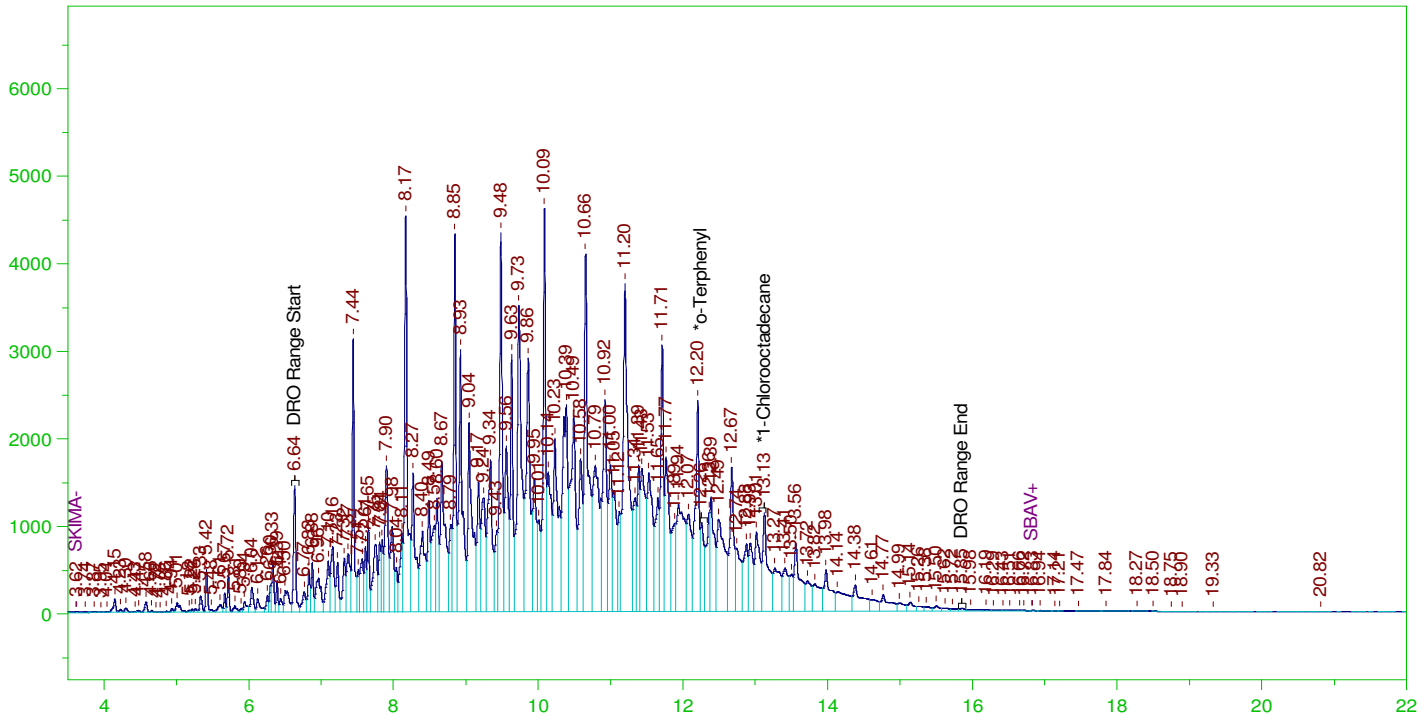
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0011.RAW

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

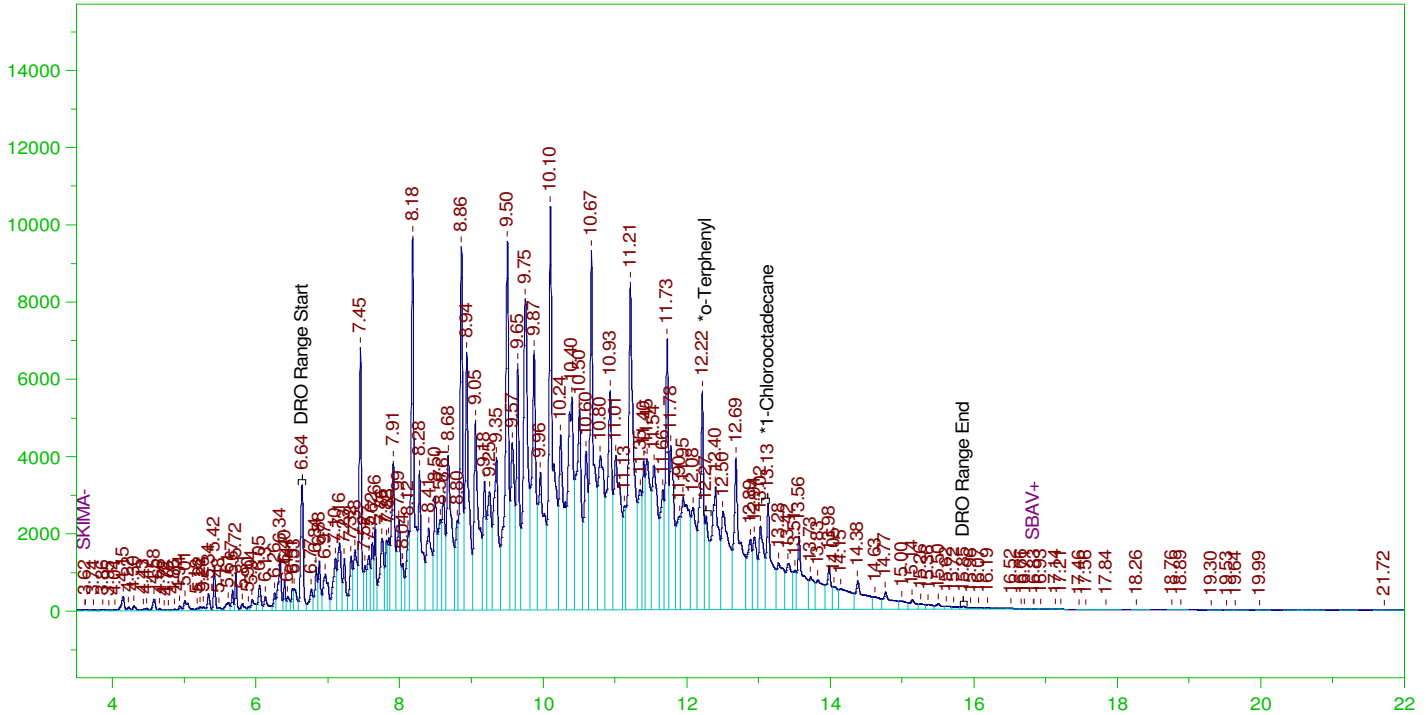
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0012.RAW

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

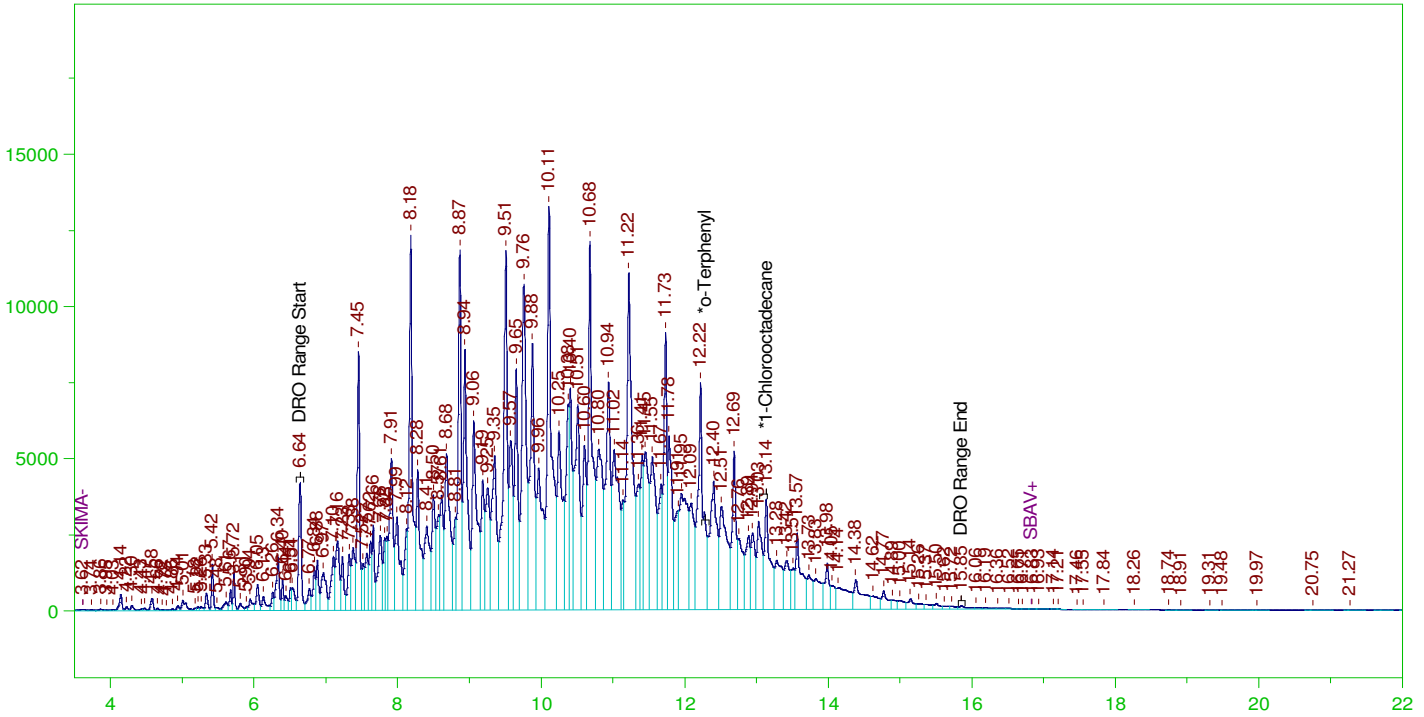
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221\_b\1102HP5.0013.RAW

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 -

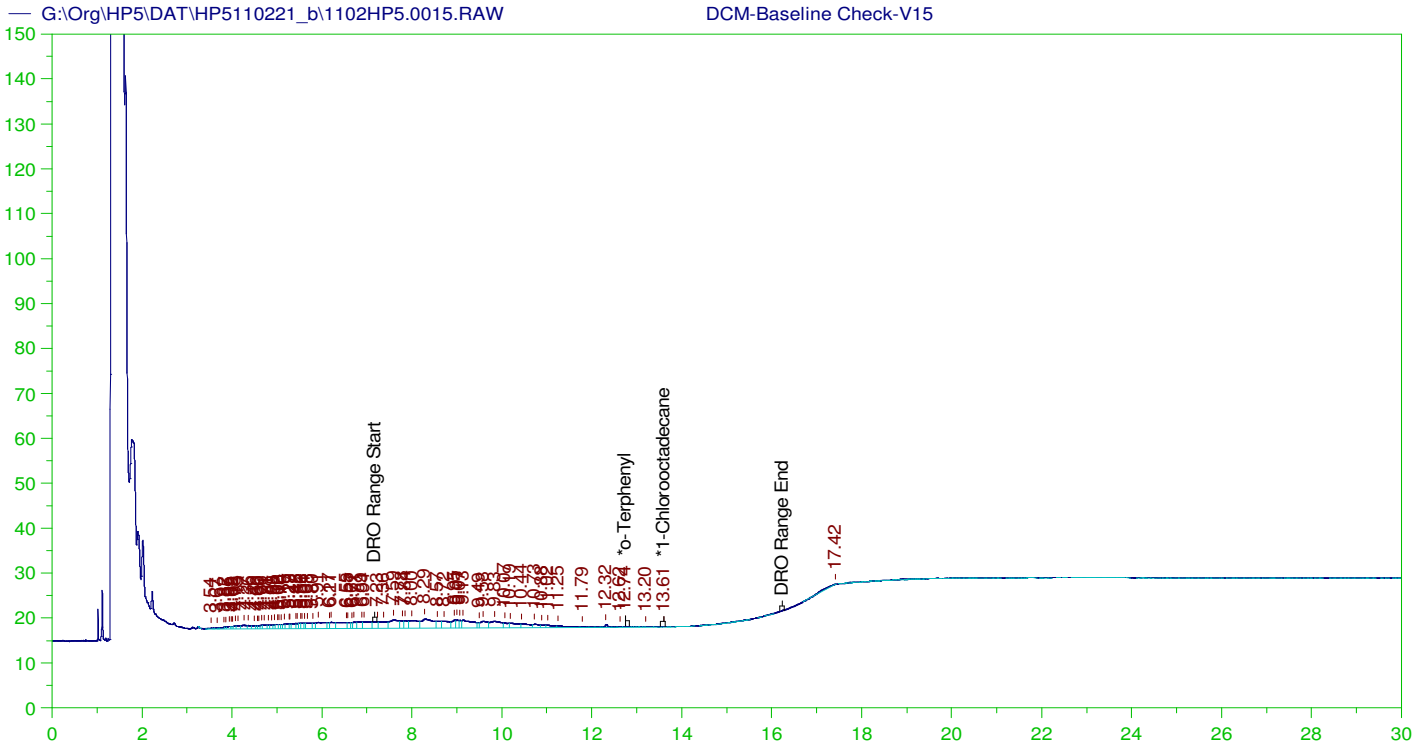
DRO Area:1.507978E+09 DRO Amount: 48096.49  
 TEH Area:1.54564E+09 TEH Amount: 49297.7

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





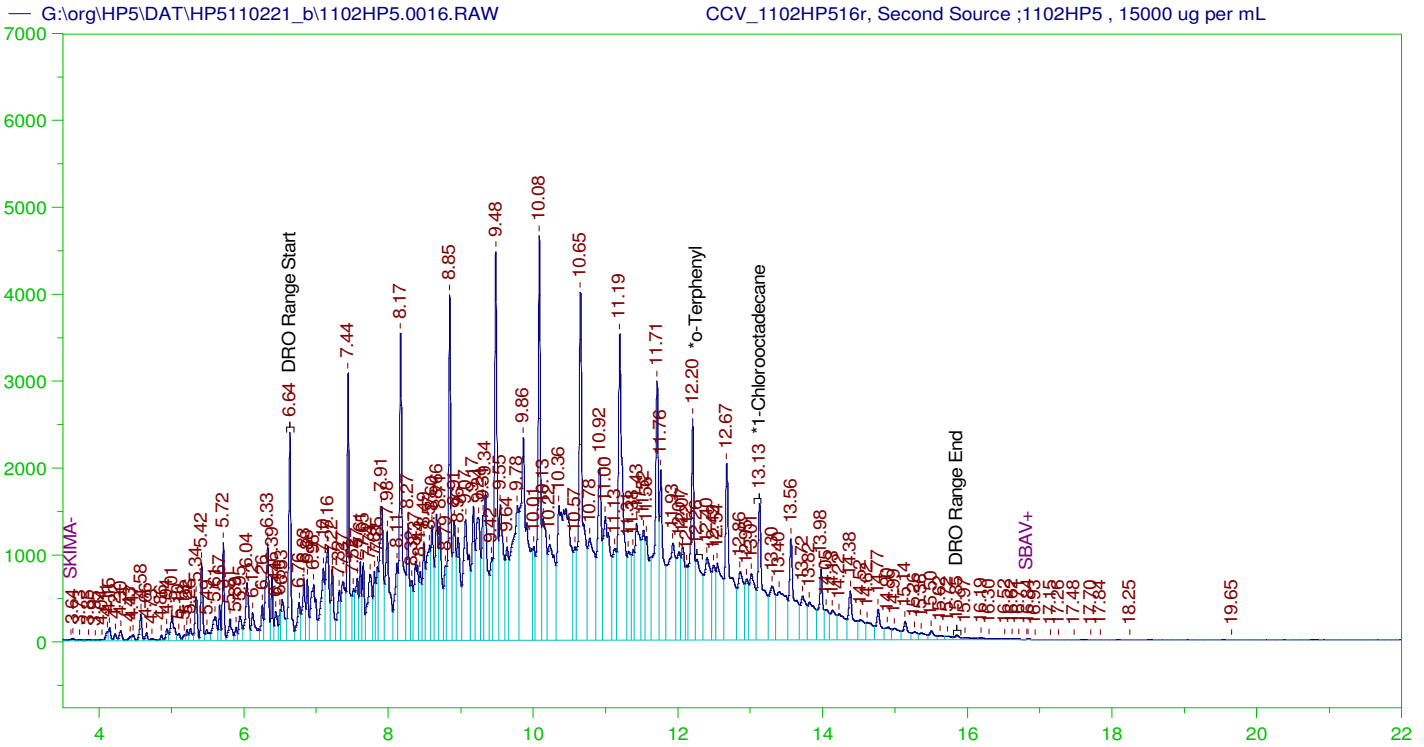
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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 kj	IS	Cal ID	Manuf Integrations
G:\org\HP5\DAT\HP5110221_b1102HP5.09	CCV_1102HP508	DRO ;1102HP5 , DRO211025A	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5110221_b1102HP5.04	DCM-Baseline Check-V04		G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5110221_b1102HP5.05	CCV_1102HP505r	CAL1 ;1102HP5 , 2 ug per mL OTP (10 uL of Cal3 + 900 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.
G:\org\HP5\DAT\HP5110221_b1102HP5.06	CCV_1102HP506r	CAL2 ;1102HP5 , 50 ug per mL OTP (100 uL of 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.
G:\org\HP5\DAT\HP5110221_b1102HP5.07	CCV_1102HP507r	CAL3 ;1102HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 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.
G:\org\HP5\DAT\HP5110221_b1102HP5.08	CCV_1102HP508r	CAL4 ;1102HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 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.
G:\org\HP5\DAT\HP5110221_b1102HP5.09	CCV_1102HP509r	CAL5 ;1102HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L%.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set 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.
G:\org\HP5\DAT\HP5110221_b1102HP5.10	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
G:\org\HP5\DAT\HP5110221_b1102HP5.11	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
G:\org\HP5\DAT\HP5110221_b1102HP5.12	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
G:\org\HP5\DAT\HP5110221_b1102HP5.13	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
G:\org\HP5\DAT\HP5110221_b1102HP5.14	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
G:\org\HP5\DAT\HP5110221_b1102HP5.15	DCM-Baseline Check-V15		G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5110221_b1102HP5.16	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

**Run Start Date:** 2/18/2021  
**Analyst:** Ann Nebel  
**Ical:**  
**Column ID:**  
**Comments:** 8015 OIL range calibration  
 SW8015\_OIL210218

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

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

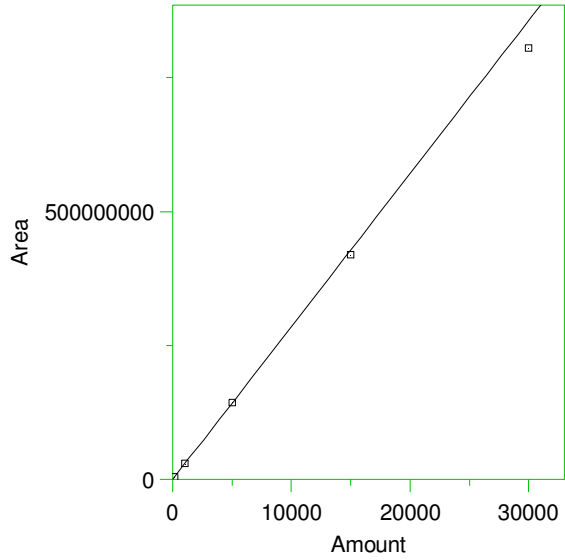
No default component

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

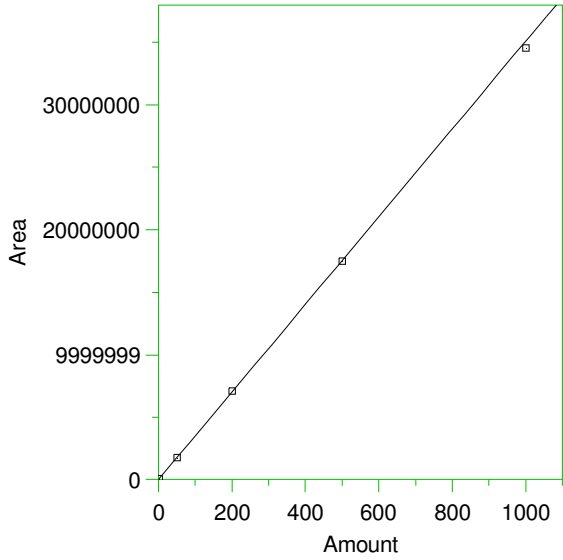


Expected retention time: 6.54 minutes  
 Search window: 0.05 minutes  
 No retention time reference component  
 Group number: 0  
 High alarm limit: 0  
 Low alarm limit: 0  
 Component constant: 0  
 Single peak quantification by area  
 Y = 28542.41 X + 0  
 Average CF fit with equal weighting, forced 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



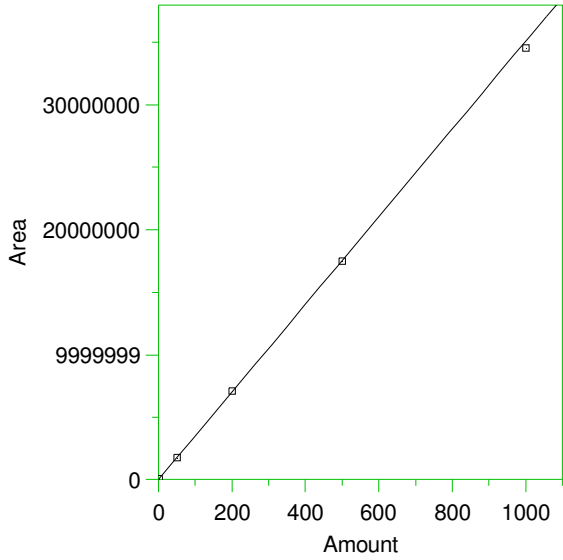
2 \*o-Terphenyl



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%

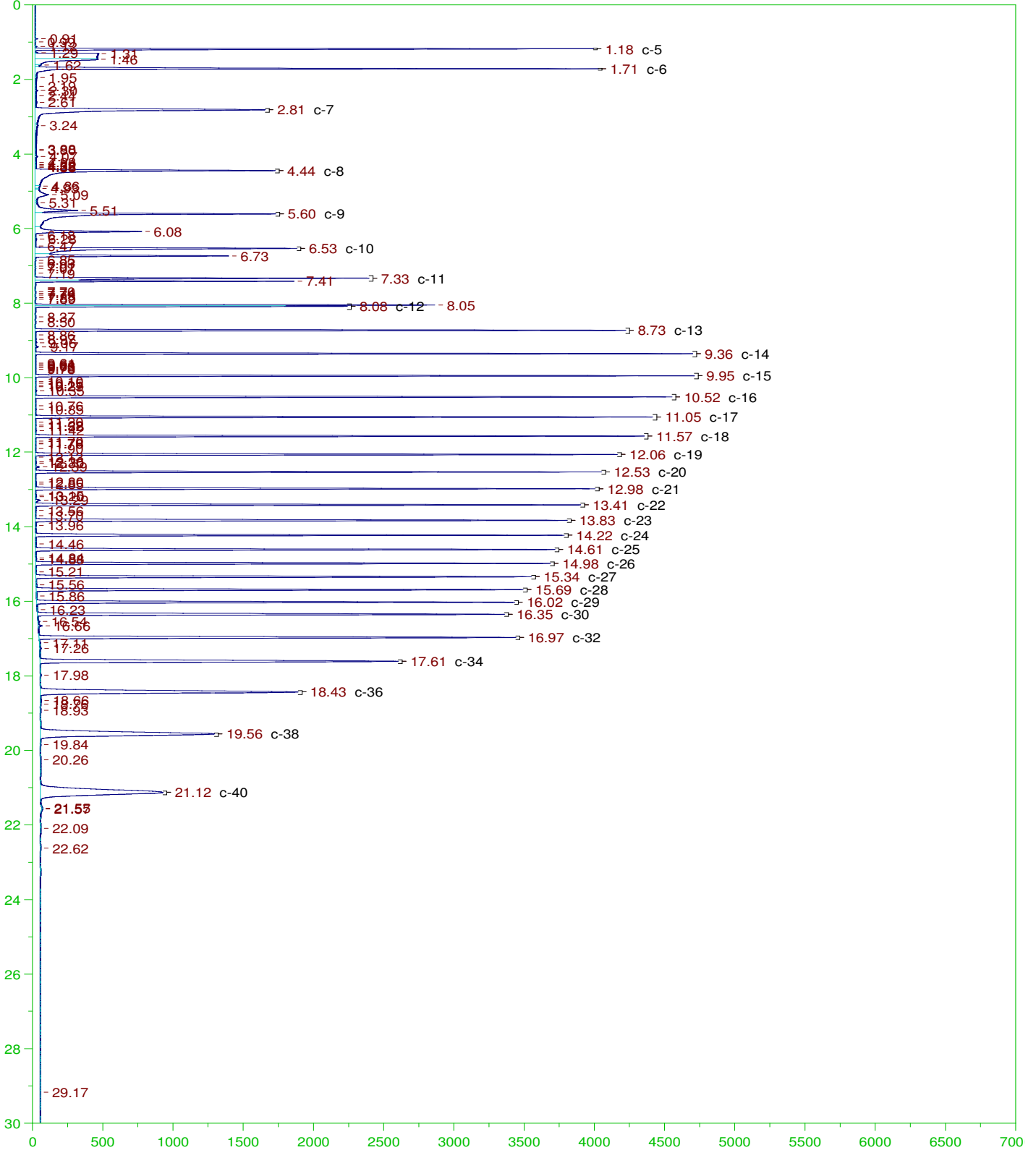
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	70648.41	35324.2	0.721	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0011.BND	1/11/2021 9:44:43 AM
2	50	1746406	34928.12	-0.408	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0012.BND	1/11/2021 9:44:50 AM
3	200	7110604	35553.02	1.374	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0013.BND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

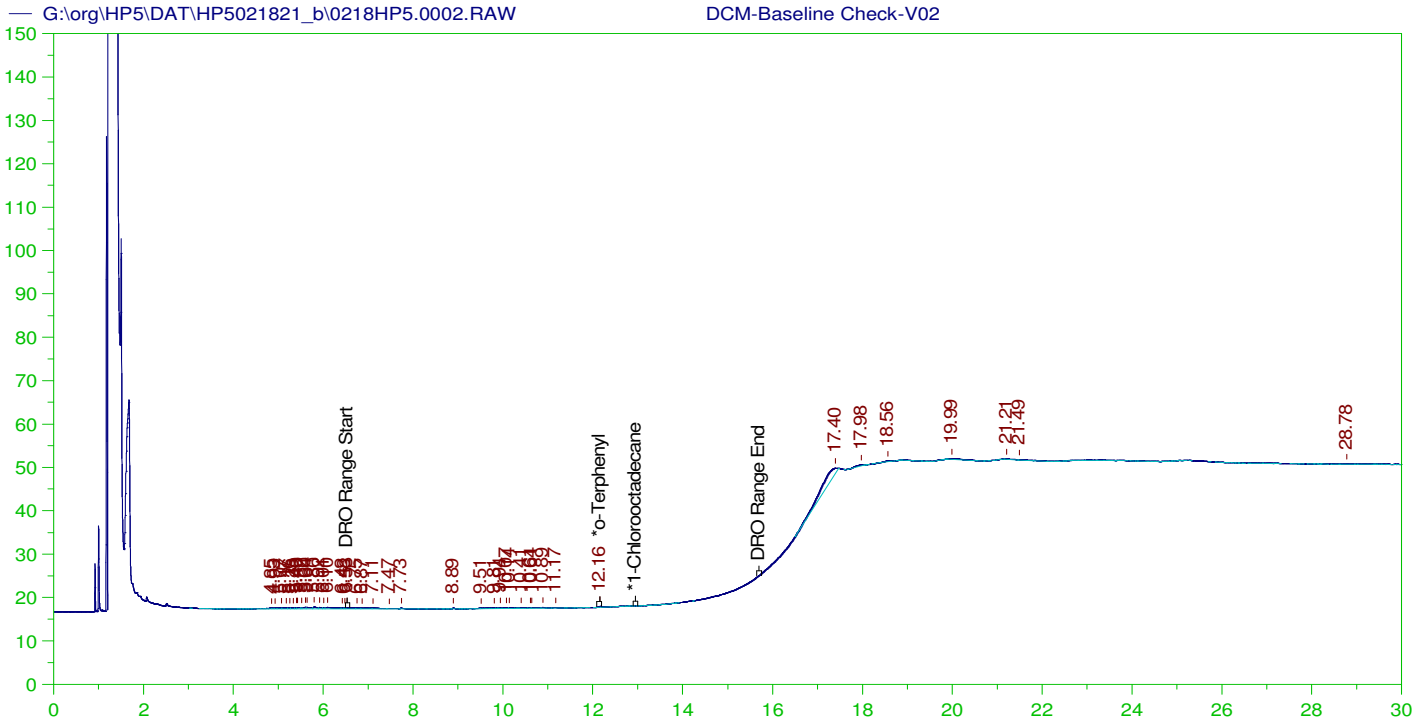
3 \*1-Chlorooctadecane



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**

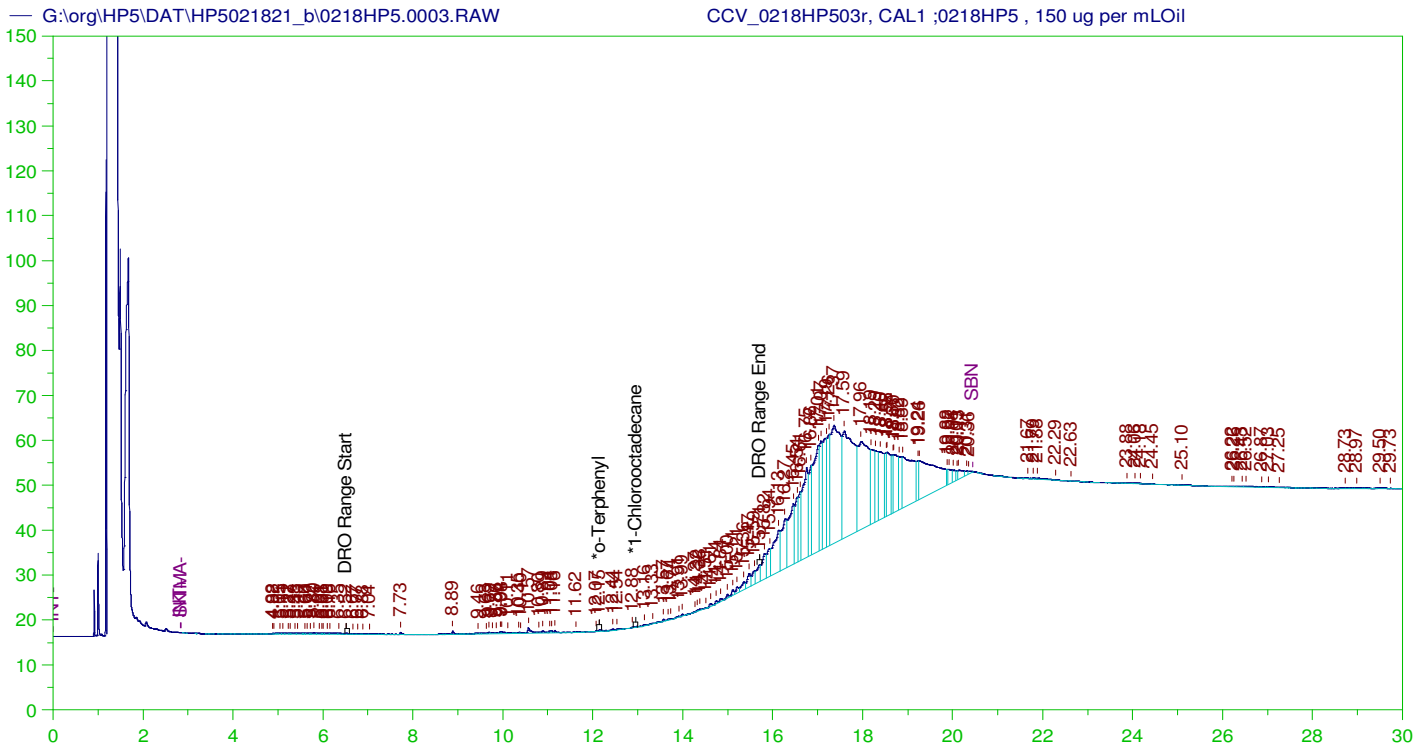
Sample Name: DCM-Baseline Check-V02  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0002.RAW  
 Date & Time Acquired: 2/18/2021 11:21:40 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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: CCV\_0218HP503r, CAL1 ;0218HP5 , 150 ug per mL Oil  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0003.RAW  
 Date & Time Acquired: 2/18/2021 12:03:33 PM  
 Method File: G:\ORG\HP5\METHODS\DR\_OIL-021803-AA-L0.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_OIL210218AA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41

Rt range for Diesel Range Organics: 6.49 to 15.75

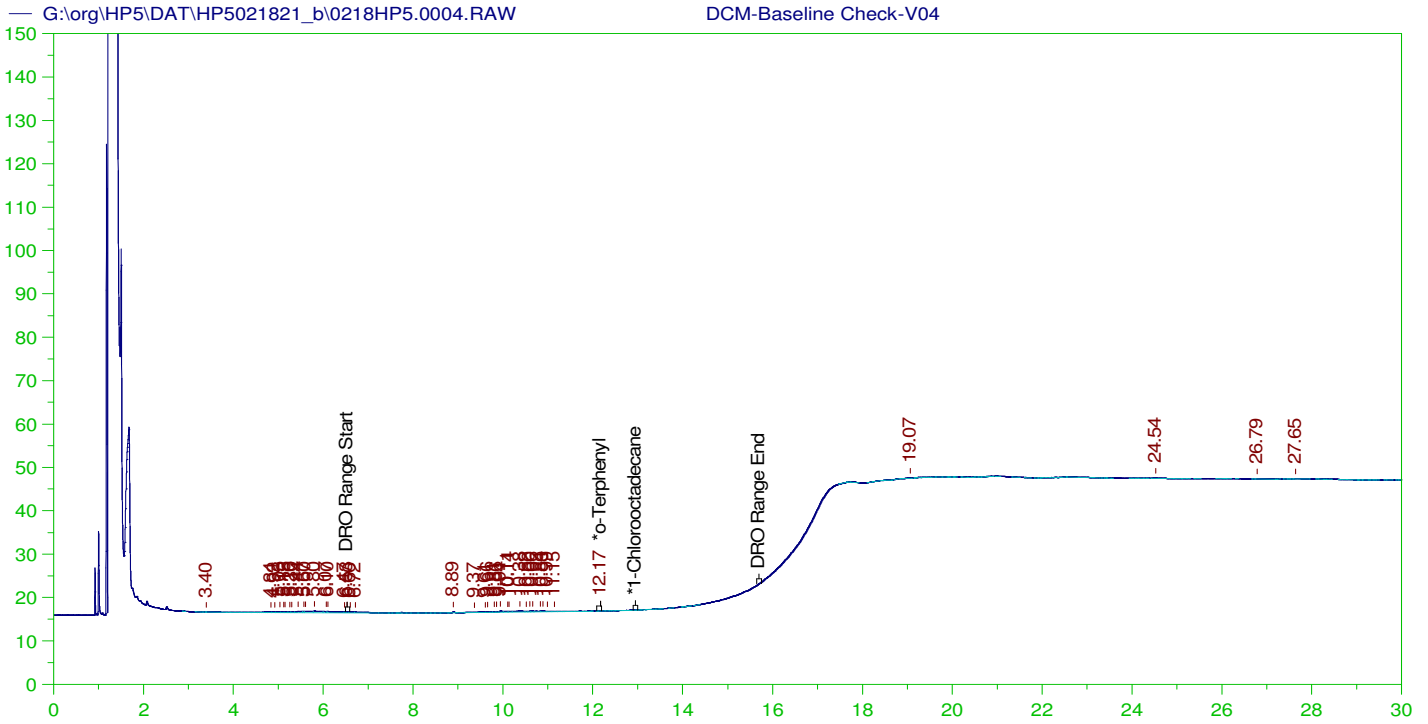
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.146	200.	.02	.01
*1-Chlorooctadecane	29.979	200.	.	.

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

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0003.RAW

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

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



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

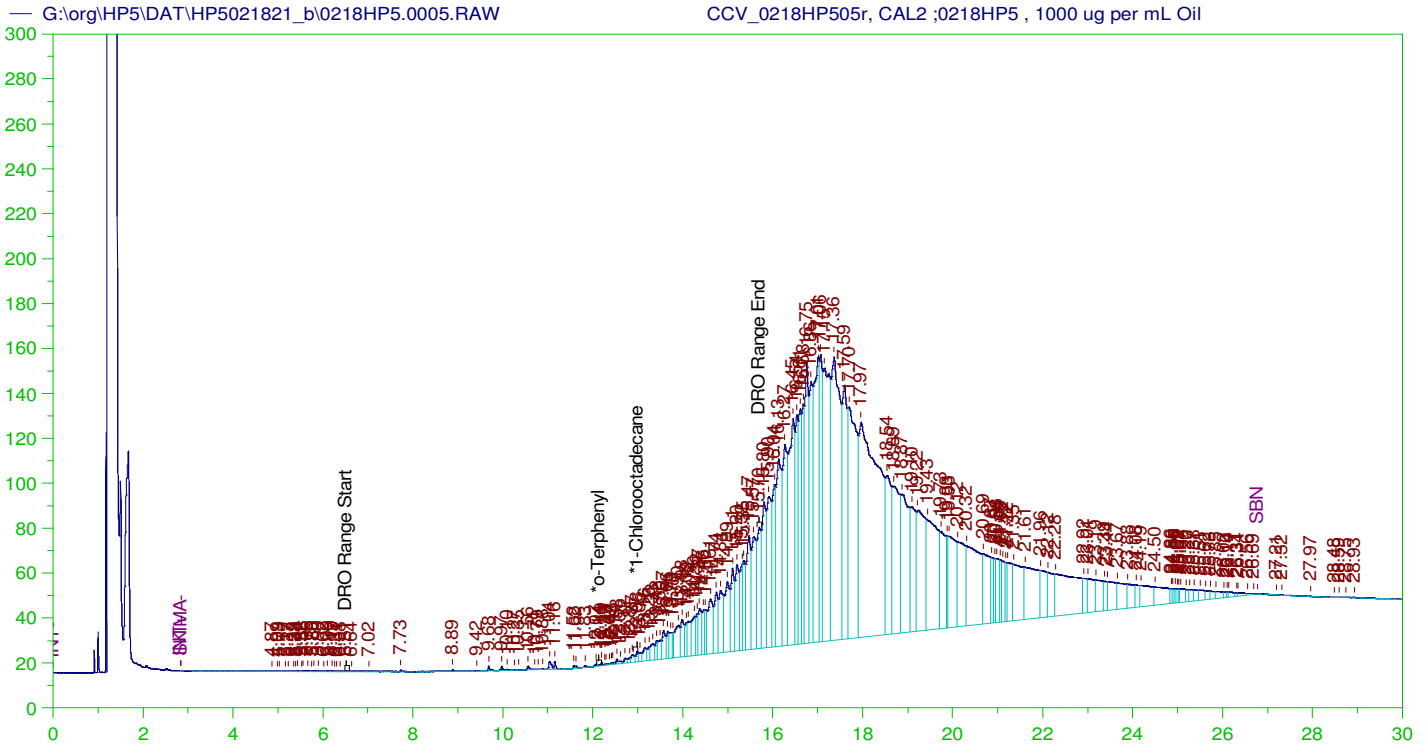
Sample Name: DCM-Baseline Check-V04  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0004.RAW  
 Date & Time Acquired: 2/18/2021 12:45:36 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33

Rt range for Diesel Range Organics: 6.49 to 15.75

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

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



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0218HP505r, CAL2 ;0218HP5 , 1000 ug per mL Oil  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0005.RAW  
 Date & Time Acquired: 2/18/2021 1:27:30 PM  
 Method File: G:\ORG\HP5\METHODS\DR\_OIL-021805-AA-L0.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_OIL210218AA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 28542.41

Rt range for Diesel Range Organics: 6.49 to 15.75

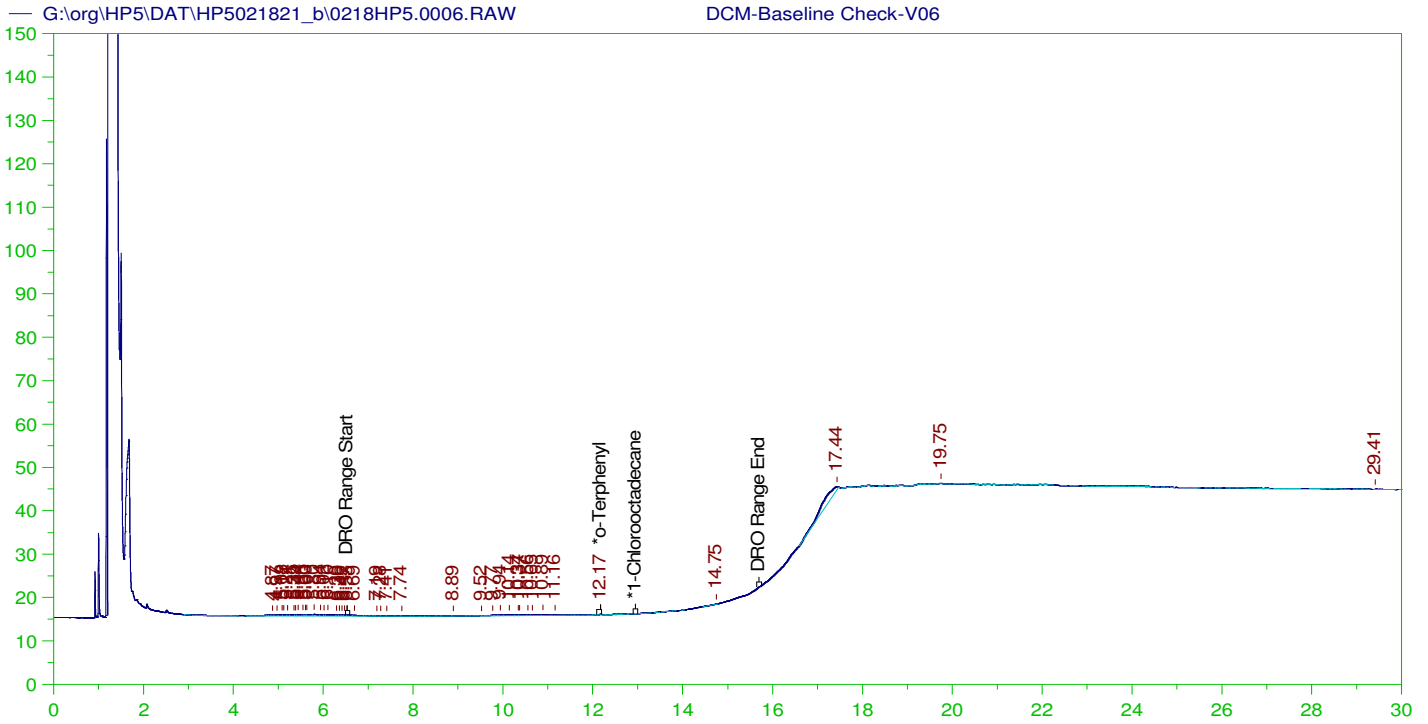
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.136	200.	.034	.02
*1-Chlorooctadecane	12.983	200.	.496	.25

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

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0005.RAW

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

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



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

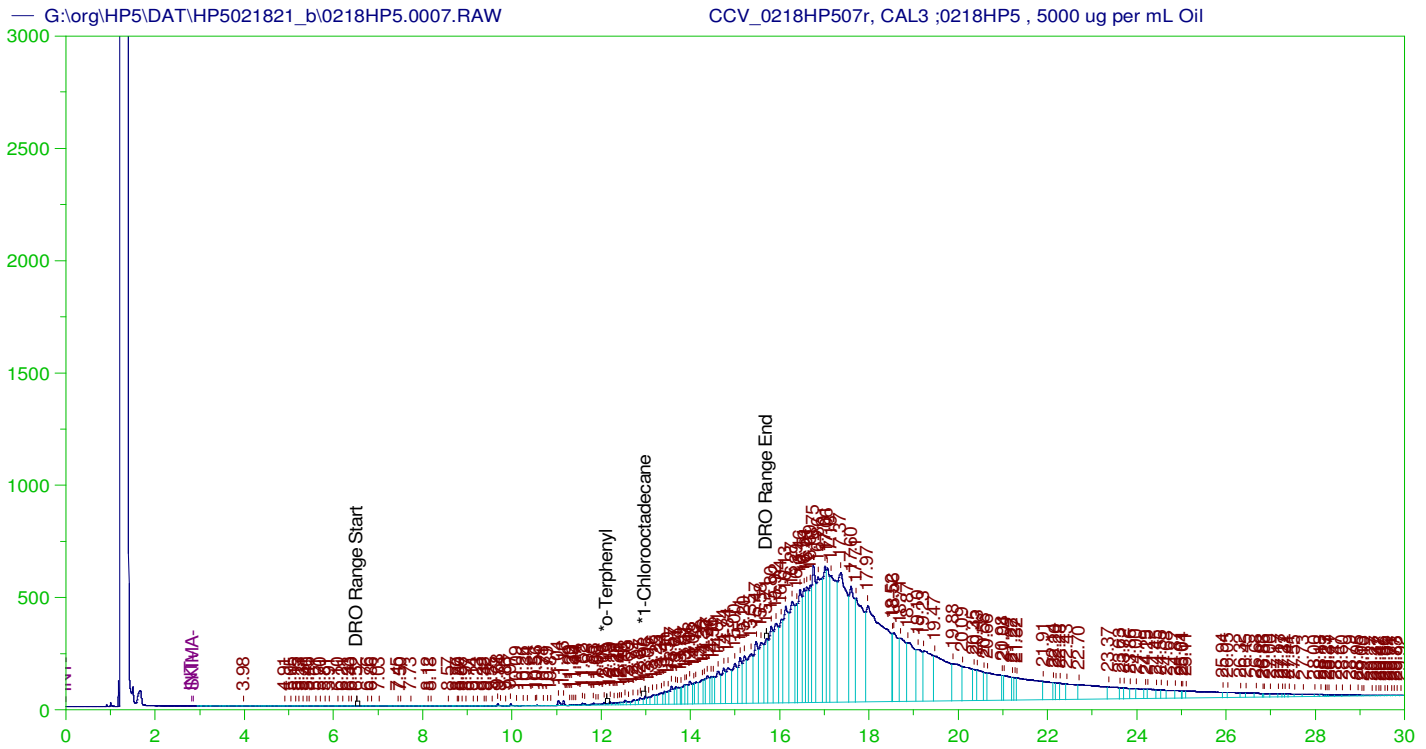
Sample Name: DCM-Baseline Check-V06  
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 Date & Time Acquired: 2/18/2021 2:09:12 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

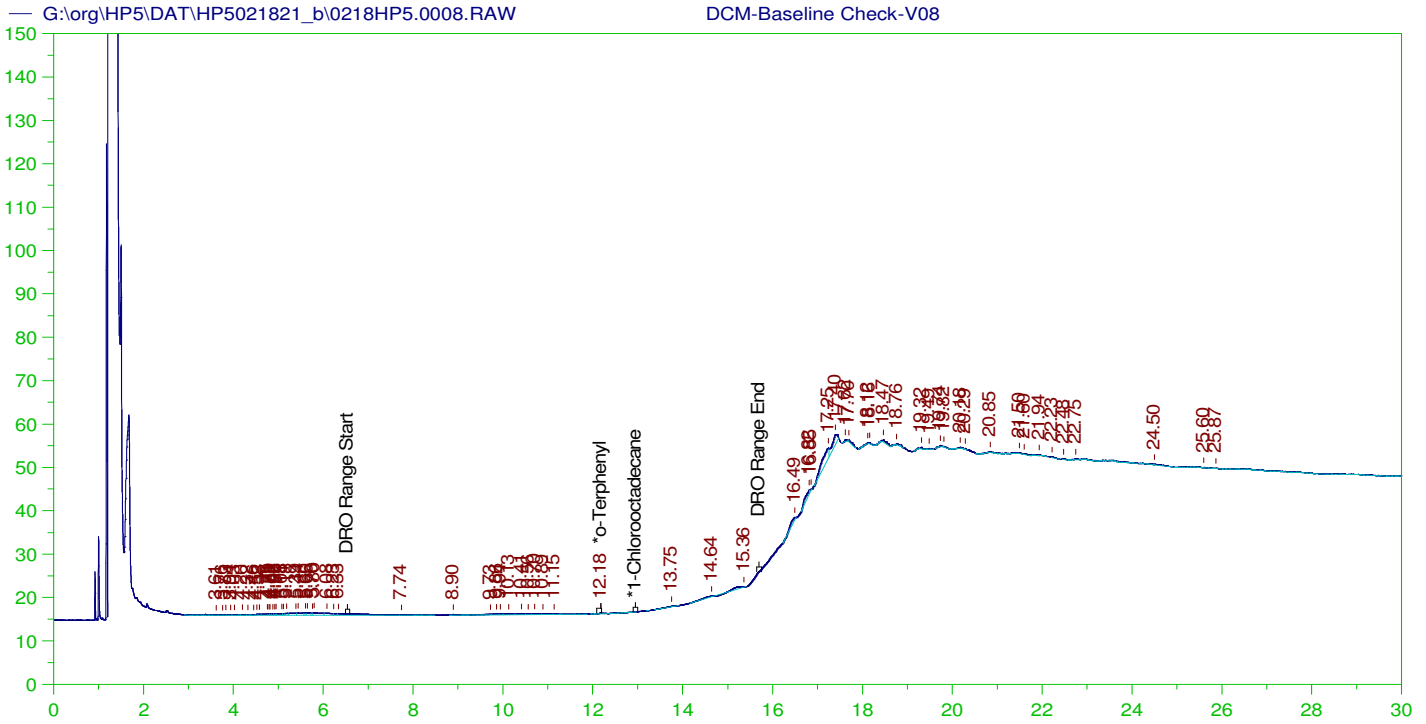
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.129	200.	.538	.27	-
*1-Chlorooctadecane	12.981	200.	4.244	2.12	-

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**

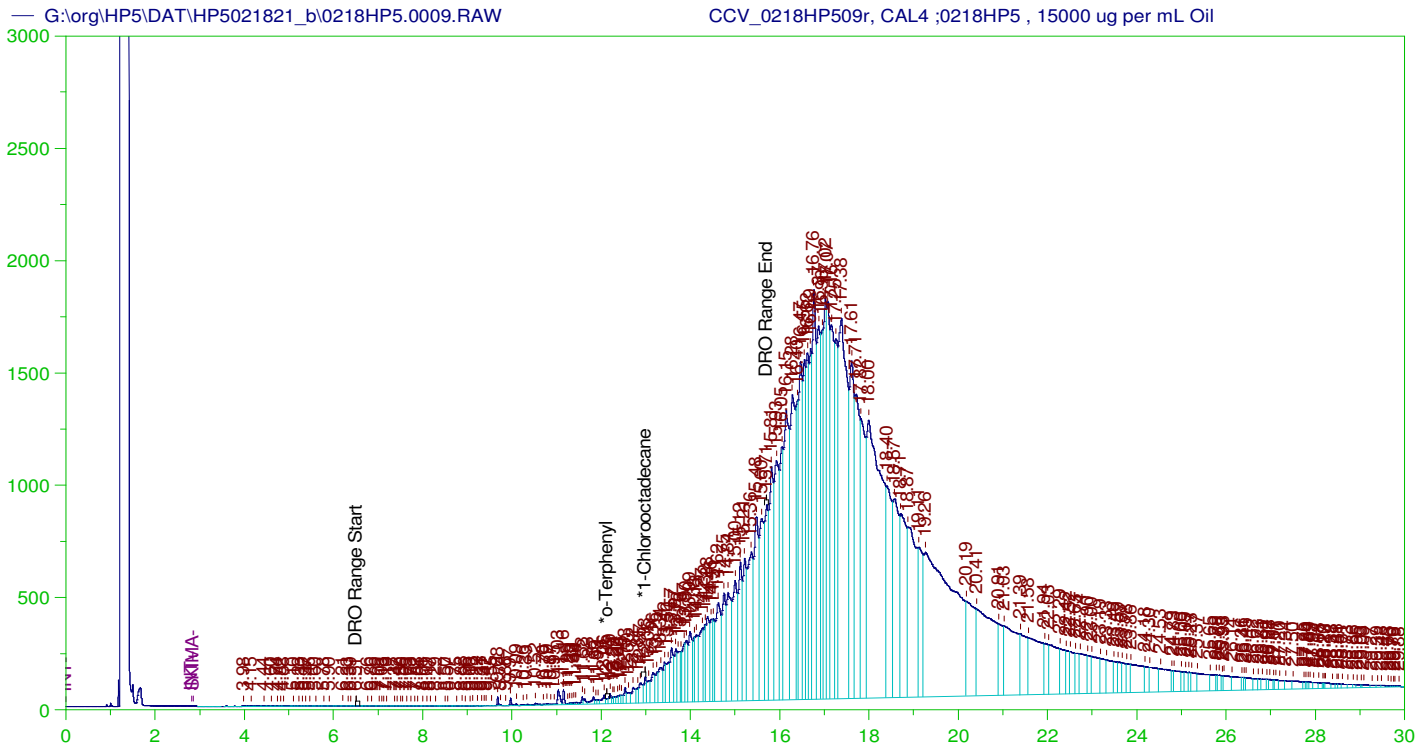
Sample Name: DCM-Baseline Check-V08  
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 Date & Time Acquired: 2/18/2021 3:32:46 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

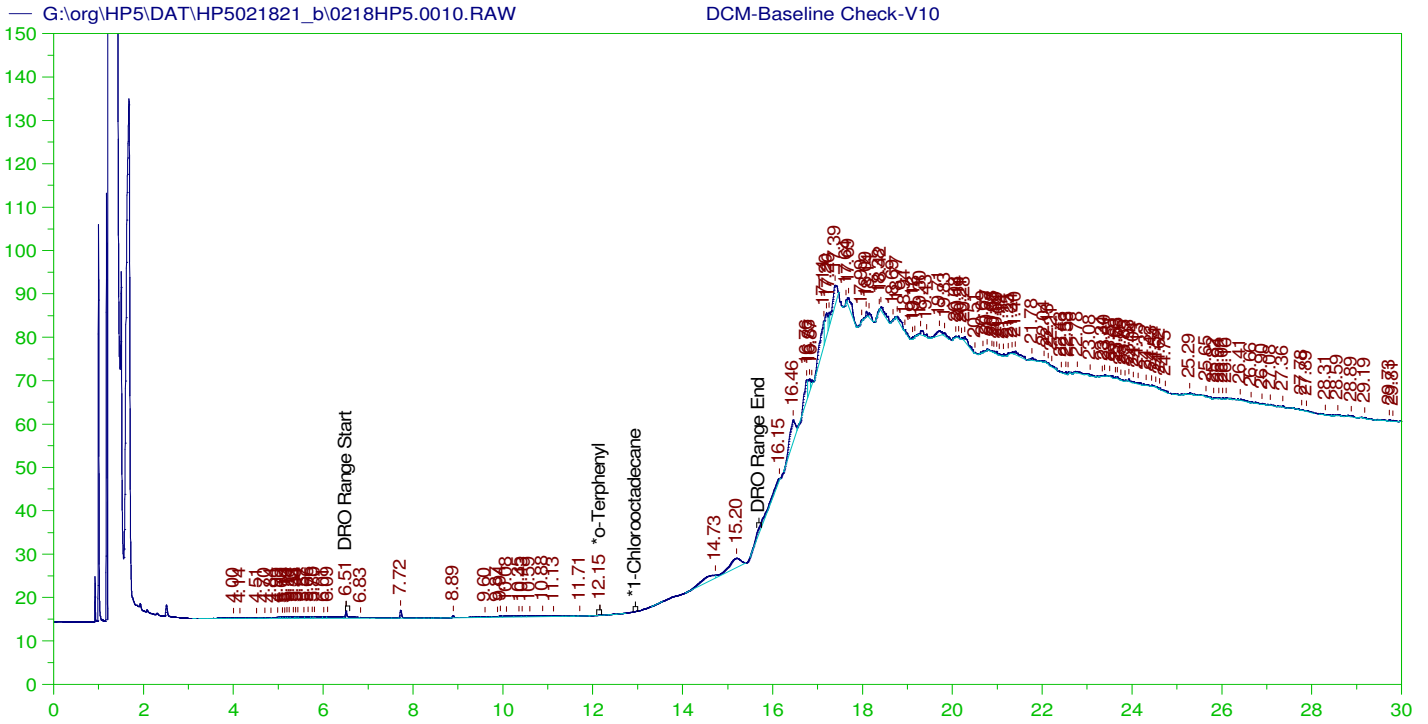
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.124	200.	1.888	.94	-
*1-Chlorooctadecane	12.984	200.	13.129	6.56	-

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



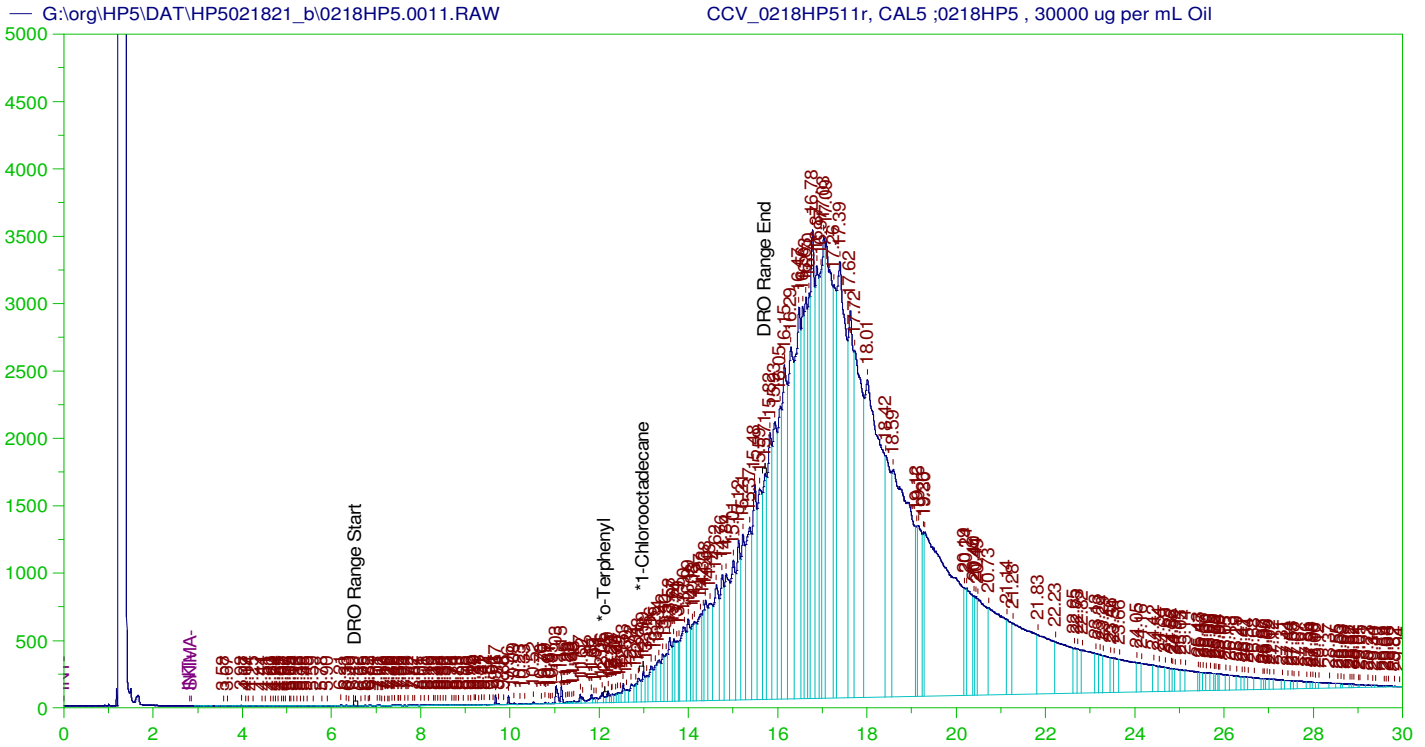
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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

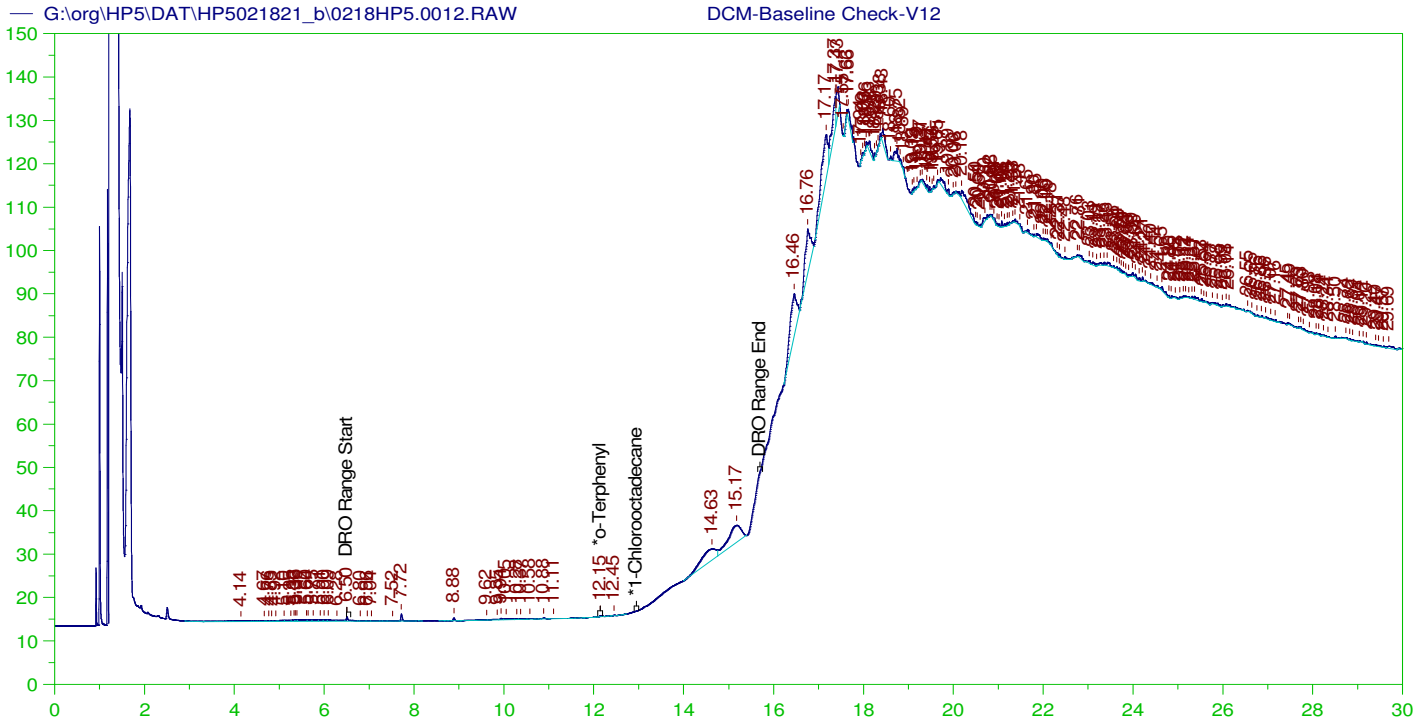
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.128	200.	3.828	1.91
*1-Chlorooctadecane	12.985	200.	28.22	14.11

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



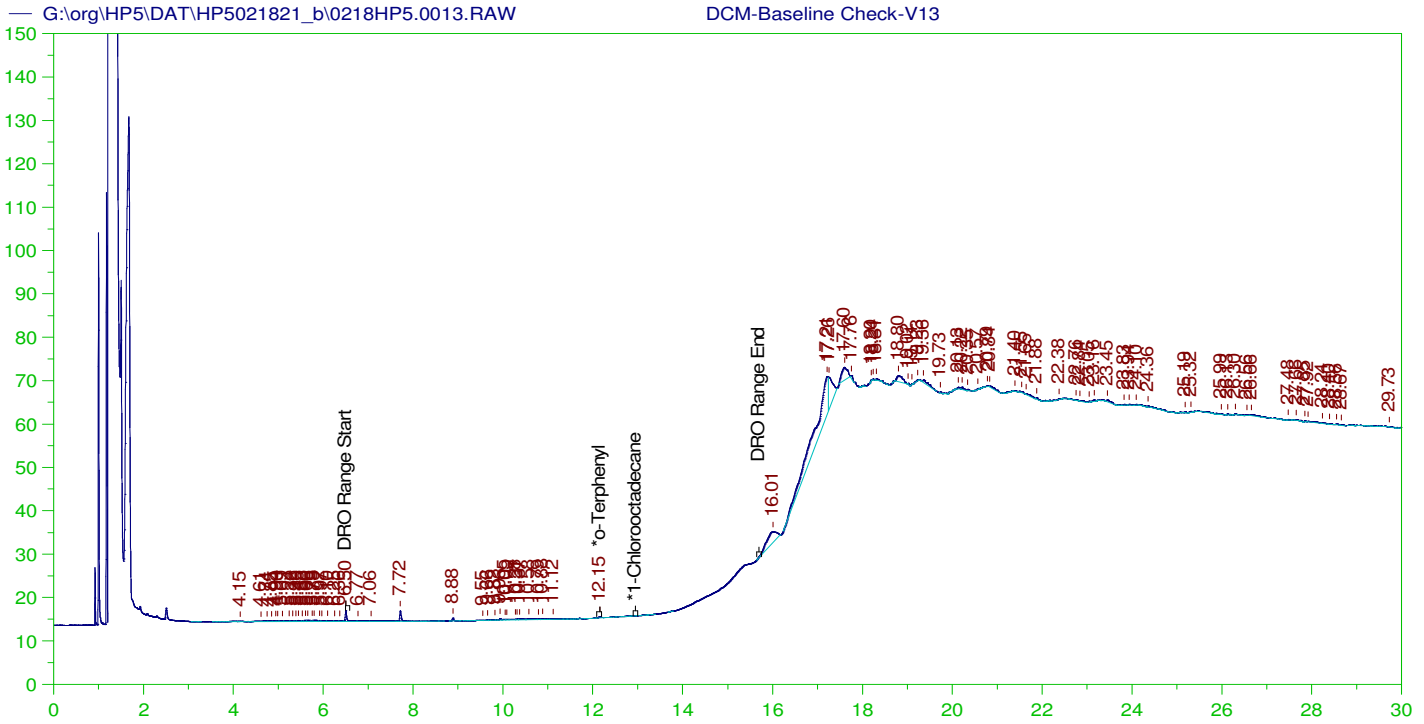
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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



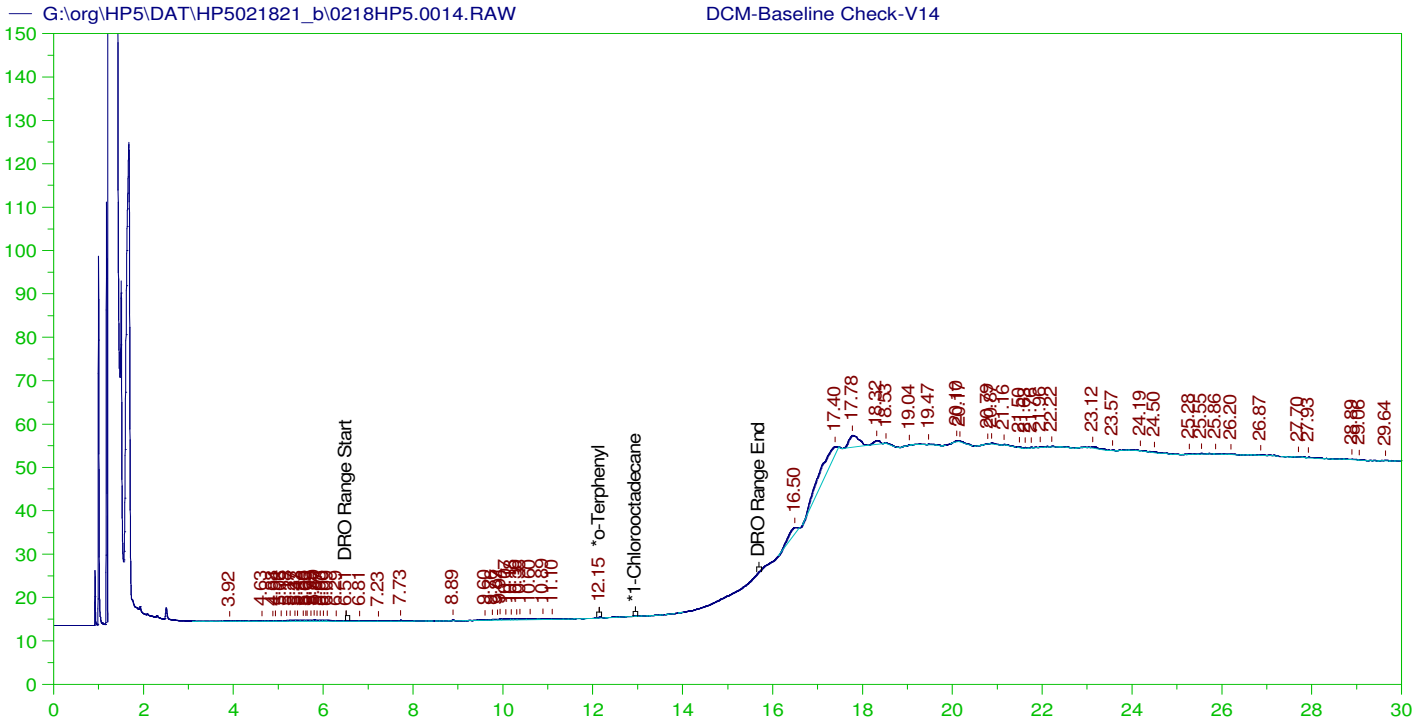
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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**

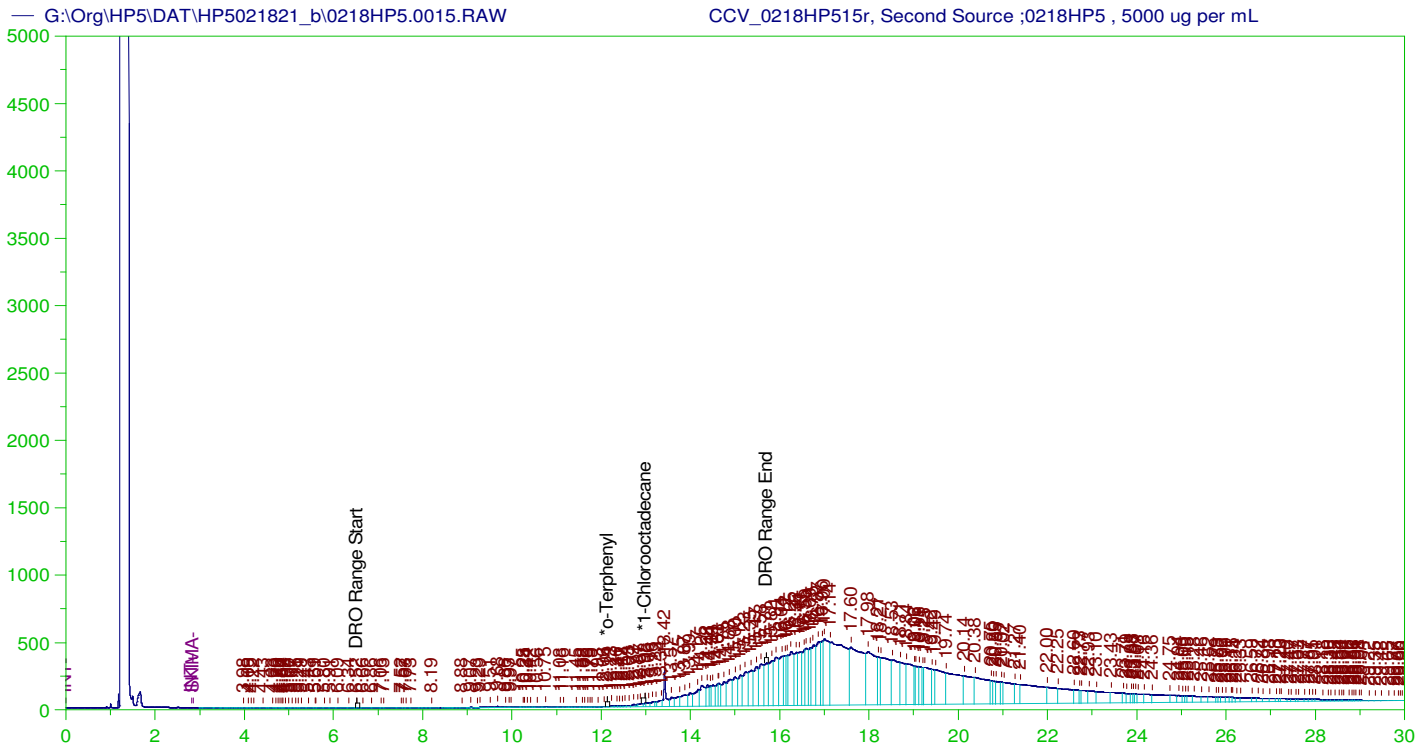
Sample Name: DCM-Baseline Check-V14  
 Raw File: G:\org\HP5\DAT\HP5021821\_b\0218HP5.0014.RAW  
 Date & Time Acquired: 2/18/2021 7:45:21 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	Insert Entries(Have the first cell for entries select)	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integration
				G:\Org\HP5\Methods\CSC210212.met	1	1	1	1	0	No Integration
				G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
				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.
				G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
				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.
				G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
				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.
				G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
				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.
				G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
				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.
				G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
				G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
				G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
				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.
				G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
				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

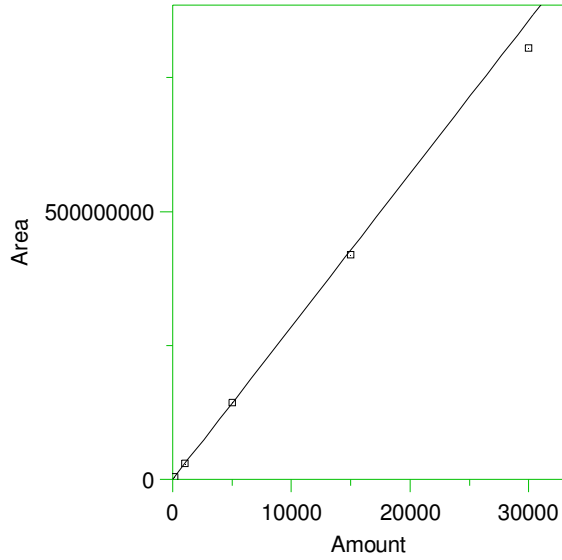
No default component

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

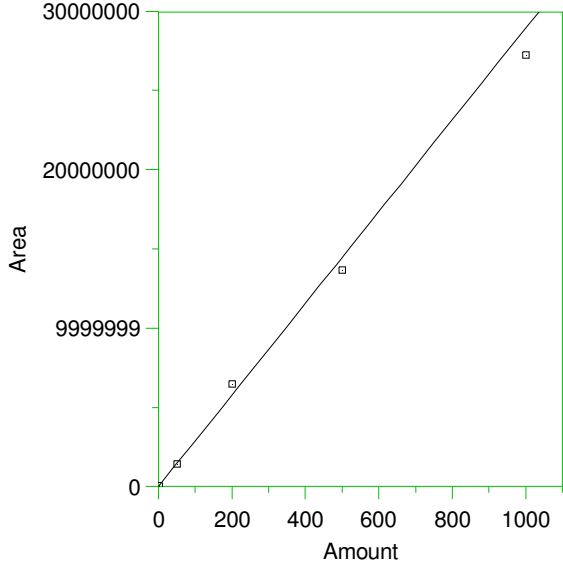
$Y = 28542.41 X + 0$

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

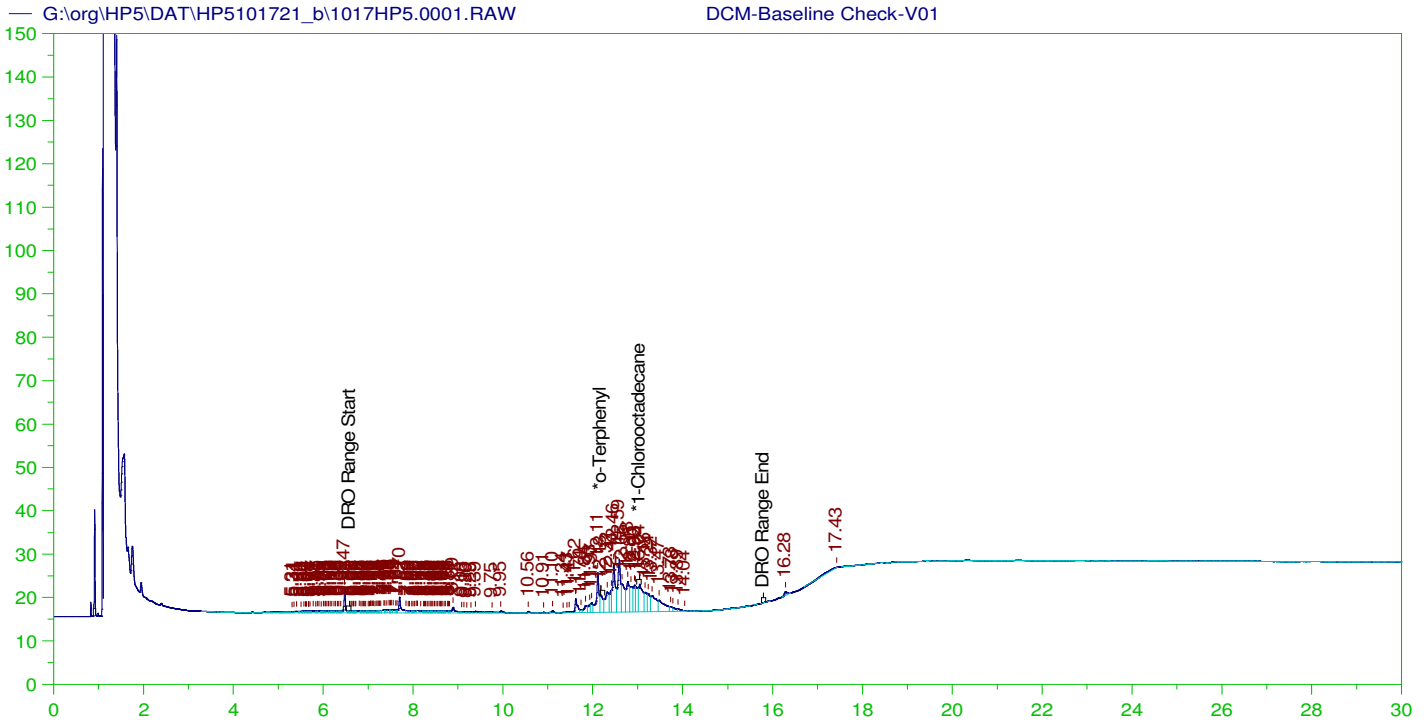
\*#Triacontane



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





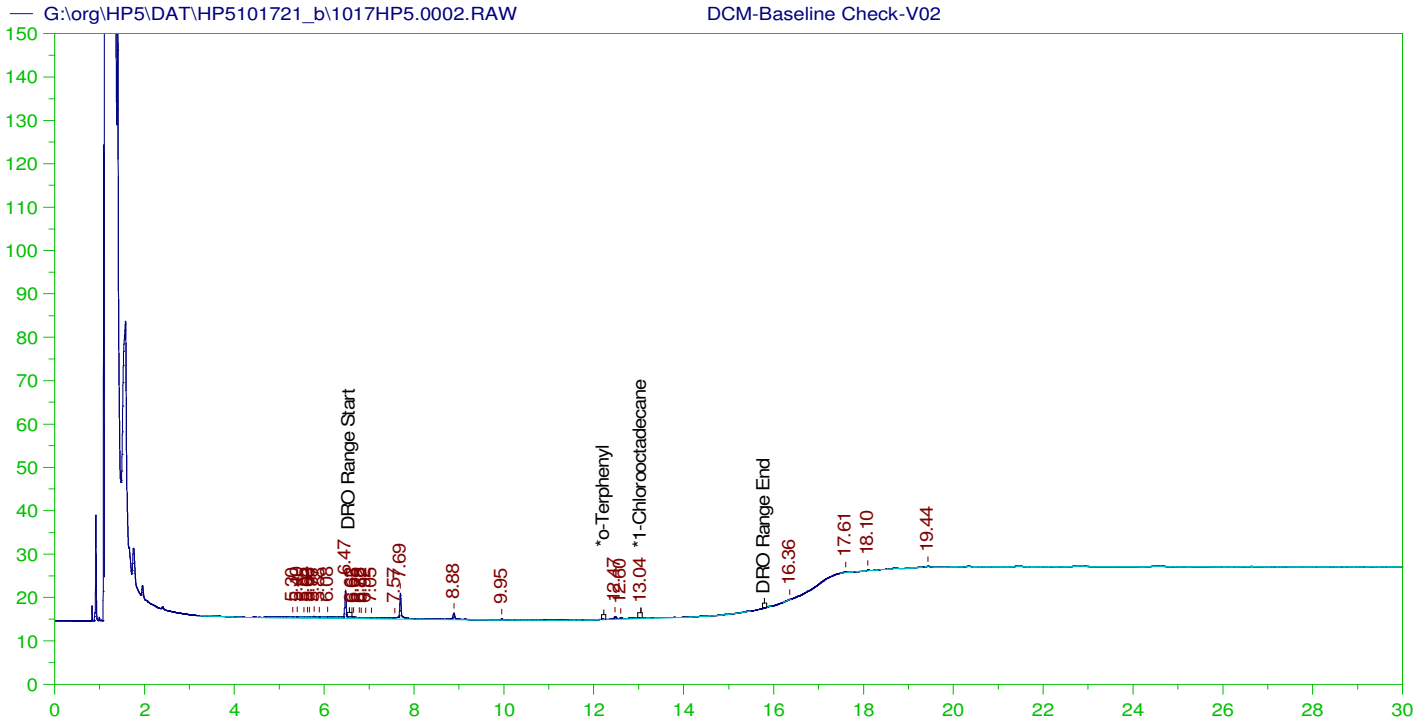
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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**

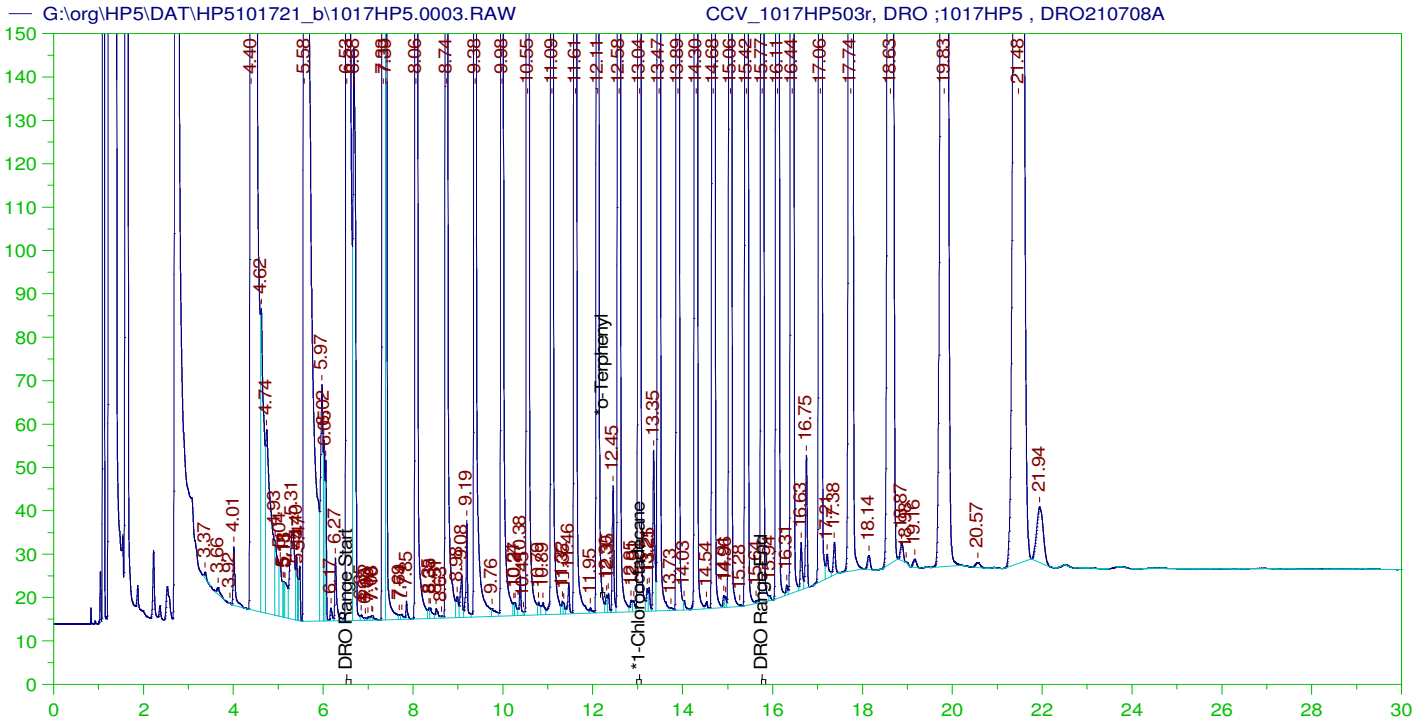
Sample Name: DCM-Baseline Check-V02  
 Raw File: G:\org\HP5\DAT\HP5101721\_b\1017HP5.0002.RAW  
 Date & Time Acquired: 10/17/2021 1:22:21 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HS-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108Hs.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

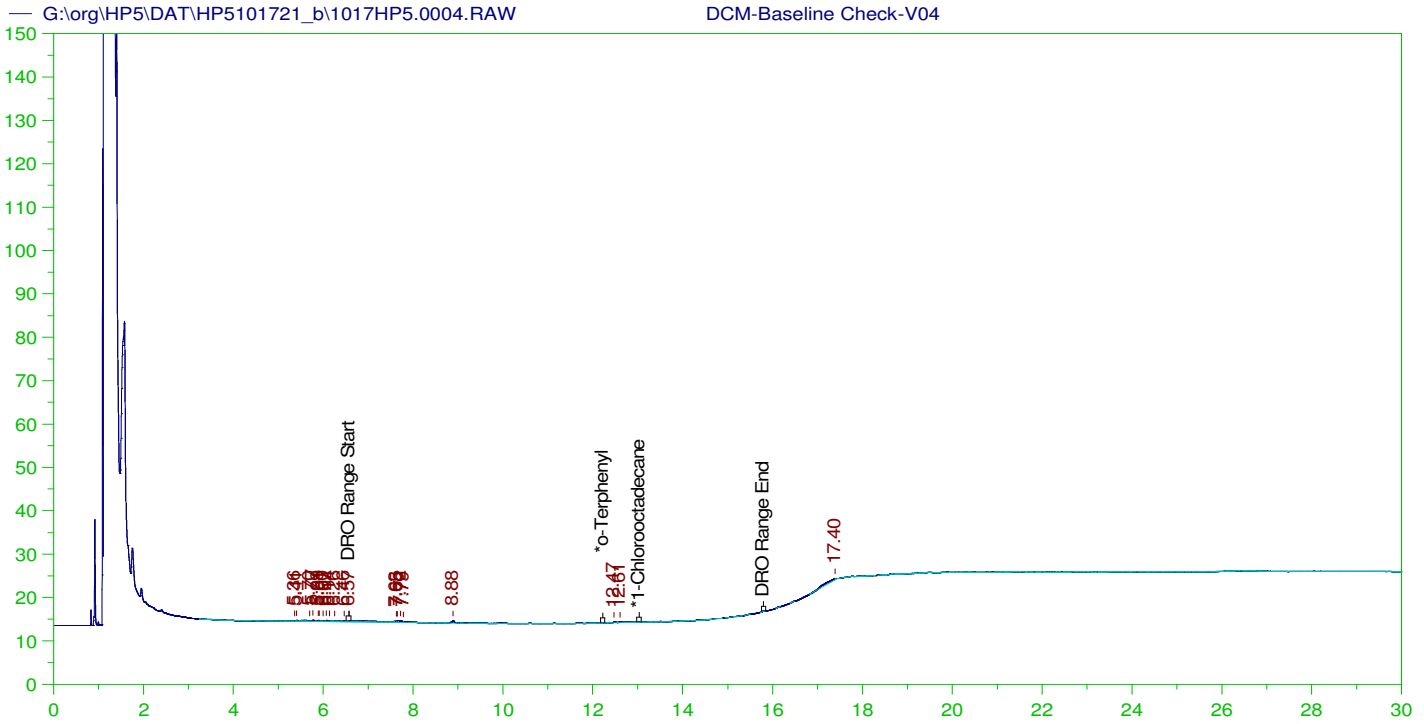
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.982	200.	.	-
*1-Chlorooctadecane	13.037	200.	255.634	127.82 -

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



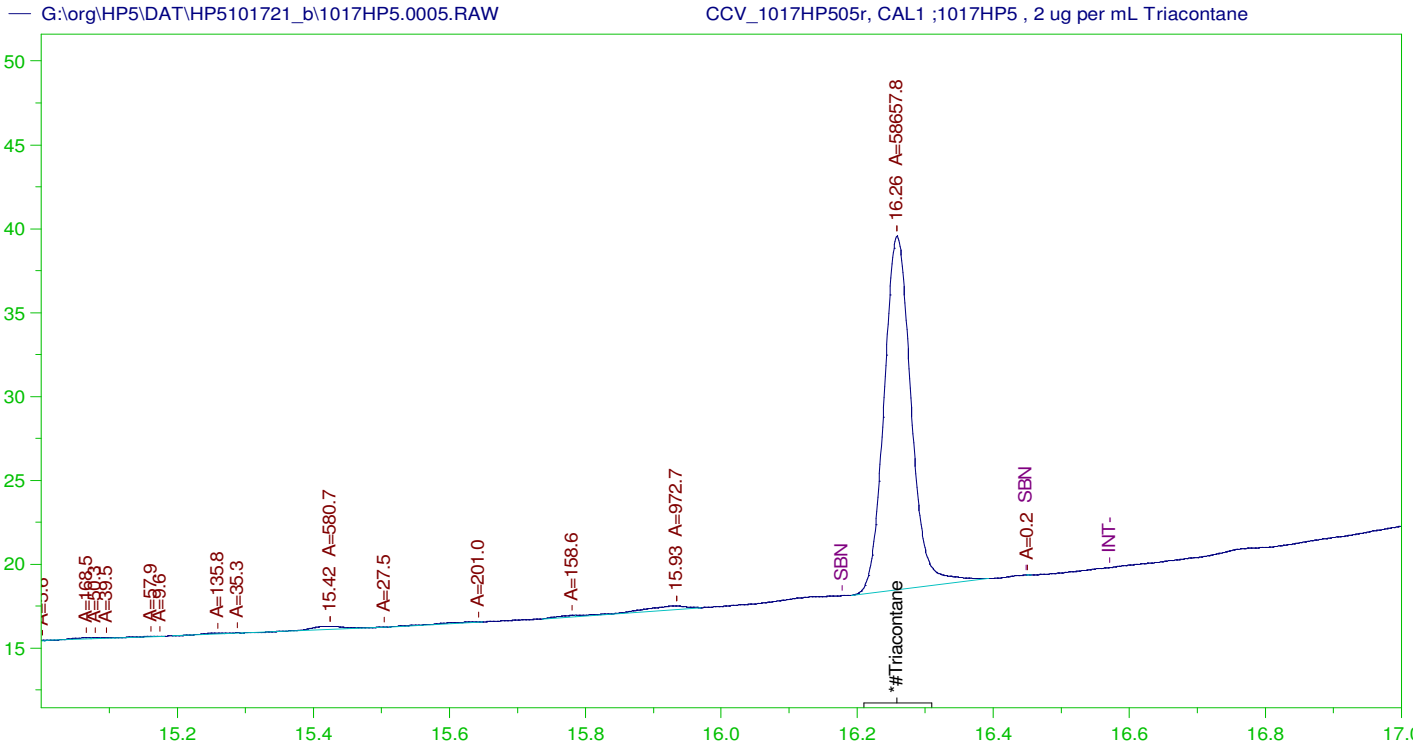
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

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

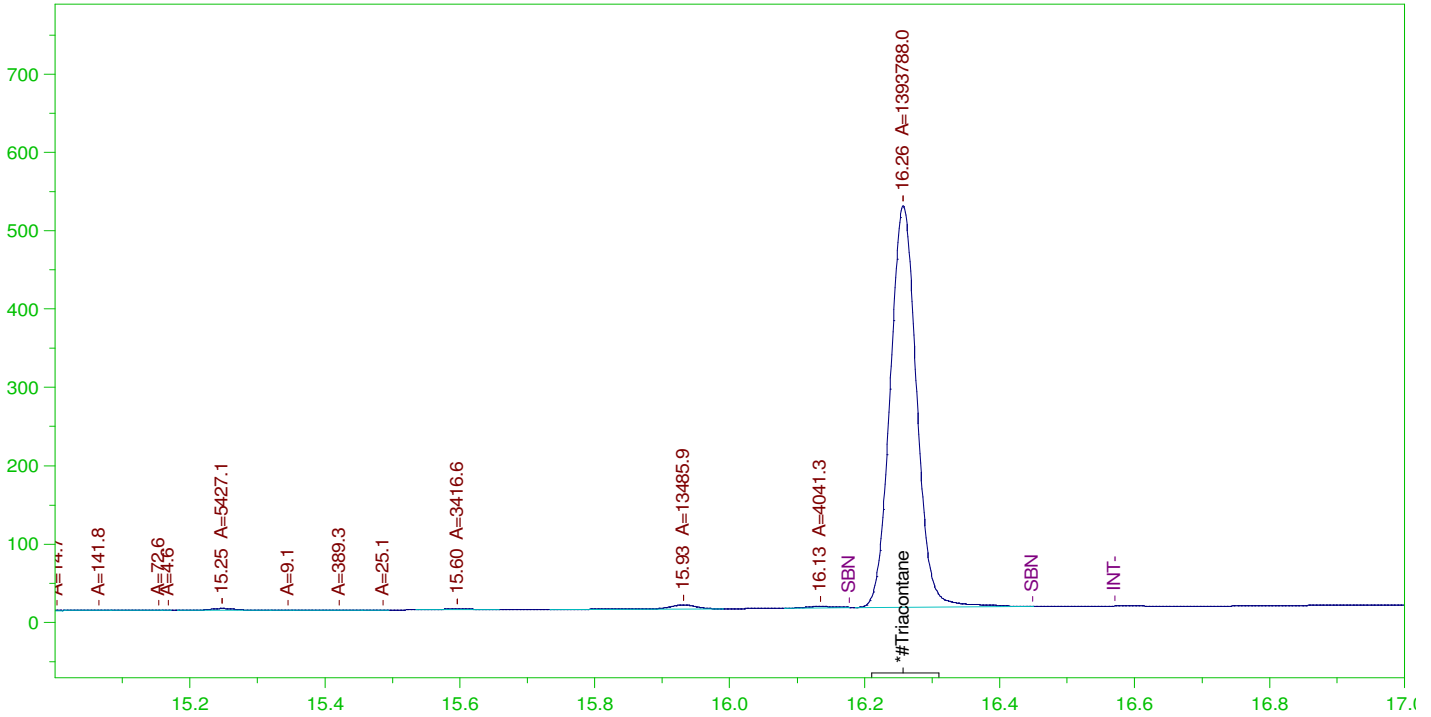
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	75-125	

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

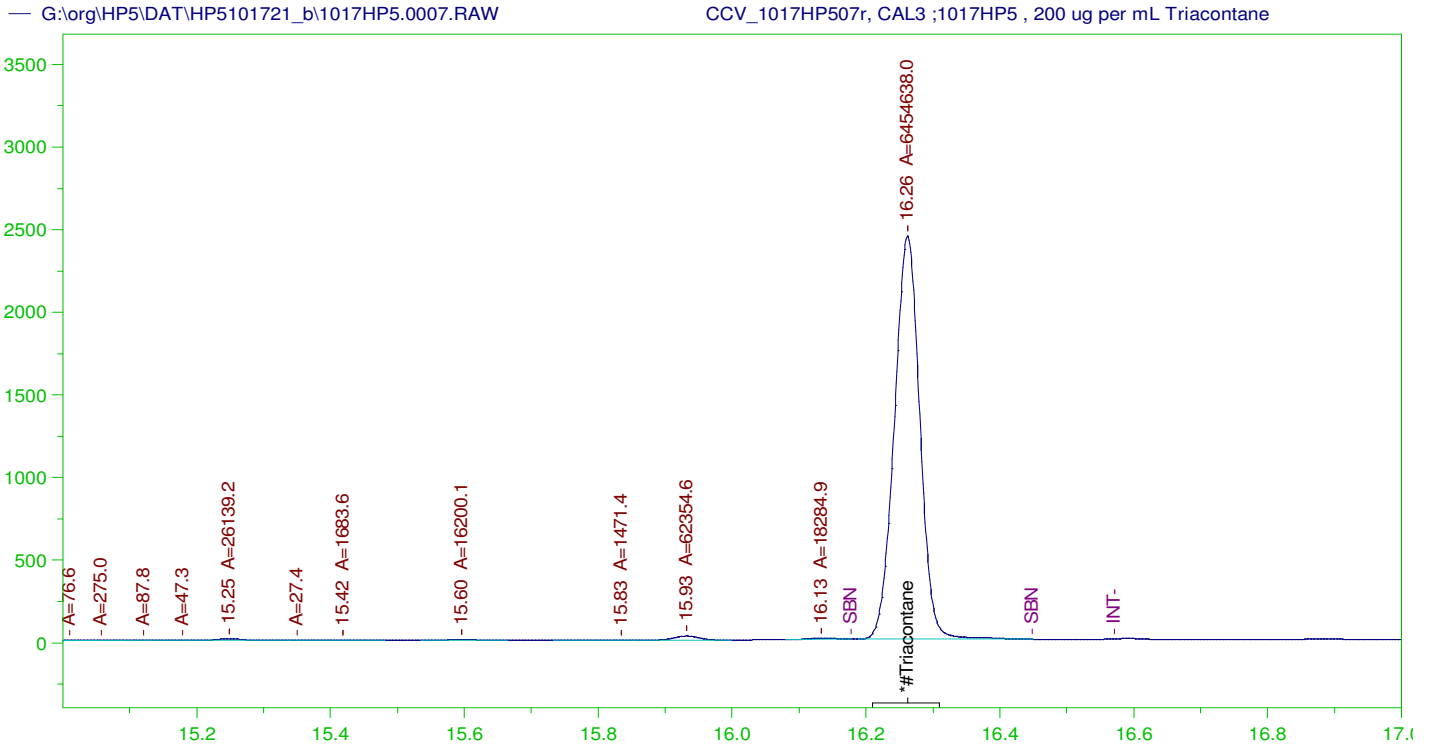
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.257	500.	48.178	9.64	-

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

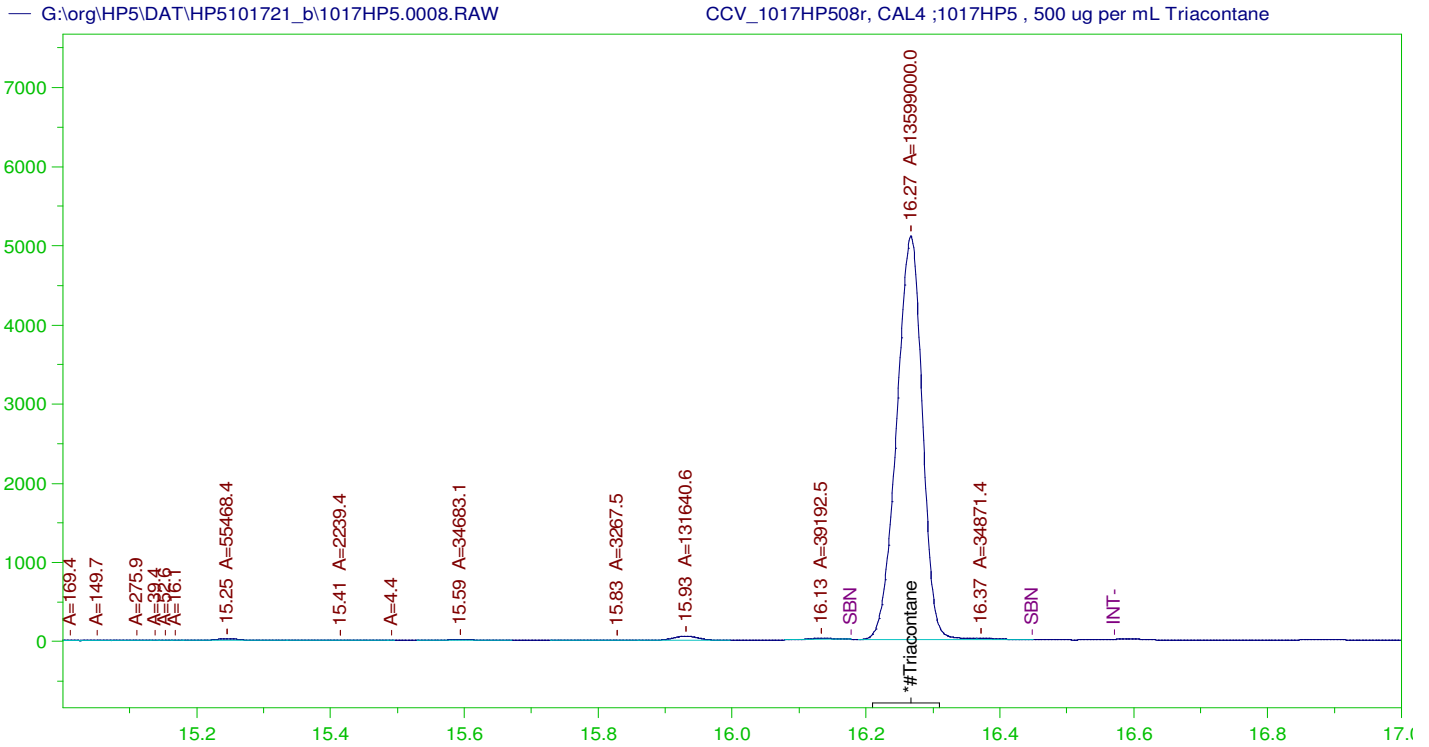
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.262	500.	223.111	44.62	-

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

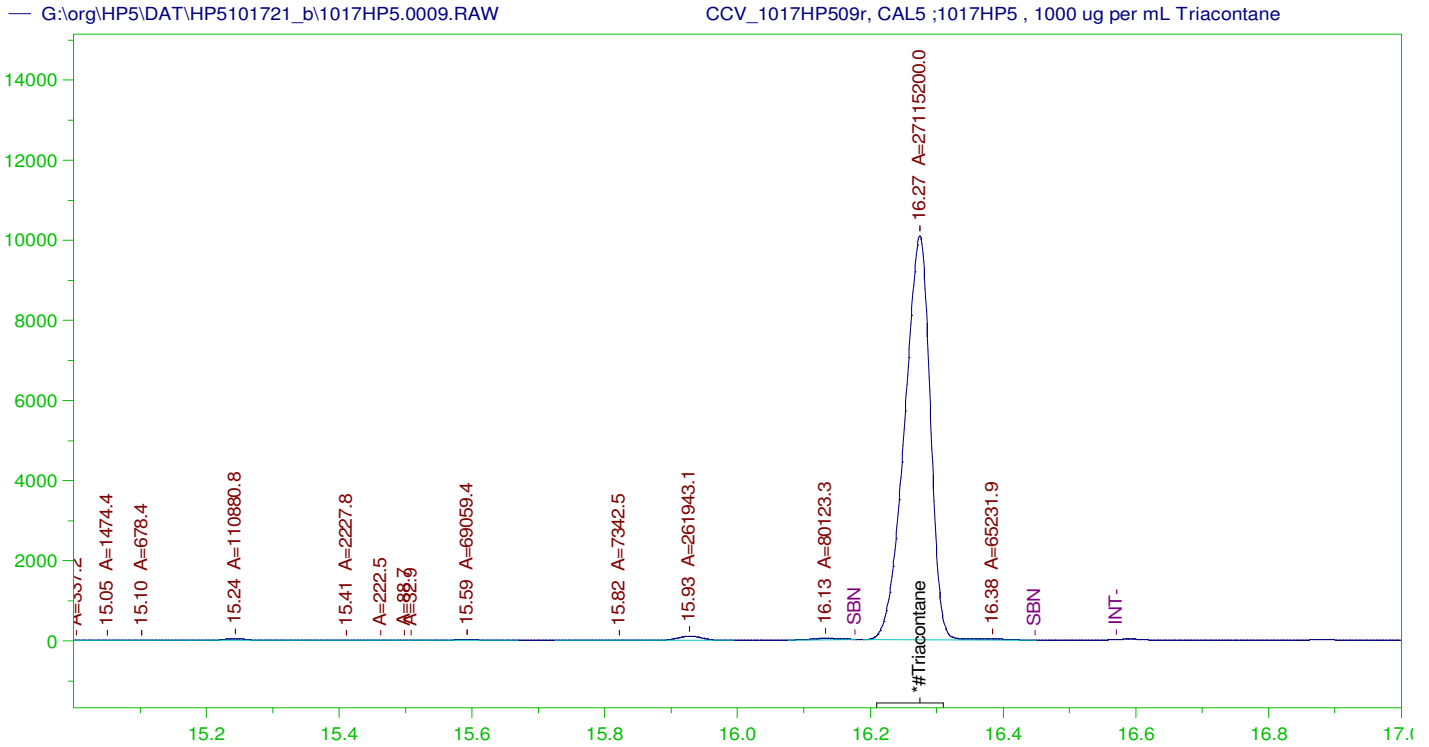
RRO Area:496538.4 RRO AMOUNT: 17.39651

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
		DCM-Baseline Check-V01	G:\Org\HP5-Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No integration
		DCM-Baseline Check-V02	G:\Org\HP5-Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No integration
		CCV_1017HP503r, DRO_1017HP5, DRO210708A	G:\Org\HP5-Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No integration
		DCM-Baseline Check-V04	G:\Org\HP5-Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No integration
		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
		CCV_1017HP506r, CAL2;1017HP5, 50 ug per mL Triacotane (100 uL Cal4 + 900 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
		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
		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
		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 **161704** Prep Temp **NA °C**

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

Prep Start Date: **11/29/2021 11:55:35 A**  
 Prep End Date: **12/1/2021 11:16:00 A**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-161704			1000	0	0	1.00	0.001		11/29/2021	11/30/2021
Lines 1-7 Start time: 11:45 AM, 11/29/2021. End time: 11/30/2021 at 6:10 AM. SGT on remaining sample by ALN on 12/1/2021										
LCS-161704			1000	0	0	1.00	0.001		11/29/2021	11/30/2021
All bottles were completely used, defaced and disposed of on 11/29/2021. SGT on remaining sample by ALN on 12/1/2021										
LCSD-161704			1000	0	0	1.00	0.001		11/29/2021	11/30/2021
SGT on remaining sample by ALN on 12/1/2021										
LCS-161704-RRO			1000	0	0	1.00	0.001		11/29/2021	11/30/2021
SGT on remaining sample by ALN on 12/2/2021										
LCSD-161704-RRO			1000	0	0	1.00	0.001		11/29/2021	11/30/2021
SGT on remaining sample by ALN on 12/2/2021										
B21112206-001A	Ground Water	2	960	0	0	1.00	0.00104		11/29/2021	11/30/2021
Bottle 1/2. Clear. Lines 6-15 Start time: 1:55 PM, 11/29/2021. End time: 11/30/2021 at 7:55 AM. SGT on remaining sample by ALN on 12/2/2021										
B21112206-002A	Ground Water	2	970	0	0	1.00	0.00103		11/29/2021	11/30/2021
Bottle 1/2. Clear.										
B21112212-001A	Ground Water	2	1050	0	0	1.00	0.000952		11/29/2021	11/30/2021
Bottle 1/2. Clear, orange sediment. Removed water from extract using soium sulfate. SGT on remaining sample by ALN on 12/1/2021										
B21112212-002A	Ground Water	2	1020	0	0	1.00	0.000976		11/29/2021	11/30/2021
Bottle 1/2. Clear. SGT on remaining sample by ALN on 12/1/2021										
B21112212-003A	Ground Water	2	1020	0	0	1.00	0.000976		11/29/2021	11/30/2021
Bottle 1/2. Clear, light sediment. SGT on remaining sample by ALN on 12/1/2021										
B21112212-004A	Ground Water	2	1040	0	0	1.00	0.000957		11/29/2021	11/30/2021
Bottle 1/2. Clear, light sediment. SGT on remaining sample by ALN on 12/1/2021										
B21112212-005A	Ground Water	2	1040	0	0	1.00	0.000962		11/29/2021	11/30/2021
Bottle 1/2. Clear.										
B21112212-006A	Drinking Water	2	1060	0	0	1.00	0.000943		11/29/2021	11/30/2021
Bottle 1/2. Clear.										
B21112212-007A	Drinking Water	2	1050	0	0	1.00	0.000952		11/29/2021	11/30/2021
Bottle 1/2. Clear.										

Number	Reagent Name	Exp Date
11	Carbon Filter Water	1/1/2023
13379	PTFE Boiling Stones 27463755	12/30/2025
14181	4ML, Amber Vial, 24166704	8/17/2026
14206	pH-indicator Strips 0-14 HC160347	8/26/2026
14518	Dichloromethane EC735	10/14/2023

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP211118 14446	DCM RINSED FILTER PAPER	all	1	4/6/2026
Sulfate 11/12/21 (	Baked Sodium Sulfate	all	Varies	11/12/2026
Sulfate 11/21/21 (	Baked Sodium Sulfate	all	Varies	11/19/2026
DRO211129A	Triacotane SURR 1000 ug/mL	all except LCS/D,	100 uL	4/6/2026
DRO211012J	OTP/COD SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
SG211201(13376	Baked Silica Gel	all SGT	5g	2/28/2030
DRO211012B	#2 Diesel in Acetone 150,000 ug/m	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

# PREP BATCH REPORT

Prep Code: **HC-3520-DRO**  
 Prep Batch **161704** Prep Temp **NA °C**

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

Prep Start Date: **11/29/2021 11:55:35 A**  
 Prep End Date: **12/1/2021 11:16:00 A**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
B21112212-008A Bottle 1/2. Clear.	Drinking Water	2	1050	0	0	1.00	0.000952		11/29/2021	11/30/2021
B21112214-002B Bottle 1/3. Clear. Start time: 2:35 PM, 11/29/2021. End time: 11/30/2021 at 8:40 AM. Blew down to 1.5 mL. Sample was 25x diluted before SGT was performed on sample by ALN on 12/2/2021	Ground Water	2	1050	0	0	2.00	0.0019		11/29/2021	11/30/2021
B21112214-002BMS Bottle 2/3. Clear. Lines 17-18 Start time: 8:25 AM, 11/30/2021. End time: 12/1/2021 at 6:50 AM. Blew down to 1.5 mL. Sample was 25x diluted before SGT was performed on sample by ALN on 12/2/2021	Ground Water	2	1010	0	0	2.00	0.00198		11/30/2021	12/1/2021
B21112214-002BMS-RRO Bottle 3/3. Clear. Blew down to 2.5 mL. Sample was 40x diluted before SGT was performed on sample by ALN on 12/2/2021	Ground Water	2	1020	0	0	3.00	0.00294		11/30/2021	12/1/2021
B21112214-002BREF REF sample was added on 12/02/2021. amn Bottle 1/3. Clear. Start time: 2:35 PM, 11/29/2021. End time: 11/30/2021 at 8:40 AM. Blew down to 1.5 mL.	Ground Water	2	1050	0	0	2.00	0.0019		11/29/2021	11/30/2021

Number	Reagent Name	Exp Date
11	Carbon Filter Water	1/1/2023
13379	PTFE Boiling Stones 27463755	12/30/2025
14181	4ML, Amber Vial, 24166704	8/17/2026
14206	pH-indicator Strips 0-14 HC160347	8/26/2026
14518	Dichloromethane EC735	10/14/2023

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP2111118 14446	DCM RINSED FILTER PAPER	all	1	4/6/2026
Sulfate 11/12/21 (	Baked Sodium Sulfate	all	Varies	11/12/2026
Sulfate 11/21/21 (	Baked Sodium Sulfate	all	Varies	11/19/2026
DRO211129A	Triacotane SURR 1000 ug/mL	all except LCS/D,	100 uL	4/6/2026
DRO211012J	OTP/COD SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
SG211201(13376	Baked Silica Gel	all SGT	5g	2/28/2030
DRO211012B	#2 Diesel in Acetone 150,000 ug/m	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

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

09-Dec-21

Run ID GCFID-HP5-B\_211129C

<b>Run Start Date:</b> 11/29/2021
<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
DRO211103B	ALASKA MARKER-200ug/mL					MARKER	5/31/2022
DRO211108A	5,000 ug/mL RRO CCV 200 ug/mL Triacotane					CCV-RRO	4/6/2026
DRO211110A	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO211116B	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14895014	MARKER_1129	HC-8015-DRO-	SAMP		11/30/2021 6:59:	1	R371049		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		3.827668		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		5.964949		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.352033		0.2	0	0	0.000429	0.002	0	176%	50	150	0%	S
Diesel Range Organics (C10 to C24)	X	mg/L		3.827668		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					
14895015	CCV_1129HP53	HC-8015-DRO-	CCV		11/30/2021 7:41:	1	R371049		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		5.020310547		5	0	0	0.0879	0.3	0	100%	80	120	0%	
n-Triacotane	S	mg/L		0.2110632		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					
14895016	CCV_1129HP53	HC-8015-DRO-	CCV		11/30/2021 8:24:	1	R371049		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		15.22045		15	0	0	0.0389	0.3	0	101%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.76925		15	0	0	0.0749	0.3	50	105%	80	120	0%	
o-Terphenyl	S	mg/L		0.2073805		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					
14895017	LCS-161704	HC-8015-DRO-	LCS-DOD		11/30/2021 2:07:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		12.83938		15	0	0	0.0389	0.3	0	86%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		13.73495		15	0	0	0.0749	0.3	50	92%	60	132	0%	
o-Terphenyl	S	mg/L		0.1935288		0.2	0	0	0.000429	0.002	0	97%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14895018	LCSD-161704	HC-8015-DRO-	LCSD-DOD		11/30/2021 2:49:	1	161704	11/29/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		12.86463		15	0	12.83938	0.0389	0.3	0	86%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		13.76774		15	0	13.73495	0.0749	0.3	50	92%	60	132	0%	
o-Terphenyl	S	mg/L		0.1990061		0.2	0	0	0.000429	0.002	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					
14895019	MB-161704	HC-8015-DRO-	MBLK		11/30/2021 3:32:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0389	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0879	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0749	0.15	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0841		0.1	0	0	0.000336	0.002	0	84%	50	150	0%	
o-Terphenyl	S	mg/L		0.1801989		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					
14895020	B21112212-007	HC-8015-DRO-	SAMP		11/30/2021 4:14:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14895020	B21112212-007	HC-8015-DRO-	SAMP		11/30/2021 4:14:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0370328	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0836808	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0713048	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.0813		0.0952	0	0	0.0003199	0.001904	0	85%	50	150	0%	
o-Terphenyl	S	mg/L		0.1744083		0.1904	0	0	0.0004084	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					
14895021	B21112212-008	HC-8015-DRO-	SAMP		11/30/2021 4:57:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0370328	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0836808	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0713048	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.0829		0.0952	0	0	0.0003199	0.001904	0	87%	50	150	0%	
o-Terphenyl	S	mg/L		0.1768095		0.1904	0	0	0.0004084	0.002	0	93%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14895022	MARKER_1129	HC-8015-DRO-	SAMP		11/30/2021 6:24:	1	R371049				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		2.196772		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.41638		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2006552		0.2	0	0	0.000429	0.002	0	100%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.196772		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					
14895023	CCV_1129HP54	HC-8015-DRO-	CCV		11/30/2021 7:07:	1	R371049				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		4.943000977		5	0	0	0.0879	0.3	0	99%	80	120	0%	
n-Triacontane	S	mg/L		0.2100321		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					
14895024	CCV_1129HP54	HC-8015-DRO-	CCV		11/30/2021 7:50:	1	R371049			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		15.09568		15	0	0	0.0389	0.3	0	101%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.64306		15	0	0	0.0749	0.3	50	104%	80	120	0%	
o-Terphenyl	S	mg/L		0.2056126		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					
14895025	B21112212-006	HC-8015-DRO-	SAMP		11/30/2021 9:17:	1	161704	11/29/2021		0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0366827	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0828897	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0706307	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.0802		0.0943	0	0	0.0003168	0.001886	0	85%	50	150	0%	
o-Terphenyl	S	mg/L		0.1707113		0.1886	0	0	0.0004045	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					
14895026	B21112212-005	HC-8015-DRO-	SAMP		11/30/2021 10:0	1	161704	11/29/2021		0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.0374218	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0845598	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0720538	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.0839		0.0962	0	0	0.0003232	0.001924	0	87%	50	150	0%	
o-Terphenyl	S	mg/L		0.1808097		0.1924	0	0	0.0004127	0.002	0	94%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14895027	B21112212-004	HC-8015-DRO-	SAMP		11/30/2021 11:2	1	161704	11/29/2021		0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.4845246		0	0	0	0.0372273	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.217015356		0	0	0	0.0841203	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.7397434		0	0	0	0.0716793	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0863		0.0957	0	0	0.0003216	0.001914	0	90%	50	150	0%	
o-Terphenyl	S	mg/L		0.1656869		0.1914	0	0	0.0004106	0.002	0	87%	56	125	0%	



Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14895028	B21112212-003	HC-8015-DRO-	SAMP		12/1/2021 12:10:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.1267888		0	0	0	0.0379664	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.293722332		0	0	0	0.0857904	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.4712065		0	0	0	0.0731024	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0906		0.0976	0	0	0.0003279	0.001952	0	93%	50	150	0%	
o-Terphenyl	S	mg/L		0.1711624		0.1952	0	0	0.0004187	0.002	0	88%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14895029	B21112212-001	HC-8015-DRO-	SAMP		12/1/2021 2:20:5	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0.0784321		0	0	0	0.0370328	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.148122475		0	0	0	0.0836808	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.3927173		0	0	0	0.0713048	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0695		0.0952	0	0	0.0003199	0.001904	0	73%	50	150	0%	
o-Terphenyl	S	mg/L		0.1232178		0.1904	0	0	0.0004084	0.002	0	65%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14895030	B21112214-002	HC-8015-DRO-	SAMP		12/1/2021 4:30:5	50	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		683.5963		0	0	0	3.6955	28.5	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		706.8876		0	0	0	7.1155	28.5	50	0%	0	0	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14895031	MARKER_1129	HC-8015-DRO-	SAMP		12/1/2021 5:57:2	1	R371049				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		2.242921		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.482083		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2042556		0.2	0	0	0.000429	0.002	0	102%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.242921		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					
14895032	CCV_1129HP56	HC-8015-DRO-	CCV		12/1/2021 6:40:2	1	R371049		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	5.150887207			5	0	0	0.0879	0.3	0	103%	80	120	0%	
n-Triacontane	S	mg/L	0.2104852			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					
14895033	CCV_1129HP56	HC-8015-DRO-	CCV		12/1/2021 7:23:1	1	R371049		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	15.46122			15	0	0	0.0389	0.3	0	103%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L	15.98708			15	0	0	0.0749	0.3	50	107%	80	120	0%	
o-Terphenyl	S	mg/L	0.2104904			0.2	0	0	0.000429	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					
14897866	B21112214-002	HC-8015-DRO-	SAMP		12/1/2021 4:30:5	50	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L	713.5963			0	0	0	3.6955	28.5	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L	736.8876			0	0	0	7.1155	28.5	50	0%	0	0	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14897867	B21112206-001	HC-8015-DRO-	SAMP		12/1/2021 8:48:2	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L	0.05838903			0	0	0	0.040456	0.312	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L	0.175634801			0	0	0	0.091416	0.312	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L	0.2525703			0	0	0	0.077896	0.312	50	0%	0	0	0%	J
n-Triacontane	S	mg/L	0.0903			0.104	0	0	0.0003494	0.00208	0	87%	50	150	0%	
o-Terphenyl	S	mg/L	0.1899246			0.208	0	0	0.0004462	0.00208	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					
14897868	B21112206-002	HC-8015-DRO-	SAMP		12/1/2021 10:13:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14897868	B21112206-002	HC-8015-DRO-	SAMP		12/1/2021 10:13:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		0		0	0	0	0.040067	0.309	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.090537	0.309	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.077147	0.309	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.0936		0.103	0	0	0.0003461	0.00206	0	91%	50	150	0%	
o-Terphenyl	S	mg/L		0.201481		0.206	0	0	0.0004419	0.00206	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					
14897869	B21112212-002	HC-8015-DRO-	SAMP		12/1/2021 10:55:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		3.071955		0	0	0	0.0379664	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.345443964		0	0	0	0.0857904	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.46877		0	0	0	0.0731024	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.088		0.0976	0	0	0.0003279	0.001952	0	90%	50	150	0%	
o-Terphenyl	S	mg/L		0.1671398		0.1952	0	0	0.0004187	0.002	0	86%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14897870	B21112214-002	HC-8015-DRO-	SAMP		12/1/2021 11:38:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.978096604		0	0	0	0.16701	0.57	0	0%	0	0	0%	
n-Triacontane	S	mg/L		0.0903		0.0952	0	0	0.0006384	0.0038	0	95%	50	150	0%	
o-Terphenyl	S	mg/L		0.1850225		0.1904	0	0	0.0008151	0.0038	0	97%	56	125	0%	
TEH(Oil Range)	X	mg/L		1.948160768		0	0	0	0.16701	0.57	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					
14897871	B21112214-002	HC-8015-DRO-	DUP		12/1/2021 1:04:1	40	161704	11/30/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		519.8843		0	0	713.5963	3.08088	23.76	0	0%	0	0	31%	R
Total Extractable Hydrocarbons	A	mg/L		536.3431		0	0	736.8876	5.93208	23.76	50	0%	0	0	32%	R
o-Terphenyl	S	mg/L		0.1793834		0.198	0	0	0.0339768	0.1584	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					
14897872	B21112214-002	HC-8015-DRO-	MS-DOD		12/1/2021 1:46:5	1	161704	11/30/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L	7.868064880			4.9	1.9481608	0	0.258426	0.882	0	121%	41	113	0%	S
n-Triacontane	S	mg/L	0.0872			0.098	0	0	0.0009878	0.00588	0	89%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14897873	MARKER_1129	HC-8015-DRO-	SAMP		12/1/2021 3:55:5	1	R371049			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	2.271343			0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L	3.4783			0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L	0.1997429			0.2	0	0	0.000429	0.002	0	100%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L	2.271343			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					
14897874	CCV_1129HP57	HC-8015-DRO-	CCV		12/1/2021 5:26:0	1	R371049			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	4.797589355			5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L	0.1976341			0.2	0	0	0.000336	0.002	0	99%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14897875	CCV_1129HP57	HC-8015-DRO-	CCV		12/1/2021 6:09:0	1	R371049			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	14.91333			15	0	0	0.0389	0.3	0	99%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L	15.41758			15	0	0	0.0749	0.3	50	103%	80	120	0%	
o-Terphenyl	S	mg/L	0.2016682			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					
14897876	LCS-161704-RR	HC-8015-DRO-	LCS-DOD		12/1/2021 7:35:1	1	161704	11/29/2021		0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L	4.576673985			5	0	0	0.0879	0.3	0	92%	41	113	0%	
n-Triacontane	S	mg/L	0.0861			0.1	0	0	0.000336	0.002	0	86%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14897877	LCSD-161704-R	HC-8015-DRO-	LCSD-DOD		12/1/2021 9:00:5	1	161704	11/29/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L	4.277935505			5	0	4.576674	0.0879	0.3	0	86%	41	113	7%	
n-Triacontane	S	mg/L	0.08			0.1	0	0	0.000336	0.002	0	80%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14897878	MARKER_1129	HC-8015-DRO-	SAMP		12/1/2021 9:43:5	1	R371049		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	2.557567			0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L	3.928127			0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L	0.2246813			0.2	0	0	0.000429	0.002	0	112%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L	2.557567			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					
14897879	CCV_1129HP57	HC-8015-DRO-	CCV		12/1/2021 10:26:	1	R371049		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	4.731136719			5	0	0	0.0879	0.3	0	95%	80	120	0%	
n-Triacontane	S	mg/L	0.2015602			0.2	0	0	0.000336	0.002	0	101%	80	120	0%	

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

13-Dec-21

Run ID GCFID-HP5-B\_211202A

<b>Run Start Date:</b> 12/2/2021
<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
DRO211103B	ALASKA MARKER-200ug/mL					MARKER	5/31/2022
DRO211108A	5,000 ug/mL RRO CCV 200 ug/mL Triacotane					CCV-RRO	4/6/2026
DRO211110A	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO211124A	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901843	MARKER_1129	HC-8015-DRO-	SAMP		12/2/2021 9:36:1	1	R371199		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		2.340747		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.658963		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2138285		0.2	0	0	0.000429	0.002	0	107%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.340747		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					
14901844	CCV_1202HP50	HC-8015-DRO-	CCV		12/2/2021 10:18:	1	R371199		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		4.68942041		5	0	0	0.0879	0.3	0	94%	80	120	0%	
n-Triacotane	S	mg/L		0.2021384		0.2	0	0	0.000336	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					
14901845	CCV_1202HP50	HC-8015-DRO-	CCV		12/2/2021 11:01:	1	R371199		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		15.54423		15	0	0	0.0389	0.3	0	104%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		16.07889		15	0	0	0.0749	0.3	50	107%	80	120	0%	
o-Terphenyl	S	mg/L		0.210751		0.2	0	0	0.000429	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					
14901846	LCS-161704	HC-8015-DRO-	LCS-DOD		12/2/2021 12:26:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		12.51724		15	0	0	0.0389	0.3	0	83%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		13.35011		15	0	0	0.0329	0.3	0	89%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1946455		0.2	0	0	0.000429	0.002	0	97%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901847	LCSD-161704	HC-8015-DRO-	LCSD-DOD		12/2/2021 1:09:2	1	161704	11/29/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		12.82894		15	0	12.51724	0.0389	0.3	0	86%	36	132	2%	
Total Extractable Hydrocarbons (SGT	A	mg/L		13.64061		15	0	13.35011	0.0329	0.3	0	91%	60	132	2%	
o-Terphenyl (SGT)	S	mg/L		0.2050338		0.2	0	0	0.000429	0.002	0	103%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901848	MB-161704	HC-8015-DRO-	MBLK		12/2/2021 1:52:2	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0389	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0329	0.15	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0842		0.1	0	0	0.000336	0.002	0	84%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.188605		0.2	0	0	0.000429	0.002	0	94%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901849	B21112206-001	HC-8015-DRO-	SAMP		12/2/2021 2:35:1	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901849	B21112206-001	HC-8015-DRO-	SAMP		12/2/2021 2:35:1	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to A	mg/L			0		0	0	0	0.040456	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		0	0	0	0.034216	0.312	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0853		0.104	0	0	0.0003494	0.00208	0	82%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1795273		0.208	0	0	0.0004462	0.00208	0	86%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901850	B21112212-004	HC-8015-DRO-	SAMP		12/2/2021 3:18:0	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to A	mg/L			0.1090615		0	0	0	0.0372273	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (SGT-C24 t A	mg/L			0		0	0	0	0.0841203	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT A	mg/L			0.1362811		0	0	0	0.0314853	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.0818		0.0957	0	0	0.0003216	0.001914	0	85%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1670452		0.1914	0	0	0.0004106	0.001914	0	87%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901851	B21112212-003	HC-8015-DRO-	SAMP		12/2/2021 4:00:5	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to A	mg/L			0		0	0	0	0.0379664	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t A	mg/L			0		0	0	0	0.0857904	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT A	mg/L			0		0	0	0	0.0321104	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0861		0.0976	0	0	0.0003279	0.001952	0	88%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1766274		0.1952	0	0	0.0004187	0.001952	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					
14901852	B21112212-002	HC-8015-DRO-	SAMP		12/2/2021 5:26:3	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to A	mg/L			0.6299918		0	0	0	0.0379664	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t A	mg/L			0		0	0	0	0.0857904	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT A	mg/L			0.649027		0	0	0	0.0321104	0.3	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0737		0.0976	0	0	0.0003279	0.001952	0	76%	50	150	0%	



Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901852	B21112212-002	HC-8015-DRO-	SAMP		12/2/2021 5:26:3	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl (SGT)	S	mg/L		0.1520464		0.1952	0	0	0.0004187	0.001952	0	78%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901853	B21112212-001	HC-8015-DRO-	SAMP		12/2/2021 6:09:2	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to A	mg/L			0		0	0	0	0.0370328	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t A	mg/L			0		0	0	0	0.0836808	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT A	mg/L			0		0	0	0	0.0313208	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.1200467		0.0952	0	0	0.0003199	0.001904	0	126%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1200467		0.1904	0	0	0.0004084	0.001904	0	63%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901854	B21112214-002	HC-8015-DRO-	SAMP		12/2/2021 6:52:0	25	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to A	mg/L			667.6345		0	0	0	1.84775	14.25	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t A	mg/L			0		0	0	0	4.17525	14.25	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT A	mg/L			687.9023		0	0	0	1.56275	14.25	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0635		0.0952	0	0	0.01596	0.095	0	67%	50	150	0%	J
o-Terphenyl (SGT)	S	mg/L		0.161799		0.1904	0	0	0.0203775	0.095	0	85%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901855	MARKER_1129	HC-8015-DRO-	SAMP		12/2/2021 8:17:4	1	R371199		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		2.409074		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.761101		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.219785		0.2	0	0	0.000429	0.002	0	110%	50	150	0%	
Diesel Range Organics (C10 to C24) X	mg/L			2.409074		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					
14901856	CCV_1202HP52	HC-8015-DRO-	CCV		12/2/2021 9:00:2	1	R371199		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		4.82273242		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L		0.2059755		0.2	0	0	0.000336	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					
14901857	CCV_1202HP52	HC-8015-DRO-	CCV		12/2/2021 9:43:3	1	R371199		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		15.18659		15	0	0	0.0389	0.3	0	101%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.70957		15	0	0	0.0749	0.3	50	105%	80	120	0%	
o-Terphenyl	S	mg/L		0.2051432		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					
14901858	B21112214-002	HC-8015-DRO-	DUP		12/2/2021 11:09:	25	161704	11/30/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		550.4672		0	0	697.6345	1.92555	14.85	0	0%	0	0	24%	R
Total Extractable Hydrocarbons (SGT	A	mg/L		566.4951		0	0	717.9023	1.62855	14.85	0	0%	0	0	24%	R
o-Terphenyl (SGT)	S	mg/L		0.1857893		0	0	0	0.0212355	0.099	0	0%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901860	LCS-161704-RR	HC-8015-DRO-	LCS-DOD		12/3/2021 2:01:3	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.72355032		5	0	0	0.0879	0.3	0	94%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.087		0.1	0	0	0.000336	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					
14901861	LCSD-161704-R	HC-8015-DRO-	LCSD-DOD		12/3/2021 3:27:5	1	161704	11/29/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.44367743		5	0	4.7235503	0.0879	0.3	0	89%	41	113	6%	
n-Triacontane (SGT)	S	mg/L		0.08		0.1	0	0	0.000336	0.002	0	80%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901862	MARKER_1129	HC-8015-DRO-	SAMP		12/3/2021 4:54:3	1	R371199		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		2.4455		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.829393		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2233616		0.2	0	0	0.000429	0.002	0	112%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.4455		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					
14901863	CCV_1202HP53	HC-8015-DRO-	CCV		12/3/2021 5:37:4	1	R371199		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		4.77851660		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L		0.2049938		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					
14901864	CCV_1202HP53	HC-8015-DRO-	CCV		12/3/2021 6:20:4	1	R371199		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		15.59567		15	0	0	0.0389	0.3	0	104%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		16.1296		15	0	0	0.0749	0.3	50	108%	80	120	0%	
o-Terphenyl	S	mg/L		0.2115825		0.2	0	0	0.000429	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					
14901867	B21112214-002	HC-8015-DRO-	SAMP		12/2/2021 6:52:0	25	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	X	mg/L		697.6345		0	0	0	1.84775	14.25	0	0%	0	0	0%	
Total Extractable Hydrocarbons (SGT	X	mg/L		717.9023		0	0	0	1.56275	14.25	0	0%	0	0	0%	

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

14-Dec-21

Run ID GCFID-HP3-B\_211202A

<b>Run Start Date:</b> 12/2/2021
<b>Analyst:</b> Ann Nebel
<b>Ical:</b>
<b>Column ID:</b>
<b>Comments:</b> Procedure: Add 980 uL of CS2 to an auto sampler vial. Added 20 uL of sample and shook to mix thoroughly.

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211110A	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					
14898662	B21112214-001	HC-CSCAN-O	SAMP		12/2/2021 10:57:	1	R371140		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C1-C5	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C10-C11	A	Vol %		14.9817865		0	0	0	0.01	0.01	0	0%	0	0	0%	
C11-C12	A	Vol %		21.9739304		0	0	0	0.01	0.01	0	0%	0	0	0%	
C12-C13	A	Vol %		22.9622312		0	0	0	0.01	0.01	0	0%	0	0	0%	
C13-C14	A	Vol %		17.4773876		0	0	0	0.01	0.01	0	0%	0	0	0%	
C14-C15	A	Vol %		11.2545994		0	0	0	0.01	0.01	0	0%	0	0	0%	
C15-C16	A	Vol %		3.99924417		0	0	0	0.01	0.01	0	0%	0	0	0%	
C16-C17	A	Vol %		0.93265510		0	0	0	0.01	0.01	0	0%	0	0	0%	
C17-C18	A	Vol %		0.25487209		0	0	0	0.01	0.01	0	0%	0	0	0%	
C18-C19	A	Vol %		0.07438018		0	0	0	0.01	0.01	0	0%	0	0	0%	
C19-C20	A	Vol %		0.02082253		0	0	0	0.01	0.01	0	0%	0	0	0%	
C20-C21	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C21-C22	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C22-C23	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C23-C24	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C24-C25	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C25-C26	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C26-C27	A	Vol %		0		0	0	0	0.01	0.01	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					
14898662	B21112214-001	HC-CSCAN-O	SAMP		12/2/2021 10:57:	1	R371140		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
C27-C28	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C28-C29	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C29-C30	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C30-C32	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C32-C34	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C34-C36	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C36-C38	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C38-C40	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C40+	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C5-C6	A	Vol %		0		0	0	0	0.01	0.01	0	0%	0	0	0%	
C6-C7	A	Vol %	0.01743628			0	0	0	0.01	0.01	0	0%	0	0	0%	
C7-C8	A	Vol %	0.12452437			0	0	0	0.01	0.01	0	0%	0	0	0%	
C8-C9	A	Vol %	1.06782337			0	0	0	0.01	0.01	0	0%	0	0	0%	
C9-C10	A	Vol %	4.84631828			0	0	0	0.01	0.01	0	0%	0	0	0%	

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	G:\org\HP5\DAT\HP5112921_b1129HP5.30	MARKER_1129HP530r,C40 ;1129HP5 , DRO211110A	G:\org\HP5\Methods\CS211129.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.31	MARKER_1129HP531r,DRO ;1129HP5 , DRO211103B	G:\org\HP5\Methods\DC_805-24-ID-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.32	COV_1129HP532r,RRO ;1129HP5 , DRO211108A	G:\org\HP5\Methods\DC_ORO-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.33	COV_1129HP533r,DRO ;1129HP5 , DRO211116B	G:\org\HP5\Methods\DC_OROb-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.39	DCM-Baseline Check-V39	G:\org\HP5\Methods\DC_805-24-ID-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.41	LCS-161704 ;1129HP5 ,	G:\org\HP5\Methods\DR_805-IB-LEXP.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.42	LCS-161704 ;1129HP5 ,	G:\org\HP5\Methods\DS_805-24-ID-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.43	MB-161704 ;1129HP5 ,	G:\org\HP5\Methods\DS_805-24-ID-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.44	B21112212-007A ;1129HP5 , \$HC-8015-DRO-W,	G:\org\HP5\Methods\DR_805-C24-ID-L%.met	1050	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.45	B21112212-008A ;1129HP5 , \$HC-8015-DRO-W,	G:\org\HP5\Methods\DR_OROS-AFa-L%.MET	1050	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.46	MARKER_1129HP546r,C40 ;1129HP5 , DRO211110A	G:\org\HP5\Methods\CS211129.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.47	MARKER_1129HP547r,DRO ;1129HP5 , DRO211103B	G:\org\HP5\Methods\DC_805-24-ID-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.48	COV_1129HP548r,RRO ;1129HP5 , DRO211108A	G:\org\HP5\Methods\DC_ORO-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.49	COV_1129HP549r,DRO ;1129HP5 , DRO211116B	G:\org\HP5\Methods\DC_OROb-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.50	DCM-Baseline Check-V50	G:\org\HP5\Methods\DC_805-24-ID-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.51	B21112212-006A ;1129HP5 , \$HC-8015-DRO-W,	G:\org\HP5\Methods\DR_805-C24-ID-L%.met	1060	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.52	B21112212-005A ;1129HP5 , \$HC-8015-DRO-W,	G:\org\HP5\Methods\DR_OROS-AFa-L%.MET	1040	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.53	DCM-Baseline Check-V53	G:\org\HP5\Methods\DR_805-IB-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.54	B21112212-004A ;1129HP5 , \$HC-8015-DRO-W,	G:\org\HP5\Methods\DS_805-C24-ID-L%.MET	1045	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.55	B21112212-003A ;1129HP5 , \$HC-8015-DRO-W,	G:\org\HP5\Methods\DS_805-C24-ID-L%.MET	1025	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.56	DCM-Baseline Check-V56	G:\org\HP5\Methods\DC_805-24-ID-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.57	DCM-Baseline Check-V57	G:\org\HP5\Methods\DR_805-IB-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.58	B21112212-001A ;1129HP5 , \$HC-8015-DRO-W,	G:\org\HP5\Methods\DR_805-C24-ID-L%.met	1050	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.59	B21112212-002A ;1129HP5 , \$HC-8015-DRO-W, NEED RR	G:\org\HP5\Methods\DR_OROS-AFa-L%.MET	1025	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.60	DCM-Baseline Check-V60	G:\org\HP5\Methods\DR_805-C24-ID-L0.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.61	B21112214-002B ;1129HP5 , \$HC-8015-DRO-W ,(2.50)	G:\org\HP5\Methods\DR_805-IB-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.62	MARKER_1129HP562r,C40 ;1129HP5 , DRO211110A	G:\org\HP5\Methods\DC_805-24-ID-L%.met	1050	100	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.63	MARKER_1129HP563r,DRO ;1129HP5 , DRO211103B	G:\org\HP5\Methods\CS211129.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.64	COV_1129HP564r,RRO ;1129HP5 , DRO211108A	G:\org\HP5\Methods\DC_ORO-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.65	COV_1129HP565r,DRO ;1129HP5 , DRO211116B	G:\org\HP5\Methods\DC_OROb-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.66	DCM-Baseline Check-V66	G:\org\HP5\Methods\DC_805-24-ID-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.67	B21112206-001A ;1129HP5 , \$HC-8015-DRO-W,	G:\org\HP5\Methods\DR_805-C24-ID-L%.met	960	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.68	B21112206-002A ;1129HP5 , \$HC-8015-DRO-W, need rr	G:\org\HP5\Methods\DR_OROS-AFa-L%.MET	970	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.69	B21112206-002A ;1129HP5 , \$HC-8015-DRO-W, RR	G:\org\HP5\Methods\DR_805-C24-ID-L0.met	970	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.70	B21112212-002A ;1129HP5 , \$HC-8015-DRO-W, RR	G:\org\HP5\Methods\DR_OROS-AFa-L%.MET	1025	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.71	B21112214-002B ;1129HP5 , \$HC-8015-DRO-W, RR for oil	G:\org\HP5\Methods\DS_805b-C24-ID-L%.MET	1050	2	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.72	DCM-Baseline Check-V72	G:\org\HP5\Methods\DR_805-IB-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.73	B21112214-002BMS ;1129HP5 , ,(2.40)	G:\org\HP5\Methods\DS_805-24-ID-L%.met	1010	80	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.74	B21112214-002BMS-RRO ;1129HP5 ,	G:\org\HP5\Methods\DC_ORO-112974-AF-L%.MET	1020	3	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.75	DCM-Baseline Check-V75	G:\org\HP5\Methods\DC_OROb-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.76	MARKER_1129HP76r,C40 ;1129HP5 , DRO211110A	G:\org\HP5\Methods\DR_805-IB-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.77	MARKER_1129HP77r,DRO ;1129HP5 , DRO211103B	G:\org\HP5\Methods\DC_805-24-ID-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.78	COV_1129HP578r,RRO ;1129HP5 , DRO211108A	G:\org\HP5\Methods\DC_ORO-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.79	COV_1129HP579r,DRO ;1129HP5 , DRO211116B	G:\org\HP5\Methods\DC_OROb-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.80	DCM-Baseline Check-V80	G:\org\HP5\Methods\DC_805-24-ID-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.81	LCS-161704-RRO ;1129HP5 ,	G:\org\HP5\Methods\DR_805-IB-LEXP.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.82	DCM-Baseline Check-V82	G:\org\HP5\Methods\DC_ORO-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.83	LCS-161704-RRO ;1129HP5 ,	G:\org\HP5\Methods\DR_805-IB-LEXP.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.84	MARKER_1129HP578r,DRO ;1129HP5 , DRO211103B	G:\org\HP5\Methods\DC_ORO-AF-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5112921_b1129HP5.85	COV_1129HP579r,RRO ;1129HP5 , DRO211108A	G:\org\HP5\Methods\DC_OROb-AF-L%.MET	1	1	1	1	0

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

15-Dec-21

Run ID GCFID-HP5-B\_211202A

<b>Run Start Date:</b> 12/2/2021
<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
DRO211103B	ALASKA MARKER-200ug/mL					MARKER	5/31/2022
DRO211108A	5,000 ug/mL RRO CCV 200 ug/mL Triacotane					CCV-RRO	4/6/2026
DRO211110A	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO211124A	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901843	MARKER_1129	HC-8015-DRO-	SAMP		12/2/2021 9:36:1	1	R371199		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		2.340747		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.658963		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2138285		0.2	0	0	0.000429	0.002	0	107%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.340747		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					
14901844	CCV_1202HP50	HC-8015-DRO-	CCV		12/2/2021 10:18:	1	R371199		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		4.68942041		5	0	0	0.0879	0.3	0	94%	80	120	0%	
n-Triacotane	S	mg/L		0.2021384		0.2	0	0	0.000336	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					
14901845	CCV_1202HP50	HC-8015-DRO-	CCV		12/2/2021 11:01:	1	R371199		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		15.54423		15	0	0	0.0389	0.3	0	104%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		16.07889		15	0	0	0.0749	0.3	50	107%	80	120	0%	
o-Terphenyl	S	mg/L		0.210751		0.2	0	0	0.000429	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					
14901846	LCS-161704	HC-8015-DRO-	LCS-DOD		12/2/2021 12:26:	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		12.51724		15	0	0	0.0389	0.3	0	83%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		13.35011		15	0	0	0.0329	0.3	0	89%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1946455		0.2	0	0	0.000429	0.002	0	97%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901847	LCSD-161704	HC-8015-DRO-	LCSD-DOD		12/2/2021 1:09:2	1	161704	11/29/2021	0	1E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		12.82894		15	0	12.51724	0.0389	0.3	0	86%	36	132	2%	
Total Extractable Hydrocarbons (SGT	A	mg/L		13.64061		15	0	13.35011	0.0329	0.3	0	91%	60	132	2%	
o-Terphenyl (SGT)	S	mg/L		0.2050338		0.2	0	0	0.000429	0.002	0	103%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901848	MB-161704	HC-8015-DRO-	MBLK		12/2/2021 1:52:2	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0389	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0329	0.15	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0842		0.1	0	0	0.000336	0.002	0	84%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.188605		0.2	0	0	0.000429	0.002	0	94%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901849	B21112206-001	HC-8015-DRO-	SAMP		12/2/2021 2:35:1	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q



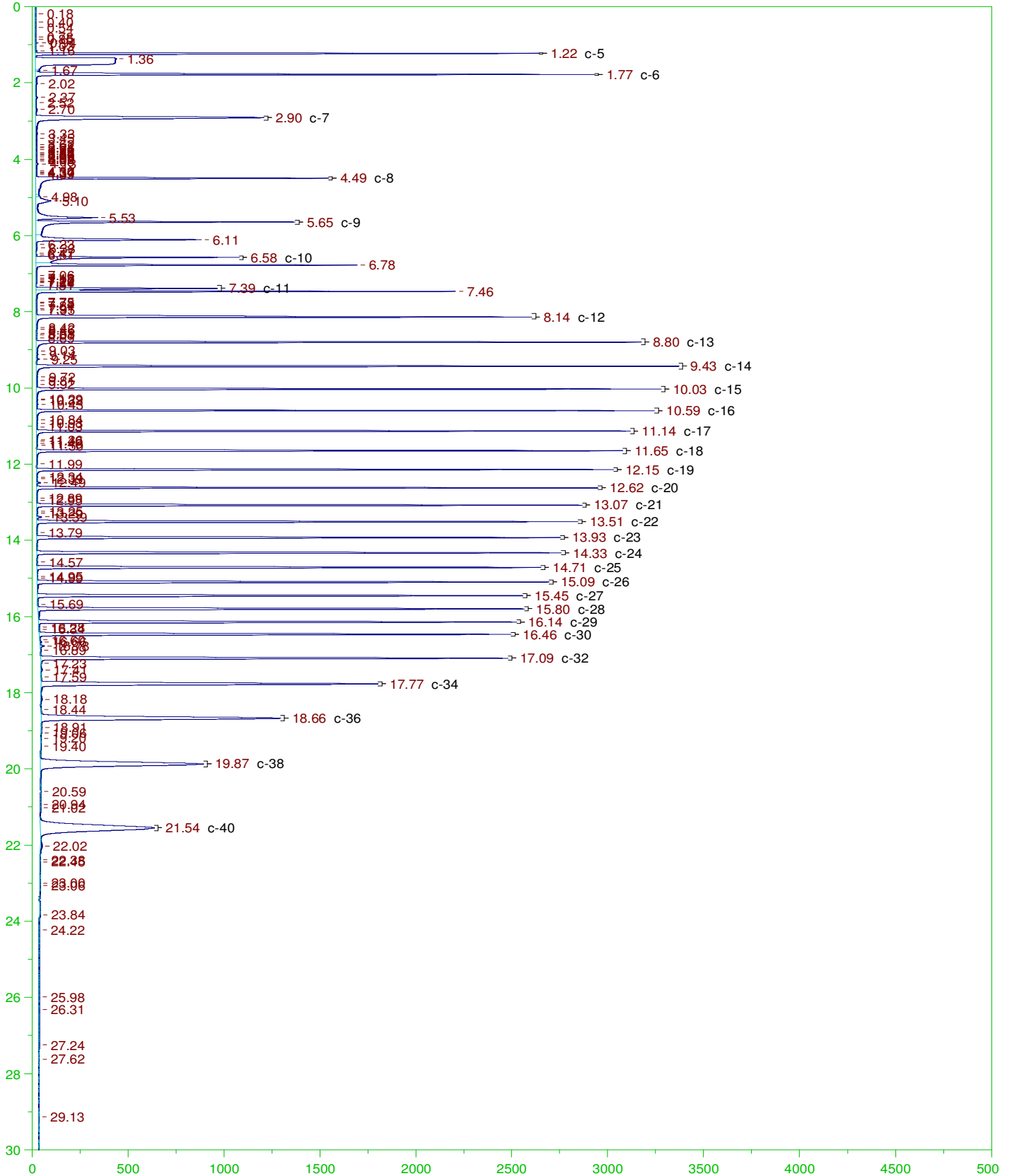
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901849	B21112206-001	HC-8015-DRO-	SAMP		12/2/2021 2:35:1	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.040456	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		0	0	0	0.034216	0.312	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0853		0.104	0	0	0.0003494	0.00208	0	82%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1795273		0.208	0	0	0.0004462	0.00208	0	86%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901850	B21112212-004	HC-8015-DRO-	SAMP		12/2/2021 3:18:0	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.1090615		0	0	0	0.0372273	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0841203	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.1362811		0	0	0	0.0314853	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.0818		0.0957	0	0	0.0003216	0.001914	0	85%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1670452		0.1914	0	0	0.0004106	0.001914	0	87%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901851	B21112212-003	HC-8015-DRO-	SAMP		12/2/2021 4:00:5	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0379664	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0857904	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0321104	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.0861		0.0976	0	0	0.0003279	0.001952	0	88%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1766274		0.1952	0	0	0.0004187	0.001952	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					
14901852	B21112212-002	HC-8015-DRO-	SAMP		12/2/2021 5:26:3	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.6299918		0	0	0	0.0379664	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0857904	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.649027		0	0	0	0.0321104	0.3	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0737		0.0976	0	0	0.0003279	0.001952	0	76%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901852	B21112212-002	HC-8015-DRO-	SAMP		12/2/2021 5:26:3	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl (SGT)	S	mg/L		0.1520464		0.1952	0	0	0.0004187	0.001952	0	78%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901853	B21112212-001	HC-8015-DRO-	SAMP		12/2/2021 6:09:2	1	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to A	mg/L			0		0	0	0	0.0370328	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t A	mg/L			0		0	0	0	0.0836808	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT A	mg/L			0		0	0	0	0.0313208	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.1200467		0.0952	0	0	0.0003199	0.001904	0	126%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1200467		0.1904	0	0	0.0004084	0.001904	0	63%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901854	B21112214-002	HC-8015-DRO-	SAMP		12/2/2021 6:52:0	25	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to A	mg/L			667.6345		0	0	0	1.84775	14.25	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t A	mg/L			0		0	0	0	4.17525	14.25	0	0%	0	0	0%	U, O
Total Extractable Hydrocarbons (SGT A	mg/L			687.9023		0	0	0	1.56275	14.25	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.0635		0.0952	0	0	0.01596	0.095	0	67%	50	150	0%	J
o-Terphenyl (SGT)	S	mg/L		0.161799		0.1904	0	0	0.0203775	0.095	0	85%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901855	MARKER_1129	HC-8015-DRO-	SAMP		12/2/2021 8:17:4	1	R371199				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		2.409074		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.761101		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.219785		0.2	0	0	0.000429	0.002	0	110%	50	150	0%	
Diesel Range Organics (C10 to C24) X	mg/L			2.409074		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					
14901856	CCV_1202HP52	HC-8015-DRO-	CCV		12/2/2021 9:00:2	1	R371199			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		4.82273242		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L		0.2059755		0.2	0	0	0.000336	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					
14901857	CCV_1202HP52	HC-8015-DRO-	CCV		12/2/2021 9:43:3	1	R371199			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		15.18659		15	0	0	0.0389	0.3	0	101%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.70957		15	0	0	0.0749	0.3	50	105%	80	120	0%	
o-Terphenyl	S	mg/L		0.2051432		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					
14901858	B21112214-002	HC-8015-DRO-	DUP		12/2/2021 11:09:	25	161704	11/30/2021		0	1E+07					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		550.4672		0	0	697.6345	1.92555	14.85	0	0%	0	0	24%	R
Total Extractable Hydrocarbons (SGT	A	mg/L		566.4951		0	0	717.9023	1.62855	14.85	0	0%	0	0	24%	R
o-Terphenyl (SGT)	S	mg/L		0.1857893		0	0	0	0.0212355	0.099	0	0%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14901860	LCS-161704-RR	HC-8015-DRO-	LCS-DOD		12/3/2021 2:01:3	1	161704	11/29/2021		0	0					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.72355032		5	0	0	0.0879	0.3	0	94%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.087		0.1	0	0	0.000336	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					
14901861	LCSD-161704-R	HC-8015-DRO-	LCSD-DOD		12/3/2021 3:27:5	1	161704	11/29/2021		0	1E+07					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.44367743		5	0	4.7235503	0.0879	0.3	0	89%	41	113	6%	
n-Triacontane (SGT)	S	mg/L		0.08		0.1	0	0	0.000336	0.002	0	80%	50	150	0%	

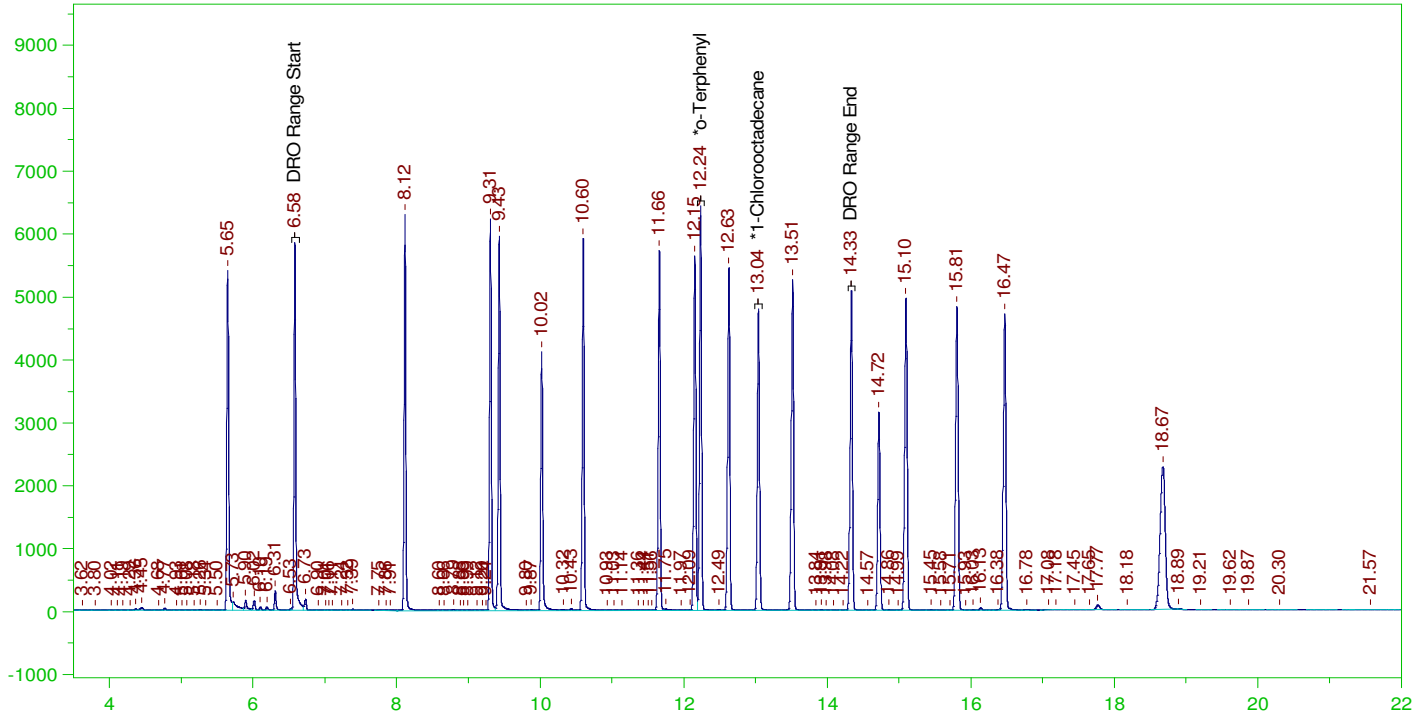
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14901862	MARKER_1129	HC-8015-DRO-	SAMP		12/3/2021 4:54:3	1	R371199		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (DRO)	A	mg/L		2.4455		0	0	0	0.0389	0.3	50	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		3.829393		0	0	0	0.0749	0.3	50	0%	0	0	0%	
o-Terphenyl	S	mg/L		0.2233616		0.2	0	0	0.000429	0.002	0	112%	50	150	0%	
Diesel Range Organics (C10 to C24)	X	mg/L		2.4455		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					
14901863	CCV_1202HP53	HC-8015-DRO-	CCV		12/3/2021 5:37:4	1	R371199		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		4.77851660		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L		0.2049938		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					
14901864	CCV_1202HP53	HC-8015-DRO-	CCV		12/3/2021 6:20:4	1	R371199		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		15.59567		15	0	0	0.0389	0.3	0	104%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		16.1296		15	0	0	0.0749	0.3	50	108%	80	120	0%	
o-Terphenyl	S	mg/L		0.2115825		0.2	0	0	0.000429	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					
14901867	B21112214-002	HC-8015-DRO-	SAMP		12/2/2021 6:52:0	25	161704	11/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	X	mg/L		697.6345		0	0	0	1.84775	14.25	0	0%	0	0	0%	
Total Extractable Hydrocarbons (SGT	X	mg/L		717.9023		0	0	0	1.56275	14.25	0	0%	0	0	0%	

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
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	G:\org\HP3\DAT\HP3120221 b\1202HP3.02	CS2-7477-Baseline Check-V02	g:\org\HP3\Methods\CSC211020.met	1	1	1	1	0
	G:\org\HP3\DAT\HP3120221 b\1202HP3.03	MARKER_1202HP303r_CSCAN ;1202HP3 , DRO211110A	g:\org\HP3\Methods\CSC211203.met	1	1	1	1	0
	G:\org\HP3\DAT\HP3120221 b\1202HP3.04	MB-CS2-7477-Baseline Check-V04	g:\org\HP3\Methods\CSC211203.met	1	1	1	1	0
	G:\org\HP3\DAT\HP3120221 b\1202HP3.05	B21112214-001A ;1202HP3 , \$HC-CSCAN-O.	g:\org\HP3\Methods\CSC211203-05.met	1	1	1	1	0



G:\org\HP5\DAT\HP5112921\_b\1129HP5.0031.RAW

MARKER\_1129HP531r, DRO ;1129HP5 , DRO211103B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

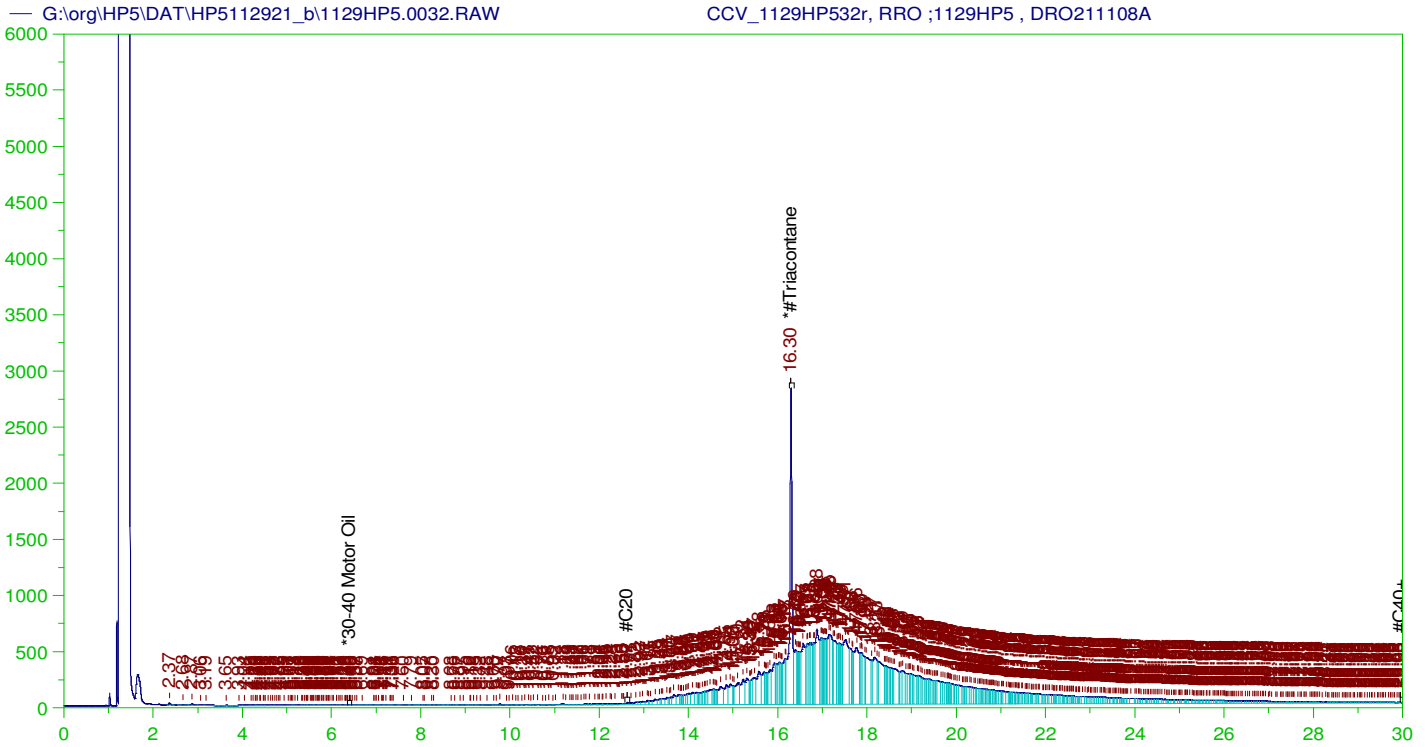
Sample Name: MARKER\_1129HP531r, DRO ;1129HP5 , DRO211103B  
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 Method File: G:\Org\HP5\Methods\DC\_8015-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.235	.2	.352	176.02
*1-Chlorooctadecane	13.041	.2	.285	142.53

DRO Area:1.200096E+08 DRO Amount: 3.827668  
 TEH Area:1.870202E+08 TEH Amount: 5.964949



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP532r, RRO ;1129HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0032.RAW  
 Date & Time Acquired: 11/30/2021 7:41:57 AM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.296	500.	359.609	71.92	-

~~RRO~~ TEH(Oil Range) Area:1.432918E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 5020.311

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0032.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.026	.	75-125

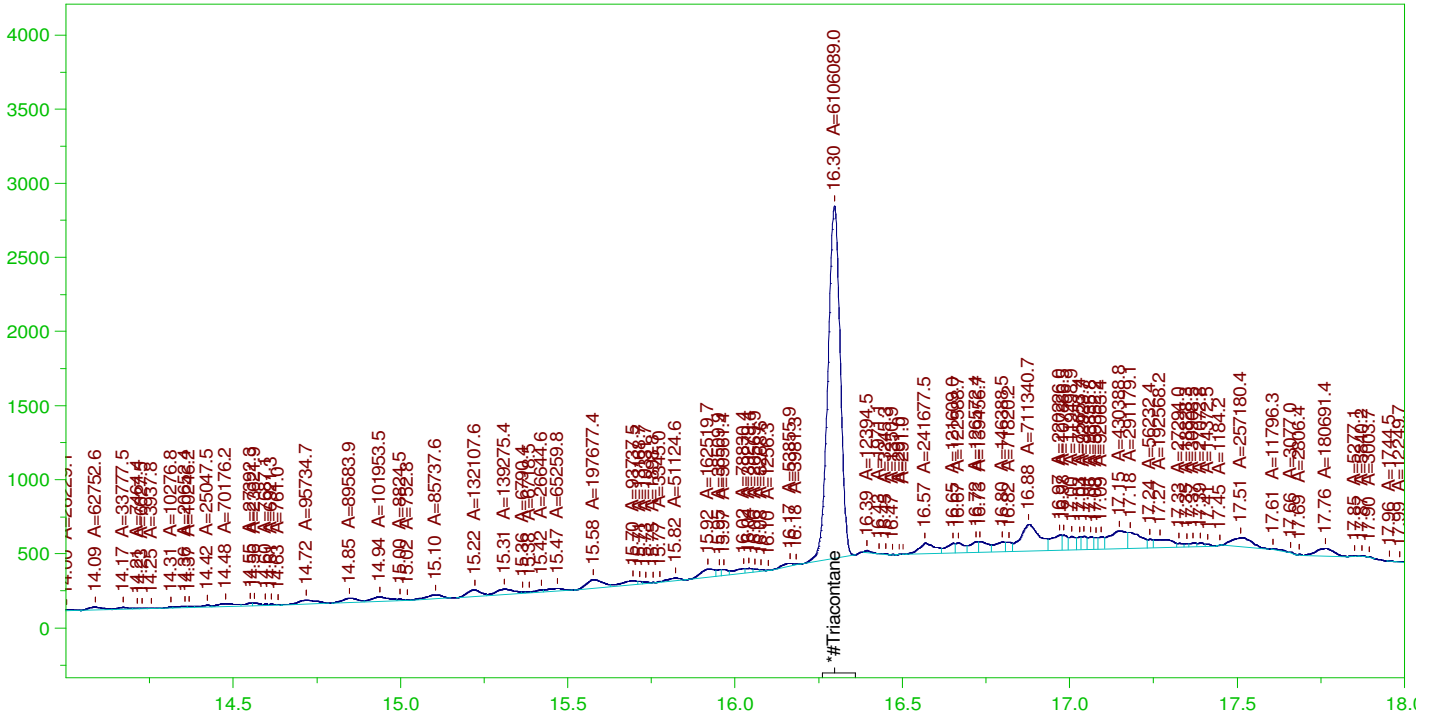
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.296	200.	359.609	179.8	75-125

AMN 12/14/2021



G:\org\HP5\DAT\HP5112921\_b\1129HP5.0032.RAW

CCV\_1129HP532r, RRO ;1129HP5 , DRO211108A



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP532r, RRO ;1129HP5 , DRO211108A  
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Date & Time Acquired: 11/30/2021 7:41:57 AM  
Method File: G:\Org\HP5\Methods\DS\_OROb-AF-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.296	500.	211.063	42.21	-

RRO Area:6901569 RRO AMOUNT: 241.8005

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0032.RAW

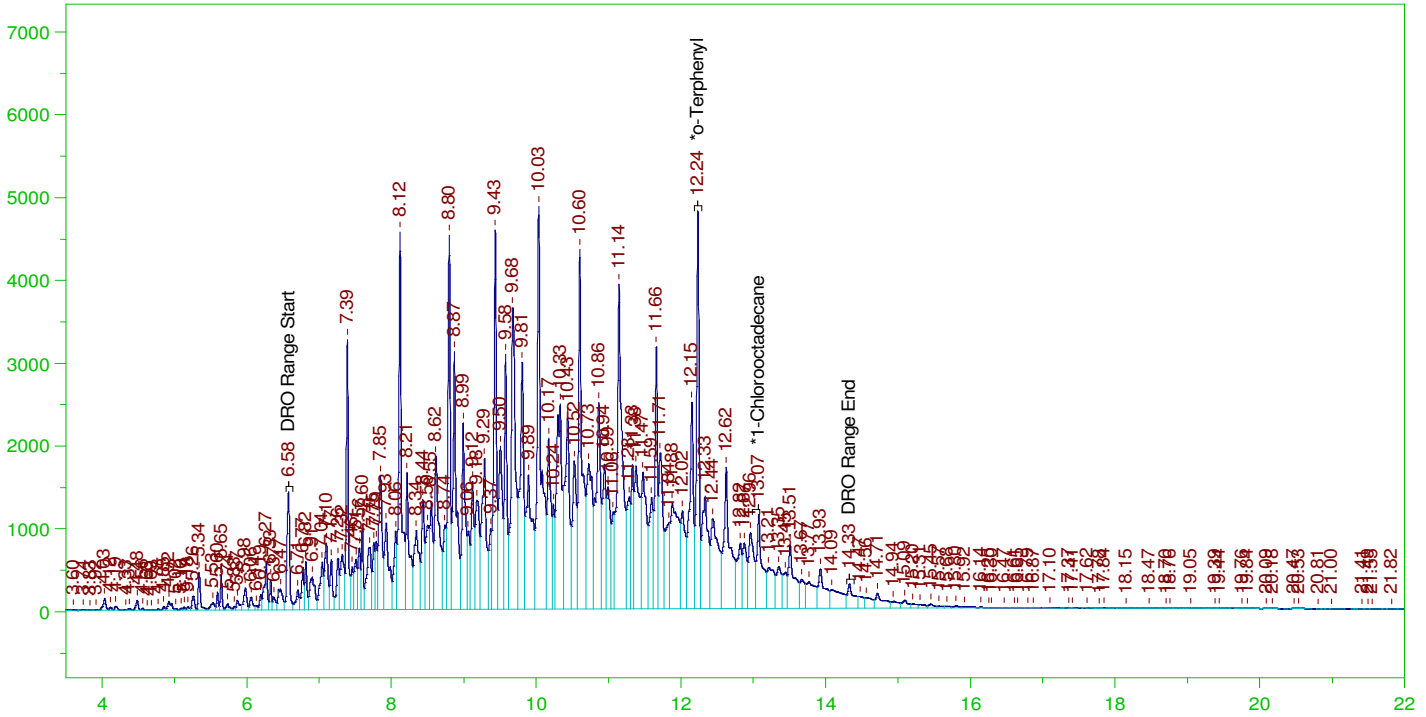
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.026	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.296	200.	211.063	105.53	75-125

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0033.RAW

CCV\_1129HP533r, DRO ;1129HP5 , DRO211116B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1129HP533r, DRO ;1129HP5 , DRO211116B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0033.RAW  
 Date & Time Acquired: 11/30/2021 8:24:51 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

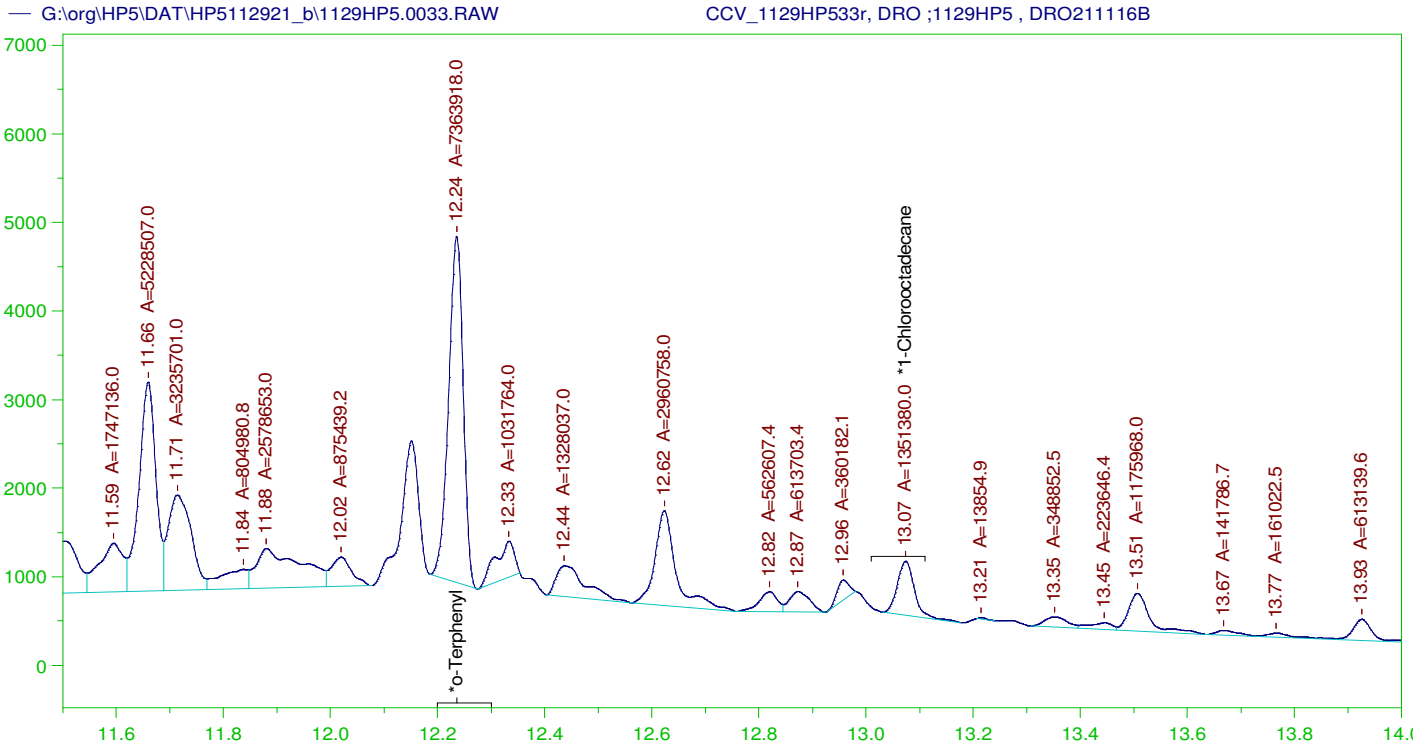
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.235	200.	342.521	171.26
*1-Chlorooctadecane	13.074	200.	163.983	81.99

DRO Area: 4.772095E+08 DRO Amount: 15220.45  
 TEH Area: 4.944163E+08 TEH Amount: 15769.25

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0033.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15769.25	105.13	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.235	200.	342.521	171.26	85-115
*1-Chlorooctadecane	13.074	200.	163.983	81.99	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1129HP533r, DRO ;1129HP5 , DRO211116B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0033.RAW  
 Date & Time Acquired: 11/30/2021 8:24:51 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-ID-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.55 to 14.4

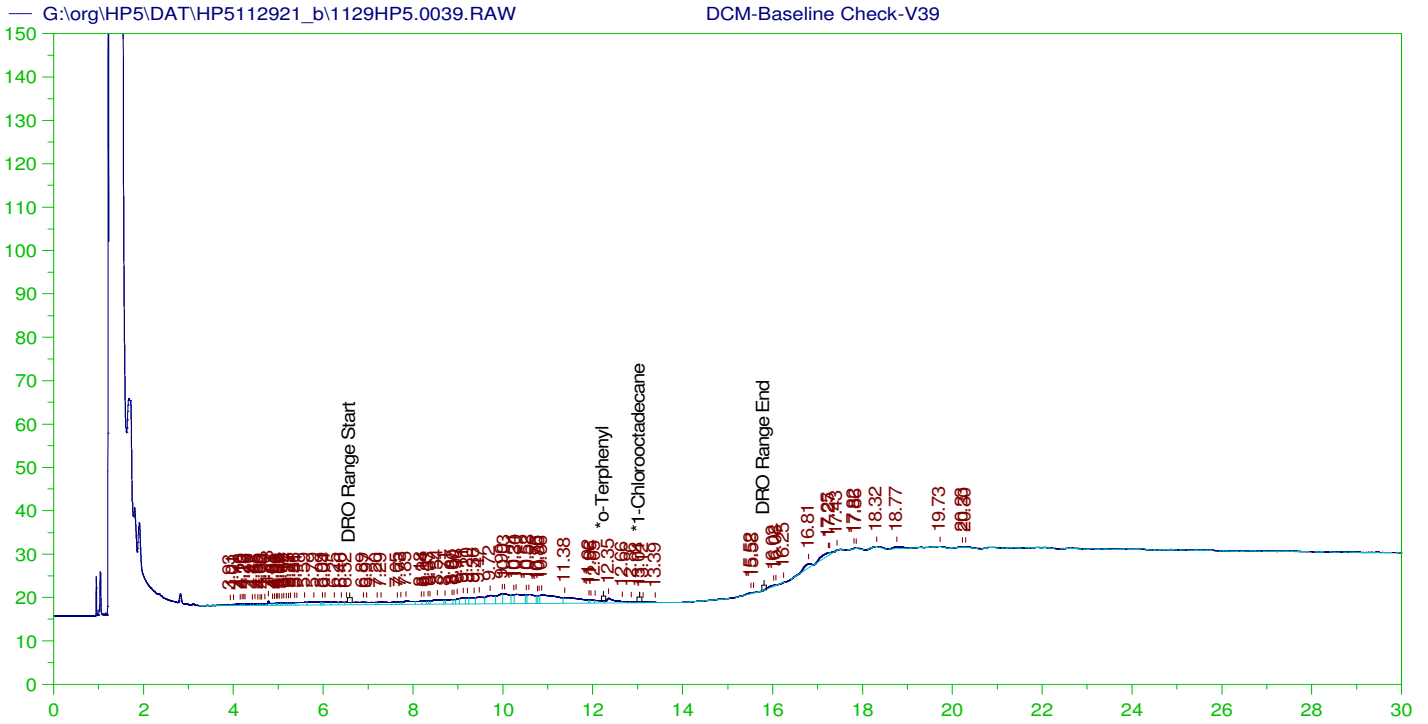
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.235	200.	207.381	103.69
*1-Chlorooctadecane	13.074	200.	38.057	19.03

DRO Area: 2.647945E+08 DRO Amount: 8445.537  
 TEH Area: 2.756693E+08 TEH Amount: 8792.386

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0033.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8792.39	58.62	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.235	200.	207.381	103.69	85-115
*1-Chlorooctadecane	13.074	200.	38.057	19.03	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V39  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0039.RAW  
 Date & Time Acquired: 11/30/2021 12:41:25 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

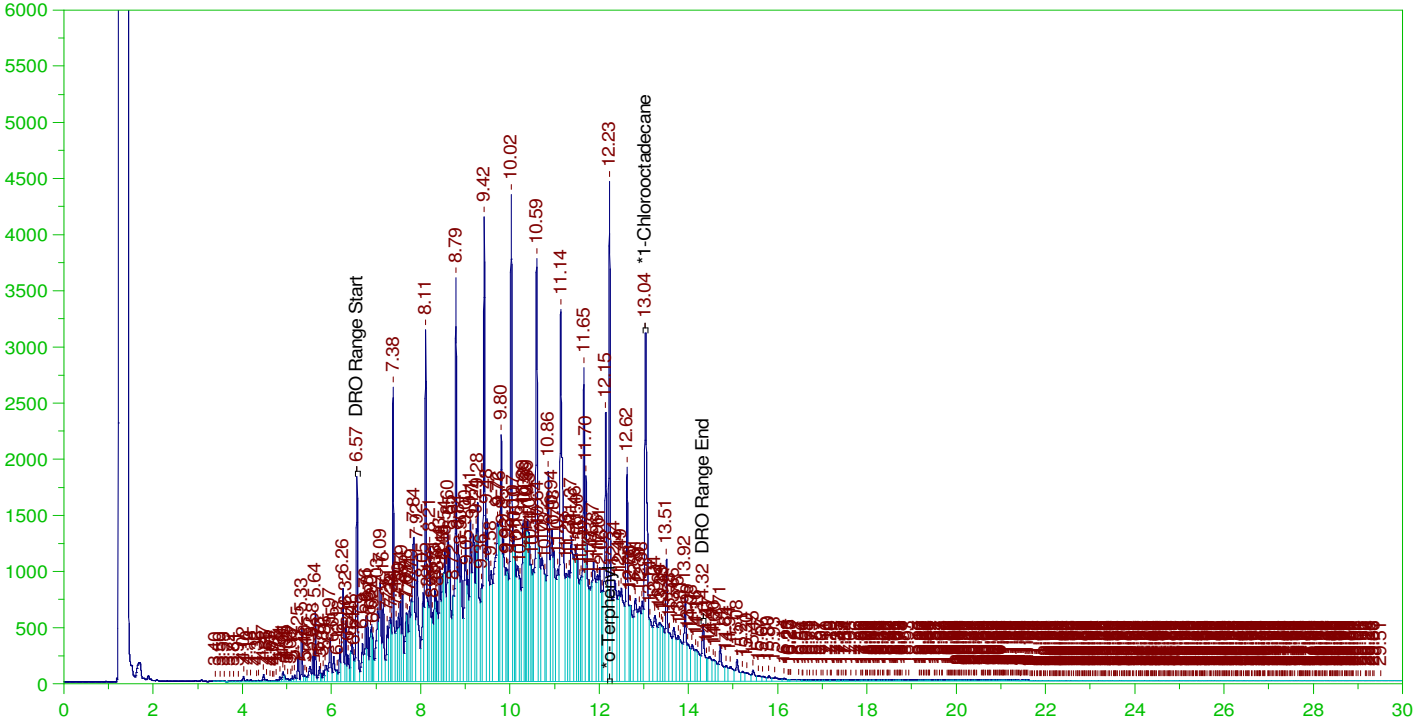
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.948	200.	.	-
*1-Chlorooctadecane	13.039	200.	.016	.01

DRO Area: 420040.6 DRO Amount: 13.39706  
 TEH Area: 551368.1 TEH Amount: 17.58571

Batch ID: 161704

LCS-161704 ;1129HP5 ,

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0041.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-161704 ;1129HP5 ,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0041.RAW  
Date & Time Acquired: 11/30/2021 2:07:26 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-112941-24-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

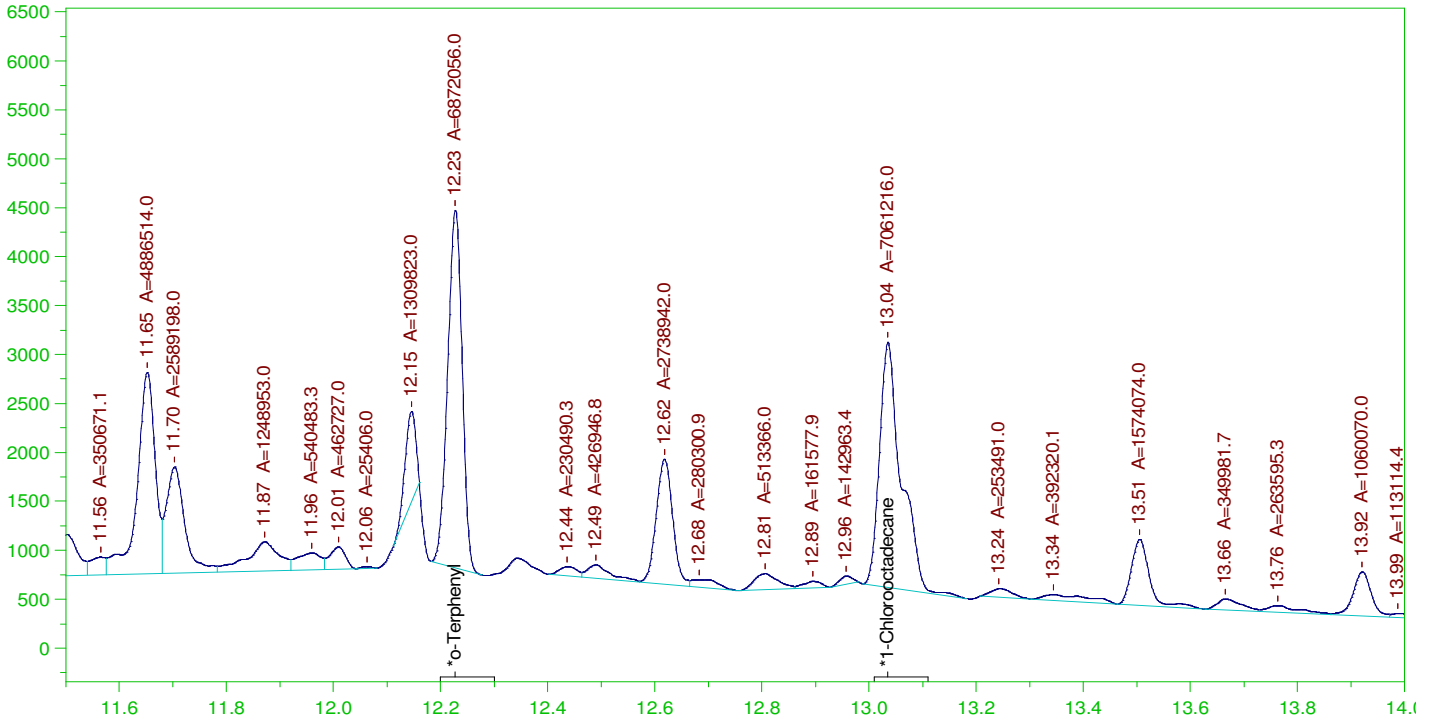
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.228	.2	.331	165.57	-
*1-Chlorooctadecane	13.035	.2	.333	166.43	-

DRO Area: 4.025554E+08 DRO Amount: 12.83938  
TEH Area: 4.306344E+08 TEH Amount: 13.73495

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0041.RAW

LCS-161704 ;1129HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-161704 ;1129HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0041.RAW  
 Date & Time Acquired: 11/30/2021 2:07:26 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-ID-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.55 to 14.4

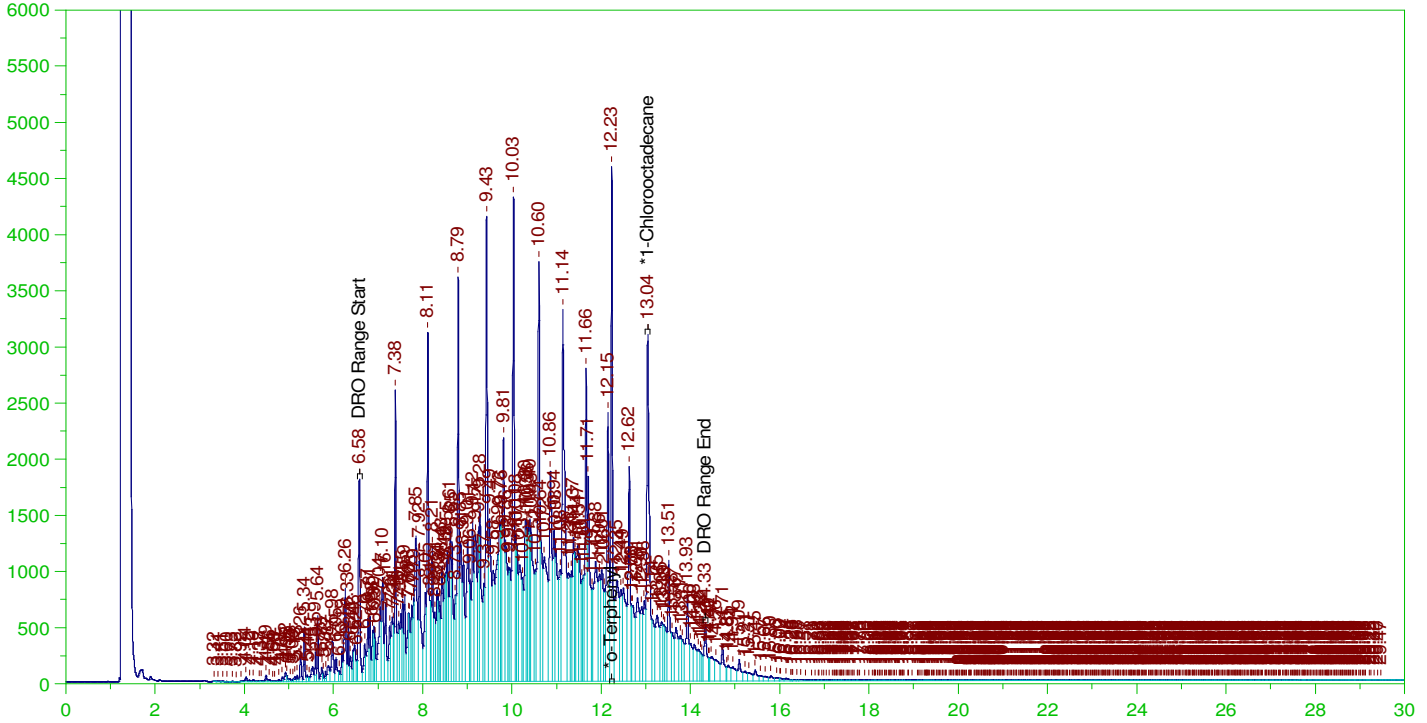
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.228	.2	.194	96.76
*1-Chlorooctadecane	13.035	.2	.199	99.43

DRO Area:1.978049E+08 DRO Amount: 6.308923  
 TEH Area:2.109658E+08 TEH Amount: 6.728687

Batch ID: 161704

LCSD-161704 ;1129HP5 ,

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0042.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCSD-161704 ;1129HP5 ,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0042.RAW  
Date & Time Acquired: 11/30/2021 2:49:54 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-24-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

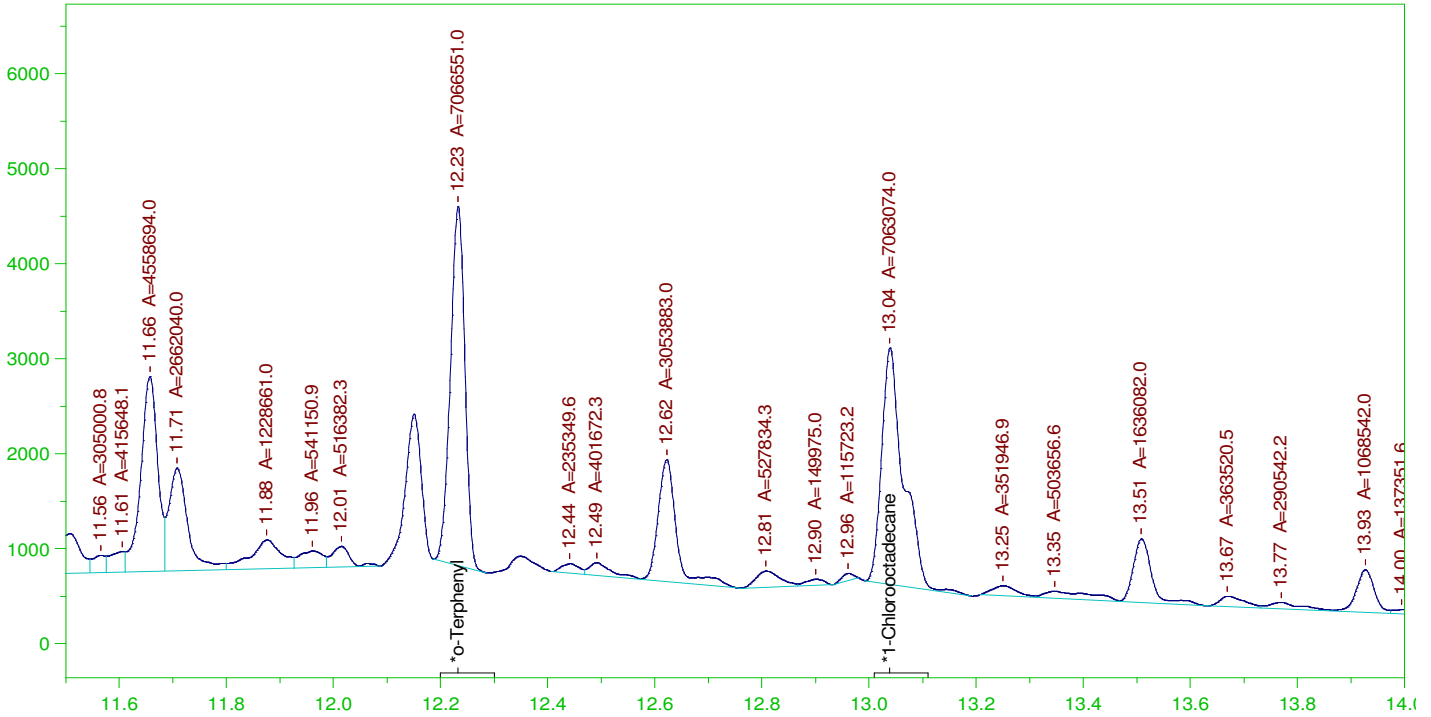
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.233	.2	.336	168.09	-
*1-Chlorooctadecane	13.039	.2	.335	167.3	-

DRO Area: 4.033474E+08 DRO Amount: 12.86463  
TEH Area: 4.316626E+08 TEH Amount: 13.76774

Batch ID: 161704  
G:\org\HP5\DAT\HP5112921\_b\1129HP5.0042.RAW LCSD-161704 ;1129HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

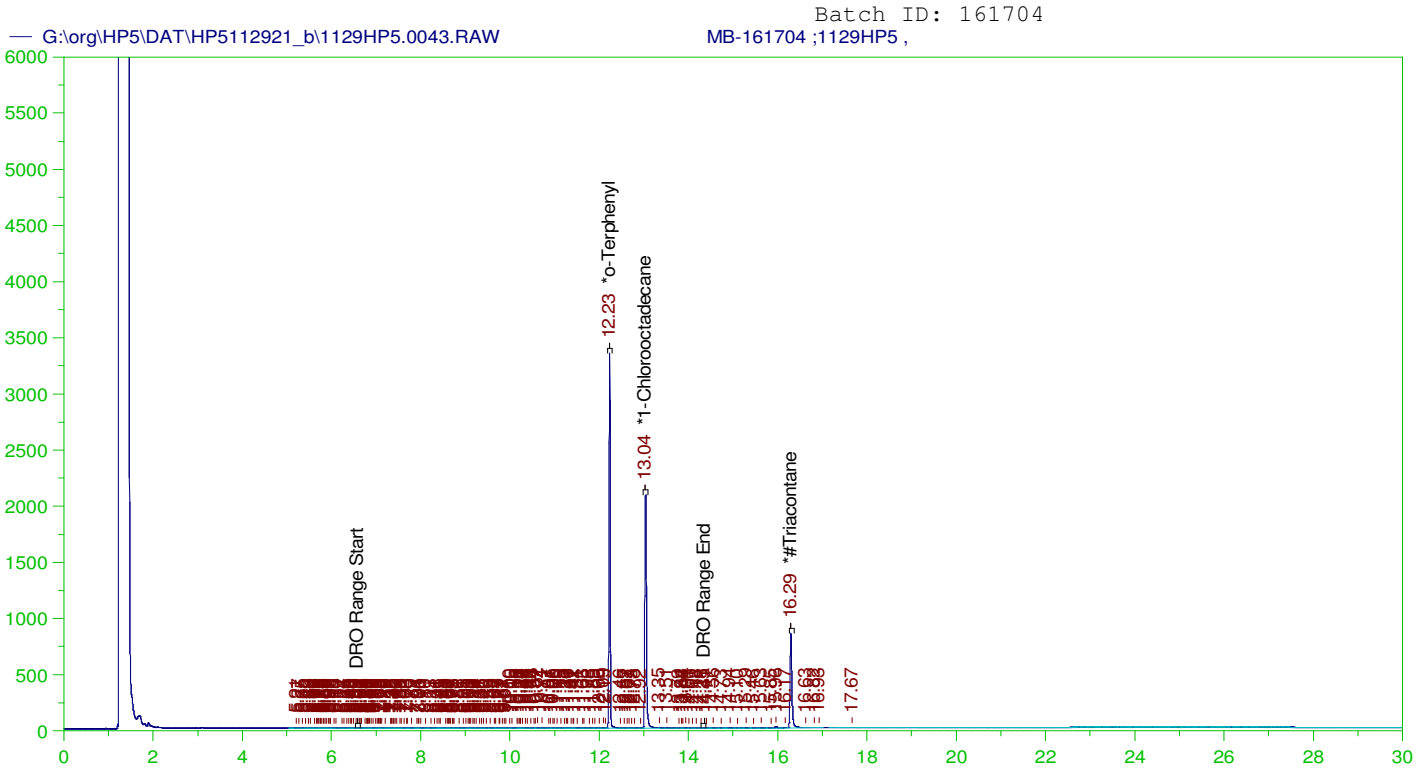
Sample Name: LCSD-161704 ;1129HP5 ,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0042.RAW  
Date & Time Acquired: 11/30/2021 2:49:54 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-24-ID-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC-24.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
Rt range for Diesel Range Organics: 6.55 to 14.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.233	.2	.199	99.5
*1-Chlorooctadecane	13.039	.2	.199	99.45

DRO Area: 1.979147E+08 DRO Amount: 6.312427  
TEH Area: 2.109749E+08 TEH Amount: 6.728976





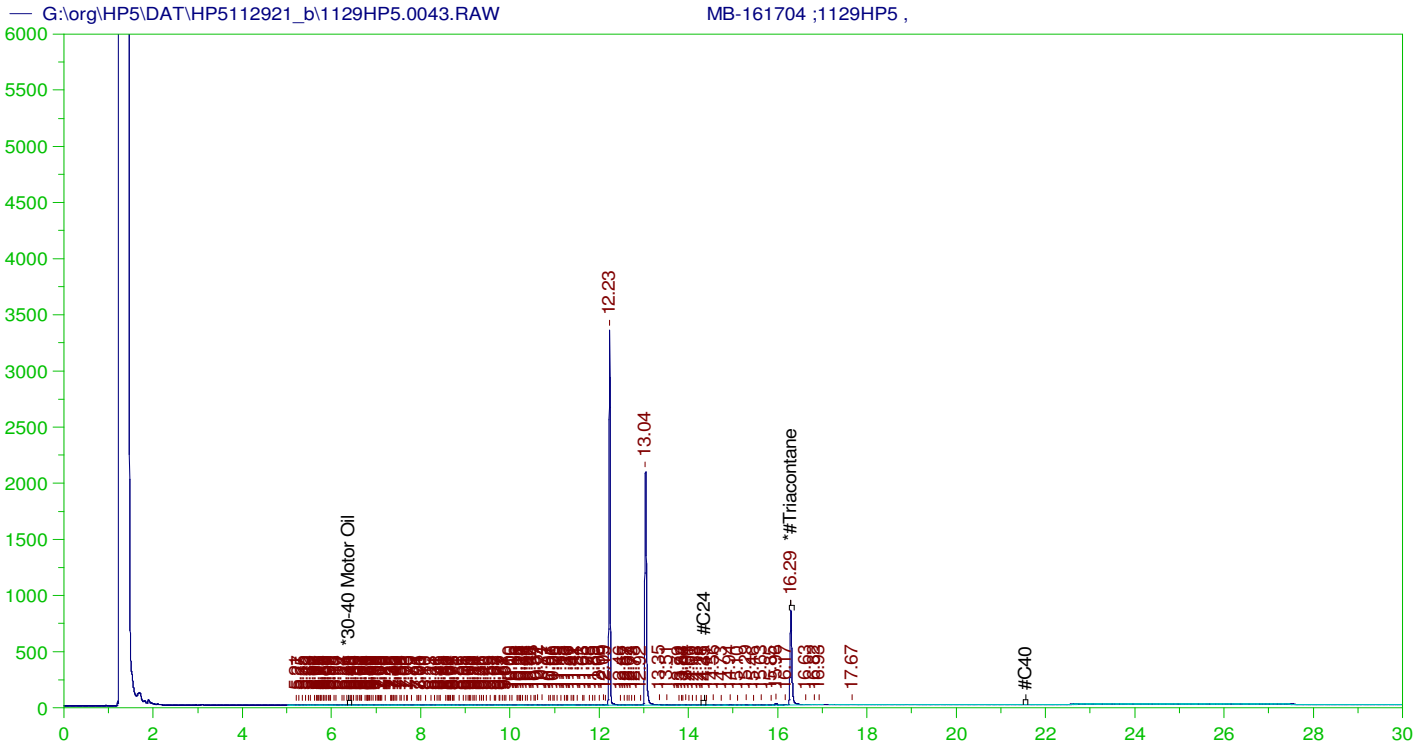
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-161704 ;1129HP5 ,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0043.RAW  
Date & Time Acquired: 11/30/2021 3:32:24 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.23	.2	.181	90.31	-
*1-Chlorooctadecane	13.036	.2	.14	69.96	-
*#Triacontane	16.294	.2	.085	42.56	-

DRO Area:444064.2 DRO Amount: 1.416328E-02  
TEH Area:643884.5 TEH Amount: 2.053649E-02



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: MB-161704 ;1129HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0043.RAW  
 Date & Time Acquired: 11/30/2021 3:32:24 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AFa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-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: 14.29 to 21.606

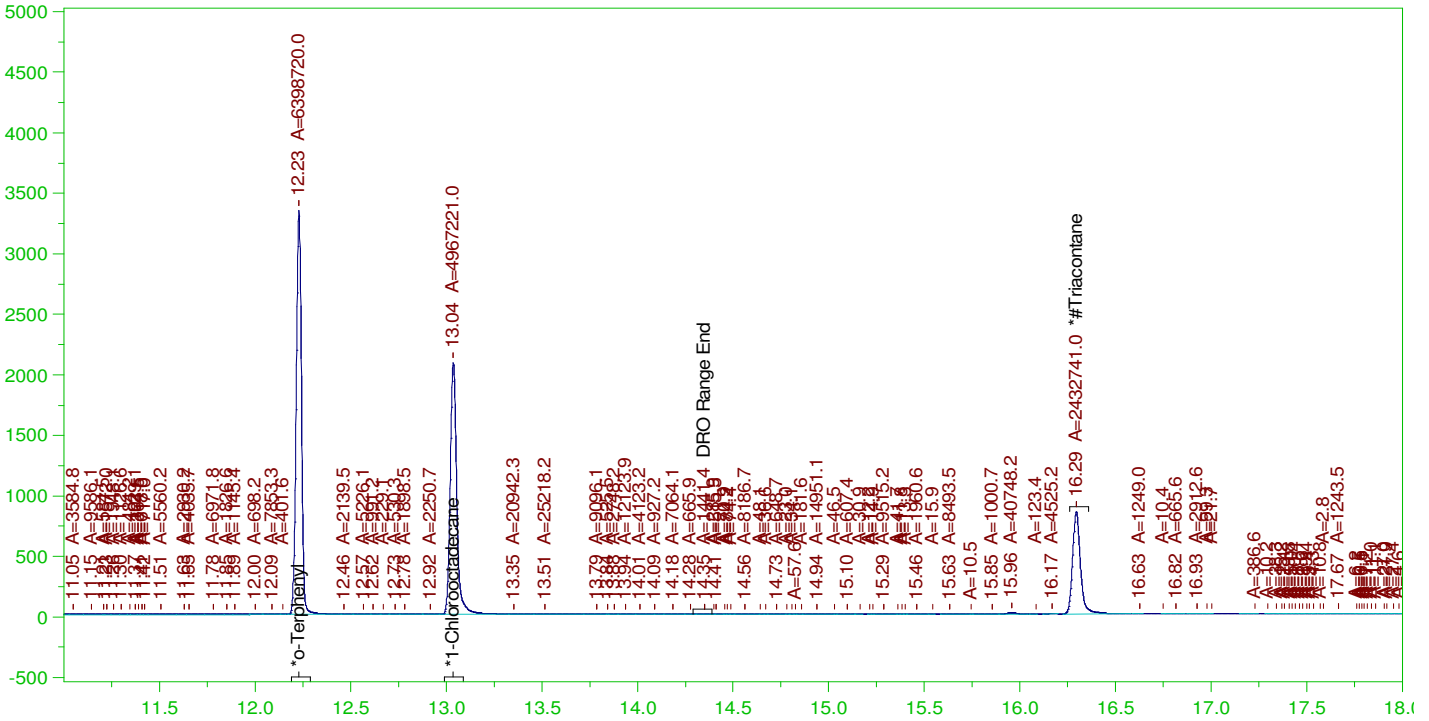
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.294	.5	.085	17.02

RRO Area:120948.9 RRO AMOUNT: 4.237517E-03

Batch ID: 161704

MB-161704 ;1129HP5 ,

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0043.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-161704 ;1129HP5 ,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0043.RAW  
Date & Time Acquired: 11/30/2021 3:32:24 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-ID-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.23	.2	.18	90.1
*1-Chlorooctadecane	13.036	.2	.14	69.94
*#Triacontane	16.294	.2	.084	42.05

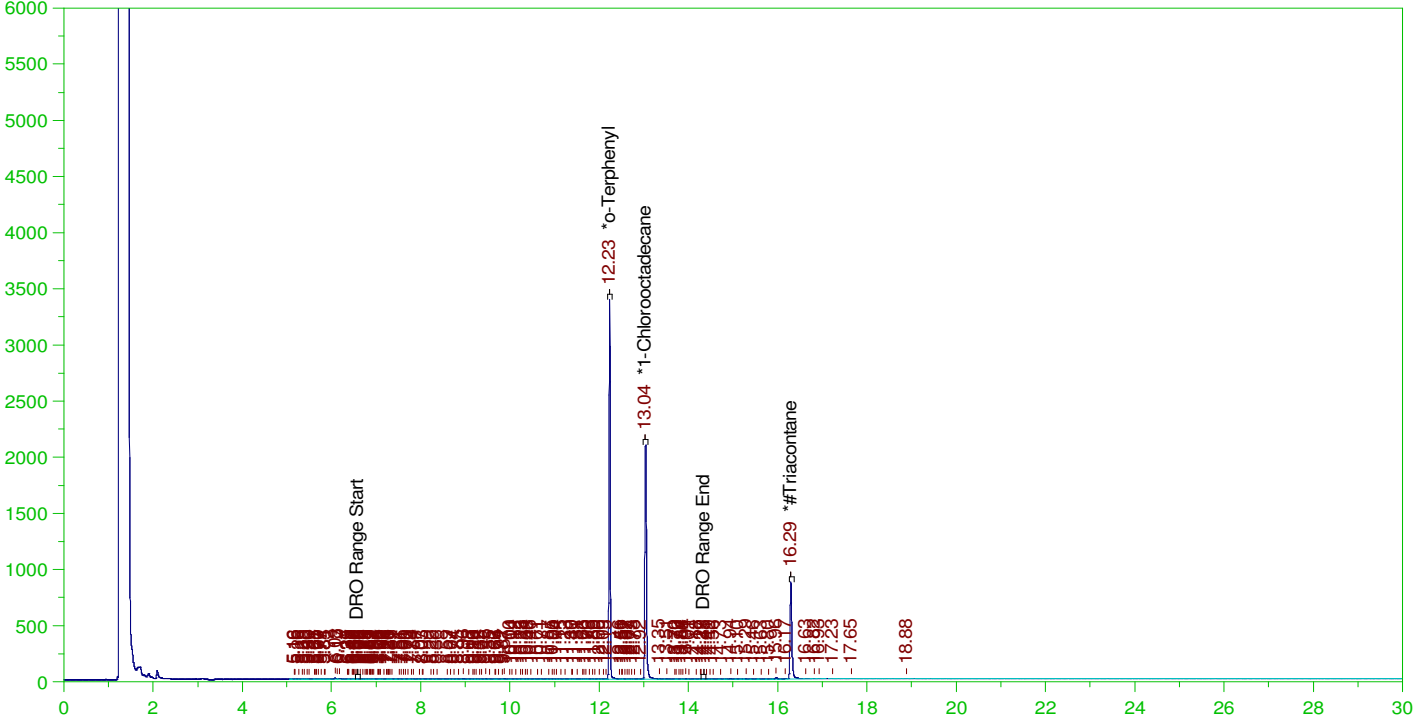
DRO Area:577204.9 DRO Amount: 1.840977E-02  
TEH Area:941371.6 TEH Amount: 3.002475E-02

**ERH1965 (RHSF Pre-Chlorination)**

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0044.RAW

Batch ID: 161704

B21112212-007A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-007A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0044.RAW  
Date & Time Acquired: 11/30/2021 4:14:55 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.23	.19	.175	91.82	-
*1-Chlorooctadecane	13.037	.19	.134	70.38	-
*#Triacontane	16.293	.19	.082	43.2	-

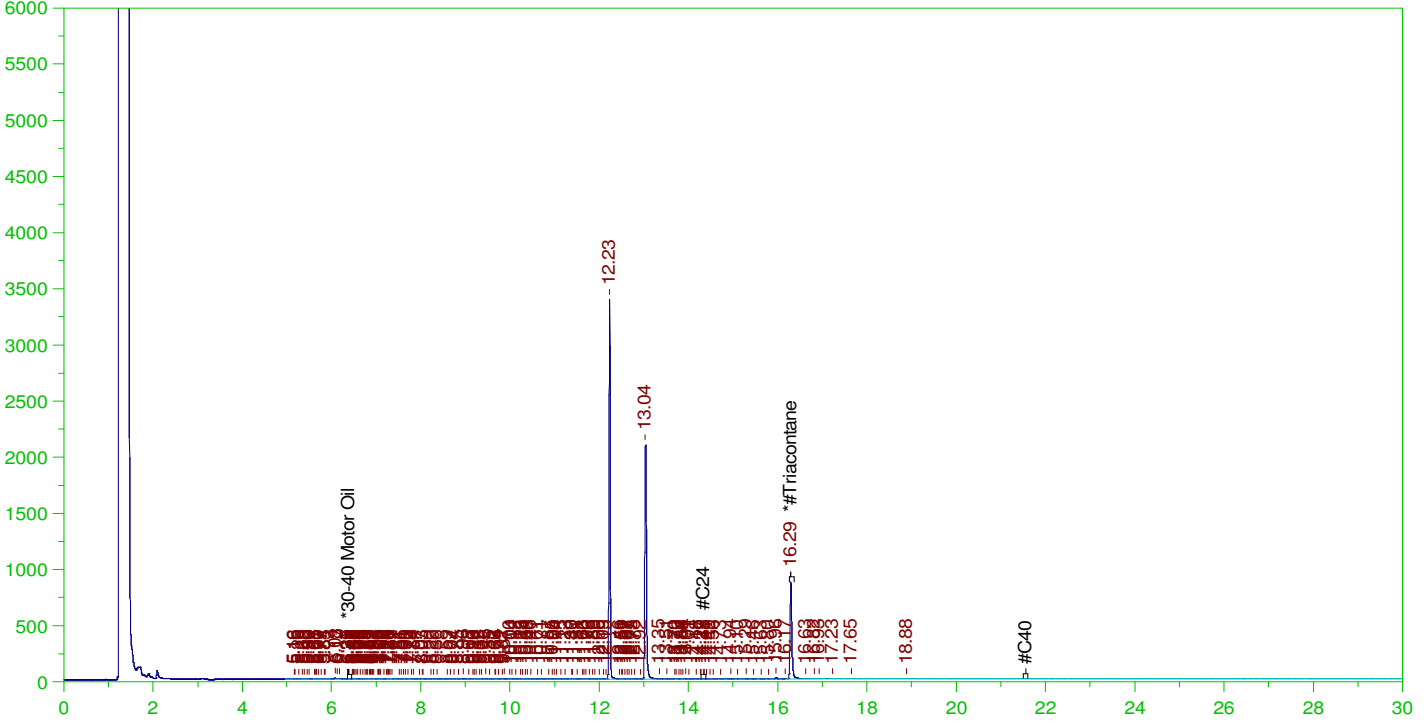
DRO Area:602725 DRO Amount: 1.830831E-02  
TEH Area:883182.1 TEH Amount: 2.682744E-02

**ERH1965 (RHSF Pre-Chlorination)**

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0044.RAW

Batch ID: 161704

B21112212-007A ;1129HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-007A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0044.RAW  
Date & Time Acquired: 11/30/2021 4:14:55 PM  
Method File: G:\Org\HP5\Methods\DR\_OROS-AFa-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-SAMP.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
Rt range for Residual Range Organics: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.293	.476	.082	17.28

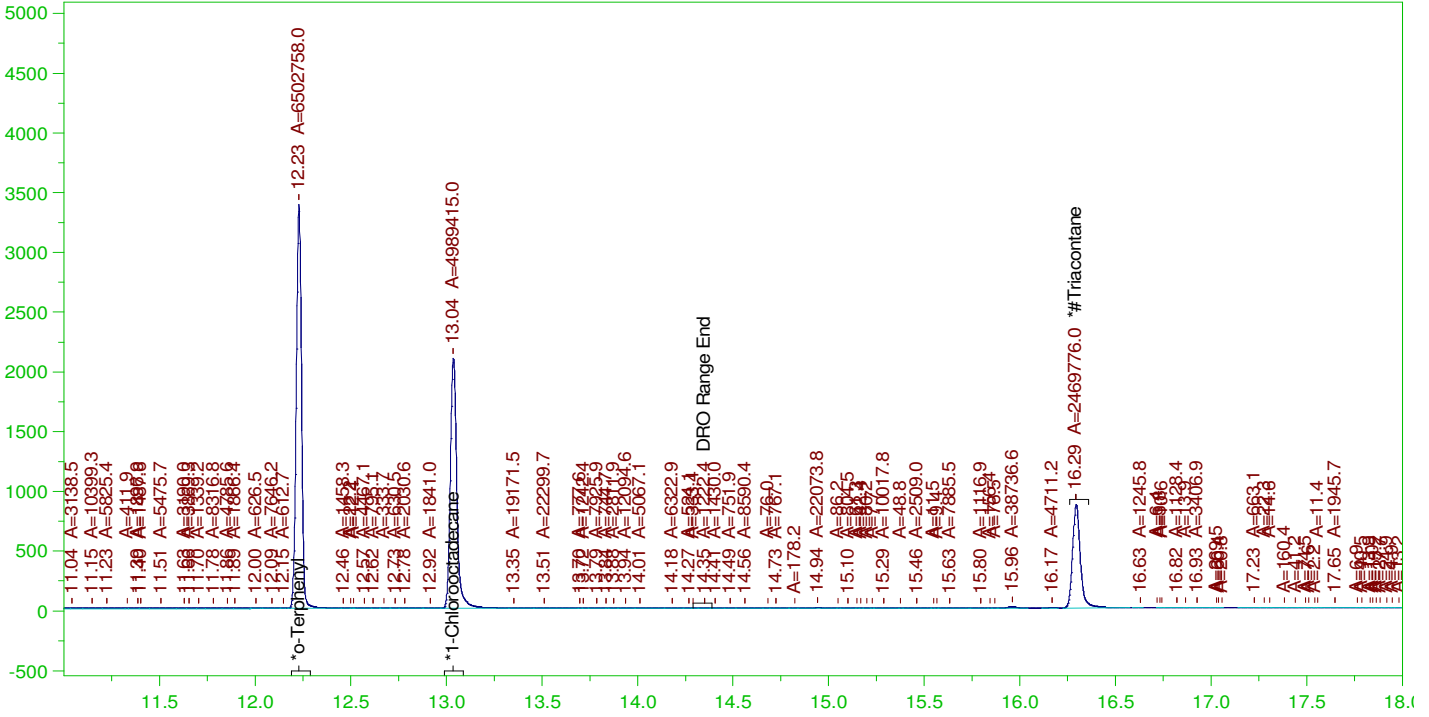
RRO Area:135764.1 RRO AMOUNT: 4.530071E-03

**ERH1965 (RHSF Pre-Chlorination)**

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0044.RAW

Batch ID: 161704

B21112212-007A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-007A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0044.RAW  
Date & Time Acquired: 11/30/2021 4:14:55 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-ID-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.23	.19	.174	91.56
*1-Chlorooctadecane	13.037	.19	.134	70.26
*#Triacontane	16.293	.19	.081	42.69

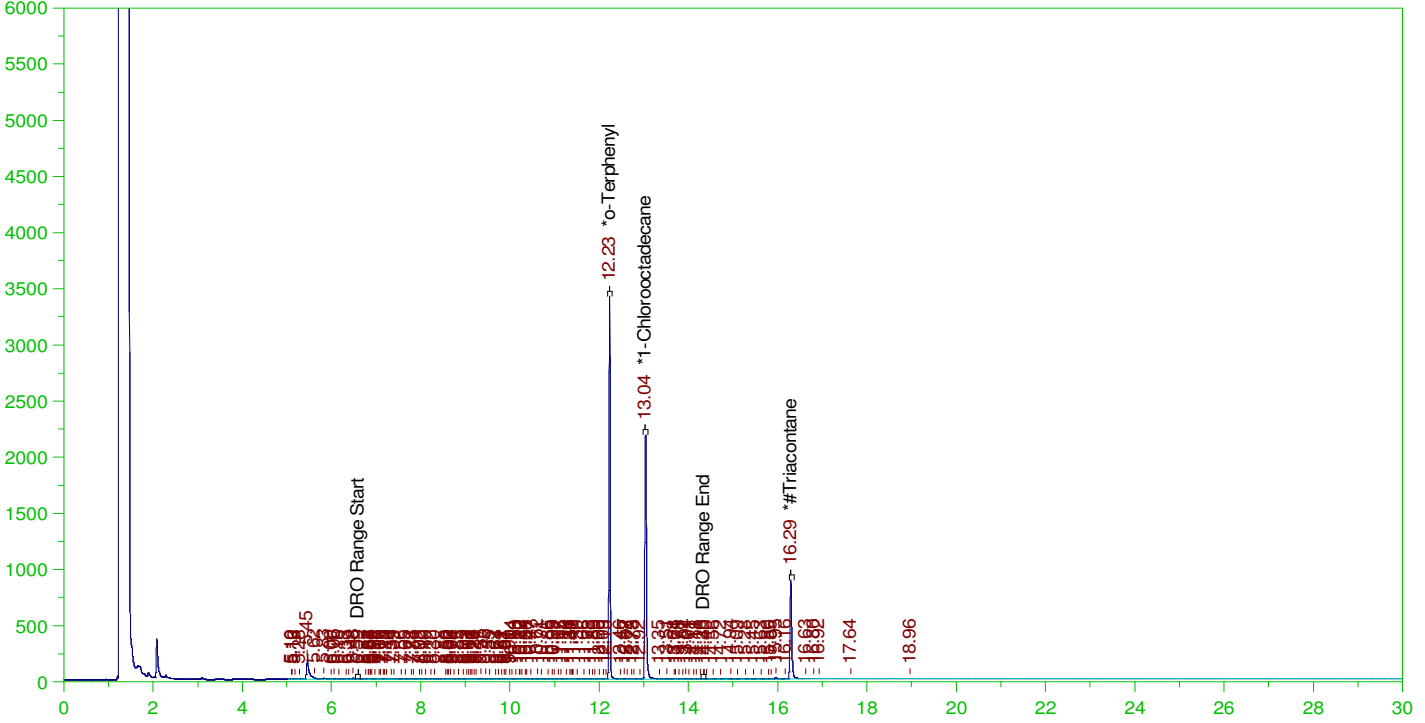
DRO Area:680397.8 DRO Amount: 2.066769E-02  
TEH Area:1081131 TEH Amount: 3.284032E-02

**ERH1966 (RHSF Pre-Chlorination)**

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0045.RAW

Batch ID: 161704

B21112212-008A ; 1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-008A ; 1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0045.RAW  
Date & Time Acquired: 11/30/2021 4:57:33 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.229	.19	.177	93.11	-
*1-Chlorooctadecane	13.037	.19	.139	72.89	-
*#Triacontane	16.291	.19	.084	44.02	-

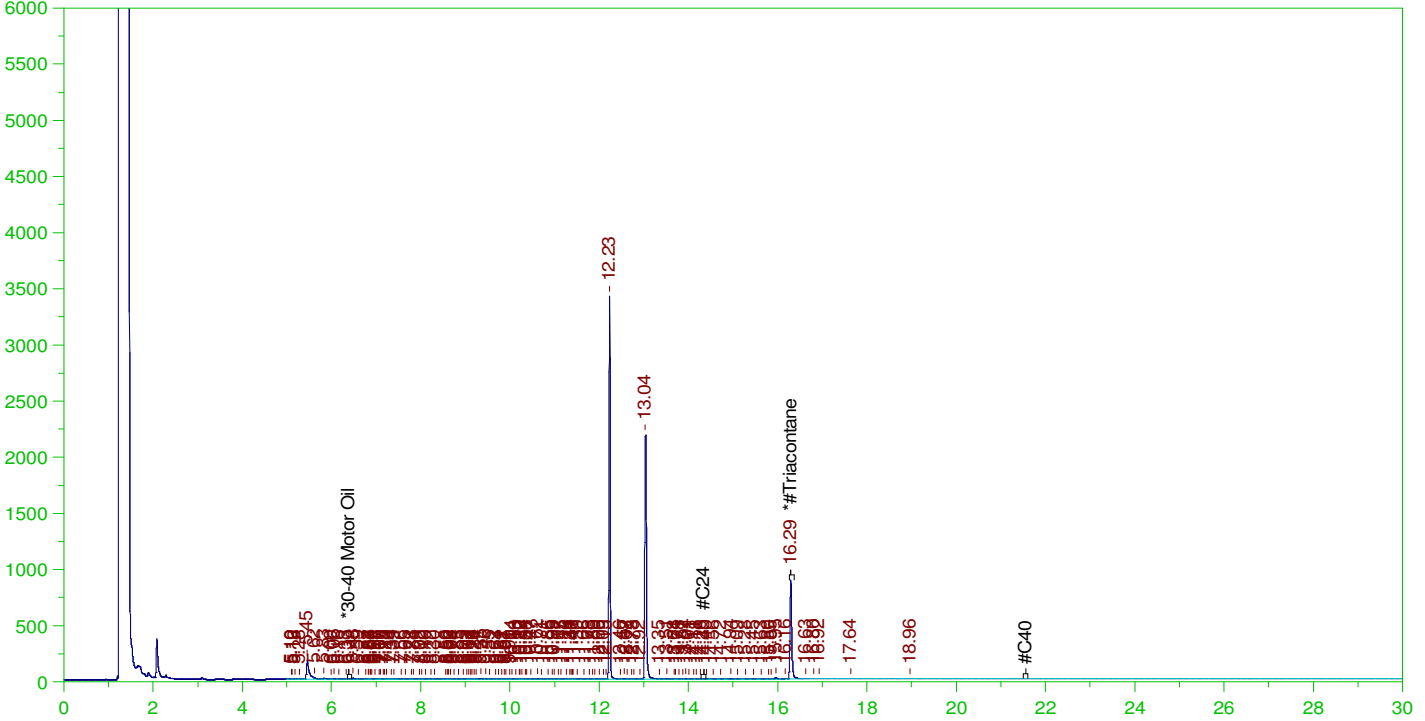
DRO Area: 632759.6 DRO Amount: 1.922063E-02  
TEH Area: 1776400 TEH Amount: 5.395973E-02

**ERH1966 (RHSF Pre-Chlorination)**

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0045.RAW

Batch ID: 161704

B21112212-008A ;1129HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-008A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0045.RAW  
Date & Time Acquired: 11/30/2021 4:57:33 PM  
Method File: G:\Org\HP5\Methods\DR\_OROS-AFa-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-SAMP.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
Rt range for Residual Range Organics: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.291	.476	.084	17.61

RRO Area:149694.3 RRO AMOUNT: 4.994883E-03

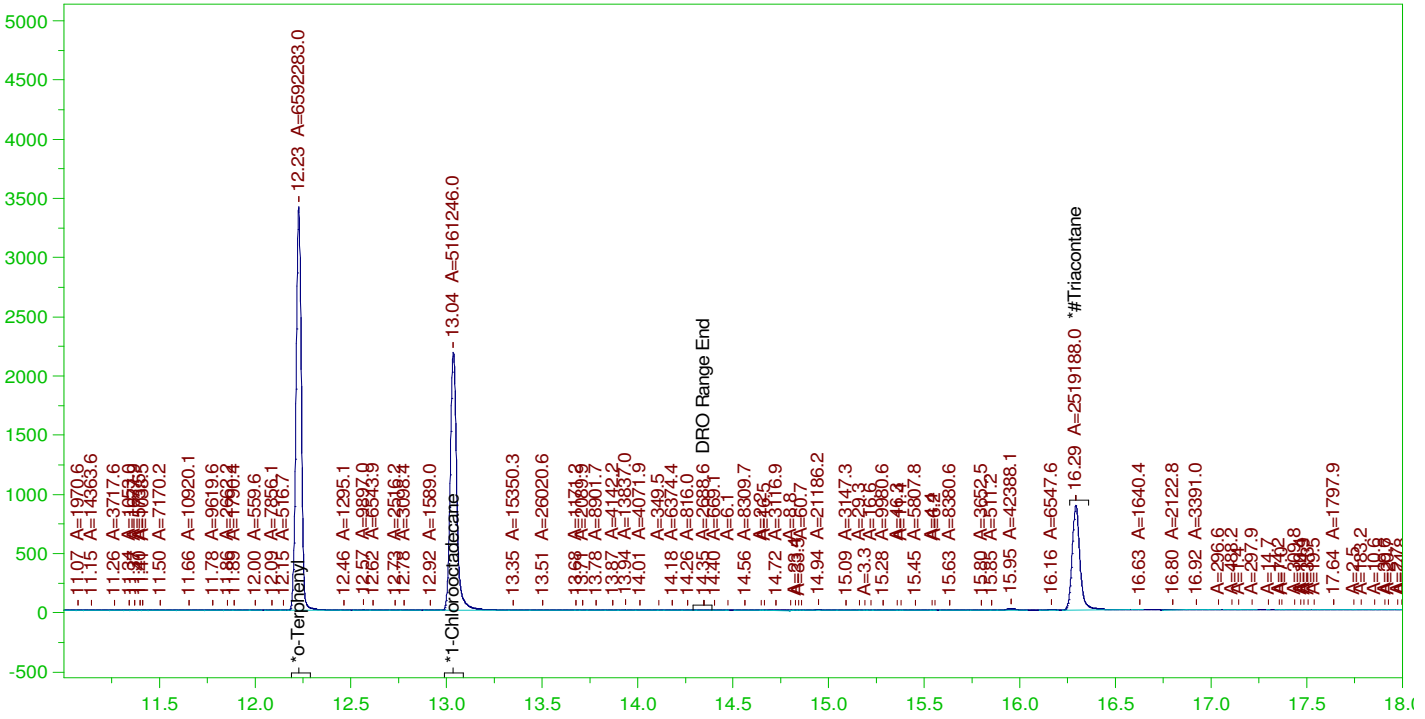


**ERH1966 (RHSF Pre-Chlorination)**

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0045.RAW

B21112212-008A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

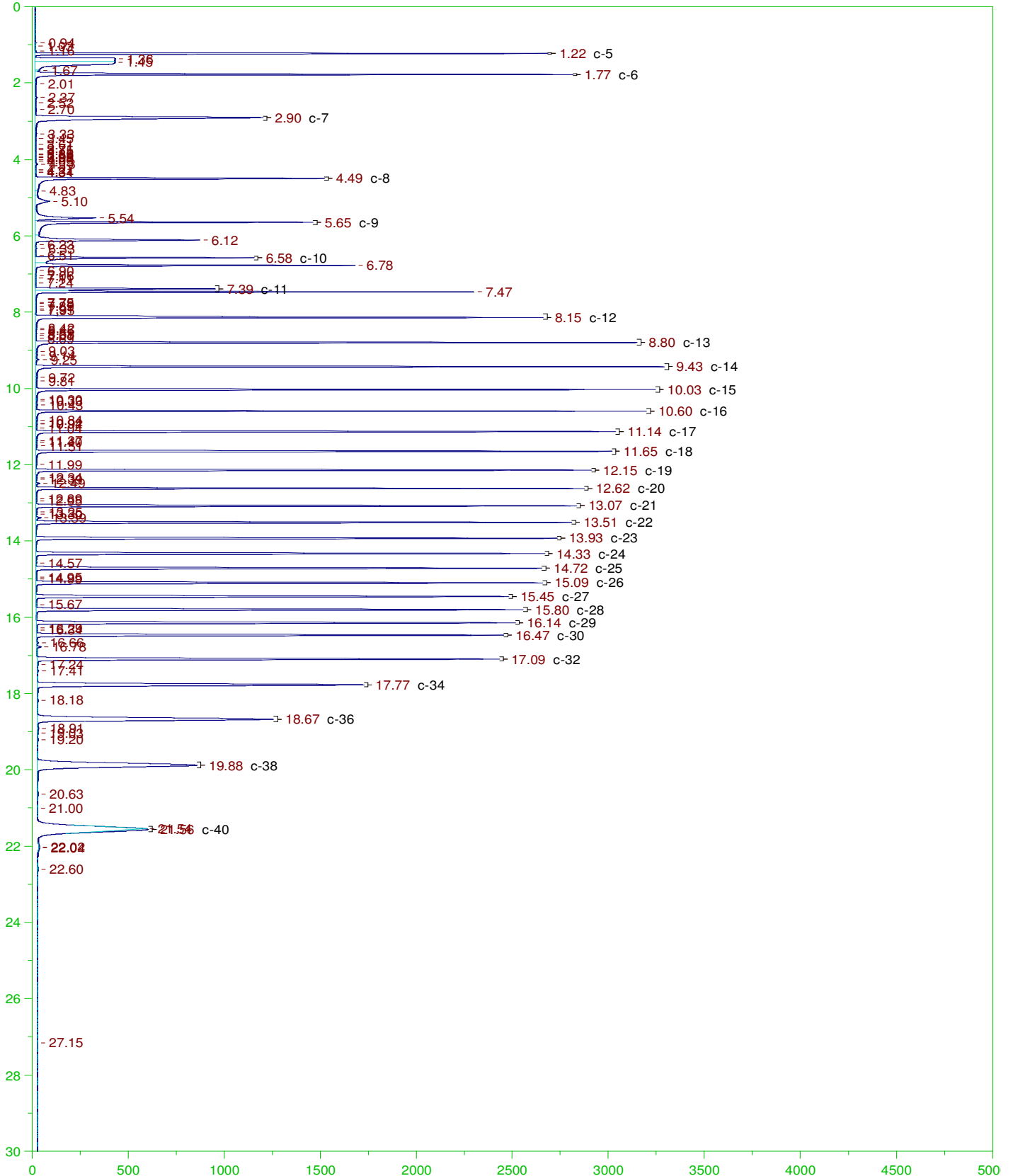
Sample Name: B21112212-008A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0045.RAW  
Date & Time Acquired: 11/30/2021 4:57:33 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-ID-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

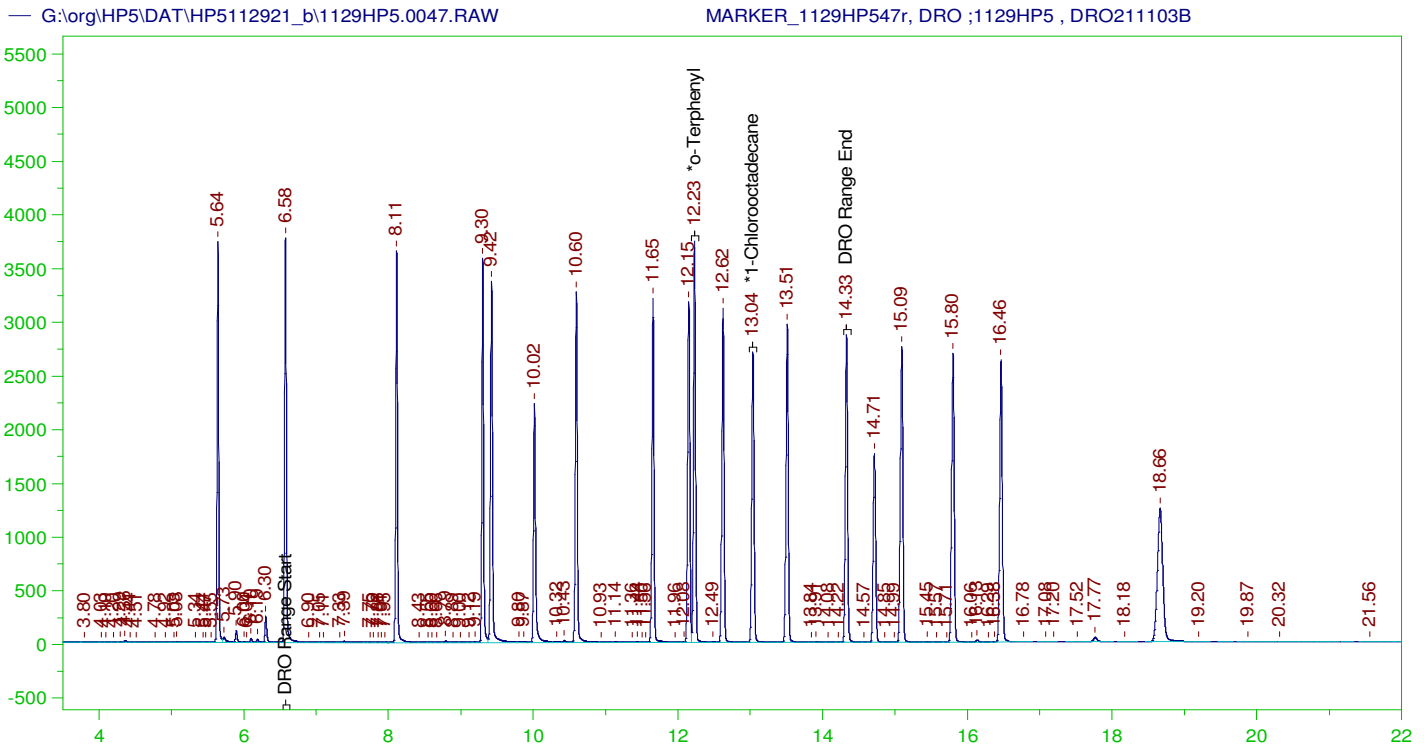
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.229	.19	.177	92.82	-
*1-Chlorooctadecane	13.037	.19	.138	72.67	-
*#Triacontane	16.291	.19	.083	43.54	-

DRO Area: 690736.3 DRO Amount: 2.098173E-02  
TEH Area: 2051355 TEH Amount: 6.231173E-02





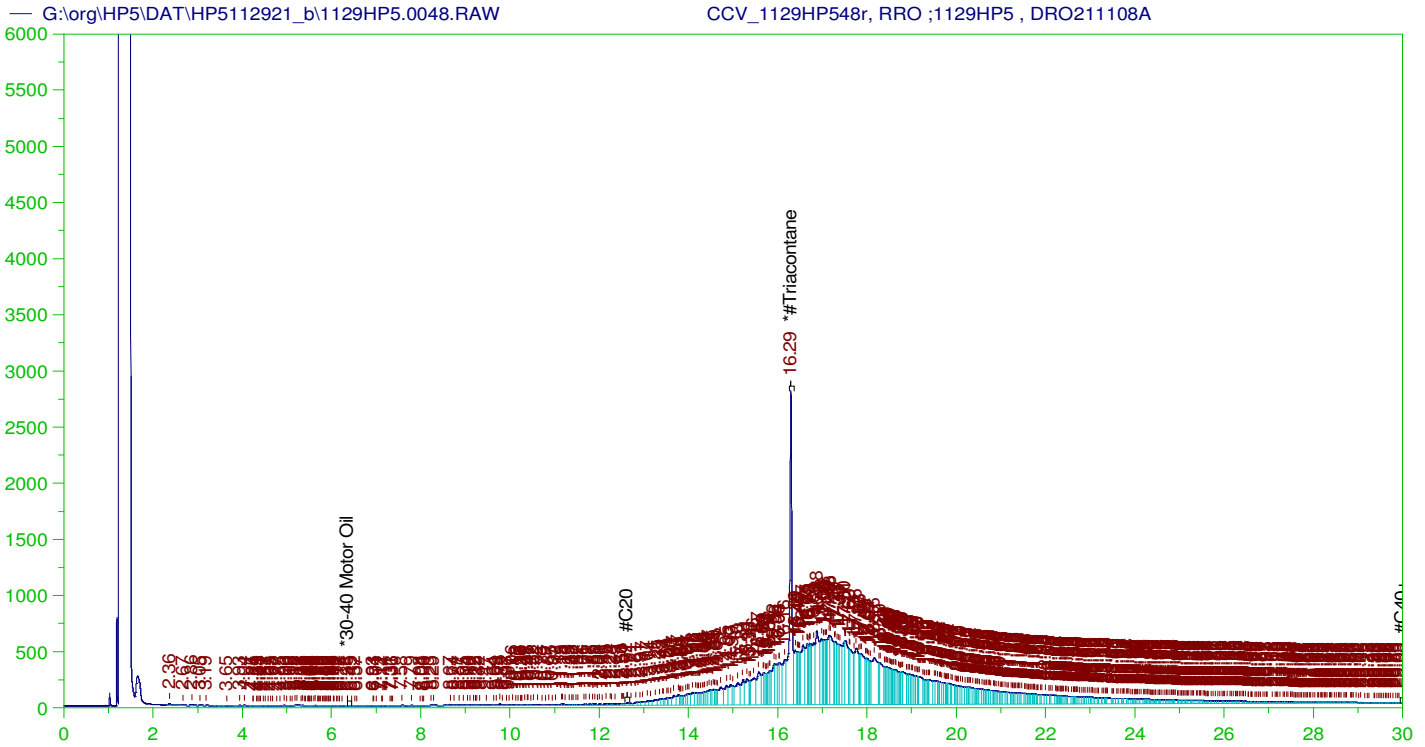
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MARKER\_1129HP547r, DRO ;1129HP5 , DRO211103B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0047.RAW  
 Date & Time Acquired: 11/30/2021 6:24:07 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.23	.2	.201	100.33
*1-Chlorooctadecane	13.036	.2	.161	80.73

DRO Area: 6.887581E+07 DRO Amount: 2.196772  
 TEH Area: 1.071144E+08 TEH Amount: 3.41638



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP548r, RRO ;1129HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0048.RAW  
 Date & Time Acquired: 11/30/2021 7:07:19 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.294	500.	356.005	71.2	-

~~RRO~~ TEH(Oil Range) Area:1.410852E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4943.001

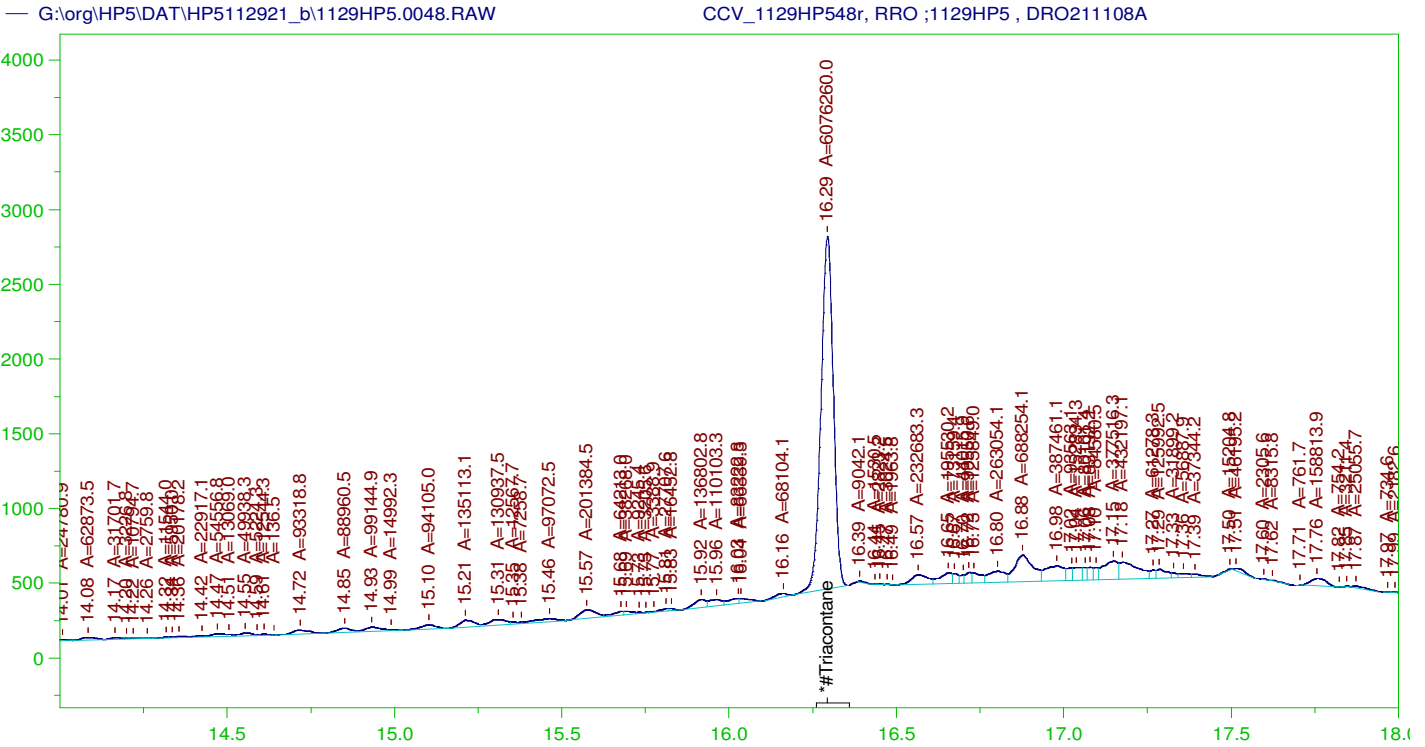
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0048.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.04	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.294	200.	356.005	178.	75-125

AMN 12/14/2021



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP548r, RRO ;1129HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0048.RAW  
 Date & Time Acquired: 11/30/2021 7:07:19 PM  
 Method File: G:\Org\HP5\Methods\DS\_OROb-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.294	500.	210.032	42.01	-

RRO Area:6804585 RRO AMOUNT: 238.4026

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0048.RAW

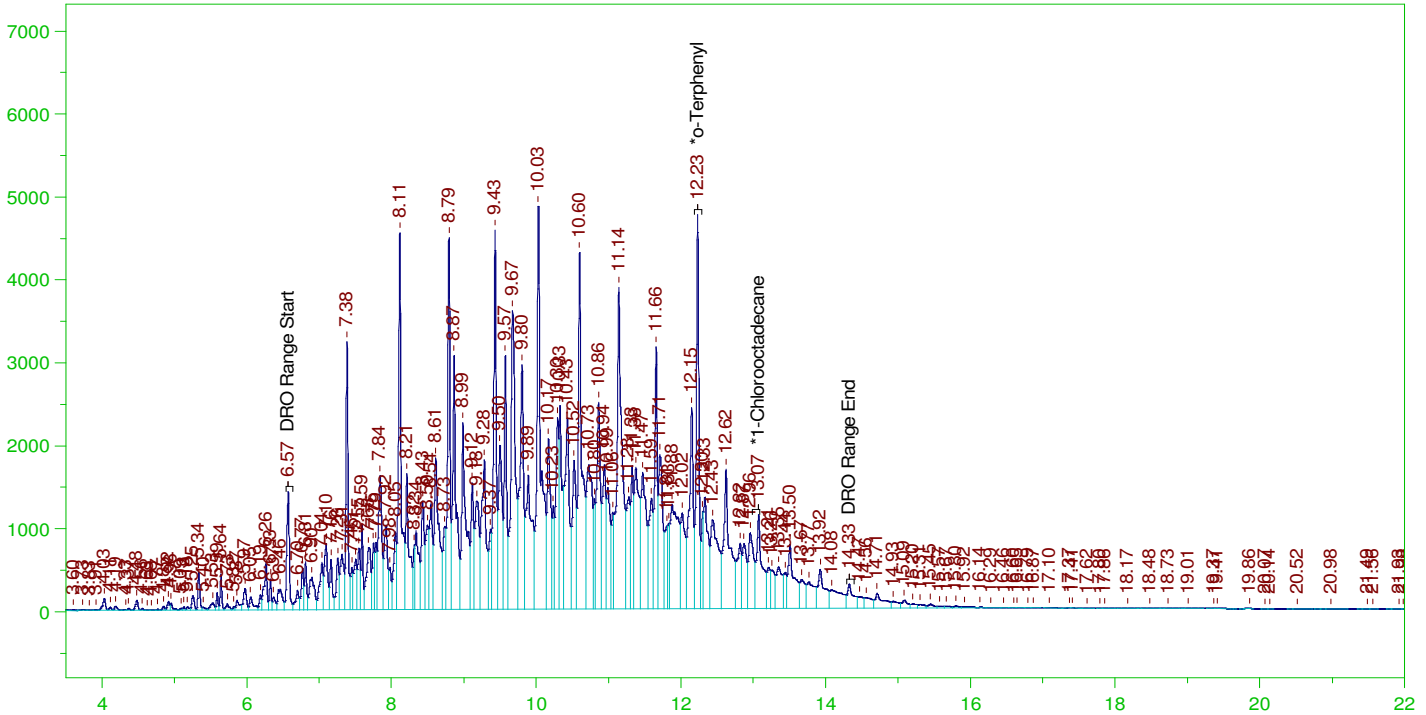
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.04	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.294	200.	210.032	105.02	75-125

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0049.RAW

CCV\_1129HP549r, DRO ;1129HP5 , DRO211116B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1129HP549r, DRO ;1129HP5 , DRO211116B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0049.RAW  
 Date & Time Acquired: 11/30/2021 7:50:43 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

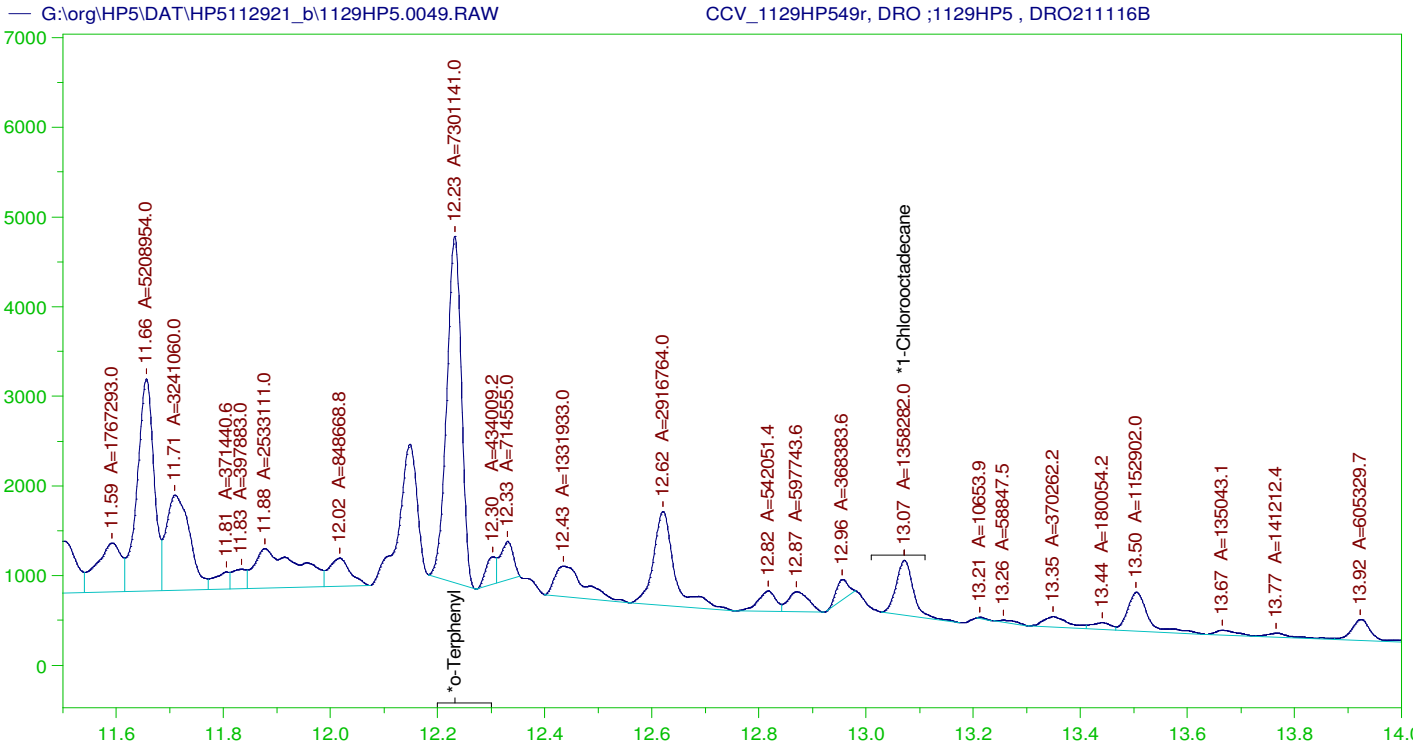
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.232	200.	338.888	169.44
*1-Chlorooctadecane	13.072	200.	164.677	82.34

DRO Area: 4.732977E+08 DRO Amount: 15095.68  
 TEH Area: 4.904597E+08 TEH Amount: 15643.06

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0049.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15643.06	104.29	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.232	200.	338.888	169.44	85-115
*1-Chlorooctadecane	13.072	200.	164.677	82.34	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1129HP549r, DRO ;1129HP5 , DRO211116B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0049.RAW  
 Date & Time Acquired: 11/30/2021 7:50:43 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-ID-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.55 to 14.4

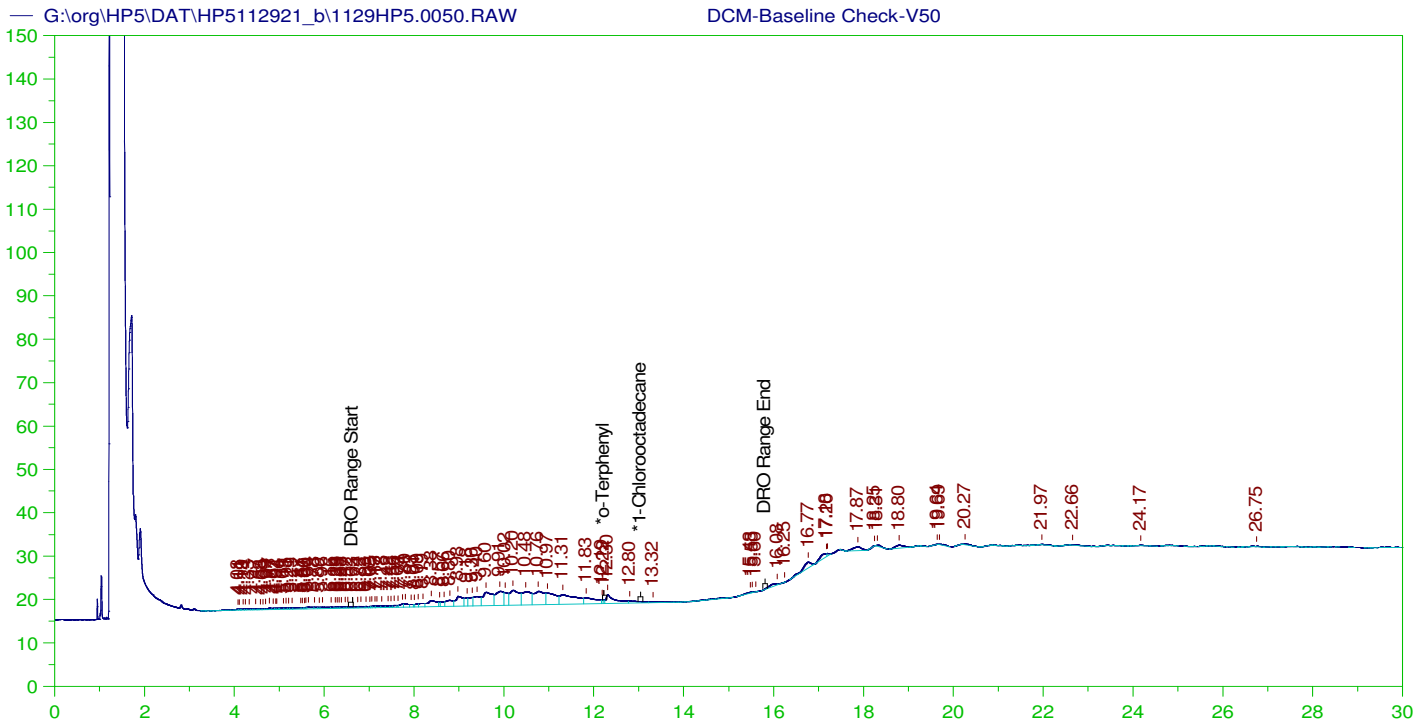
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.232	200.	205.613	102.81
*1-Chlorooctadecane	13.072	200.	38.252	19.13

DRO Area: 2.626484E+08 DRO Amount: 8377.086  
 TEH Area: 2.734723E+08 TEH Amount: 8722.312

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0049.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8722.31	58.15	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.232	200.	205.613	102.81	85-115
*1-Chlorooctadecane	13.072	200.	38.252	19.13	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V50  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0050.RAW  
 Date & Time Acquired: 11/30/2021 8:34:04 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	12.222	200.	.049	.02
*1-Chlorooctadecane	29.931	200.	.	.

DRO Area:577209.4 DRO Amount: 18.40991  
 TEH Area:706055.3 TEH Amount: 22.51941

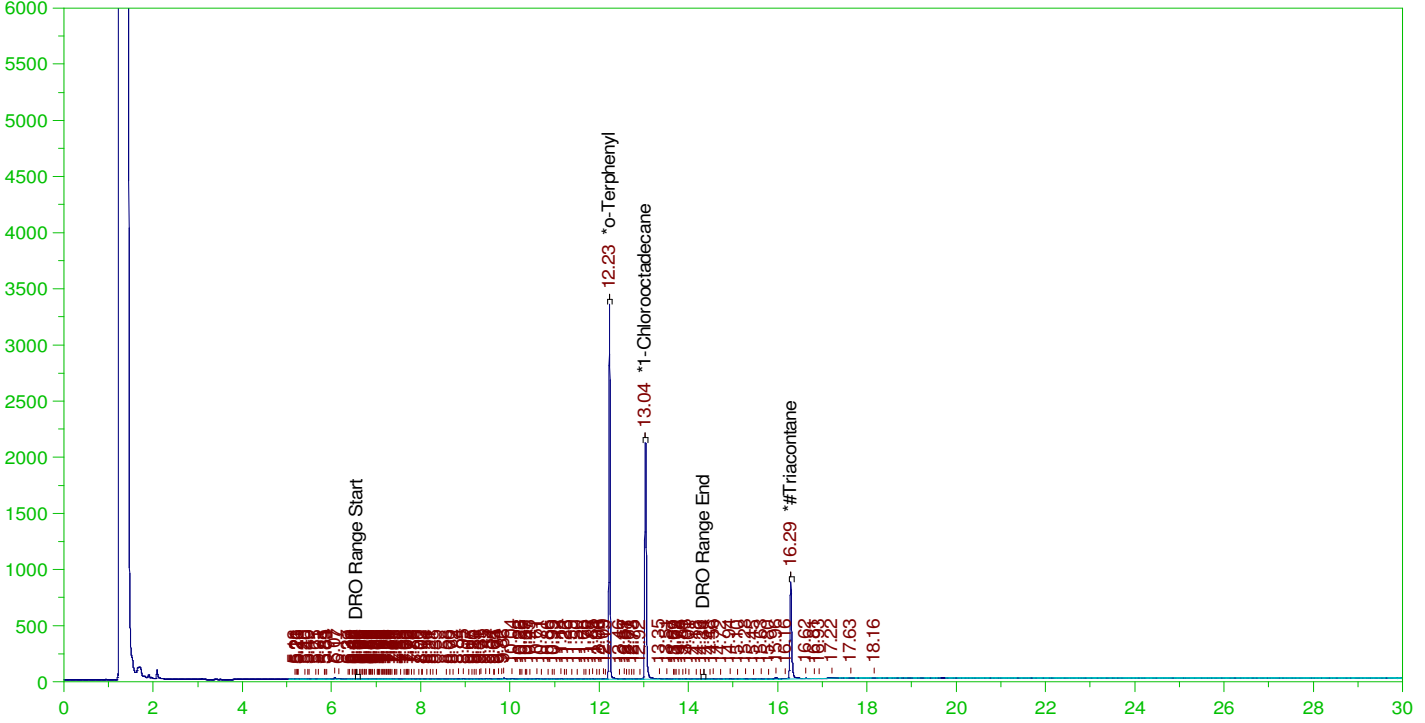


**ERH1963 (RHSF Pre-Chlorination)**

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0051.RAW

Batch ID: 161704

B21112212-006A ; 1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-006A ; 1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0051.RAW  
Date & Time Acquired: 11/30/2021 9:17:31 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.228	.189	.172	90.9	-
*1-Chlorooctadecane	13.035	.189	.13	69.16	-
*#Triacontane	16.289	.189	.081	43.02	-

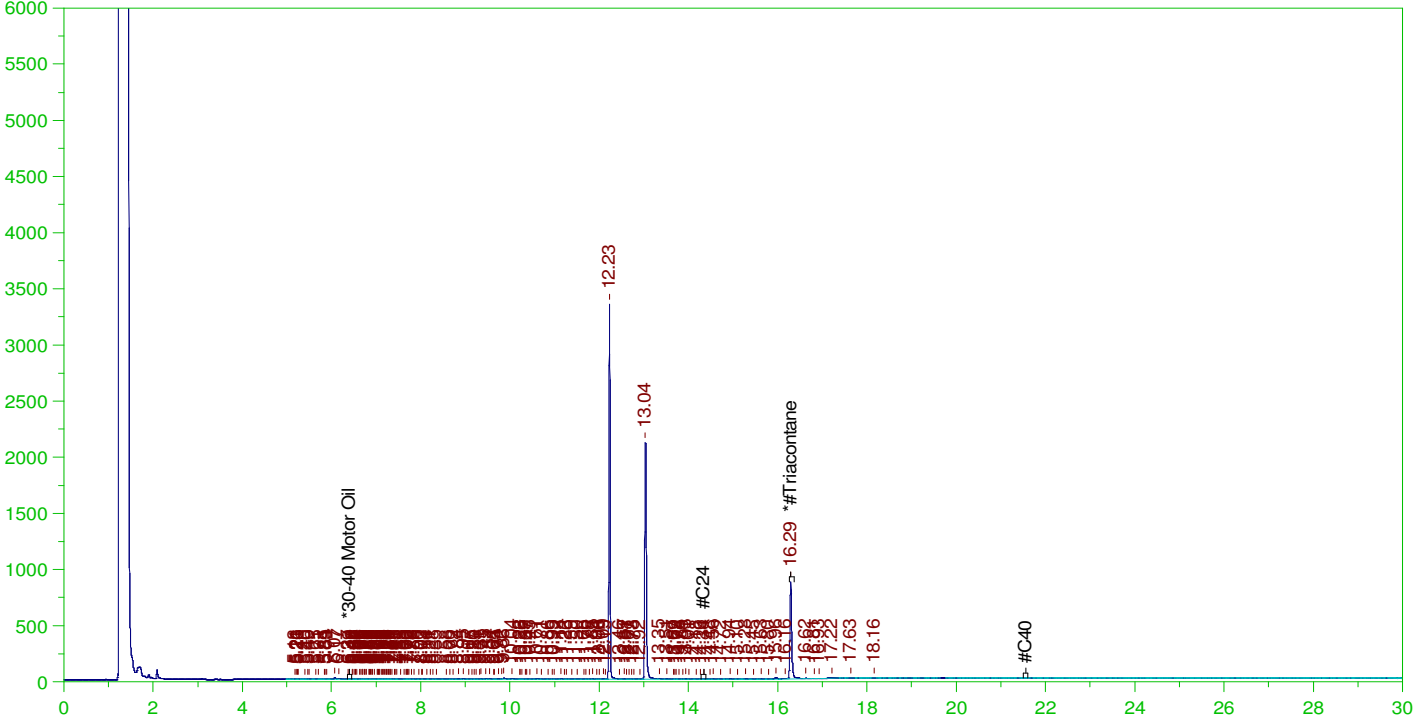
DRO Area: 852508.9 DRO Amount: 2.565141E-02  
TEH Area: 1129381 TEH Amount: 3.398229E-02

**ERH1963 (RHSF Pre-Chlorination)**

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0051.RAW

Batch ID: 161704

B21112212-006A ; 1129HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-006A ; 1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0051.RAW  
Date & Time Acquired: 11/30/2021 9:17:31 PM  
Method File: G:\Org\HP5\Methods\DR\_OROS-AFa-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-SAMP.CAL  
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
Rt range for Residual Range Organics: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.289	.472	.081	17.21

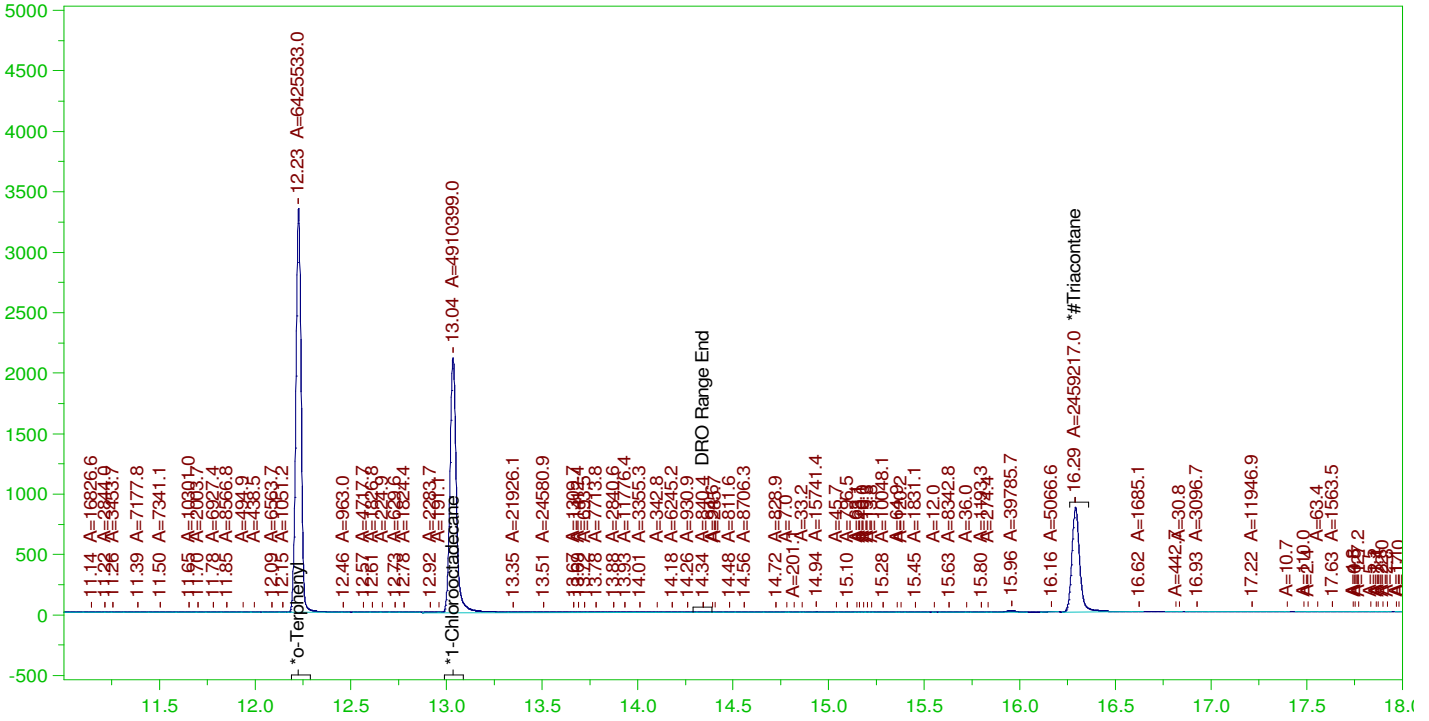
RRO Area:134884.3 RRO AMOUNT: 4.458253E-03

**ERH1963 (RHSF Pre-Chlorination)**

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0051.RAW

Batch ID: 161704

B21112212-006A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-006A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0051.RAW  
Date & Time Acquired: 11/30/2021 9:17:31 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-ID-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.228	.189	.171	90.48
*1-Chlorooctadecane	13.035	.189	.13	69.14
*#Triacontane	16.289	.189	.08	42.5

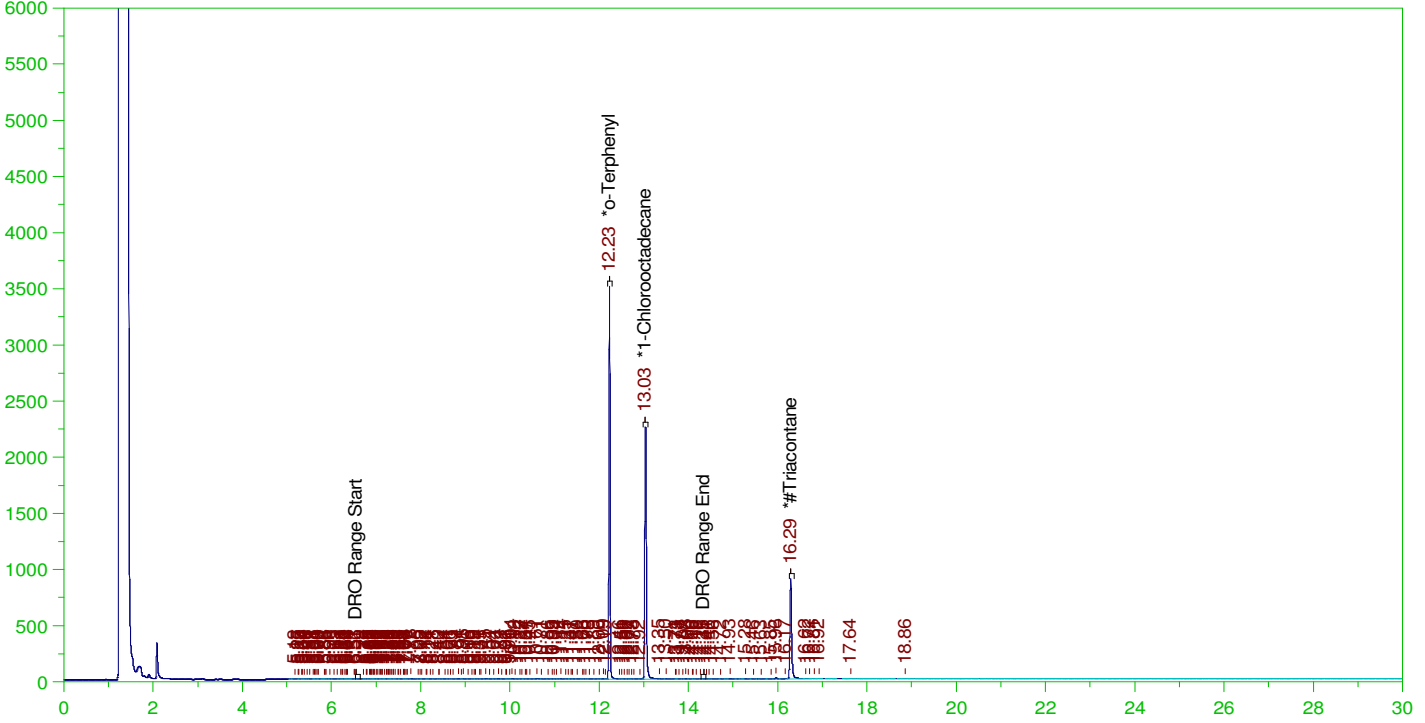
DRO Area: 792773.6 DRO Amount: 2.385402E-02  
TEH Area: 1178152 TEH Amount: 0.0354498

ERH1960 (RHMW2254-01)

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0052.RAW

Batch ID: 161704

B21112212-005A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-005A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0052.RAW  
Date & Time Acquired: 11/30/2021 10:00:39 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.227	.192	.182	94.44	-
*1-Chlorooctadecane	13.035	.192	.142	73.73	-
*#Triacontane	16.289	.192	.085	44.15	-

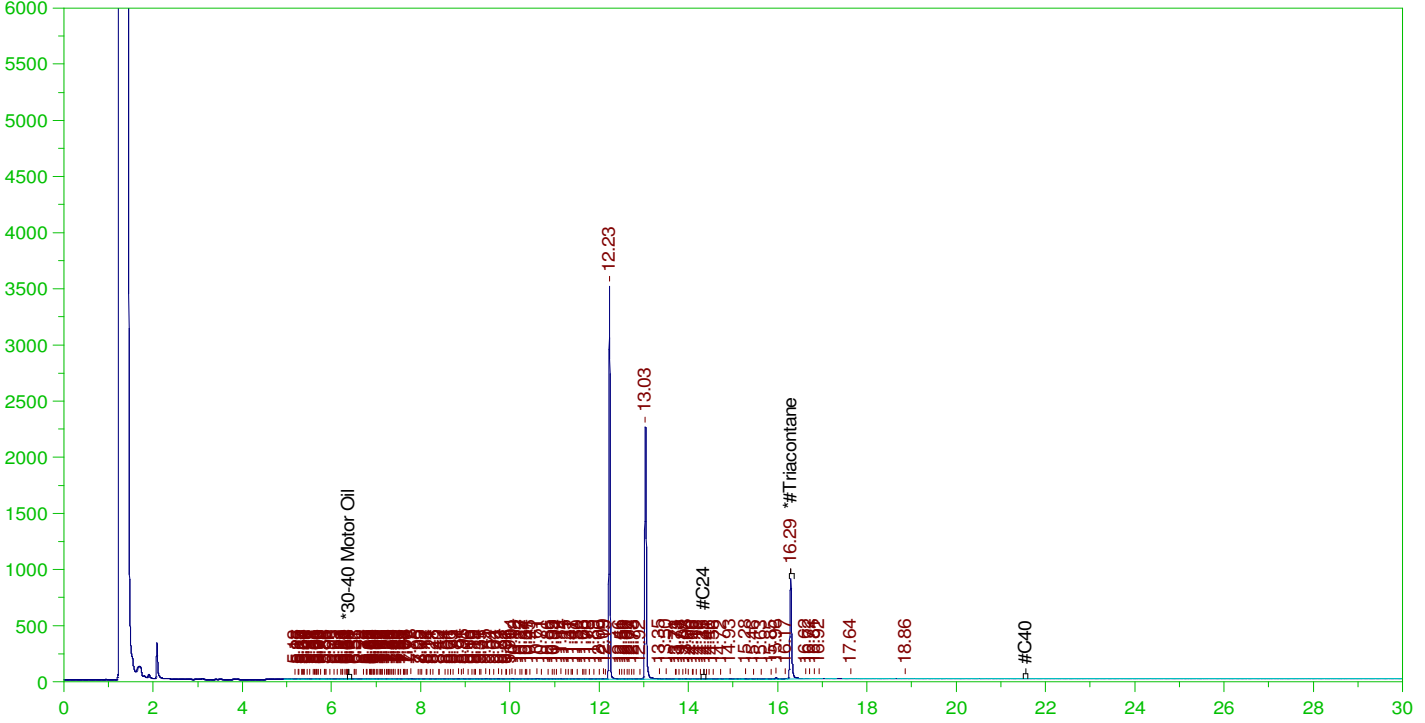
DRO Area:986679.7 DRO Amount: 3.025945E-02  
TEH Area:1174783 TEH Amount: 3.602819E-02

ERH1960 (RHMW2254-01)

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0052.RAW

Batch ID: 161704

B21112212-005A ;1129HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-005A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0052.RAW  
Date & Time Acquired: 11/30/2021 10:00:39 PM  
Method File: G:\Org\HP5\Methods\DR\_OROS-AFa-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-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: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.289	.481	.085	17.66

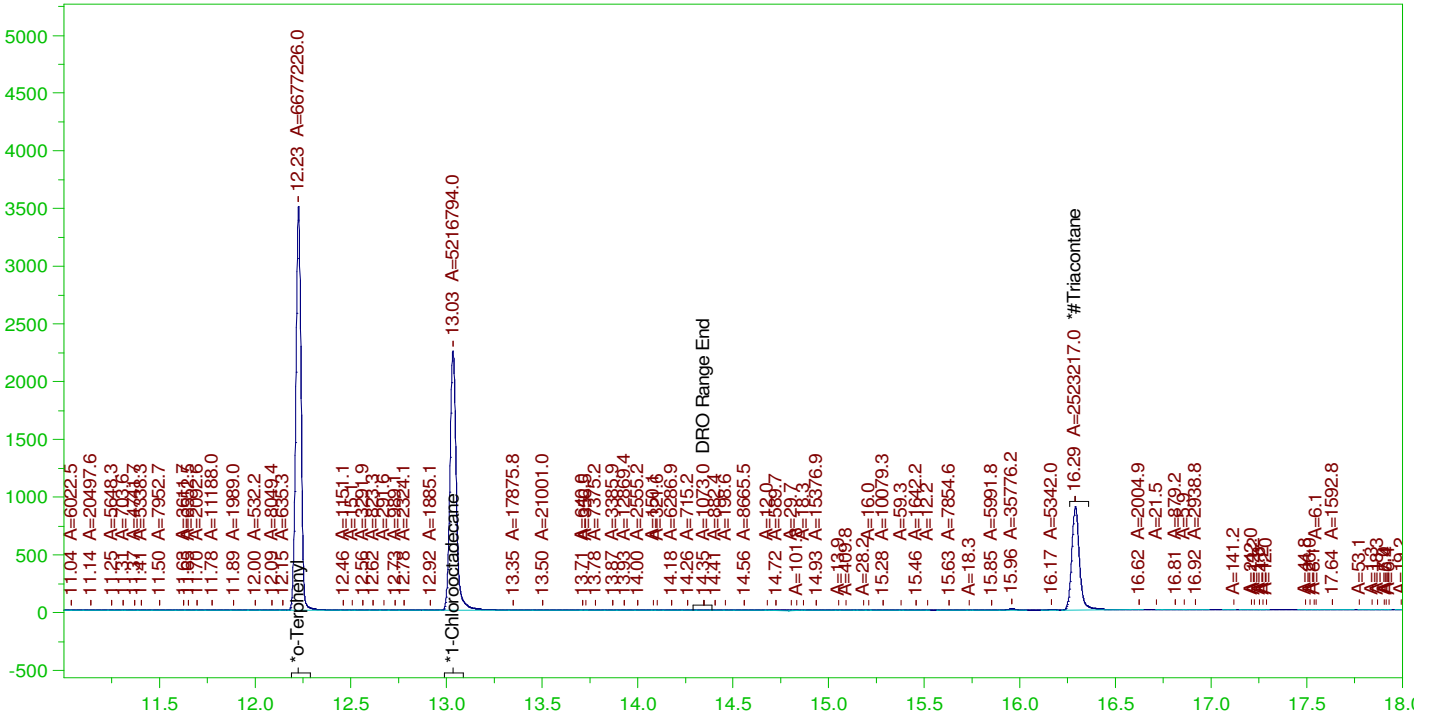
RRO Area:130779.7 RRO AMOUNT: 4.405713E-03

ERH1960 (RHMW2254-01)

Batch ID: 161704

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B21112212-005A ;1129HP5 , \$HC-8015-DRO-W,



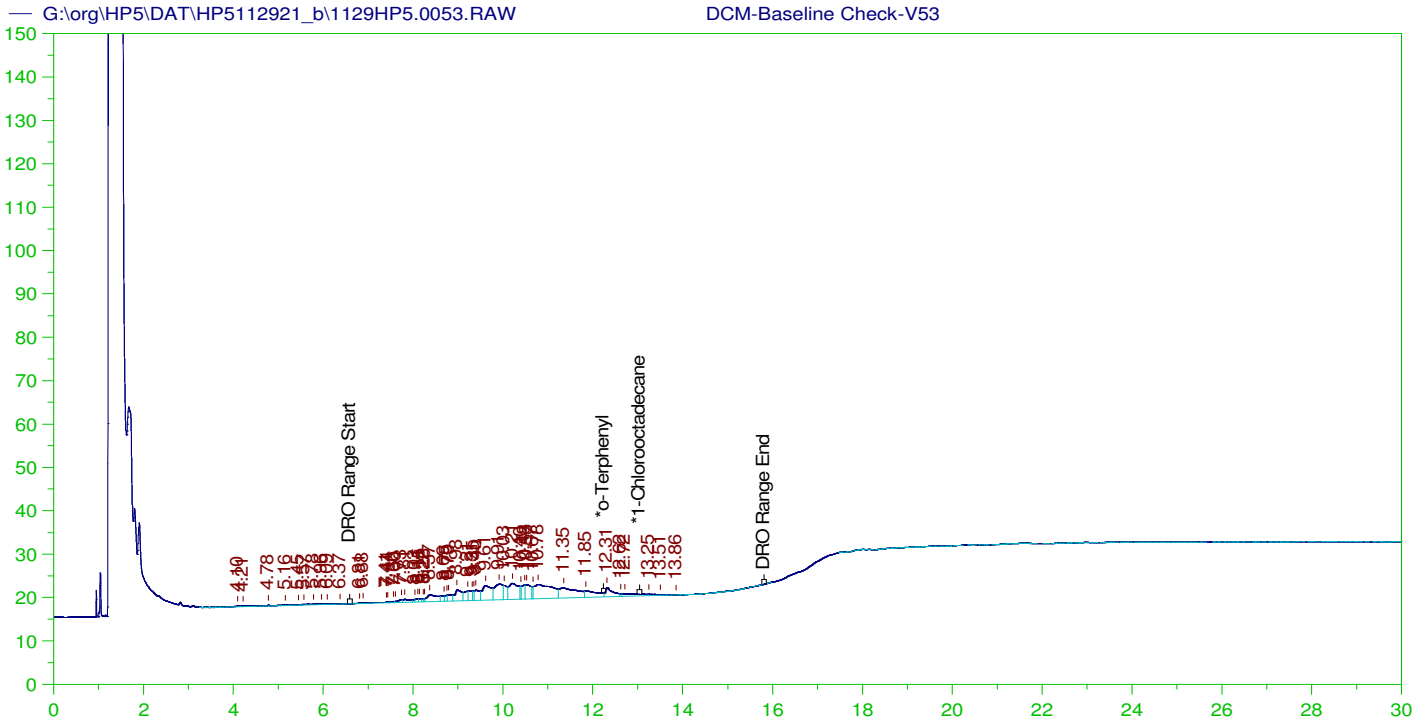
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-005A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0052.RAW  
Date & Time Acquired: 11/30/2021 10:00:39 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-ID-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1040 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.227	.192	.181	94.02	-
*1-Chlorooctadecane	13.035	.192	.141	73.46	-
*#Triacontane	16.289	.192	.084	43.61	-

DRO Area:823156.8 DRO Amount: 2.524454E-02  
TEH Area:1130825 TEH Amount: 3.468009E-02



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V53  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0053.RAW  
 Date & Time Acquired: 11/30/2021 10:44:02 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	29.91	200.	.	-
*1-Chlorooctadecane	29.91	200.	.	-

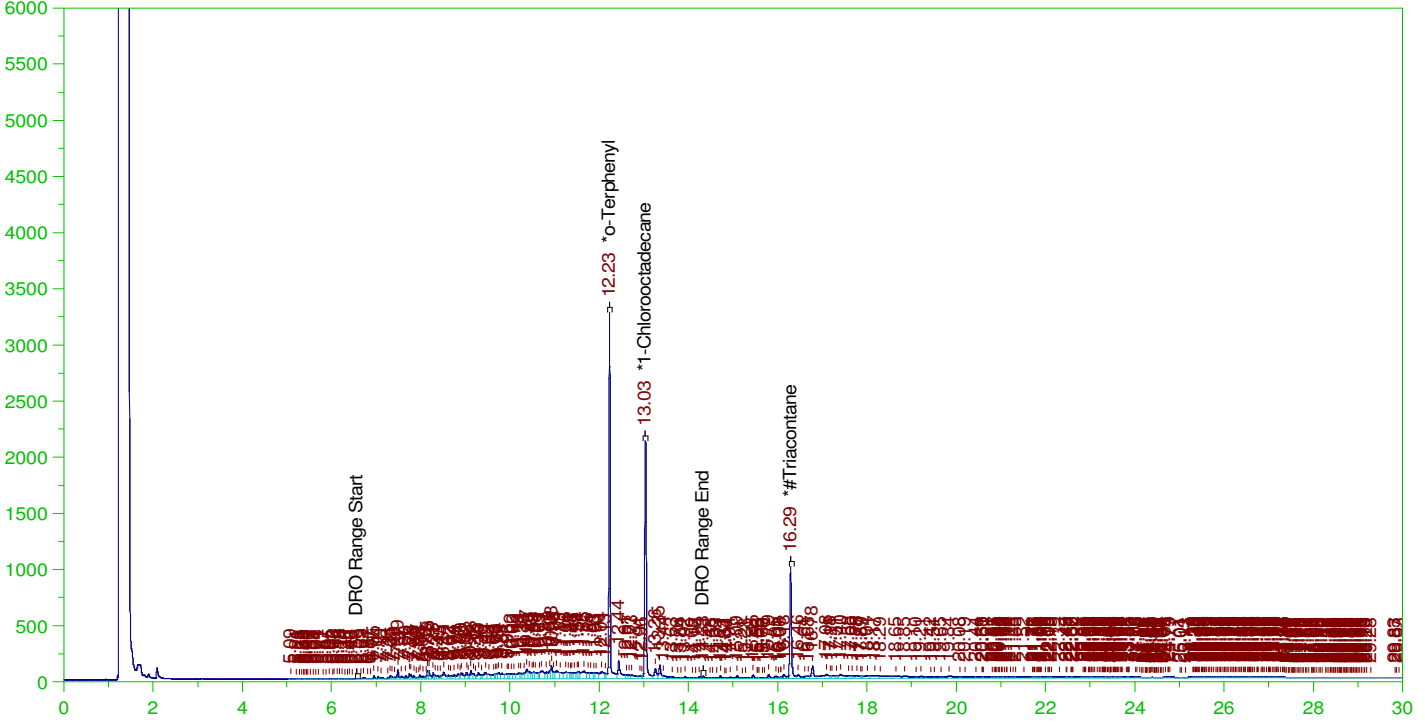
DRO Area: 617313.3 DRO Amount: 19.68901  
 TEH Area: 644725.1 TEH Amount: 20.5633

ERH1957 (RHMW01R)

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0054.RAW

Batch ID: 161704

B21112212-004A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-004A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0054.RAW  
Date & Time Acquired: 11/30/2021 11:27:10 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102Id-24-Tri.CAL  
Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.228	.191	.182	94.84	-
*1-Chlorooctadecane	13.034	.191	.133	69.49	-
*#Triacontane	16.287	.191	.092	48.15	-

DRO Area:1.587501E+07 DRO Amount: 0.4845246  
TEH Area:2.423701E+07 TEH Amount: 0.7397434

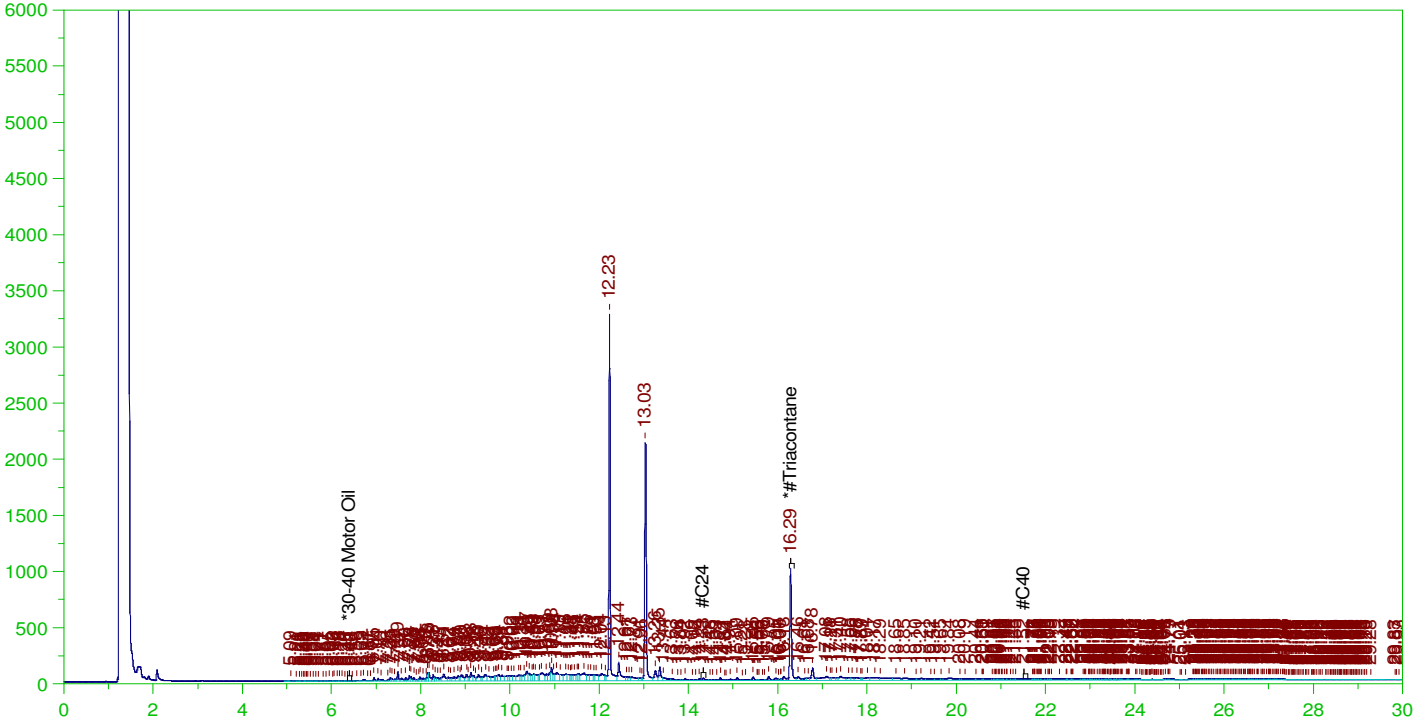


ERH1957 (RHMW01R)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0054.RAW

B21112212-004A ;1129HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-004A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0054.RAW  
Date & Time Acquired: 11/30/2021 11:27:10 PM  
Method File: G:\Org\HP5\Methods\D3\_OROS-AFa-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-SAMP.CAL  
Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
Rt range for Residual Range Organics: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.287	.478	.092	19.26

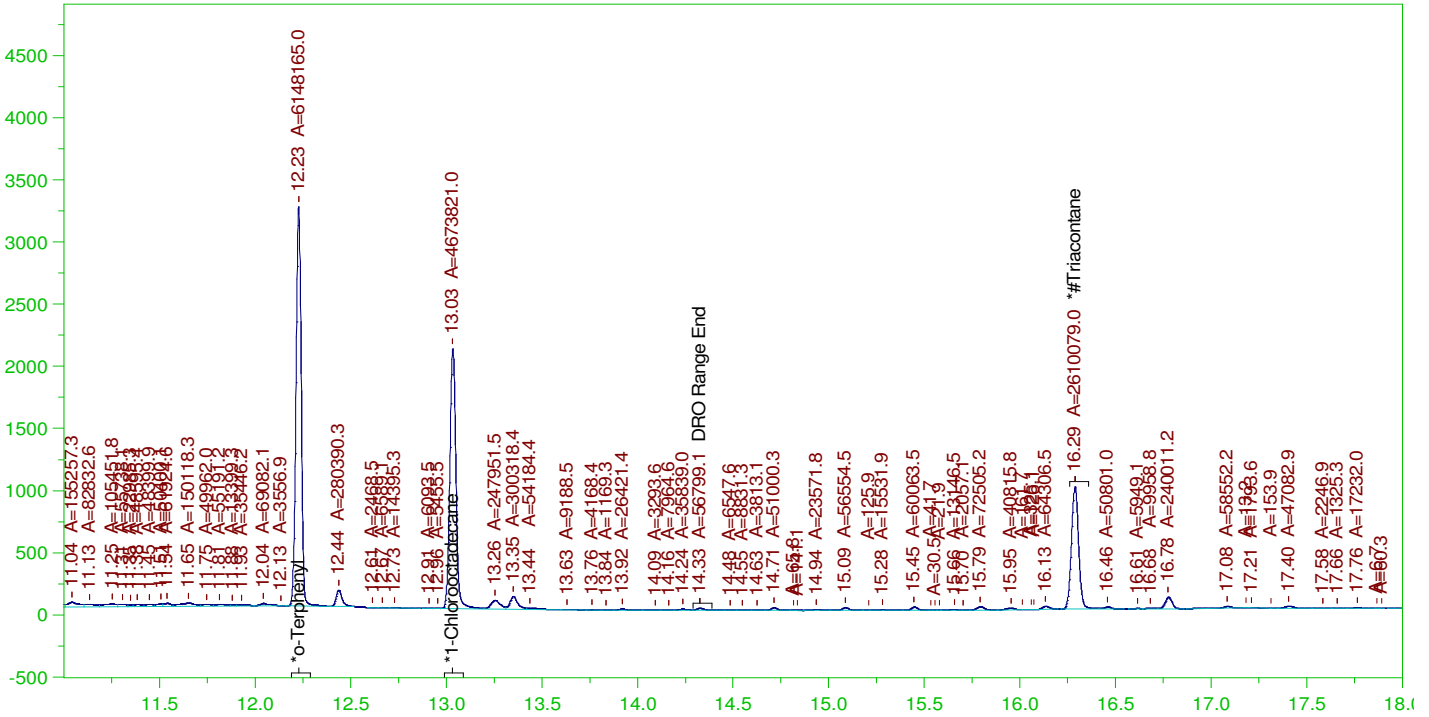
RRO Area:6472878 RRO AMOUNT: 0.2170154

ERH1957 (RHMW01R)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0054.RAW

B21112212-004A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-004A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0054.RAW  
Date & Time Acquired: 11/30/2021 11:27:10 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-ID-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1045 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.228	.191	.166	86.57
*1-Chlorooctadecane	13.034	.191	.126	65.81
*#Triacontane	16.287	.191	.086	45.11

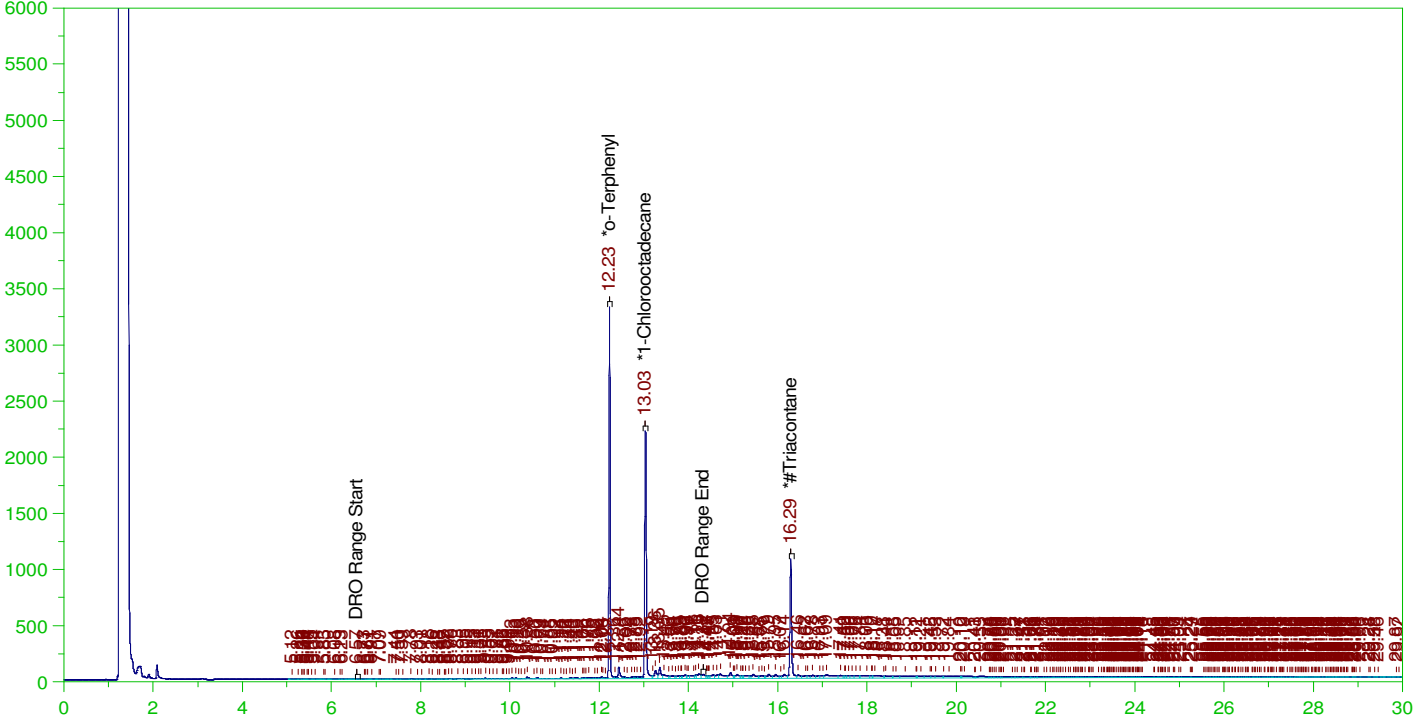
DRO Area:6692406 DRO Amount: 0.2042604  
TEH Area:7831527 TEH Amount: 0.2390278

ERH1954 (RHMW03)

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0055.RAW

Batch ID: 161704

B21112212-003A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-003A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0055.RAW  
Date & Time Acquired: 12/1/2021 12:10:40 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-112955-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102Id-24-Tri.CAL  
Sample Weight: 1025 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.228	.195	.174	89.11	-
*1-Chlorooctadecane	13.034	.195	.138	70.94	-
*#Triacontane	16.29	.195	.1	51.04	-

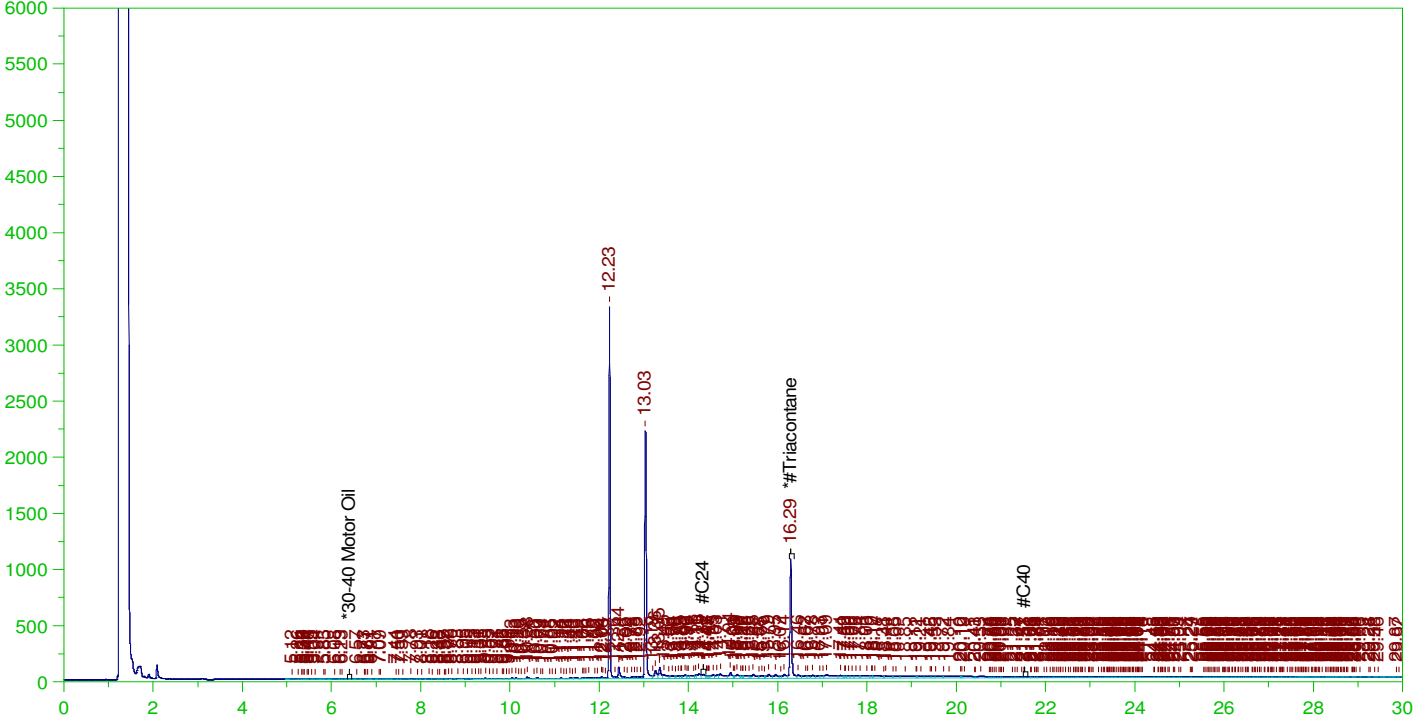
DRO Area:4074614 DRO Amount: 0.1267888  
TEH Area:1.514317E+07 TEH Amount: 0.4712065

ERH1954 (RHMW03)

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0055.RAW

Batch ID: 161704

B21112212-003A ;1129HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-003A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0055.RAW  
Date & Time Acquired: 12/1/2021 12:10:40 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-112955-AFa-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-SAMP.CAL  
Sample Weight: 1025 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
Rt range for Residual Range Organics: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.29	.488	.1	20.42

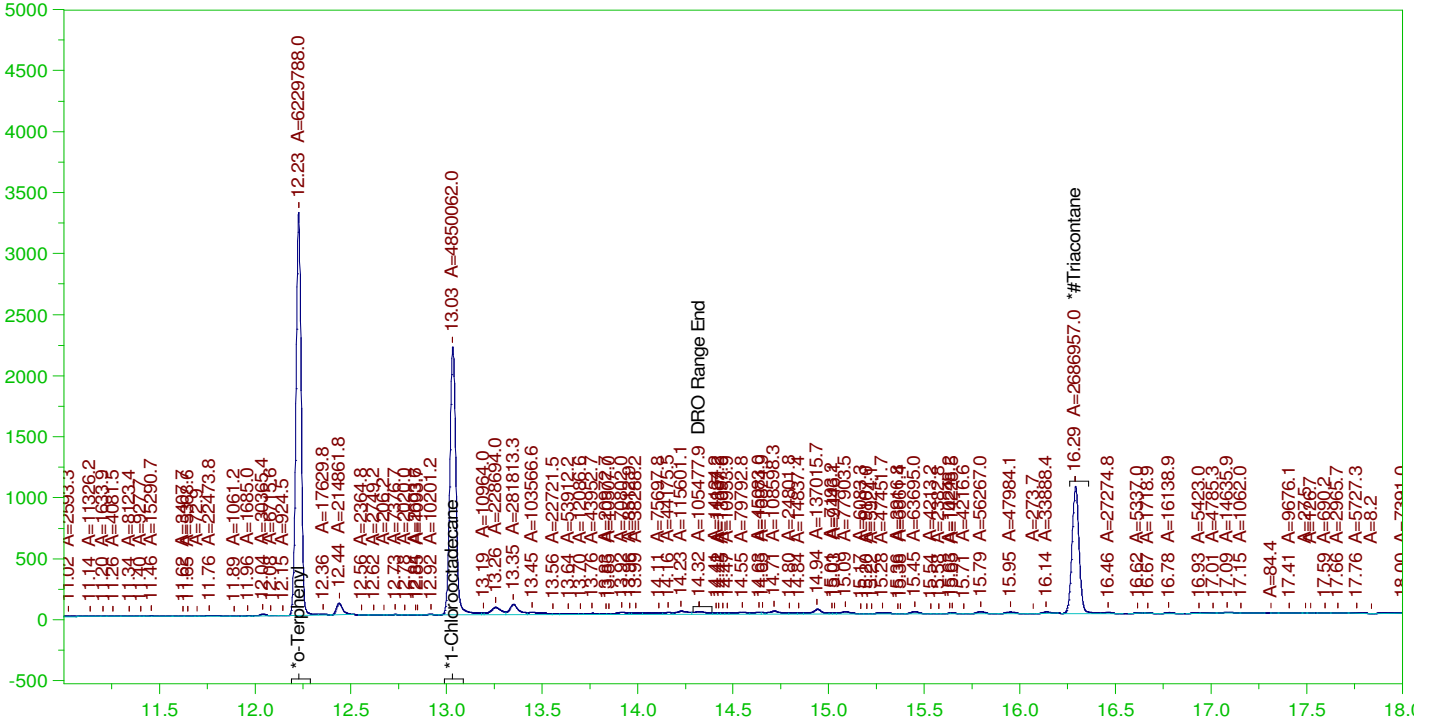
RRO Area:8593132 RRO AMOUNT: 0.2937223

ERH1954 (RHMW03)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0055.RAW

B21112212-003A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

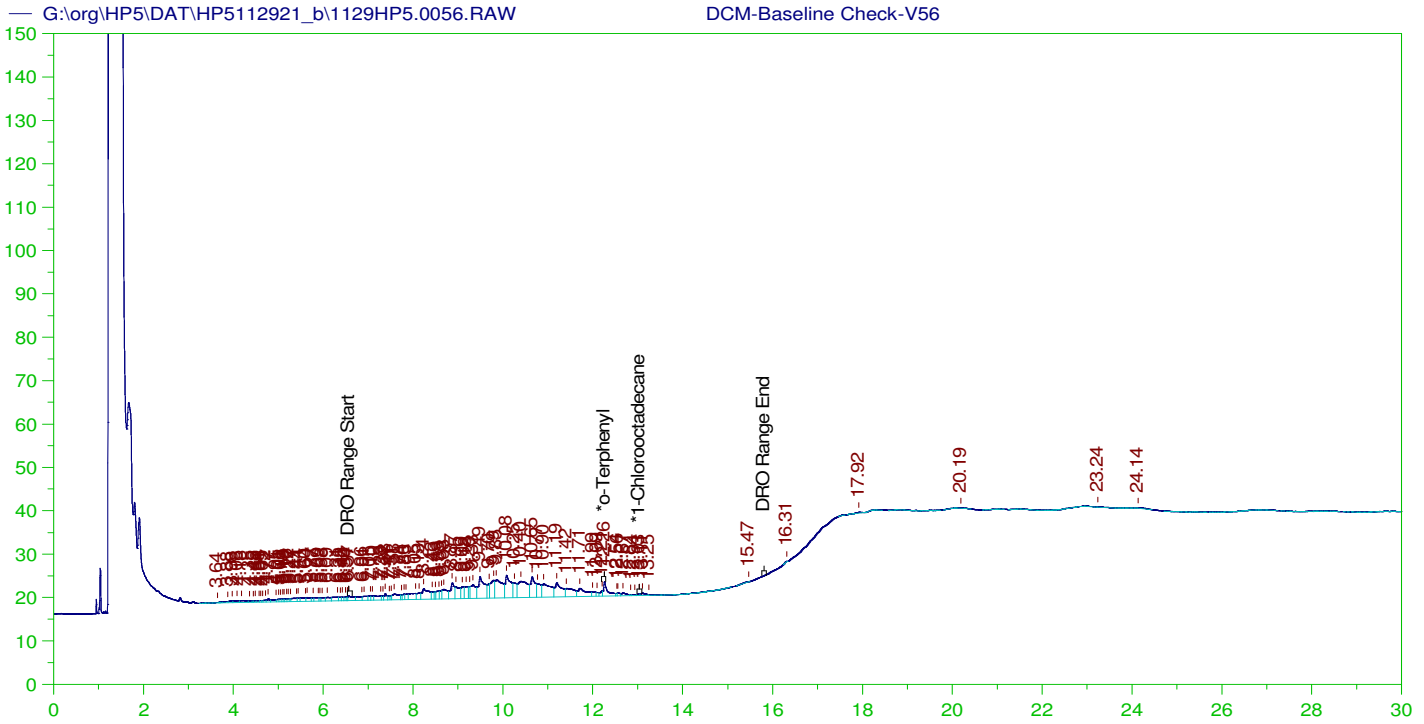
Sample Name: B21112212-003A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0055.RAW  
Date & Time Acquired: 12/1/2021 12:10:40 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-ID-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1025 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.228	.195	.171	87.72
*1-Chlorooctadecane	13.034	.195	.133	68.29
*#Triacontane	16.29	.195	.091	46.44

DRO Area:1944517 DRO Amount: 6.050707E-02  
TEH Area:3121795 TEH Amount: 9.714013E-02



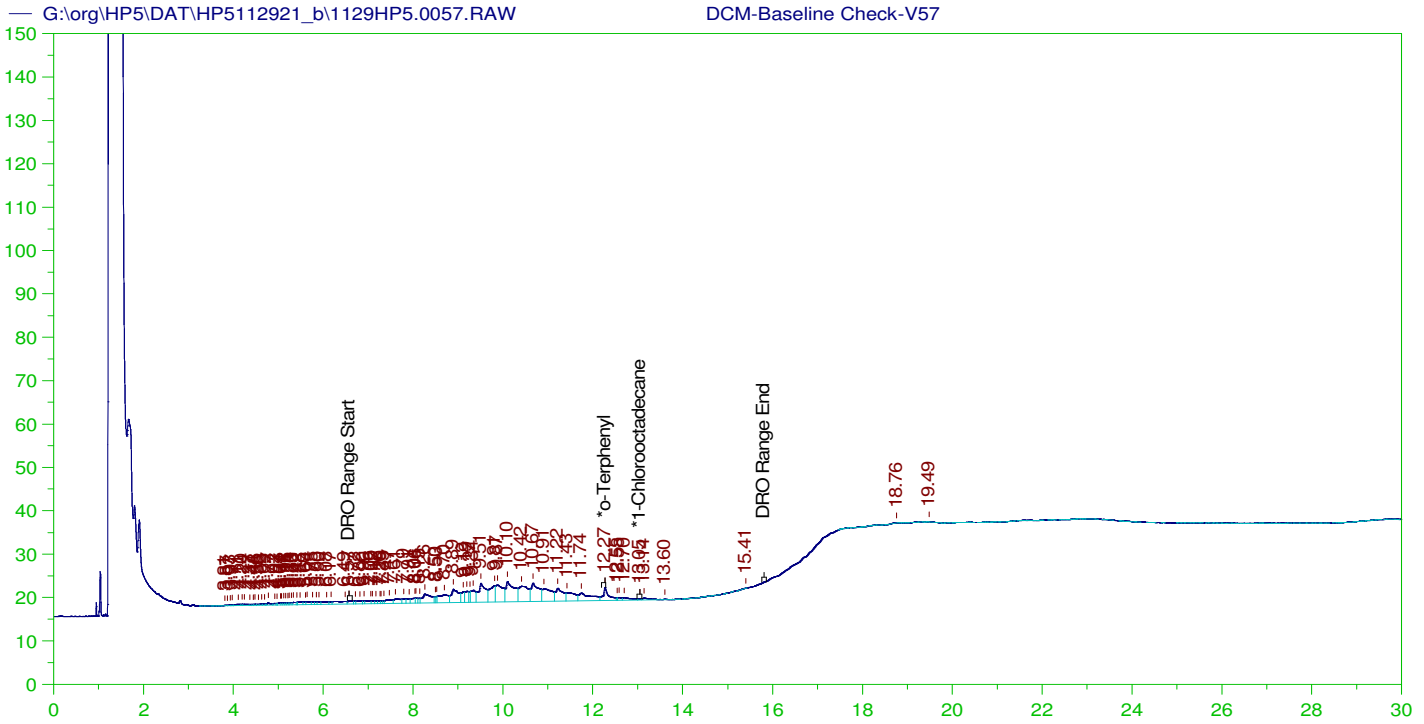
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V56  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0056.RAW  
 Date & Time Acquired: 12/1/2021 12:54:09 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.	.589	.29	-
*1-Chlorooctadecane	13.035	200.	.04	.02	-

DRO Area:743353.1 DRO Amount: 23.70901  
 TEH Area:867013.7 TEH Amount: 27.65312



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V57  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0057.RAW  
 Date & Time Acquired: 12/1/2021 1:37:27 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	12.271	200.	.718	.36	-
*1-Chlorooctadecane	13.049	200.	.036	.02	-

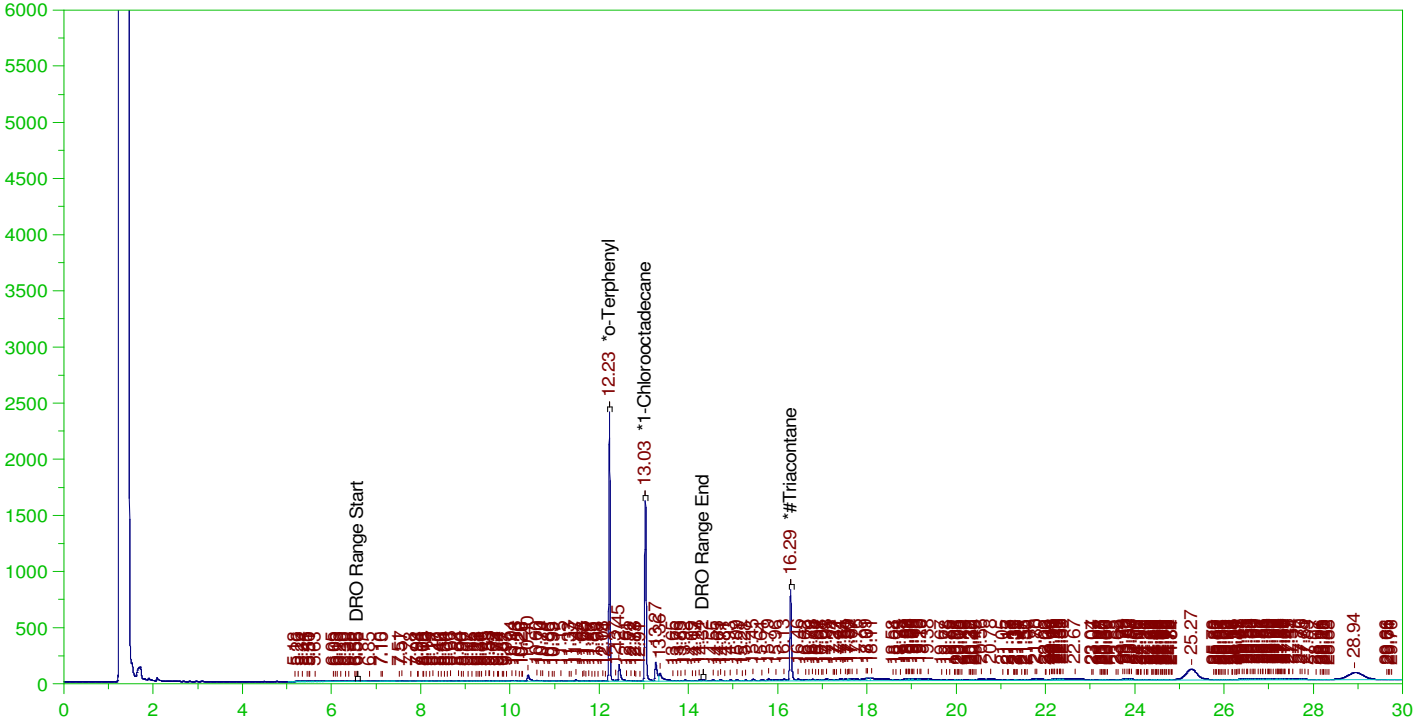
DRO Area: 676392.4 DRO Amount: 21.57332  
 TEH Area: 761504.9 TEH Amount: 24.28796

ERH1948 (RHMW05)

Batch ID: 161704

G:\Org\HP5\DAT\HP5112921\_b\1129HP5.0058.RAW

B21112212-001A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-001A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\Org\HP5\DAT\HP5112921\_b\1129HP5.0058.RAW  
Date & Time Acquired: 12/1/2021 2:20:52 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102Id-24-Tri.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.227	.19	.124	64.94	-
*1-Chlorooctadecane	13.032	.19	.096	50.62	-
*#Triacontane	16.287	.19	.072	37.99	-

DRO Area:2582052 DRO Amount: 0.0784321  
TEH Area:1.292859E+07 TEH Amount: 0.3927173

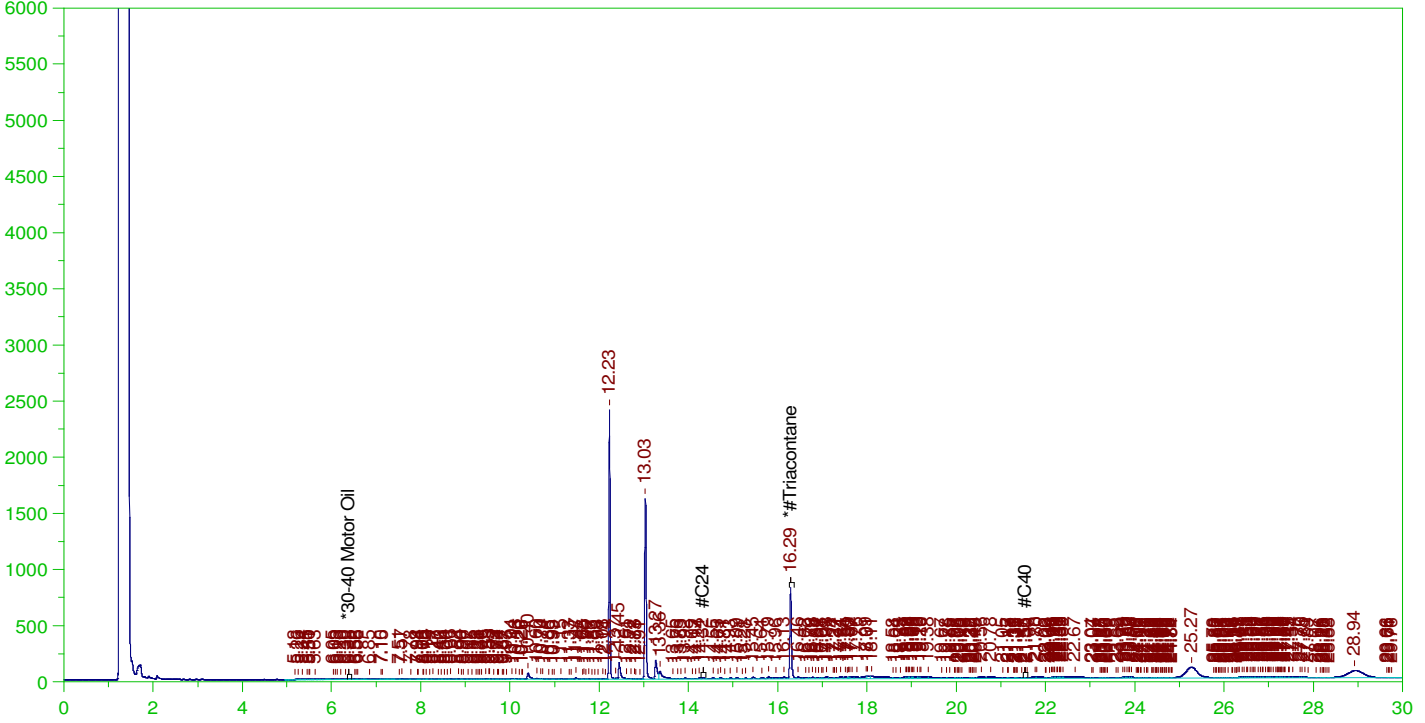


ERH1948 (RHMW05)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0058.RAW

B21112212-001A ;1129HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-001A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0058.RAW  
Date & Time Acquired: 12/1/2021 2:20:52 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-AFa-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-SAMP.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
Rt range for Residual Range Organics: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.287	.476	.072	15.19

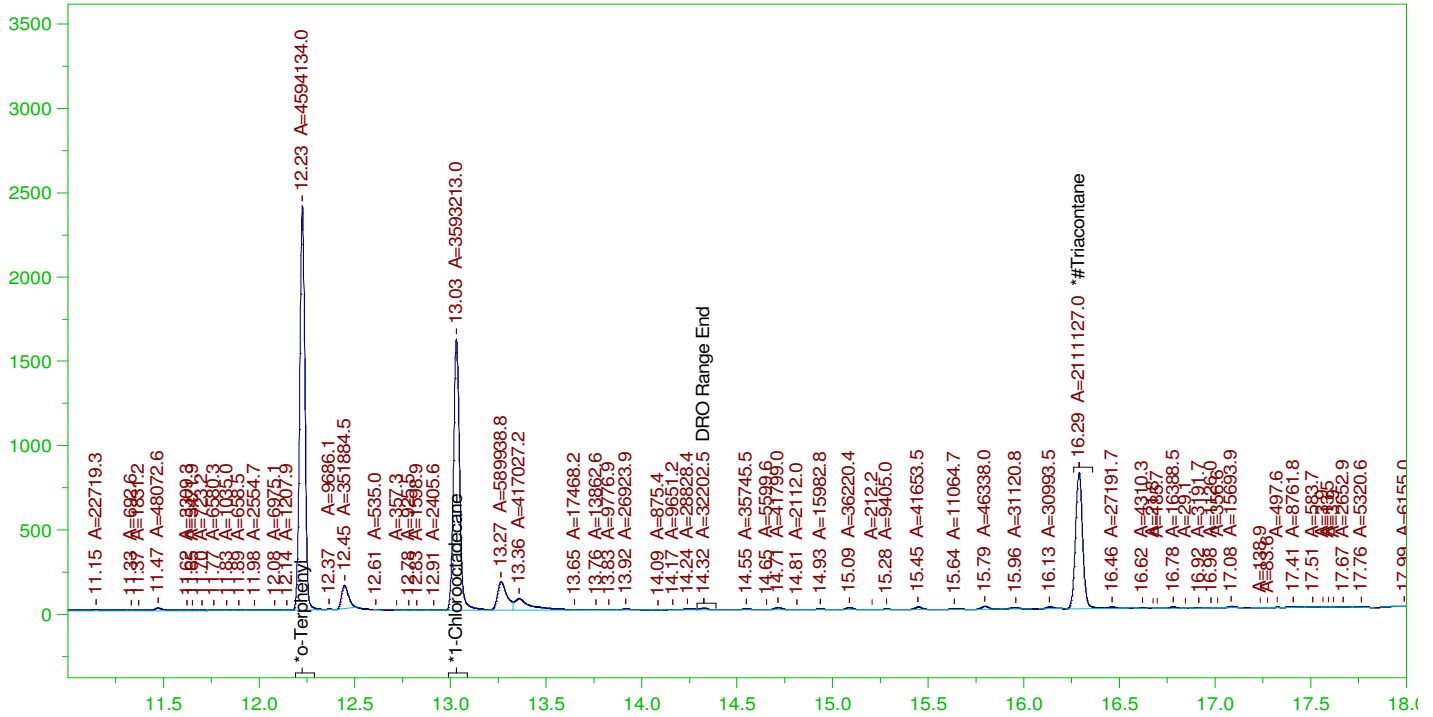
RRO Area:4439161 RRO AMOUNT: 0.1481225

ERH1948 (RHMW05)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0058.RAW

B21112212-001A ; 1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-001A ; 1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0058.RAW  
Date & Time Acquired: 12/1/2021 2:20:52 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-ID-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.227	.19	.123	64.69
*1-Chlorooctadecane	13.032	.19	.096	50.6
*Triacontane	16.287	.19	.069	36.49

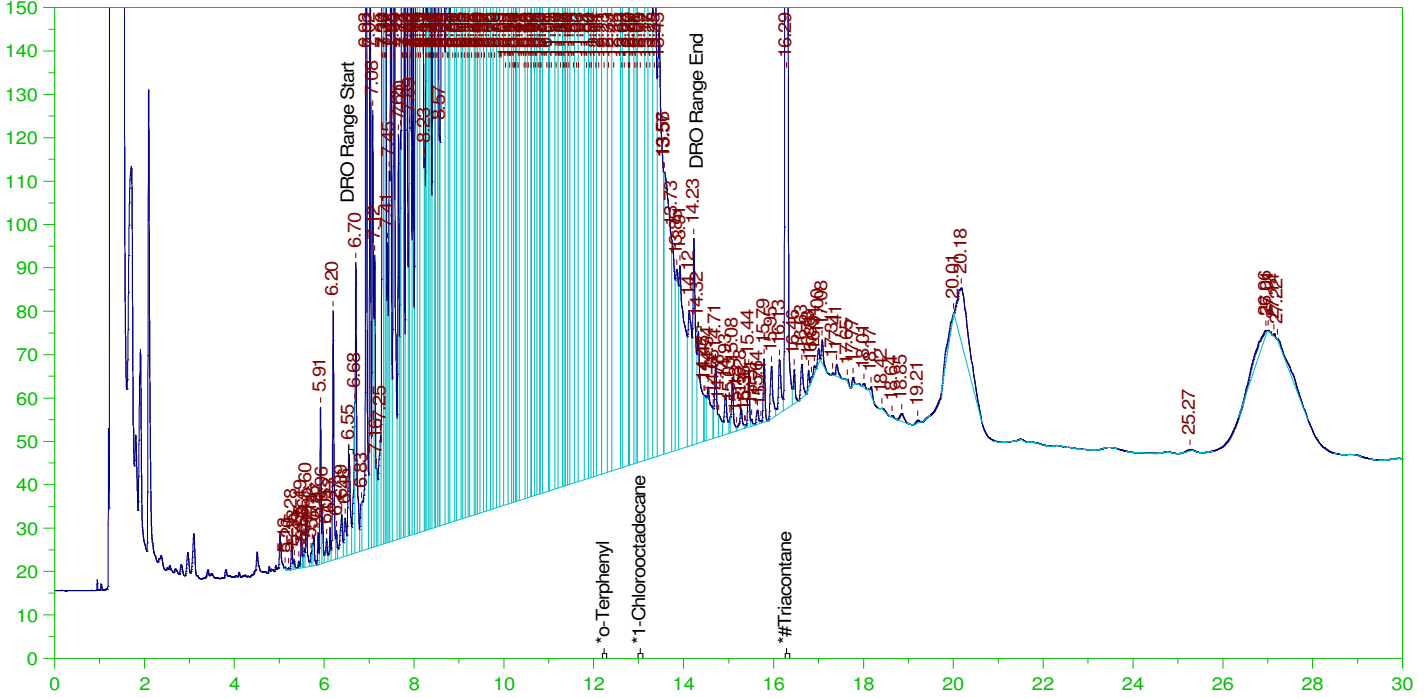
DRO Area: 2358344 DRO Amount: 7.163678E-02  
TEH Area: 5934238 TEH Amount: 0.1802577

ERH1951 (RHMW02)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0059.RAW

B21112212-002A ;1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

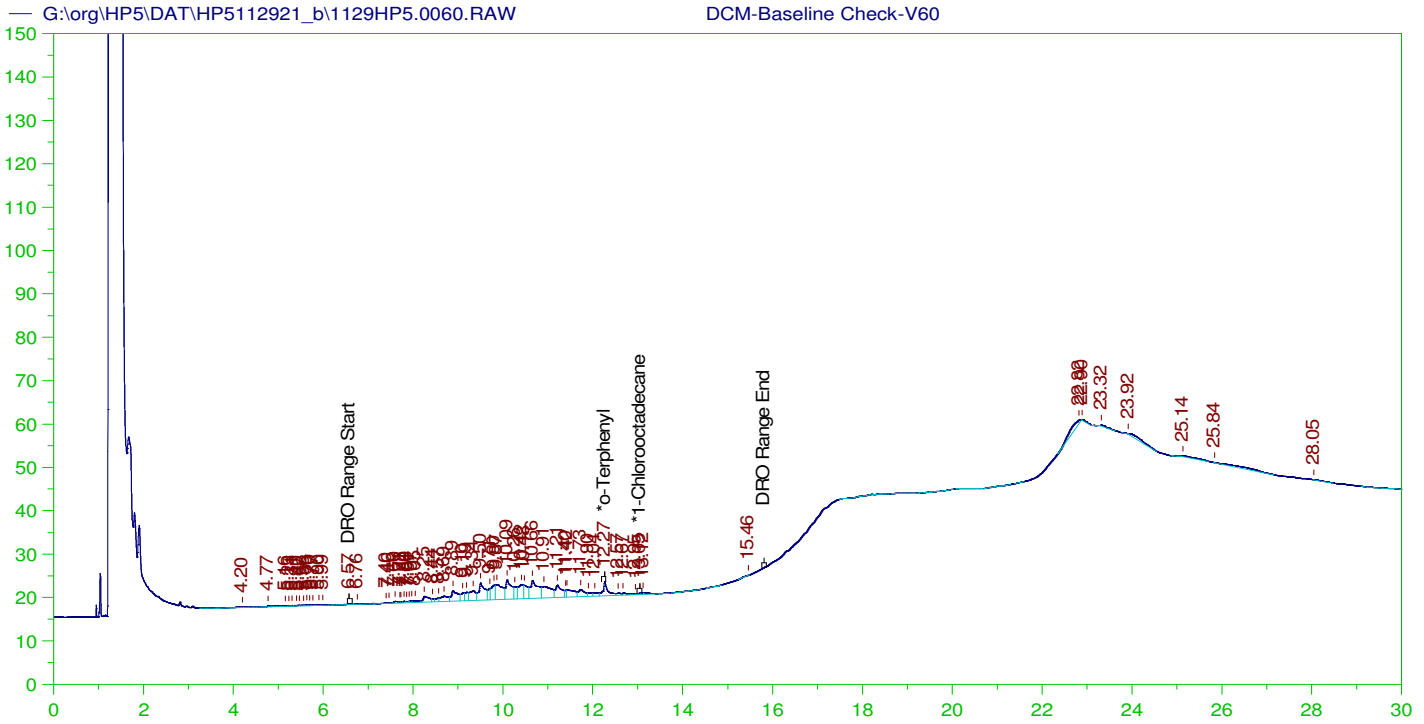
Sample Name: B21112212-002A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0059.RAW  
Date & Time Acquired: 12/1/2021 3:04:04 AM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-ID-L0.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 1025 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.228	.195	.219	112.02	-
*1-Chlorooctadecane	13.034	.195	.161	82.54	-
*#Triacontane	16.286	.195	.087	44.57	-

DRO Area: 9.155802E+07 DRO Amount: 2.848989  
TEH Area: 9.302534E+07 TEH Amount: 2.894647



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V60  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0060.RAW  
 Date & Time Acquired: 12/1/2021 3:47:27 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	12.266	200.	.646	.32	-
*1-Chlorooctadecane	13.046	200.	.032	.02	-

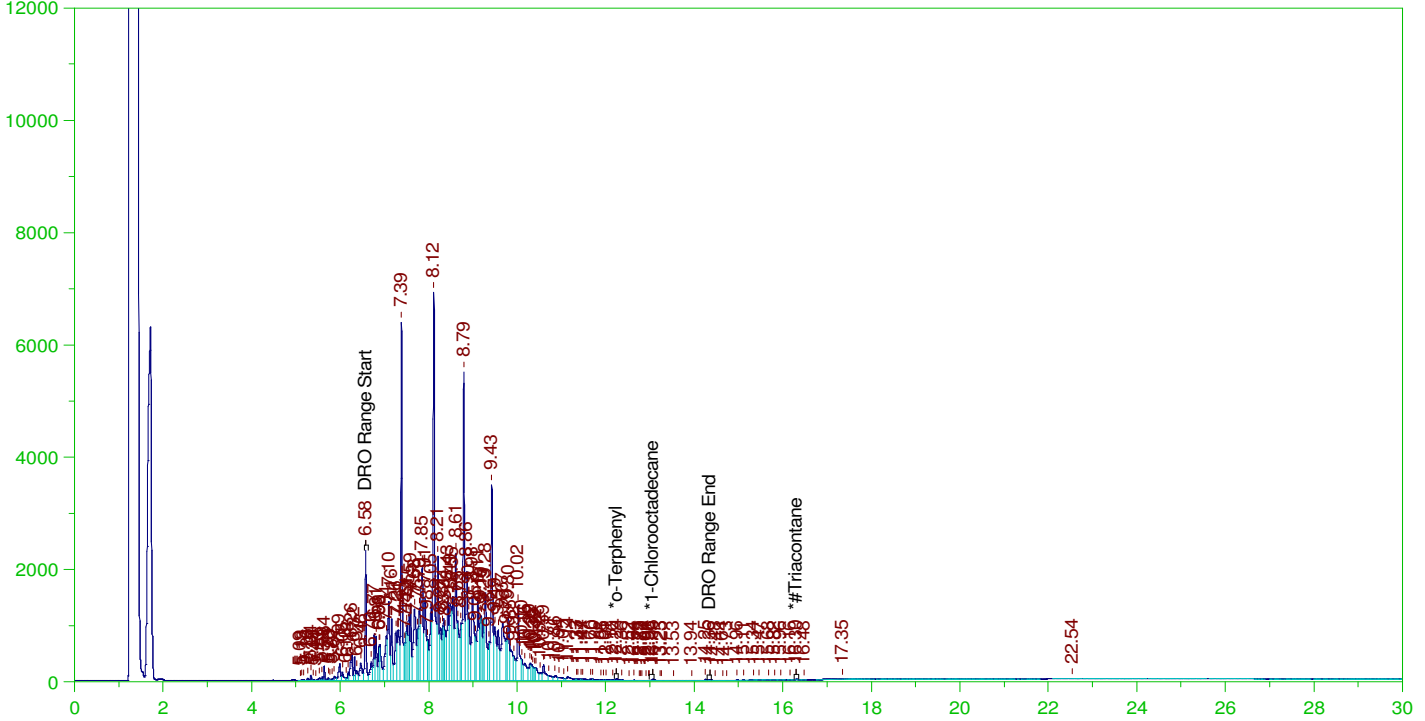
DRO Area:504187.2 DRO Amount: 16.08089  
 TEH Area:597735.4 TEH Amount: 19.06458

ERH1968 (Adit 3 Sump)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0061.RAW

B21112214-002B ;1129HP5 , \$HC-8015-DRO-W, ,(2,50)



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

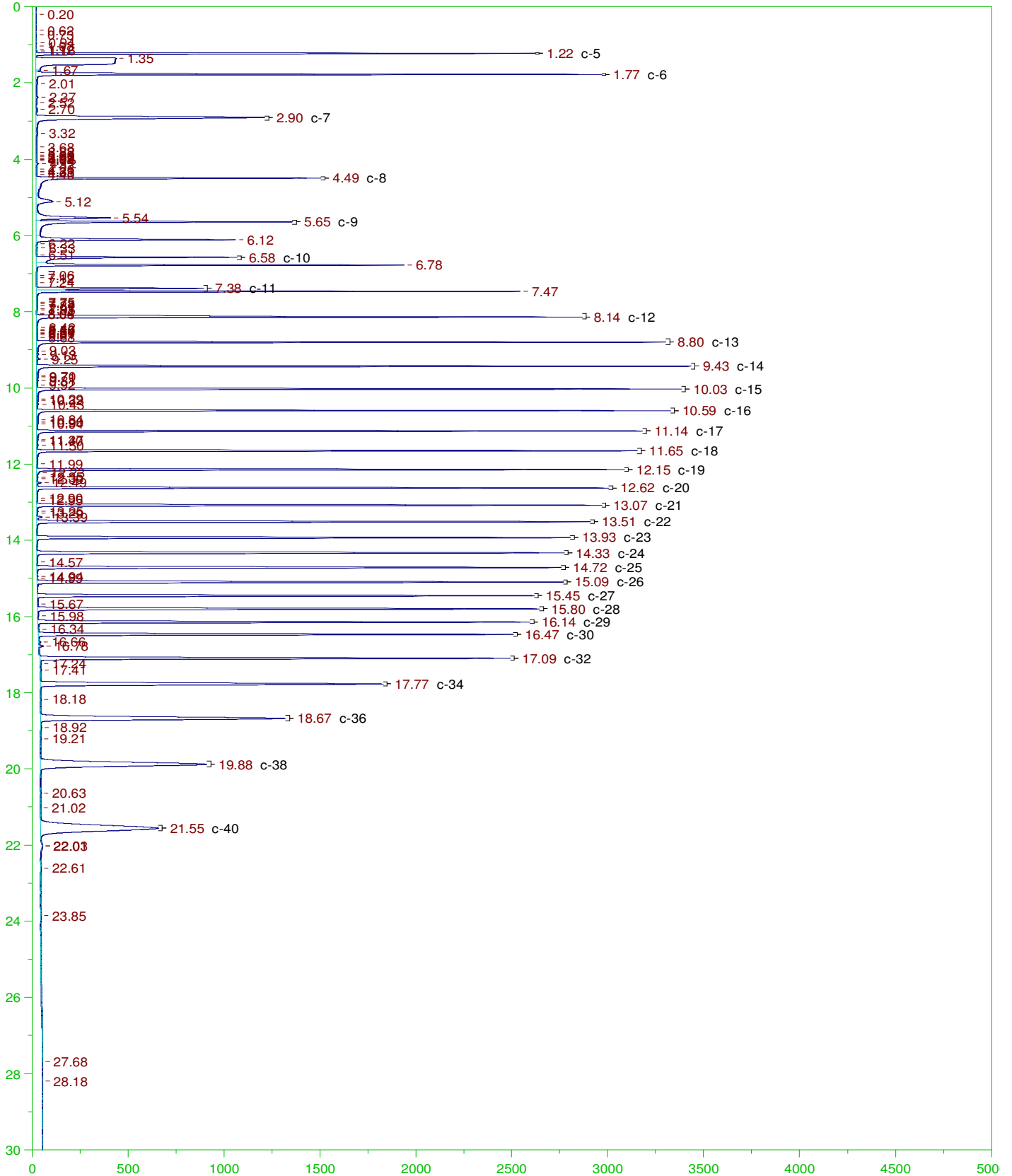
Sample Name: B21112214-002B ;1129HP5 , \$HC-8015-DRO-W, ,(2,50)  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0061.RAW  
 Date & Time Acquired: 12/1/2021 4:30:59 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-112961-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
 Sample Weight: 1050 Dilution: 100 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

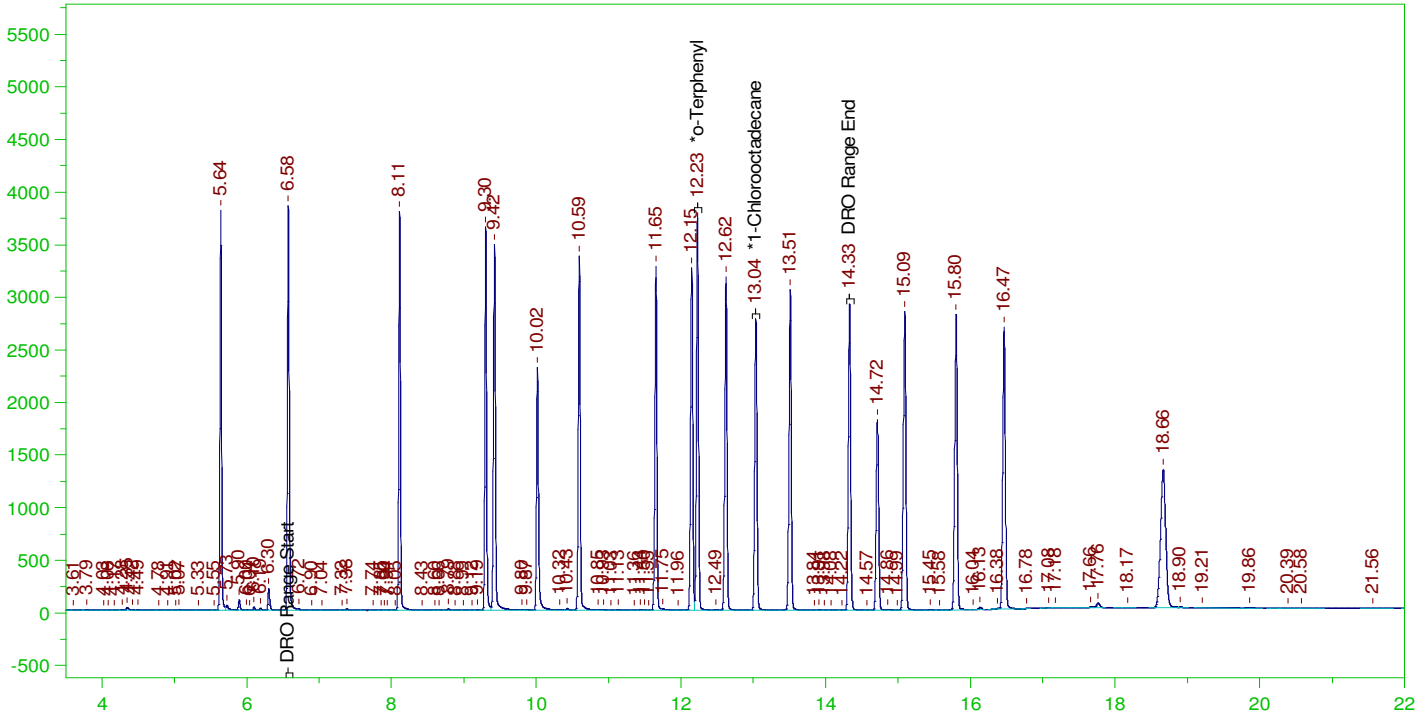
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.239	.19	.289	151.8	-
*1-Chlorooctadecane	13.059	.19	.153	80.1	-
*#Triacontane	16.303	.19	.134	70.43	-

DRO Area: 2.250457E+08 DRO Amount: 683.5963  
 TEH Area: 2.327134E+08 TEH Amount: 706.8876



G:\org\HP5\DAT\HP5112921\_b\1129HP5.0063.RAW

MARKER\_1129HP563r, DRO ;1129HP5 , DRO211103B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

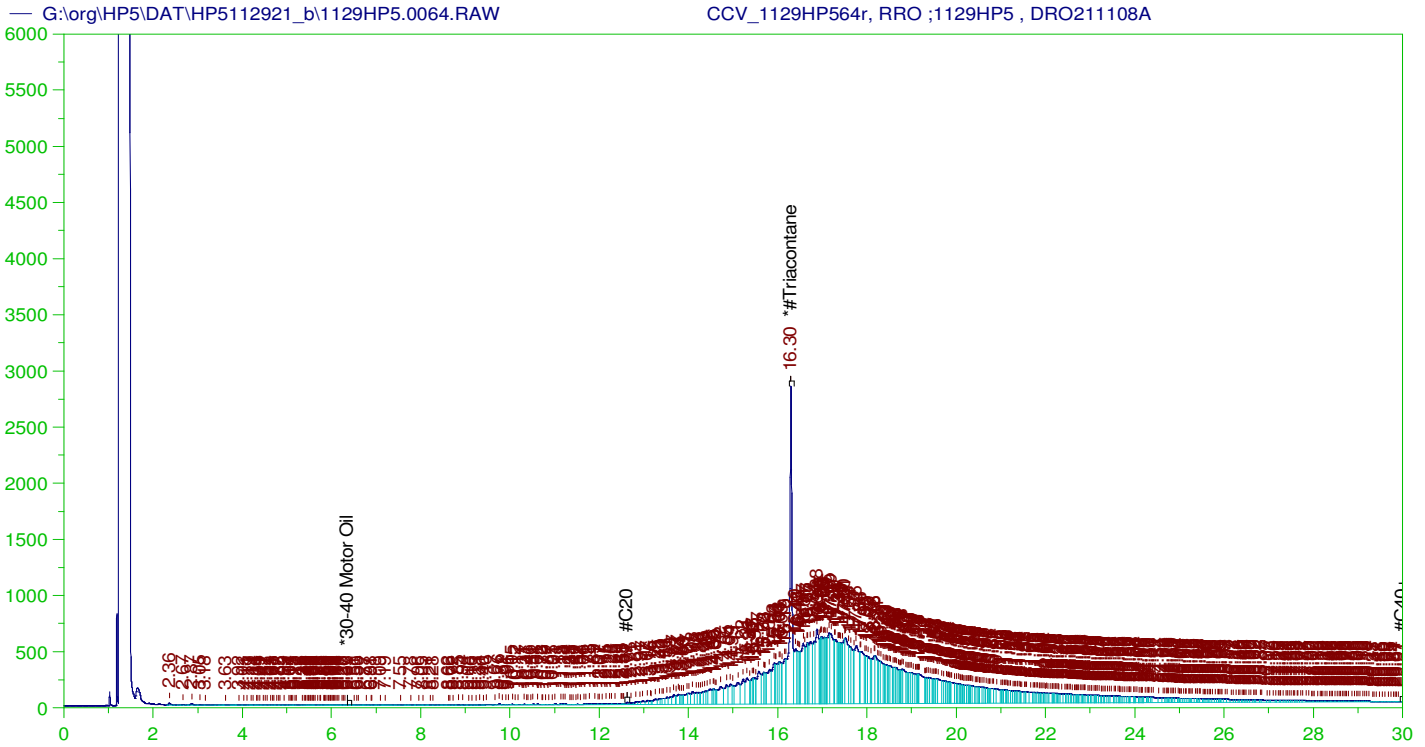
Sample Name: MARKER\_1129HP563r, DRO ;1129HP5 , DRO211103B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0063.RAW  
 Date & Time Acquired: 12/1/2021 5:57:28 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.23	.2	.204	102.13
*1-Chlorooctadecane	13.035	.2	.165	82.27

DRO Area: 7.032272E+07 DRO Amount: 2.242921  
 TEH Area: 1.091744E+08 TEH Amount: 3.482083



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP564r, RRO ;1129HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0064.RAW  
 Date & Time Acquired: 12/1/2021 6:40:25 AM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.295	500.	353.439	70.69	-

~~RRO~~ TEH(Oil Range) Area:1.470187E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 5150.887

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0064.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.036	.	75-125

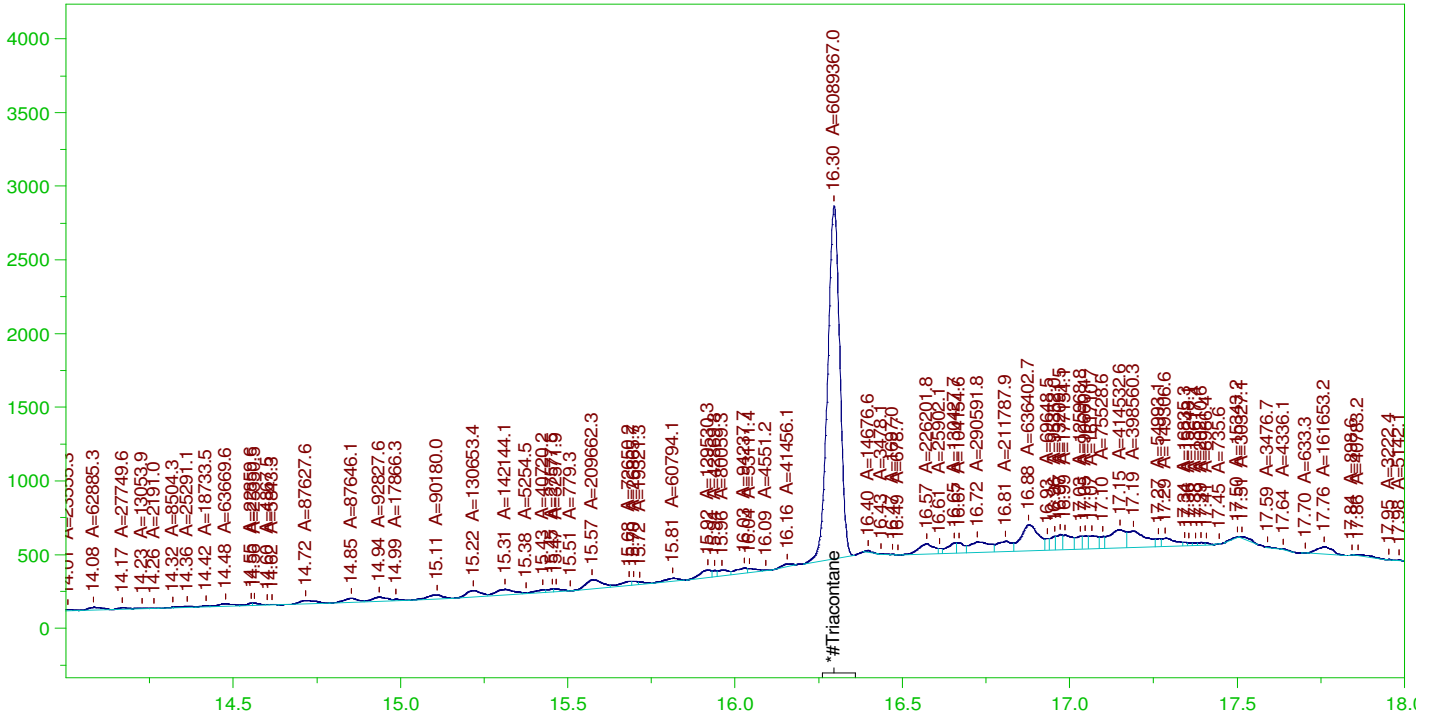
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.295	200.	353.439	176.72	75-125

AMN 12/14/2021



G:\org\HP5\DAT\HP5112921\_b\1129HP5.0064.RAW

CCV\_1129HP564r, RRO ;1129HP5 , DRO211108A



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP564r, RRO ;1129HP5 , DRO211108A  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0064.RAW  
Date & Time Acquired: 12/1/2021 6:40:25 AM  
Method File: G:\Org\HP5\Methods\DS\_OROb-AF-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.295	500.	210.485	42.1	-

RRO Area:6525478 RRO AMOUNT: 228.6239

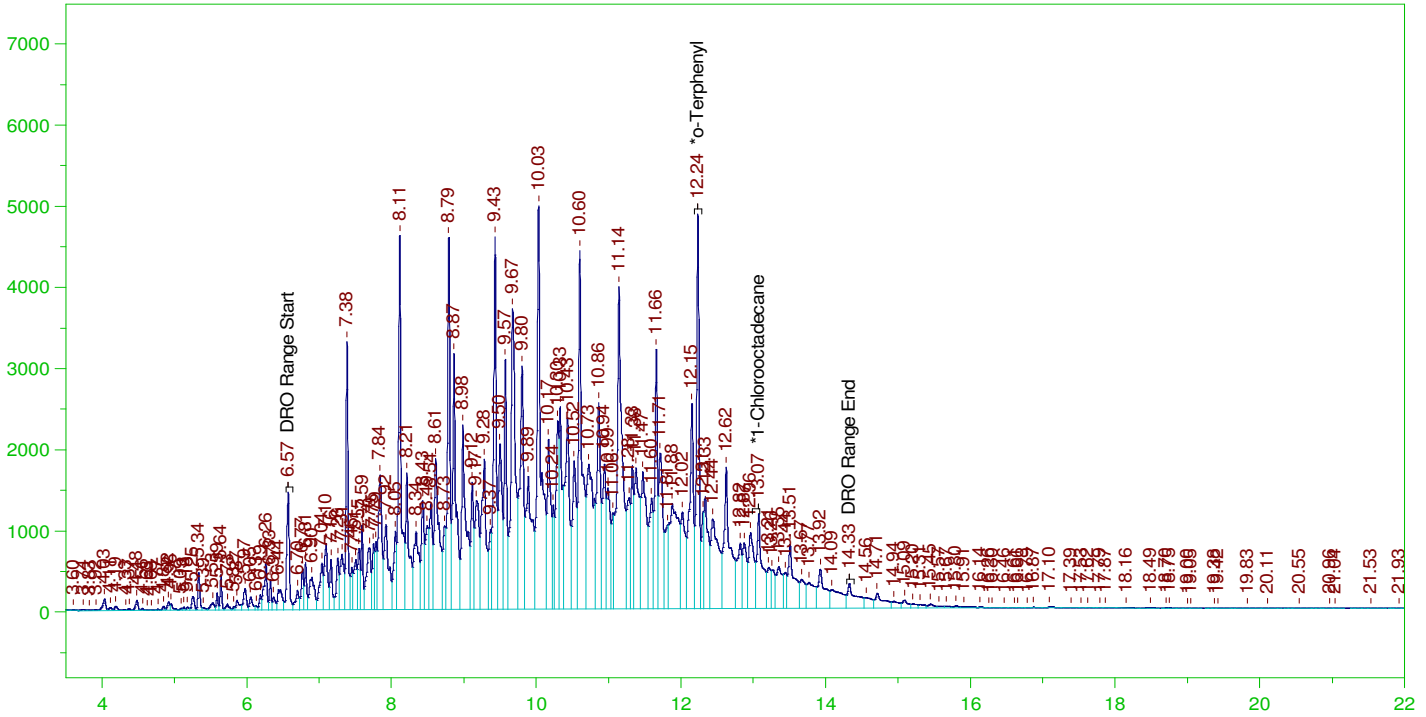
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0064.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.036	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.295	200.	210.485	105.24	75-125

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0065.RAW

CCV\_1129HP565r, DRO ;1129HP5 , DRO211116B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1129HP565r, DRO ;1129HP5 , DRO211116B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0065.RAW  
 Date & Time Acquired: 12/1/2021 7:23:14 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.235	200.	348.77	174.39
*1-Chlorooctadecane	13.073	200.	165.714	82.86

DRO Area: 4.847587E+08 DRO Amount: 15461.22  
 TEH Area: 5.012459E+08 TEH Amount: 15987.08

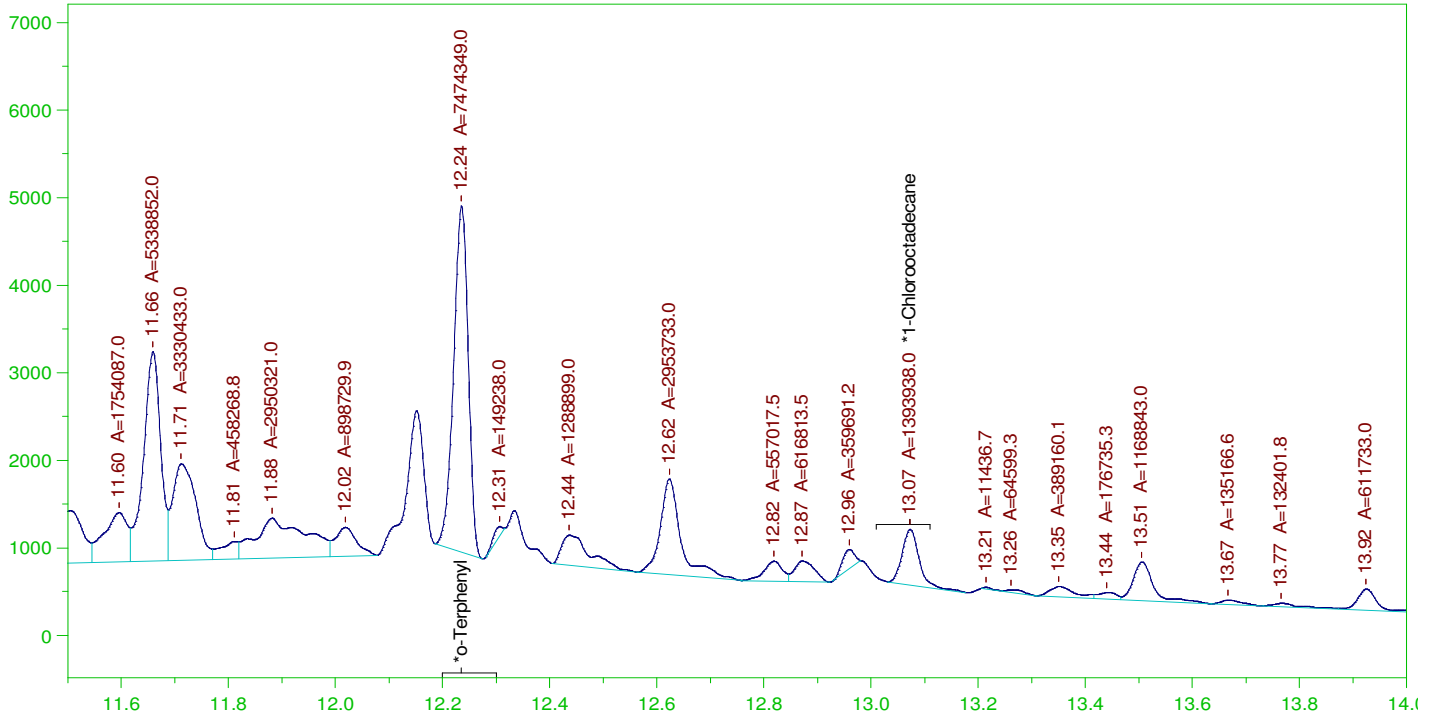
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0065.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15987.08	106.58	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.235	200.	348.77	174.39	85-115
*1-Chlorooctadecane	13.073	200.	165.714	82.86	85-115

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0065.RAW

CCV\_1129HP565r, DRO ;1129HP5 , DRO211116B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1129HP565r, DRO ;1129HP5 , DRO211116B  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0065.RAW  
Date & Time Acquired: 12/1/2021 7:23:14 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-24-ID-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC-24.CAL  
Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
Rt range for Diesel Range Organics: 6.55 to 14.4

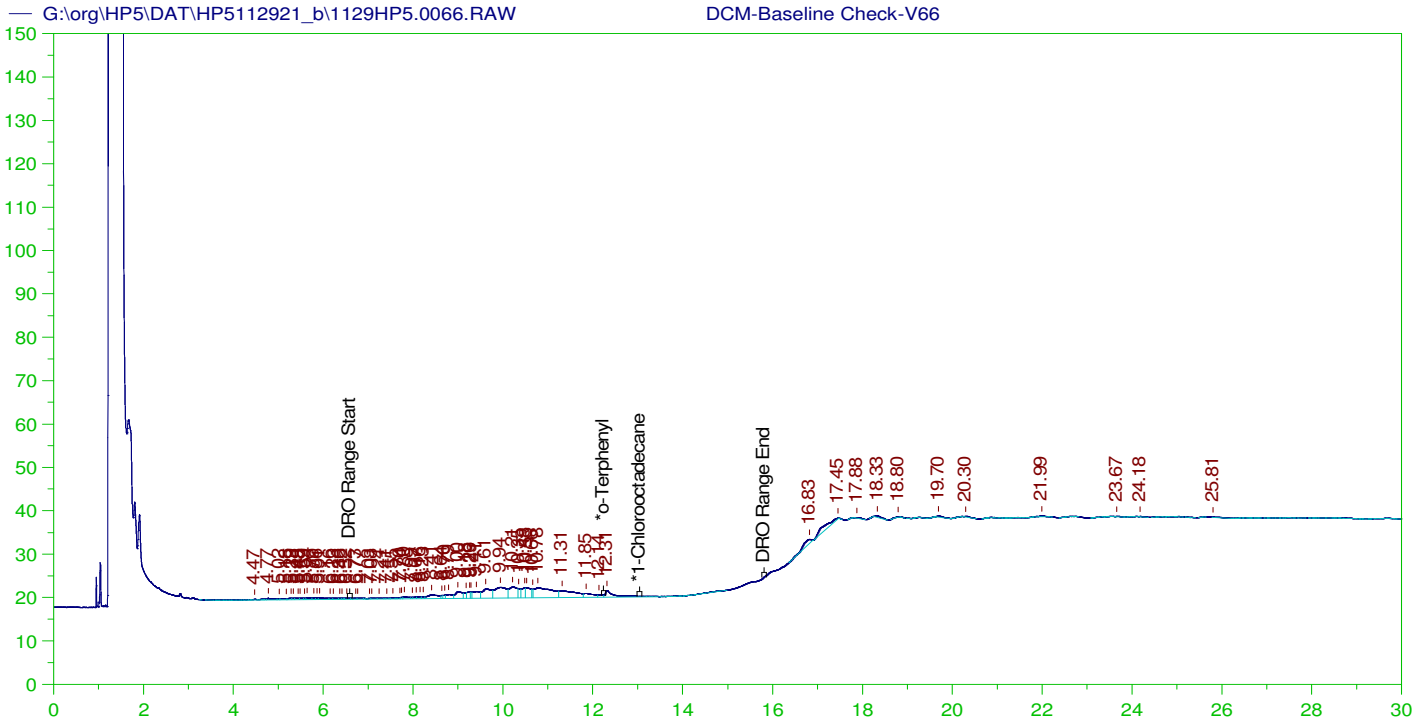
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.235	200.	210.49	105.25
*1-Chlorooctadecane	13.073	200.	39.256	19.63

DRO Area: 2.6815E+08 DRO Amount: 8552.558  
TEH Area: 2.79088E+08 TEH Amount: 8901.424

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0065.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8901.42	59.34	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.235	200.	210.49	105.25	85-115
*1-Chlorooctadecane	13.073	200.	39.256	19.63	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V66  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0066.RAW  
 Date & Time Acquired: 12/1/2021 8:05:48 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	29.898	200.	.	-
*1-Chlorooctadecane	29.898	200.	.	-

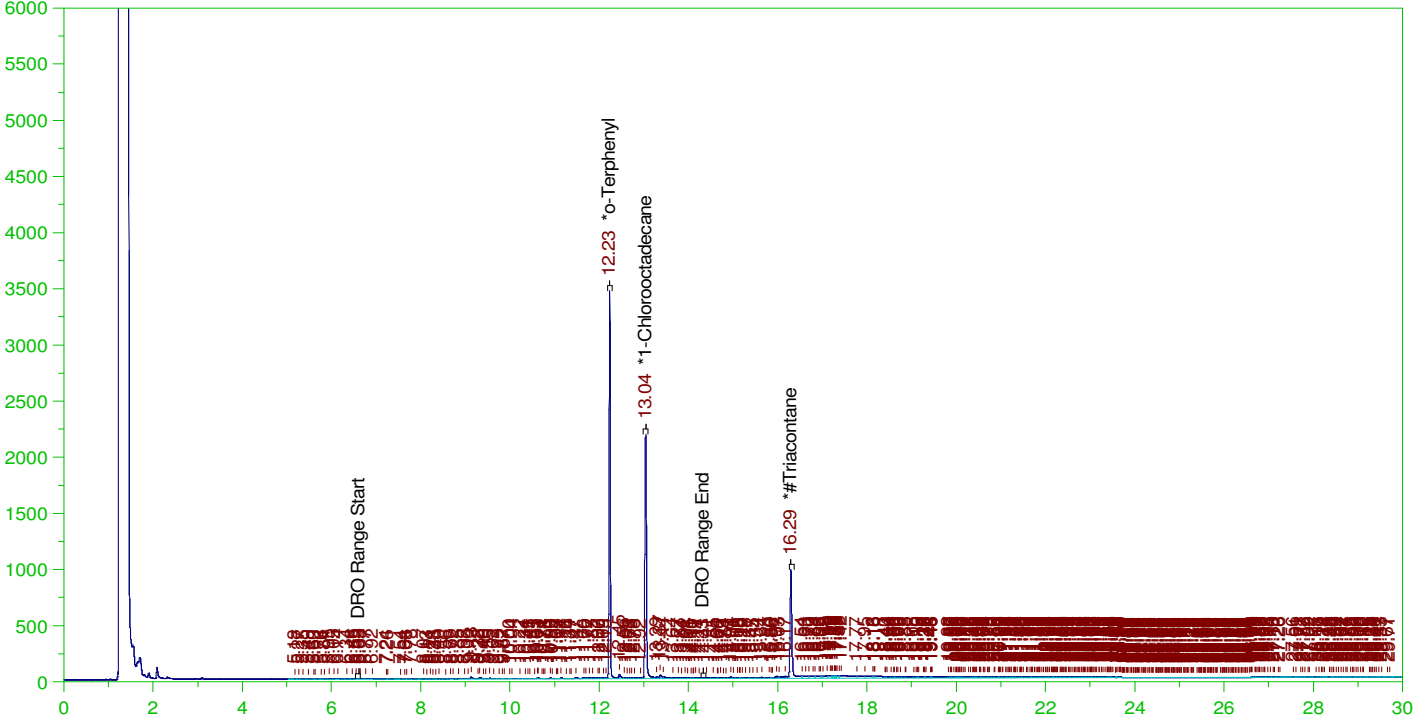
DRO Area:394310.4 DRO Amount: 12.57641  
 TEH Area:495595.5 TEH Amount: 15.80686

ERH1720 (RHMW13 Zone 4)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0067.RAW

B21112206-001A ; 1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112206-001A ; 1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0067.RAW  
Date & Time Acquired: 12/1/2021 8:48:23 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-ID-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102Id-24-Tri.CAL  
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.231	.208	.194	93.31	-
*1-Chlorooctadecane	13.038	.208	.144	69.34	-
*#Triacontane	16.294	.208	.102	48.82	-

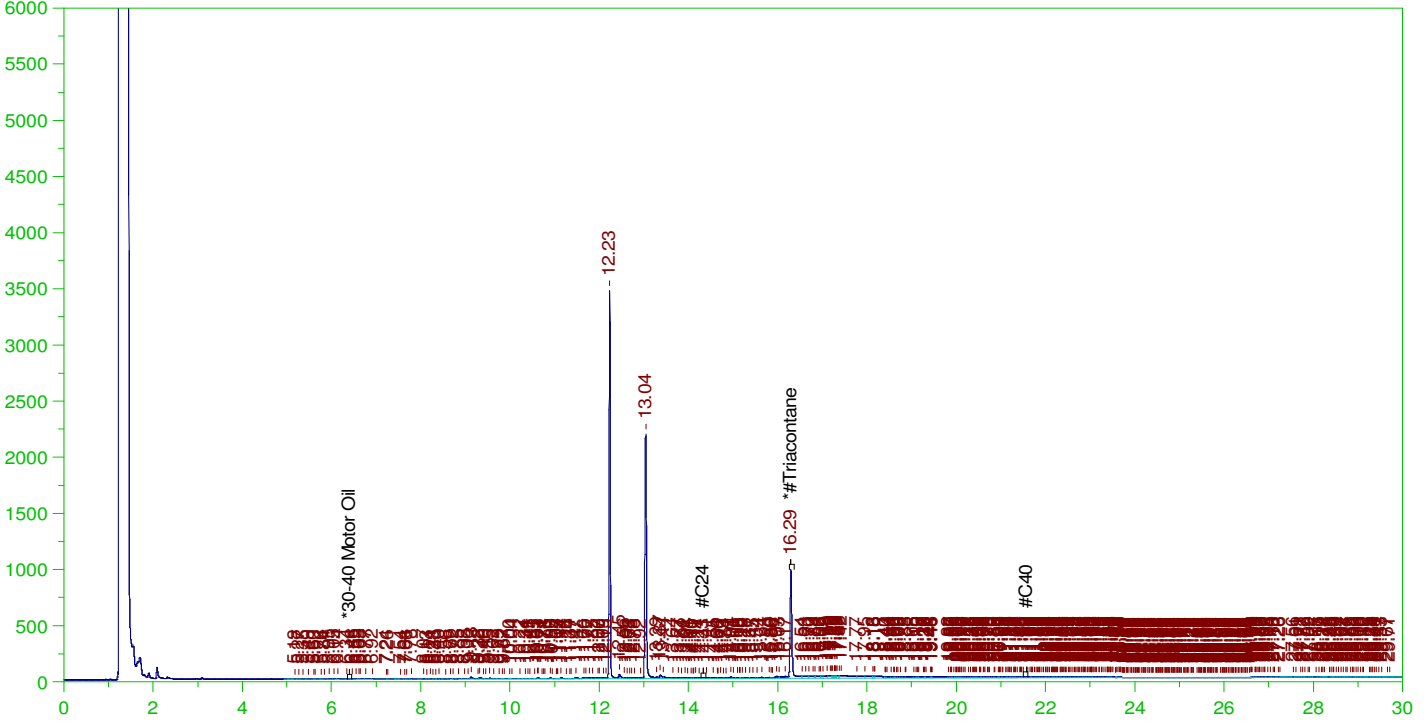
DRO Area: 1757455 DRO Amount: 5.838903E-02  
TEH Area: 7602129 TEH Amount: 0.2525703

ERH1720 (RHMW13 Zone 4)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0067.RAW

B21112206-001A ;1129HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112206-001A ;1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0067.RAW  
Date & Time Acquired: 12/1/2021 8:48:23 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-AFa-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-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: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.294	.521	.102	19.53

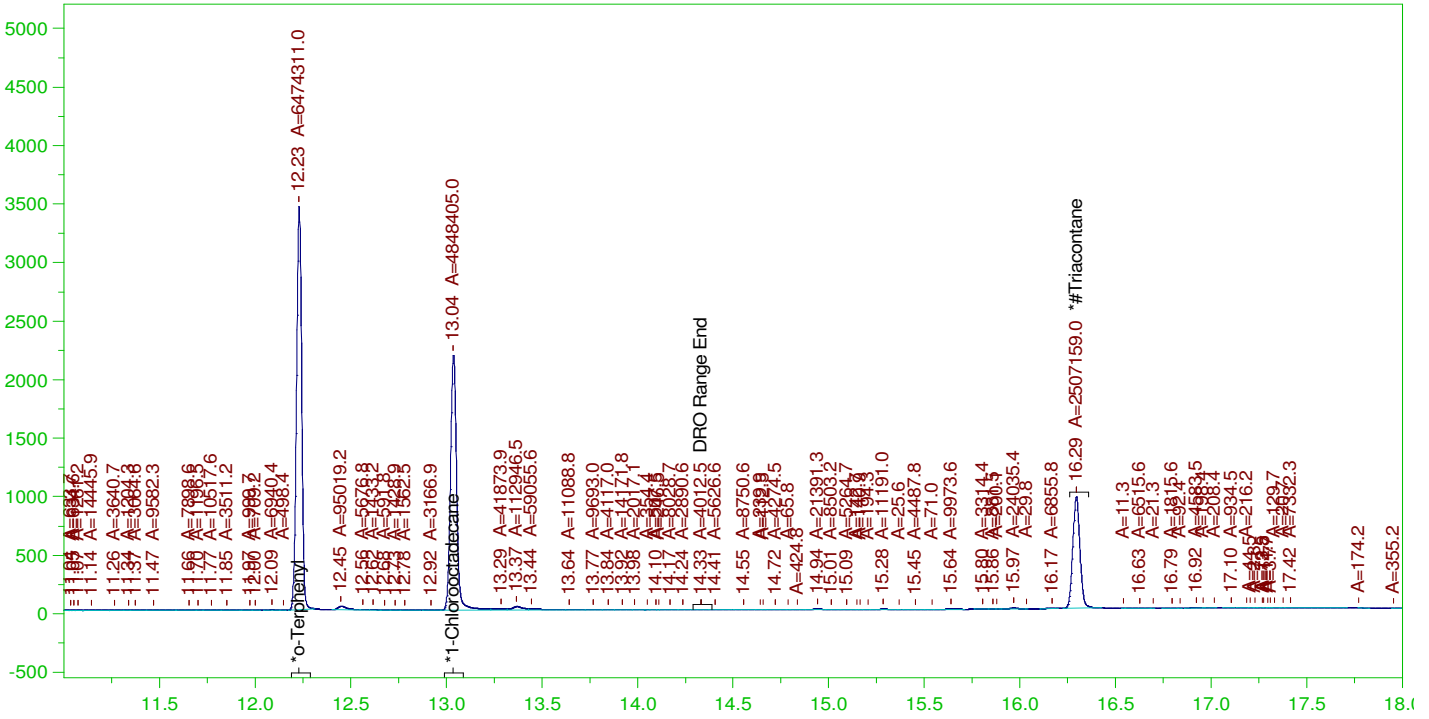
RRO Area:4812519 RRO AMOUNT: 0.1756348

ERH1720 (RHMW13 Zone 4)

Batch ID: 161704

G:\Org\HP5\DAT\HP5112921\_b\1129HP5.0067.RAW

B21112206-001A ; 1129HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112206-001A ; 1129HP5 , \$HC-8015-DRO-W,  
Raw File: G:\Org\HP5\DAT\HP5112921\_b\1129HP5.0067.RAW  
Date & Time Acquired: 12/1/2021 8:48:23 AM  
Method File: G:\Org\HP5\Methods\DS\_8015b-C24T-ID-L#.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.231	.208	.19	91.16	-
*1-Chlorooctadecane	13.038	.208	.142	68.27	-
*#Triacontane	16.294	.208	.09	43.33	-

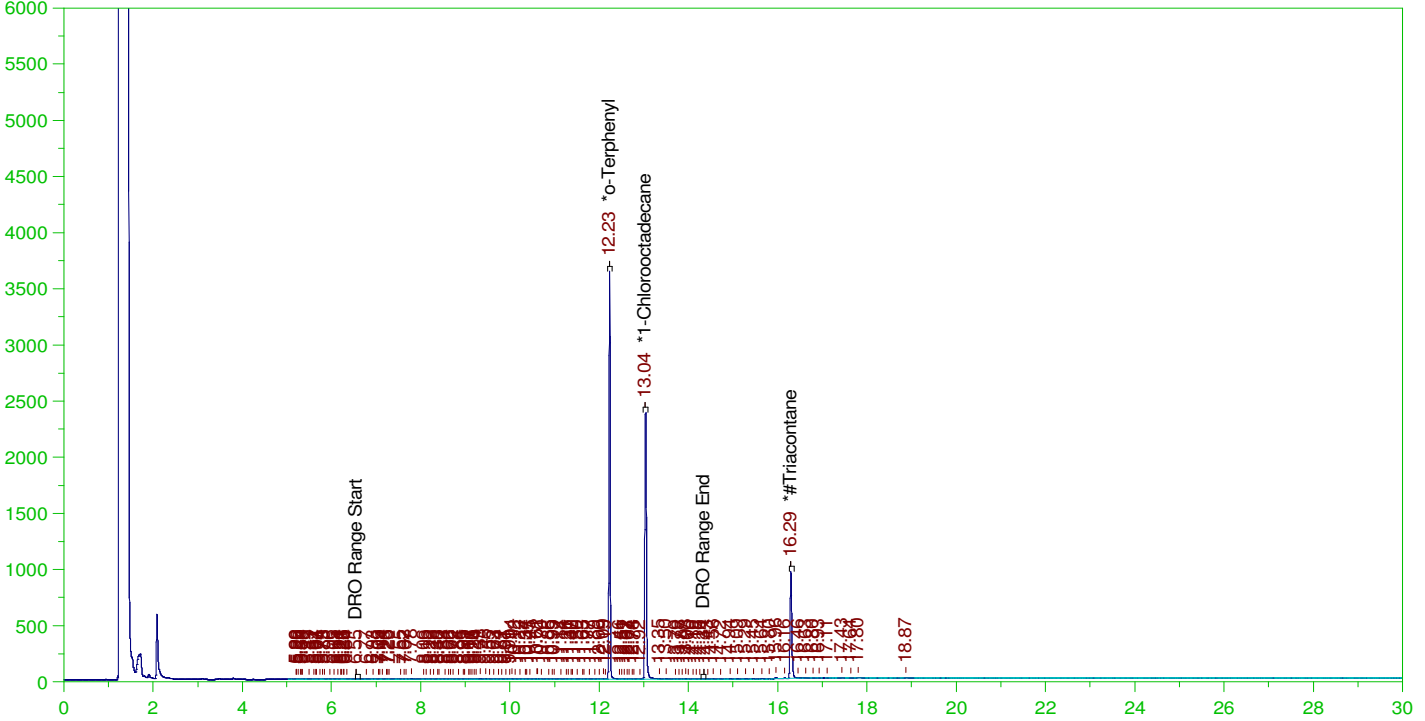
DRO Area: 856960.4 DRO Amount: 2.847133E-02  
TEH Area: 1323700 TEH Amount: 4.397811E-02

ERH1721 (RHMW13 Zone 4)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0069.RAW

B21112206-002A ;1129HP5 , \$HC-8015-DRO-W, RR



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112206-002A ;1129HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0069.RAW  
 Date & Time Acquired: 12/1/2021 10:13:32 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
 Sample Weight: 970 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.229	.206	.205	99.21	-
*1-Chlorooctadecane	13.037	.206	.161	78.1	-
*#Triacontane	16.293	.206	.096	46.57	-

DRO Area:596654.4 DRO Amount: 1.961866E-02  
 TEH Area:867289.9 TEH Amount: 2.851746E-02

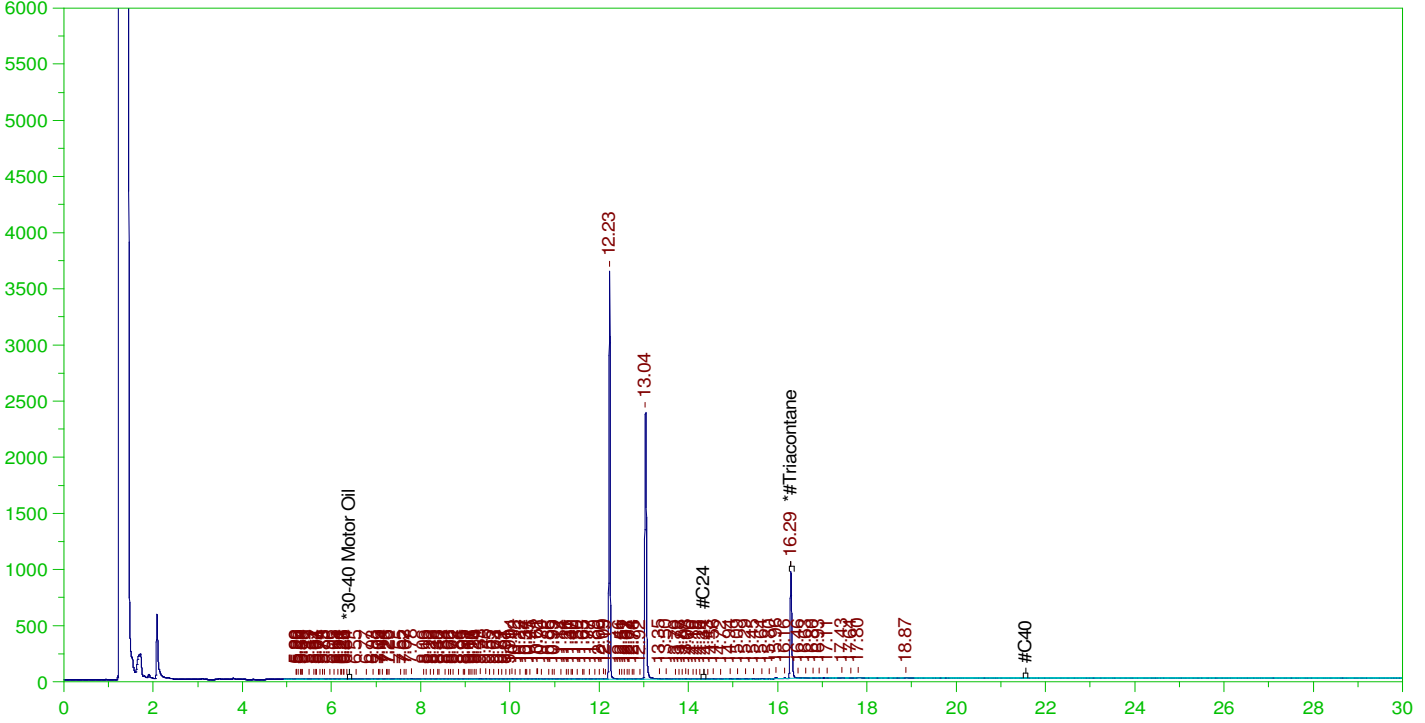


ERH1721 (RHMW13 Zone 4)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0069.RAW

B21112206-002A ; 1129HP5 , \$HC-8015-DRO-W, RR



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112206-002A ; 1129HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0069.RAW  
 Date & Time Acquired: 12/1/2021 10:13:32 AM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AFa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-SAMP.CAL  
 Sample Weight: 970 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.293	.515	.096	18.63

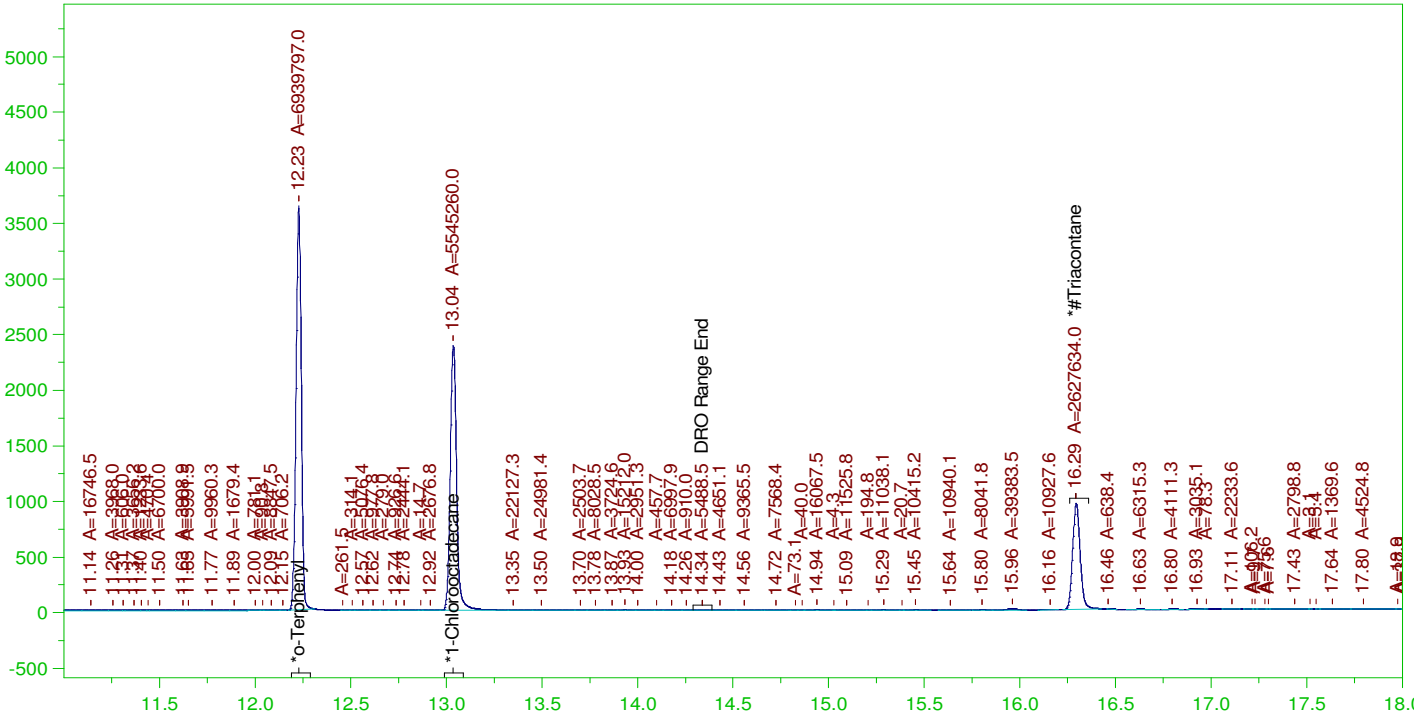
RRO Area: 212539.3 RRO AMOUNT: 7.676741E-03

ERH1721 (RHMW13 Zone 4)

Batch ID: 161704

G:\Org\HP5\DAT\HP5112921\_b\1129HP5.0069.RAW

B21112206-002A ; 1129HP5 , \$HC-8015-DRO-W, RR



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112206-002A ; 1129HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\Org\HP5\DAT\HP5112921\_b\1129HP5.0069.RAW  
 Date & Time Acquired: 12/1/2021 10:13:32 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015b-C24T-ID-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
 Sample Weight: 970 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.229	.206	.201	97.72
*1-Chlorooctadecane	13.037	.206	.161	78.08
*#Triacontane	16.293	.206	.094	45.41

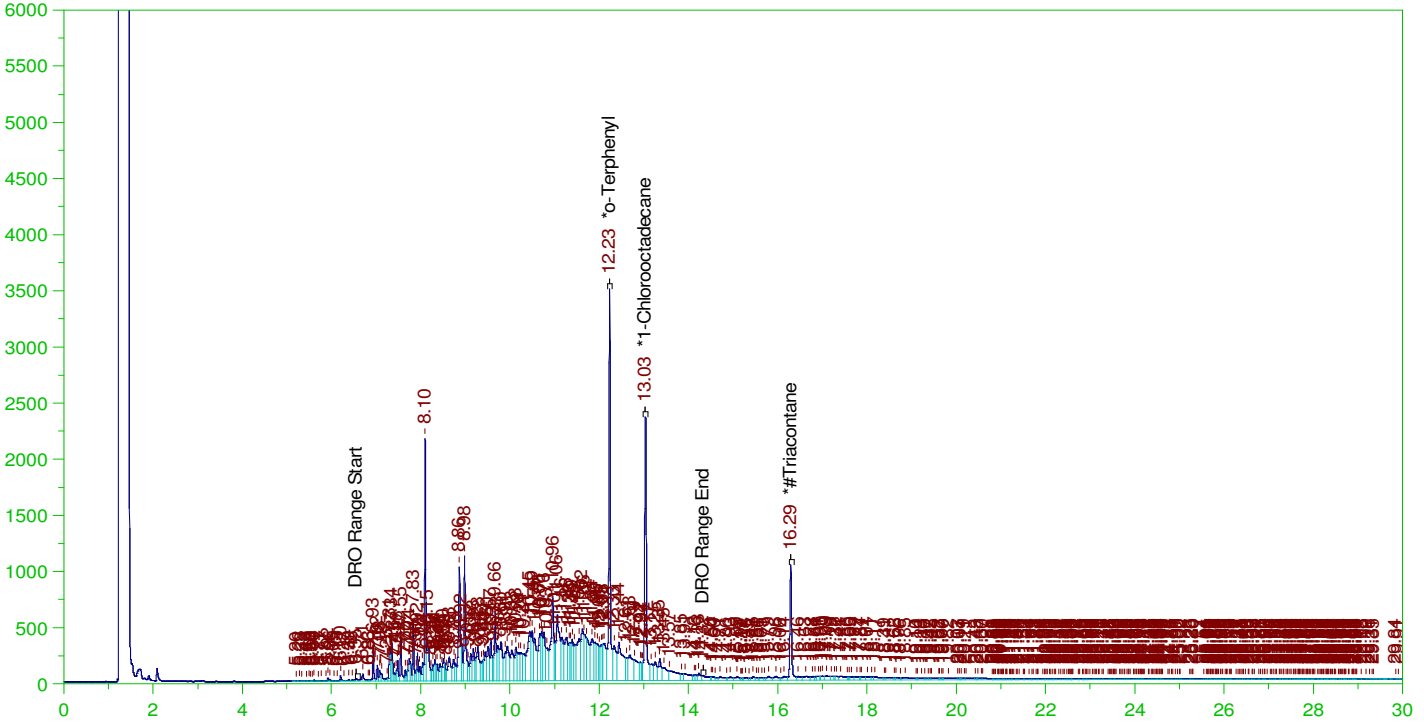
DRO Area: 657186.3 DRO Amount: 2.160902E-02  
 TEH Area: 1112182 TEH Amount: 3.656977E-02

ERH1951 (RHMW02)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0070.RAW

B21112212-002A ;1129HP5 , \$HC-8015-DRO-W, RR



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-002A ;1129HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0070.RAW  
 Date & Time Acquired: 12/1/2021 10:55:57 AM  
 Method File: G:\Org\HP5\Methods\D3\_8015-C24T-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102Id-24-Tri.CAL  
 Sample Weight: 1025 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.229	.195	.227	116.58	-
*1-Chlorooctadecane	13.034	.195	.17	87.01	-
*#Triacontane	16.29	.195	.101	51.52	-

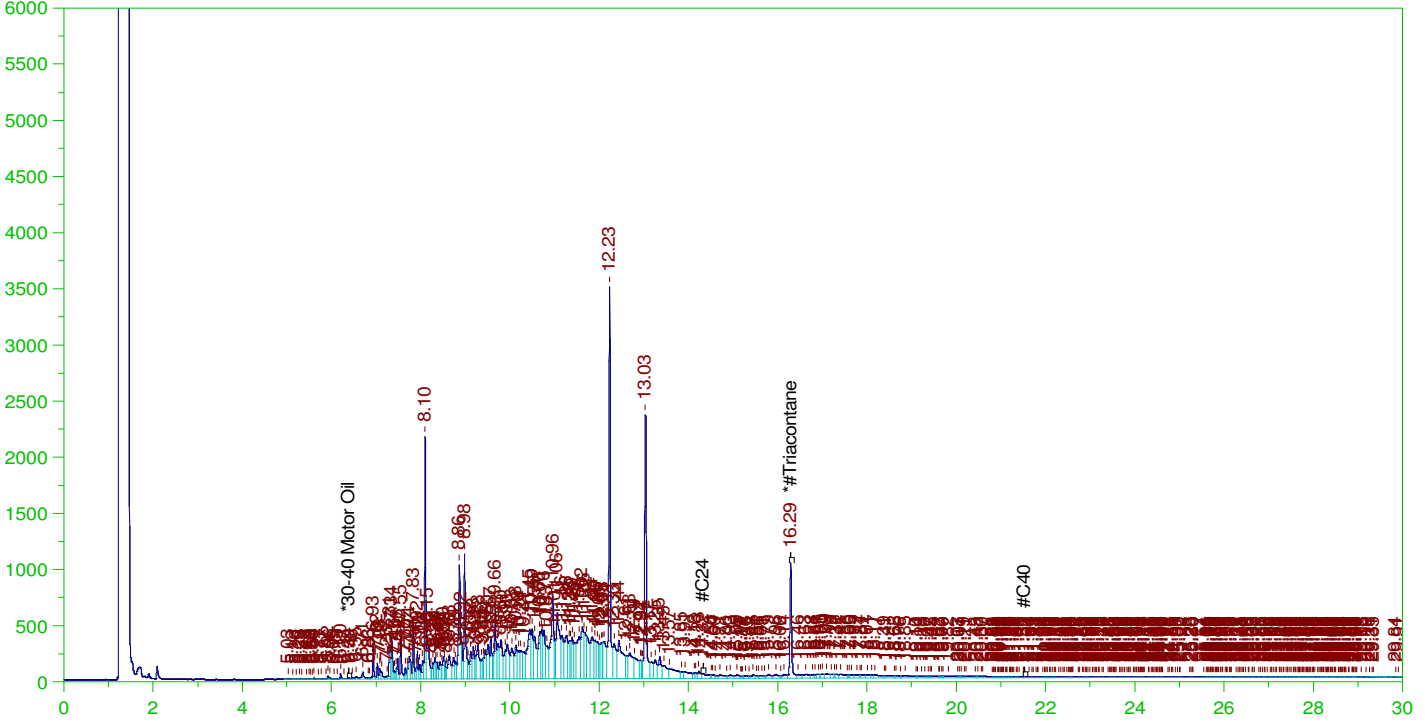
DRO Area: 9.872348E+07 DRO Amount: 3.071955  
 TEH Area: 1.114759E+08 TEH Amount: 3.46877

ERH1951 (RHMW02)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0070.RAW

B21112212-002A ;1129HP5 , \$HC-8015-DRO-W, RR



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-002A ;1129HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0070.RAW  
 Date & Time Acquired: 12/1/2021 10:55:57 AM  
 Method File: G:\Org\HP5\Methods\D3\_OROS-AFa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-SAMP.CAL  
 Sample Weight: 1025 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.29	.488	.101	20.61

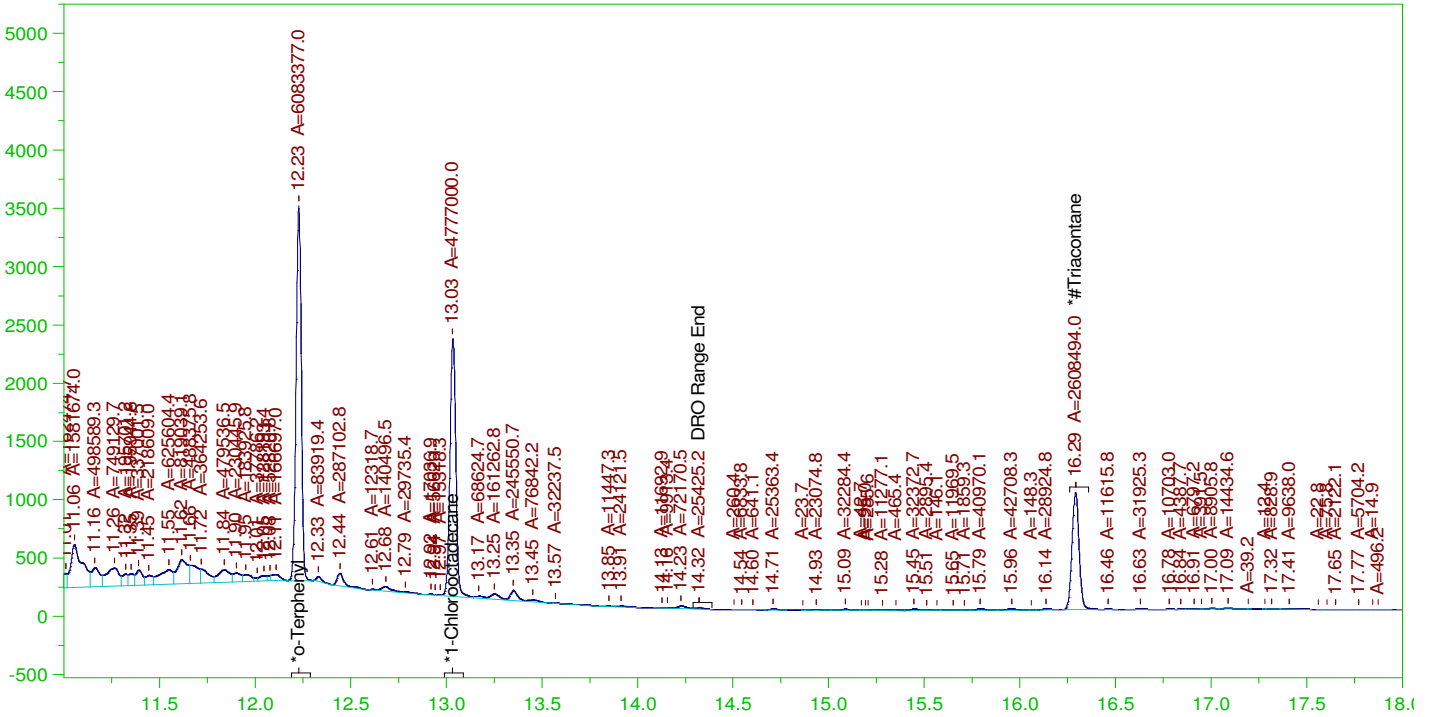
RRO Area:1.01063E+07 RRO AMOUNT: 0.345444

ERH1951 (RHMW02)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0070.RAW

B21112212-002A ; 1129HP5 , \$HC-8015-DRO-W, RR



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-002A ; 1129HP5 , \$HC-8015-DRO-W, RR  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0070.RAW  
 Date & Time Acquired: 12/1/2021 10:55:57 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015b-C24T-ID-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
 Sample Weight: 1025 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.229	.195	.167	85.66	-
*1-Chlorooctadecane	13.034	.195	.131	67.26	-
*#Triacontane	16.29	.195	.088	45.08	-

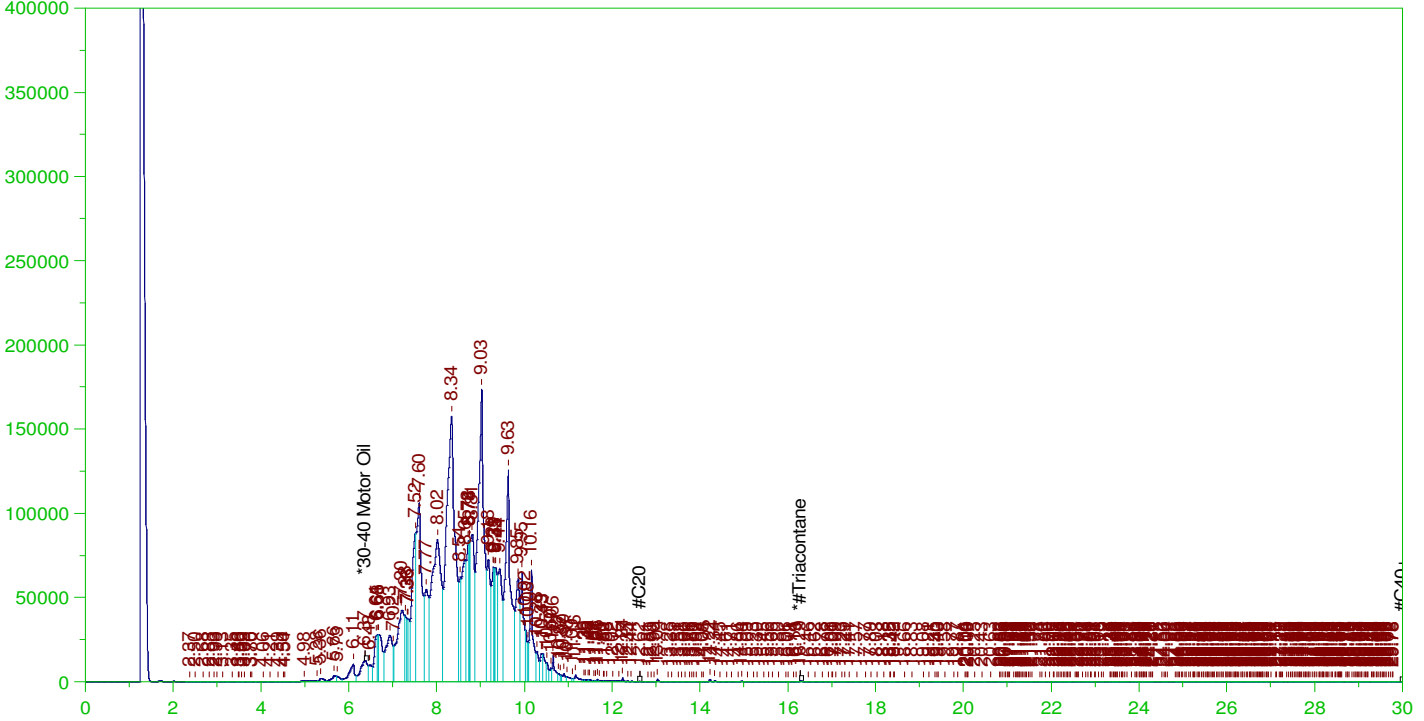
DRO Area: 4.056324E+07 DRO Amount: 1.262197  
 TEH Area: 4.145866E+07 TEH Amount: 1.290059

ERH1968 (Adit 3 Sump)

Batch ID: 161704

G:\Org\HP5\DAT\HP5112921\_b\1129HP5.0071.RAW

B21112214-002B ; 1129HP5, \$HC-8015-DRO-W, RR for oil



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112214-002B ; 1129HP5, \$HC-8015-DRO-W, RR for oil  
 Raw File: G:\Org\HP5\DAT\HP5112921\_b\1129HP5.0071.RAW  
 Date & Time Acquired: 12/1/2021 11:38:35 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-112971-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.CAL  
 Sample Weight: 1050 Dilution: 2 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.288	.476	.126	26.5

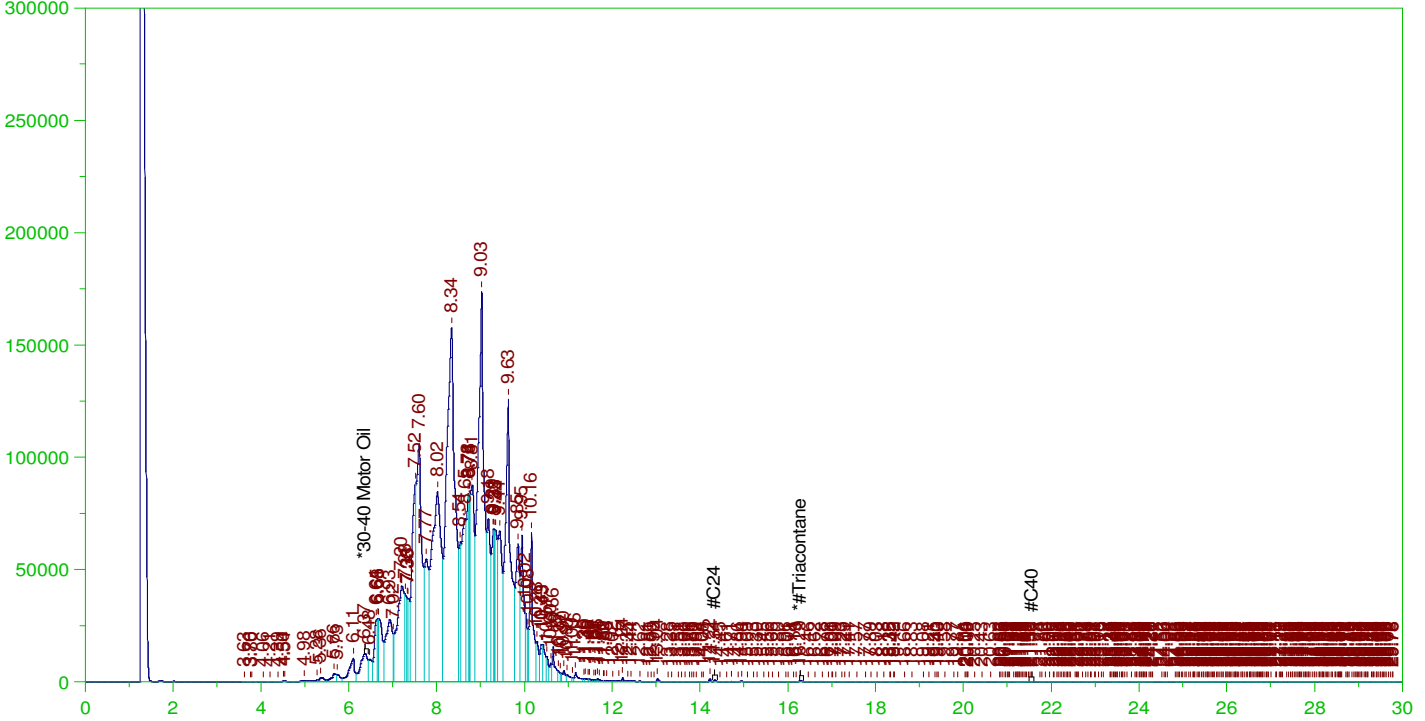
RRO Area: 2.919273E+07 RRO AMOUNT: 1.948161

ERH1968 (Adit 3 Sump)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0071.RAW

B21112214-002B ; 1129HP5 , \$HC-8015-DRO-W, RR for oil



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112214-002B ; 1129HP5 , \$HC-8015-DRO-W, RR for oil  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0071.RAW  
 Date & Time Acquired: 12/1/2021 11:38:35 AM  
 Method File: G:\Org\HP5\Methods\D3\_OROS-71-AFa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AFa-SAMP.CAL  
 Sample Weight: 1050 Dilution: 2 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 14.29 to 21.606

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.288	.476	.126	26.5

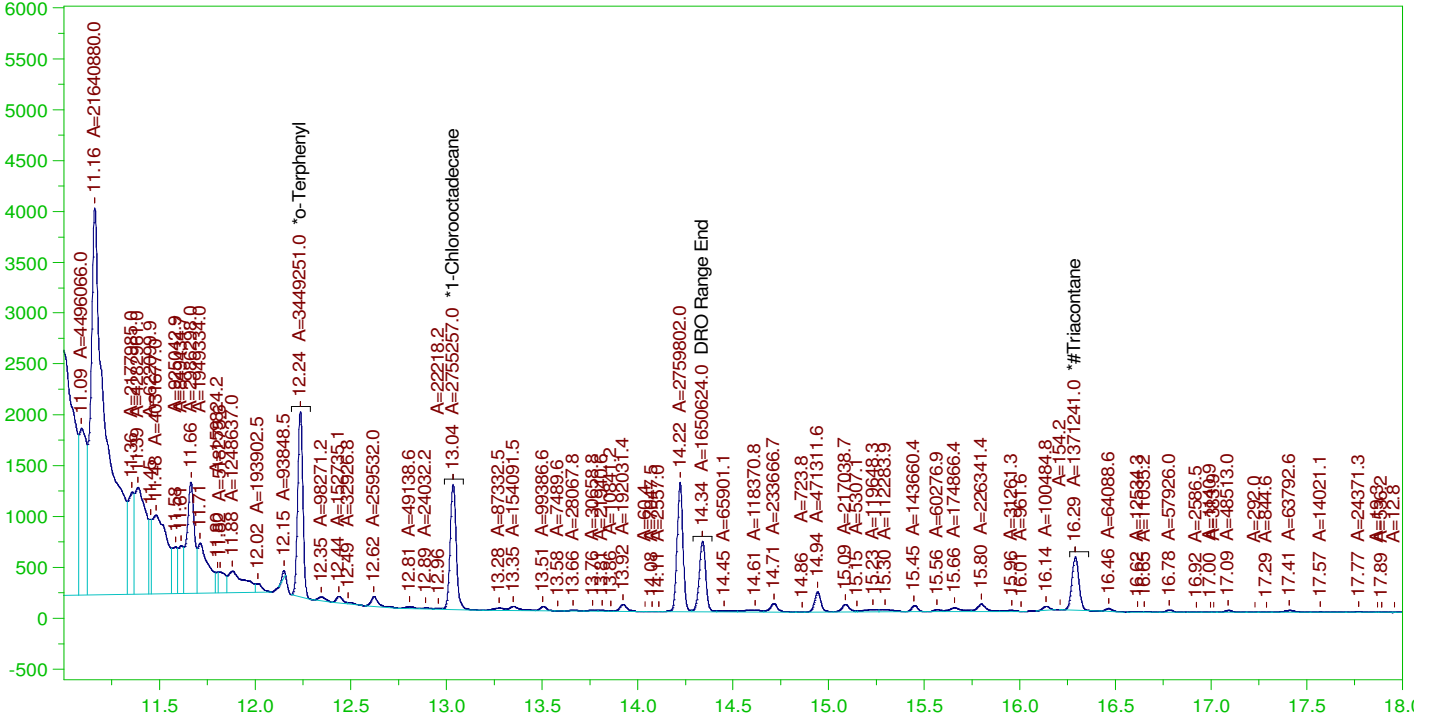
RRO Area: 1.465655E+07 RRO AMOUNT: 0.9780966

ERH1968 (Adit 3 Sump)

Batch ID: 161704

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0071.RAW

B21112214-002B ; 1129HP5 , \$HC-8015-DRO-W, RR for oil



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112214-002B ; 1129HP5 , \$HC-8015-DRO-W, RR for oil  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0071.RAW  
 Date & Time Acquired: 12/1/2021 11:38:35 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015b-C24T-ID-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24-Tri.CAL  
 Sample Weight: 1050 Dilution: 2 S.A.: 1

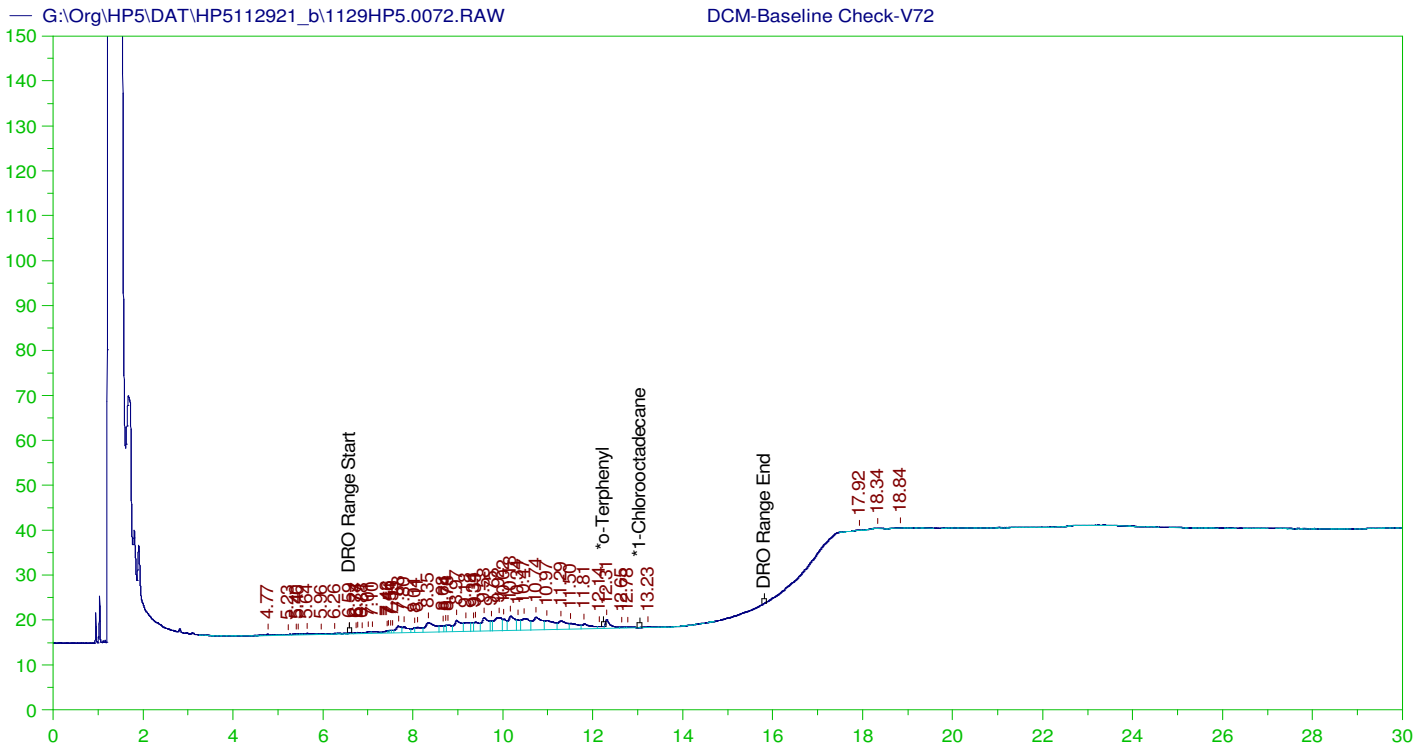
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.236	.19	.185	97.14
*1-Chlorooctadecane	13.036	.19	.148	77.59
*#Triacontane	16.288	.19	.09	47.4

DRO Area: 1.402627E+10 DRO Amount: 852.1208  
 TEH Area: 1.43895E+10 TEH Amount: 874.1876





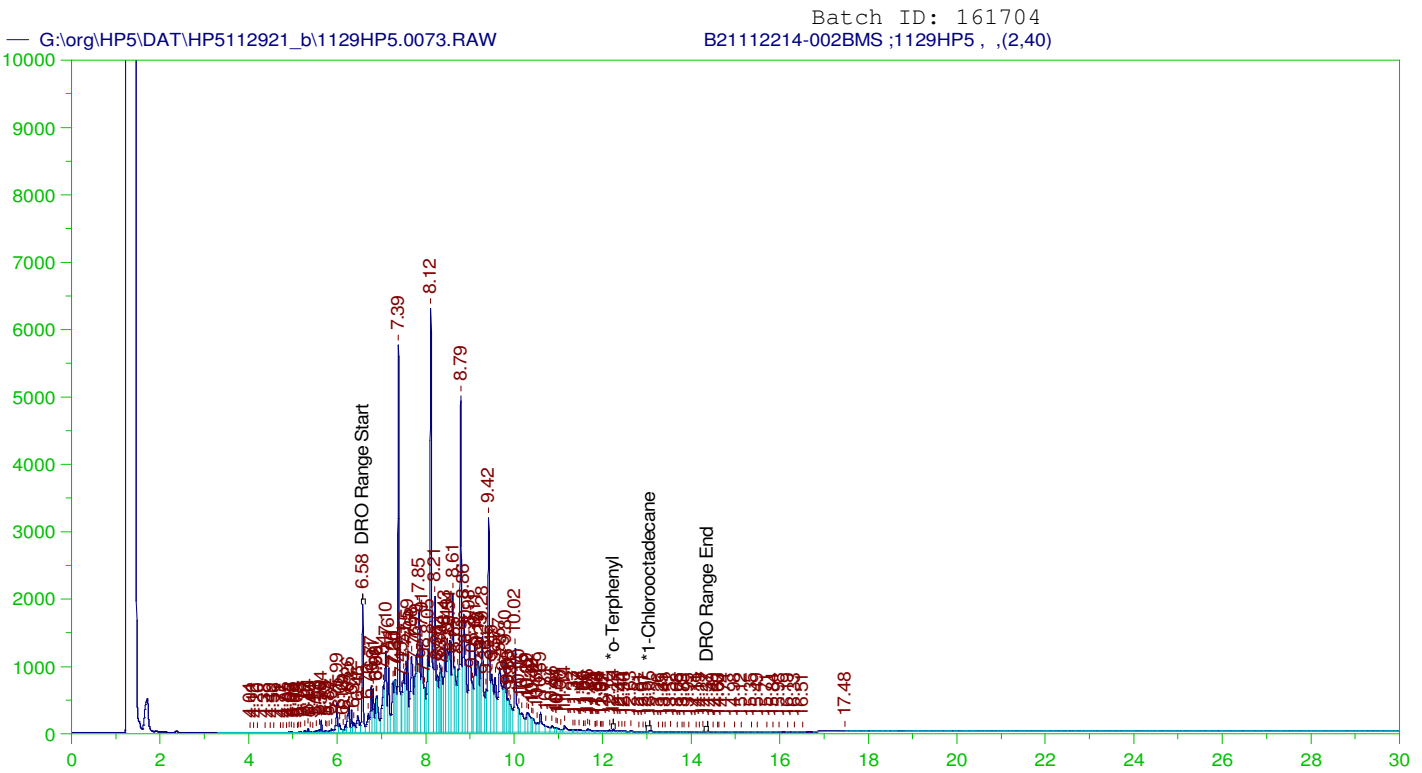
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V72  
 Raw File: G:\Org\HP5\DAT\HP5112921\_b\1129HP5.0072.RAW  
 Date & Time Acquired: 12/1/2021 12:21:27 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	29.907	200.	.	-
*1-Chlorooctadecane	29.907	200.	.	-

DRO Area:508389.4 DRO Amount: 16.21492  
 TEH Area:535230.6 TEH Amount: 17.07101



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

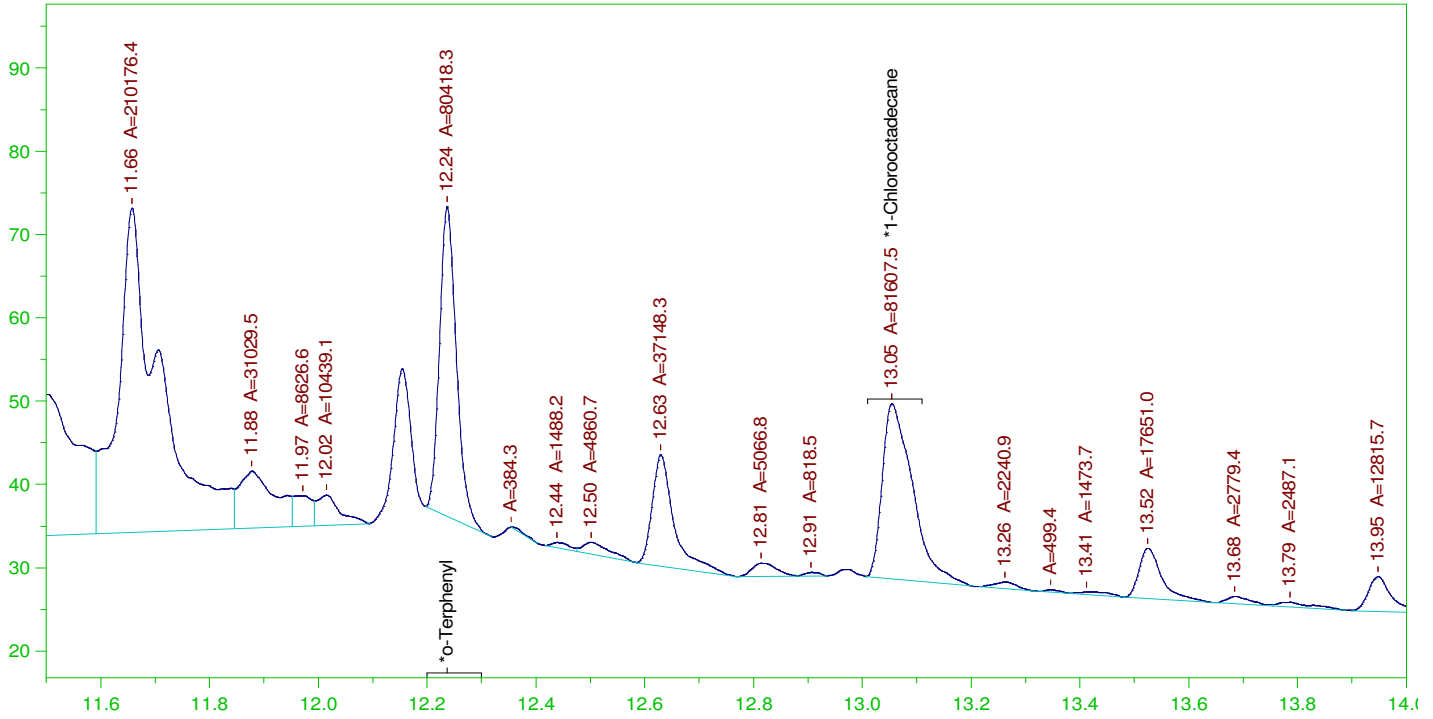
Sample Name: B21112214-002BMS ;1129HP5 , ,(2,40)  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0073.RAW  
 Date & Time Acquired: 12/1/2021 1:04:13 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-112973-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1010 Dilution: 80 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.237	.198	.404	204.2	-
*1-Chlorooctadecane	13.054	.198	.346	174.65	-

DRO Area: 2.057879E+08 DRO Amount: 519.8843  
 TEH Area: 2.123028E+08 TEH Amount: 536.3431

Batch ID: 161704  
G:\org\HP5\DAT\HP5112921\_b\1129HP5.0073.RAW B21112214-002BMS ;1129HP5 , ,(2,40)



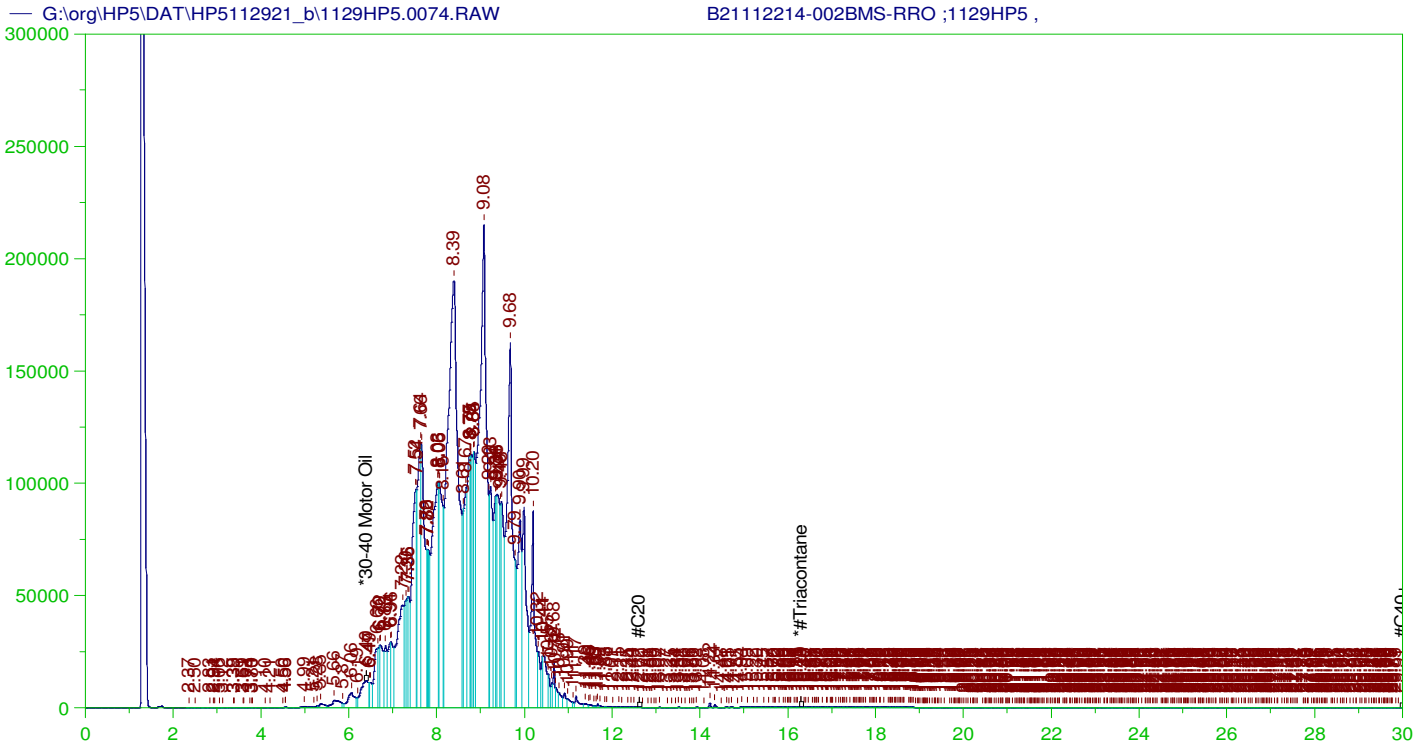
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112214-002BMS ;1129HP5 , ,(2,40)  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0073.RAW  
 Date & Time Acquired: 12/1/2021 1:04:13 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-ID-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC-24.CAL  
 Sample Weight: 1010 Dilution: 80 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.55 to 14.4

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.237	.198	.179	90.59
*1-Chlorooctadecane	13.054	.198	.182	91.93

DRO Area: 2.023142E+08 DRO Amount: 511.1087  
 TEH Area: 2.086422E+08 TEH Amount: 527.0952



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112214-002BMS-RRO ;1129HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0074.RAW  
 Date & Time Acquired: 12/1/2021 1:46:51 PM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-112974-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.CAL  
 Sample Weight: 1020 Dilution: 3 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 28542.41  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.58 to 30.05

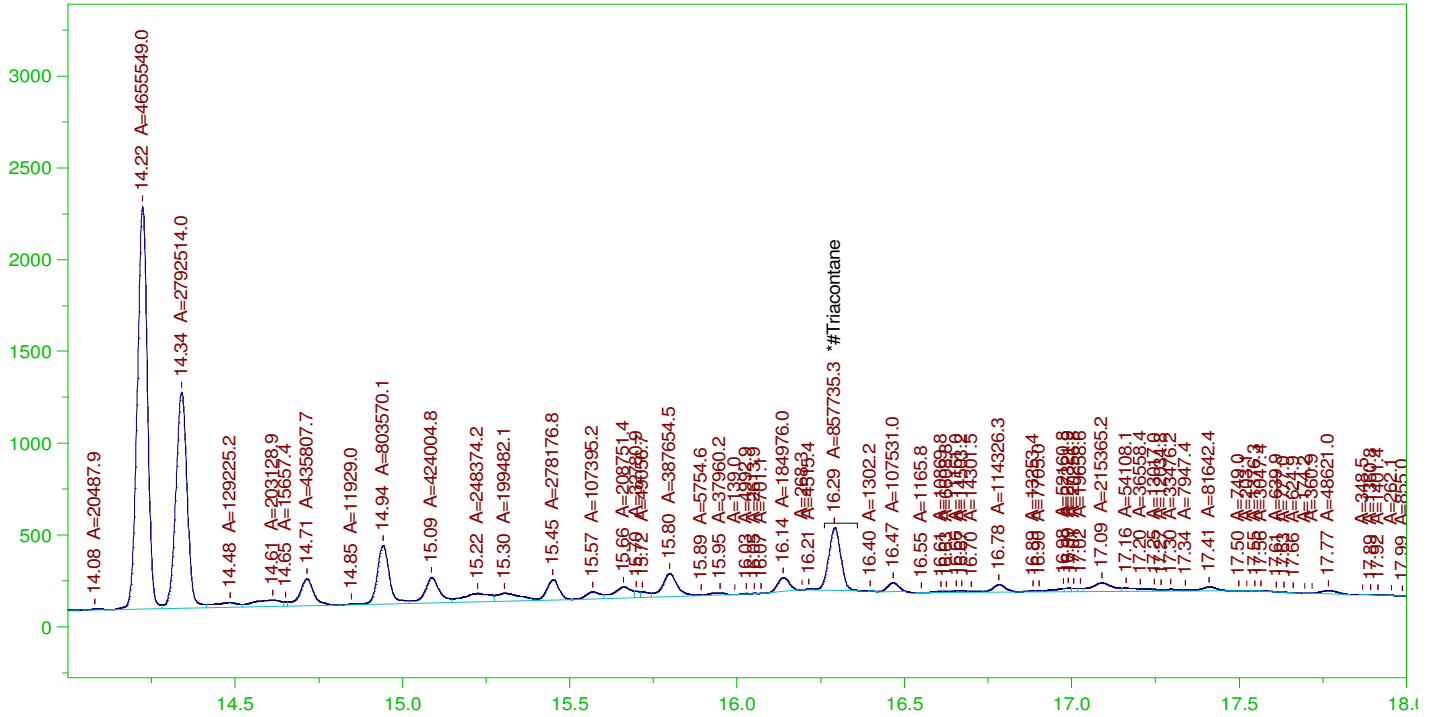
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.291	.49	.228	46.49	-

~~RRO~~ TEH(Oil Range) Area:7.6355E+07 ~~RRO~~ TEH(Oil Range) AMOUNT: 7.868065

AMN 12/14/2021

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0074.RAW

B21112214-002BMS-RRO ;1129HP5 ,



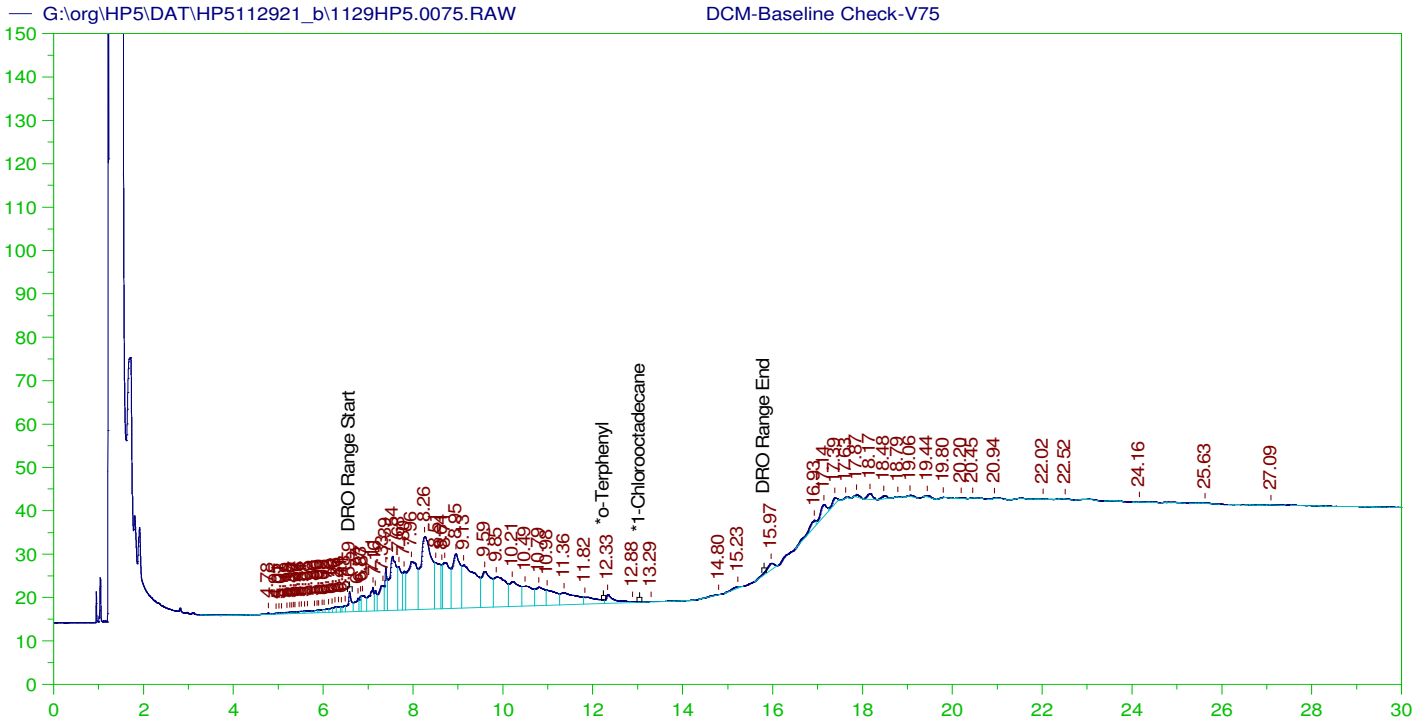
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112214-002BMS-RRO ;1129HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0074.RAW  
 Date & Time Acquired: 12/1/2021 1:46:51 PM  
 Method File: G:\Org\HP5\Methods\DS\_OROb-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.CAL  
 Sample Weight: 1020 Dilution: 3 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.291	.49	.087	17.79

RRO Area:1.374833E+07 RRO AMOUNT: 1.416708



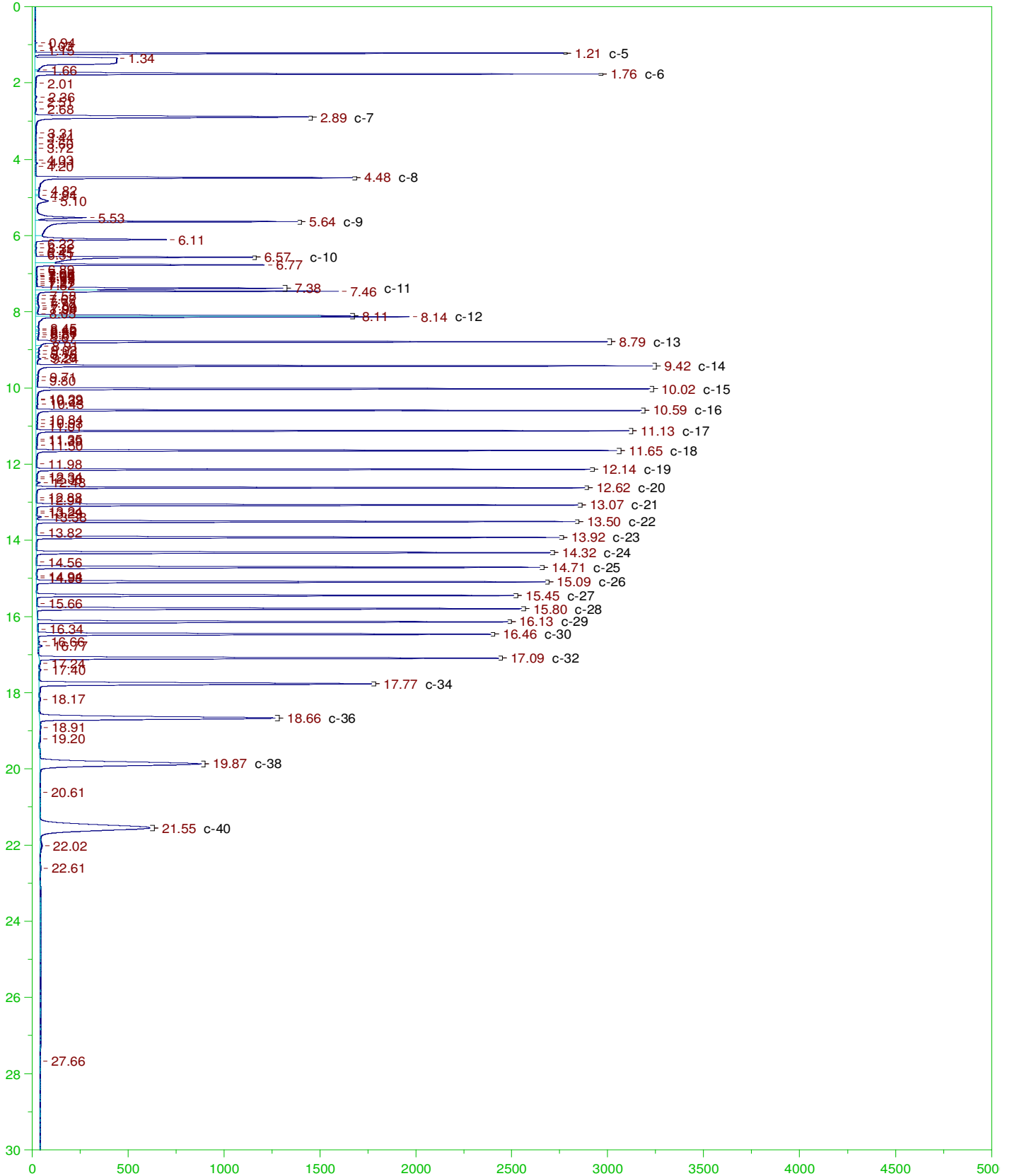
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

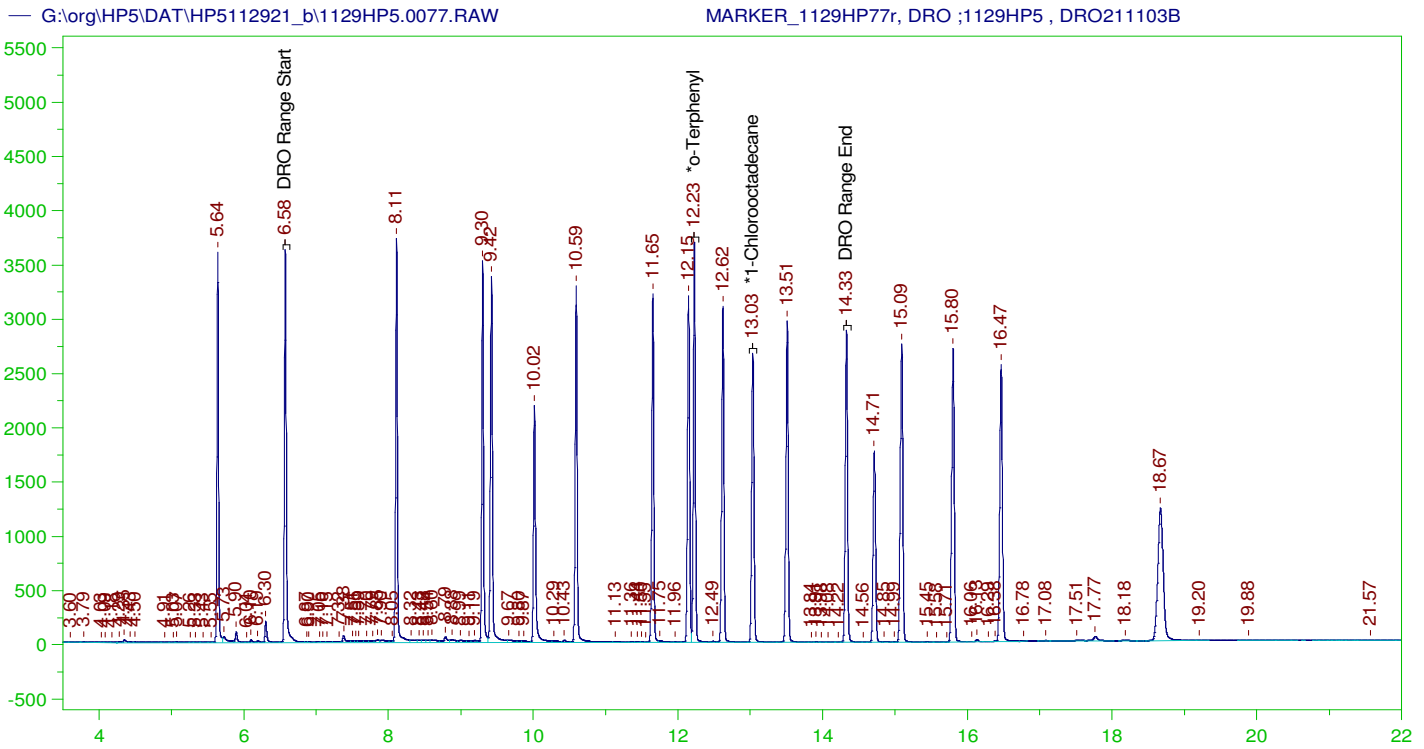
Sample Name: DCM-Baseline Check-V75  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0075.RAW  
 Date & Time Acquired: 12/1/2021 2:29:57 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-IB-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IB.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	29.967	200.	.	-
*1-Chlorooctadecane	29.967	200.	.	-

DRO Area:2164257 DRO Amount: 69.02827  
 TEH Area:2350945 TEH Amount: 74.98264





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

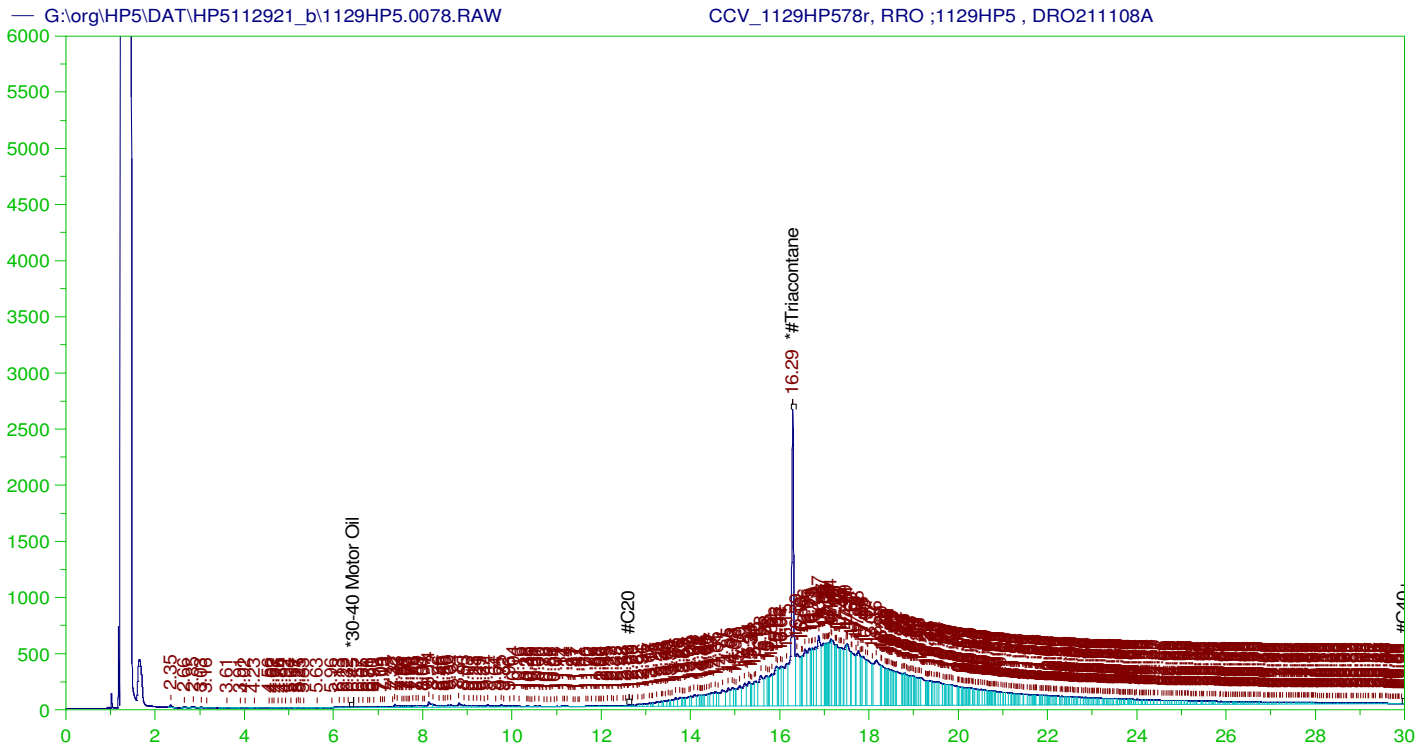
Sample Name: MARKER\_1129HP77r, DRO ;1129HP5 , DRO211103B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0077.RAW  
 Date & Time Acquired: 12/1/2021 3:55:58 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.228	.2	.2	99.87
*1-Chlorooctadecane	13.034	.2	.16	80.14

DRO Area: 7.121384E+07 DRO Amount: 2.271343  
 TEH Area: 1.090558E+08 TEH Amount: 3.4783





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP578r, RRO ;1129HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0078.RAW  
 Date & Time Acquired: 12/1/2021 5:26:01 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.29	500.	335.005	67.	-

~~RRO~~ TEH(Oil Range) Area:1.369348E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4797.589

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0078.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.276	.	75-125

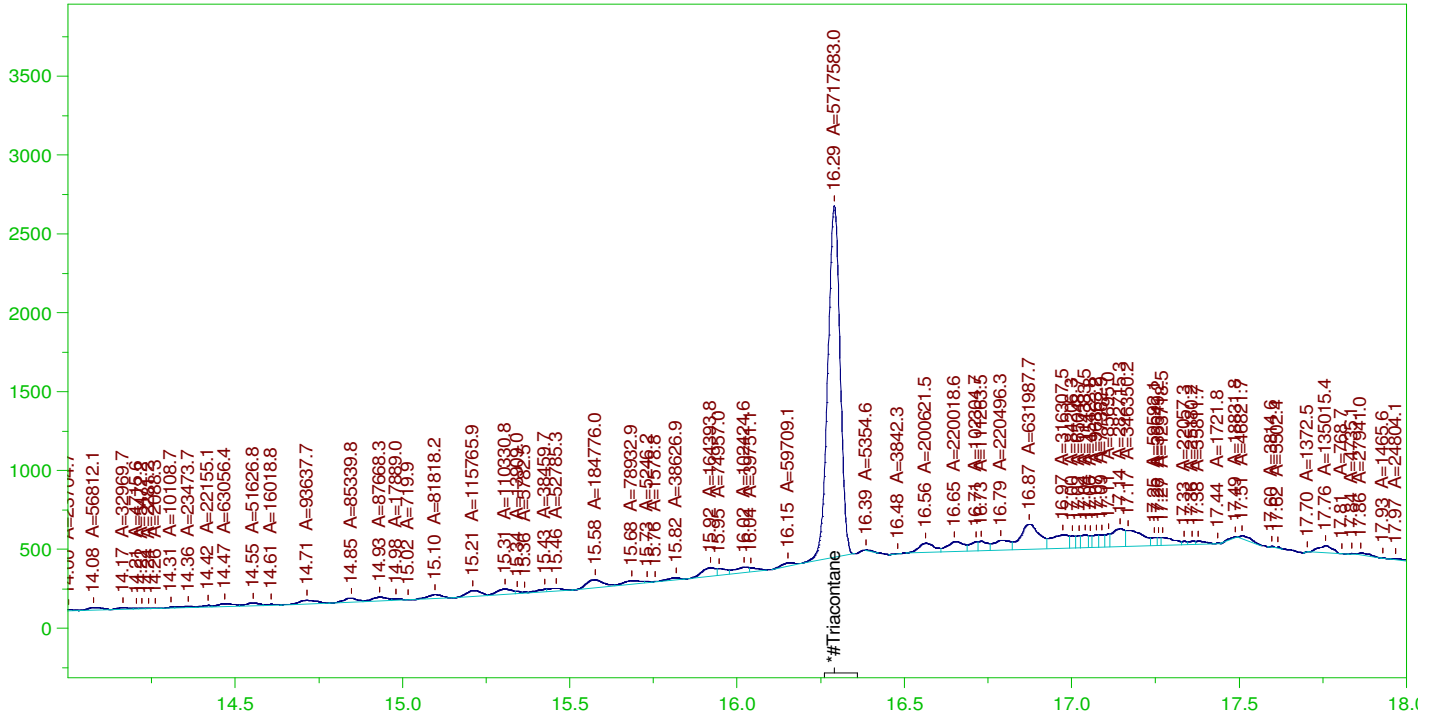
  

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.29	200.	335.005	167.5	75-125

AMN 12/14/2021

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0078.RAW

CCV\_1129HP578r, RRO ;1129HP5 , DRO211108A



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP578r, RRO ;1129HP5 , DRO211108A  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0078.RAW  
Date & Time Acquired: 12/1/2021 5:26:01 PM  
Method File: G:\Org\HP5\Methods\DS\_OROb-AF-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.29	500.	197.634	39.53	-

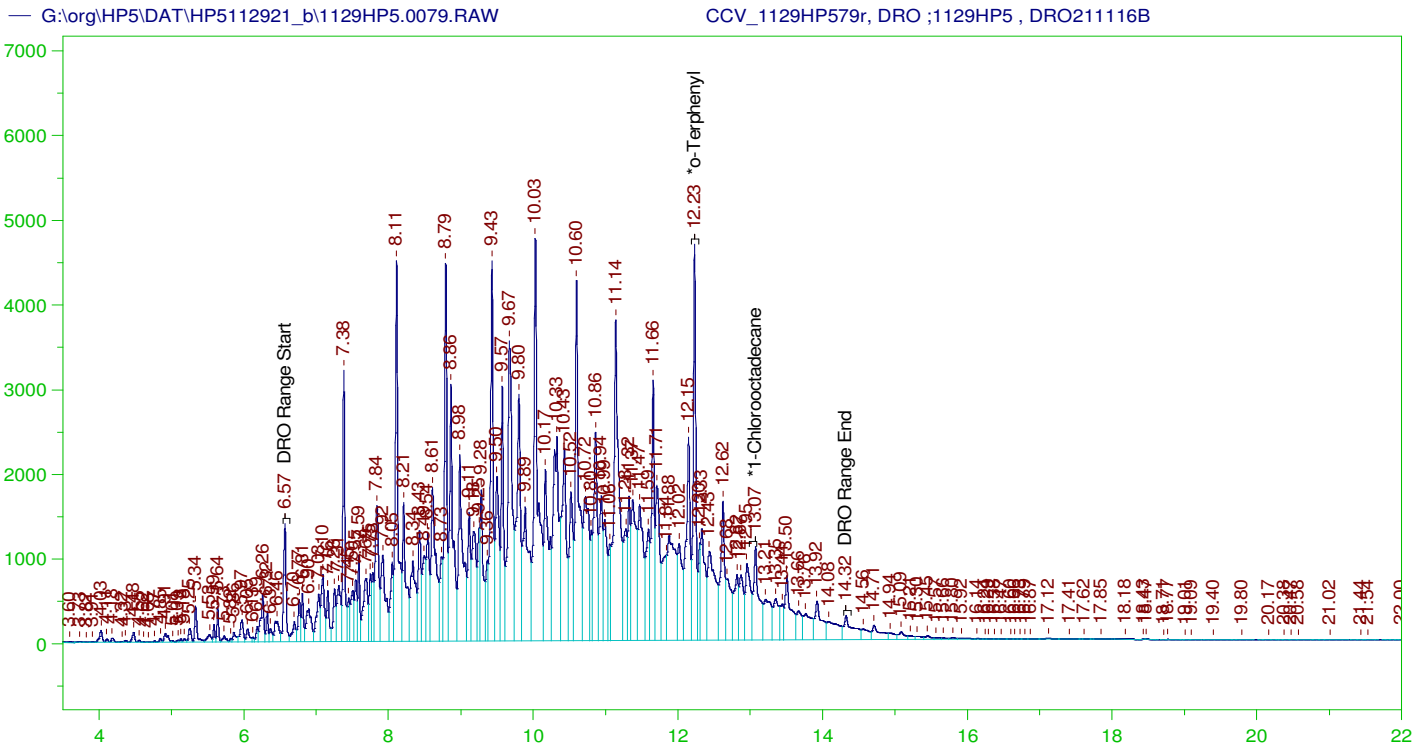
RRO Area:6175871 RRO AMOUNT: 216.3752

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0078.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.276	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.29	200.	197.634	98.82	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1129HP579r, DRO ;1129HP5 , DRO211116B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0079.RAW  
 Date & Time Acquired: 12/1/2021 6:09:09 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.231	200.	332.364	166.18
*1-Chlorooctadecane	13.07	200.	157.501	78.75

DRO Area: 4.675804E+08 DRO Amount: 14913.33  
 TEH Area: 4.833905E+08 TEH Amount: 15417.58

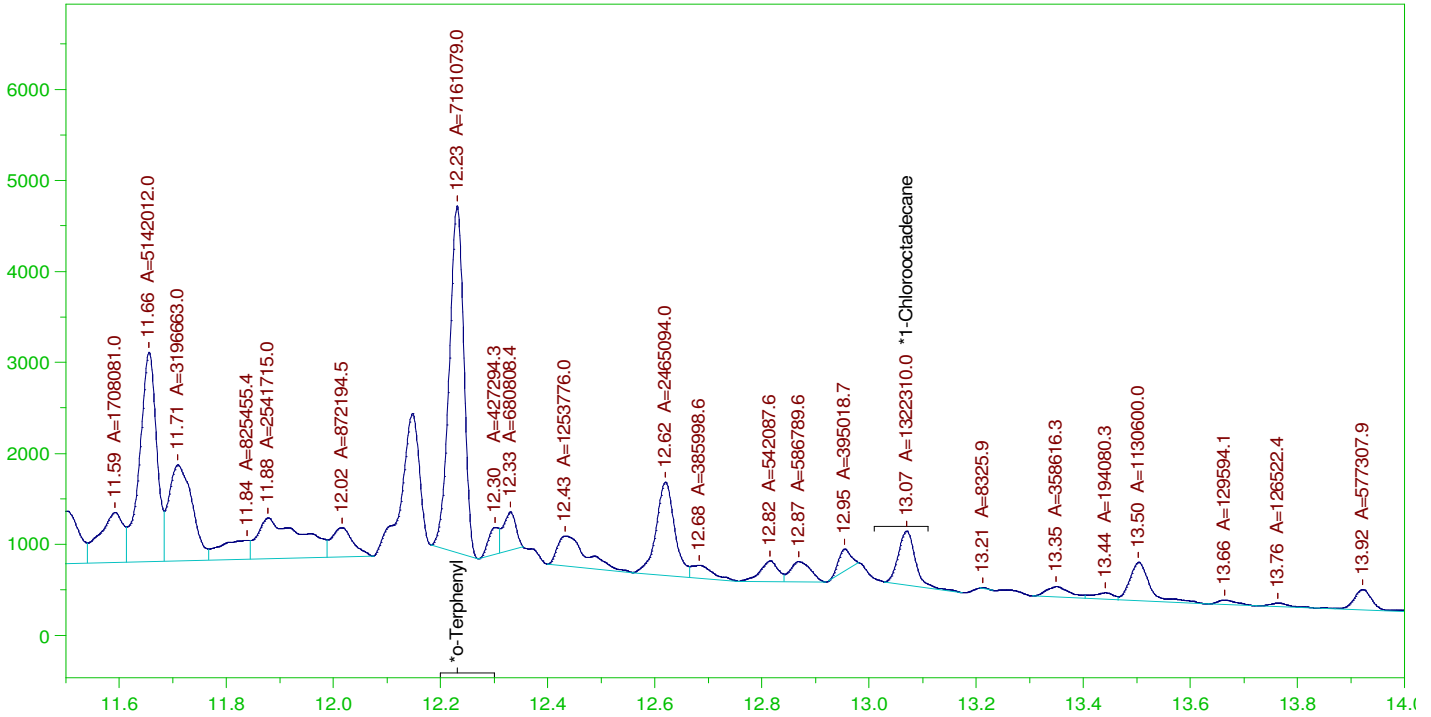
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0079.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15417.58	102.78	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.231	200.	332.364	166.18	85-115
*1-Chlorooctadecane	13.07	200.	157.501	78.75	85-115

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0079.RAW

CCV\_1129HP579r, DRO ;1129HP5 , DRO211116B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1129HP579r, DRO ;1129HP5 , DRO211116B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0079.RAW  
 Date & Time Acquired: 12/1/2021 6:09:09 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-ID-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC-24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.55 to 14.4

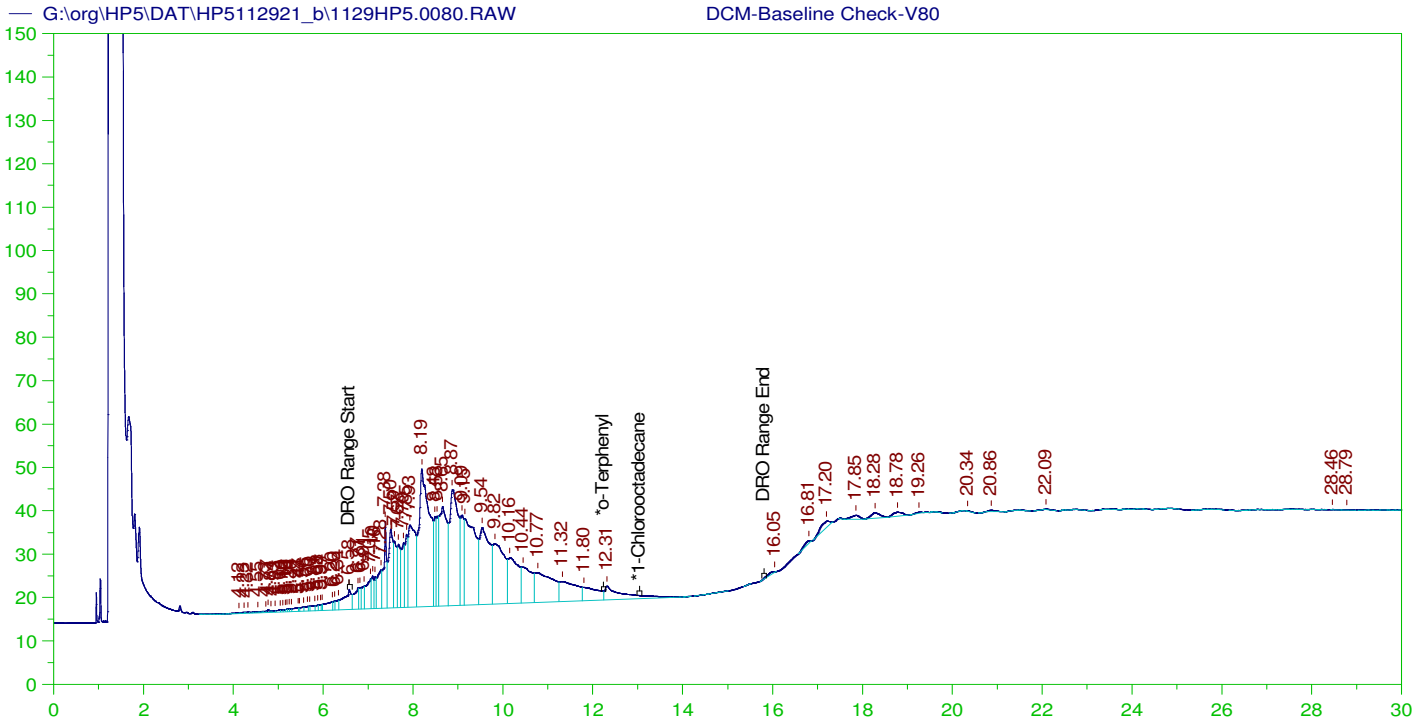
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.231	200.	201.668	100.83
*1-Chlorooctadecane	13.07	200.	37.239	18.62

DRO Area: 2.60876E+08 DRO Amount: 8320.558  
 TEH Area: 2.713836E+08 TEH Amount: 8655.692

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0079.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8655.69	57.7	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.231	200.	201.668	100.83	85-115
*1-Chlorooctadecane	13.07	200.	37.239	18.62	85-115



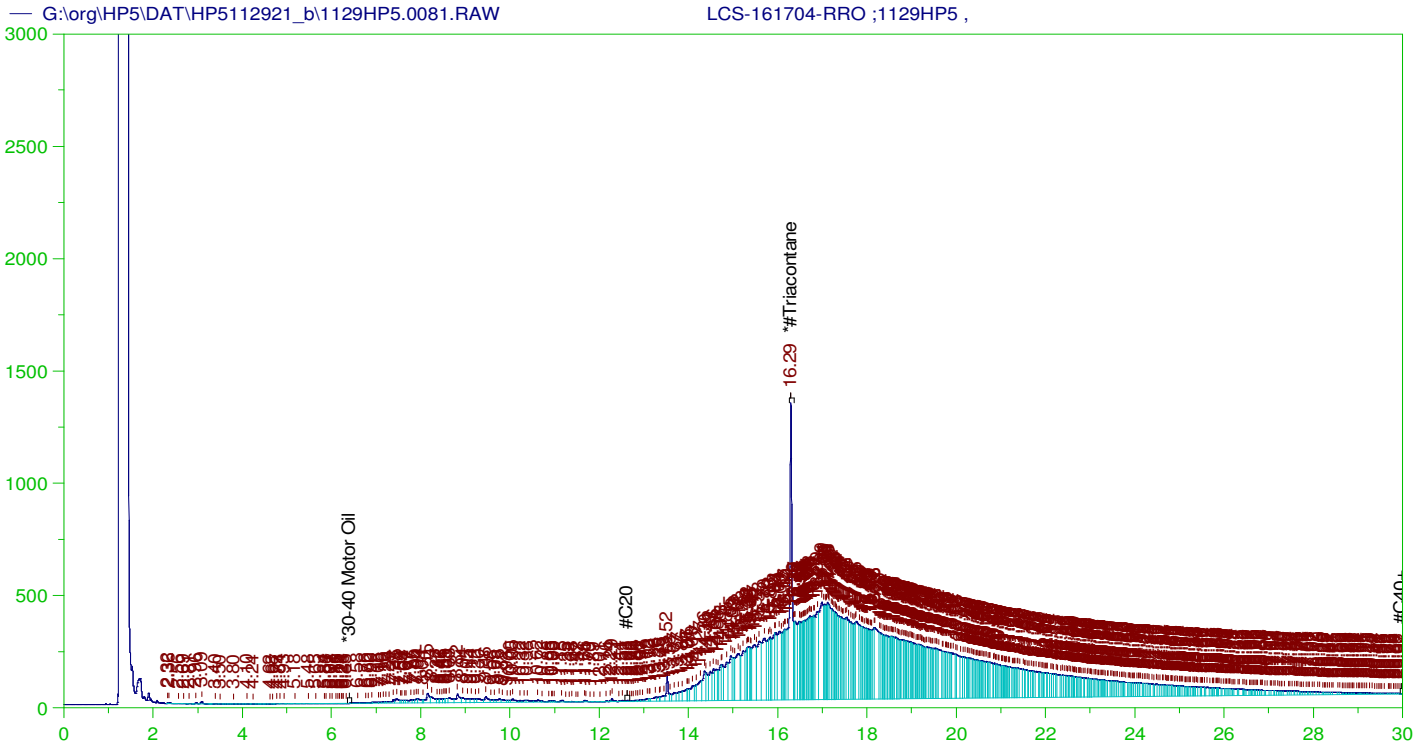
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V80  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0080.RAW  
 Date & Time Acquired: 12/1/2021 6:52:13 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	29.967	200.	.	-
*1-Chlorooctadecane	29.967	200.	.	-

DRO Area:4048662 DRO Amount: 129.1308  
 TEH Area:4251225 TEH Amount: 135.5915



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-161704-RRO ;1129HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0081.RAW  
 Date & Time Acquired: 12/1/2021 7:35:10 PM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

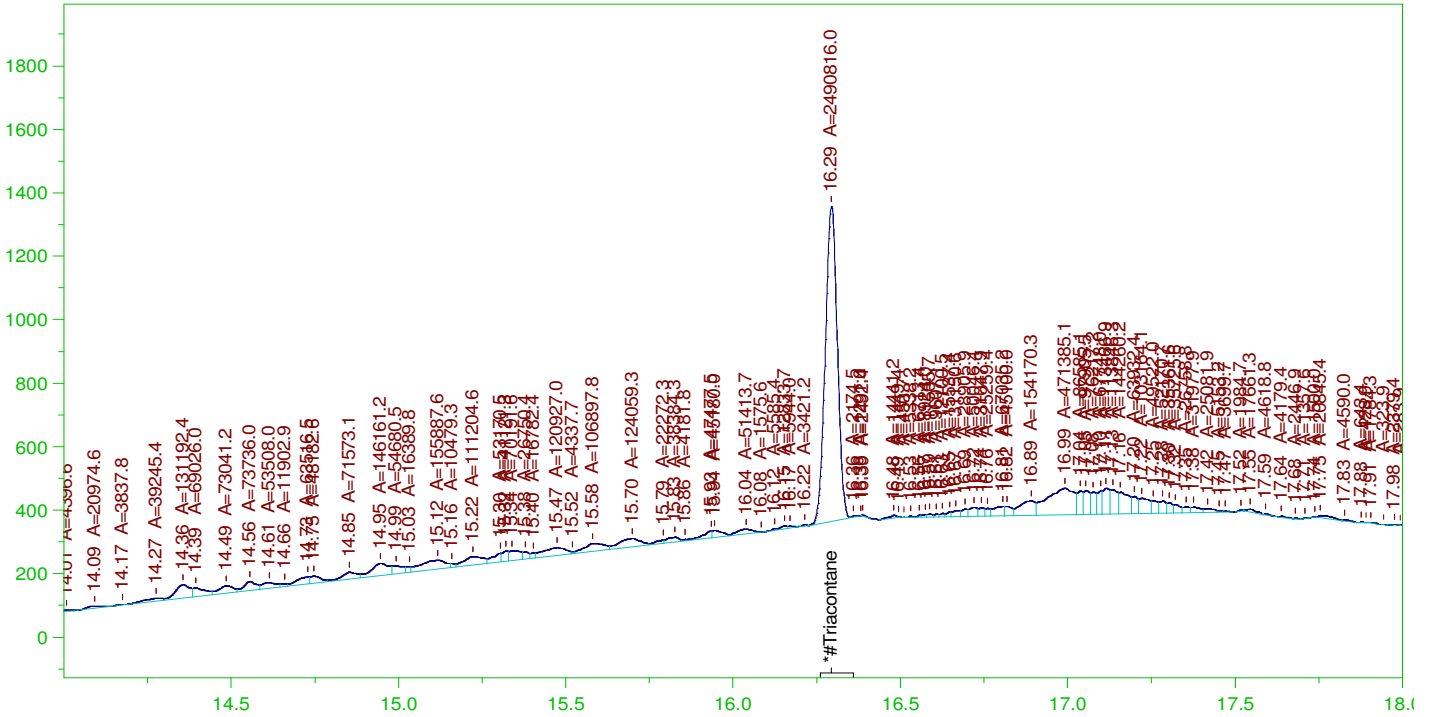
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.294	.5	.17	34.04	-

RRO TEH(Oil Range) Area:1.306293E+08 RRO TEH(Oil Range) AMOUNT: 4.576674

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G:\org\HP5\DAT\HP5112921\_b\1129HP5.0081.RAW

LCS-161704-RRO ;1129HP5 ,



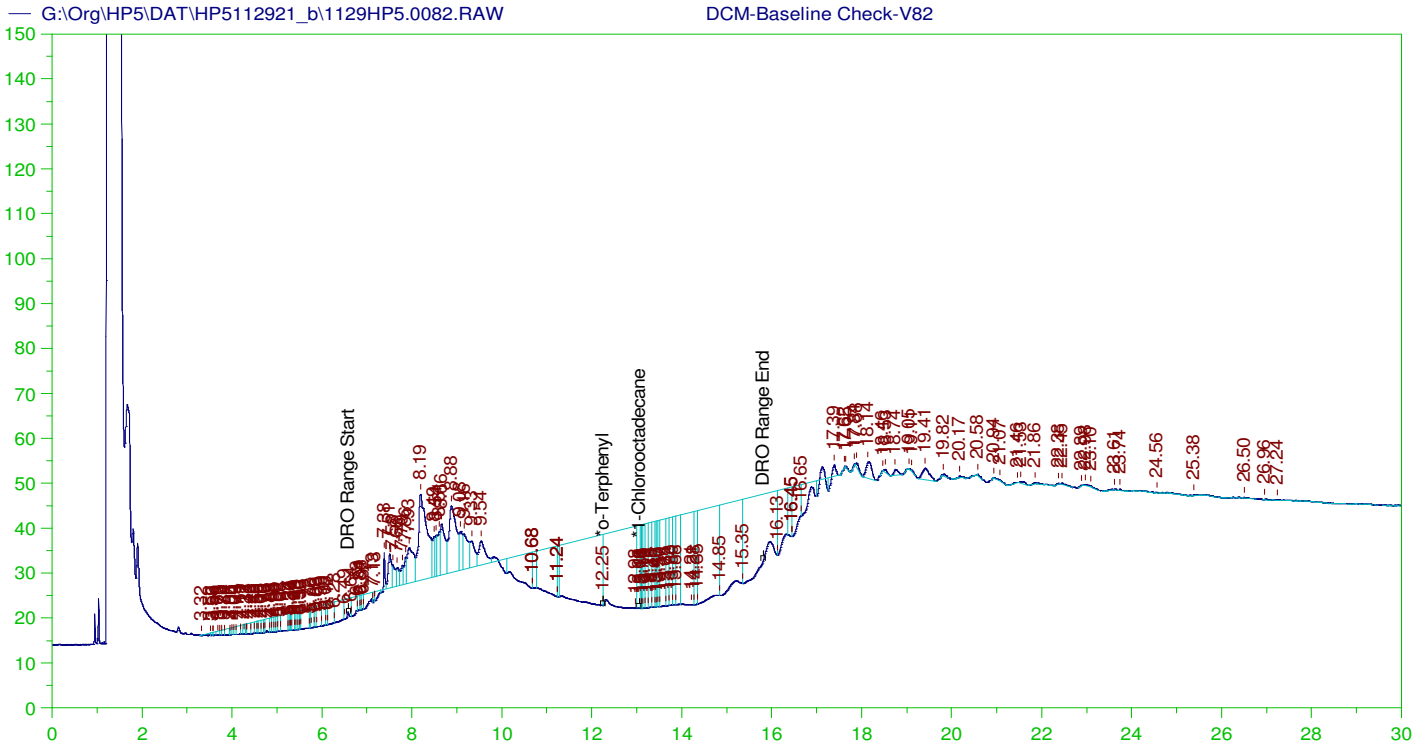
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-161704-RRO ;1129HP5 ,  
Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0081.RAW  
Date & Time Acquired: 12/1/2021 7:35:10 PM  
Method File: G:\Org\HP5\Methods\DS\_OROb-AF-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.294	.5	.086	17.22

RRO Area:4820929 RRO AMOUNT: 0.168904



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

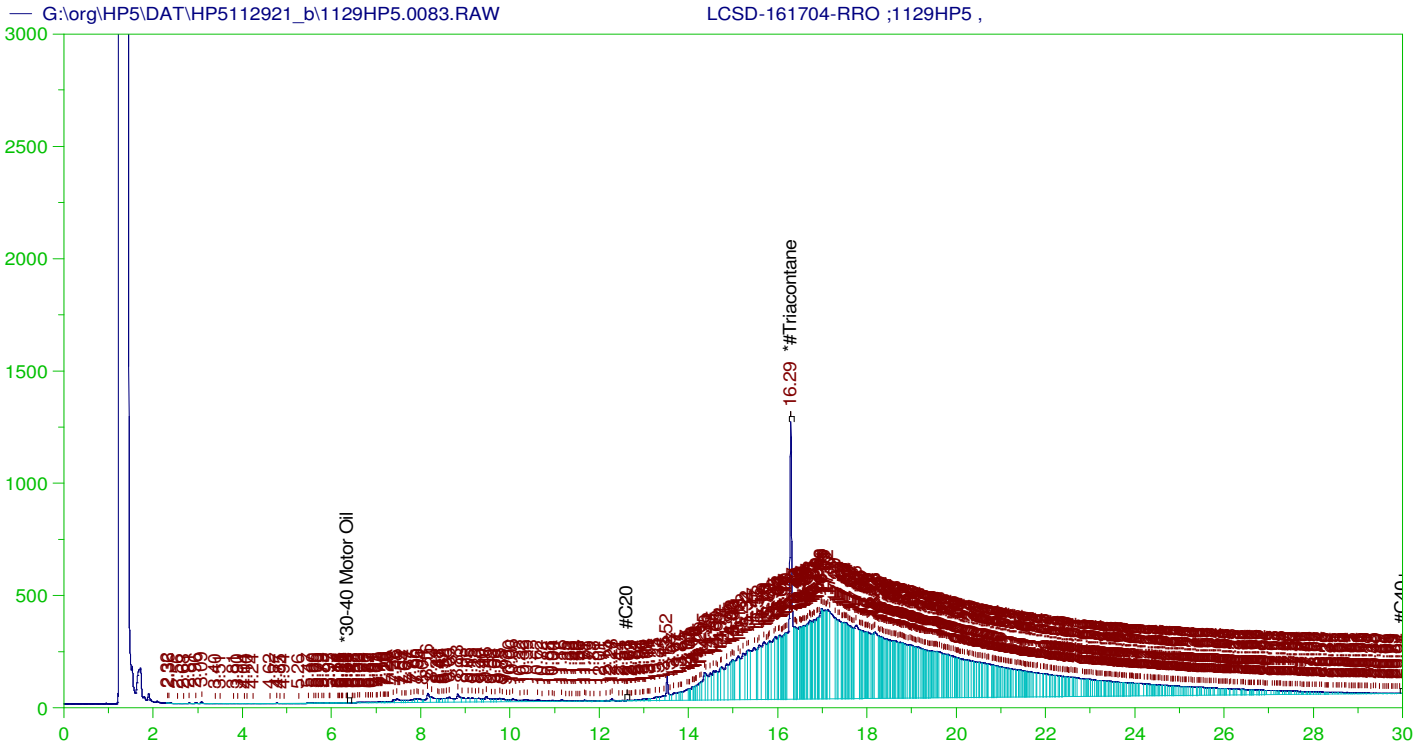
Sample Name: DCM-Baseline Check-V82  
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 Date & Time Acquired: 12/1/2021 8:18:06 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-IB-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IB.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	12.25	200.	22.622	11.31	-
*1-Chlorooctadecane	13.064	200.	2.644	1.32	-

DRO Area: 5798688 DRO Amount: 184.9473  
 TEH Area: 6952971 TEH Amount: 221.7628





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCSD-161704-RRO ;1129HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0083.RAW  
 Date & Time Acquired: 12/1/2021 9:00:59 PM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

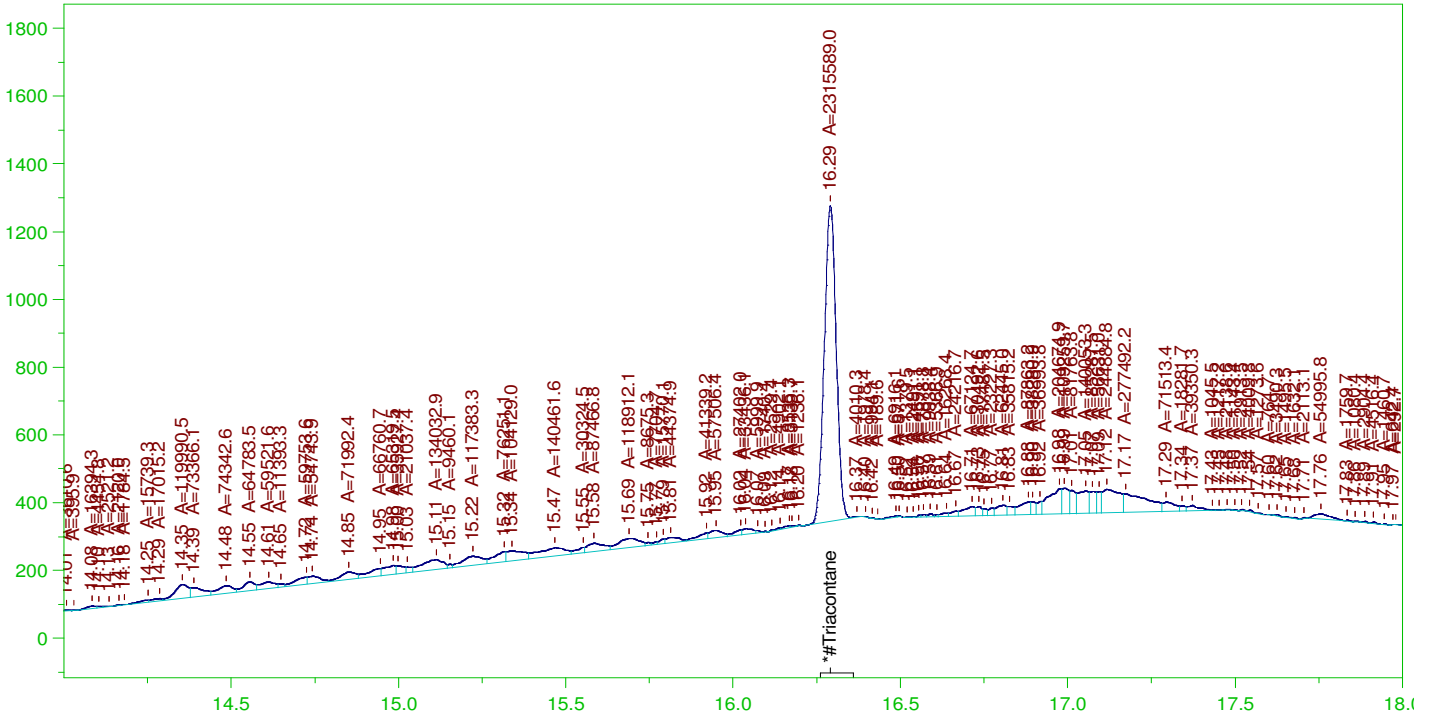
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.29	.5	.171	34.21	-

RRO TEH(Oil Range) Area:1.221026E+08 RRO TEH(Oil Range) AMOUNT: 4.277936

AMN 12/14/2021

G:\org\HP5\DAT\HP5112921\_b\1129HP5.0083.RAW

LCSD-161704-RRO ;1129HP5 ,



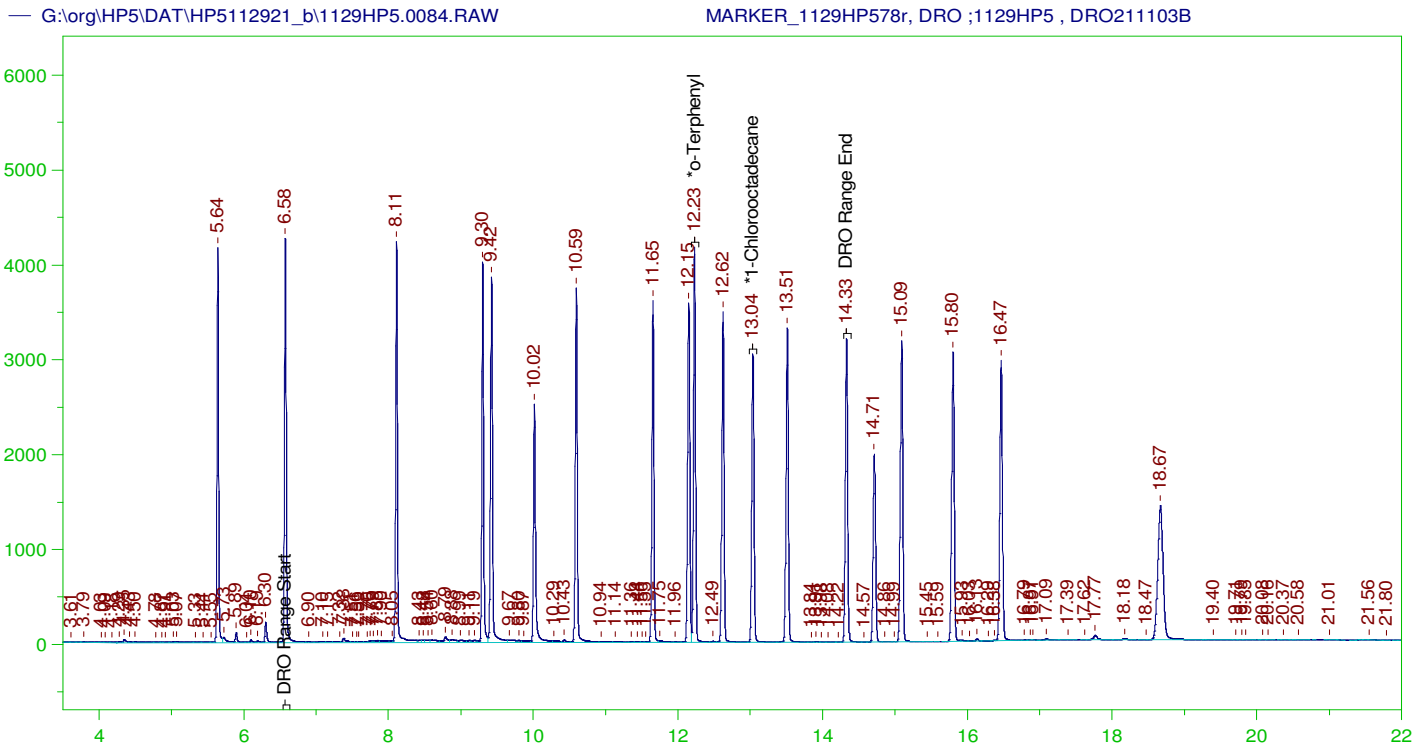
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCSD-161704-RRO ;1129HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0083.RAW  
 Date & Time Acquired: 12/1/2021 9:00:59 PM  
 Method File: G:\Org\HP5\Methods\DS\_OROb-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.29	.5	.08	16.01

RRO Area:4460959 RRO AMOUNT: 0.1562923



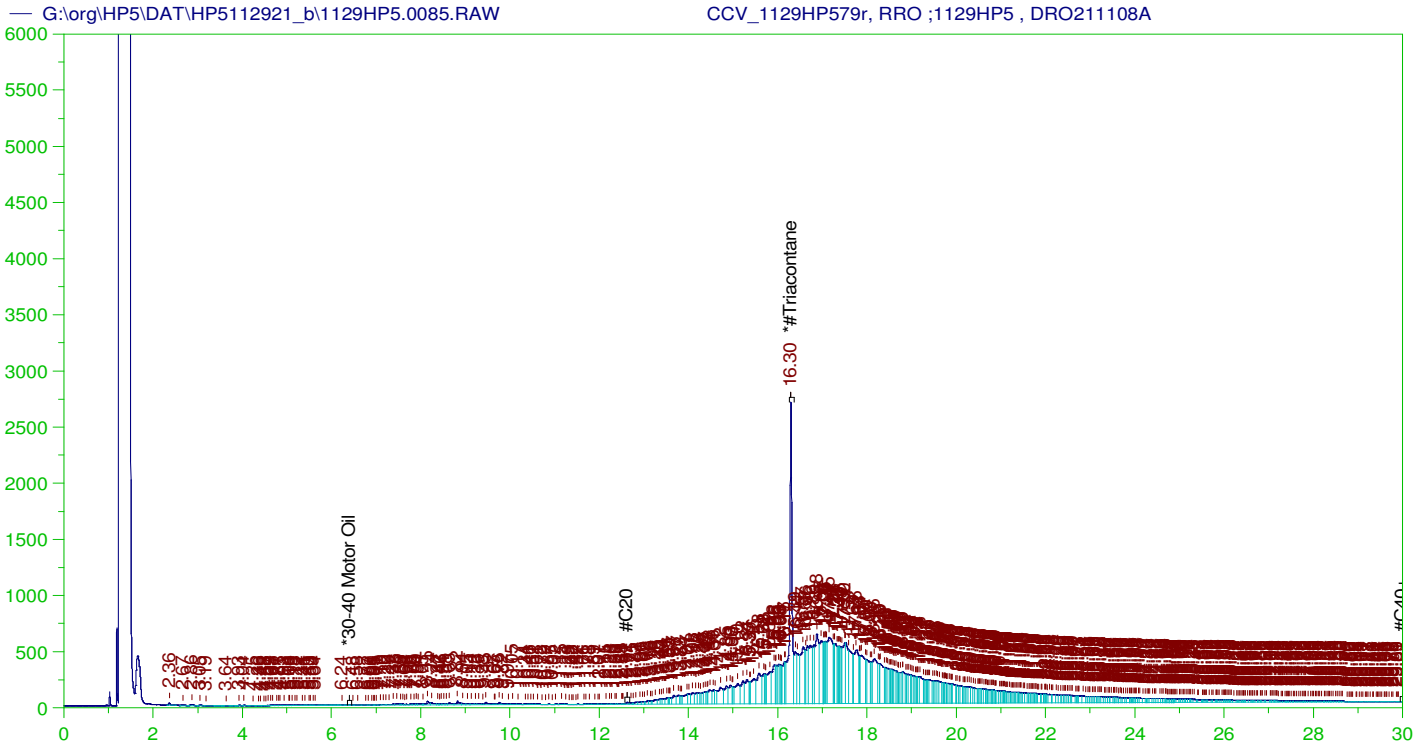
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MARKER\_1129HP578r, DRO ;1129HP5 , DRO211103B  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0084.RAW  
 Date & Time Acquired: 12/1/2021 9:43:50 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-ID-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102ID-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.54 to 14.39

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.23	.2	.225	112.34
*1-Chlorooctadecane	13.035	.2	.181	90.28

DRO Area: 8.018788E+07 DRO Amount: 2.557567  
 TEH Area: 1.231593E+08 TEH Amount: 3.928127



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP579r, RRO ;1129HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0085.RAW  
 Date & Time Acquired: 12/1/2021 10:26:42 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.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: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.295	500.	347.049	69.41	-

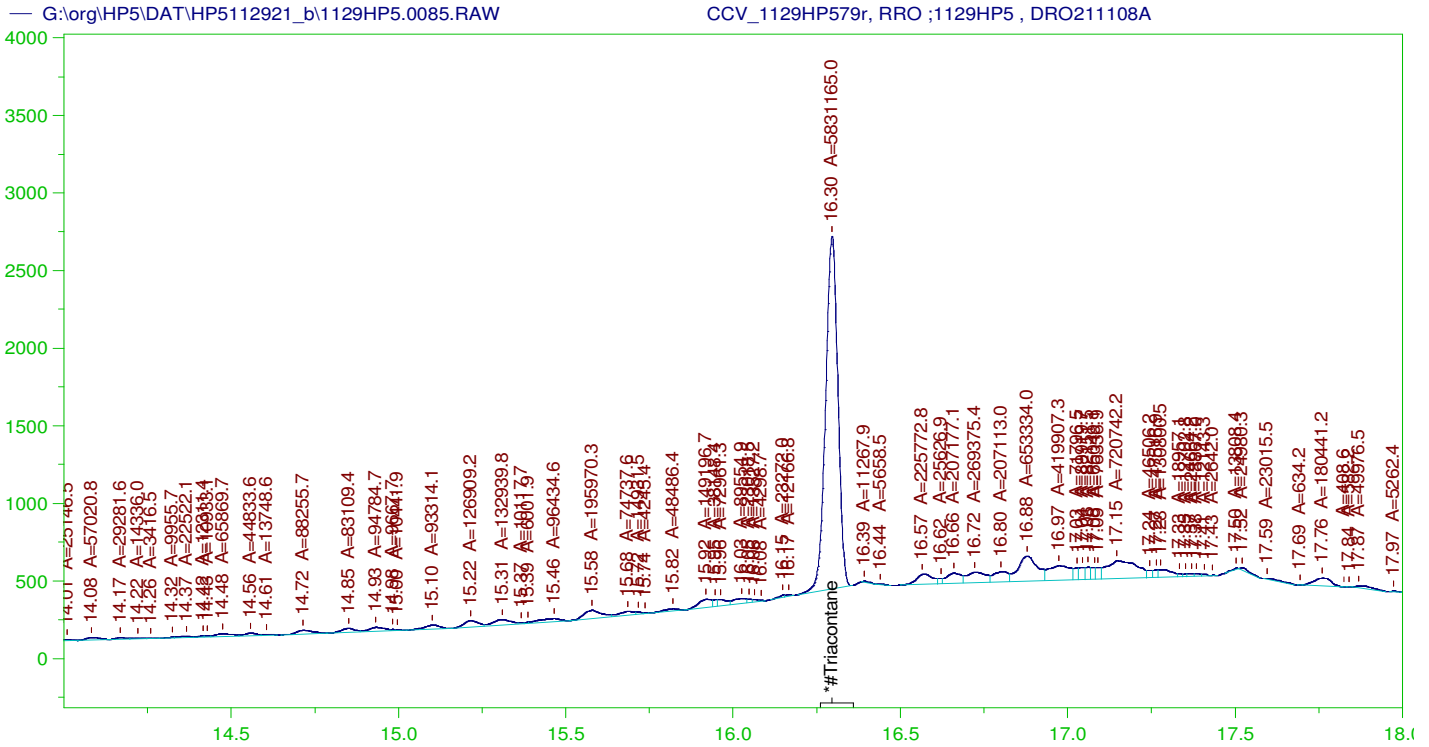
~~RRO~~ TEH(Oil Range) Area:1.35038E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4731.137

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0085.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.295	200.	347.049	173.52	75-125

AMN 12/14/2021



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1129HP579r, RRO ;1129HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0085.RAW  
 Date & Time Acquired: 12/1/2021 10:26:42 PM  
 Method File: G:\Org\HP5\Methods\DS\_OROb-AF-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AF.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

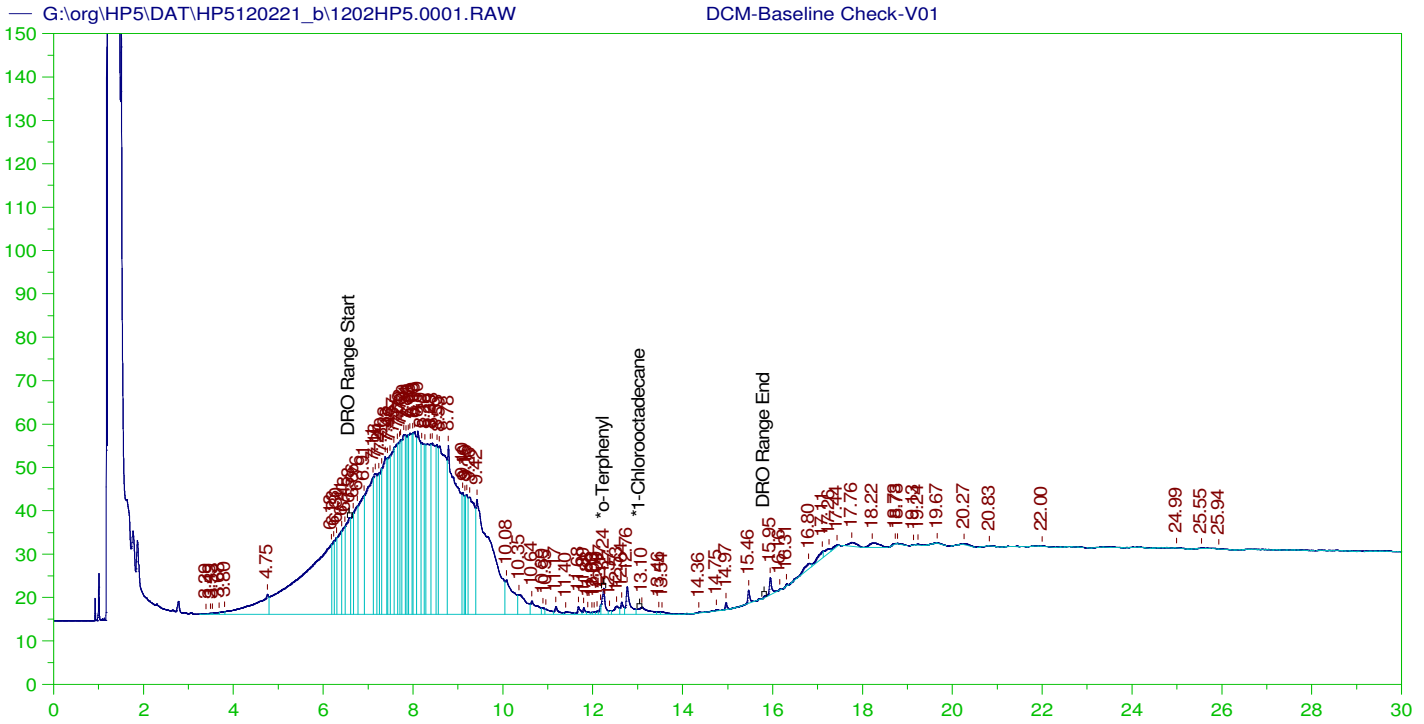
Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.58 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.295	500.	201.56	40.31	-

RRO Area:6372563 RRO AMOUNT: 223.2664

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5112921\_b\1129HP5.0085.RAW  
 COMPOUND ACTUAL (NG) MEASURED (NG) %RECOVERY LIMITS  
 \*30-40 Motor Oil 5000. . 75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.295	200.	201.56	100.78	75-125



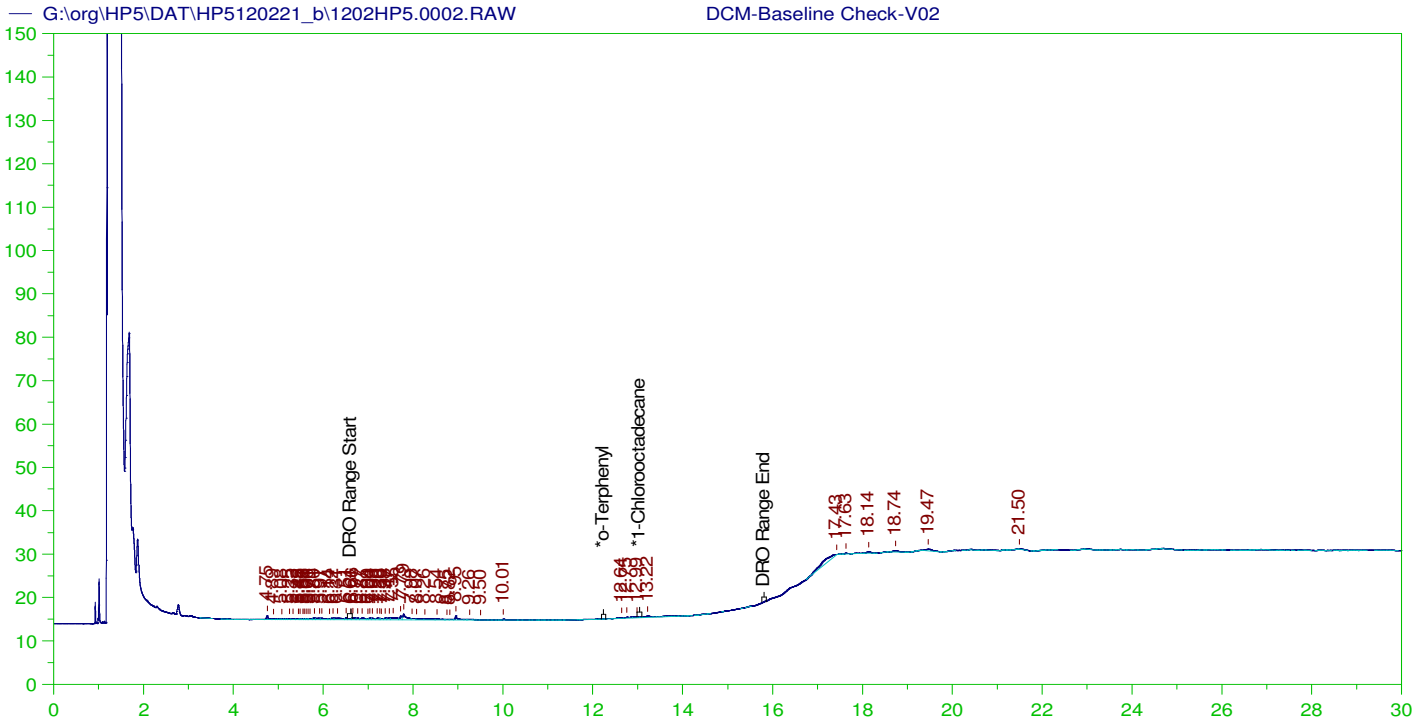
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V01  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0001.RAW  
 Date & Time Acquired: 12/2/2021 7:28:56 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	12.243	200.	.806	.4
*1-Chlorooctadecane	29.933	200.	.	.

DRO Area:6829441 DRO Amount: 217.8228  
 TEH Area:8161865 TEH Amount: 260.3201



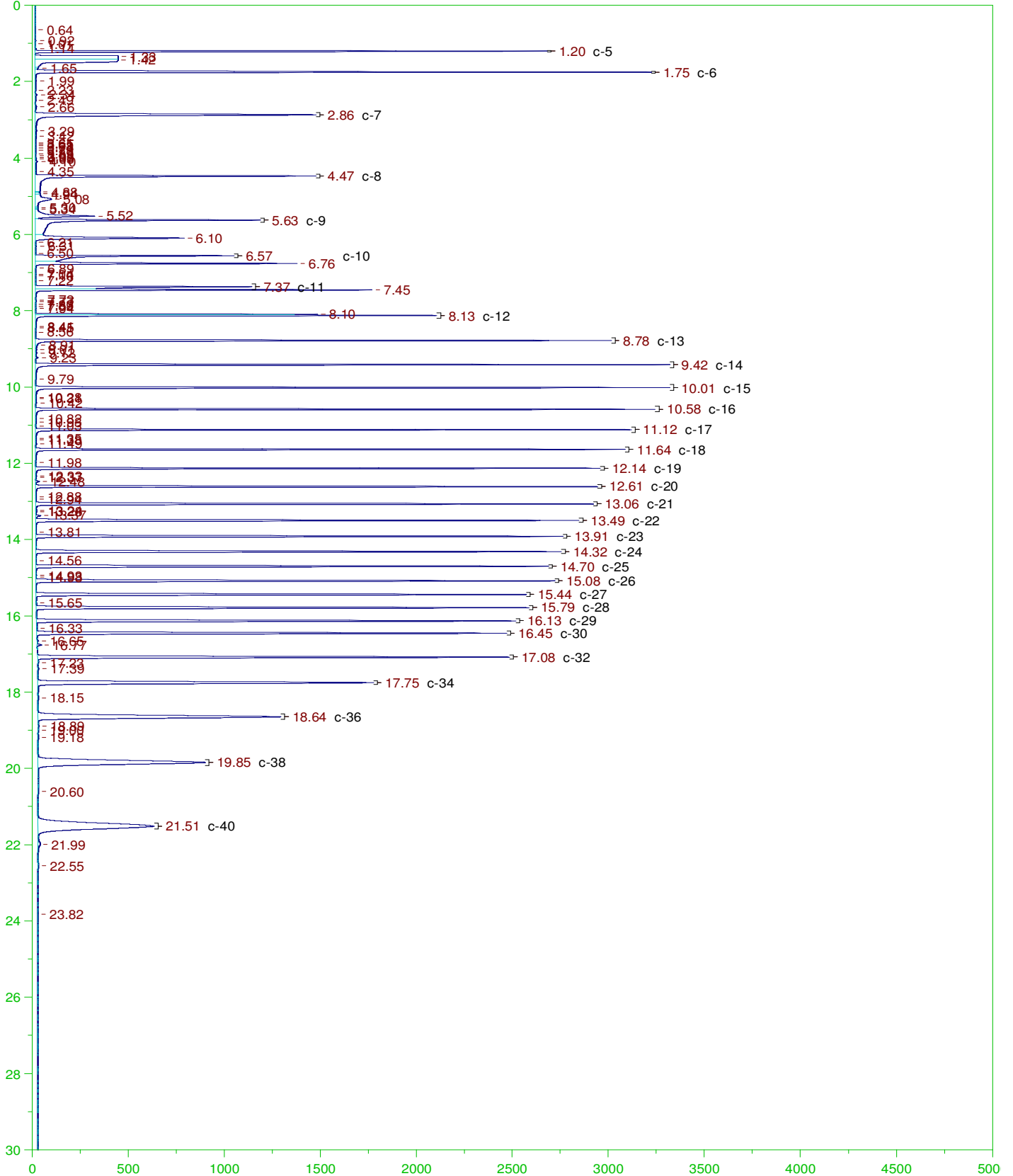
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V02  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0002.RAW  
 Date & Time Acquired: 12/2/2021 8:11:14 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

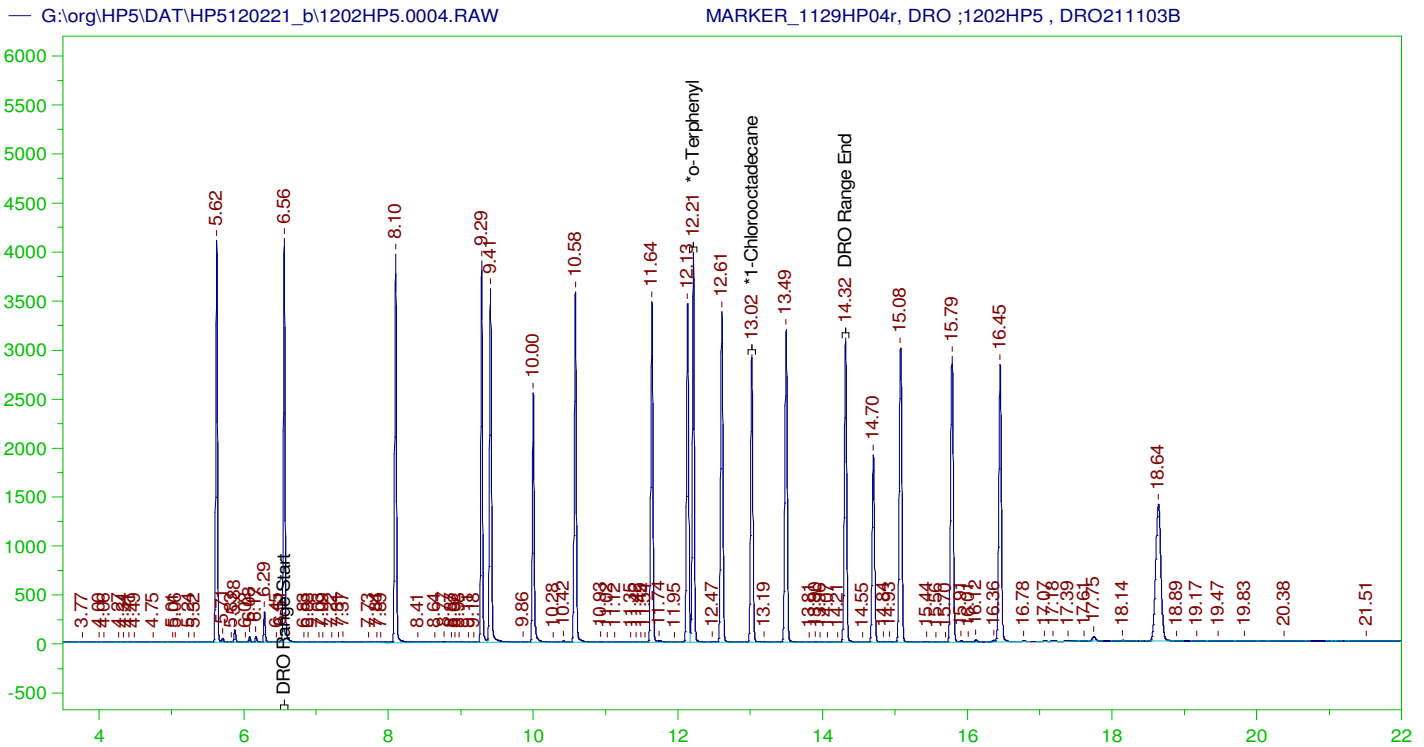
Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.54 to 15.86

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.793	200.	.	-
*1-Chlorooctadecane	29.793	200.	.	-

DRO Area:61212.94 DRO Amount: 1.952367  
 TEH Area:133810.2 TEH Amount: 4.267834







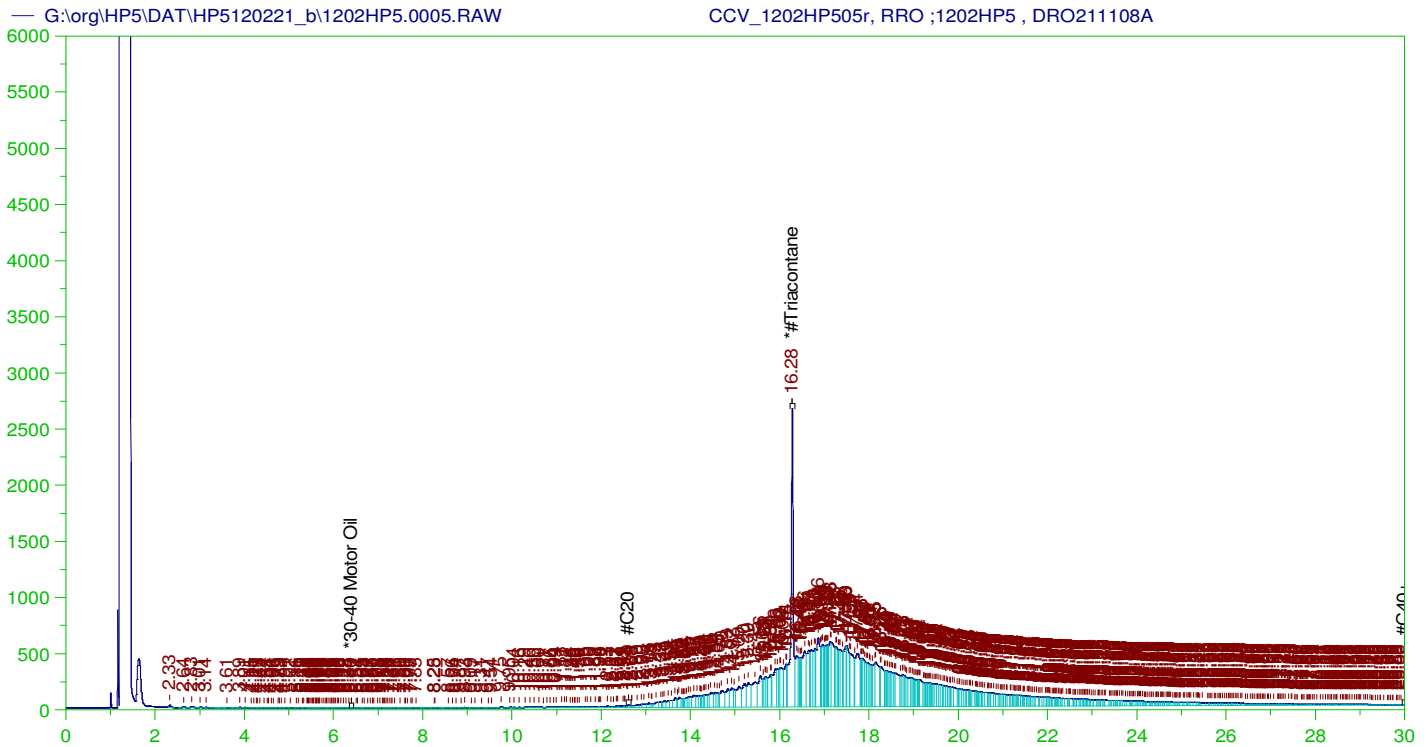
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MARKER\_1129HP04r, DRO ;1202HP5 , DRO211103B  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0004.RAW  
 Date & Time Acquired: 12/2/2021 9:36:15 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	12.214	.2	.214	106.91
*1-Chlorooctadecane	13.02	.2	.173	86.59

DRO Area: 7.33899E+07 DRO Amount: 2.340747  
 TEH Area: 1.147202E+08 TEH Amount: 3.658963



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1202HP505r, RRO ;1202HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0005.RAW  
 Date & Time Acquired: 12/2/2021 10:18:43 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	16.28	500.	339.024	67.8	-

~~RRO~~ TEH (Oil Range) Area:1.338474E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4689.42

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0005.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.042	.	75-125

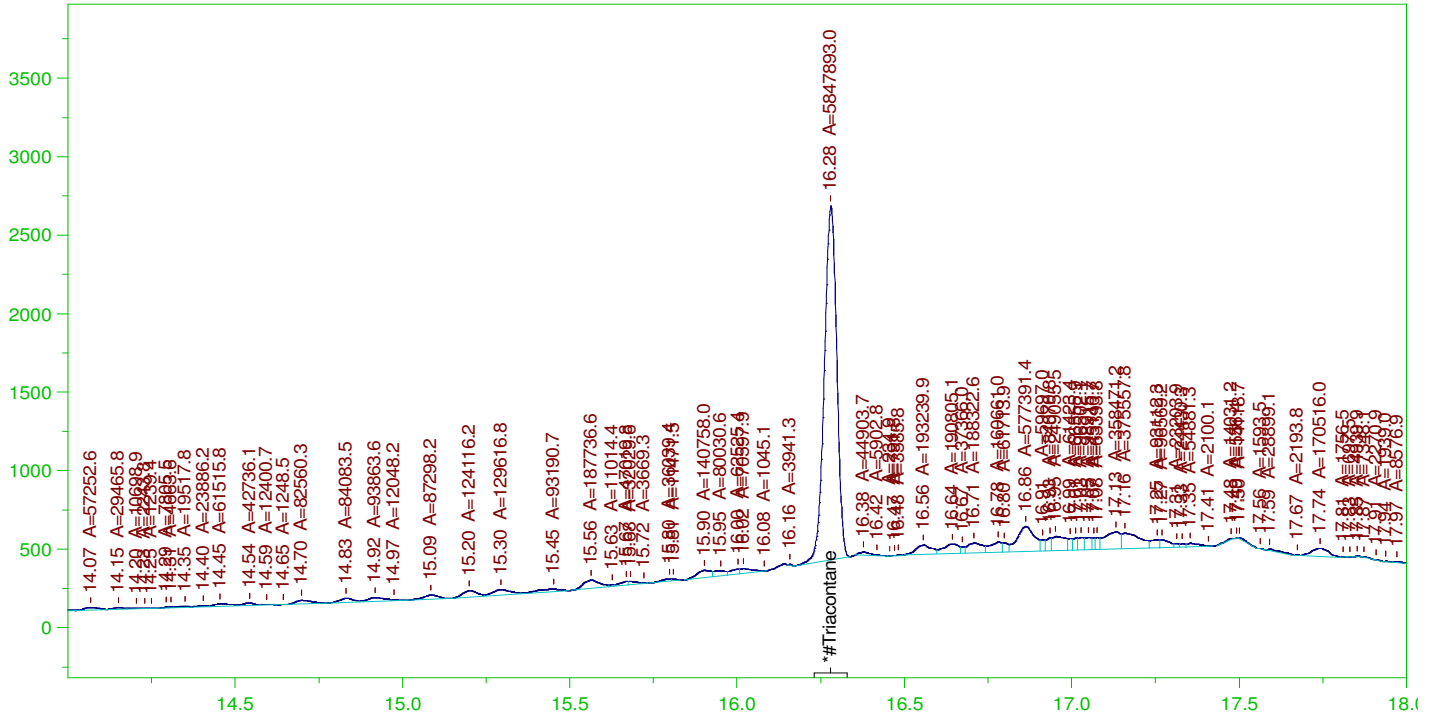
  

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.28	200.	339.024	169.51	75-125

AMN 12/14/2021

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0005.RAW

CCV\_1202HP505r, RRO ;1202HP5 , DRO211108A



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1202HP505r, RRO ;1202HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0005.RAW  
 Date & Time Acquired: 12/2/2021 10:18:43 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	16.28	500.	202.138	40.43	-

RRO Area:5952066 RRO AMOUNT: 208.5341

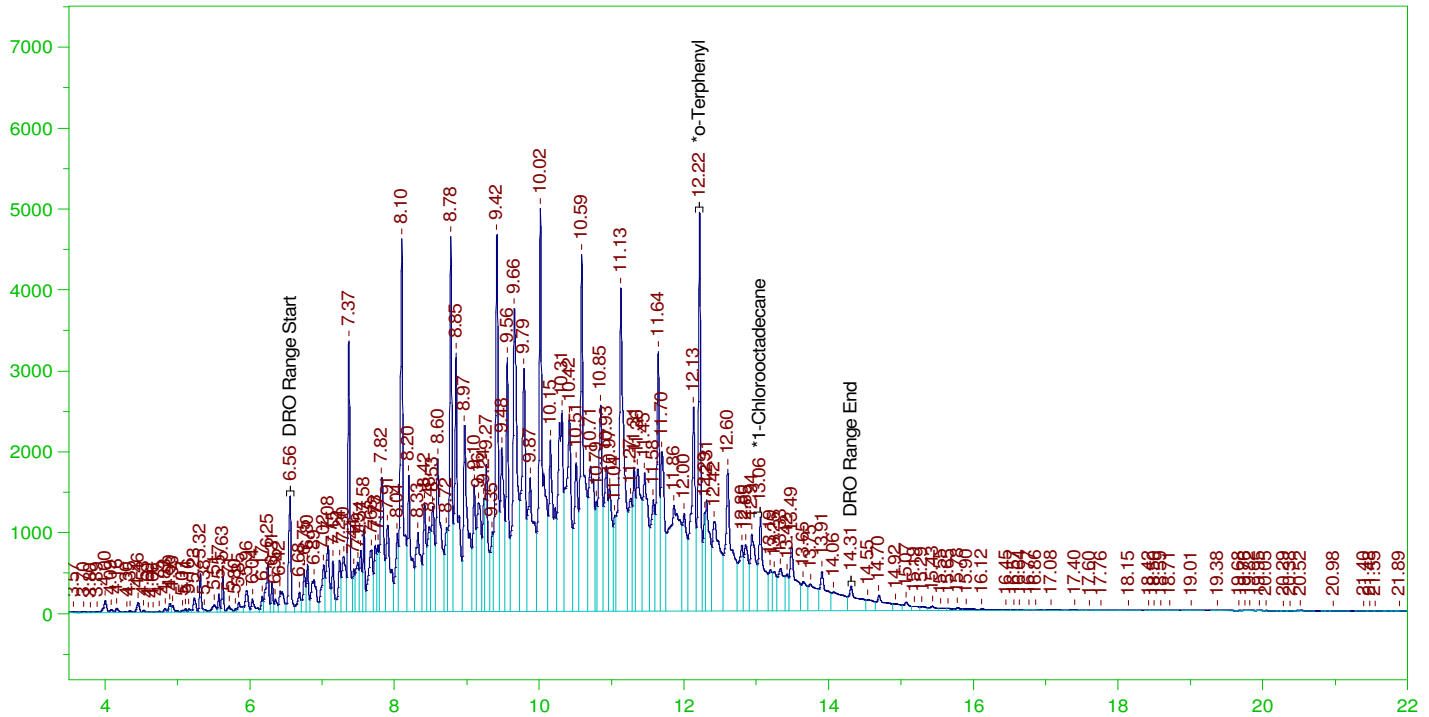
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0005.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.042	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.28	200.	202.138	101.07	75-125

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0006.RAW

CCV\_1202HP506r, DRO ;1202HP5 , DRO211124A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1202HP506r, DRO ;1202HP5 , DRO211124A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0006.RAW  
 Date & Time Acquired: 12/2/2021 11:01:21 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	12.217	200.	348.459	174.23
*1-Chlorooctadecane	13.055	200.	166.282	83.14

DRO Area: 4.873612E+08 DRO Amount: 15544.23  
 TEH Area: 5.041246E+08 TEH Amount: 16078.89

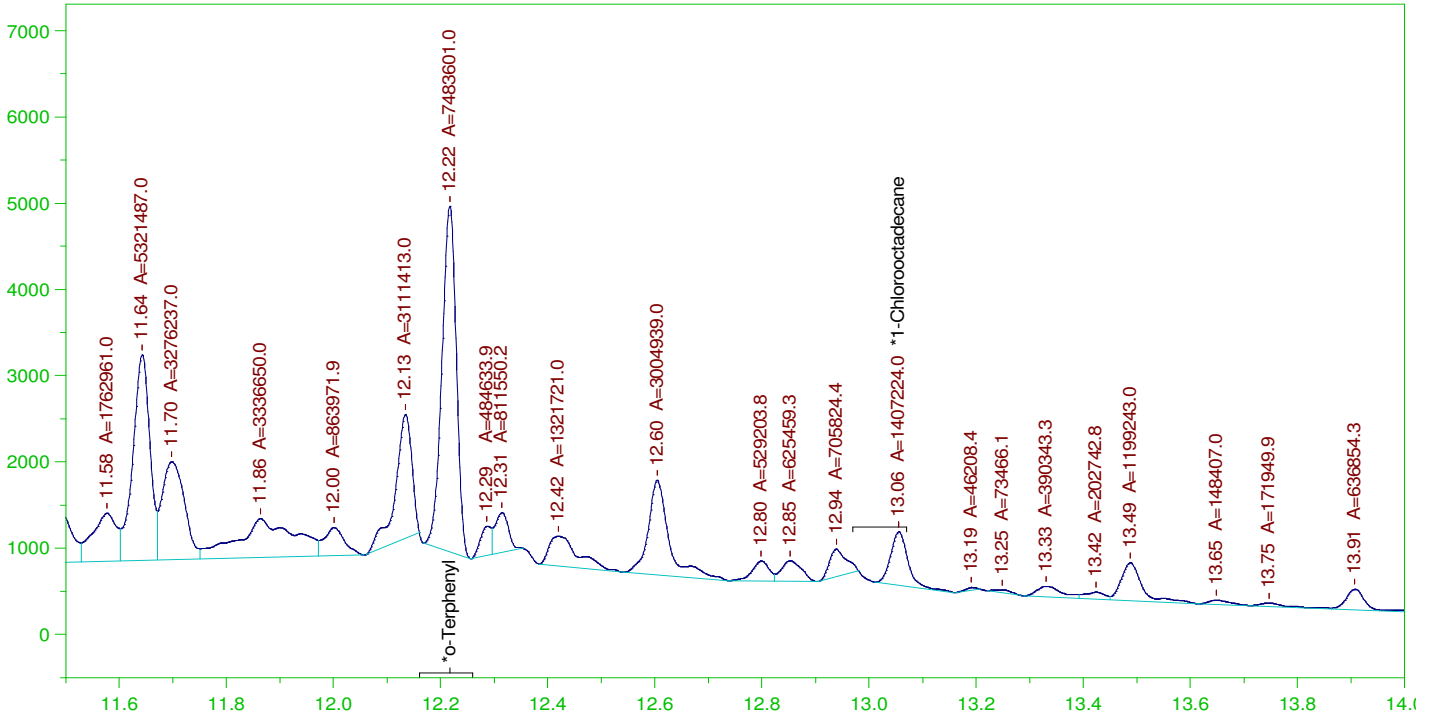
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0006.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	16078.89	107.19	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.217	200.	348.459	174.23	85-115
*1-Chlorooctadecane	13.055	200.	166.282	83.14	85-115

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0006.RAW

CCV\_1202HP506r, DRO ;1202HP5 , DRO211124A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1202HP506r, DRO ;1202HP5 , DRO211124A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0006.RAW  
 Date & Time Acquired: 12/2/2021 11:01:21 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

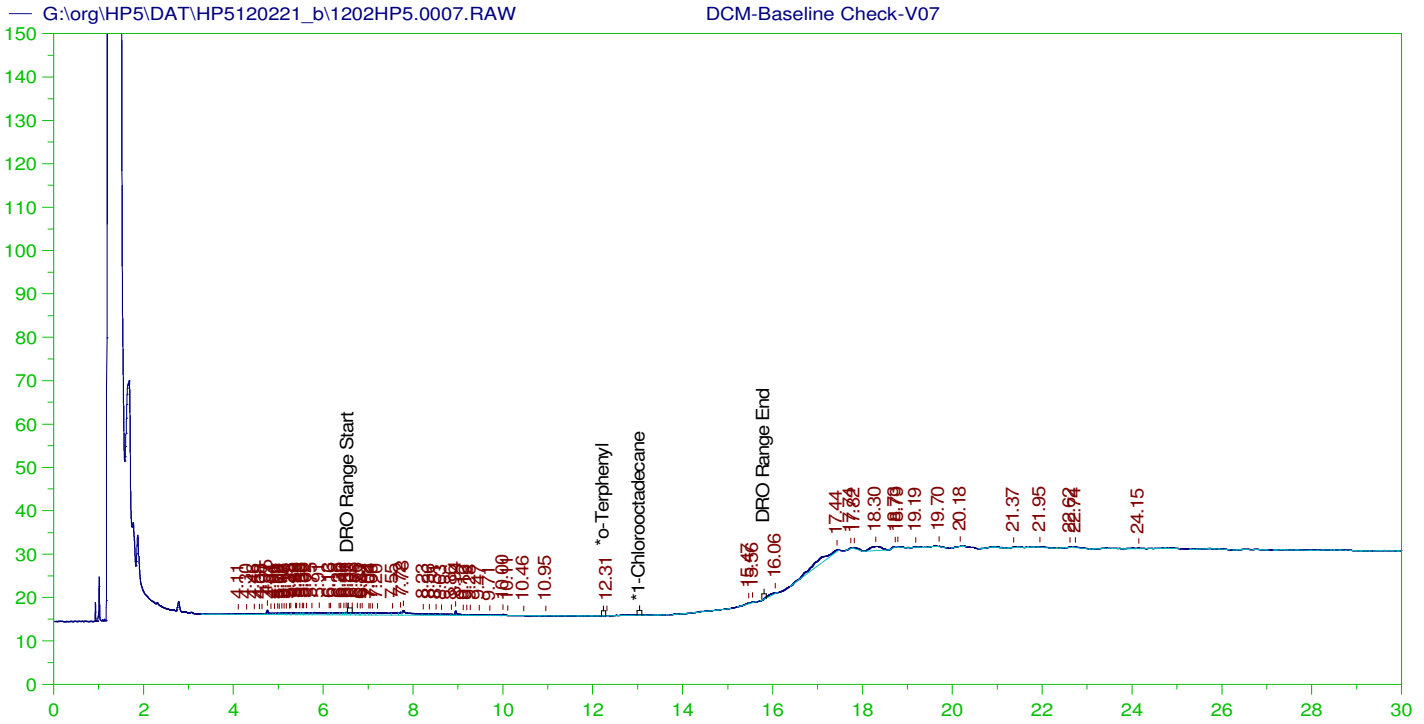
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.217	200.	210.751	105.38
*1-Chlorooctadecane	13.055	200.	39.63	19.81

DRO Area: 2.727722E+08 DRO Amount: 8699.982  
 TEH Area: 2.838335E+08 TEH Amount: 9052.777

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0006.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	9052.78	60.35	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.217	200.	210.751	105.38	85-115
*1-Chlorooctadecane	13.055	200.	39.63	19.81	85-115



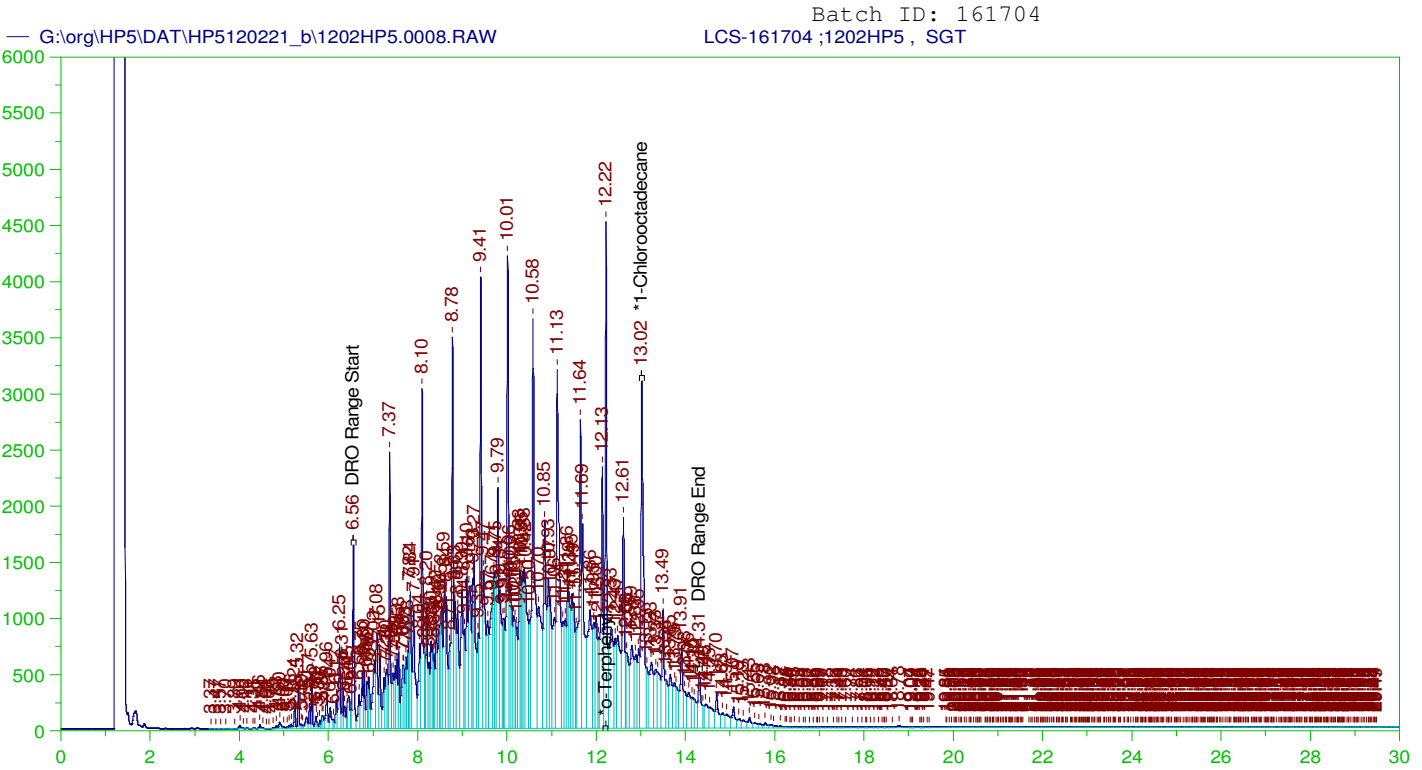
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V07  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0007.RAW  
 Date & Time Acquired: 12/2/2021 11:44:07 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	29.981	200.	.	-
*1-Chlorooctadecane	29.981	200.	.	-

DRO Area:89497.88 DRO Amount: 2.854506  
 TEH Area:232907.1 TEH Amount: 7.428498



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-161704 ;1202HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0008.RAW  
 Date & Time Acquired: 12/2/2021 12:26:46 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

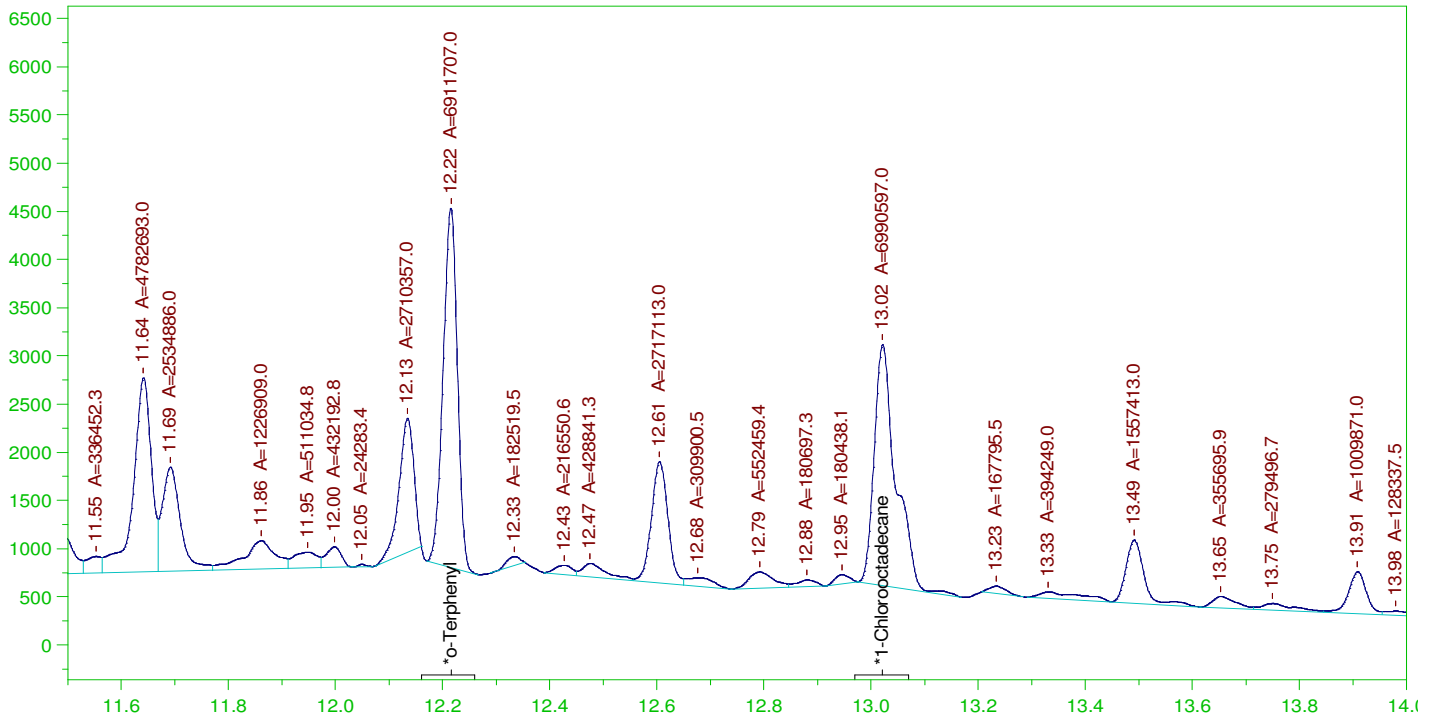
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.215	.2	.325	162.54
*1-Chlorooctadecane	13.022	.2	.336	168.17

DRO Area: 3.924554E+08 DRO Amount: 12.51724  
 TEH Area: 4.185685E+08 TEH Amount: 13.35011

Batch ID: 161704  
G:\org\HP5\DAT\HP5120221\_b\1202HP5.0008.RAW LCS-161704 ;1202HP5 , SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

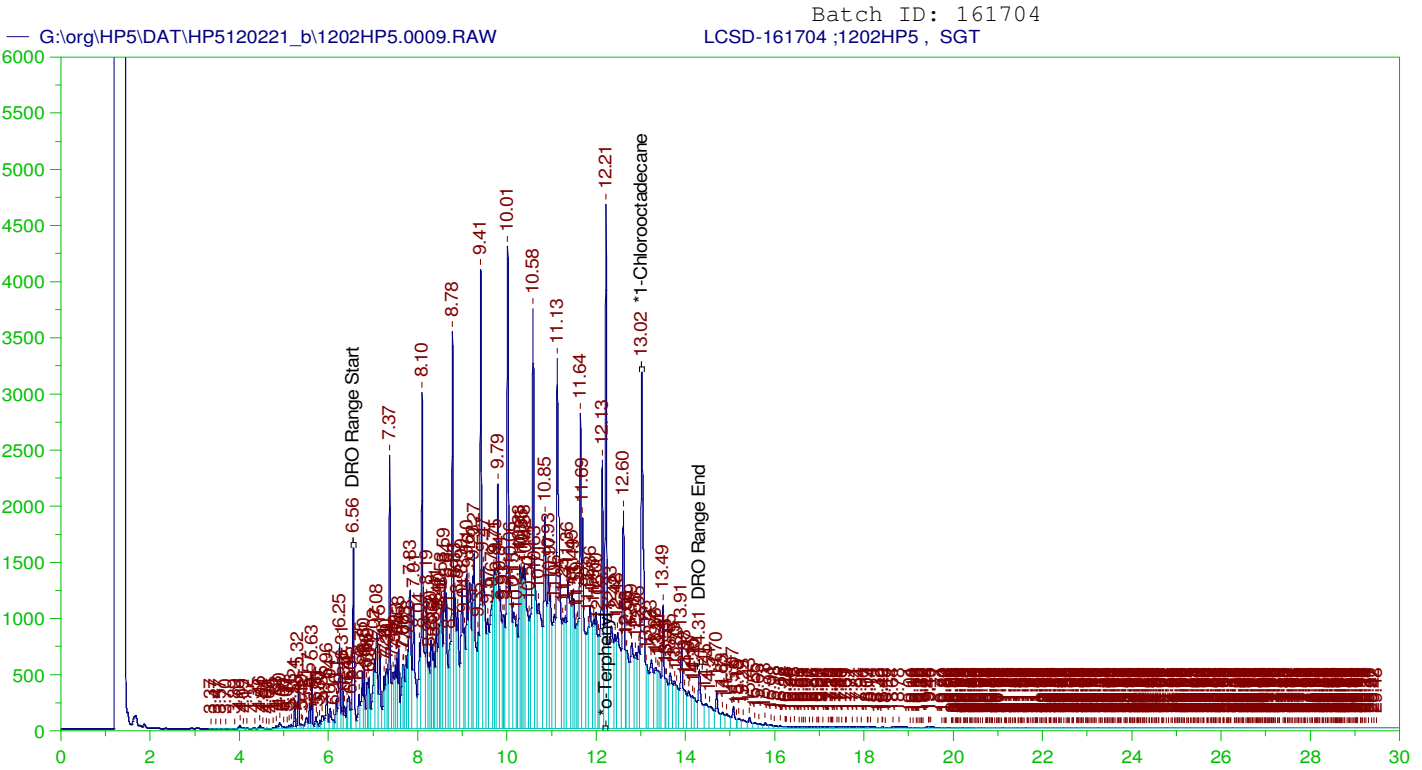
Sample Name: LCS-161704 ;1202HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0008.RAW  
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 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 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	12.215	.2	.195	97.32
*1-Chlorooctadecane	13.022	.2	.197	98.43

DRO Area:1.916339E+08 DRO Amount: 6.112101  
 TEH Area:2.031887E+08 TEH Amount: 6.480638





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCSD-161704 ;1202HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0009.RAW  
 Date & Time Acquired: 12/2/2021 1:09:25 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

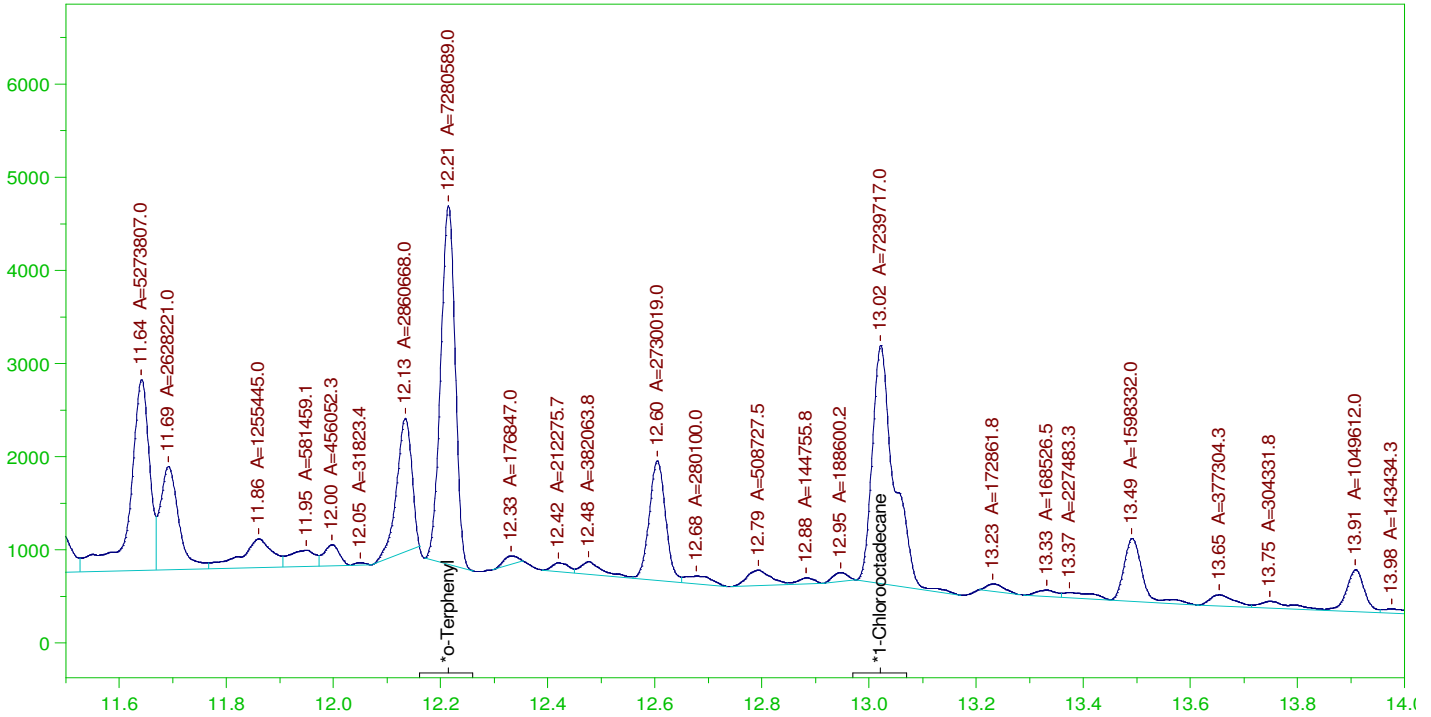
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.215	.2	.349	174.32	-
*1-Chlorooctadecane	13.022	.2	.342	171.02	-

DRO Area: 4.022283E+08 DRO Amount: 12.82894  
 TEH Area: 4.276766E+08 TEH Amount: 13.64061

Batch ID: 161704  
G:\org\HP5\DAT\HP5120221\_b\1202HP5.0009.RAW LCSD-161704 ;1202HP5 , SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

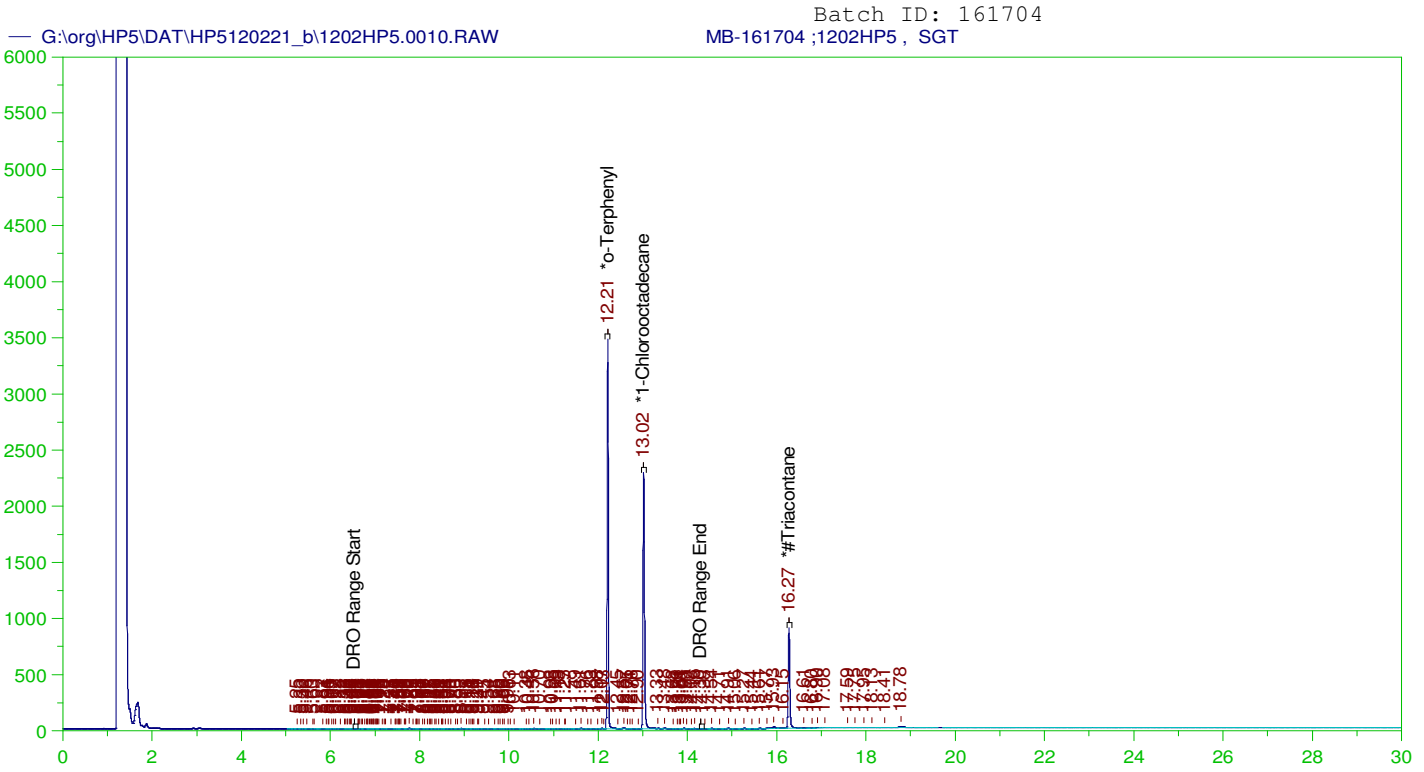
Sample Name: LCSD-161704 ;1202HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0009.RAW  
 Date & Time Acquired: 12/2/2021 1:09:25 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 Dilution: 1 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	12.215	.2	.205	102.52
*1-Chlorooctadecane	13.022	.2	.204	101.94

DRO Area: 1.948447E+08 DRO Amount: 6.21451  
 TEH Area: 2.063854E+08 TEH Amount: 6.582598



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

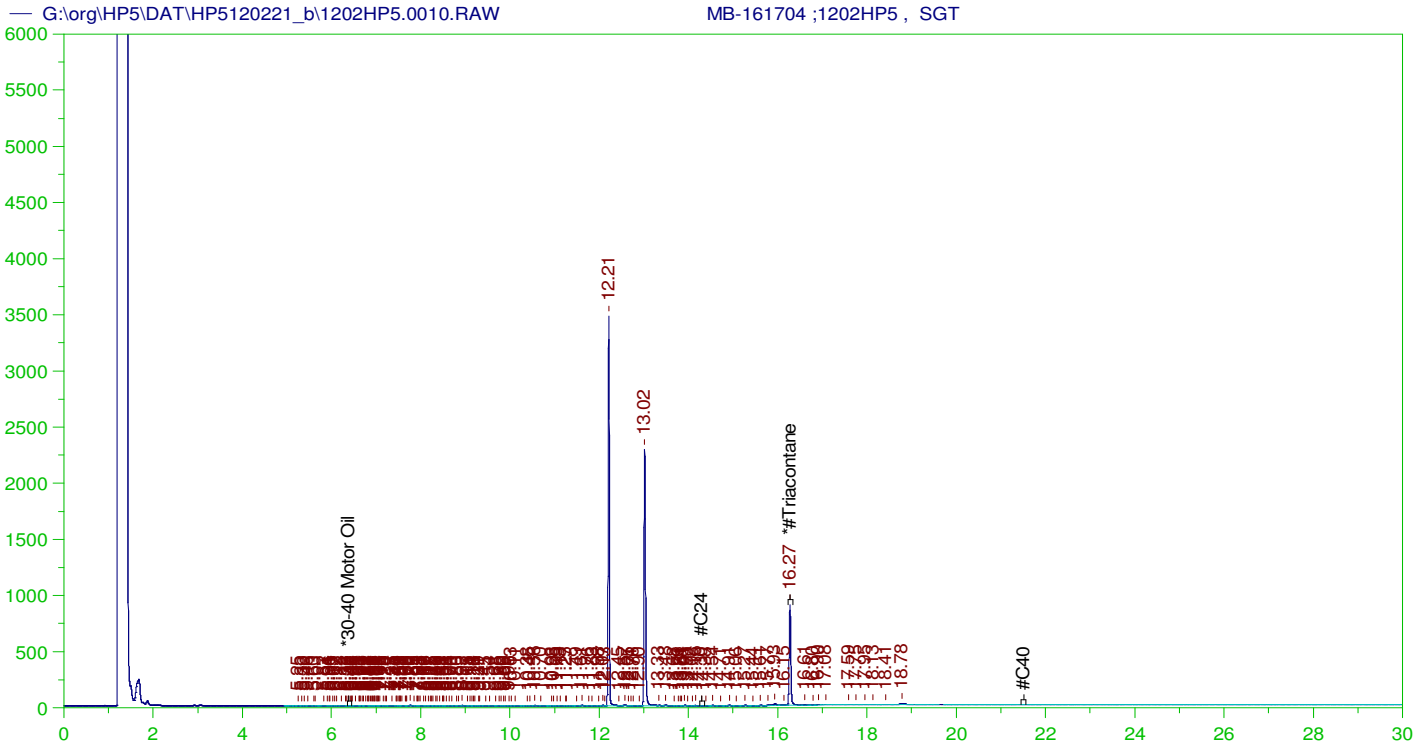
Sample Name: MB-161704 ;1202HP5 , SGT  
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 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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	12.21	.2	.189	94.53	-
*1-Chlorooctadecane	13.018	.2	.147	73.34	-
*#Triacontane	16.272	.2	.085	42.47	-

DRO Area:389860.2 DRO Amount: 1.243447E-02  
 TEH Area:637285.2 TEH Amount: 2.032601E-02



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

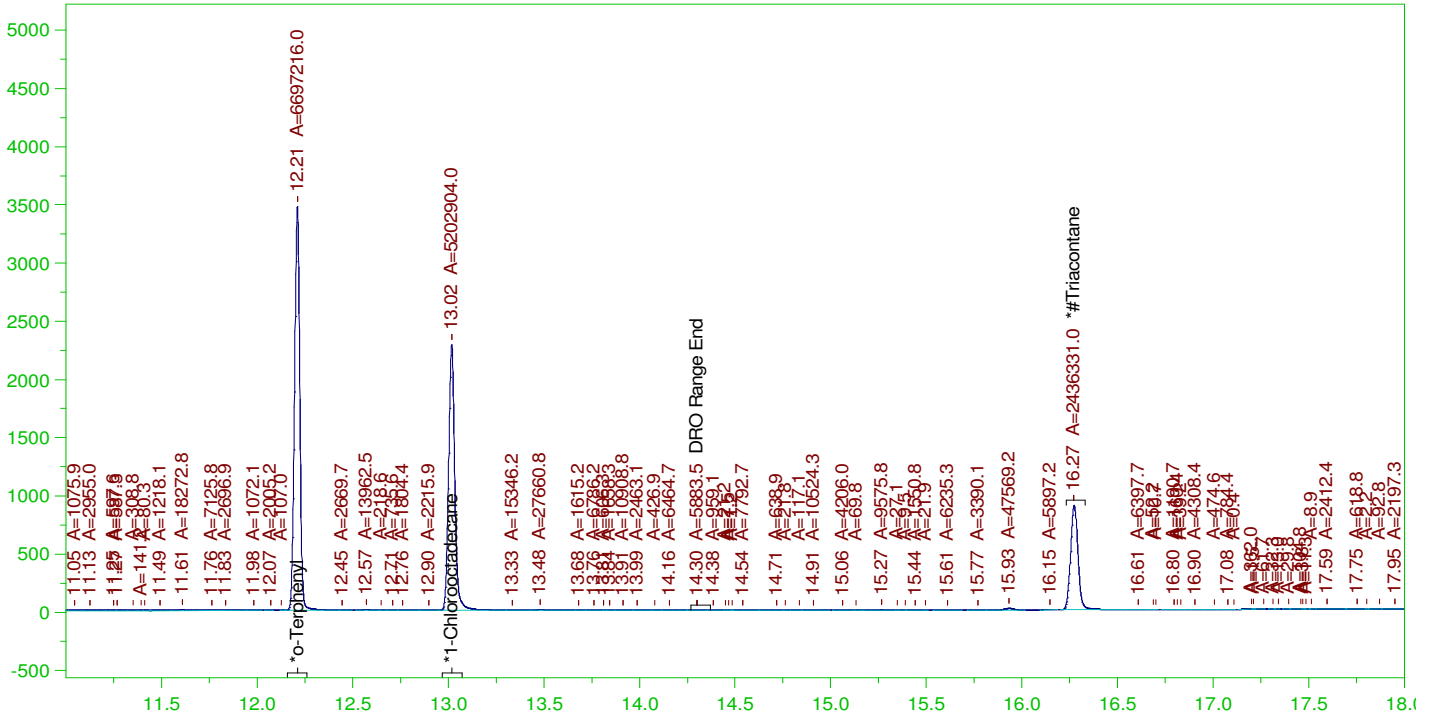
Sample Name: MB-161704 ;1202HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0010.RAW  
 Date & Time Acquired: 12/2/2021 1:52:21 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-SAMP.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 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	16.272	.5	.085	16.99

RRO Area:191769.6 RRO AMOUNT: 6.718759E-03

Batch ID: 161704  
G:\org\HP5\DAT\HP5120221\_b\1202HP5.0010.RAW MB-161704 ;1202HP5 , SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-161704 ;1202HP5 , SGT  
Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0010.RAW  
Date & Time Acquired: 12/2/2021 1:52:21 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: 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	12.21	.2	.189	94.3	-
*1-Chlorooctadecane	13.018	.2	.147	73.26	-
*#Triacontane	16.272	.2	.084	42.11	-

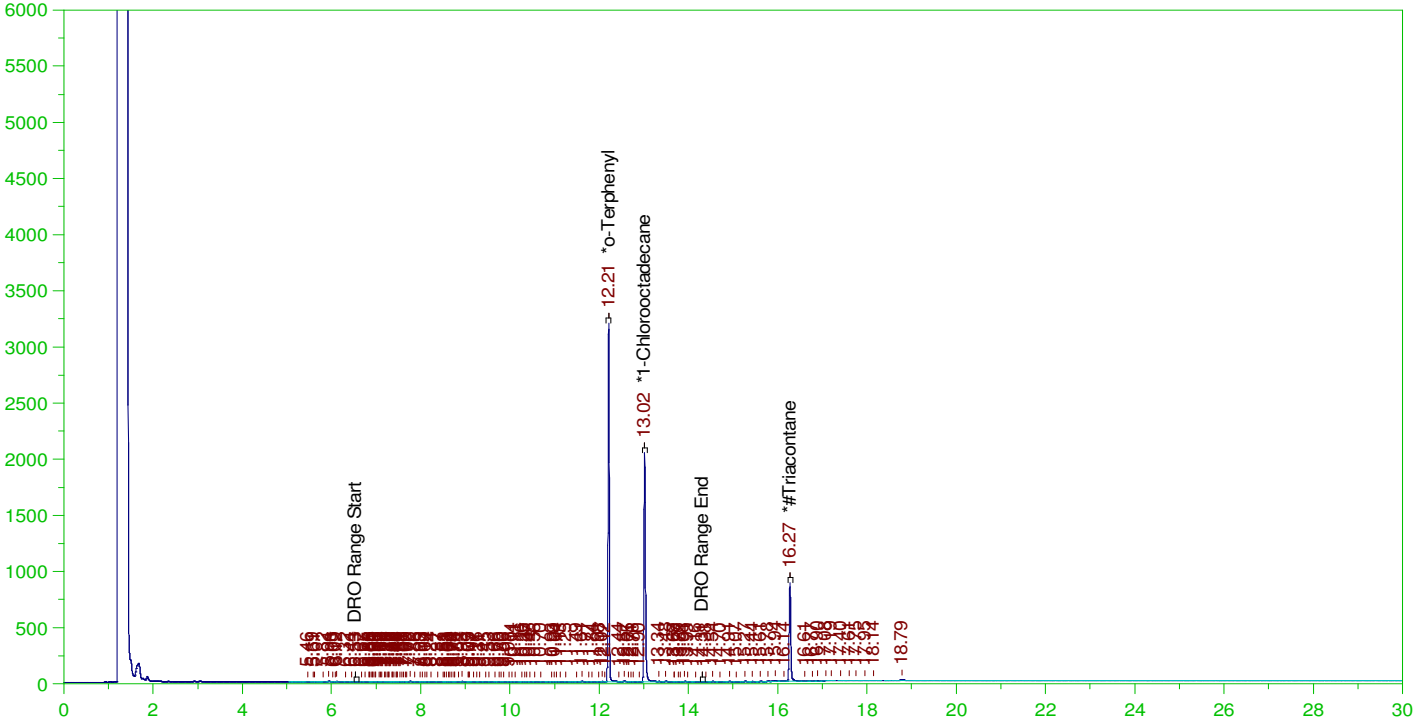
DRO Area:379552.3 DRO Amount: 0.0121057  
TEH Area:666845.4 TEH Amount: 2.126882E-02

ERH1720 (RHMW13 Zone 4)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0011.RAW

B21112206-001A ;1202HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112206-001A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0011.RAW  
 Date & Time Acquired: 12/2/2021 2:35:19 PM  
 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: 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	12.208	.208	.18	86.4	-
*1-Chlorooctadecane	13.016	.208	.138	66.24	-
*#Triacontane	16.271	.208	.086	41.26	-

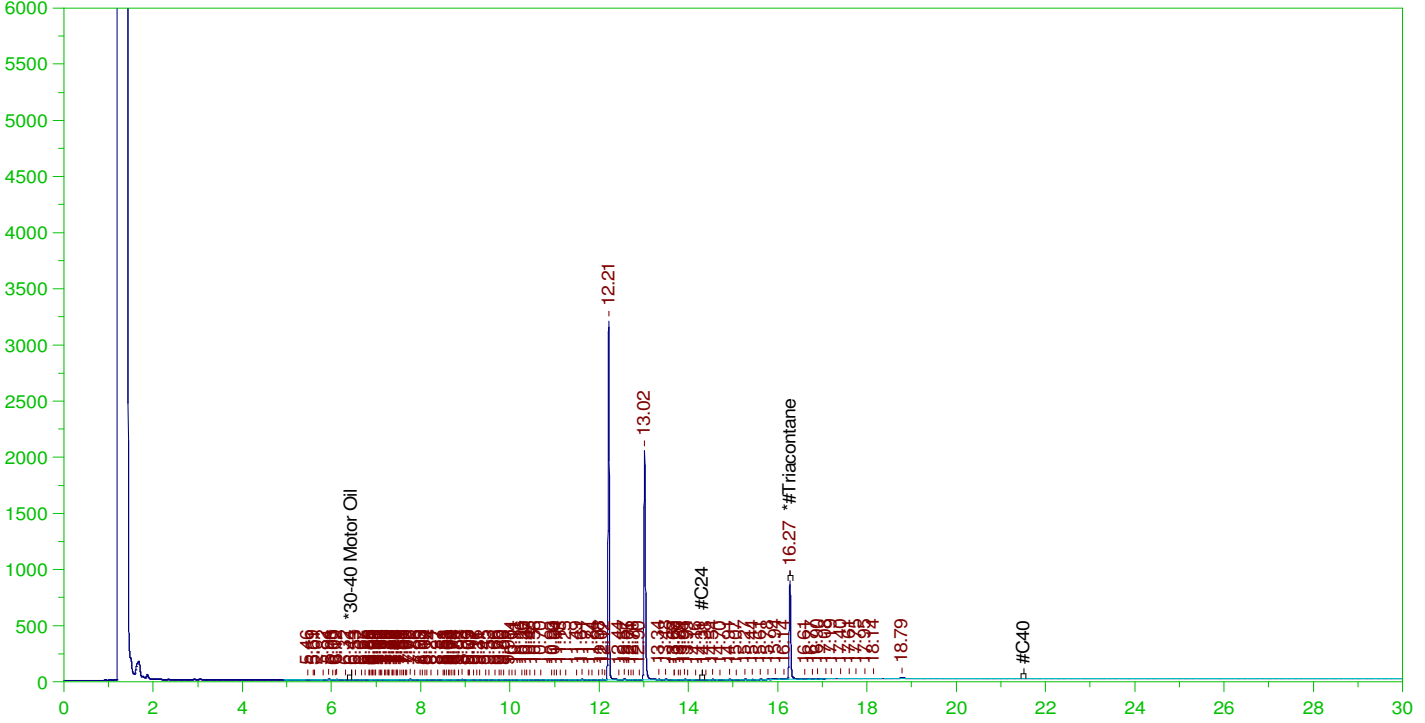
DRO Area:367212.3 DRO Amount: 1.220012E-02  
 TEH Area:610701.3 TEH Amount: 2.028971E-02

ERH1720 (RHMW13 Zone 4)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0011.RAW

B21112206-001A ;1202HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112206-001A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0011.RAW  
 Date & Time Acquired: 12/2/2021 2:35:19 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-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	16.271	.521	.086	16.5

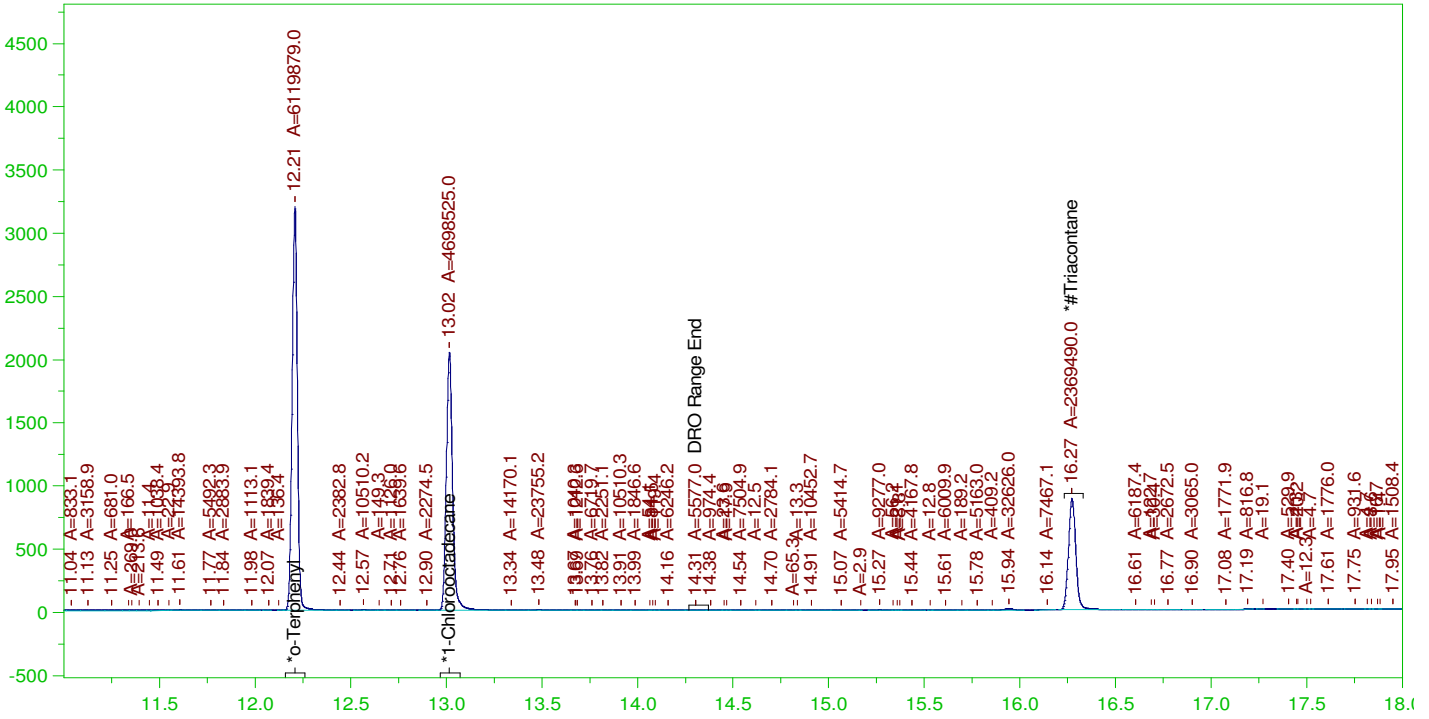
RRO Area:171850 RRO AMOUNT: 6.271733E-03

ERH1720 (RHMW13 Zone 4)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0011.RAW

B21112206-001A ;1202HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112206-001A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0011.RAW  
 Date & Time Acquired: 12/2/2021 2:35:19 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	12.208	.208	.18	86.17	-
*1-Chlorooctadecane	13.016	.208	.138	66.16	-
*#Triacontane	16.271	.208	.085	40.95	-

DRO Area:364799 DRO Amount: 1.211995E-02  
 TEH Area:654371.6 TEH Amount: 0.0217406

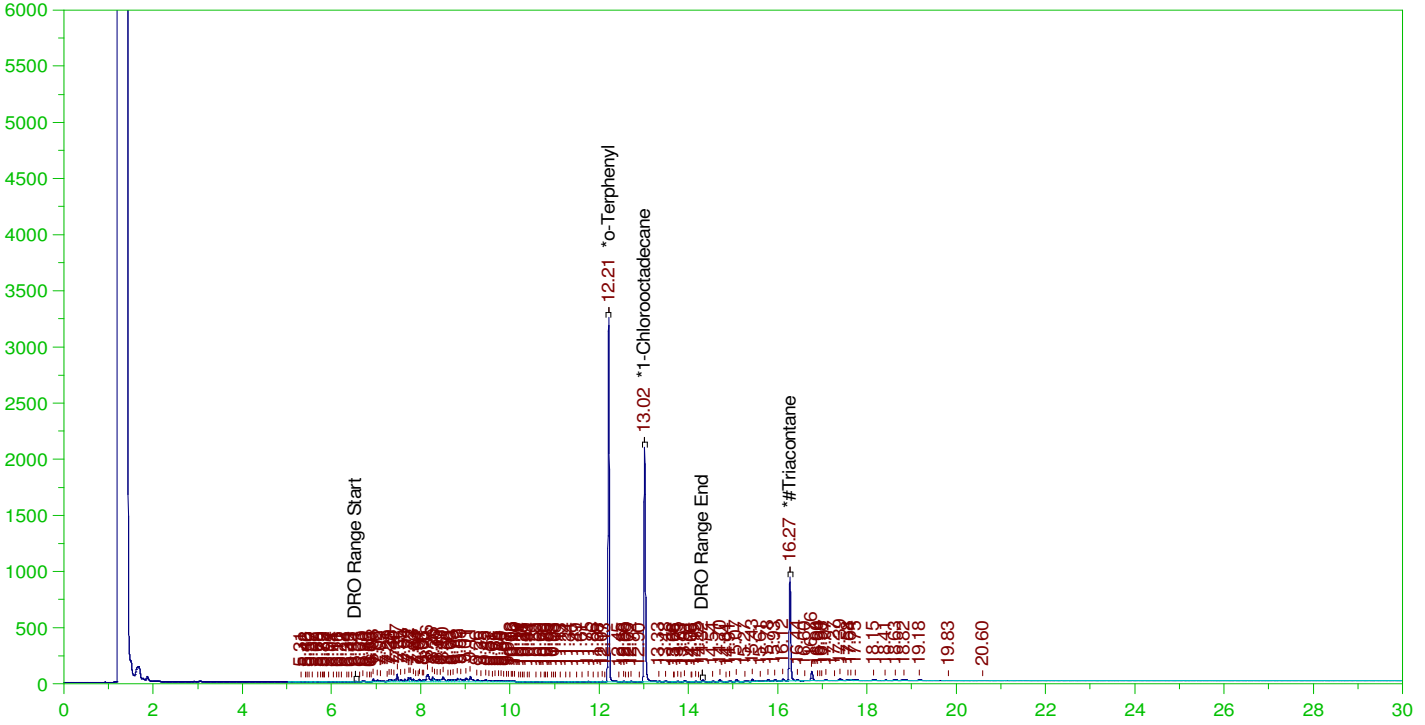


ERH1957 (RHMW01R)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0012.RAW

B21112212-004A ;1202HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-004A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0012.RAW  
 Date & Time Acquired: 12/2/2021 3:18:07 PM  
 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: 1045 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	12.208	.191	.167	87.48	-
*1-Chlorooctadecane	13.015	.191	.128	66.67	-
*#Triacontane	16.271	.191	.082	42.89	-

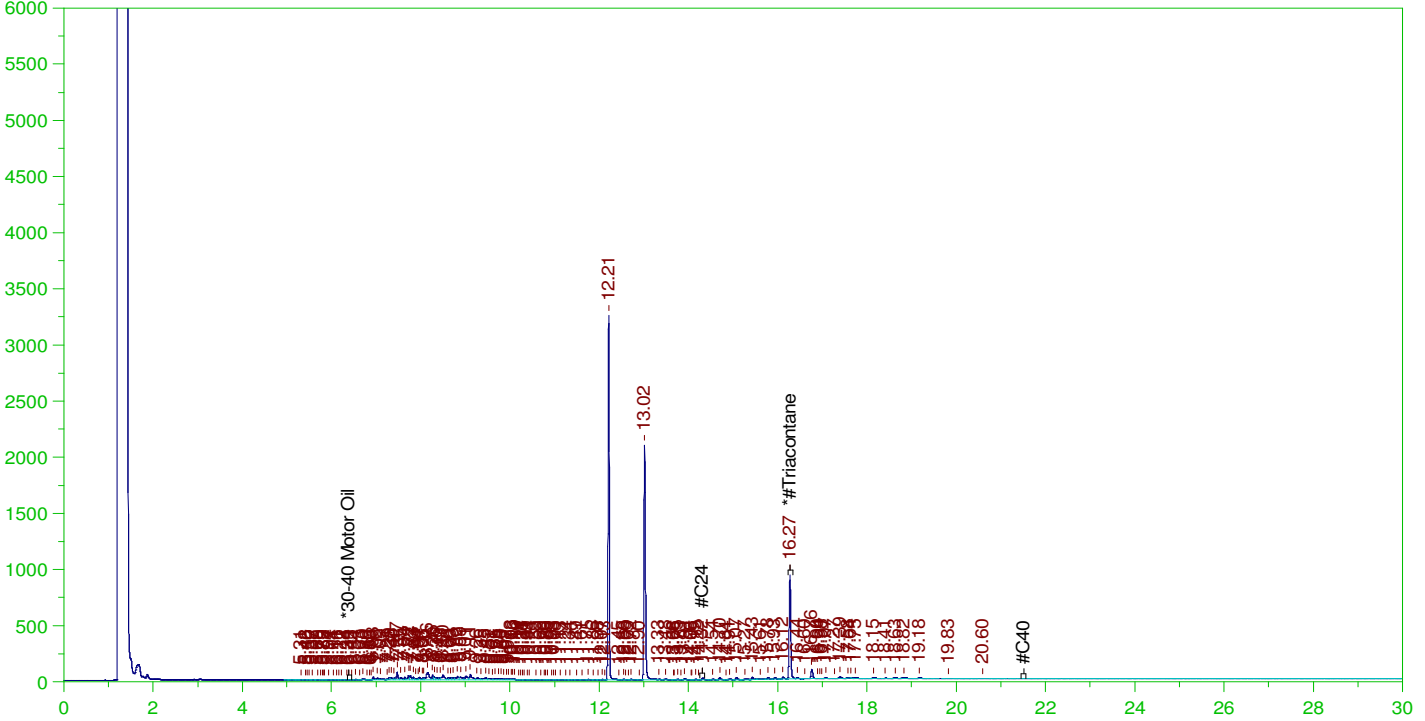
DRO Area:3573302 DRO Amount: 0.1090615  
 TEH Area:4465125 TEH Amount: 0.1362811

ERH1957 (RHMW01R)

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0012.RAW

Batch ID: 161704

B21112212-004A ;1202HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-004A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0012.RAW  
 Date & Time Acquired: 12/2/2021 3:18:07 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-SAMP.CAL  
 Sample Weight: 1045 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.271	.478	.082	17.16

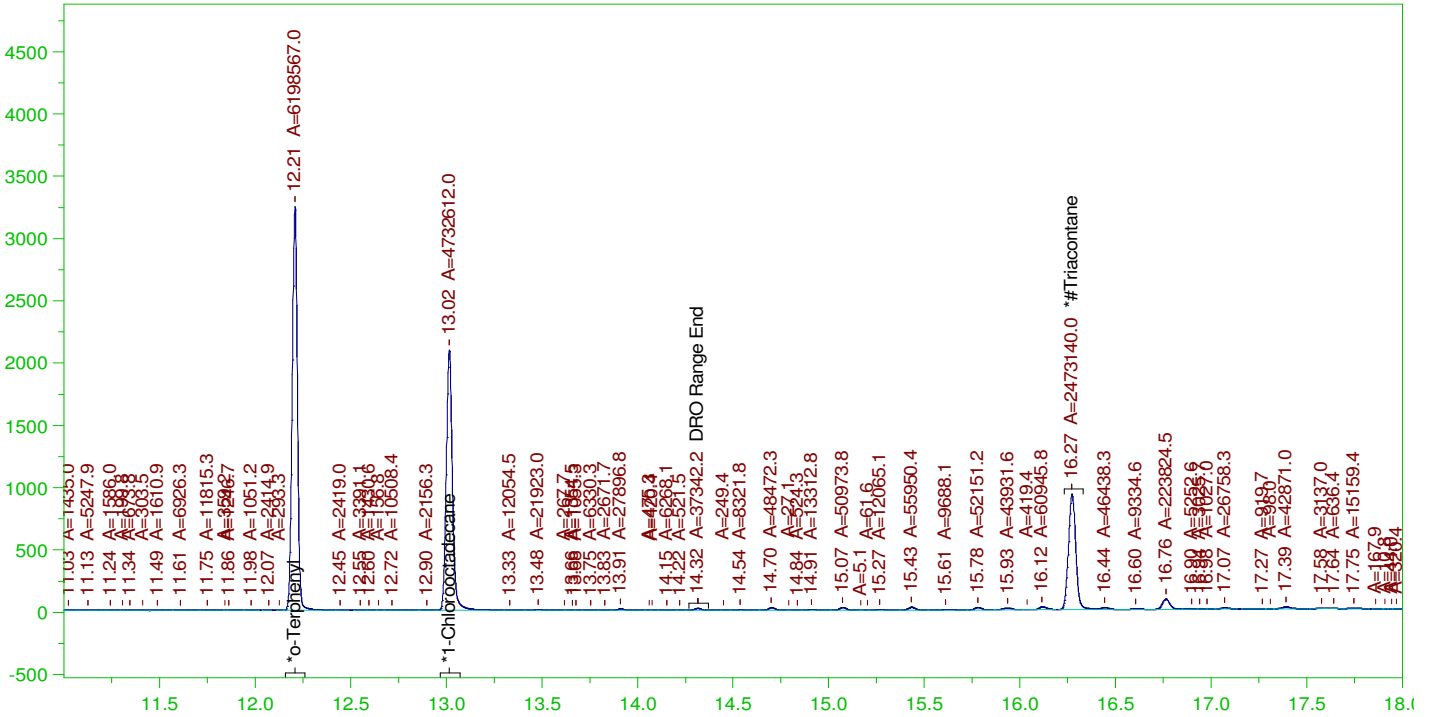
RRO Area:845855.4 RRO AMOUNT: 2.835889E-02

ERH1957 (RHMW01R)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0012.RAW

B21112212-004A ;1202HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-004A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0012.RAW  
 Date & Time Acquired: 12/2/2021 3:18:07 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: 1045 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	12.208	.191	.167	87.28
*1-Chlorooctadecane	13.015	.191	.128	66.64
*#Triacontane	16.271	.191	.082	42.74

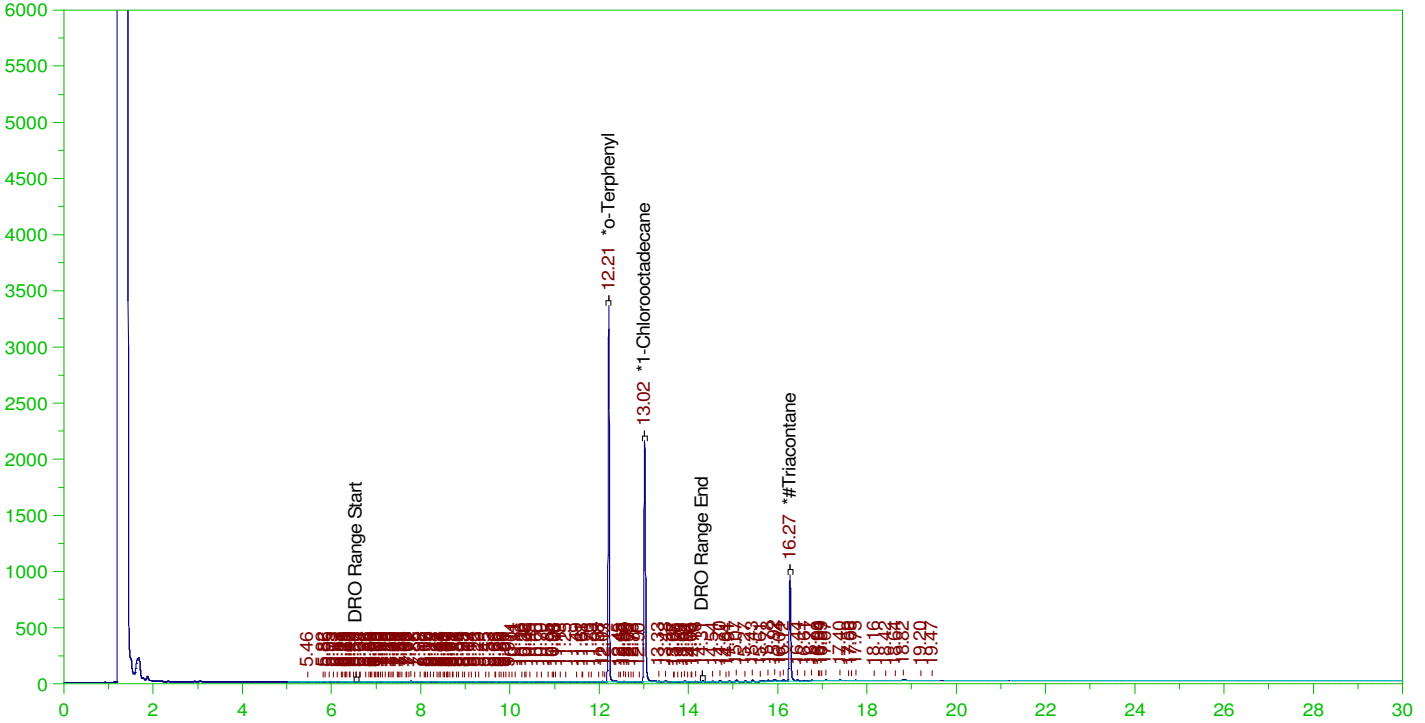
DRO Area:3578052 DRO Amount: 0.1092065  
 TEH Area:4506955 TEH Amount: 0.1375578

ERH1954 (RHMW03)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0013.RAW

B21112212-003A ;1202HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-003A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0013.RAW  
 Date & Time Acquired: 12/2/2021 4:00:52 PM  
 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: 1025 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	12.21	.195	.177	90.76	-
*1-Chlorooctadecane	13.017	.195	.137	70.01	-
*#Triacontane	16.272	.195	.087	44.36	-

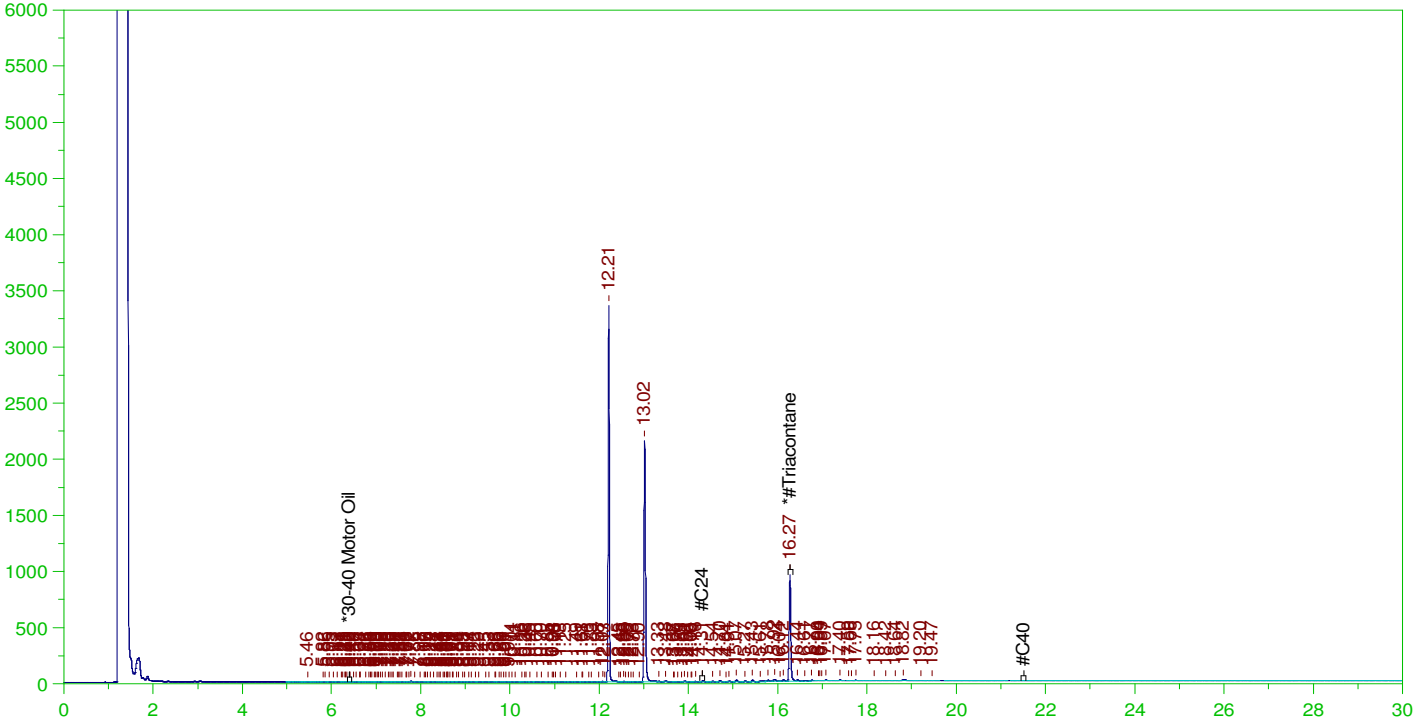
DRO Area:365919.9 DRO Amount: 1.138624E-02  
 TEH Area:828937.3 TEH Amount: 2.579384E-02

ERH1954 (RHMW03)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0013.RAW

B21112212-003A ;1202HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-003A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0013.RAW  
 Date & Time Acquired: 12/2/2021 4:00:52 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-SAMP.CAL  
 Sample Weight: 1025 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	16.272	.488	.087	17.74

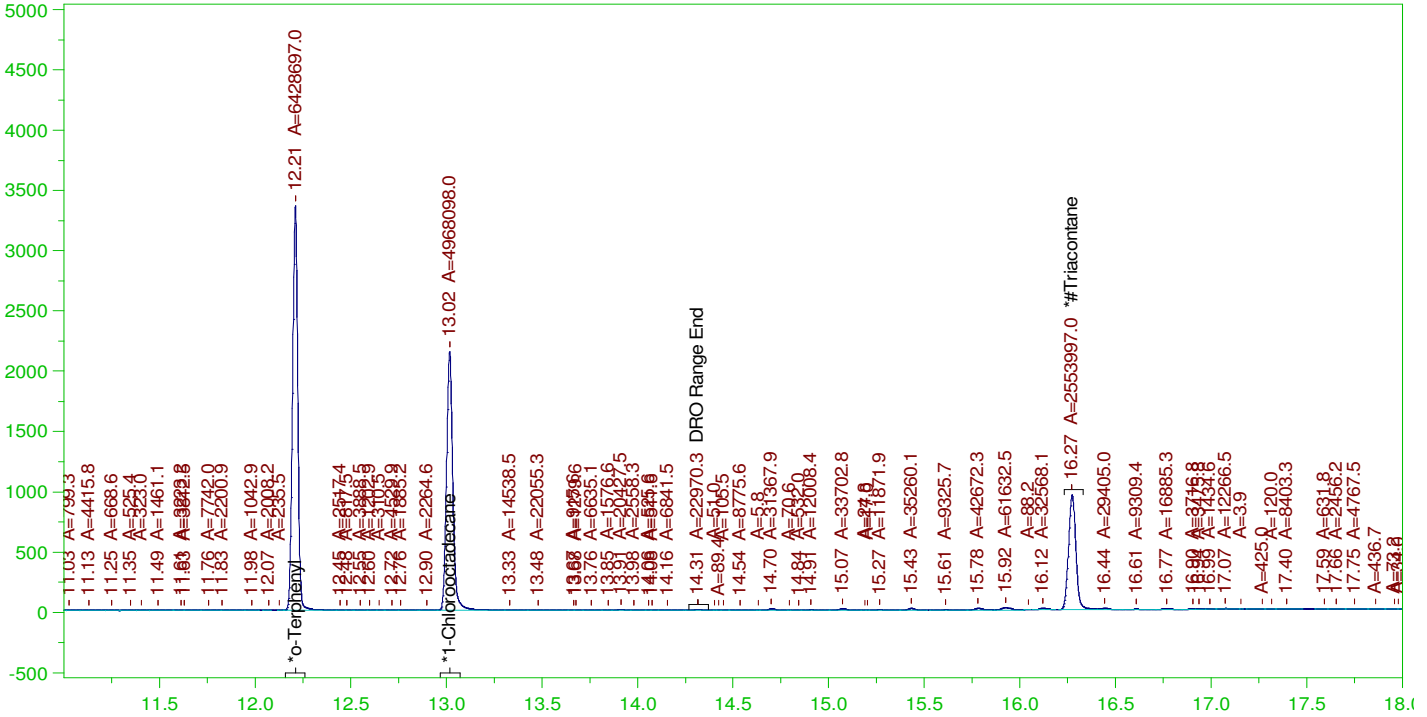
RRO Area:455034.8 RRO AMOUNT: 1.555357E-02

ERH1954 (RHMW03)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0013.RAW

B21112212-003A ;1202HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

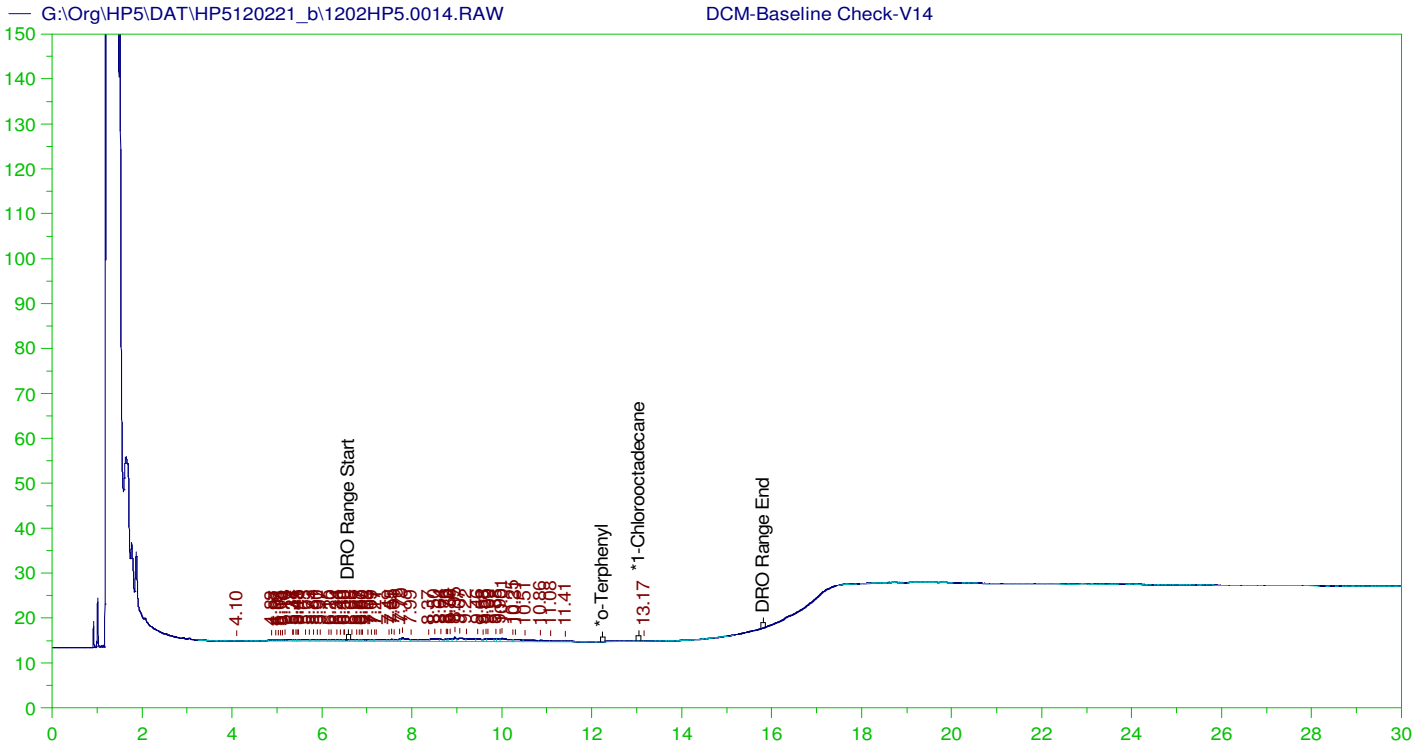
Sample Name: B21112212-003A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0013.RAW  
 Date & Time Acquired: 12/2/2021 4:00:52 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-IE-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
 Sample Weight: 1025 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	12.21	.195	.177	90.52
*1-Chlorooctadecane	13.017	.195	.136	69.96
*#Triacontane	16.272	.195	.086	44.14

DRO Area:353012 DRO Amount: 1.098459E-02  
 TEH Area:832403.1 TEH Amount: 2.590169E-02



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V14  
 Raw File: G:\Org\HP5\DAT\HP5120221\_b\1202HP5.0014.RAW  
 Date & Time Acquired: 12/2/2021 4:43:27 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	29.903	200.	.	-
*1-Chlorooctadecane	29.903	200.	.	-

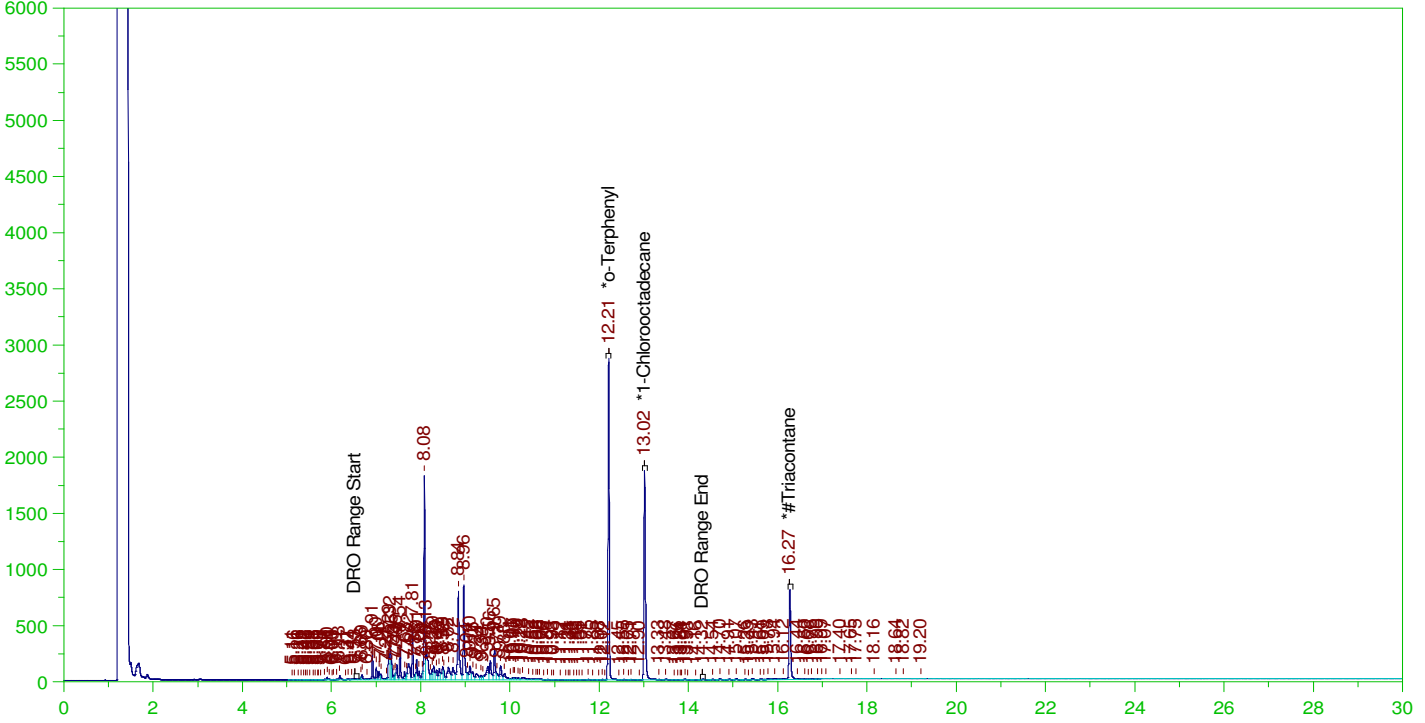
DRO Area:140602.8 DRO Amount: 4.484482  
 TEH Area:185565.8 TEH Amount: 5.918561

ERH1951 (RHMW02)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0015.RAW

B21112212-002A ;1202HP5, \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-002A ;1202HP5, \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0015.RAW  
 Date & Time Acquired: 12/2/2021 5:26:34 PM  
 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: 1025 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	12.208	.195	.152	78.1	-
*1-Chlorooctadecane	13.015	.195	.118	60.68	-
*#Triacontane	16.268	.195	.074	37.93	-

DRO Area: 2.024606E+07 DRO Amount: 0.6299918  
 TEH Area: 2.08578E+07 TEH Amount: 0.649027

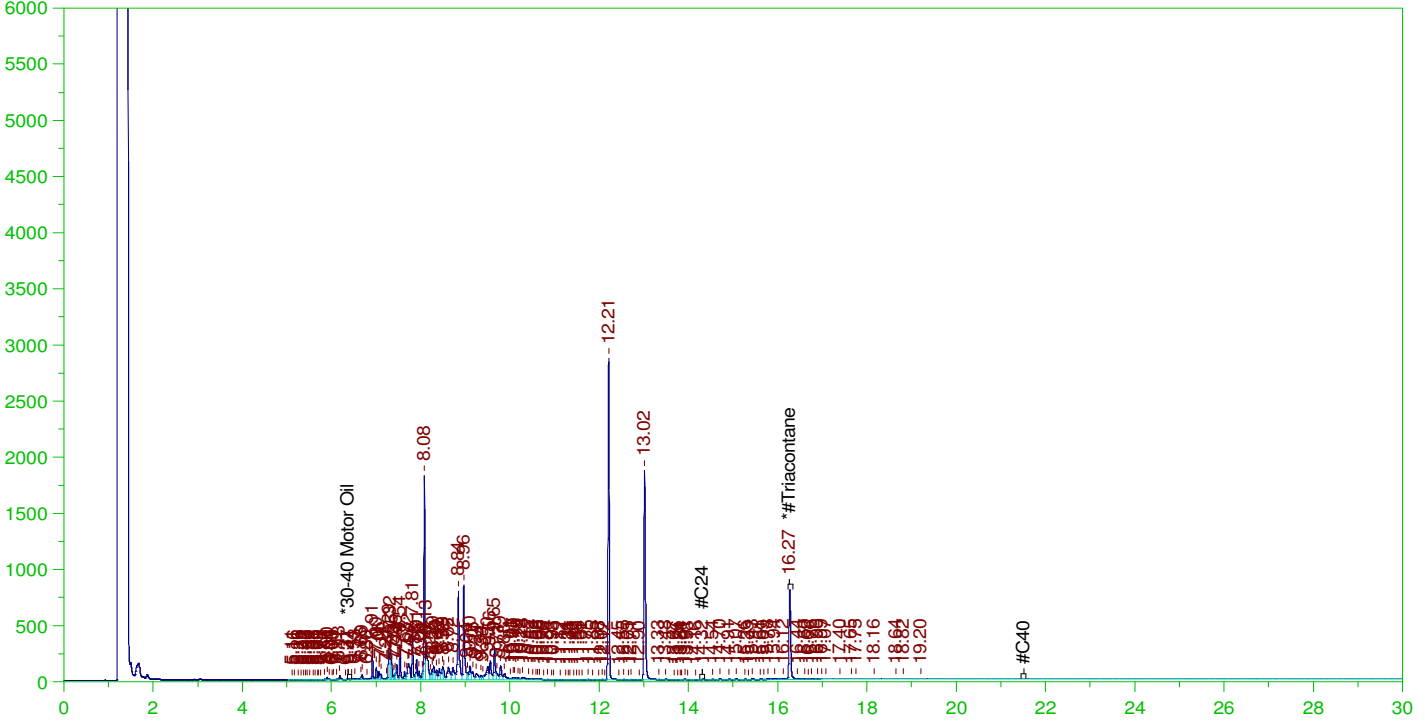


ERH1951 (RHMW02)

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0015.RAW

Batch ID: 161704

B21112212-002A ;1202HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-002A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0015.RAW  
 Date & Time Acquired: 12/2/2021 5:26:34 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-SAMP.CAL  
 Sample Weight: 1025 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	.488	.074	15.17

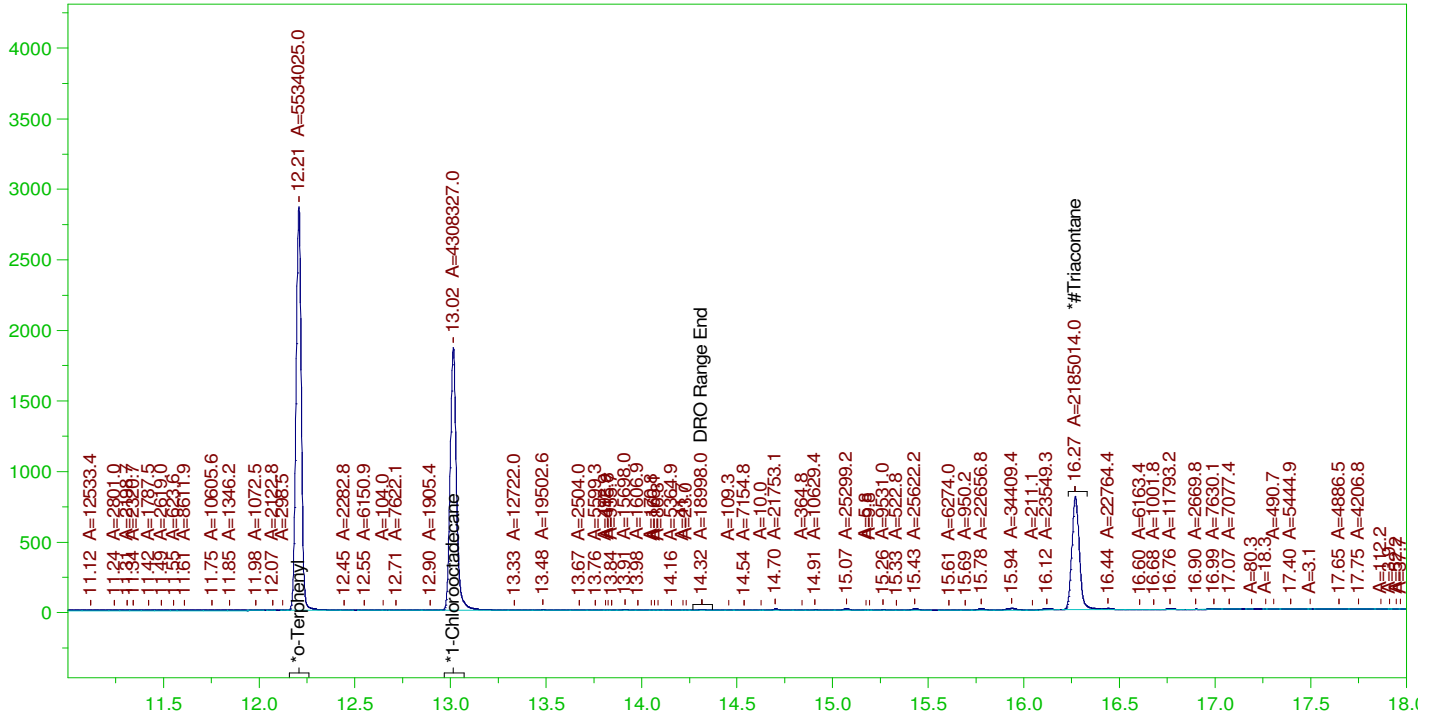
RRO Area:314705.3 RRO AMOUNT: 1.075696E-02

ERH1951 (RHMW02)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0015.RAW

B21112212-002A ;1202HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-002A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0015.RAW  
 Date & Time Acquired: 12/2/2021 5:26:34 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: 1025 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	12.208	.195	.152	77.92
*1-Chlorooctadecane	13.015	.195	.118	60.66
*#Triacontane	16.268	.195	.074	37.76

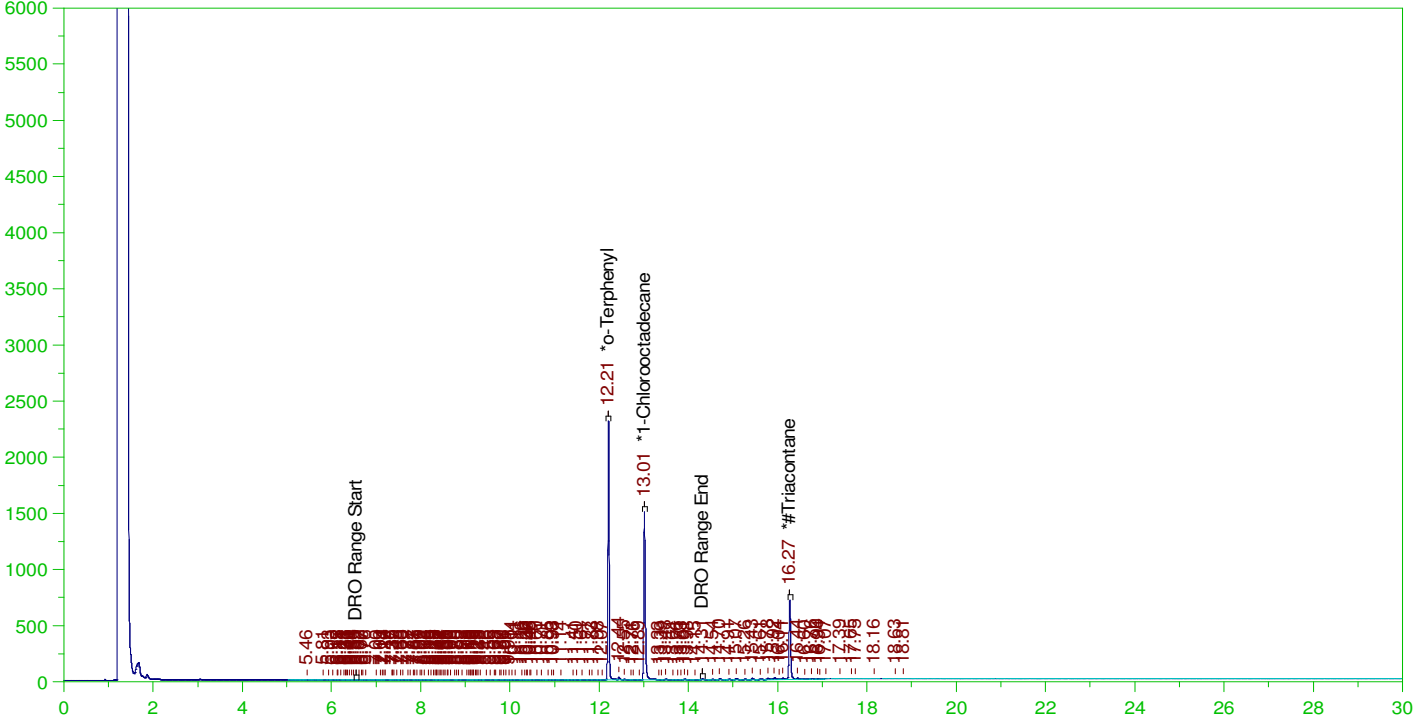
DRO Area: 2.024522E+07 DRO Amount: 0.6299658  
 TEH Area: 2.088277E+07 TEH Amount: 0.6498041

ERH1948 (RHMW05)

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0016.RAW

Batch ID: 161704

B21112212-001A ;1202HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-001A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0016.RAW  
 Date & Time Acquired: 12/2/2021 6:09:21 PM  
 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: 1050 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	.19	.12	63.24	-
*1-Chlorooctadecane	13.012	.19	.095	50.05	-
*#Triacontane	16.268	.19	.064	33.55	-

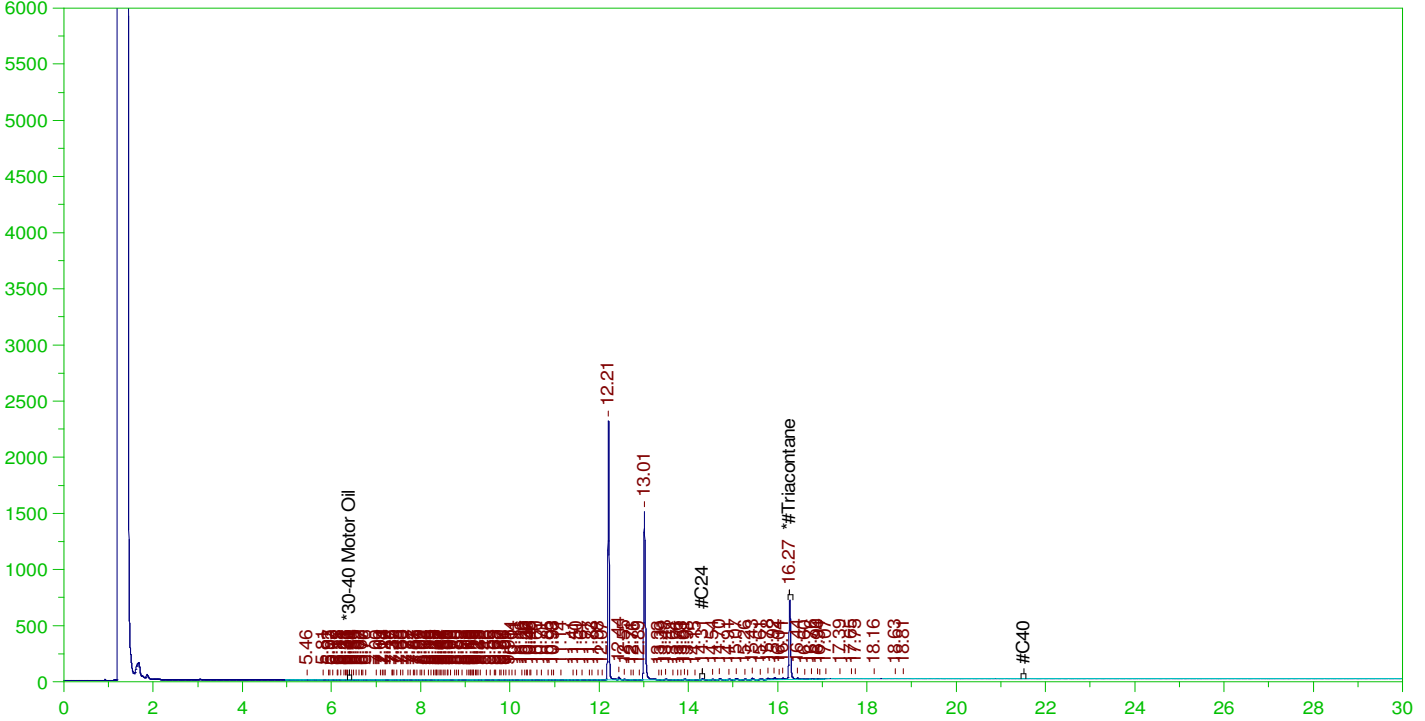
DRO Area:377022.7 DRO Amount: 0.0114524  
 TEH Area:762180.3 TEH Amount: 0.0231519

ERH1948 (RHMW05)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0016.RAW

B21112212-001A ;1202HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112212-001A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0016.RAW  
 Date & Time Acquired: 12/2/2021 6:09:21 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-SAMP.CAL  
 Sample Weight: 1050 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.268	.476	.064	13.42

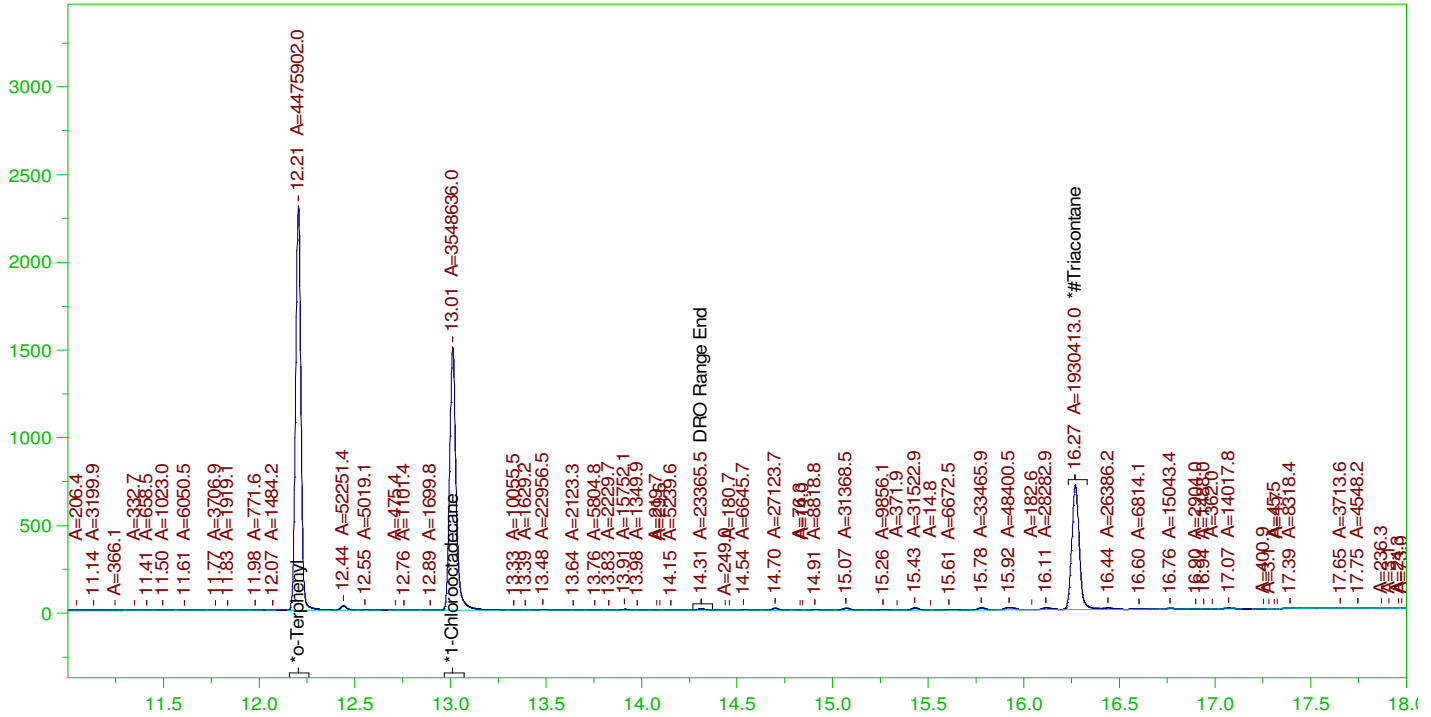
RRO Area:378345.7 RRO AMOUNT: 1.262435E-02

ERH1948 (RHMW05)

Batch ID: 161704

G:\Org\HP5\DAT\HP5120221\_b\1202HP5.0016.RAW

B21112212-001A ;1202HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112212-001A ;1202HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\Org\HP5\DAT\HP5120221\_b\1202HP5.0016.RAW  
 Date & Time Acquired: 12/2/2021 6:09:21 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: 1050 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	.19	.12	63.02
*1-Chlorooctadecane	13.012	.19	.095	49.97
*Triacontane	16.268	.19	.064	33.36

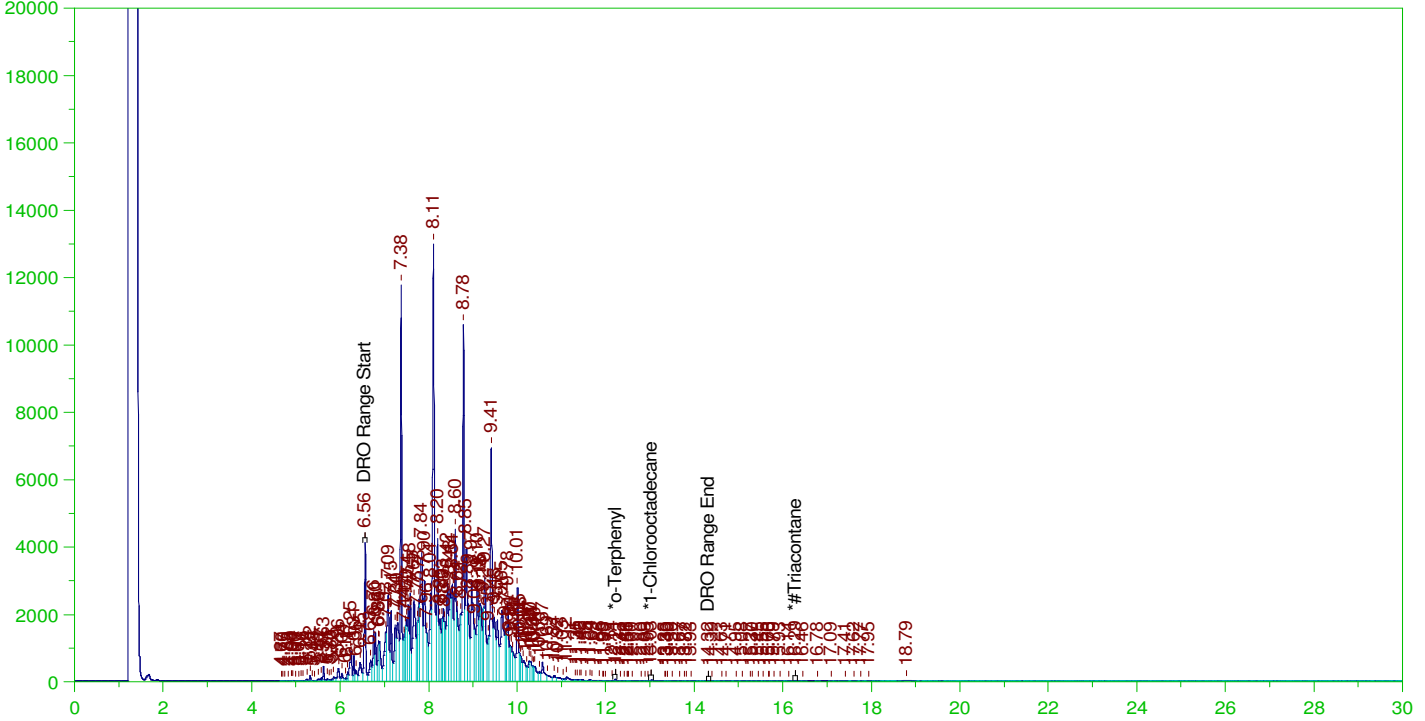
DRO Area:345208 DRO Amount: 0.010486  
 TEH Area:735735.9 TEH Amount: 2.234863E-02

ERH1968 (Adit 3 Sump)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0017.RAW

B21112214-002B ;1202HP5 , \$HC-8015-DRO-W, ,(2,25)



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112214-002B ;1202HP5 , \$HC-8015-DRO-W, ,(2,25)  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0017.RAW  
 Date & Time Acquired: 12/2/2021 6:52:03 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-120217-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
 Sample Weight: 1050 Dilution: 50 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	12.215	.19	.24	125.94	-
*1-Chlorooctadecane	13.035	.19	.17	89.02	-
*#Triacontane	16.286	.19	.081	42.74	-

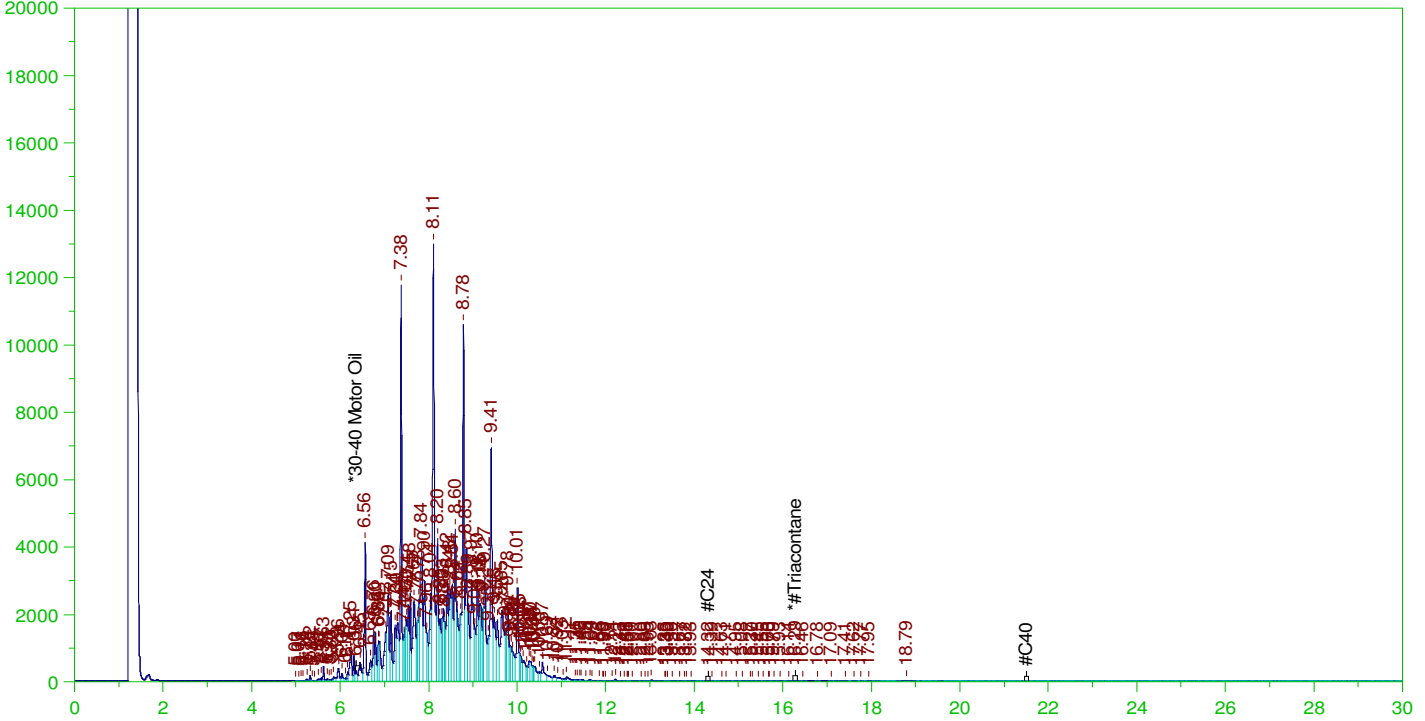
DRO Area: 4.395819E+08 DRO Amount: 667.6345  
 TEH Area: 4.529266E+08 TEH Amount: 687.9023

ERH1968 (Adit 3 Sump)

Batch ID: 161704

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0017.RAW

B21112214-002B ;1202HP5 , \$HC-8015-DRO-W, ,(2,25)



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112214-002B ;1202HP5 , \$HC-8015-DRO-W, ,(2,25)  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0017.RAW  
 Date & Time Acquired: 12/2/2021 6:52:03 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-1200217-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG-SAMP.CAL  
 Sample Weight: 1050 Dilution: 50 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	16.286	.476	.081	17.1

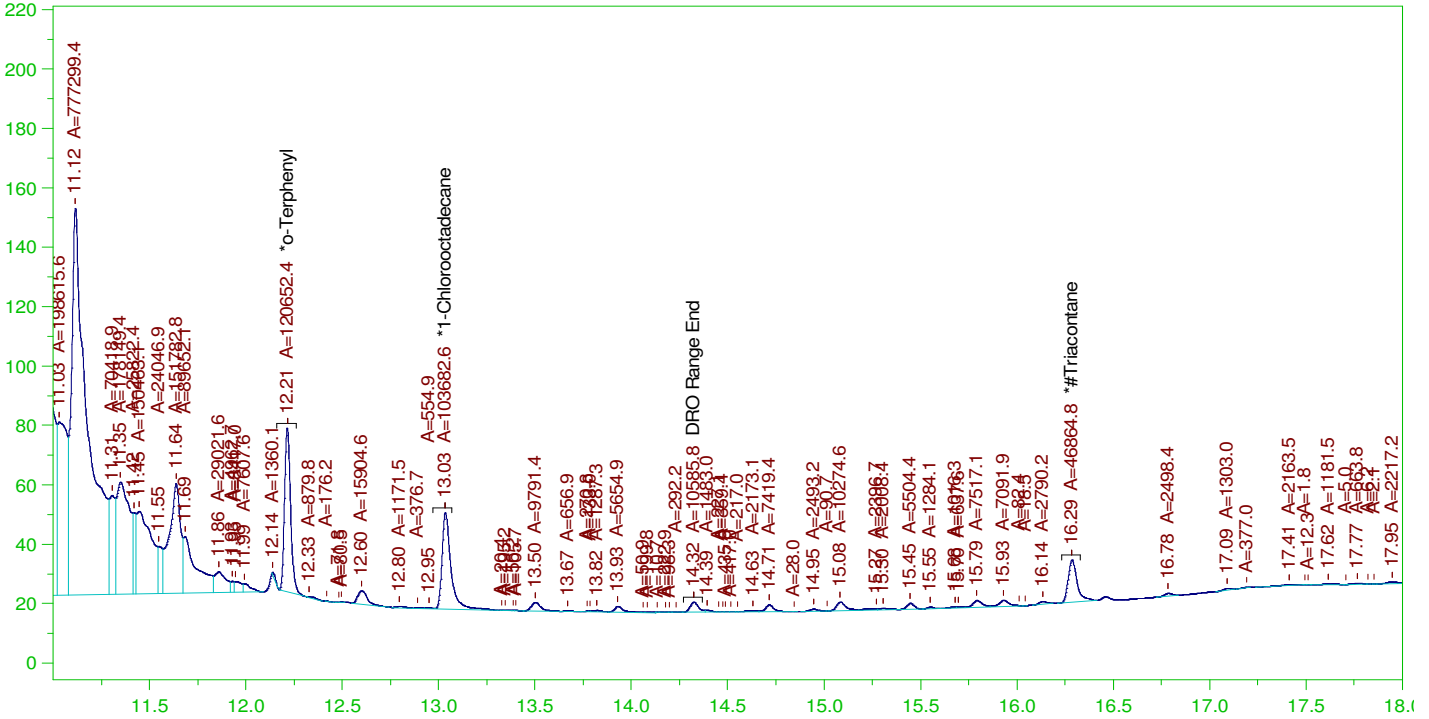
RRO Area:120224.8 RRO AMOUNT: 0.2005783

ERH1968 (Adit 3 Sump)

Batch ID: 161704

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B21112214-002B ;1202HP5 , \$HC-8015-DRO-W, ,(2,25)



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112214-002B ;1202HP5 , \$HC-8015-DRO-W, ,(2,25)  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0017.RAW  
 Date & Time Acquired: 12/2/2021 6:52:03 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-120214-IE-L#.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24-Tri.CAL  
 Sample Weight: 1050 Dilution: 50 S.A.: 1

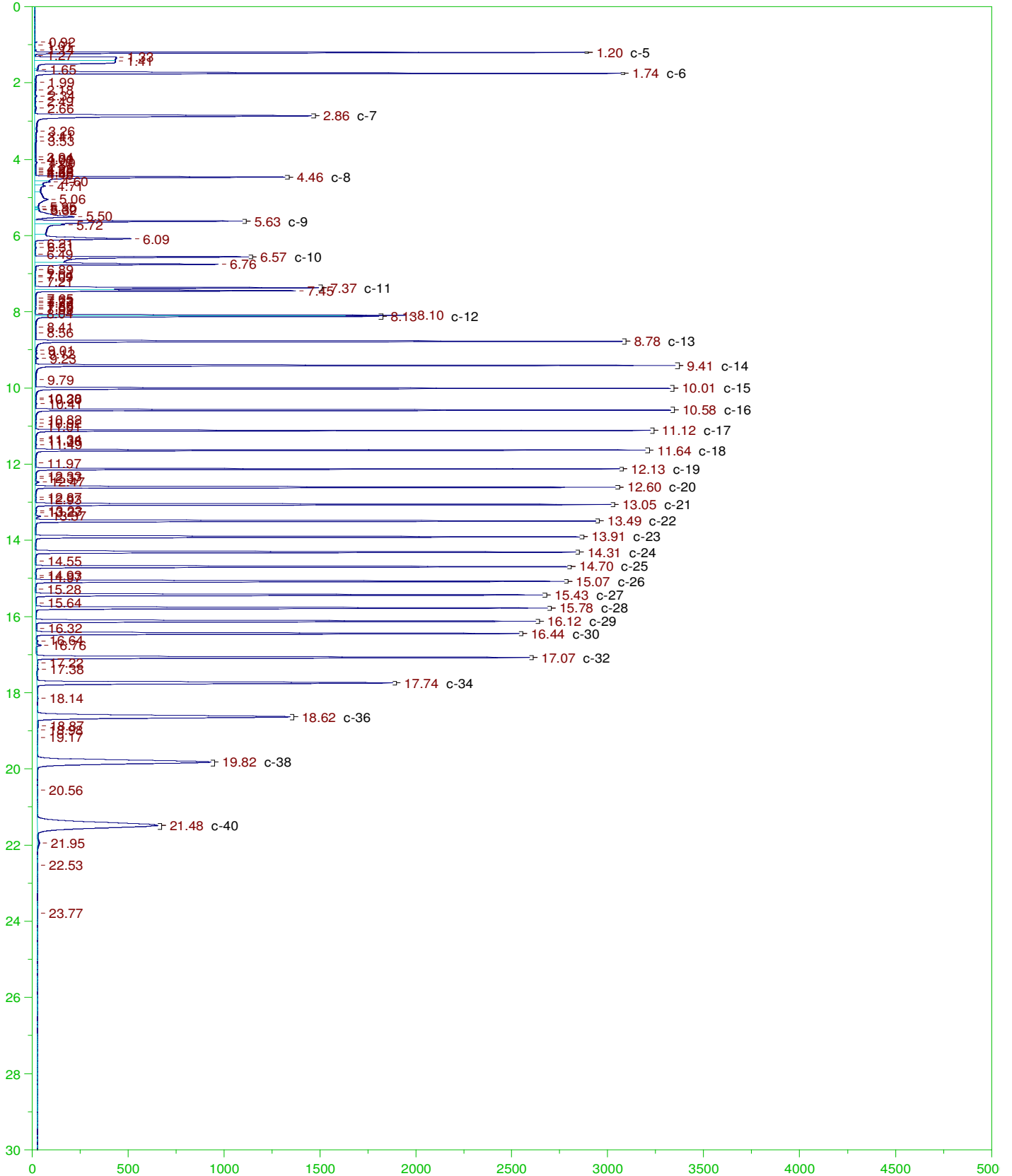
Mean RF for TEH: 31353.19

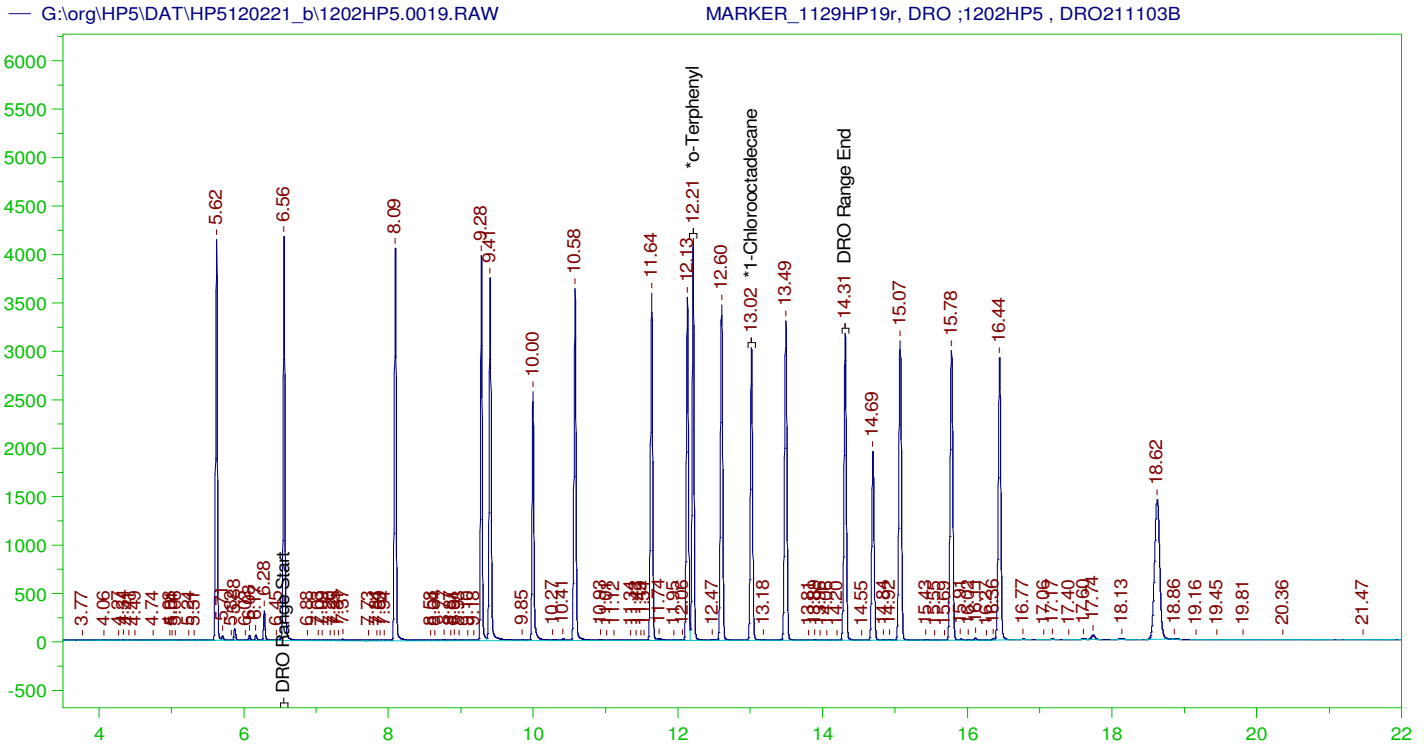
Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.215	.19	.162	84.94	-
*1-Chlorooctadecane	13.035	.19	.139	73.	-
*#Triacontane	16.286	.19	.077	40.5	-

DRO Area: 4.37898E+08 DRO Amount: 665.0771  
 TEH Area: 4.511846E+08 TEH Amount: 685.2565







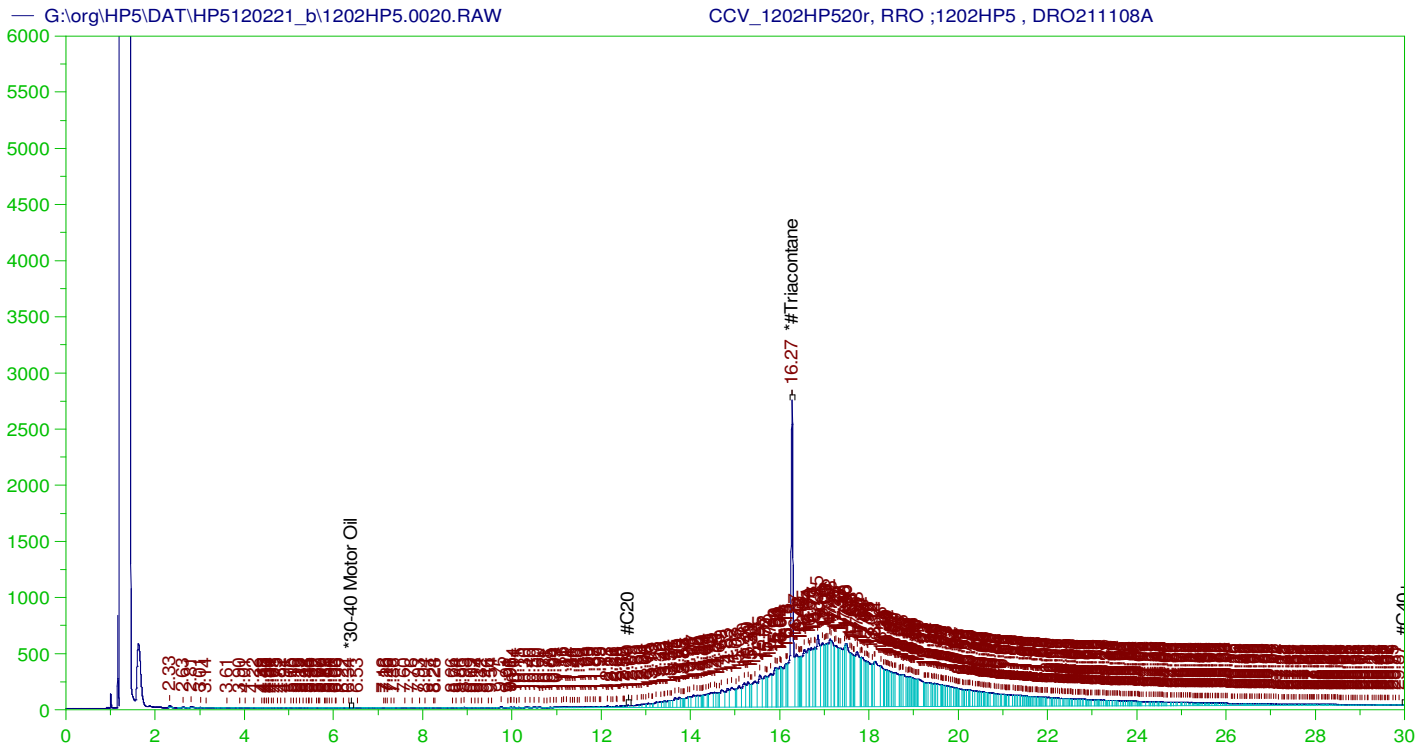
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MARKER\_1129HP19r, DRO ;1202HP5 , DRO211103B  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0019.RAW  
 Date & Time Acquired: 12/2/2021 8:17:40 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	12.21	.2	.22	109.89
*1-Chlorooctadecane	13.017	.2	.178	88.95

DRO Area: 7.553216E+07 DRO Amount: 2.409074  
 TEH Area: 1.179225E+08 TEH Amount: 3.761101



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1202HP520r, RRO ;1202HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0020.RAW  
 Date & Time Acquired: 12/2/2021 9:00:28 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	16.273	500.	335.719	67.14	-

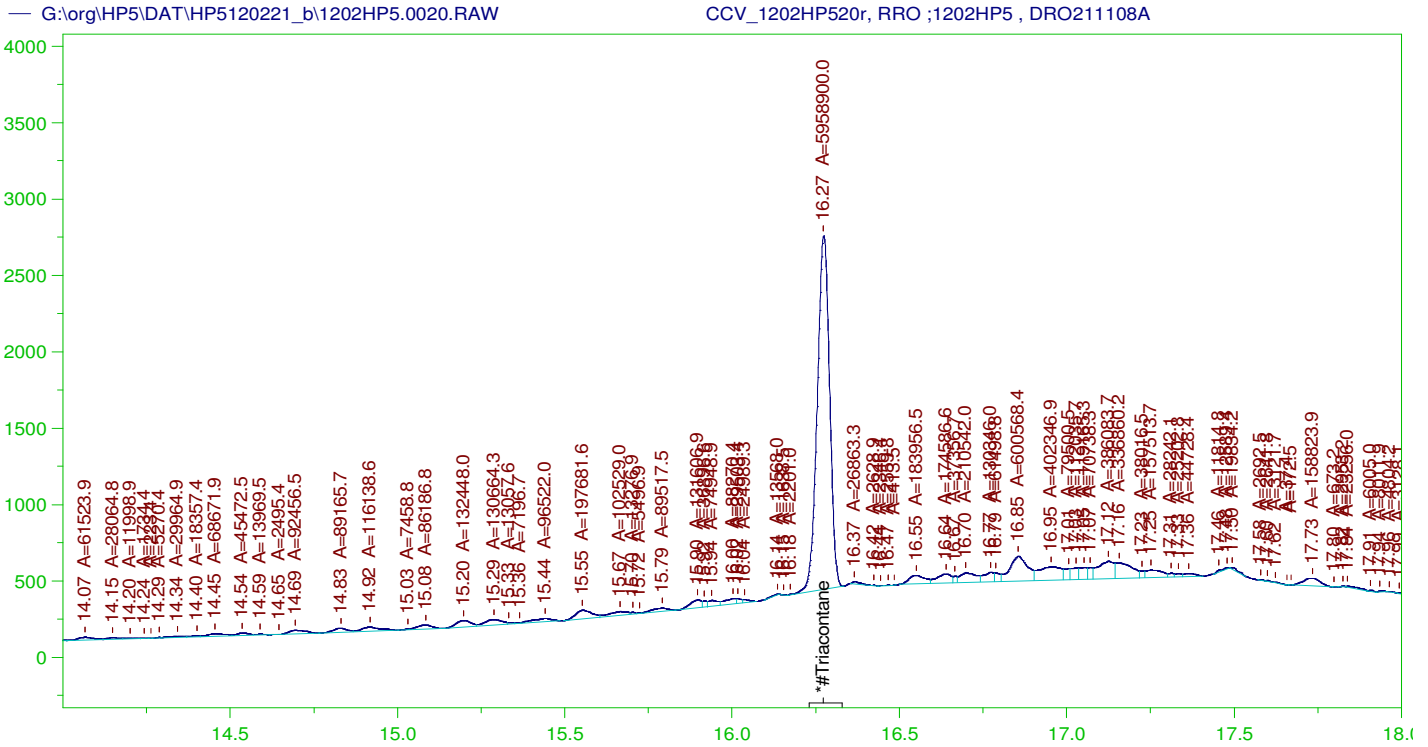
~~RRO~~ TEH (Oil Range) Area:1.376524E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4822.732

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0020.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.273	200.	335.719	167.86	75-125

AMN 12/14/2021



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1202HP520r, RRO ;1202HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0020.RAW  
 Date & Time Acquired: 12/2/2021 9:00:28 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	16.273	500.	205.976	41.2	-

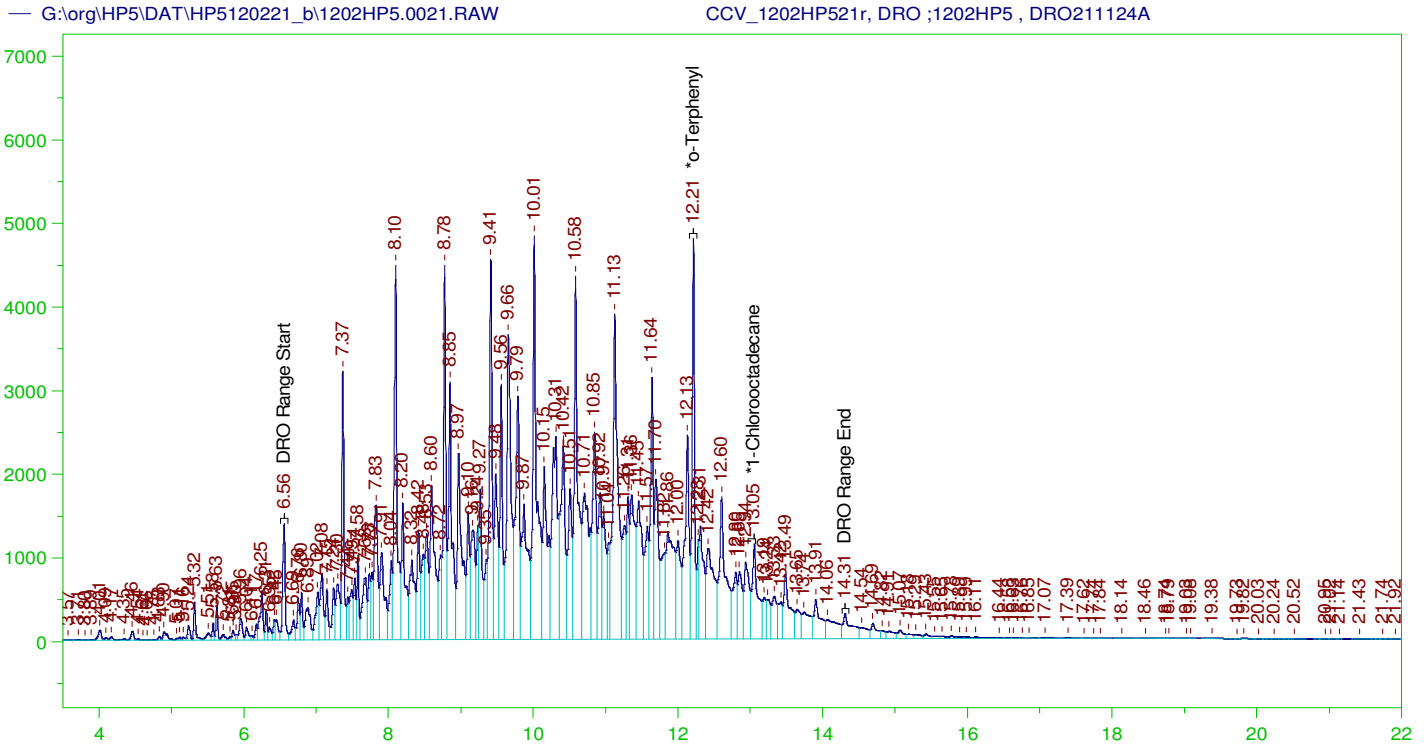
RRO Area:6090490 RRO AMOUNT: 213.3839

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0020.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.273	200.	205.976	102.99	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1202HP521r, DRO ;1202HP5 , DRO211124A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0021.RAW  
 Date & Time Acquired: 12/2/2021 9:43:31 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

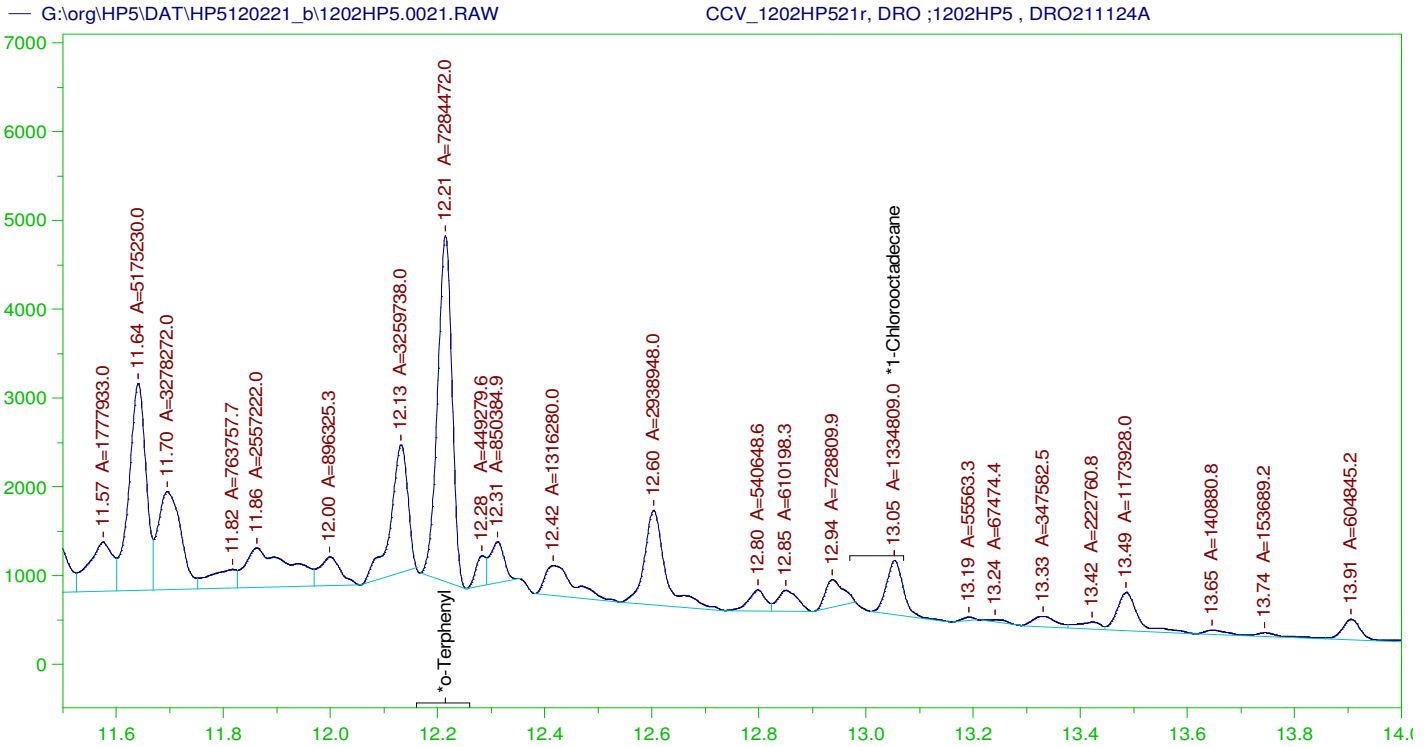
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.215	200.	336.813	168.41
*1-Chlorooctadecane	13.053	200.	164.766	82.38

DRO Area: 4.761482E+08 DRO Amount: 15186.59  
 TEH Area: 4.925453E+08 TEH Amount: 15709.57

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0021.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15709.57	104.73	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.215	200.	336.813	168.41	85-115
*1-Chlorooctadecane	13.053	200.	164.766	82.38	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1202HP521r, DRO ;1202HP5 , DRO211124A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0021.RAW  
 Date & Time Acquired: 12/2/2021 9:43:31 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

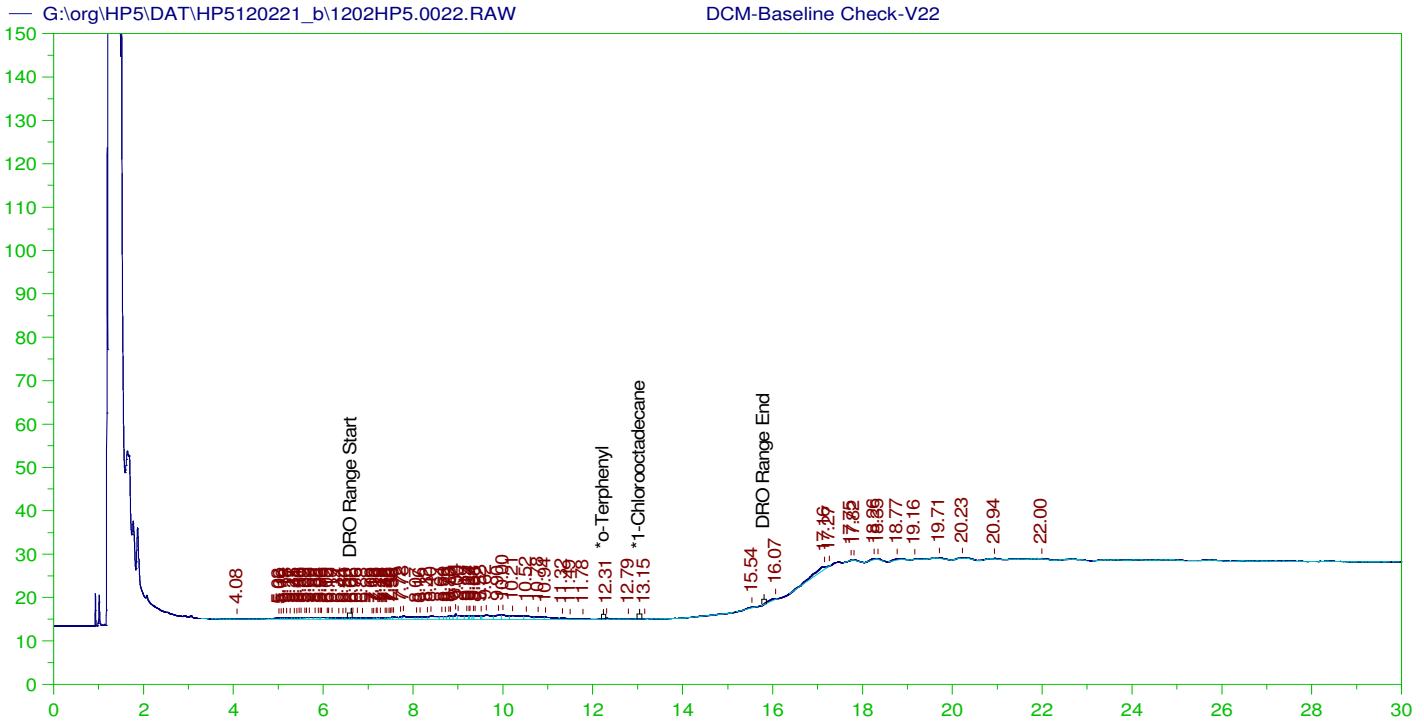
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.215	200.	205.143	102.57
*1-Chlorooctadecane	13.053	200.	37.59	18.8

DRO Area: 2.676076E+08 DRO Amount: 8535.257  
 TEH Area: 2.782368E+08 TEH Amount: 8874.274

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0021.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8874.27	59.16	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.215	200.	205.143	102.57	85-115
*1-Chlorooctadecane	13.053	200.	37.59	18.8	85-115



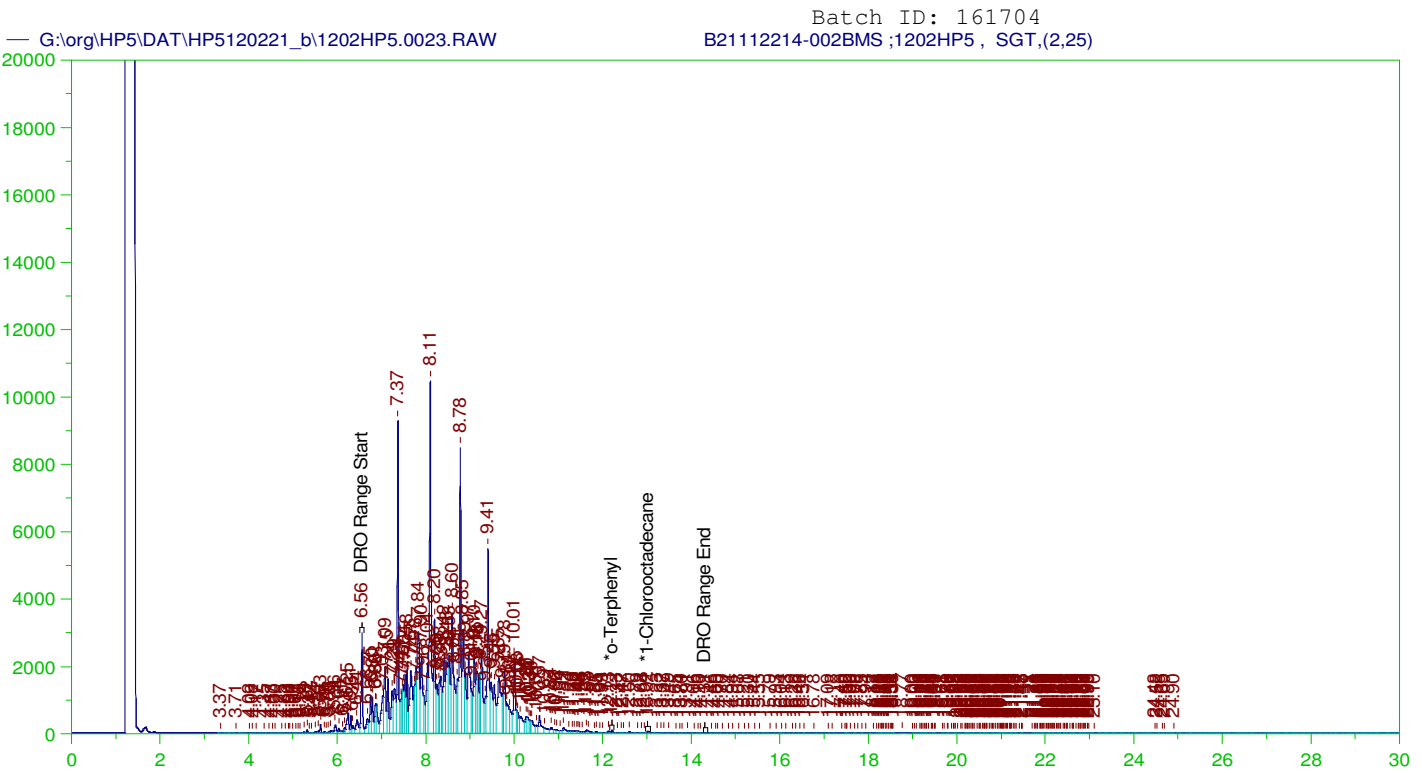
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V22  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0022.RAW  
 Date & Time Acquired: 12/2/2021 10:26:31 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	29.828	200.	.	-
*1-Chlorooctadecane	29.828	200.	.	-

DRO Area:174646 DRO Amount: 5.570278  
 TEH Area:261659.2 TEH Amount: 8.345536



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21112214-002BMS ;1202HP5 , SGT,(2,25)  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0023.RAW  
 Date & Time Acquired: 12/2/2021 11:09:30 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-120223-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1010 Dilution: 50 S.A.: 1

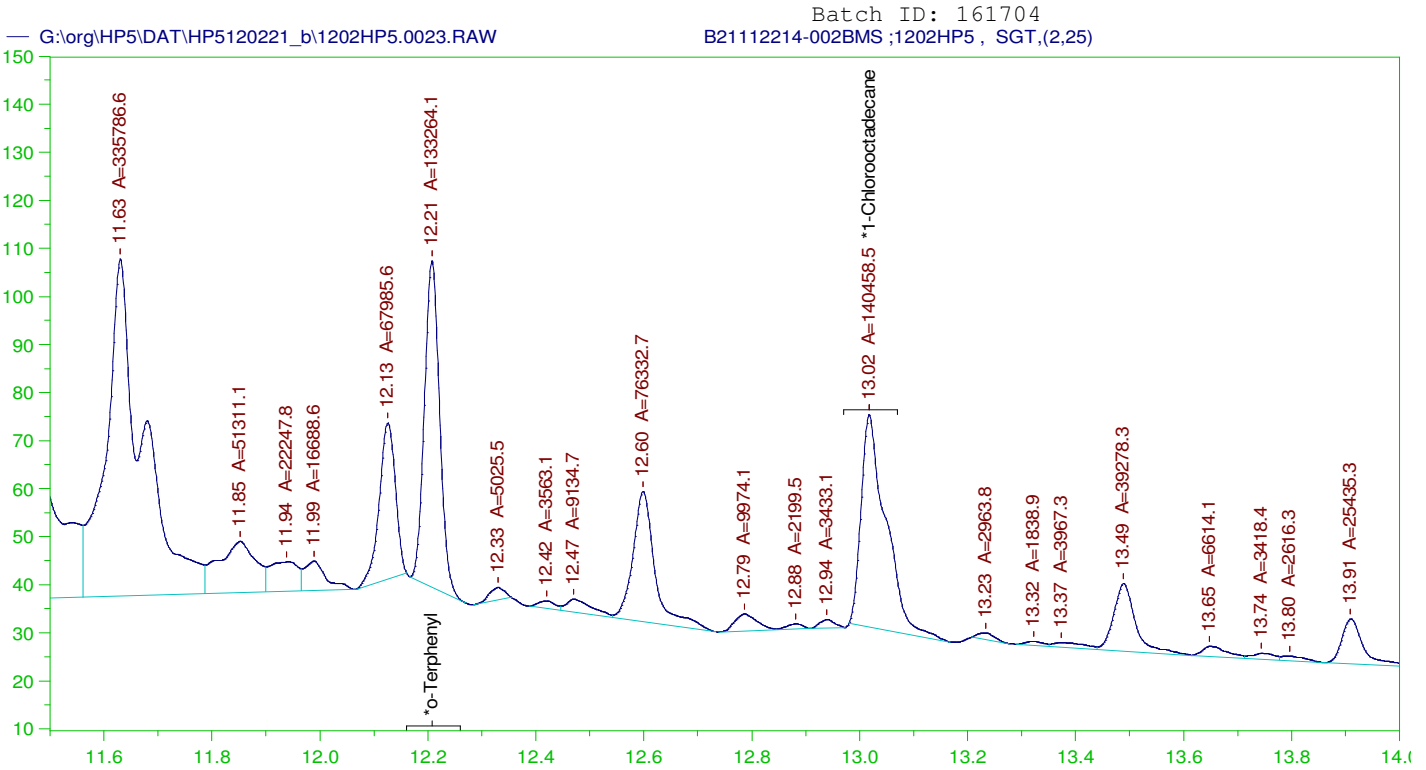
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.51 to 14.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.207	.198	.384	193.85
*1-Chlorooctadecane	13.017	.198	.391	197.33

DRO Area: 3.486299E+08 DRO Amount: 550.4672  
 TEH Area: 3.587809E+08 TEH Amount: 566.4951





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

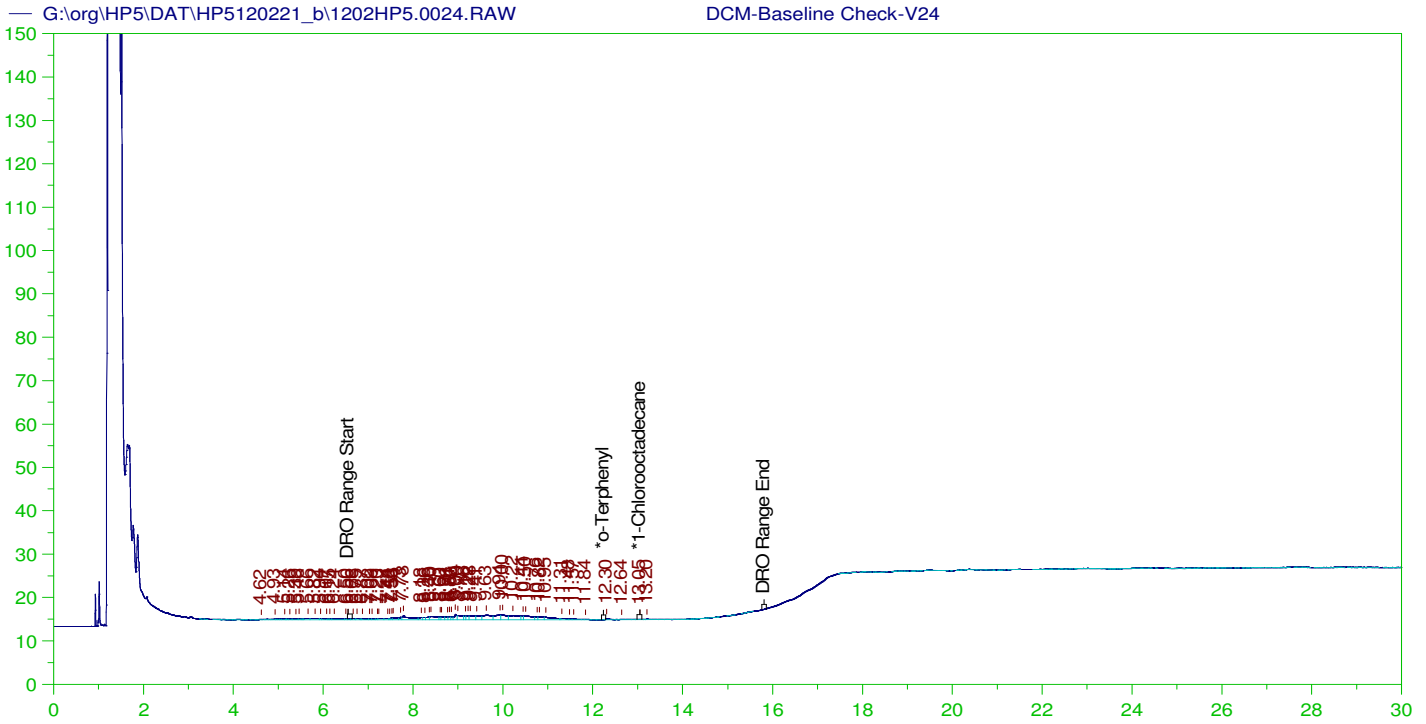
Sample Name: B21112214-002BMS ;1202HP5 , SGT,(2,25)  
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 Method File: G:\Org\HP5\Methods\DS\_8015-24-IE-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1010 Dilution: 50 S.A.: 1

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	.198	.186	93.82	-
*1-Chlorooctadecane	13.017	.198	.196	98.89	-

DRO Area:3.430723E+08 DRO Amount: 541.6921  
 TEH Area:3.515623E+08 TEH Amount: 555.0974



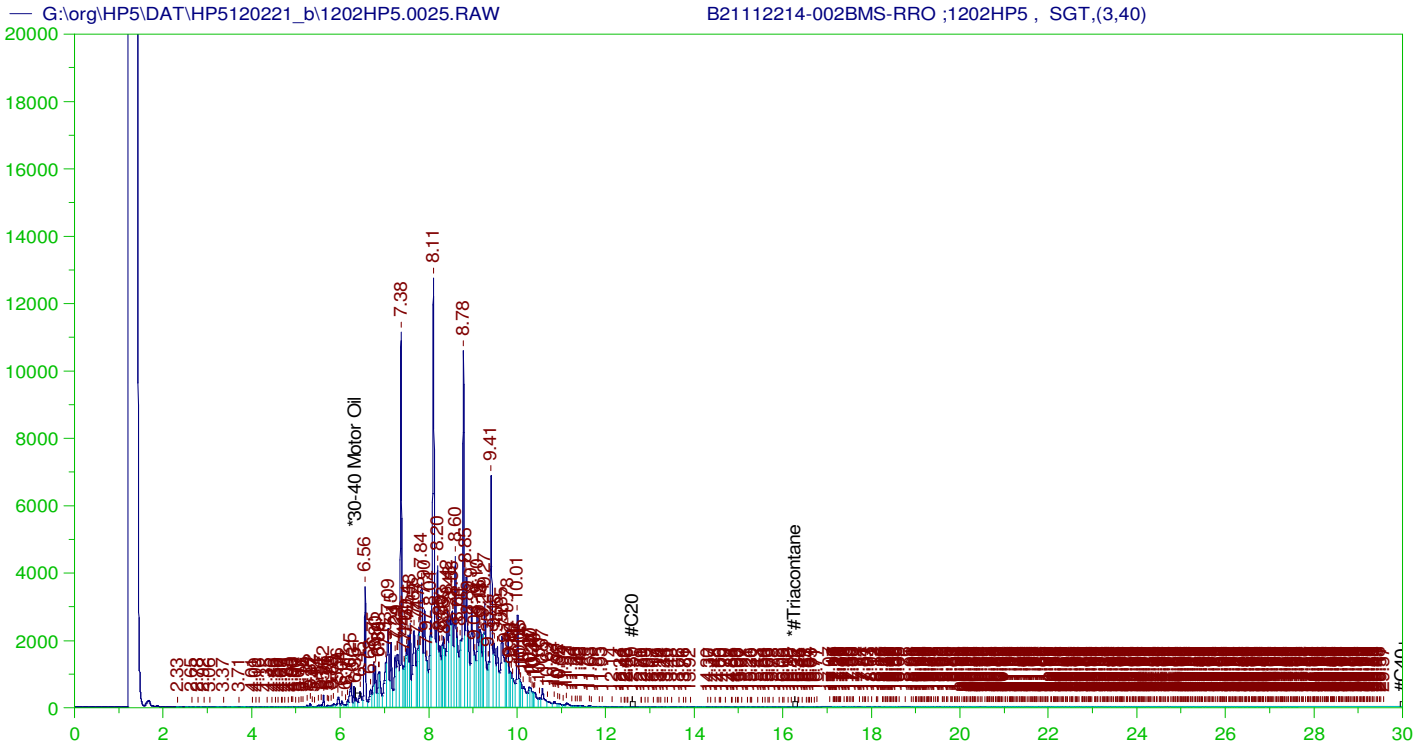
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V24  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0024.RAW  
 Date & Time Acquired: 12/2/2021 11:52:27 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	29.921	200.	.	-
*1-Chlorooctadecane	13.049	200.	.017	.01 -

DRO Area:186415.3 DRO Amount: 5.945657  
 TEH Area:221187.4 TEH Amount: 7.0547



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112214-002BMS-RRO ;1202HP5 , SGT, (3,40)  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0025.RAW  
 Date & Time Acquired: 12/3/2021 12:35:24 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-120225-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.CAL  
 Sample Weight: 1020 Dilution: 120 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	.49	.22	44.97

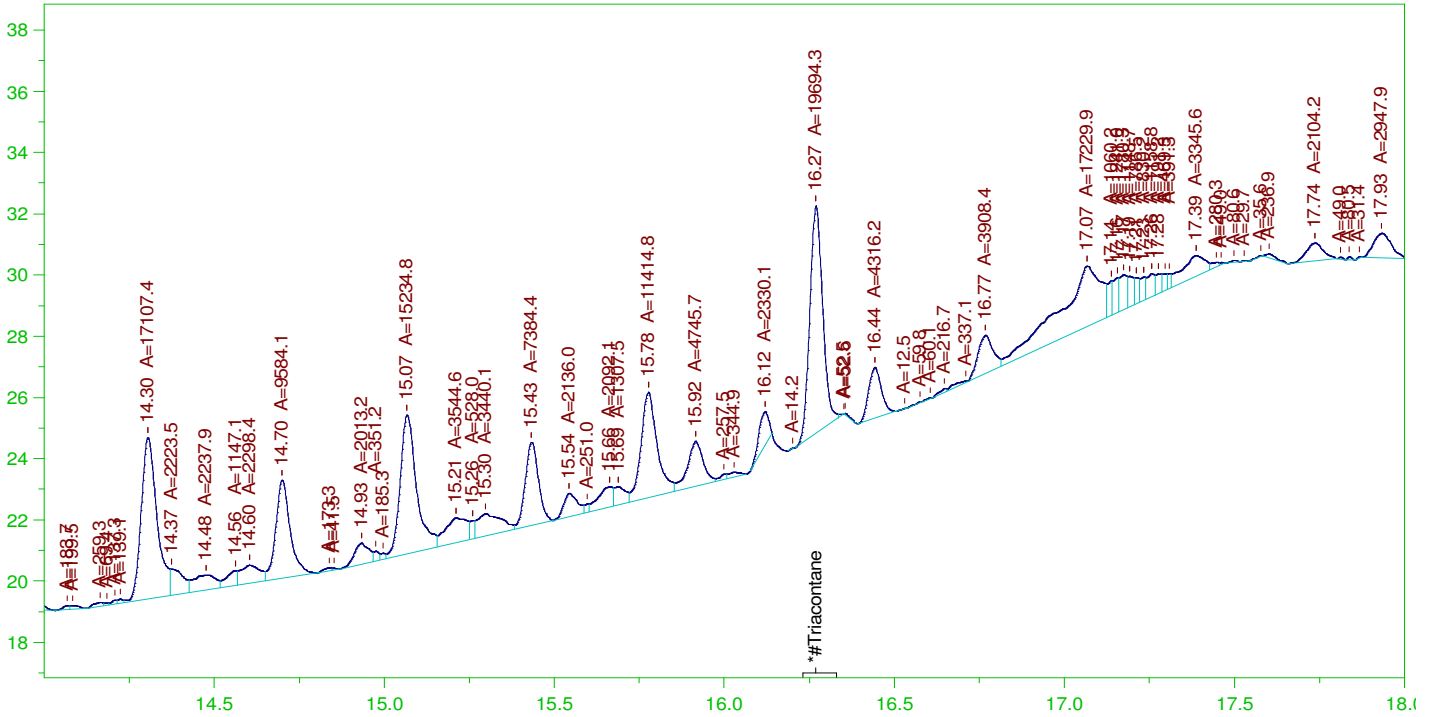
~~RRO~~ TEH (Oil Range) Area:4334424

~~RRO~~ TEH (Oil Range) AMOUNT: 17.86577

AMN 12/14/2021

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0025.RAW

B21112214-002BMS-RRO ;1202HP5 , SGT,(3,40)



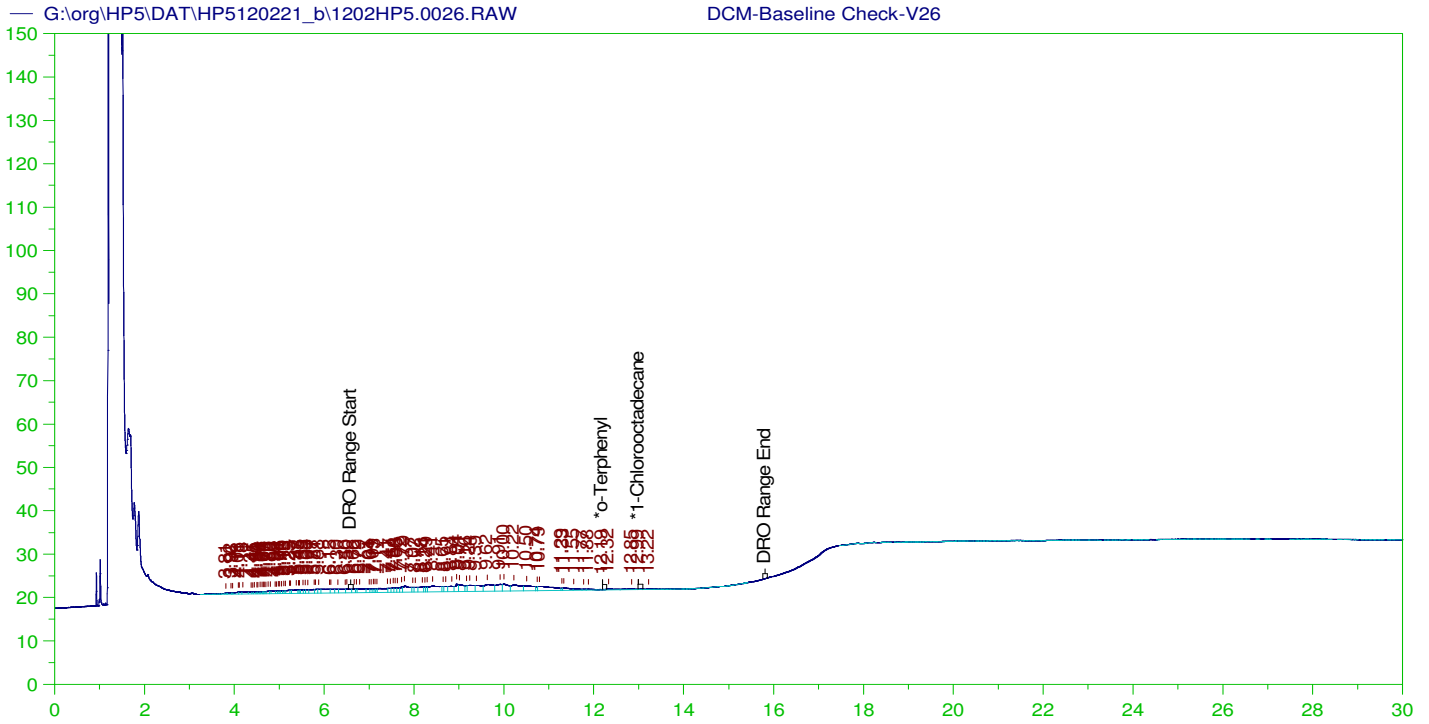
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21112214-002BMS-RRO ;1202HP5 , SGT, (3,40)  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0025.RAW  
 Date & Time Acquired: 12/3/2021 12:35:24 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.CAL  
 Sample Weight: 1020 Dilution: 120 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	.49	.08	16.34

RRO Area:246700.2 RRO AMOUNT: 1.016857



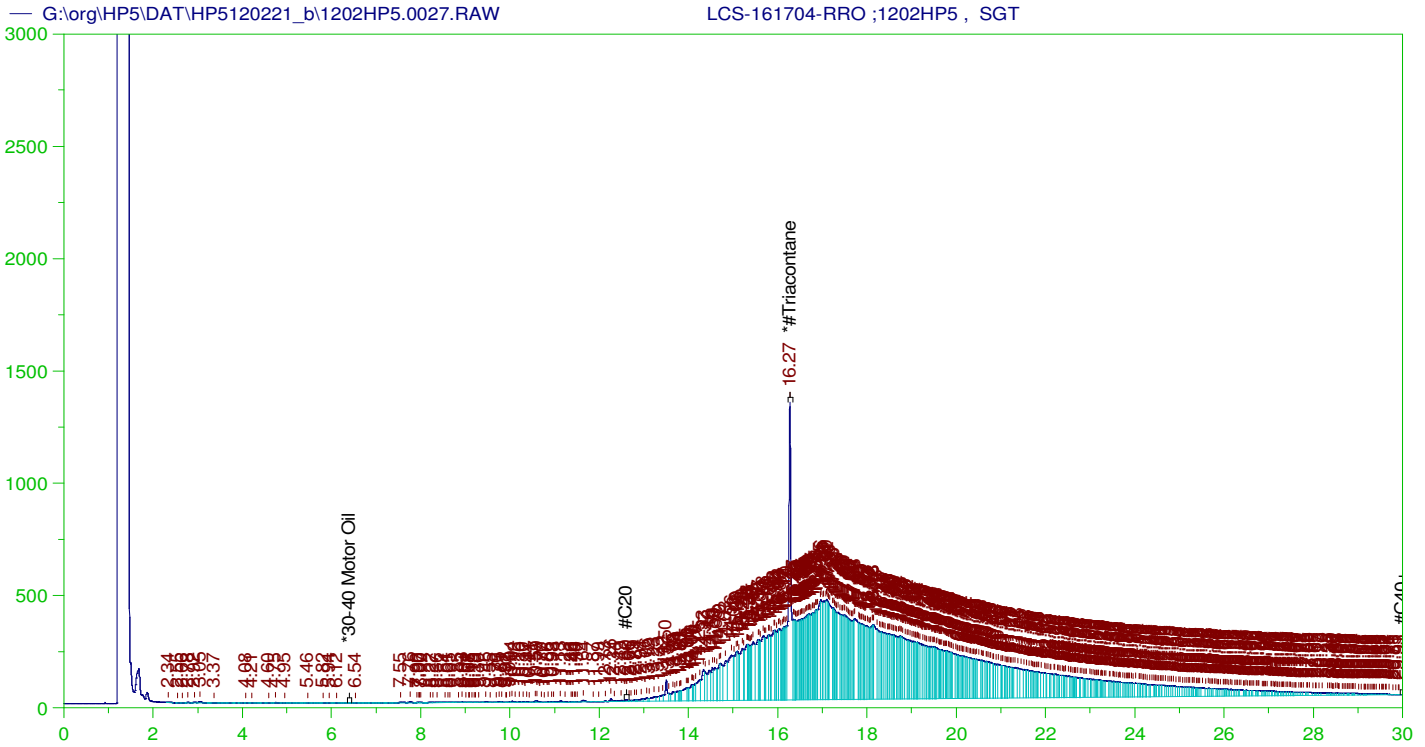
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V26  
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 Date & Time Acquired: 12/3/2021 1:18:34 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	12.192	200.	.038	.02	-
*1-Chlorooctadecane	12.995	200.	.015	.01	-

DRO Area:335689.8 DRO Amount: 10.70672  
 TEH Area:453141.7 TEH Amount: 14.45281



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-161704-RRO ;1202HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0027.RAW  
 Date & Time Acquired: 12/3/2021 2:01:35 AM  
 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

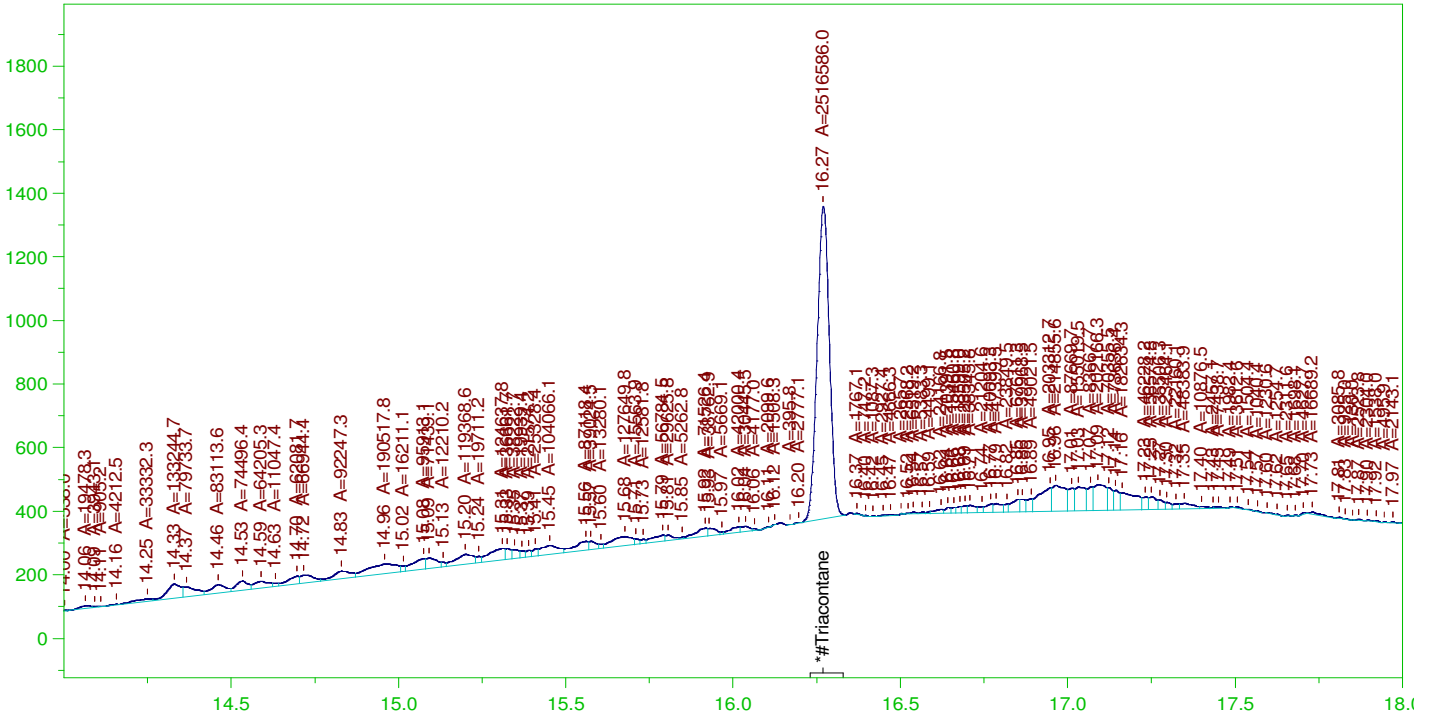
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.269	.5	.18	35.93

RRO TEH (Oil Range) Area:1.348215E+08 RRO TEH (Oil Range) AMOUNT: 4.72355

AMN 12/14/2021

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0027.RAW

LCS-161704-RRO ;1202HP5 , SGT



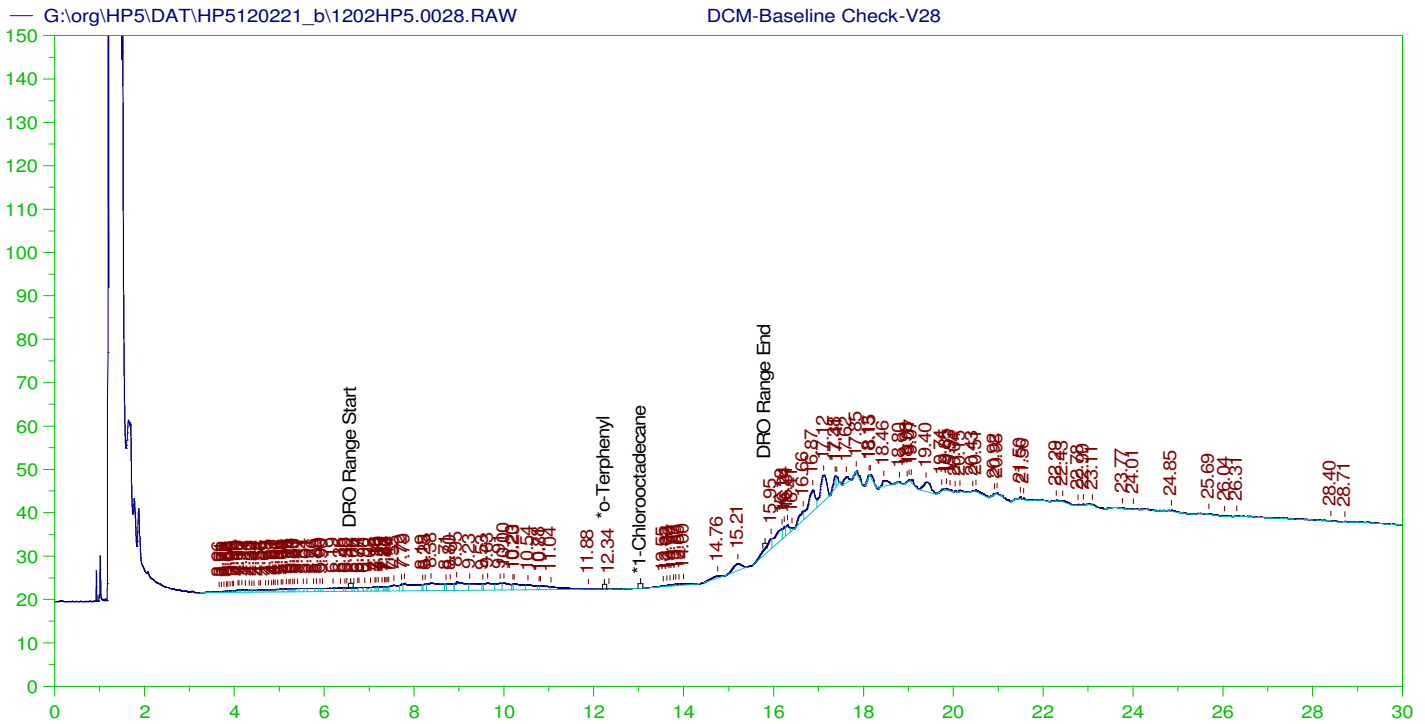
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-161704-RRO ;1202HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0027.RAW  
 Date & Time Acquired: 12/3/2021 2:01:35 AM  
 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	16.269	.5	.087	17.4

RRO Area:4783766 RRO AMOUNT: 0.167602



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

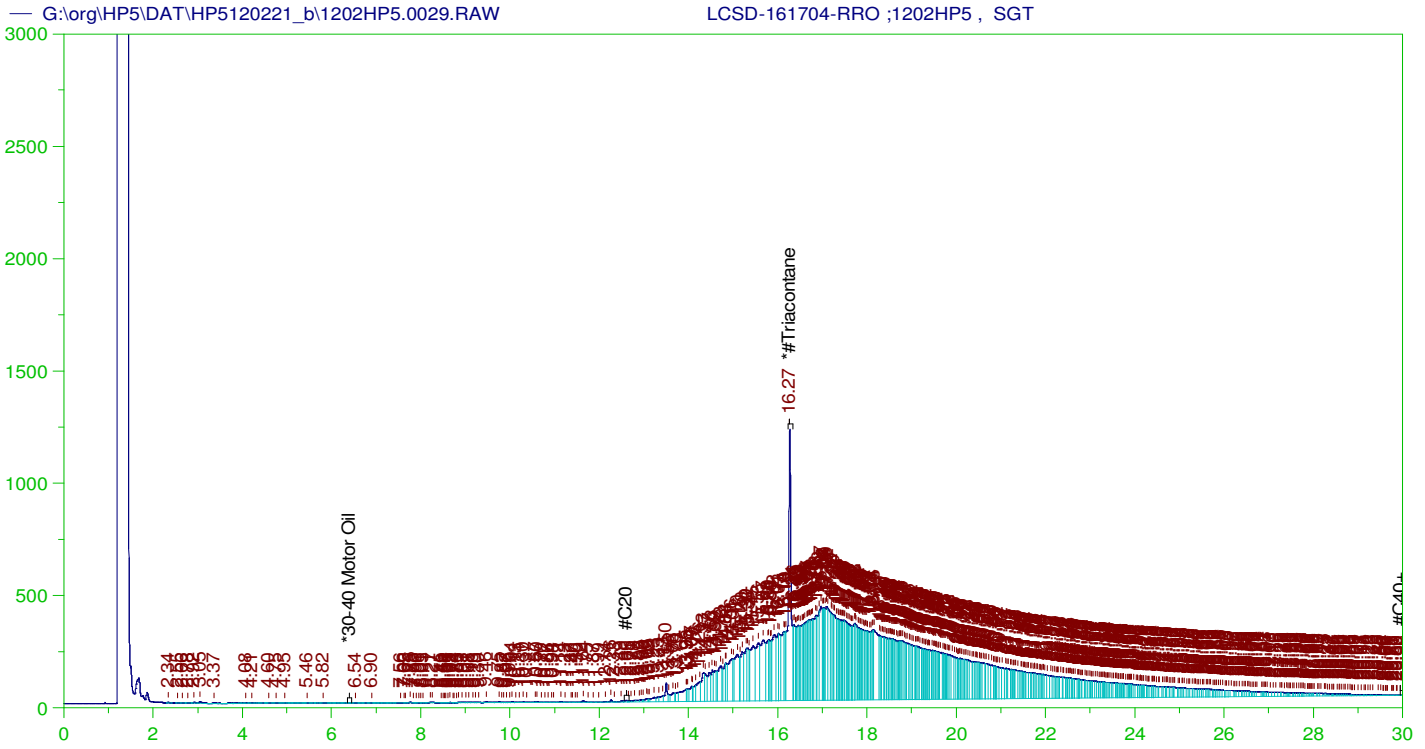
Sample Name: DCM-Baseline Check-V28  
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 Method File: G:\Org\HP5\Methods\DR\_8015-IB-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IB.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	29.986	200.	.	.
*1-Chlorooctadecane	29.986	200.	.	.

DRO Area:404967 DRO Amount: 12.91629  
 TEH Area:862279.3 TEH Amount: 27.50212





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

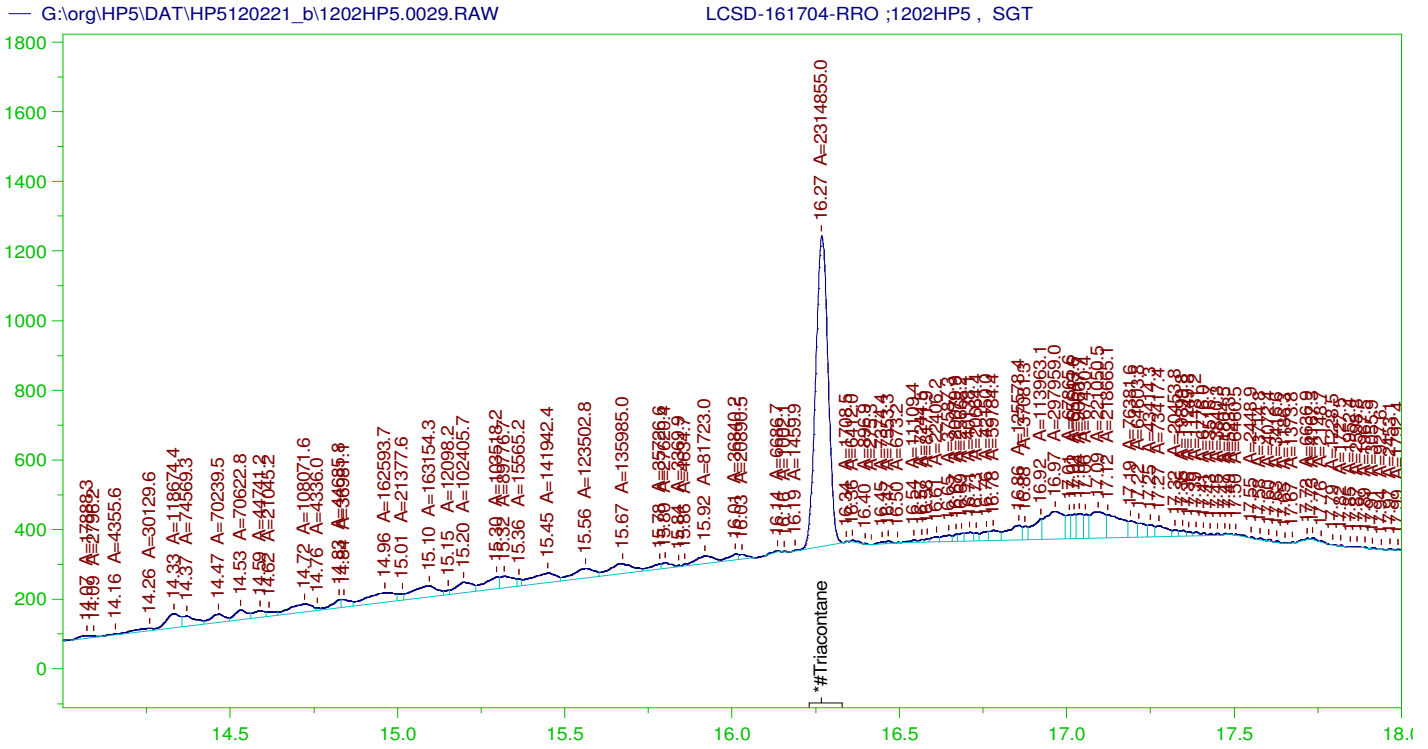
Sample Name: LCSD-161704-RRO ;1202HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0029.RAW  
 Date & Time Acquired: 12/3/2021 3:27:58 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-AG-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO211017AG.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 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	.173	34.61	-

RRO TEH (Oil Range) Area:1.268333E+08 RRO TEH (Oil Range) AMOUNT: 4.443677

AMN 12/14/2021



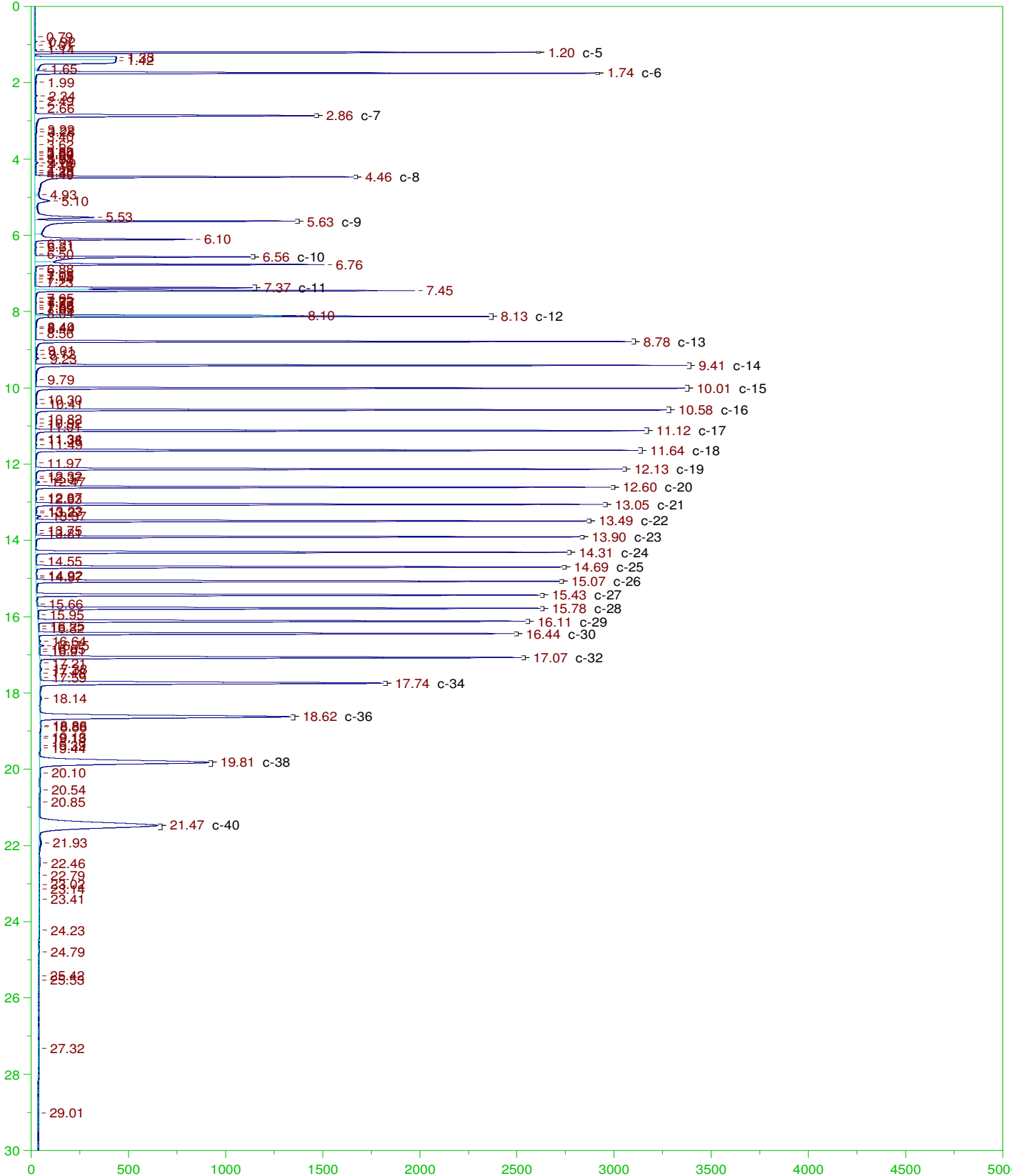
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCSD-161704-RRO ;1202HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0029.RAW  
 Date & Time Acquired: 12/3/2021 3:27:58 AM  
 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

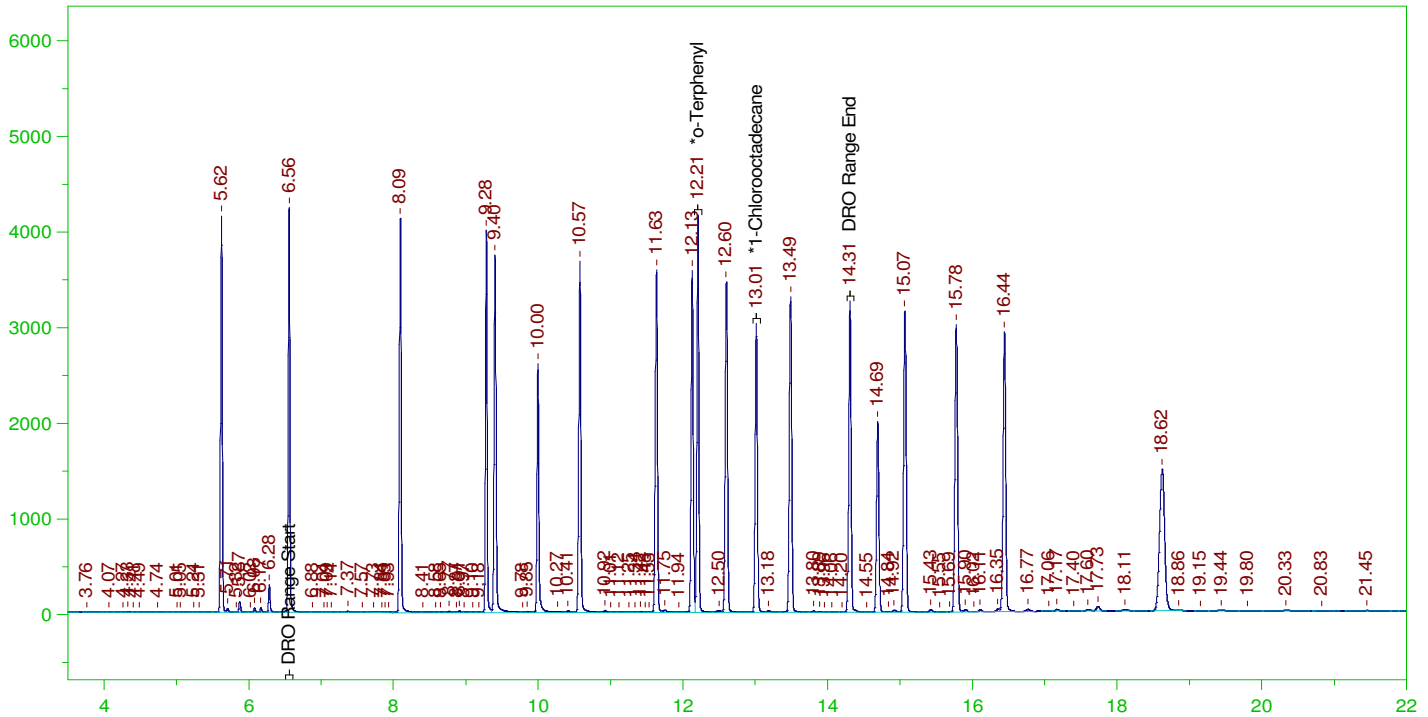
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.268	.5	.08	16.

RRO Area:4455181 RRO AMOUNT: 0.1560899



G:\org\HP5\DAT\HP5120221\_b\1202HP5.0031.RAW

MARKER\_1129HP31r, DRO ;1202HP5 , DRO211103B



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

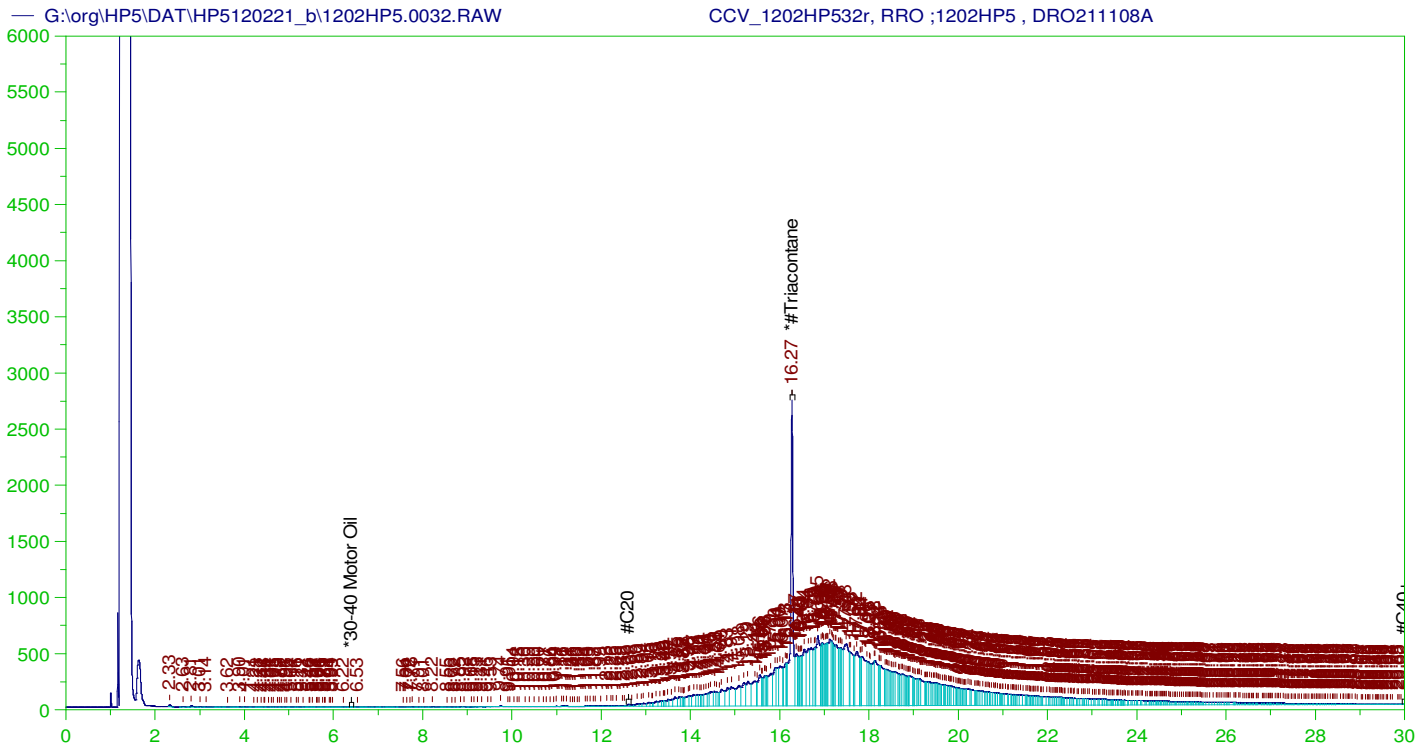
Sample Name: MARKER\_1129HP31r, DRO ;1202HP5 , DRO211103B  
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 Date & Time Acquired: 12/3/2021 4:54:31 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-24-IE-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IE-24.CAL  
 Sample Weight: 1000 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	12.207	.2	.223	111.68
*1-Chlorooctadecane	13.014	.2	.181	90.27

DRO Area: 7.667422E+07 DRO Amount: 2.4455  
 TEH Area: 1.200637E+08 TEH Amount: 3.829393



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1202HP532r, RRO ;1202HP5 , DRO211108A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0032.RAW  
 Date & Time Acquired: 12/3/2021 5:37:42 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	16.272	500.	339.471	67.89	-

~~RRO~~ TEH (Oil Range) Area:1.363904E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4778.517

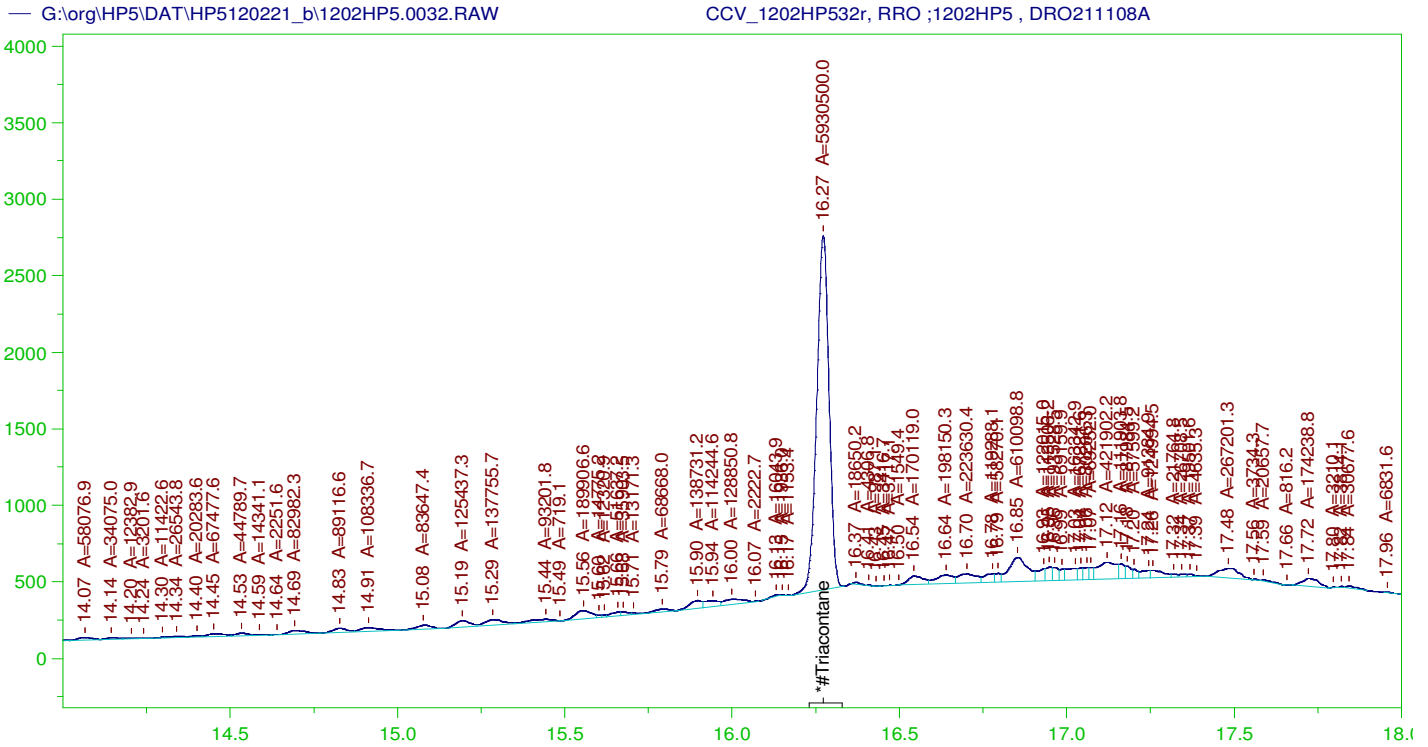
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0032.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.272	200.	339.471	169.74	75-125

AMN 12/14/2021



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_1202HP532r, RRO ;1202HP5 , DRO211108A  
Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0032.RAW  
Date & Time Acquired: 12/3/2021 5:37:42 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	16.272	500.	204.994	41.

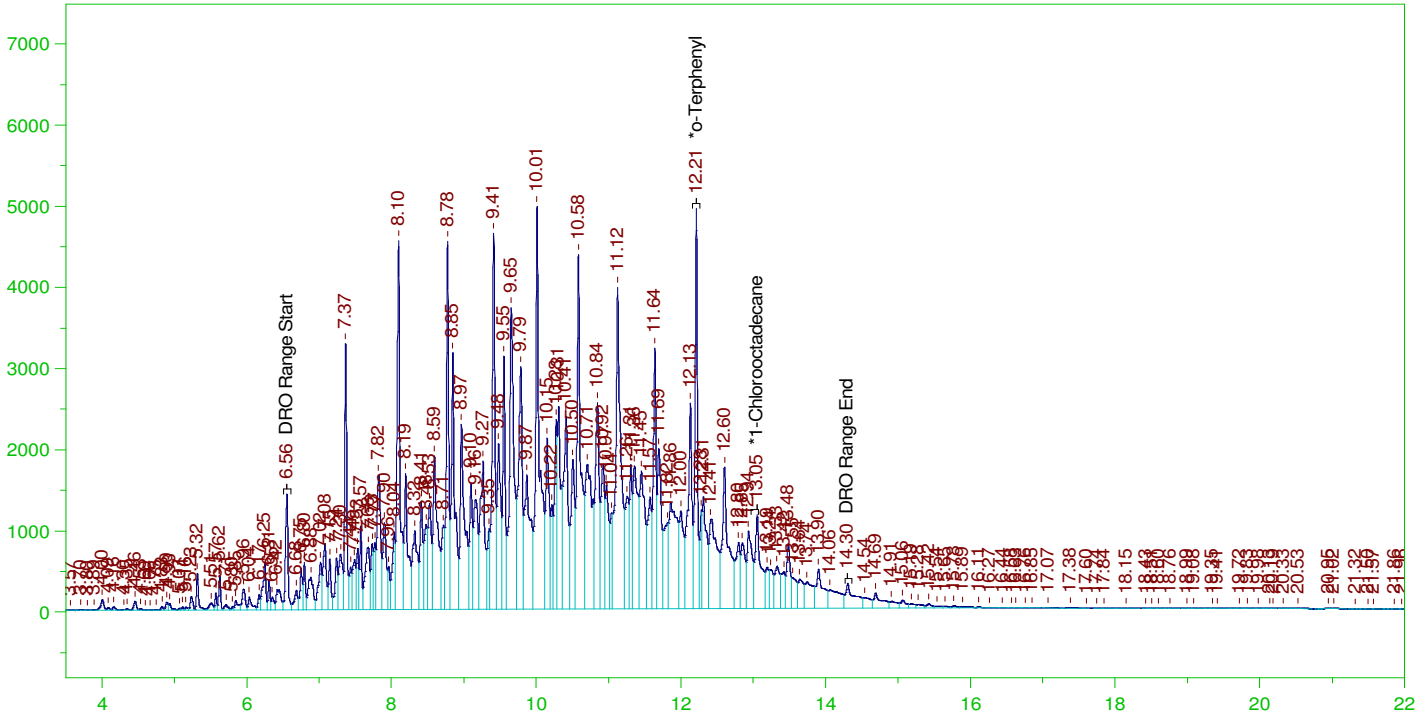
RRO Area:6183030 RRO AMOUNT: 216.6261

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0032.RAW  
COMPOUND ACTUAL (NG) MEASURED (NG) %RECOVERY LIMITS  
\*30-40 Motor Oil 5000. . . 75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.272	200.	204.994	102.5	75-125

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0033.RAW

CCV\_1202HP533r, DRO ;1202HP5 , DRO211124A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1202HP533r, DRO ;1202HP5 , DRO211124A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0033.RAW  
 Date & Time Acquired: 12/3/2021 6:20:45 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	12.213	200.	347.963	173.98
*1-Chlorooctadecane	13.051	200.	169.919	84.96

DRO Area: 4.889742E+08 DRO Amount: 15595.67  
 TEH Area: 5.057145E+08 TEH Amount: 16129.6

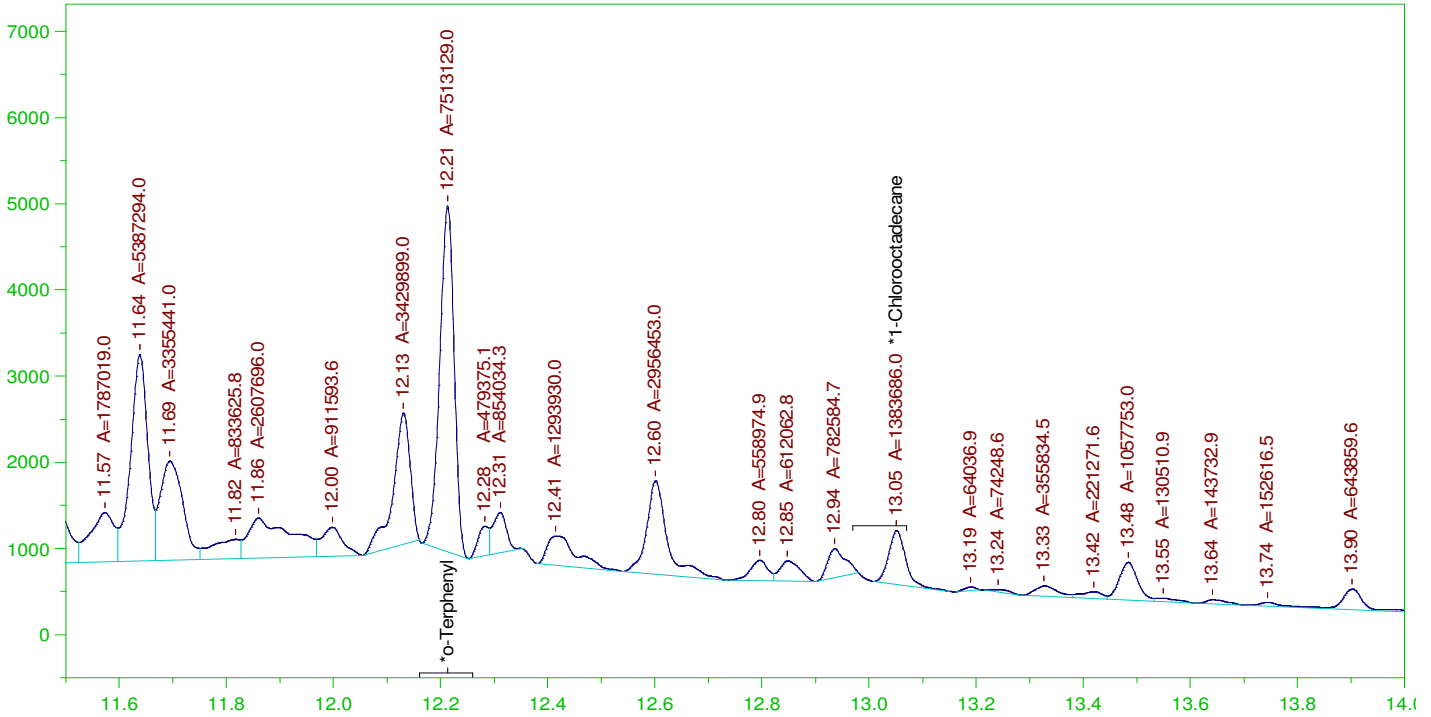
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0033.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	16129.6	107.53	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.213	200.	347.963	173.98	85-115
*1-Chlorooctadecane	13.051	200.	169.919	84.96	85-115

G:\org\HP5\DAT\HP5120221\_b\1202HP5.0033.RAW

CCV\_1202HP533r, DRO ;1202HP5 , DRO211124A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_1202HP533r, DRO ;1202HP5 , DRO211124A  
 Raw File: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0033.RAW  
 Date & Time Acquired: 12/3/2021 6:20:45 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	12.213	200.	211.583	105.79
*1-Chlorooctadecane	13.051	200.	38.967	19.48

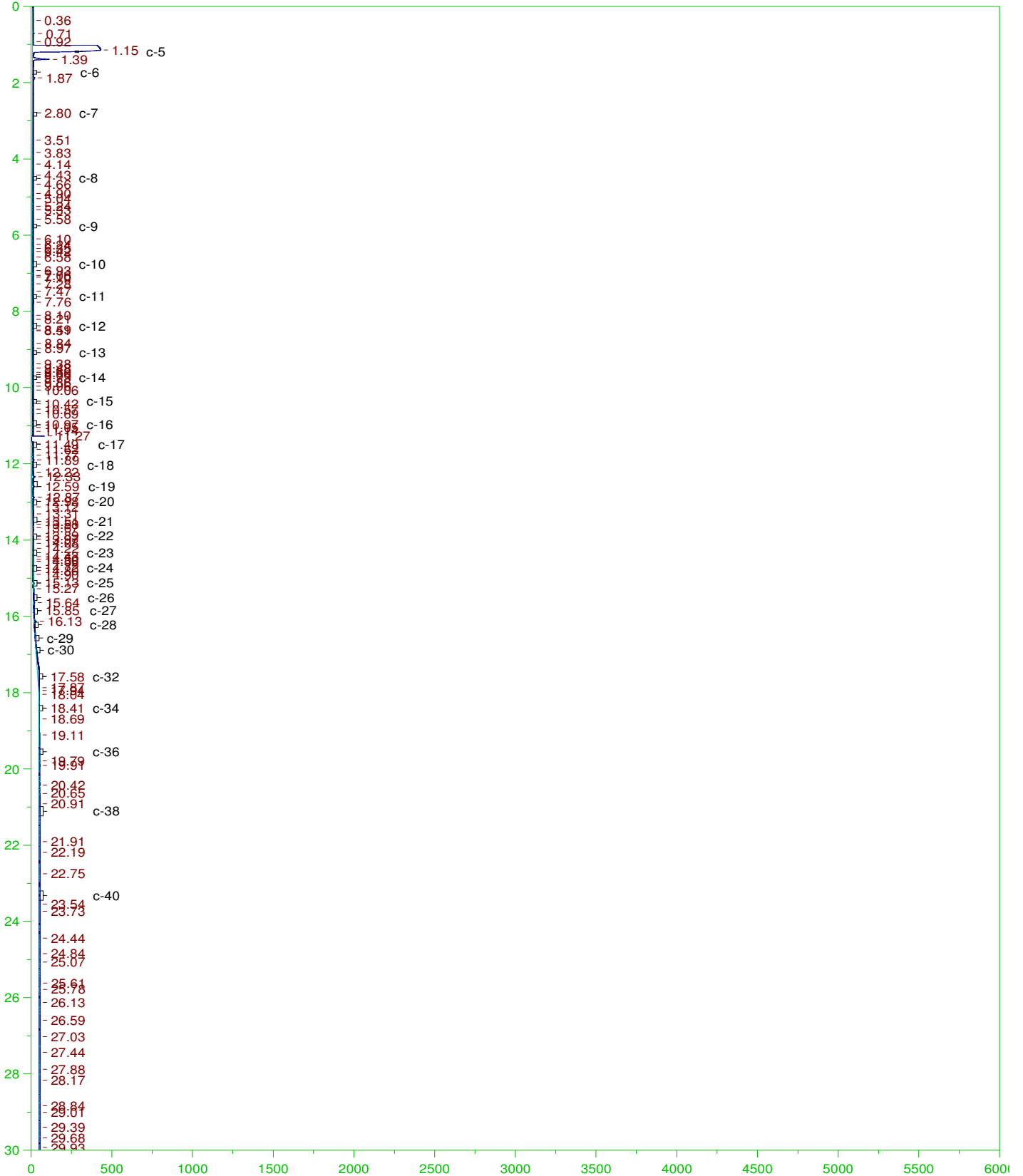
DRO Area: 2.753616E+08 DRO Amount: 8782.57  
 TEH Area: 2.862118E+08 TEH Amount: 9128.633

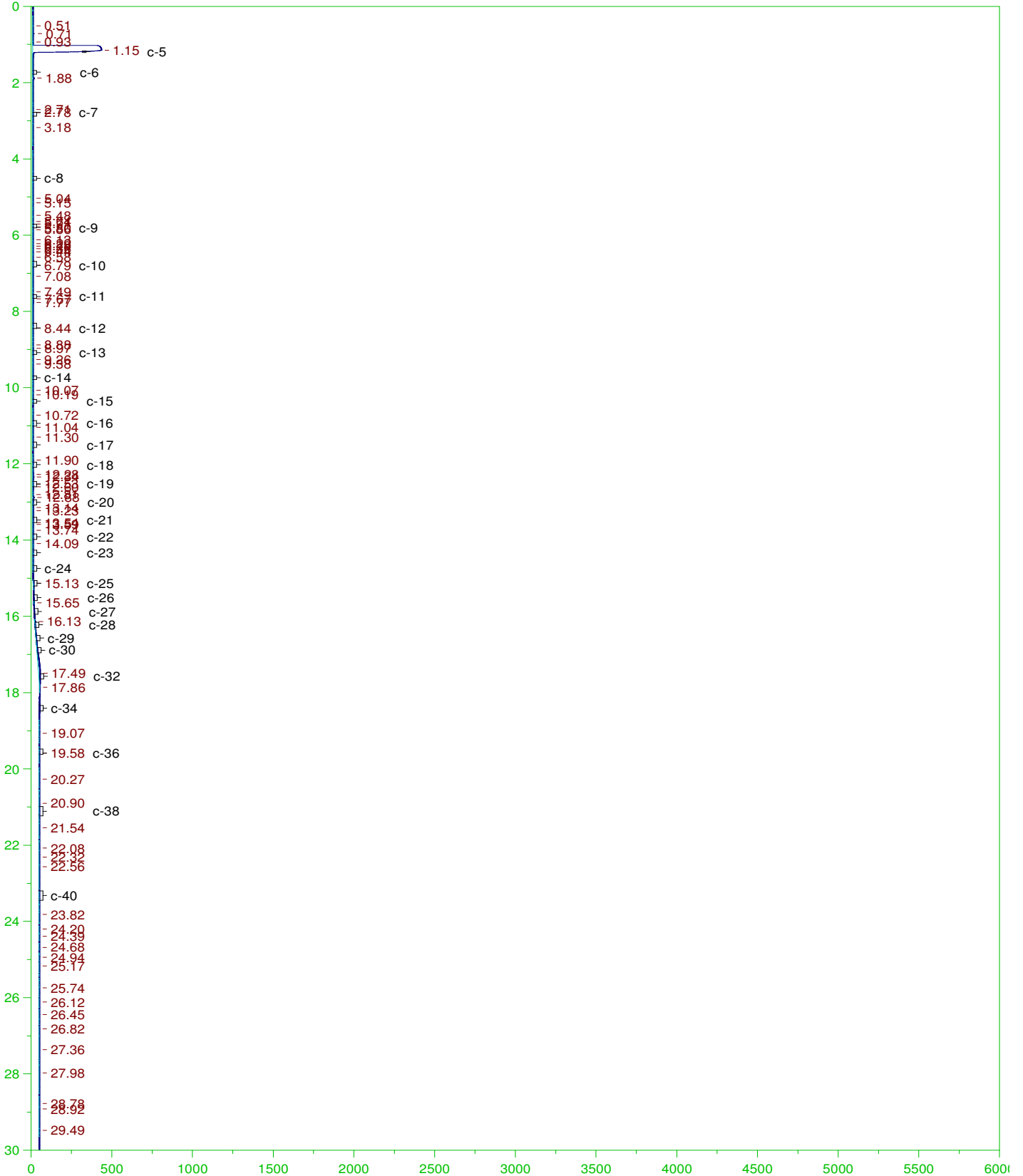
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5120221\_b\1202HP5.0033.RAW

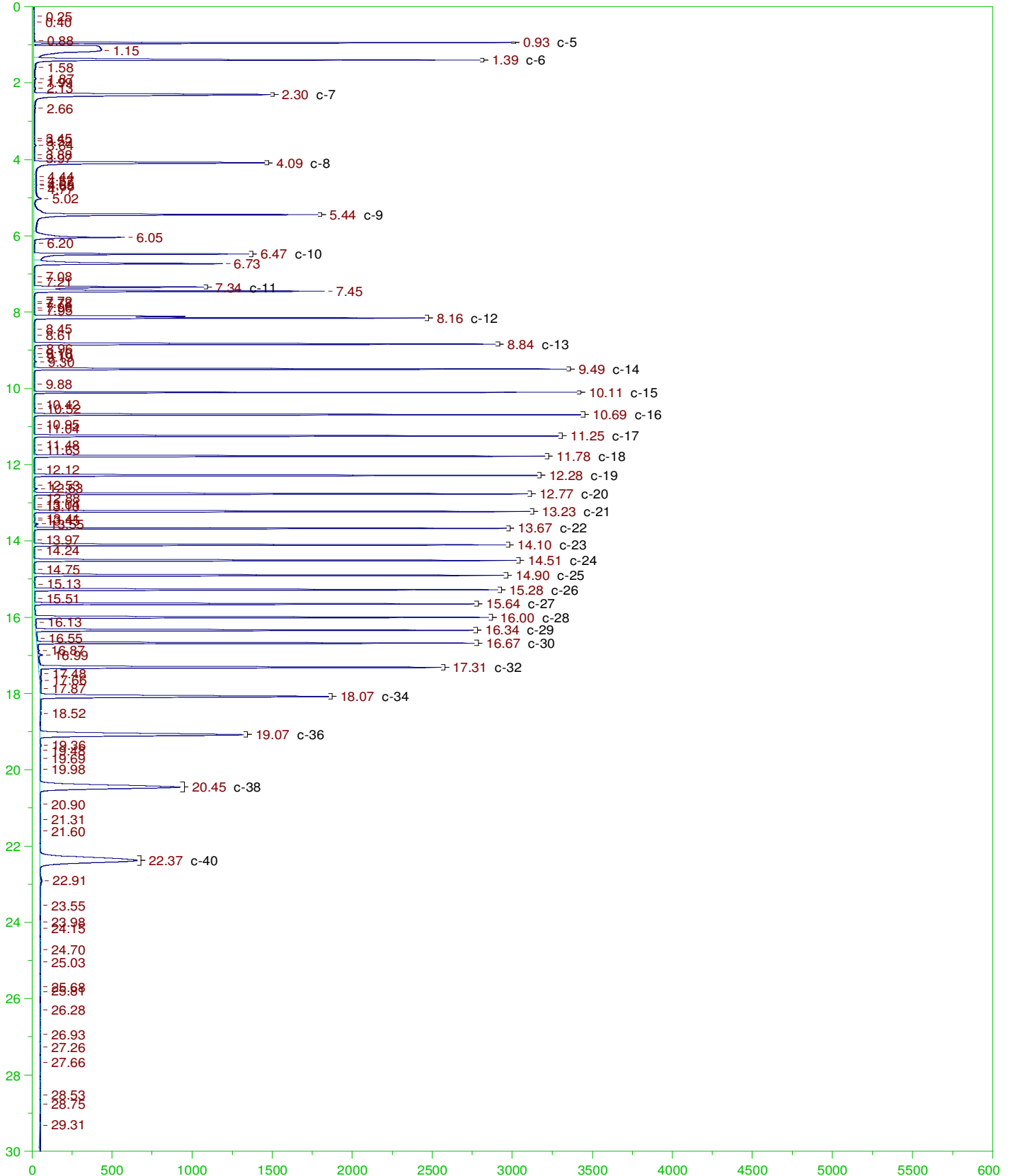
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	9128.63	60.86	85-115

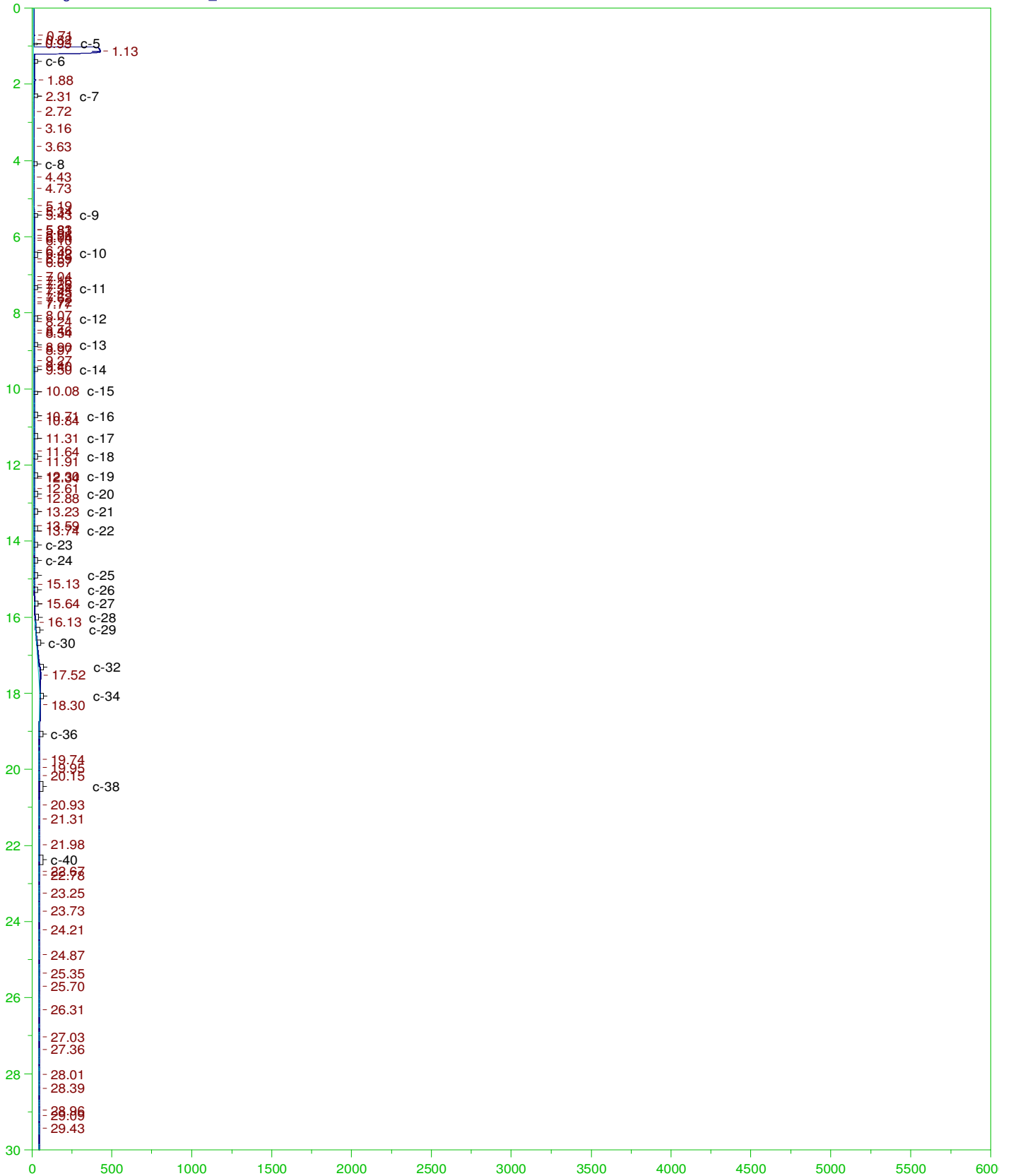
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.213	200.	211.583	105.79	85-115
*1-Chlorooctadecane	13.051	200.	38.967	19.48	85-115

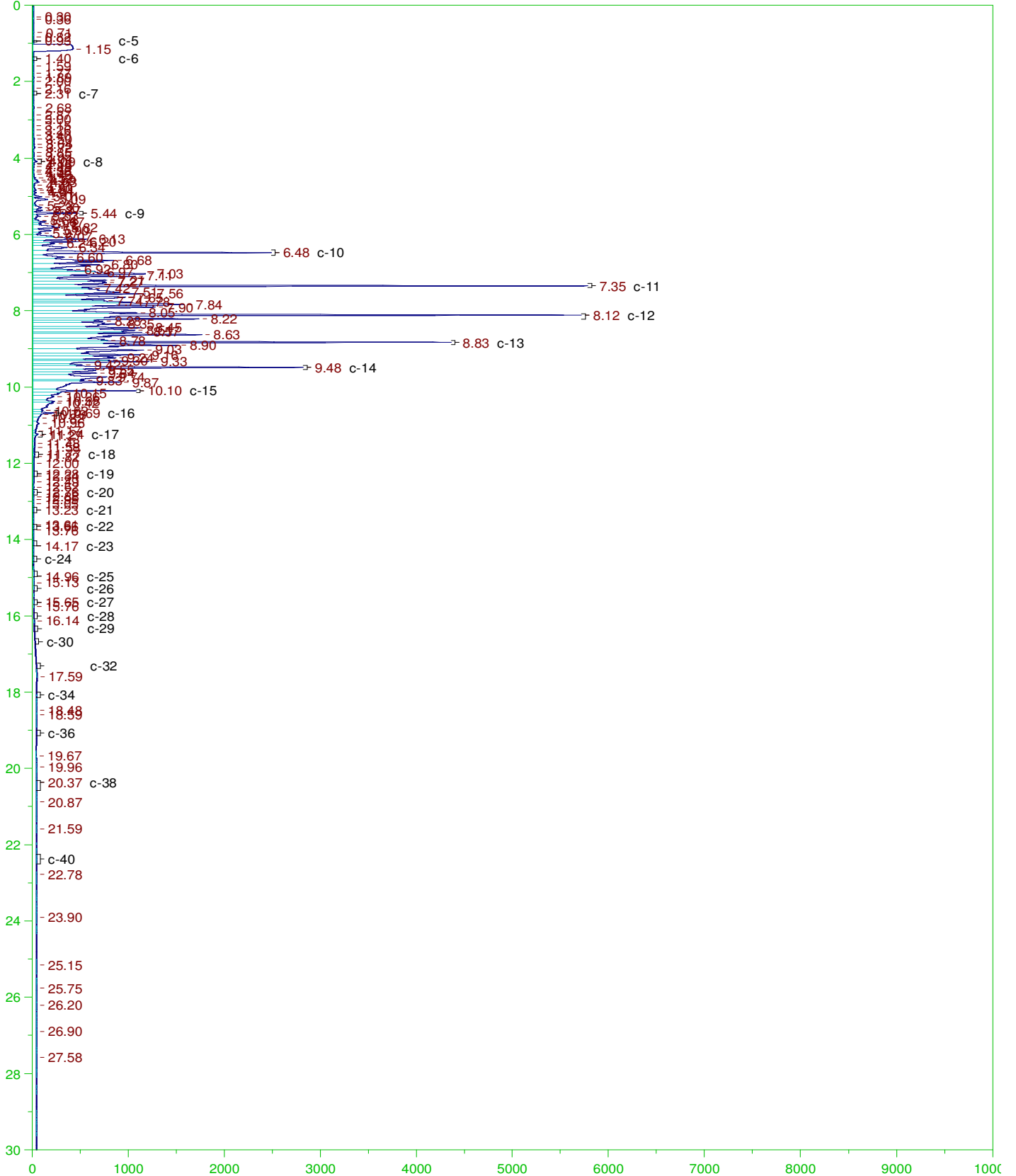














G:\org\HP5\DAT\HP5112921_b1129HP5.64	CCV_1129HP564r, RRO ;1129HP5 , DRO211108A	G:\org\HP5\Methods\DC_ORO-AF-L%.MET G:\org\HP5\Methods\DS_OROb-AF-L%.MET	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 16.19 minutes slightly after the surrogate peak at 16.38 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP5\DAT\HP5112921_b1129HP5.65r	CCV_1129HP565r, DRO ;1129HP5 , DRO211116B	G:\org\HP5\Methods\DC_8015-24-ID-L%.met G:\org\HP5\Methods\DS_8015-24-ID-Lf%.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\HP5112921_b1129HP5.66r	DCM-Baseline Check-V66	G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5112921_b1129HP5.67r	B21112206-001A ;1129HP5 , \$HC-8015-DRO-W,	G:\org\HP5\Methods\D3_8015-C24-ID-L%.met G:\org\HP5\Methods\D3_OROS-AF-A-L%.MET G:\org\HP5\Methods\DS_8015-C24-ID-Lf%.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. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.52 and 16.64 minutes. X-axis scaling showing surrogate peak from 11-19 minutes.
G:\org\HP5\DAT\HP5112921_b1129HP5.68r	B21112206-002A ;1129HP5 , \$HC-8015-DRO-W, need rr	G:\org\HP5\Methods\DR_8015-C24-ID-L0.met	970	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5112921_b1129HP5.69r	B21112206-002A ;1129HP5 , \$HC-8015-DRO-W, RR	G:\org\HP5\Methods\DR_8015-C24-ID-L%.met G:\org\HP5\Methods\D3_OROS-AF-A-L%.MET G:\org\HP5\Methods\DS_8015-C24-ID-Lf%.MET	970	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 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.52 and 16.64 minutes. X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5112921_b1129HP5.70r	B21112212-002A ;1129HP5 , \$HC-8015-DRO-W, RR	G:\org\HP5\Methods\D3_8015-C24-ID-L%.met G:\org\HP5\Methods\D3_OROS-AF-A-L%.MET G:\org\HP5\Methods\DS_8015b-C24-ID-Lf%.MET	1025	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 12.16 minutes and 16.21 minutes and slightly after the surrogate peaks at 12.52 and 16.64 minutes. X-axis scaling showing surrogate peak from 11-19 minutes.
G:\org\HP5\DAT\HP5112921_b1129HP5.71r	B21112214-002B ;1129HP5 , \$HC-8015-DRO-W, RR for oil	G:\org\HP5\Methods\D3_OROS-71-AFA-L%.MET G:\org\HP5\Methods\DS_8015b-C24-ID-Lf%.MET	1050	2	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline with peak width and scale adjusted. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 16.19 minutes slightly after the surrogate peak at 16.38 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP5\DAT\HP5112921_b1129HP5.72r	DCM-Baseline Check-V72	G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5112921_b1129HP5.73r	B21112214-002BMS ;1129HP5 , (J,40)	G:\org\HP5\Methods\D3_8015-112973-24-ID-L%.met G:\org\HP5\Methods\DS_8015-24-ID-Lf%.MET	1010	80	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 17.36 minutes and scale 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\HP5112921_b1129HP5.74r	B21112214-002BMS-RRO ;1129HP5 ,	G:\org\HP5\Methods\D3_ORO-112974-AF-L%.MET G:\org\HP5\Methods\DS_OROb-AF-L%.MET	1020	3	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline with scale adjusted. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 16.19 minutes slightly after the surrogate peak at 16.38 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP5\DAT\HP5112921_b1129HP5.75r	DCM-Baseline Check-V75	G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5112921_b1129HP5.76r	MARKER_1129HP76r, C40 ;1129HP5 , DRO211110A	G:\org\HP5\Methods\CSC211129.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5112921_b1129HP5.77r	MARKER_1129HP77r, DRO ;1129HP5 , DRO211103B	G:\org\HP5\Methods\DC_8015-24-ID-L%.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5112921_b1129HP5.78r	CCV_1129HP578r, RRO ;1129HP5 , DRO211108A	G:\org\HP5\Methods\DC_ORO-AF-L%.MET G:\org\HP5\Methods\DS_OROb-AF-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 16.19 minutes slightly after the surrogate peak at 16.38 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP5\DAT\HP5112921_b1129HP5.79r	CCV_1129HP579r, DRO ;1129HP5 , DRO211116B	G:\org\HP5\Methods\DC_8015-24-ID-L%.met G:\org\HP5\Methods\DS_8015-24-ID-Lf%.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\HP5112921_b1129HP5.80r	DCM-Baseline Check-V80	G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5112921_b1129HP5.81r	LCS-161704-RRO ;1129HP5 ,	G:\org\HP5\Methods\D3_ORO-AF-L%.MET G:\org\HP5\Methods\DS_OROb-AF-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 16.19 minutes slightly after the surrogate peak at 16.38 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP5\DAT\HP5112921_b1129HP5.82r	DCM-Baseline Check-V82	G:\org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5112921_b1129HP5.83r	LCS-161704-RRO ;1129HP5 ,	G:\org\HP5\Methods\D3_ORO-AF-L%.MET G:\org\HP5\Methods\DS_OROb-AF-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 16.19 minutes slightly after the surrogate peak at 16.38 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP5\DAT\HP5112921_b1129HP5.84r	MARKER_1129HP576r, DRO ;1129HP5 , DRO211103B	G:\org\HP5\Methods\DC_8015-24-ID-L%.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5112921_b1129HP5.85r	CCV_1129HP579r, RRO ;1129HP5 , DRO211108A	G:\org\HP5\Methods\DC_ORO-AF-L%.MET G:\org\HP5\Methods\DS_OROb-AF-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 16.19 minutes slightly after the surrogate peak at 16.38 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.

*Ann Nebel*

Digitally signed by  
Ann Nebel  
Date: 2021.12.14 16:18:07 -07:00

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj	IS	Cal ID	Manual Integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.01r		DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	1	0 No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.02r		DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	1	0 No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.03r		MARKER_1202HP03r_C40_1202HP5_DRO211110A	G:\Org\HP5\Methods\CSC211202.met	1	1	1	1	1	0 No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.04r		MARKER_1129HP04r_DRO_1202HP5_DRO211103B	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met	1	1	1	1	1	0 No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.05r		CCV_1202HP505r_RRO_1202HP5_DRO211108A	G:\Org\HP5\Methods\DC_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-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\HP5120221_b\1202HP5.06r		CCV_1202HP506r_DRO_1202HP5_DRO211124A	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met G:\Org\HP5\Methods\DS_8015-24-IE-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.
G:\org\HP5\DAT\HP5120221_b\1202HP5.07r		DCM-Baseline Check-V07	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	1	0 No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.08r		LCS-161704_1202HP5_SGT	G:\Org\HP5\Methods\D3_8015-24-IE-L%.met G:\Org\HP5\Methods\DS_8015-24-IE-L%.met	1000	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. 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\HP5120221_b\1202HP5.09r		LCS2-161704_1202HP5_SGT	G:\Org\HP5\Methods\D3_8015-24-IE-L%.met G:\Org\HP5\Methods\DS_8015-24-IE-L%.met	1000	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. 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\HP5120221_b\1202HP5.10r		MB-161704_1202HP5_SGT	G:\Org\HP5\Methods\DR_8015-C24T-IE-L%.met G:\Org\HP5\Methods\DR_OROS-AG-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IE-L%.MET	1000	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\HP5120221_b\1202HP5.11r		B21112206-001A_1202HP5_SHC-8015-DRO-W_SGT	G:\Org\HP5\Methods\DR_8015-C24T-IE-L%.met G:\Org\HP5\Methods\DR_OROS-AG-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IE-L%.MET	960	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\HP5120221_b\1202HP5.12r		B21112212-004A_1202HP5_SHC-8015-DRO-W_SGT	G:\Org\HP5\Methods\DR_8015-C24T-IE-L%.met G:\Org\HP5\Methods\DR_OROS-AG-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IE-L%.MET	1045	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\HP5120221_b\1202HP5.13r		B21112212-003A_1202HP5_SHC-8015-DRO-W_SGT	G:\Org\HP5\Methods\DR_8015-C24T-IE-L%.met G:\Org\HP5\Methods\DR_OROS-AG-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IE-L%.MET	1025	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\HP5120221_b\1202HP5.15r		B21112212-002A_1202HP5_SHC-8015-DRO-W_SGT	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met G:\Org\HP5\Methods\DR_8015-C24T-IE-L%.met G:\Org\HP5\Methods\DR_OROS-AG-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IE-L%.MET	1025	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\HP5120221_b\1202HP5.16r		B21112212-001A_1202HP5_SHC-8015-DRO-W_SGT	G:\Org\HP5\Methods\DR_8015-C24T-IE-L%.met G:\Org\HP5\Methods\DR_OROS-AG-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IE-L%.MET	1050	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\HP5120221_b\1202HP5.17r		B21112214-002B_1202HP5_SHC-8015-DRO-W_SGT,(2,25)	G:\Org\HP5\Methods\DR_8015-120217-IE-L%.met G:\Org\HP5\Methods\DR_OROS-120217-AG-L%.MET G:\Org\HP5\Methods\DS_8015-120214-IE-L%.MET	1050	50	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\HP5120221_b\1202HP5.18r		MARKER_1202HP18r_C40_1202HP5_DRO211110A	G:\Org\HP5\Methods\CSC211202.met	1	1	1	1	1	0 No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.19r		MARKER_1129HP19r_DRO_1202HP5_DRO211103B	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met	1	1	1	1	1	0 No integrations



G:\org\HP5\DAT\HP5120221_b\1202HP5.20r	CCV_1202HP520r, RRO ;1202HP5 , DRO211108A	G:\Org\HP5\Methods\DC_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-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\HP5120221_b\1202HP5.21r	CCV_1202HP521r, DRO ;1202HP5 , DRO211124A	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met G:\Org\HP5\Methods\DS_8015-24-IE-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.
G:\org\HP5\DAT\HP5120221_b\1202HP5.22r	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.23r	B21112214-002BMS ;1202HP5 , SGT,(2,25)	G:\Org\HP5\Methods\D3_8015-120223-24-IE-L%.met G:\Org\HP5\Methods\DS_8015-24-IE-L%.met	1010	50	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 and scale. 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\HP5120221_b\1202HP5.24r	DCM-Baseline Check-V24	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.26r	DCM-Baseline Check-V26	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.27r	LCS-161704-RRO ;1202HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-L%.MET	1000	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\HP5120221_b\1202HP5.28r	DCM-Baseline Check-V28	G:\Org\HP5\Methods\DR_8015-IB-LEXP.met	1	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.29r	LCS-D-161704-RRO ;1202HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-L%.MET	1000	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\HP5120221_b\1202HP5.30r	MARKER ;1202HP30r, C40 ;1202HP5 , DRO211110A	G:\Org\HP5\Methods\CSC211202.met	1	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.31r	MARKER ;129HP31r, DRO ;1202HP5 , DRO211103B	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met	1	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5120221_b\1202HP5.32r	CCV_1202HP532r, RRO ;1202HP5 , DRO211108A	G:\Org\HP5\Methods\DC_ORO-AG-L%.MET G:\Org\HP5\Methods\DS_ORO-AG-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\HP5120221_b\1202HP5.33r	CCV_1202HP533r, DRO ;1202HP5 , DRO211124A	G:\Org\HP5\Methods\DC_8015-24-IE-L%.met G:\Org\HP5\Methods\DS_8015-24-IE-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: 2021.12.14 16:18:38 -07:00

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
	G:\org\HP3\DAT\HP3120221_b\1202HP3.01r	CS2-7477-Baseline Check-V01	g:\org\HP3\Methods\CSC211020.met	1	1	1	1		0 No integrations
	G:\org\HP3\DAT\HP3120221_b\1202HP3.02r	CS2-7477-Baseline Check-V02	g:\org\HP3\Methods\CSC211020.met	1	1	1	1		0 No integrations
	G:\org\HP3\DAT\HP3120221_b\1202HP3.03r	MARKER_1202HP303r_CSCAN_1202HP3_DRO211110A	g:\org\HP3\Methods\CSC211203.met	1	1	1	1		0 No integrations
	G:\org\HP3\DAT\HP3120221_b\1202HP3.04r	MB-CS2-7477-Baseline Check-V04	g:\org\HP3\Methods\CSC211203.met	1	1	1	1		0 No integrations
	G:\org\HP3\DAT\HP3120221_b\1202HP3.05r	B21112214-001A_1202HP3_SHC-CSCAN-O,	g:\org\HP3\Methods\CSC211203-05.met	1	1	1	1		0 Splits were placed at 8.17, 10.14, 10.72, and 11.27 minutes as well as a Set Baseline All Valleys on at 14.51 minutes.

Digitally signed by  
Ann Nebel  
Date: 2021.12.14 16:19:30 -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

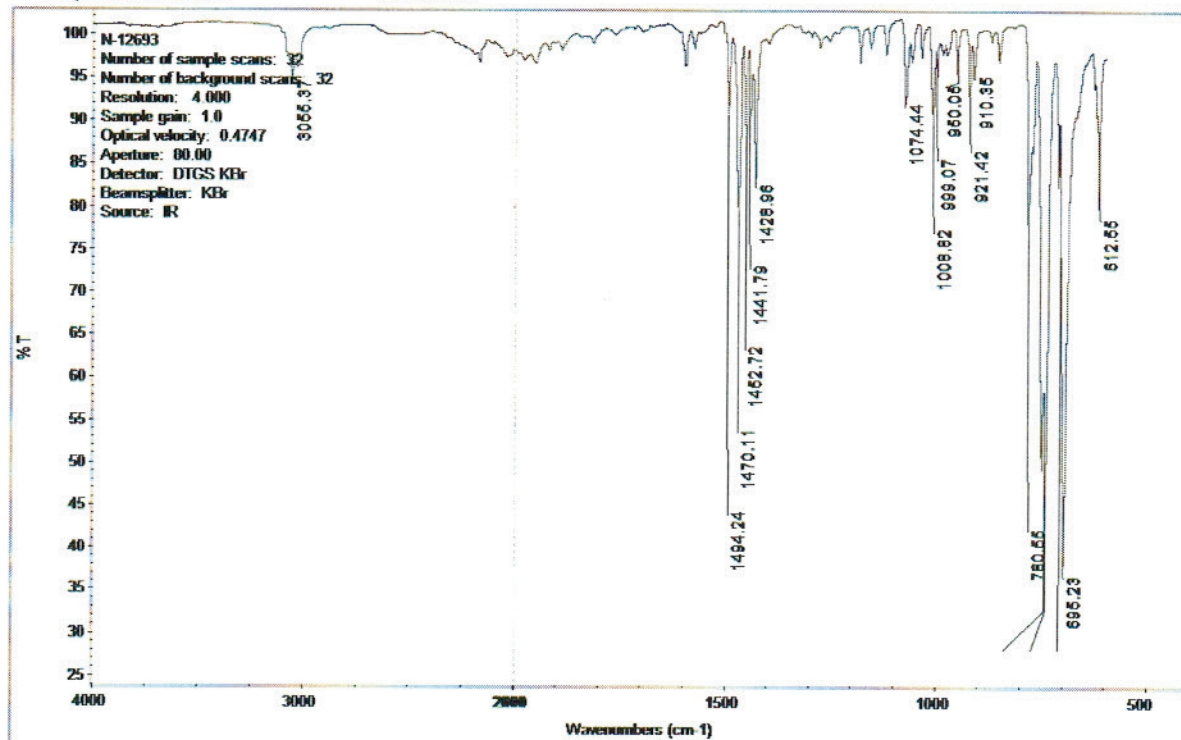
Rec'd: 4/30/2020

Energx 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



## 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



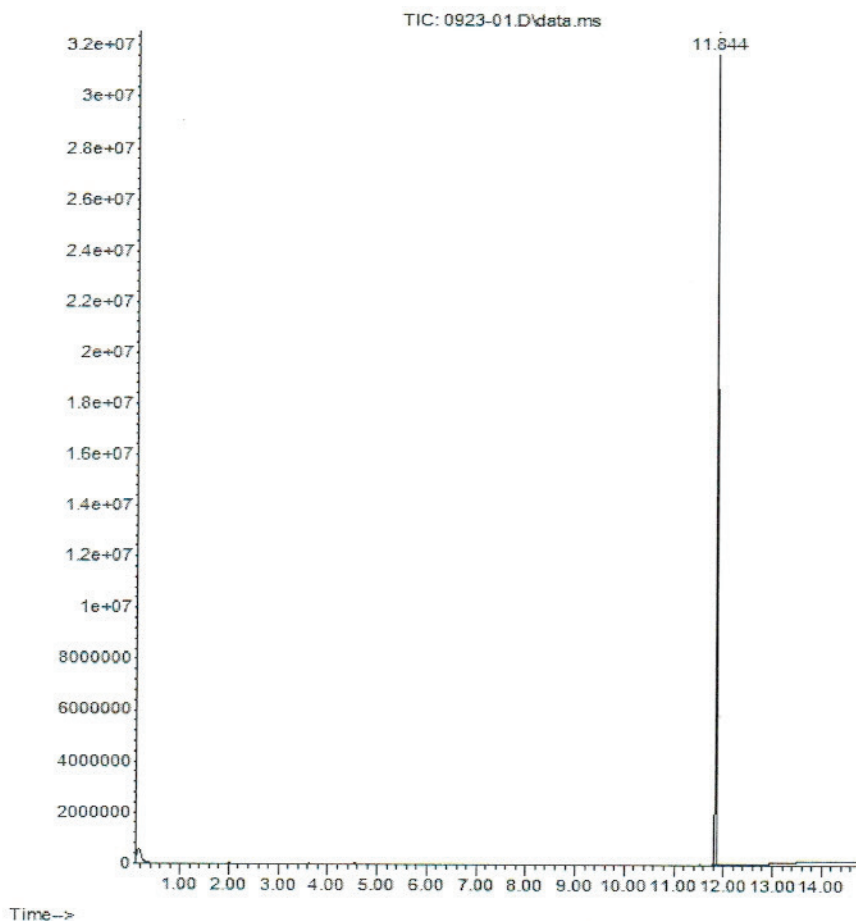
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

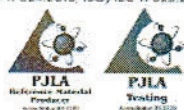
### Analysis Method:

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

Abundance



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





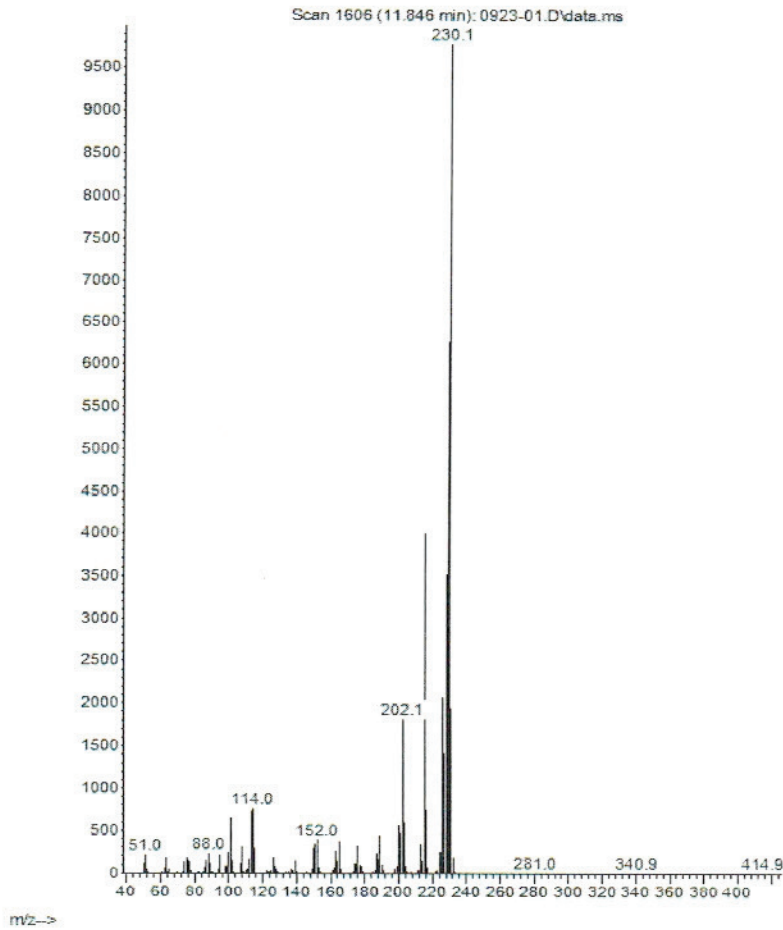
660 Tower Lane • P. O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## 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



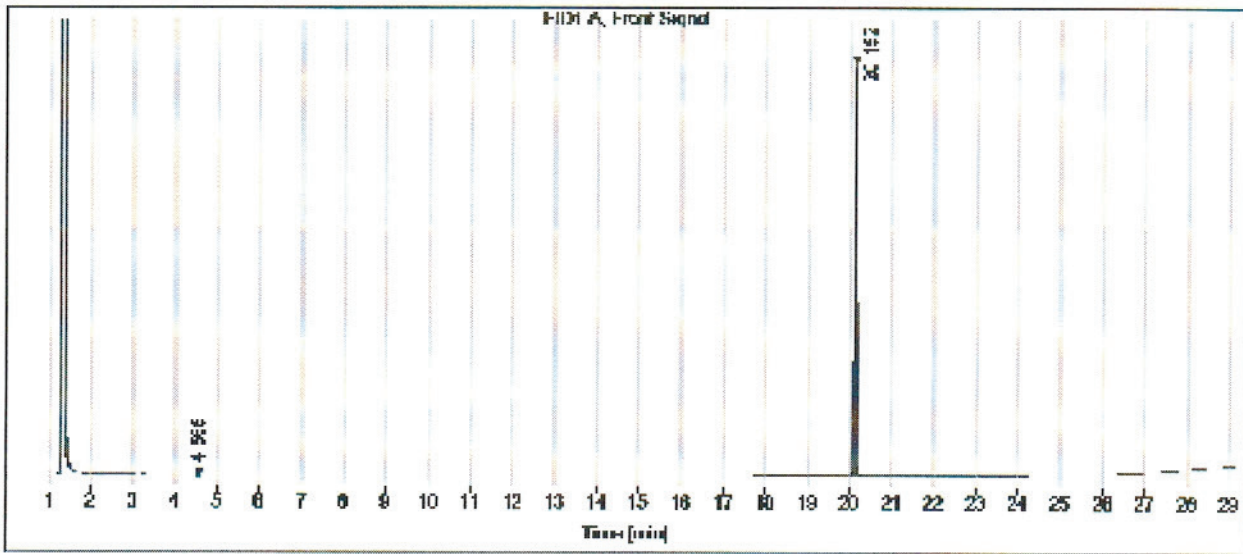
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

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

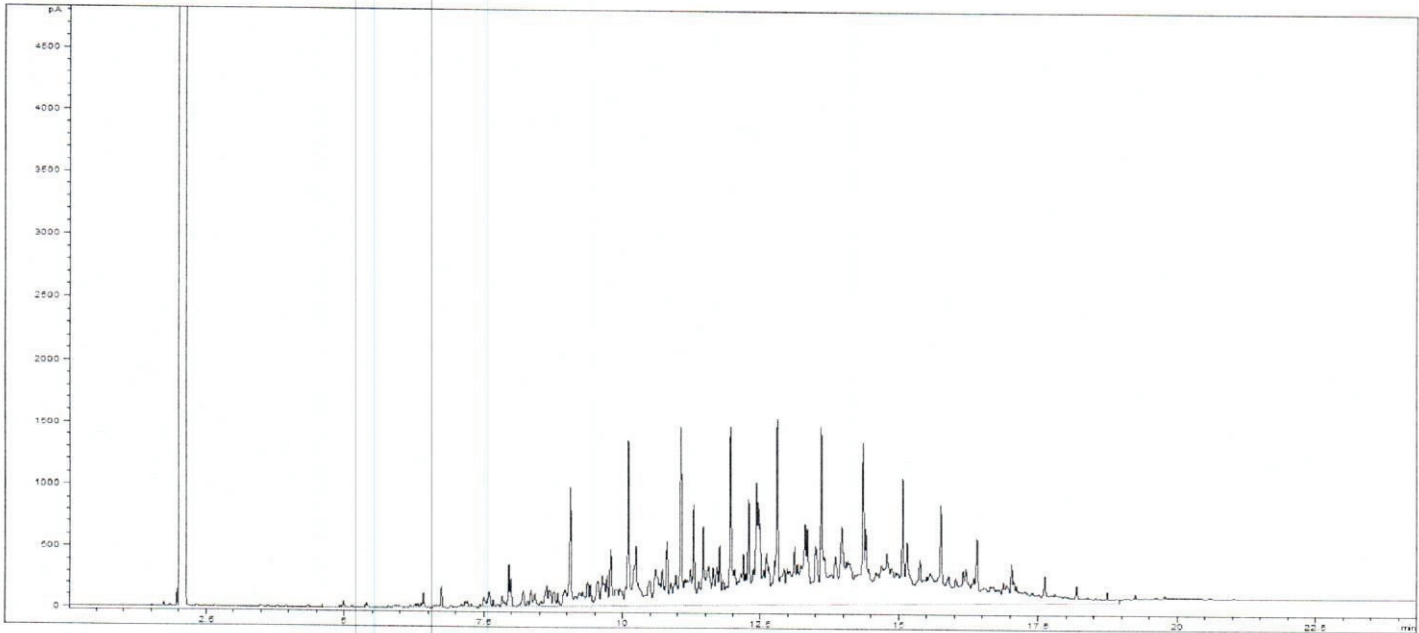
Rec'd: 10/12/2021

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.

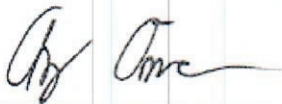
**Traceability:** The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual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

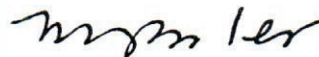
Expiration is at end of month given on certificate and label.

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

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



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

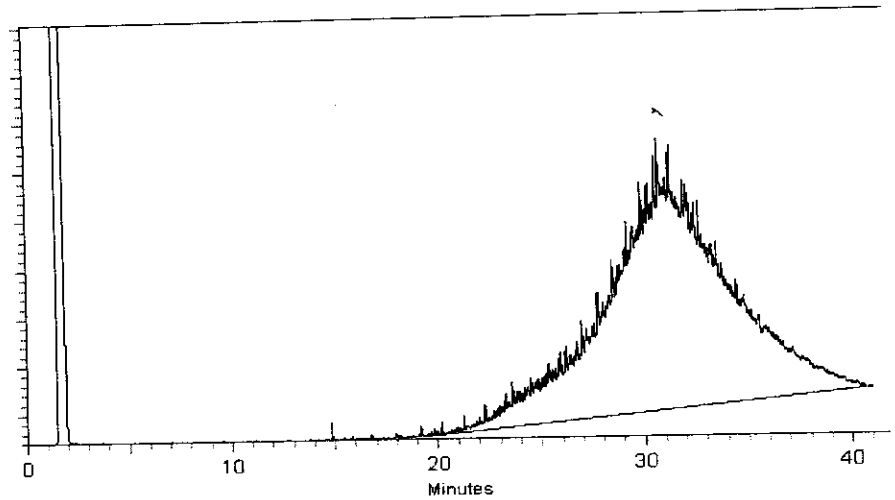
**Carrier Gas:**  
hydrogen-constant pressure 10 psi.

**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: \_\_\_\_\_

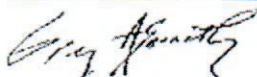
Triacontane-d62-98 atom % D

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 Type: Secondary  
Date Prepared 10/12/2021 BY: Ann Nebel  
Date Expires: 11/5/2023  
Department dropr Status: New  
Vendor:  
Lot Number:  
Balance ID: BAL-DRO  
Comments: #2 Diesel in Acetone 150,000 ug/mL.

---

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

**Final Volume:** 25 mL

**Stock Source**

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>	<u>Conc:</u>	<u>ug/mL</u>
A #2 Diesel	68476-34-6	250 mL	1

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO211116B  
 Standard Name: 8015 CCV-15,000ug/mL + 200 OTP  
 Date Prepared: 11/16/2021  
 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: Jillian L Bostwick  
 Status: Empty/Disposed

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC480	14470	2.6	mL	9/16/

**Final Volume:** 4 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
DRO200420B 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

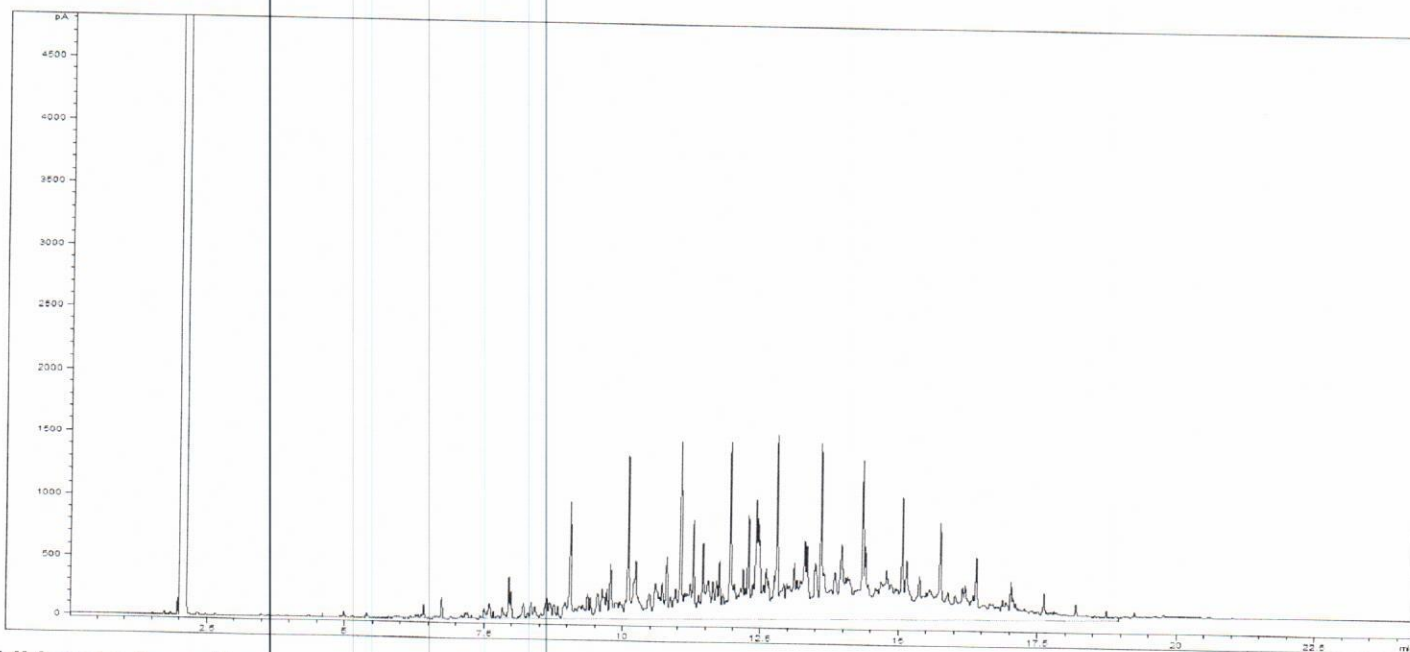
Rec'd: 11/2/2021

Energyl 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.

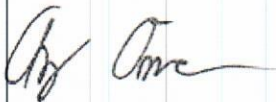
**Traceability:** The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual 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: DRO200420B  
 Standard Name: OTP-4000 ug/mL DCM  
 Date Prepared: 4/20/2020  
 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 DY035	12540	25	mL	12/25

**Final Volume:** 25 mL

**Stock Source**

DRO191001A O-Terphenyl

**Base Units**

ug/mL

**Amount Added**

0.0999 g

**Analtes**

A O-Terphenyl

**CAS**

84-15-1

Conc:

**ug/mL**

4000

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO191001A  
Standard Name: O-Terphenyl  
Date Prepared: 10/1/2019  
Date Expires: 9/30/2024  
Department: dropr  
Vendor: Chemservice  
Lot Number: 8997800  
Balance ID:  
Comments: ID#: 6271

Type: Neat  
BY: Ann Nebel  
Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
o-Terphenyl	11954	500	mg	9/30/

Final Volume: mL

Stock Source

**Base Units**

**Amount Added**

Analtes

**CAS**

Conc: ug/mL

A O-Terphenyl

84-15-1



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[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 8997800  
 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 #: 11954**

Opened: \_\_\_\_\_

o-Terphenyl

**Expires: 9/30/2024**

Rec'd: 10/1/2019

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

Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008



ISO/IEC 17025  
 Accreditation Number 83520



Reference Material Product of  
 ISO GUIDE 34  
 Accreditation Number 83520

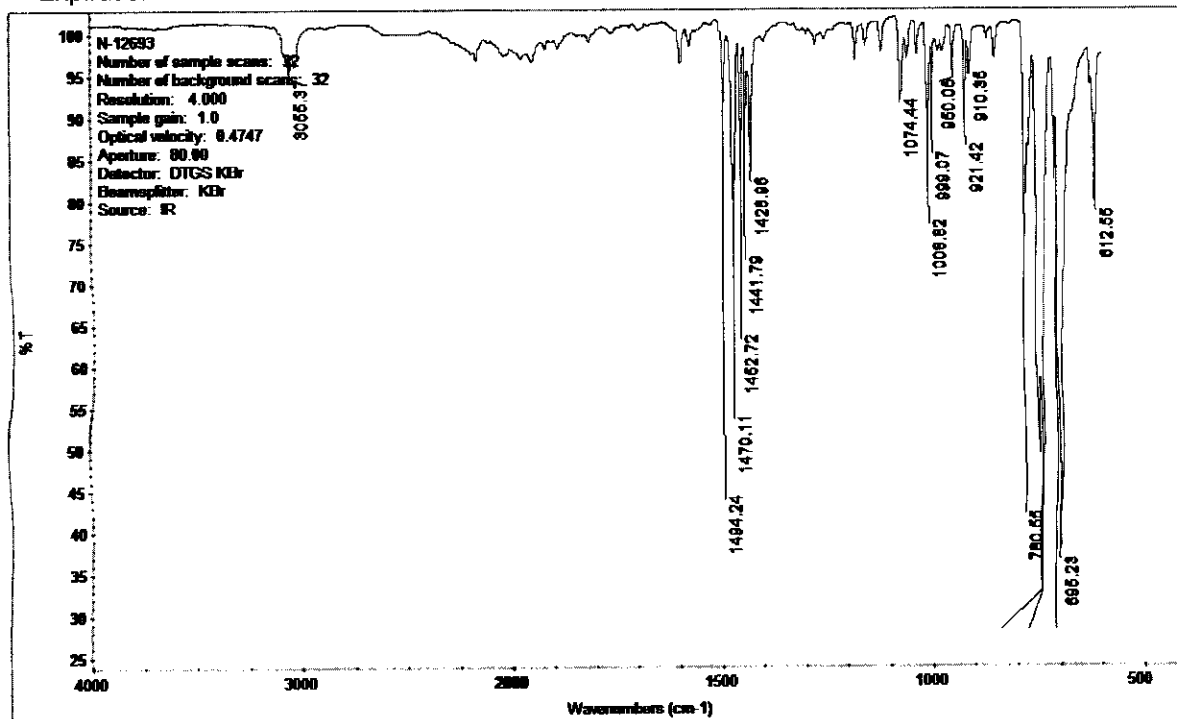
COA Form  
 Revision 3 (3/2015)

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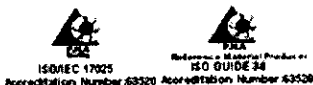
## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 8997800  
Expiration Date: 09/30/24



Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008



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## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 8997800  
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

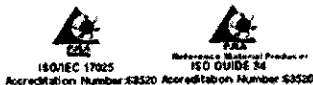
Signal : TIC: 0923-01.D\data.ms

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

Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008



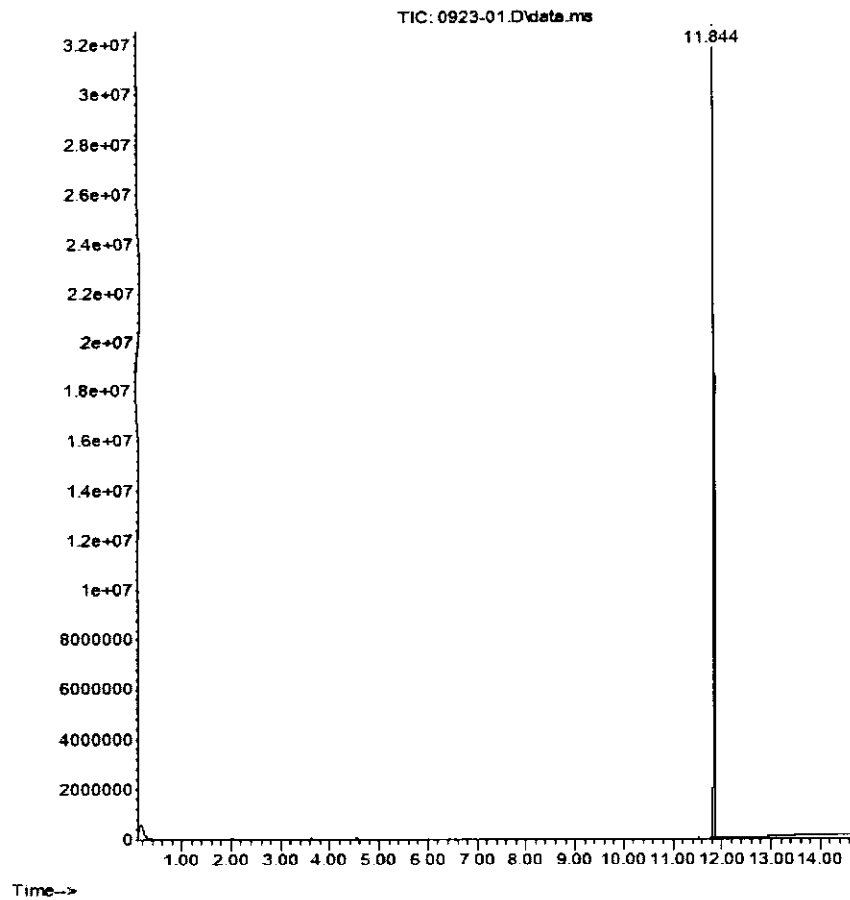
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## CERTIFICATE OF ANALYSIS

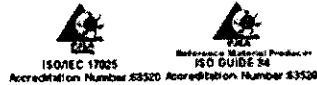
### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 8997800  
Expiration Date: 09/30/24

Abundance



Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008





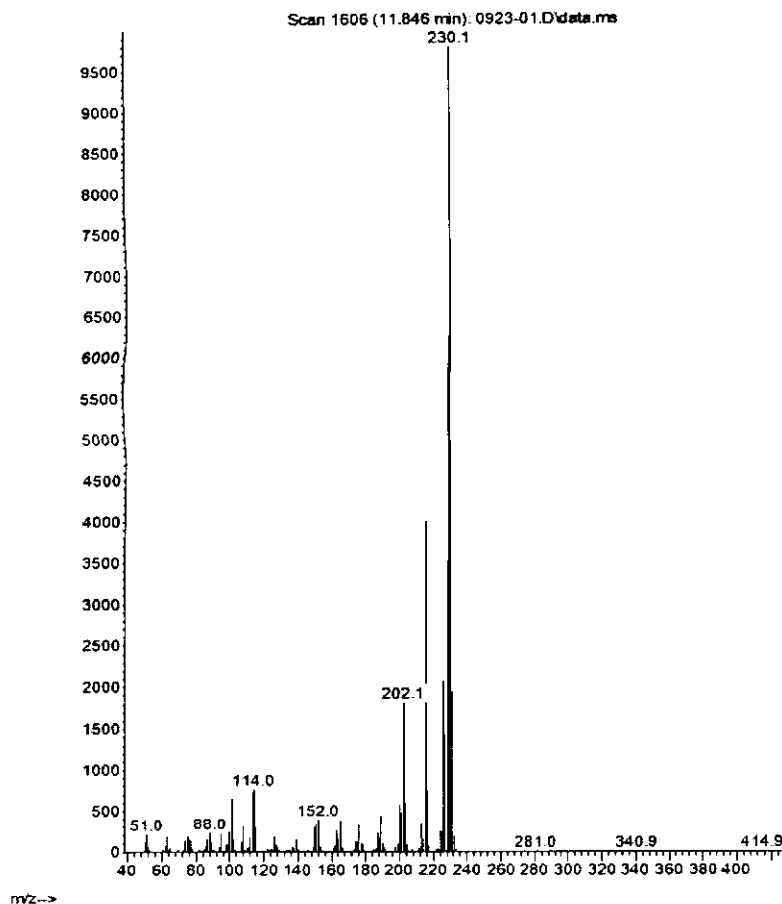
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## CERTIFICATE OF ANALYSIS

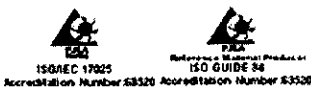
### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 8997800  
Expiration Date: 09/30/24

Abundance



Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008





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## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 8997800  
Expiration Date: 09/30/24

Chem Service, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008



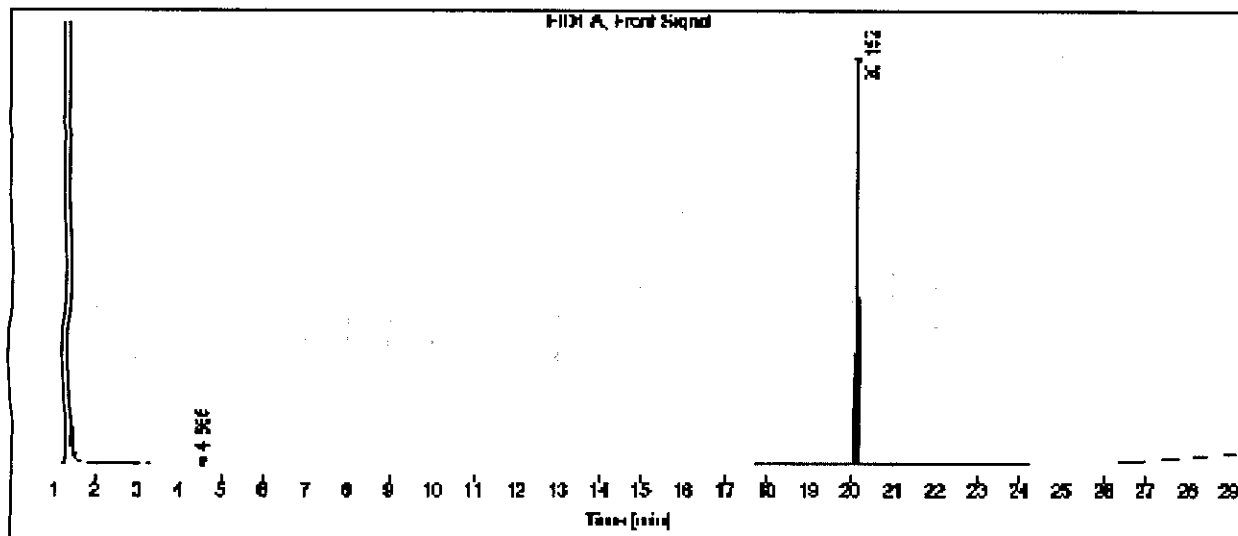
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Gas

Data file: C:\CHEM3\  
 Sample name: N-12693  
 Instrument: GC 2  
 Injection date: 9/23/2019 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, Inc. is accredited to ISO Guide 34:2009, ISO/IEC 17025:2005 and certified to ISO 9001:2008



# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO211124A  
 Standard Name: 8015 CCV-15,000ug/mL + 200 OTP  
 Date Prepared: 11/24/2021  
 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: Open

---

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

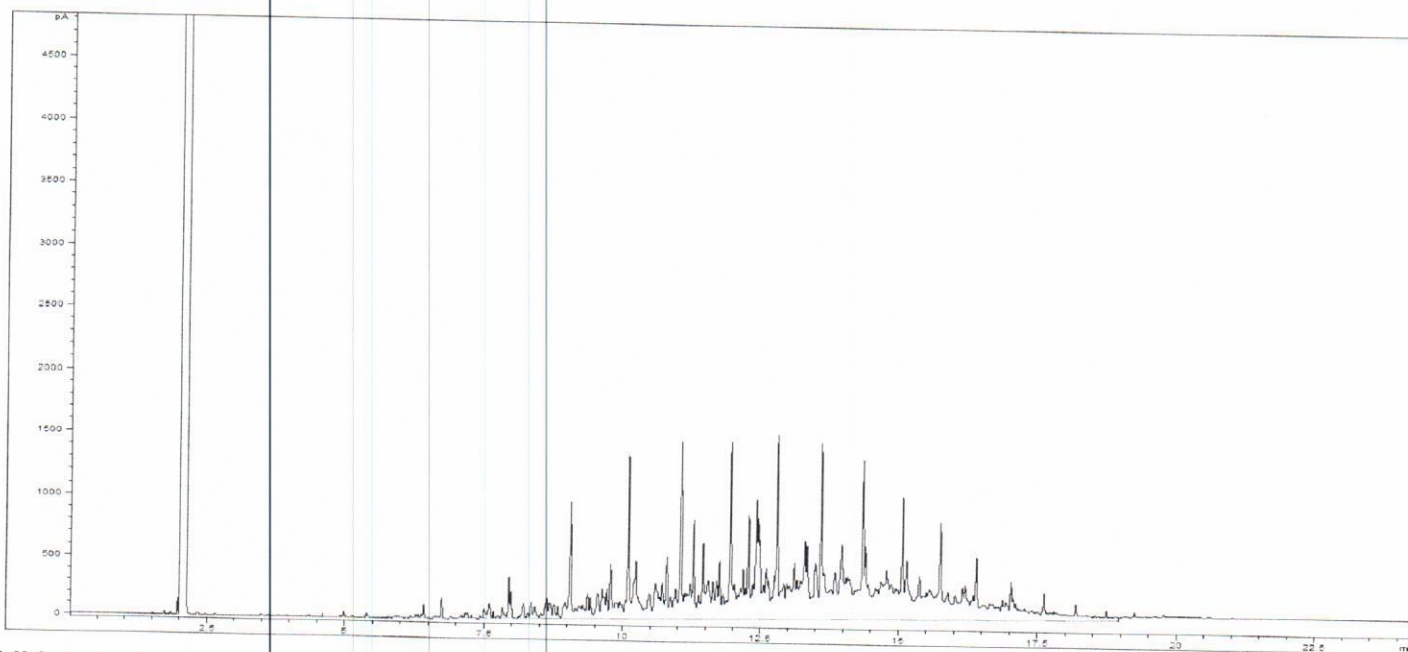
Rec'd: 11/2/2021

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



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800-325-5832  
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# 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.

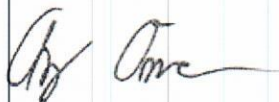
**Traceability:** The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual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

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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

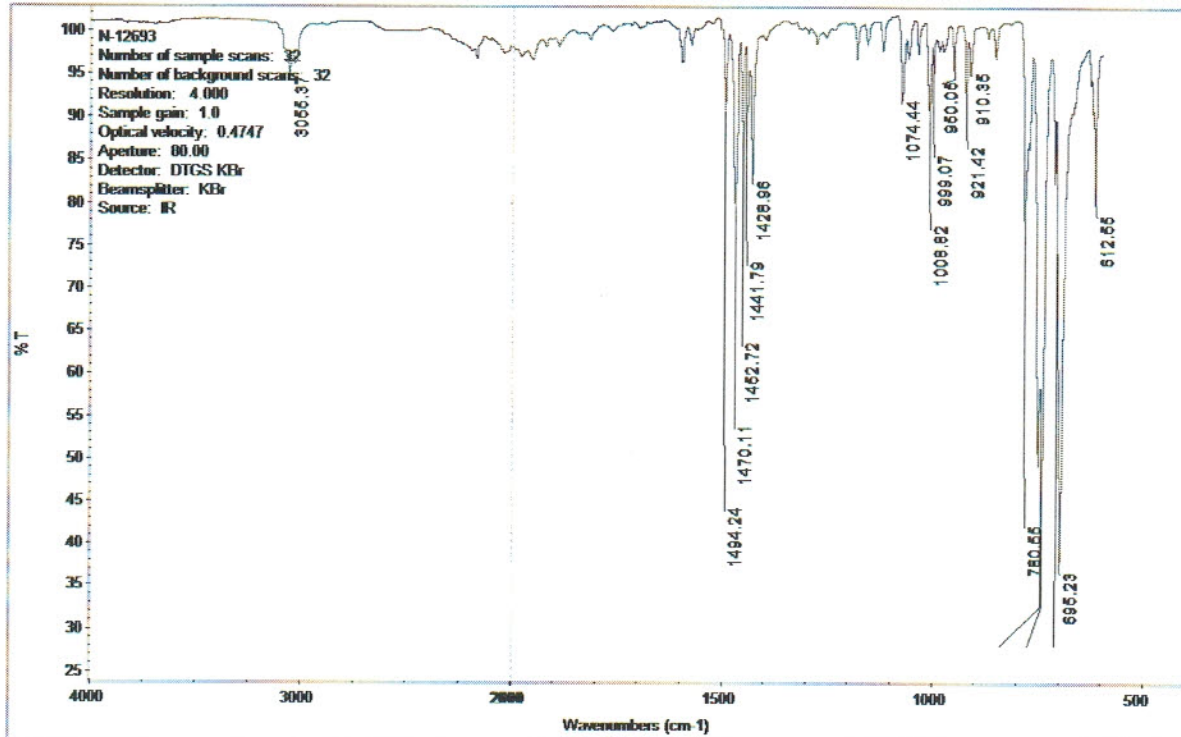
Rec'd: 4/30/2020

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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[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 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

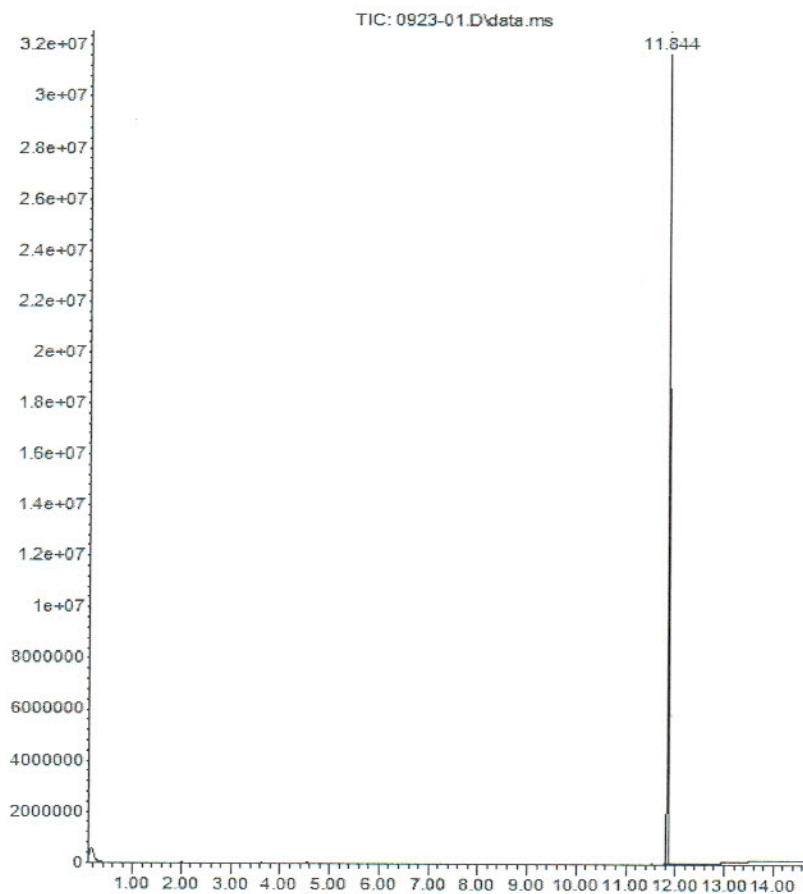
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## 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





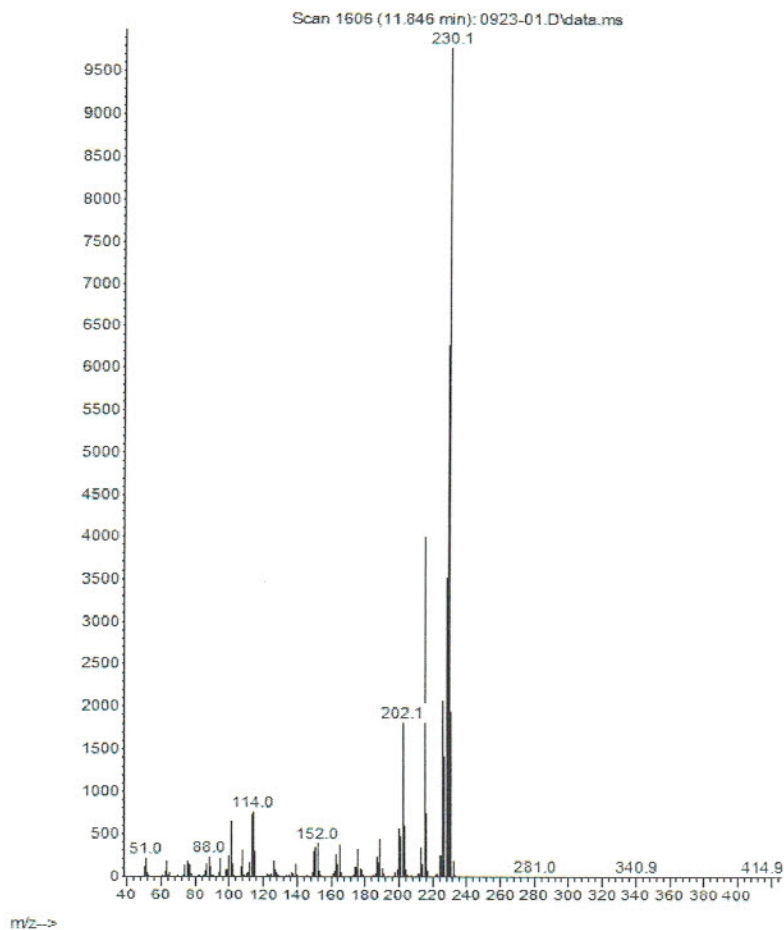
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## 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



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



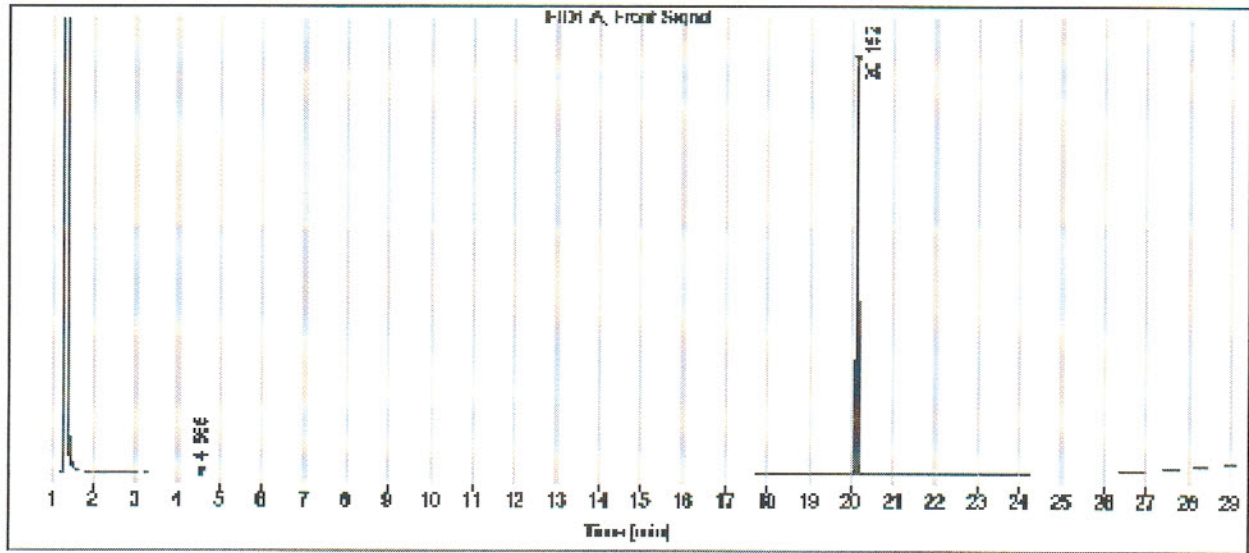
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

Gas

Data file: C:\CHEM3\  
 Sample name: N-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		

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: DRO211008A  
 Standard Name: 5,000 ug/mL RRO CCV 200 ug/mL Triaconta      Type: Secondary  
 Date Prepared: 10/8/2021      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 EC119	14354	2.8	mL	8/3/21

**Final Volume:** 4 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
DRO210401B 50,000 ug/mL Oil Std For AK103 RRO-I	ug/mL	400 µL
DRO211006A Triacontane SURR 2000 ug/mL	ug/mL	800 µL

<u>Analtes</u>	<u>CAS</u>	<u>Conc:</u>	<u>ug/mL</u>
A Oil			5000
A Triacontane-d62			200

# Energy Laboratories Inc

# Standard LOG

Standard ID: DRO210401B  
Standard Name: 50,000 ug/mL Oil Std For AK103 RRO-In DC  
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:**

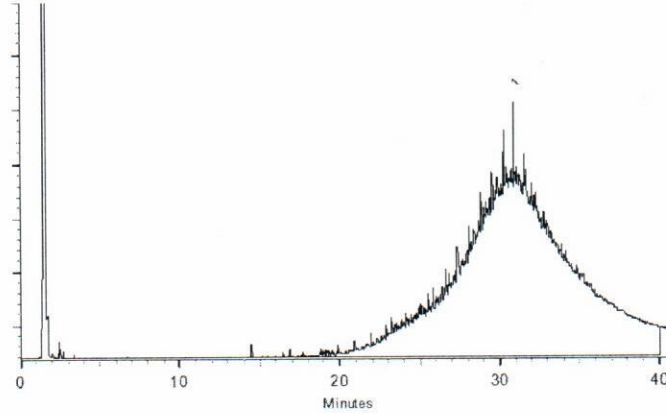
250°C

**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: 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

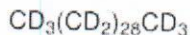
A Triacontane-d62

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

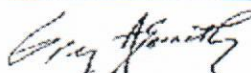
Product Name:  
 Triacontane-d62 - 98 atom % D

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

<u>Analtes</u>		<b>CAS</b>	<b>Conc:</b>	<b>ug/mL</b>
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	9/1/26

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	9/1/2

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: DRO211012J  
 Standard Name: OTP/COD SURR 2000 ug/mL  
 Date Prepared: 10/12/2021  
 Date Expires: 9/30/2024  
 Department: dropr  
 Vendor:  
 Lot Number:  
 Balance ID: BAL-DRO  
 Comments: OTP/COD SURR 2000 ug/mL

Type: Secondary  
 BY: Ann Nebel  
 Status: New

---

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Acetone EA662	14050	100	mL	1/7/2

**Final Volume:** 100 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
DRO201014C 1-Chlorooctadecane	ug/mL	0.2002 g
DRO201014B O-Terphenyl	ug/mL	0.2009 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  
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	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.

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 #: 13191**  
 Opened: \_\_\_\_\_  
 o-Terphenyl  
**Expires: 9/30/2024**  
 Rec'd: 10/14/2020  
 Energy Laboratories Inc 1120 So. 27th Street  
 Billings MT 59107

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

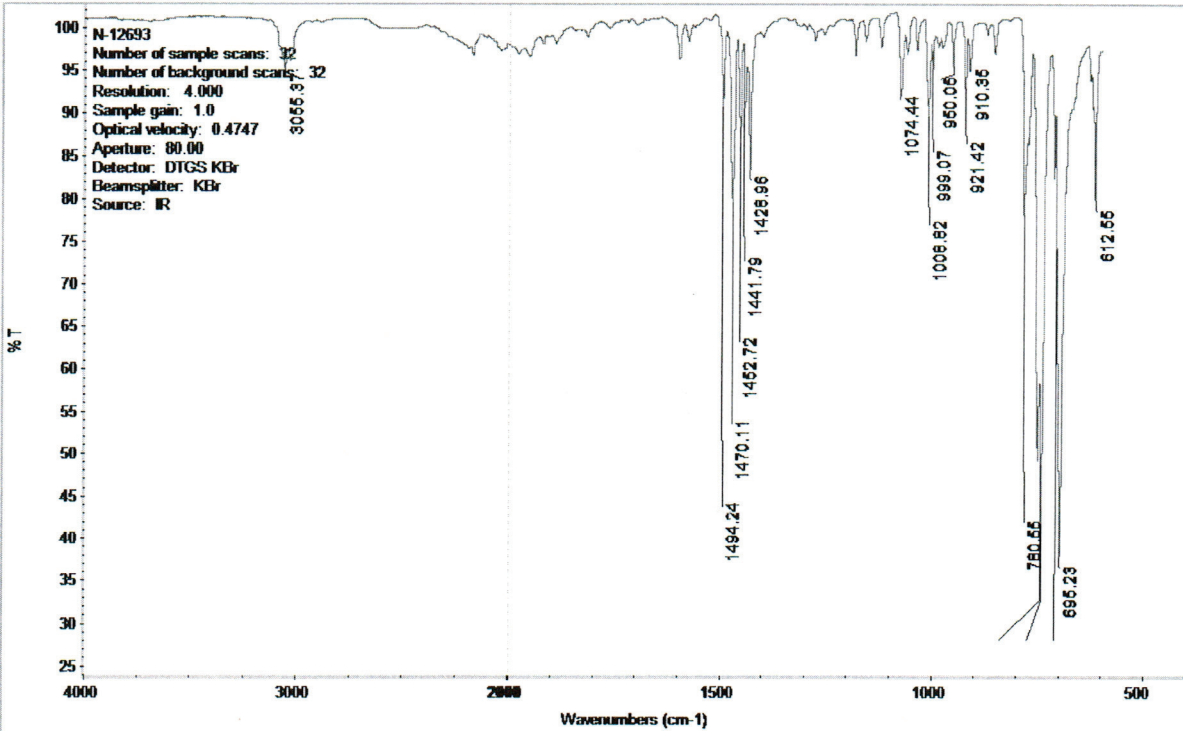
COA Form  
Revision 3 (3/2015)



## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 10029300  
Expiration Date: 09/30/24



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  
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

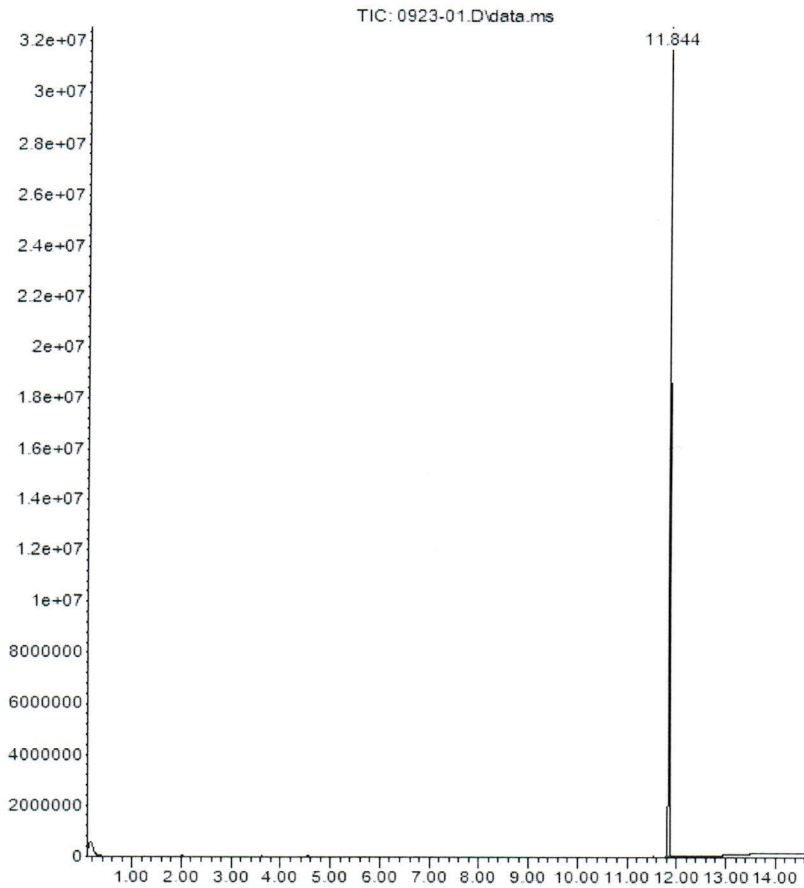


## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 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

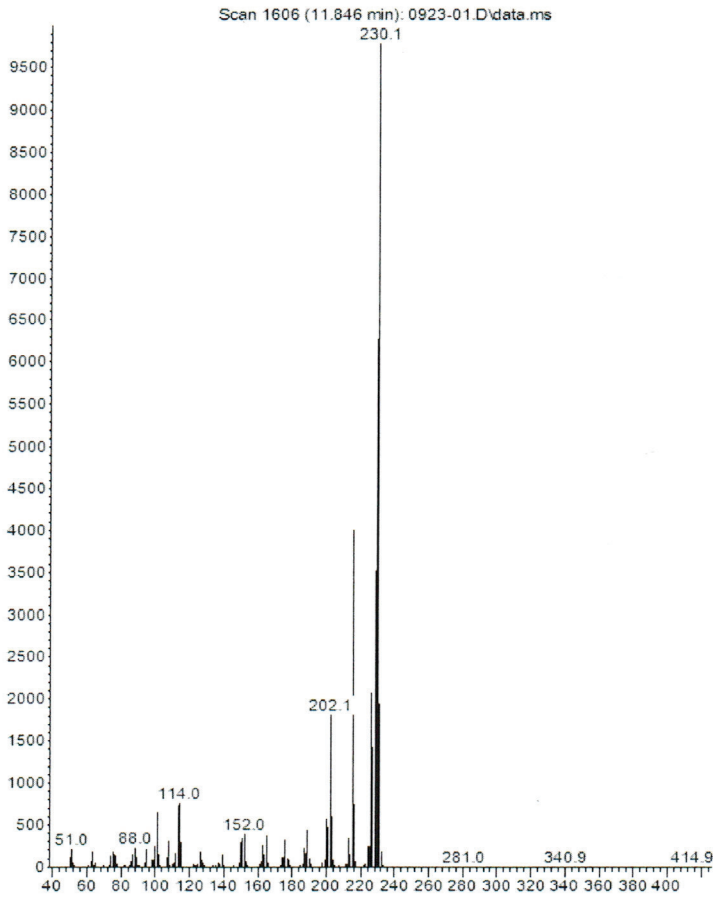


## CERTIFICATE OF ANALYSIS

### Analysis Method:

Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 10029300  
Expiration Date: 09/30/24

Abundance



m/z-->

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

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



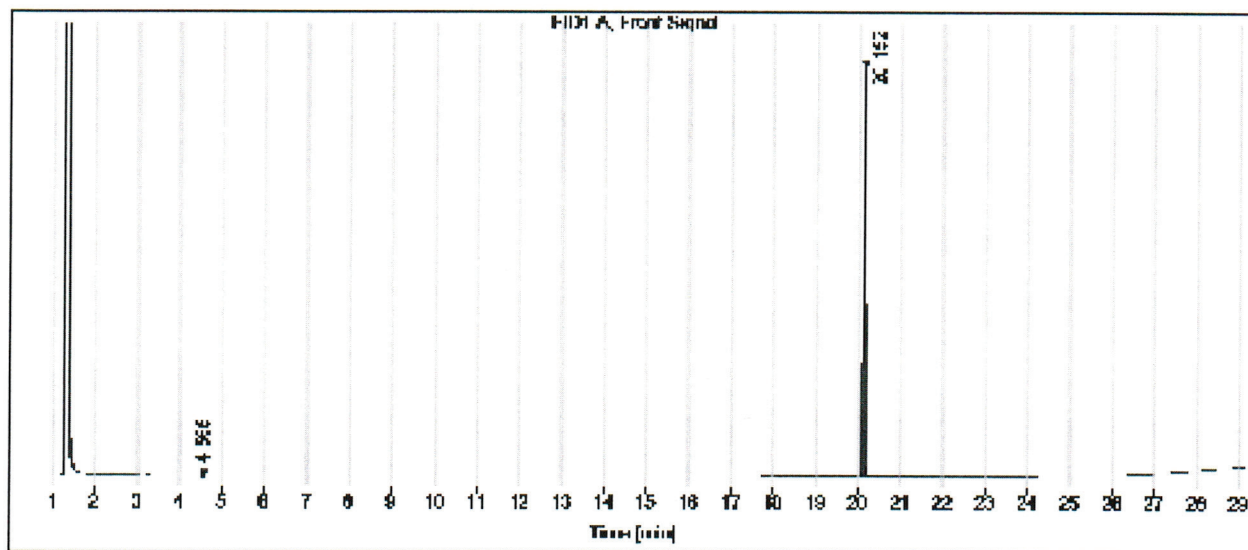
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

Gas

Data file: C:\CHEM3:  
 Sample name: N-12893  
 Instrument: GC 2  
 Injection date: 9/23/2019 9:56:34 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: 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

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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)

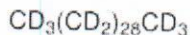
Email USA: [techserv@sial.com](mailto:techserv@sial.com)

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: \_\_\_\_\_

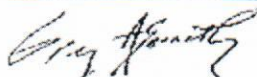
Triacontane-d62-98 atom % D

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: 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:

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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:  
Type: Primary  
BY: Todd C Cooper  
Status: Expired  
Comments: Used to make 2nd Source Standard for AK103 method.

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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

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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