

Energy Laboratories Inc

ANALYTICAL RUN Summary

02-Nov-21

Run ID GCFID-HP4-B_211101A

Run Start Date: 11/1/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments: ICAL for SW8015C_DRO211102OA

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					DIESEL-CA	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					SURR-CAL	9/30/2024

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14818927	CCV_1101HP41	HC-8015-DRO-	CAL1		11/1/2021 8:13:4	1	R369598		0	0							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl		S	mg/L	0.00195173		0.002	0	0	0.000531	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						
14818928	CCV_1101HP41	HC-8015-DRO-	CAL2		11/1/2021 9:04:4	1	R369598		0	0							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl		S	mg/L	0.04894254		0.05	0	0	0.000531	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						
14818929	CCV_1101HP41	HC-8015-DRO-	CAL3		11/1/2021 9:55:1	1	R369598		0	0							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl		S	mg/L	0.2012884		0.2	0	0	0.000531	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					
14818930	CCV_1101HP41	HC-8015-DRO-	CAL4		11/1/2021 10:45:	1	R369598		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.5057291		0.5	0	0	0.000531	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					
14818931	CCV_1101HP41	HC-8015-DRO-	CAL5		11/1/2021 11:36:	1	R369598		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		1.027384		1	0	0	0.000531	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					
14818932	CCV_1101HP41	HC-8015-DRO-	CAL1		11/2/2021 1:16:4	1	R369598		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		0.1539031		0.15	0	0	0.0782	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					
14818933	CCV_1101HP41	HC-8015-DRO-	CAL2		11/2/2021 2:07:1	1	R369598		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		3.723079		3.75	0	0	0.0782	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					
14818934	CCV_1101HP41	HC-8015-DRO-	CAL3		11/2/2021 2:57:2	1	R369598		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		14.98193		15	0	0	0.0782	0.3	50	100%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14818935	CCV_1101HP41	HC-8015-DRO-	CAL4		11/2/2021 3:47:4	1	R369598		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		36.3038		37.5	0	0	0.0782	0.3	50	97%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14818936	CCV_1101HP42	HC-8015-DRO-	CAL5		11/2/2021 4:38:0	1	R369598		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		50.71311		50	0	0	0.0782	0.3	50	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14818937	CCV_1101HP42	HC-8015-DRO-	ICV		11/2/2021 6:18:3	1	R369598		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		14.96337		15	0	0	0.0782	0.3	50	100%	80	120	0%	

File Name: G:\Org\HP4\Cals\SW8015C_DRO211102OA.CAL

Version: 1

Creator: AMN

Description: 8015C-DRO. New ICal Per 1102HP4 (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

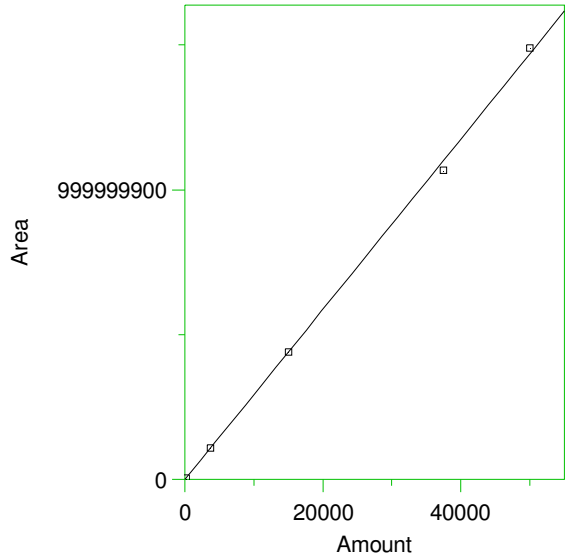
No default component

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: 6.79 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

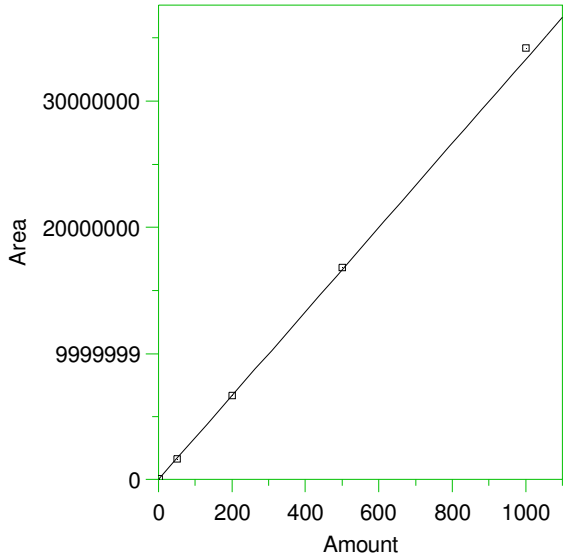
Single peak quantification by area

$Y = 29373.28 X + 0$

Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9989712
 Average error: 1.611%
 Average CF: 29373.28
 RSD: 2.208%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4520637	30137.58	2.602	Manual	11/2/2021 7:52:13 AM
2	3750	1.09359E+08	29162.4	-0.718	Manual	11/2/2021 7:52:33 AM
3	15000	4.400683E+08	29337.89	-0.120	Manual	11/2/2021 7:52:42 AM
4	37500	1.066362E+09	28436.32	-3.190	Manual	11/2/2021 7:52:54 AM
5	50000	1.48961E+09	29792.2	1.426	Manual	11/2/2021 7:53:06 AM

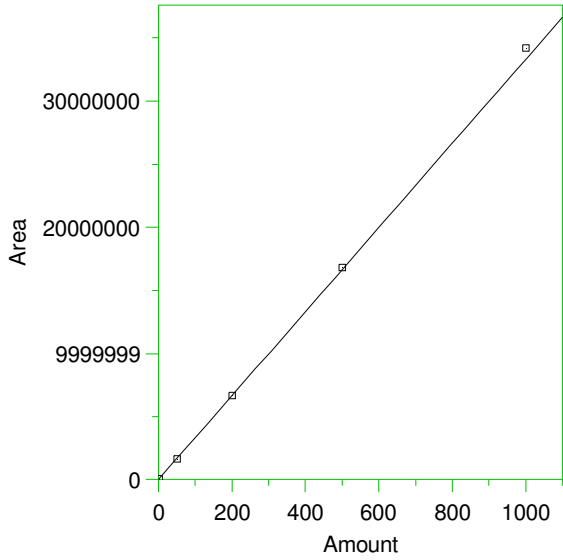
2 *o-Terphenyl



Expected retention time: 12.87 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 = 33319.7 X + 0
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.998904
 Average error: 1.811%
 Average CF: 33319.7
 RSD: 2.209%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	65030.99	32515.49	-2.414	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0010.BND	11/2/2021 7:51:41 AM
2	50	1630751	32615.02	-2.115	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0011.BND	11/2/2021 7:51:35 AM
3	200	6706871	33534.36	0.644	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0012.BND	11/2/2021 7:51:30 AM
4	500	1.685074E+07	33701.48	1.146	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0013.BND	11/2/2021 7:50:16 AM
5	1000	3.423214E+07	34232.14	2.738	G:\Org\HP4\DAT\HP4110121_b\1101HP4.0014.BND	11/2/2021 7:50:10 AM

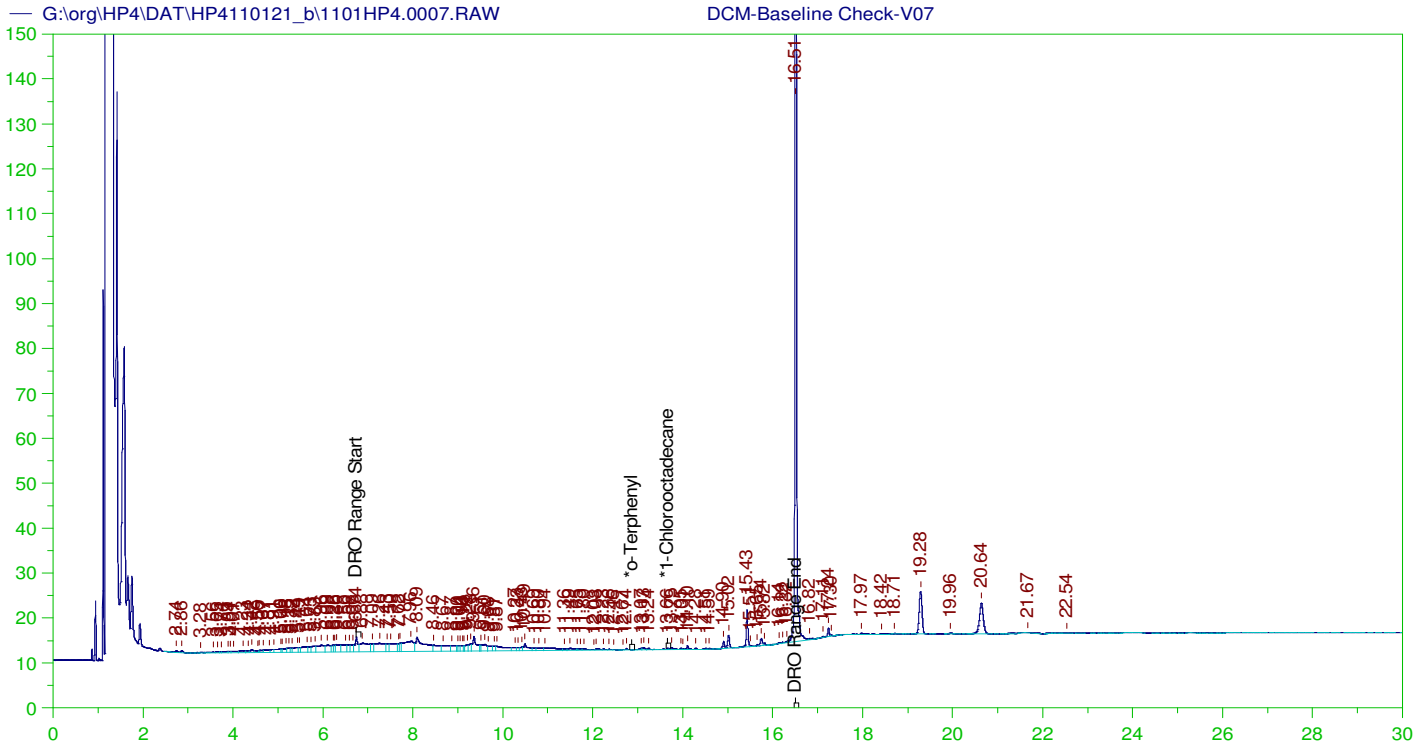
3 *1-Chlorooctadecane



Expected retention time: 13.68 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 = 33319.7 X + 0
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.998904
 Average error: 1.811%
 Average CF: 33319.7
 RSD: 2.209%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	65030.99	32515.49	-2.414	Manual	11/2/2021 7:51:46 AM
2	50	1630751	32615.02	-2.115	Manual	11/2/2021 7:51:47 AM
3	200	6706871	33534.36	0.644	Manual	11/2/2021 7:51:49 AM
4	500	1.685074E+07	33701.48	1.146	Manual	11/2/2021 7:51:51 AM
5	1000	3.423214E+07	34232.14	2.738	Manual	11/2/2021 7:51:53 AM

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	\\org\HP4\DAT\HP4110121_b\1101HP4.07r	DCM-Baseline Check-V07	G:\Org\HP4\methods\DR_8015-OA-LEXP.met					
	\\org\HP4\DAT\HP4110121_b\1101HP4.08r	CCV_1101HP408r, DRO ;1101HP4 , DRO211025A	G:\Org\HP4\methods\DC_8015-OA-L0.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.09r	DCM-Baseline Check-V09	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.10r	CCV_1101HP410r, CAL1 ;1101HP4 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.11r	CCV_1101HP411r, CAL2 ;1101HP4 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.12r	CCV_1101HP412r, CAL3 ;1101HP4 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.13r	CCV_1101HP413r, CAL4 ;1101HP4 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.14r	CCV_1101HP414r, CAL5 ;1101HP4 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.15r	DCM-Baseline Check-V15	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.16r	CCV_1101HP416r, CAL1 ;1101HP4 , 150 ug per mL Diesel (10 uL of Cal3 + 990 uL DCM(14408))	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.17r	CCV_1101HP417r, CAL2 ;1101HP4 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14408))	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.18r	CCV_1101HP418r, CAL3 ;1101HP4 , 15000 ug per mL Diesel (300 uL of DRO211012A + 700 uL DCM(14408))	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.19r	CCV_1101HP419r, CAL4 ;1101HP4 , 37500ug per mL Diesel (750 uL of DRO211012A + 250 uL DCM(14408))	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.20r	CCV_1101HP420r, CAL5 ;1101HP4 , 50000 ug per mL Diesel (200 uL of DRO211012A)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.21r	DCM-Baseline Check-V21	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0
	\\org\HP4\DAT\HP4110121_b\1101HP4.22r	CCV_1101HP422r, Second Source ;1101HP4 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14408))	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V07
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0007.RAW
 Date & Time Acquired: 11/1/2021 5:37:56 PM
 Method File: G:\Org\HP4\methods\DR_8015-OA-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

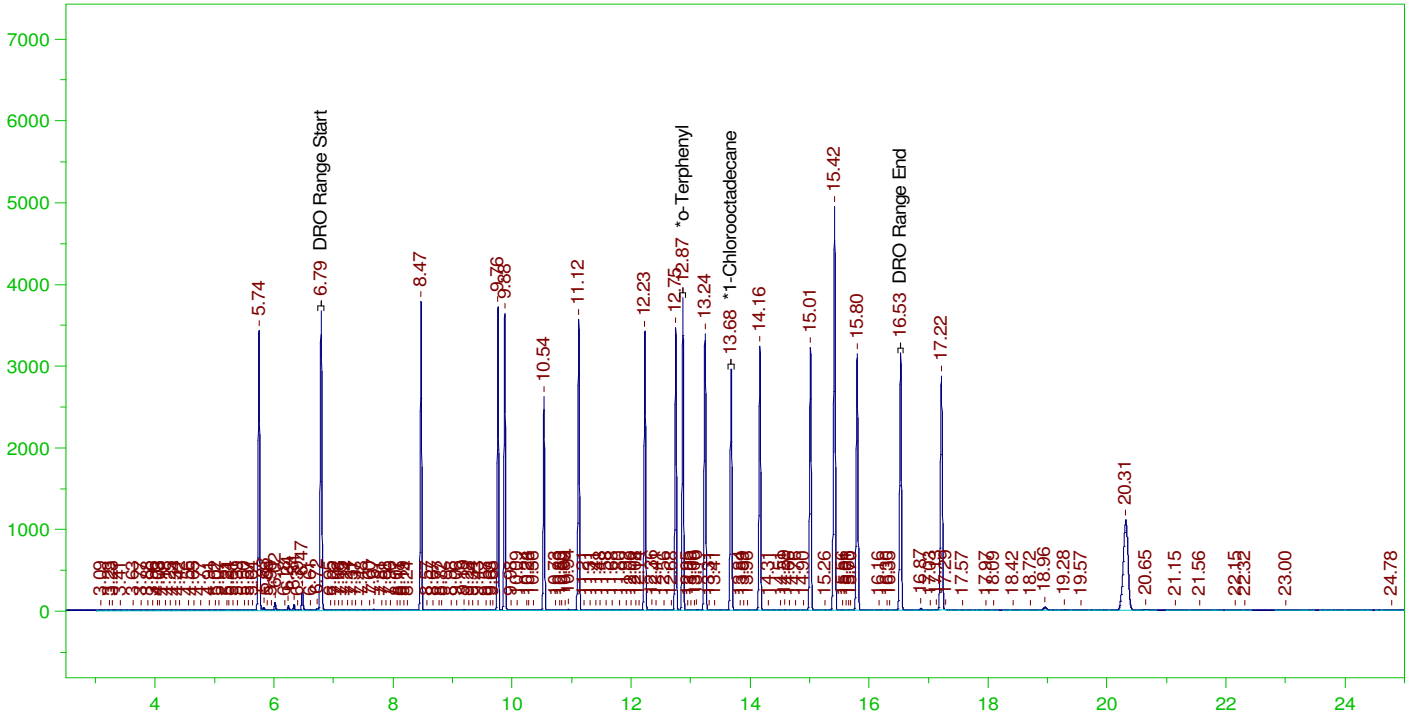
Mean RF for TEH: 29373.28
 Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.966	200.	.	-
*1-Chlorooctadecane	13.659	200.	.028	.01

DRO Area:1037666 DRO Amount: 35.32688
 TEH Area:1315488 TEH Amount: 44.78518

G:\org\HP4\DAT\HP4110121_b\1101HP4.0008.RAW

CCV_1101HP408r, DRO ;1101HP4 , DRO211025A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP408r, DRO ;1101HP4 , DRO211025A
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0008.RAW
 Date & Time Acquired: 11/1/2021 6:29:58 PM
 Method File: G:\Org\HP4\methods\DC_8015-OA-L0.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

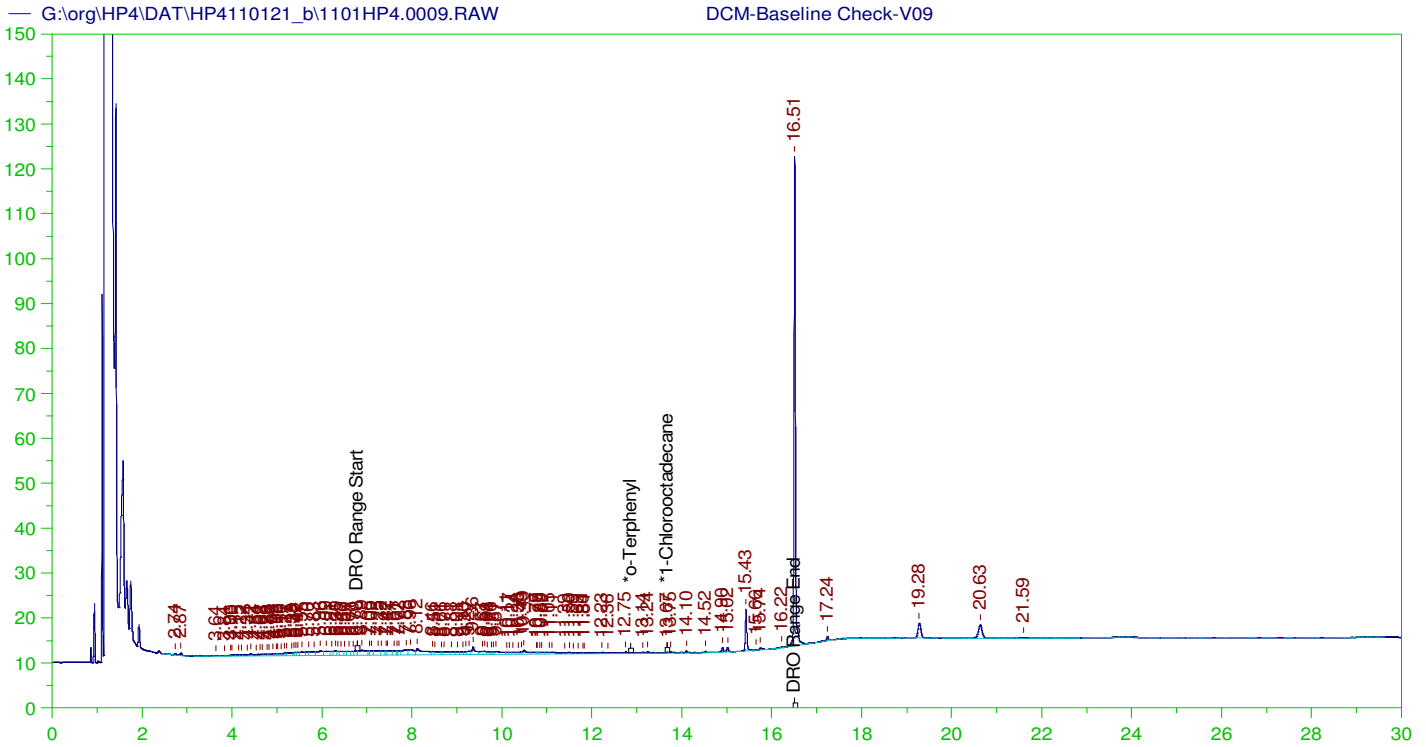
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.871	200.	197.197	98.6
*1-Chlorooctadecane	13.68	200.	162.692	81.35

DRO Area: 8.91221E+07 DRO Amount: 3034.122
 TEH Area: 1.09099E+08 TEH Amount: 3714.228

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0008.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	3714.23	24.76	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.871	200.	197.197	98.6	85-115
*1-Chlorooctadecane	13.68	200.	162.692	81.35	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

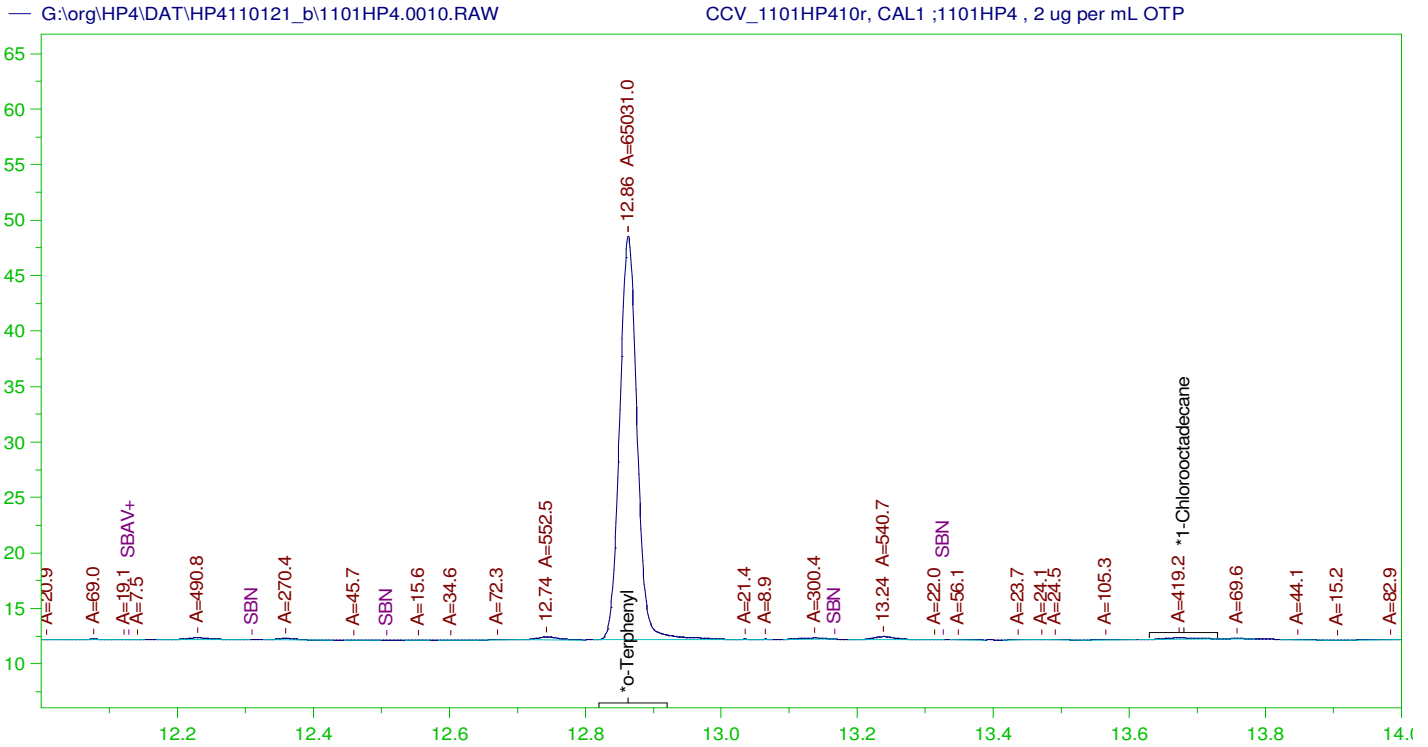
Sample Name: DCM-Baseline Check-V09
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0009.RAW
 Date & Time Acquired: 11/1/2021 7:21:52 PM
 Method File: G:\Org\HP4\methods\DR_8015-OA-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.549	200.	.	-
*1-Chlorooctadecane	13.667	200.	.027	.01 -

DRO Area: 494658.3 DRO Amount: 16.84042
 TEH Area: 640048.8 TEH Amount: 21.79017



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP410r, CAL1 ;1101HP4 , 2 ug per mL OTP
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0010.RAW
 Date & Time Acquired: 11/1/2021 8:13:42 PM
 Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

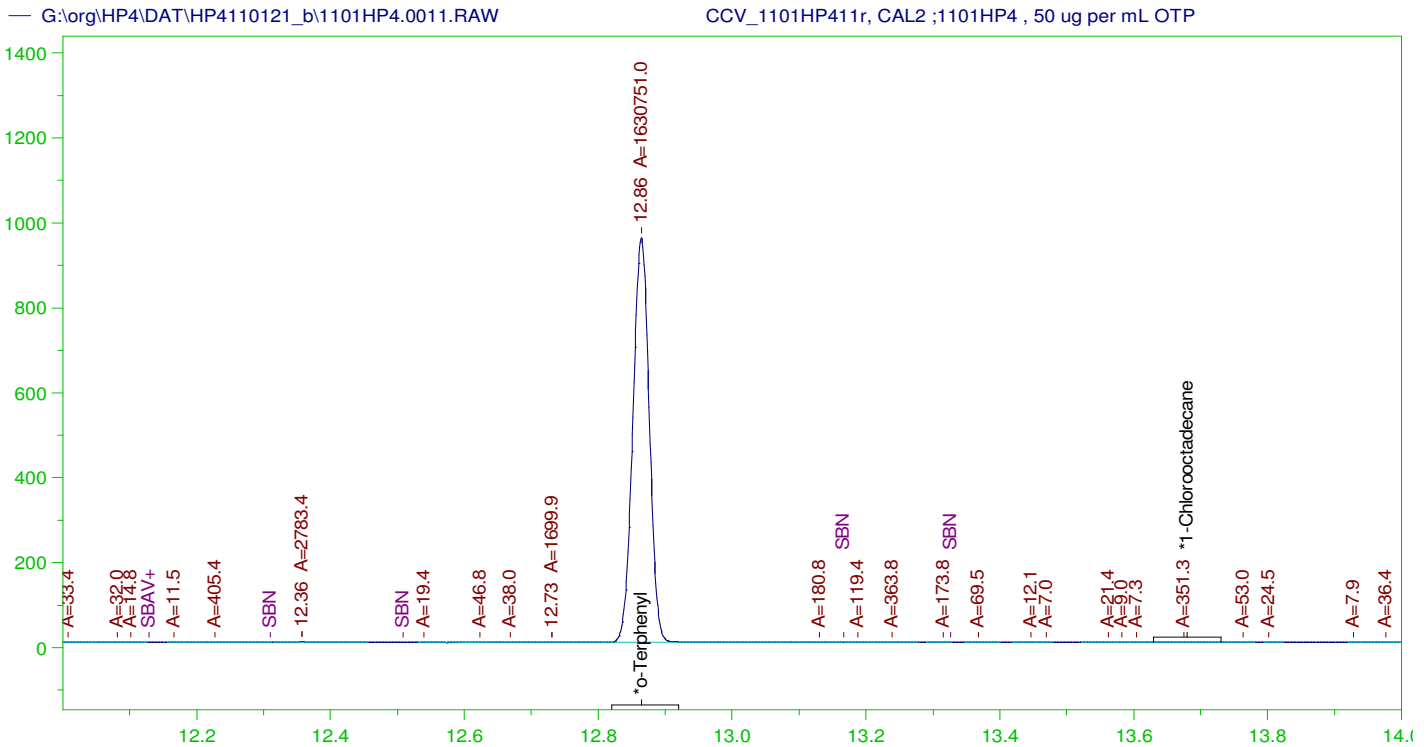
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.863	200.	1.952	.98
*1-Chlorooctadecane	29.971	200.	.	.

DRO Area:246716.6 DRO Amount: 8.399357
 TEH Area:346478.1 TEH Amount: 11.79569

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0010.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.863	200.	1.952	.98	85-115
*1-Chlorooctadecane	29.971	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP411r, CAL2 ;1101HP4 , 50 ug per mL OTP
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0011.RAW
 Date & Time Acquired: 11/1/2021 9:04:46 PM
 Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

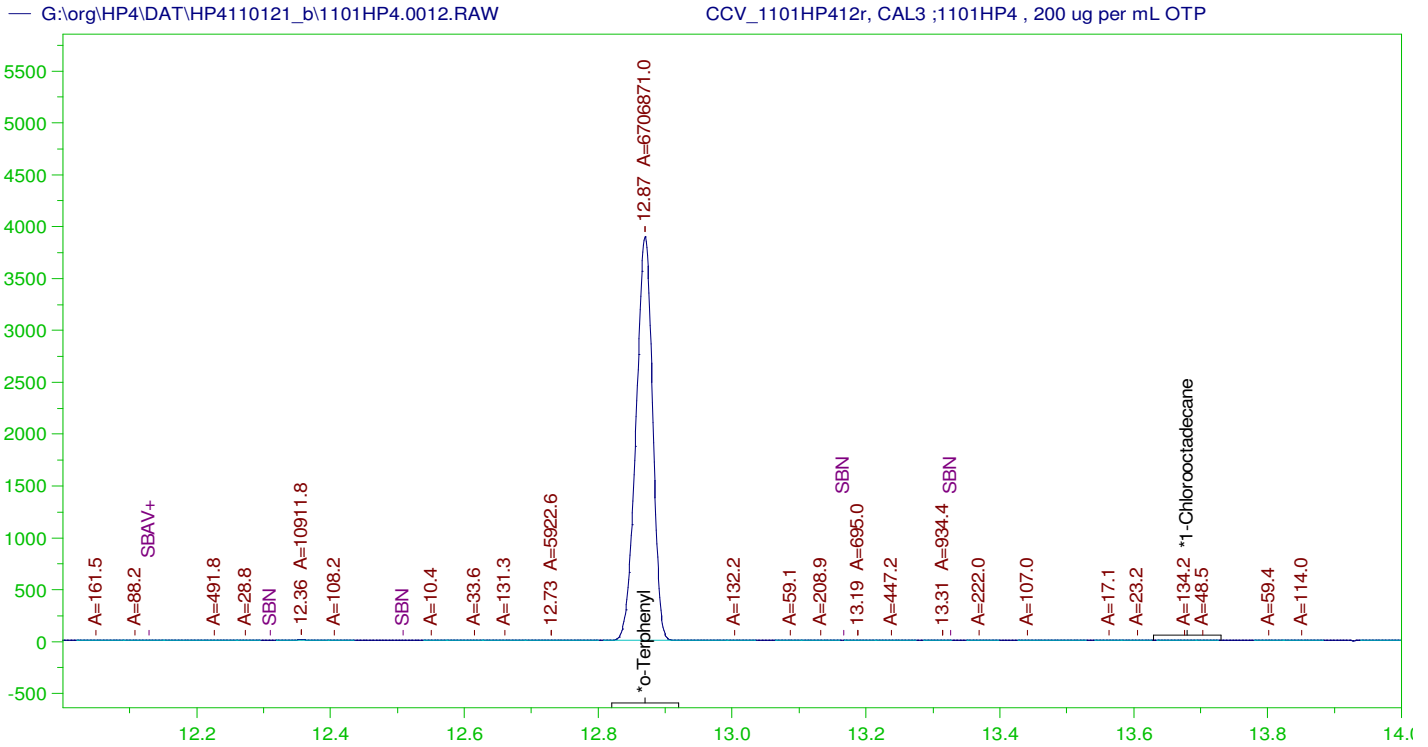
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.864	200.	48.943	24.47
*1-Chlorooctadecane	29.962	200.	.	.

DRO Area:198520.5 DRO Amount: 6.75854
 TEH Area:236761.3 TEH Amount: 8.060432

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0011.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.864	200.	48.943	24.47	85-115
*1-Chlorooctadecane	29.962	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP412r, CAL3 ;1101HP4 , 200 ug per mL OTP
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0012.RAW
 Date & Time Acquired: 11/1/2021 9:55:15 PM
 Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.87	200.	201.289	100.64
*1-Chlorooctadecane	29.944	200.	.	-

DRO Area:204842.1 DRO Amount: 6.973756
 TEH Area:260037.3 TEH Amount: 8.852851

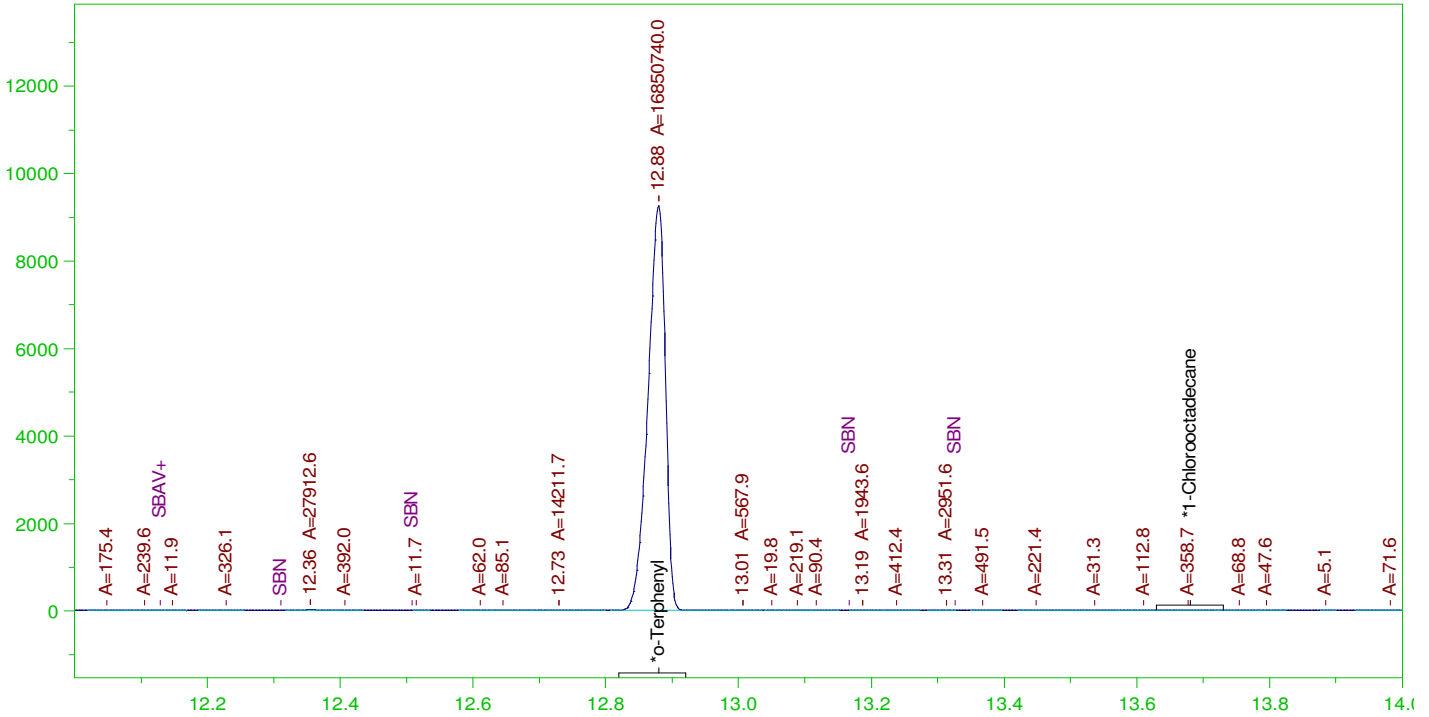
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0012.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.87	200.	201.289	100.64	85-115
*1-Chlorooctadecane	29.944	200.	.	.	85-115

G:\org\HP4\DAT\HP4110121_b\1101HP4.0013.RAW

CCV_1101HP413r, CAL4 ;1101HP4 , 500 ug per mL OTP



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP413r, CAL4 ;1101HP4 , 500 ug per mL OTP
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0013.RAW
 Date & Time Acquired: 11/1/2021 10:45:33 PM
 Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

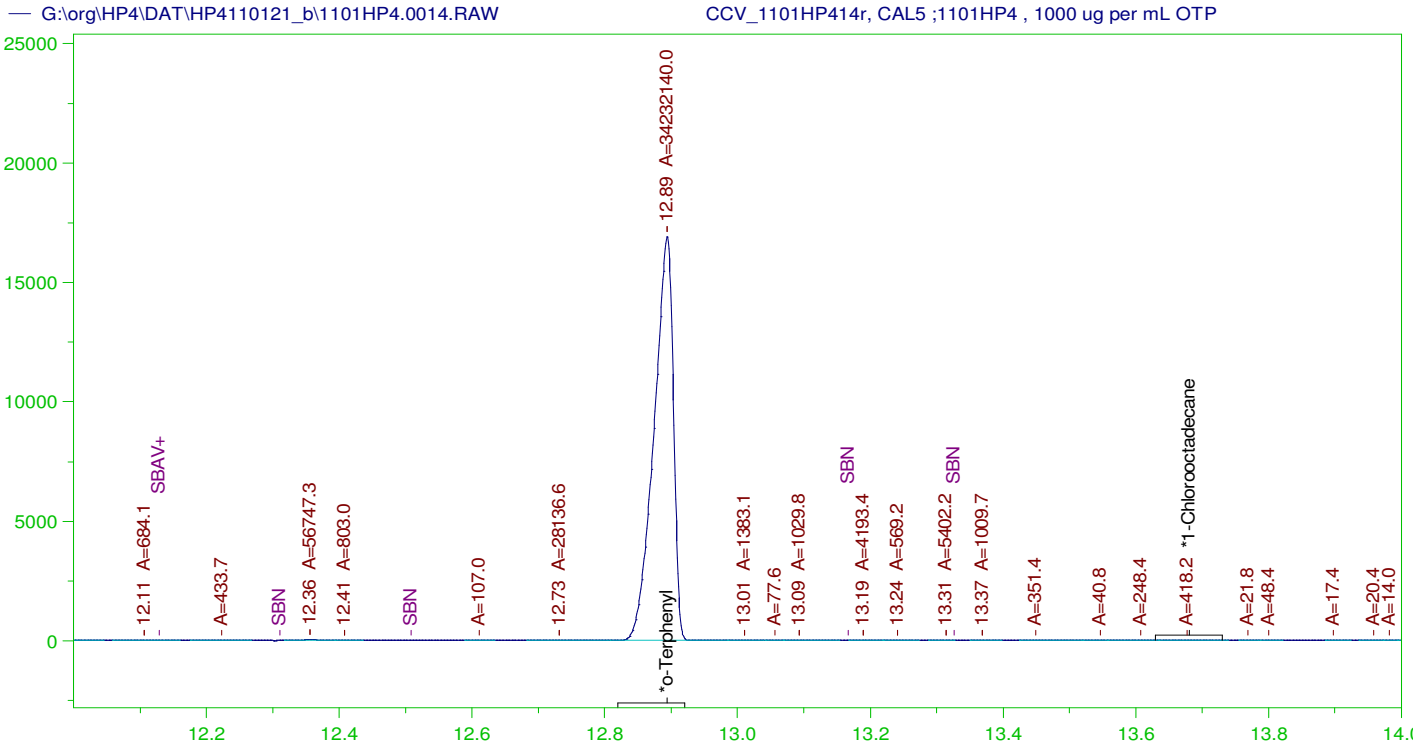
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.879	200.	505.729	252.86
*1-Chlorooctadecane	29.986	200.	.	-

DRO Area:248934.2 DRO Amount: 8.474853
 TEH Area:316561.3 TEH Amount: 10.77719

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0013.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.879	200.	505.729	252.86	85-115
*1-Chlorooctadecane	29.986	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP414r, CAL5 ;1101HP4 , 1000 ug per mL OTP
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0014.RAW
 Date & Time Acquired: 11/1/2021 11:36:02 PM
 Method File: G:\Org\HP4\methods\DS_8015-OA-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

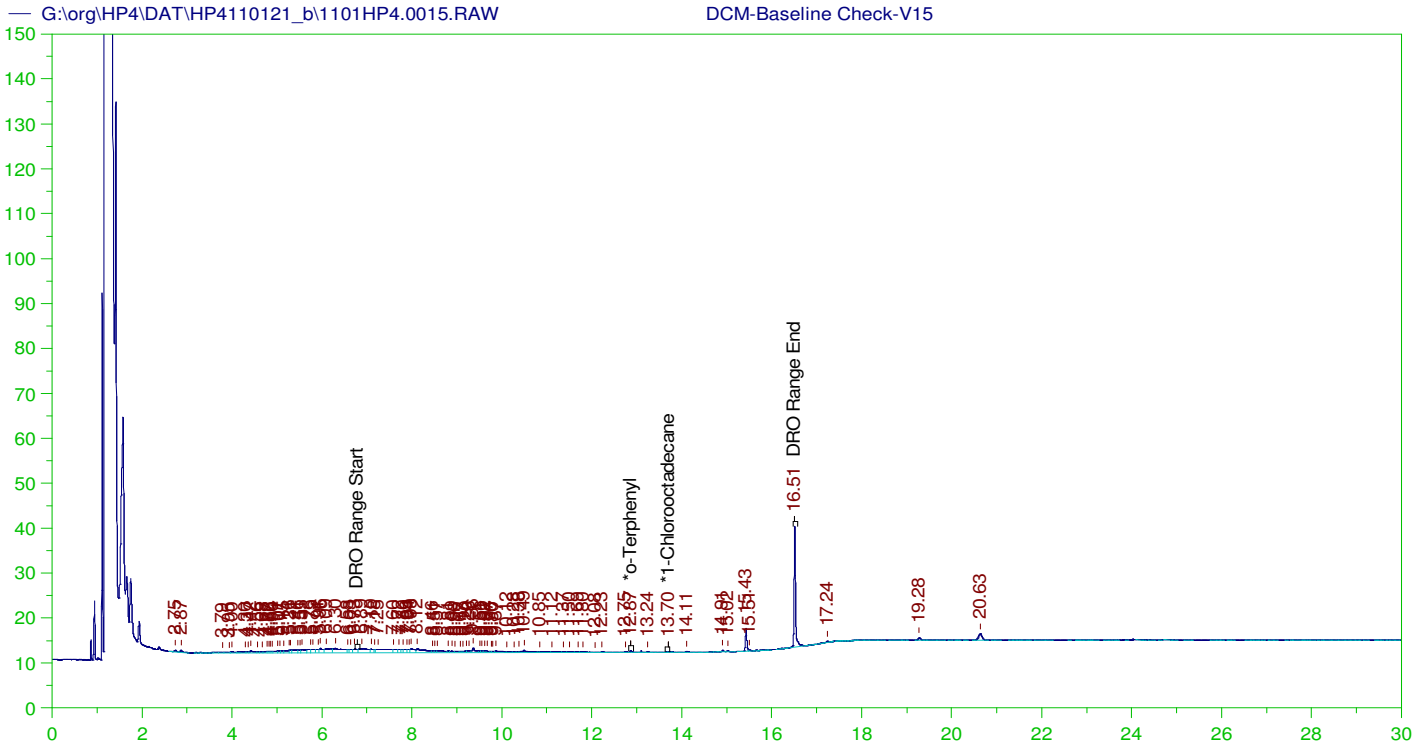
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.894	200.	1027.384	513.69
*1-Chlorooctadecane	29.945	200.	.	-

DRO Area:283897.7 DRO Amount: 9.66517
 TEH Area:329575.5 TEH Amount: 11.22025

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0014.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.894	200.	1027.384	513.69	85-115
*1-Chlorooctadecane	29.945	200.	.	.	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V15
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0015.RAW
 Date & Time Acquired: 11/2/2021 12:26:19 AM
 Method File: G:\Org\HP4\methods\DR_8015-OA-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

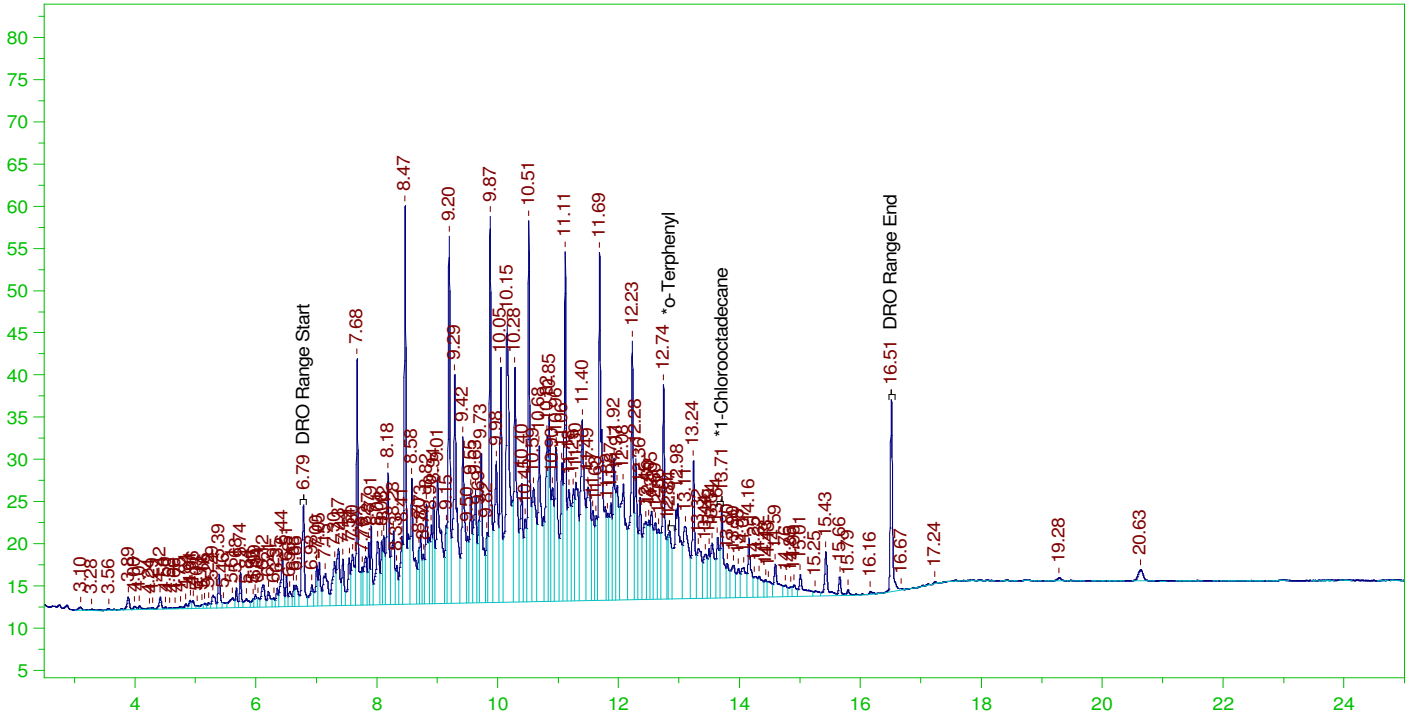
Mean RF for TEH: 29373.28
 Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.866	200.	.046	.02	-
*1-Chlorooctadecane	13.702	200.	.016	.01	-

DRO Area: 216198.9 DRO Amount: 7.360394
 TEH Area: 333132.8 TEH Amount: 11.34136

G:\org\HP4\DAT\HP4110121_b\1101HP4.0016.RAW

CCV_1101HP416r, CAL1 ;1101HP4 , 150 ug per mL Diesel



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP416r, CAL1 ;1101HP4 , 150 ug per mL Diesel
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0016.RAW
 Date & Time Acquired: 11/2/2021 1:16:49 AM
 Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.841	200.	.842	.42	-
*1-Chlorooctadecane	13.706	200.	1.092	.55	-

DRO Area:4341542 DRO Amount: 147.8058
 TEH Area:4520637 TEH Amount: 153.903

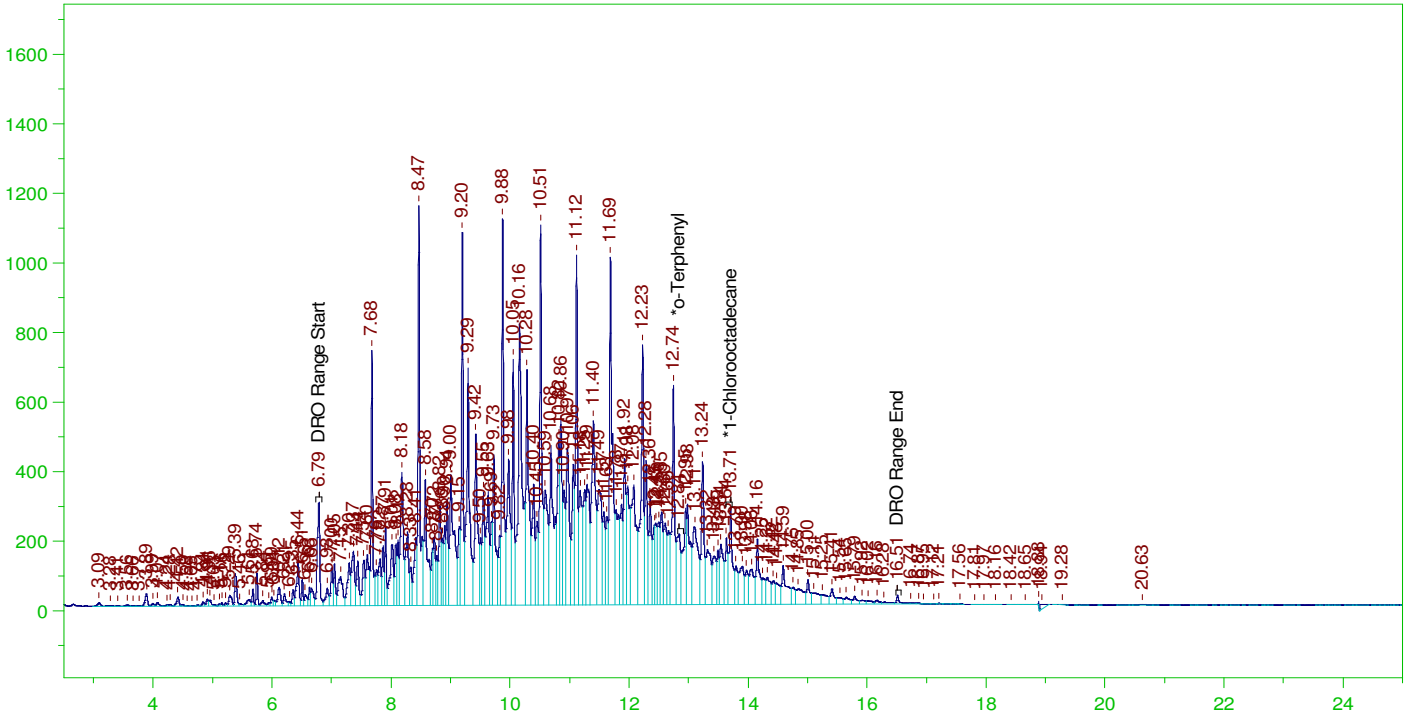
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0016.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	153.9	1.03	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.841	200.	.842	.42	85-115
*1-Chlorooctadecane	13.706	200.	1.092	.55	85-115

G:\org\HP4\DAT\HP4110121_b\1101HP4.0017.RAW

CCV_1101HP417r, CAL2 ;1101HP4 , 3750 ug per mL Diesel



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP417r, CAL2 ;1101HP4 , 3750 ug per mL Diesel
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0017.RAW
 Date & Time Acquired: 11/2/2021 2:07:13 AM
 Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.837	200.	28.641	14.32	-
*1-Chlorooctadecane	13.705	200.	33.114	16.56	-

DRO Area: 1.065299E+08 DRO Amount: 3626.763
 TEH Area: 1.09359E+08 TEH Amount: 3723.079

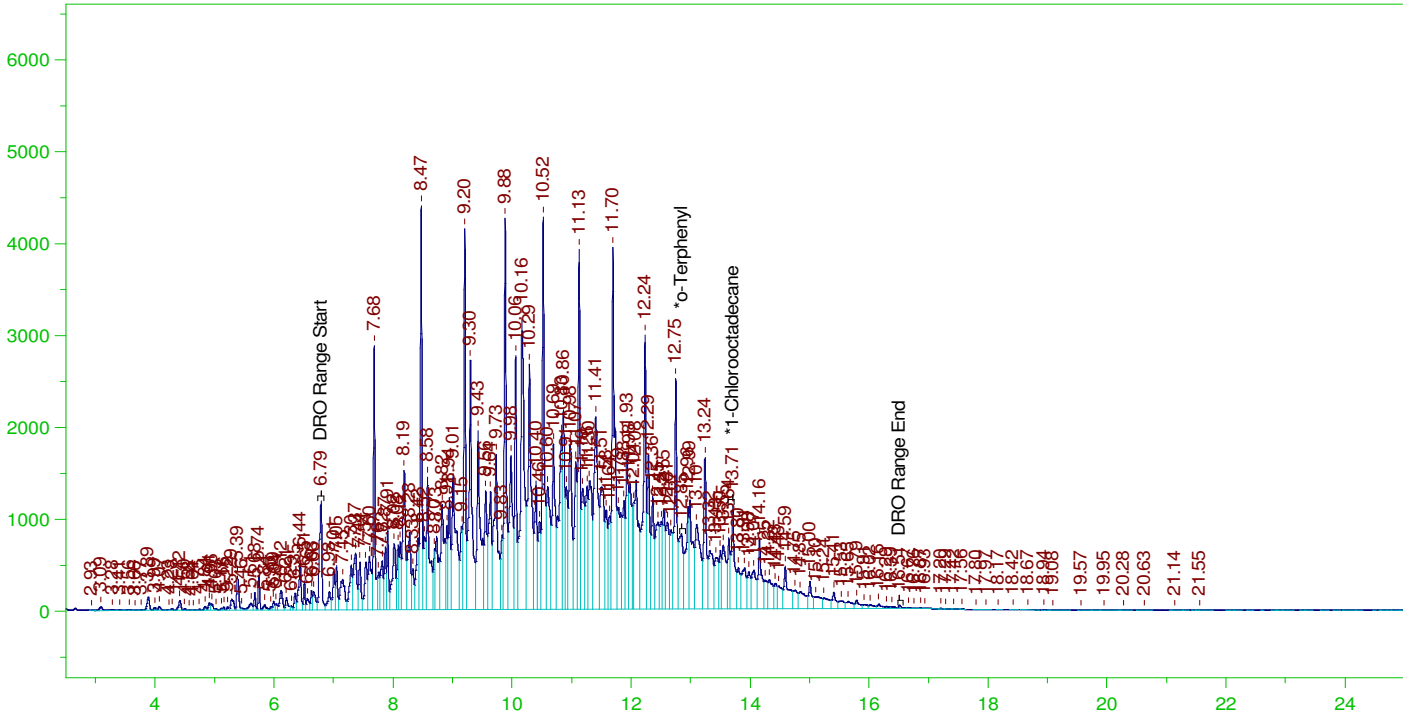
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0017.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	3723.08	24.82	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.837	200.	28.641	14.32	85-115
*1-Chlorooctadecane	13.705	200.	33.114	16.56	85-115

G:\org\HP4\DAT\HP4110121_b\1101HP4.0018.RAW

CCV_1101HP418r, CAL3 ;1101HP4 , 15000 ug per mL Diesel



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP418r, CAL3 ;1101HP4 , 15000 ug per mL Diesel
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0018.RAW
 Date & Time Acquired: 11/2/2021 2:57:28 AM
 Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.846	200.	119.117	59.56	-
*1-Chlorooctadecane	13.709	200.	132.401	66.2	-

DRO Area: 4.291878E+08 DRO Amount: 14611.51
 TEH Area: 4.400683E+08 TEH Amount: 14981.93

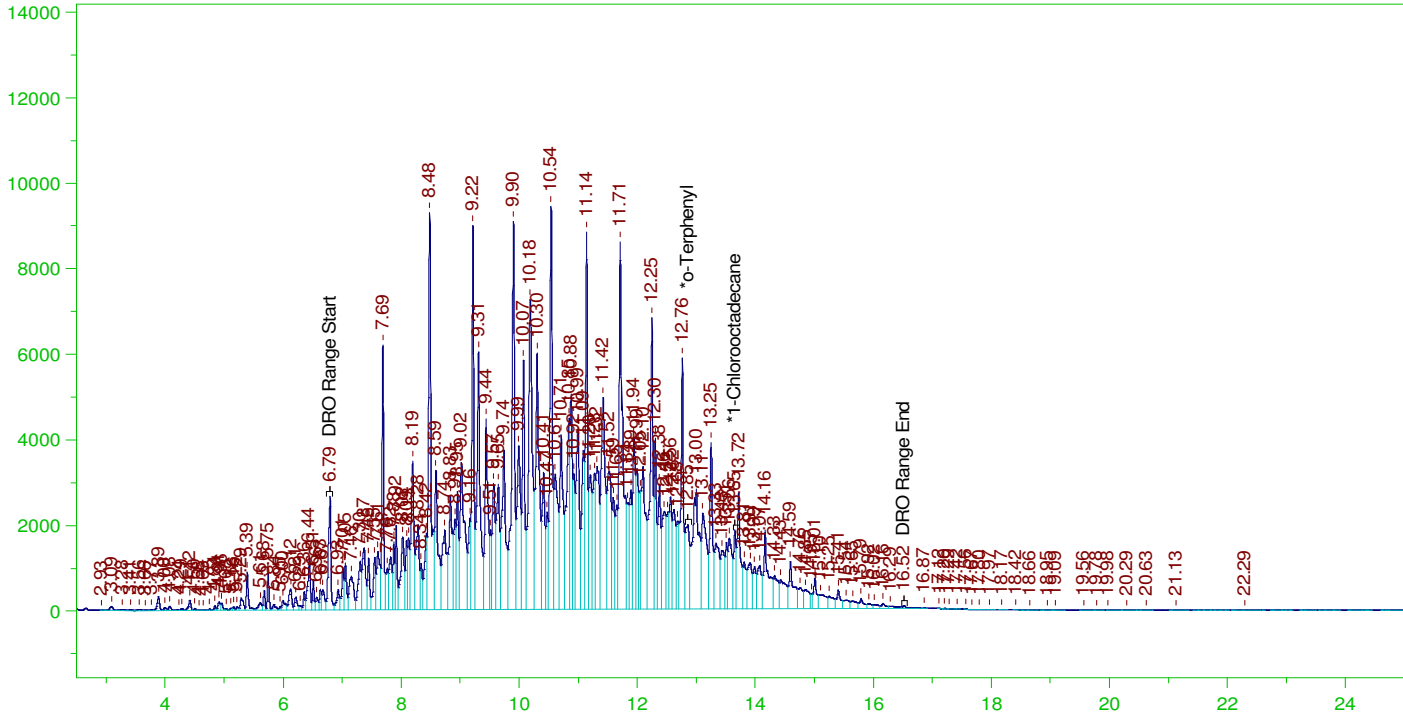
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0018.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14981.93	99.88	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.846	200.	119.117	59.56	85-115
*1-Chlorooctadecane	13.709	200.	132.401	66.2	85-115

G:\org\HP4\DAT\HP4110121_b\1101HP4.0019.RAW

CCV_1101HP419r, CAL4 ;1101HP4 , 37500ug per mL Diesel



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP419r, CAL4 ;1101HP4 , 37500ug per mL Diesel
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0019.RAW
 Date & Time Acquired: 11/2/2021 3:47:46 AM
 Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

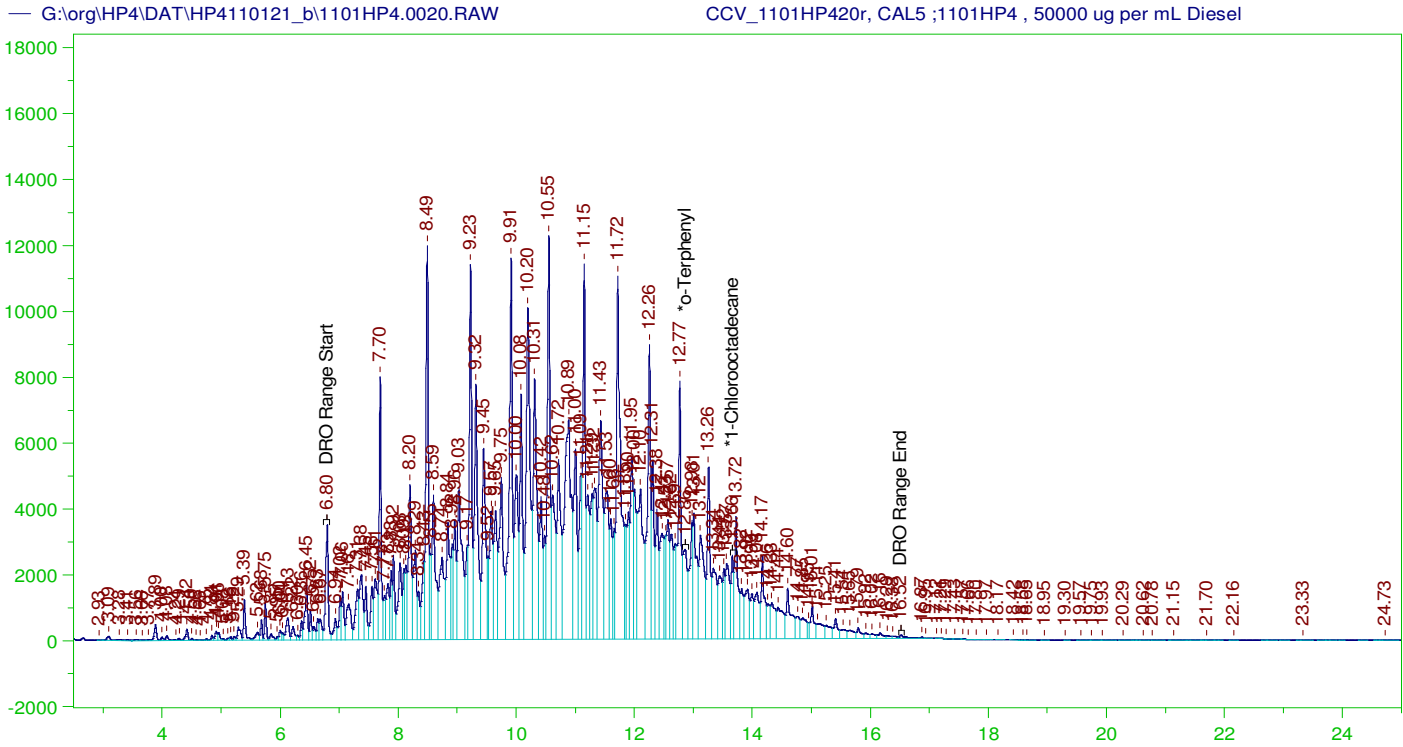
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.855	200.	279.085	139.54
*1-Chlorooctadecane	13.653	200.	147.666	73.83

DRO Area:1.040405E+09 DRO Amount: 35420.13
 TEH Area:1.066362E+09 TEH Amount: 36303.8

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0019.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	36303.8	242.03	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.855	200.	279.085	139.54	85-115
*1-Chlorooctadecane	13.653	200.	147.666	73.83	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP420r, CAL5 ;1101HP4 , 50000 ug per mL Diesel
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0020.RAW
 Date & Time Acquired: 11/2/2021 4:38:01 AM
 Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

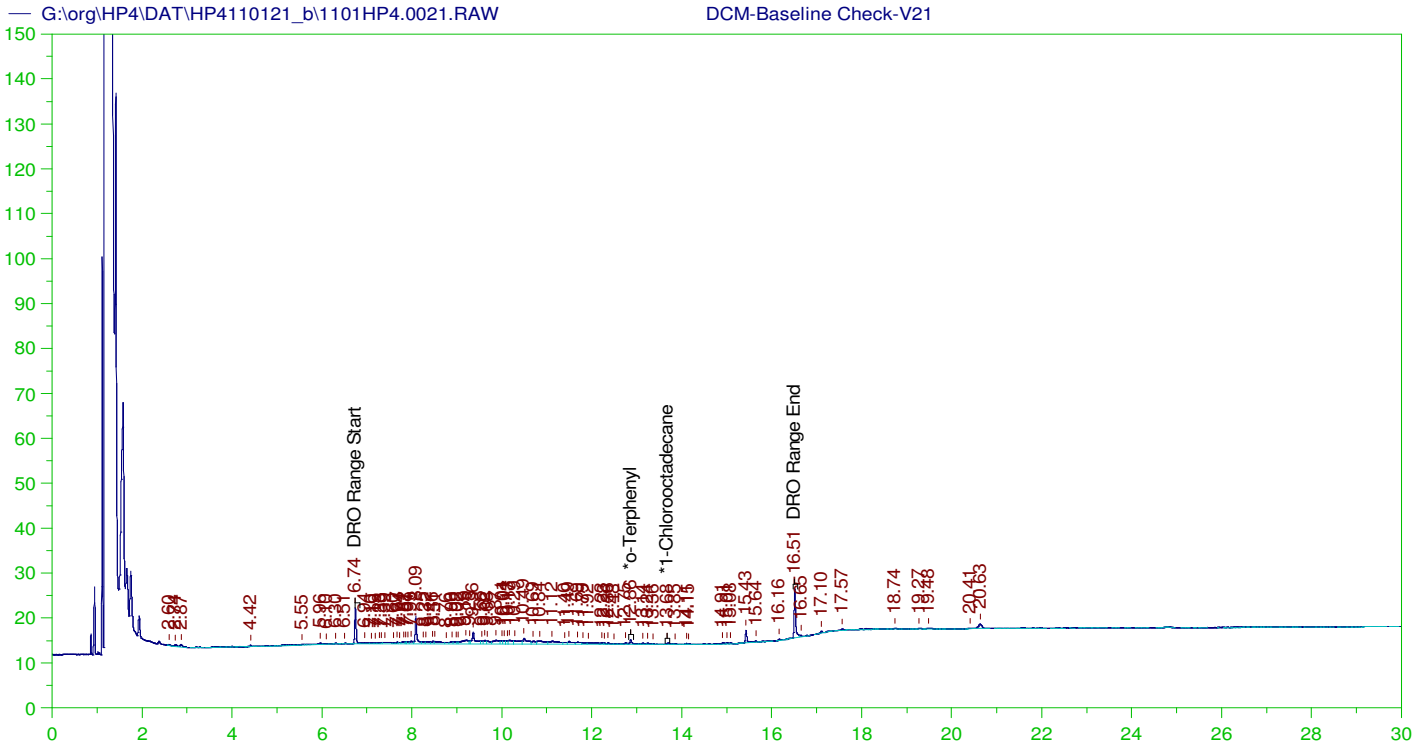
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.862	200.	408.713	204.36
*1-Chlorooctadecane	13.661	200.	204.074	102.04

DRO Area: 1.453258E+09 DRO Amount: 49475.51
 TEH Area: 1.48961E+09 TEH Amount: 50713.11

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	50713.11	338.09	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.862	200.	408.713	204.36	85-115
*1-Chlorooctadecane	13.661	200.	204.074	102.04	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V21
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0021.RAW
 Date & Time Acquired: 11/2/2021 5:28:21 AM
 Method File: G:\Org\HP4\methods\DR_8015-OA-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

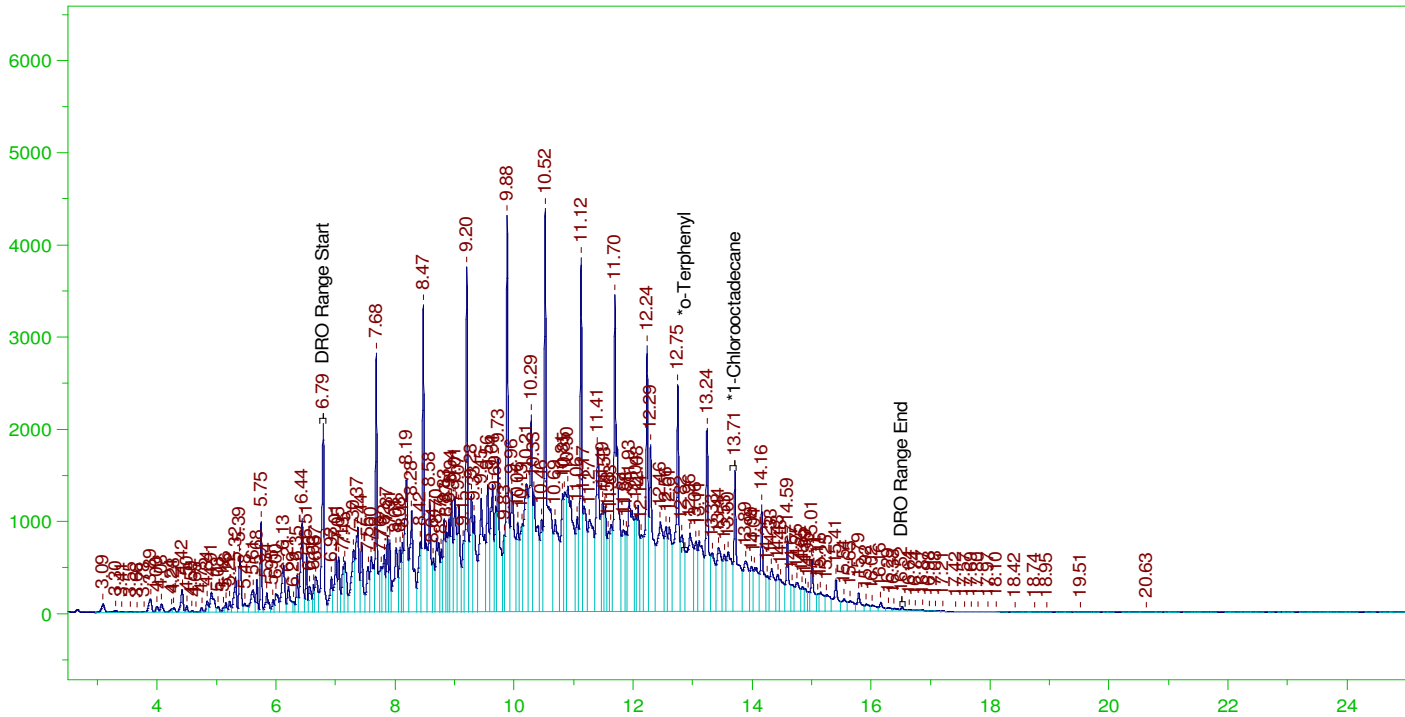
Mean RF for TEH: 29373.28
 Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.865	200.	.126	.06	-
*1-Chlorooctadecane	13.677	200.	.038	.02	-

DRO Area:238253.6 DRO Amount: 8.111236
 TEH Area:273352.9 TEH Amount: 9.306175

G:\org\HP4\DAT\HP4110121_b\1101HP4.0022.RAW

CCV_1101HP422r, Second Source ;1101HP4 , 15000 ug per mL



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1101HP422r, Second Source ;1101HP4 , 15000 ug per mL
 Raw File: G:\org\HP4\DAT\HP4110121_b\1101HP4.0022.RAW
 Date & Time Acquired: 11/2/2021 6:18:32 AM
 Method File: G:\Org\HP4\Methods\DC_8015-OA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO2111020A.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.74 to 16.58

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.896	200.	.	-
*1-Chlorooctadecane	13.712	200.	201.891	100.95 -

DRO Area: 4.14403E+08 DRO Amount: 14108.16
 TEH Area: 4.395233E+08 TEH Amount: 14963.37

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4110121_b\1101HP4.0022.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14963.37	99.76	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	29.896	200.	.	.	85-115
*1-Chlorooctadecane	13.712	200.	201.891	100.95	85-115

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
		DCM-Baseline Check-V07	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0	No Integration
		CCV_1101HP409r, DRO ;1101HP4 , DRO211025A	G:\Org\HP4\methods\DC_8015-OA-L0.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V09	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0	No Integration
		CCV_1101HP410r, CAL1 ;1101HP4 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
		CCV_1101HP411r, CAL2 ;1101HP4 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
		CCV_1101HP412r, CAL3 ;1101HP4 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
		CCV_1101HP413r, CAL4 ;1101HP4 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
		CCV_1101HP414r, CAL5 ;1101HP4 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO21101A + 750 DCM(14408))	G:\Org\HP4\methods\DS_8015-OA-L#.met	1	1	1	1	0	Surrogates are integrated using valley to valley integration using a Set Baseline Now before at 12.51 and after at 13.17.
		DCM-Baseline Check-V15	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0	No Integration
		CCV_1101HP416r, CAL1 ;1101HP4 , 150 ug per mL Diesel (10 uL of Cal3 + 990 uL DCM(14408),	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.1
		CCV_1101HP417r, CAL2 ;1101HP4 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14408))	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.1
		CCV_1101HP418r, CAL3 ;1101HP4 , 15000 ug per mL Diesel (300 uL of DRO211012A + 700 uL DCM(14408))	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.1
		CCV_1101HP419r, CAL4 ;1101HP4 , 37500 ug per mL Diesel (750 uL of DRO211012A + 250 uL DCM(14408))	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.1
		CCV_1101HP420r, CAL5 ;1101HP4 , 50000 ug per mL Diesel (200 uL of DRO211012A)	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.1
		DCM-Baseline Check-V21	G:\Org\HP4\methods\DR_8015-OA-LEXP.met	1	1	1	1	0	No Integration
		CCV_1101HP422r, Second Source ;1101HP4 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14408))	G:\Org\HP4\Methods\DC_8015-OA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.1

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.17 15:04:47 -07:00

Energy Laboratories Inc

ANALYTICAL RUN Summary

03-Nov-21

Run ID GCFID-HP5-B_211102A

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

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

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822192	CCV_1102HP50	HC-8015-DRO-	CCV		11/2/2021 8:31:3	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		3.665751		15	0	0	0.0749	0.3	50	24%	80	120	0%	S
o-Terphenyl	S	mg/L		0.2015393		0.2	0	0	0.000429	0.002	0	101%	80	120	0%	
14822193	CCV_1102HP50	HC-8015-DRO-	CAL1		11/2/2021 9:57:0	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.00195342		0.002	0	0	0.000429	0.002	0	98%	80	120	0%	
14822194	CCV_1102HP50	HC-8015-DRO-	CAL2		11/2/2021 10:39:	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.04992196		0.05	0	0	0.000429	0.002	0	100%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822195	CCV_1102HP50	HC-8015-DRO-	CAL3		11/2/2021 11:22:	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.1939565		0.2	0	0	0.000429	0.002	0	97%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822196	CCV_1102HP50	HC-8015-DRO-	CAL4		11/2/2021 12:05:	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.5113316		0.5	0	0	0.000429	0.002	0	102%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822197	CCV_1102HP50	HC-8015-DRO-	CAL5		11/2/2021 12:49:	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		1.032406		1	0	0	0.000429	0.002	0	103%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822198	CCV_1102HP51	HC-8015-DRO-	CAL1		11/2/2021 1:32:0	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		0.1551854		0.15	0	0	0.0749	0.3	50	103%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822199	CCV_1102HP51	HC-8015-DRO-	CAL2		11/2/2021 2:15:0	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		3.698073		3.75	0	0	0.0749	0.3	50	99%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822200	CCV_1102HP51	HC-8015-DRO-	CAL3		11/2/2021 2:58:2	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		15.26249		15	0	0	0.0749	0.3	50	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822201	CCV_1102HP51	HC-8015-DRO-	CAL4		11/2/2021 3:41:3	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		36.59341		37.5	0	0	0.0749	0.3	50	98%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822202	CCV_1102HP51	HC-8015-DRO-	CAL5		11/2/2021 4:24:5	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		49.2977		50	0	0	0.0749	0.3	50	99%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14822203	CCV_1102HP51	HC-8015-DRO-	ICV		11/2/2021 5:51:3	1	R369667		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Total Extractable Hydrocarbons	A	mg/L		14.98994		15	0	0	0.0749	0.3	50	100%	80	120	0%	

Write Sequence	Data File	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

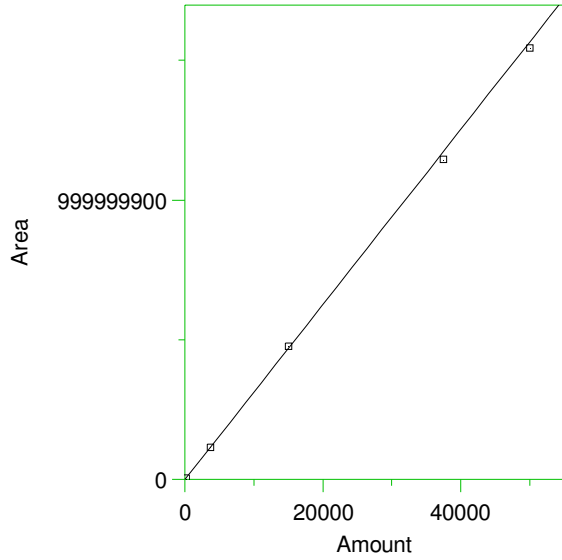
No default component

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

No calibration update report

All levels are normal data points.

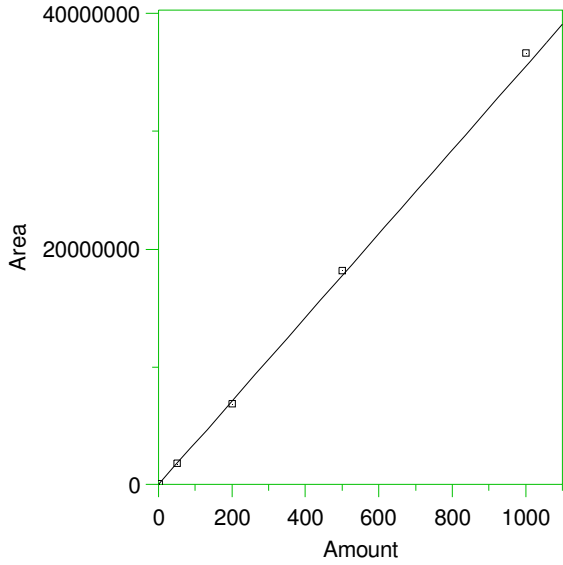
1 DRO Range Start



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

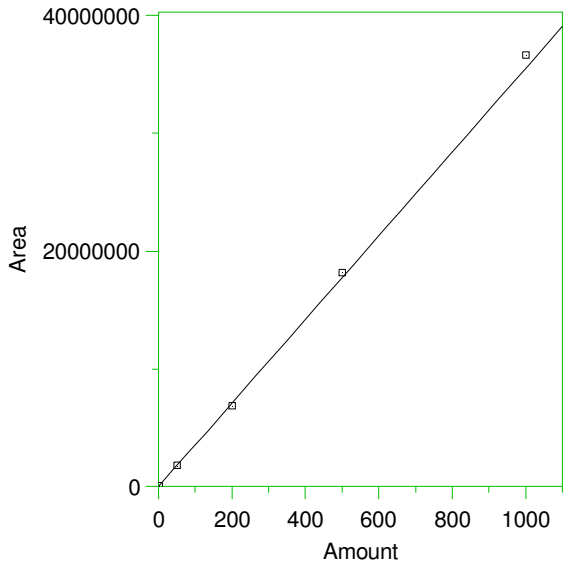
2 *o-Terphenyl



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

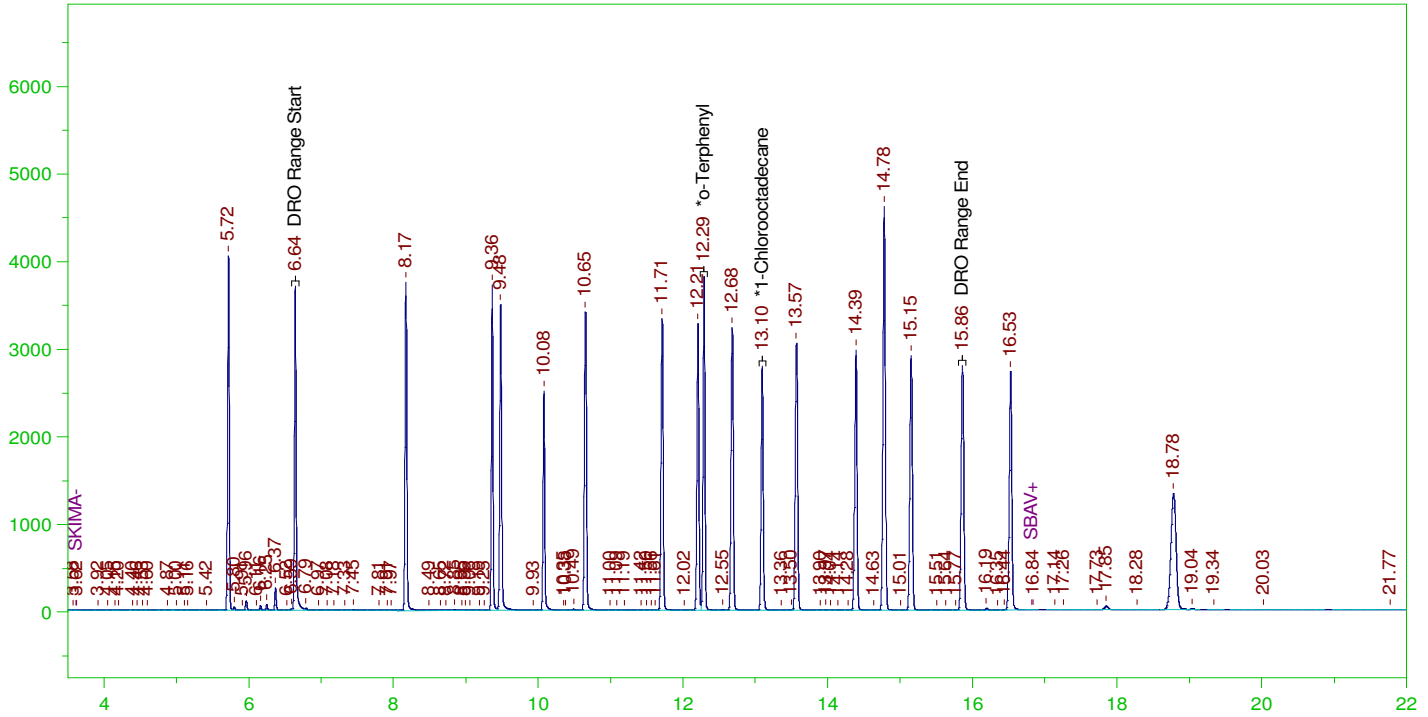


Expected retention time: 13.1 minutes
 Search window: 0.05 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 35509.21 X + 0
 Average CF fit with equal weighting, forced to origin
 Coefficient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

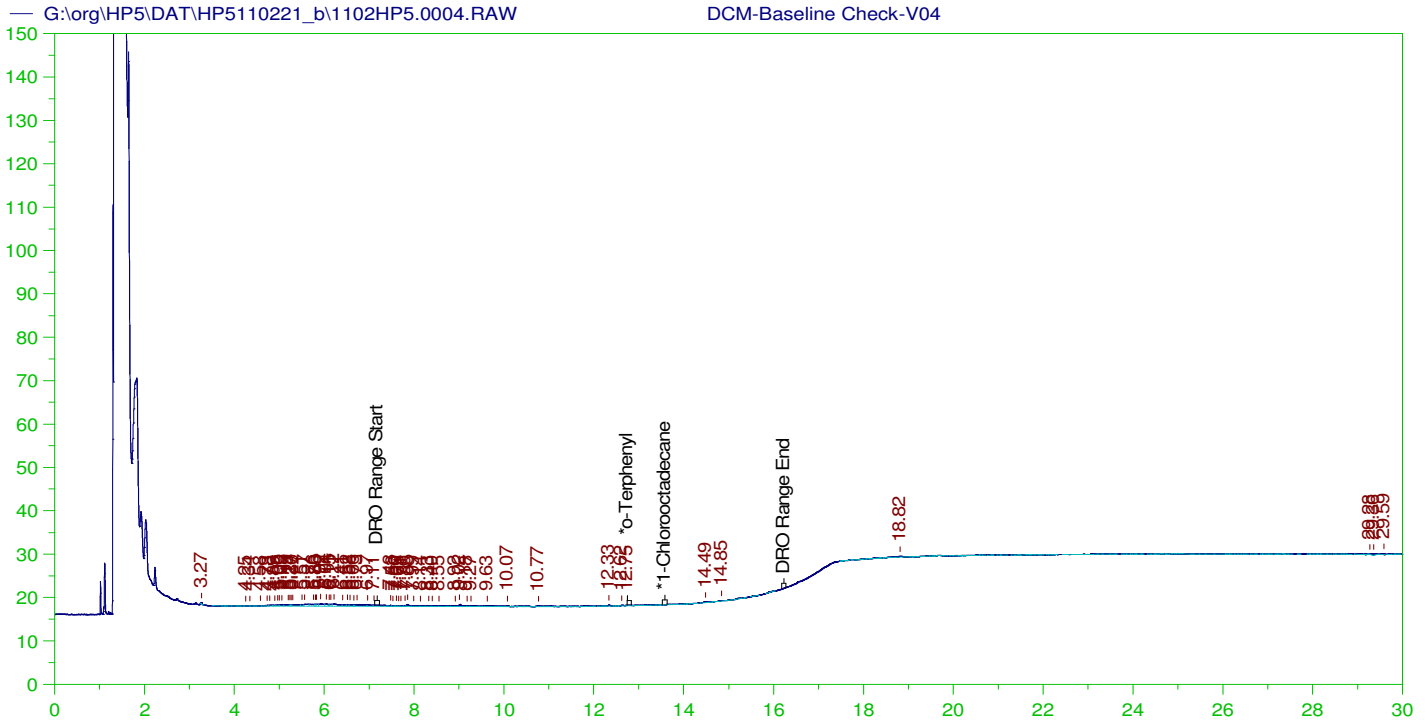
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.292	200.	201.539	100.77
*1-Chlorooctadecane	13.095	200.	163.573	81.79

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

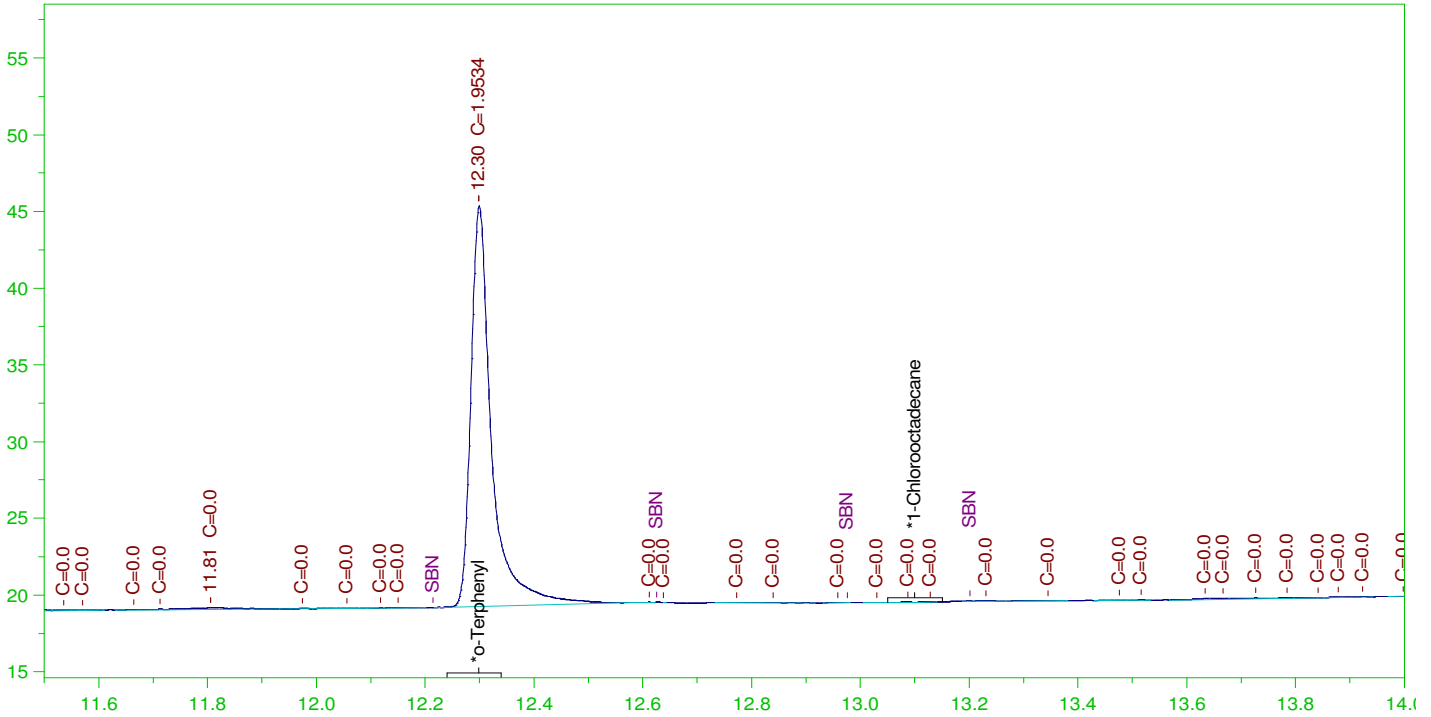
Mean RF for TEH: 29457.33
 Rt range for Diesel Range Organics: 7.125 to 16.28

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.	.	.	-

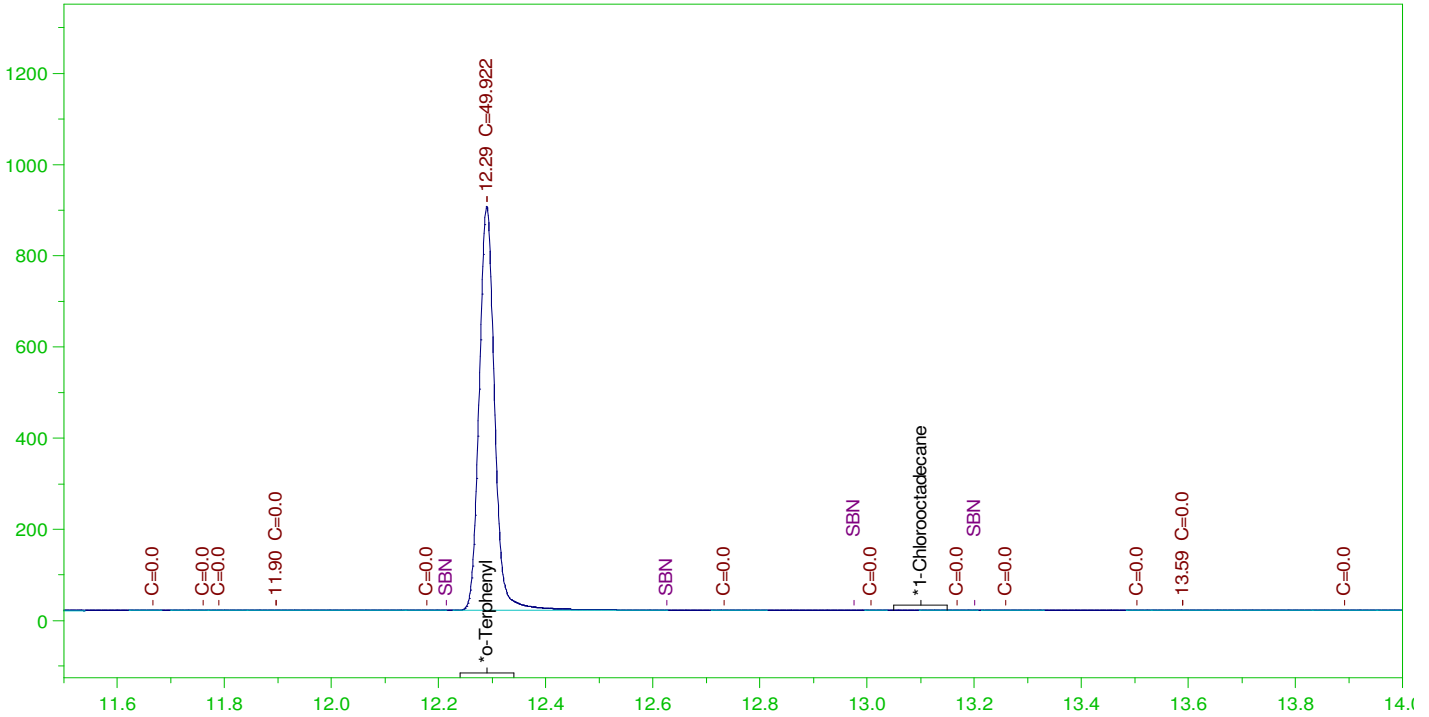
DRO Area:37026.36 DRO Amount: 1.180944
 TEH Area:88429.33 TEH Amount: 2.820425

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

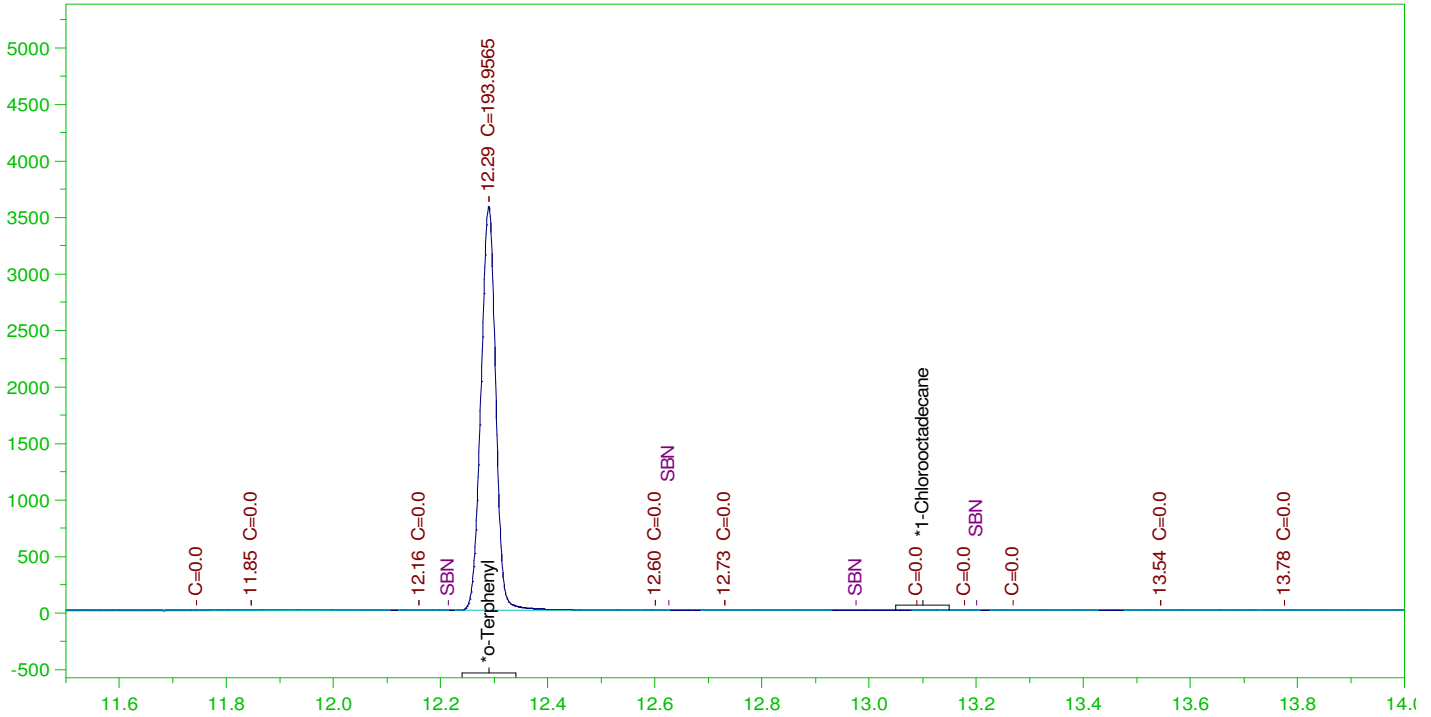
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0006.RAW

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

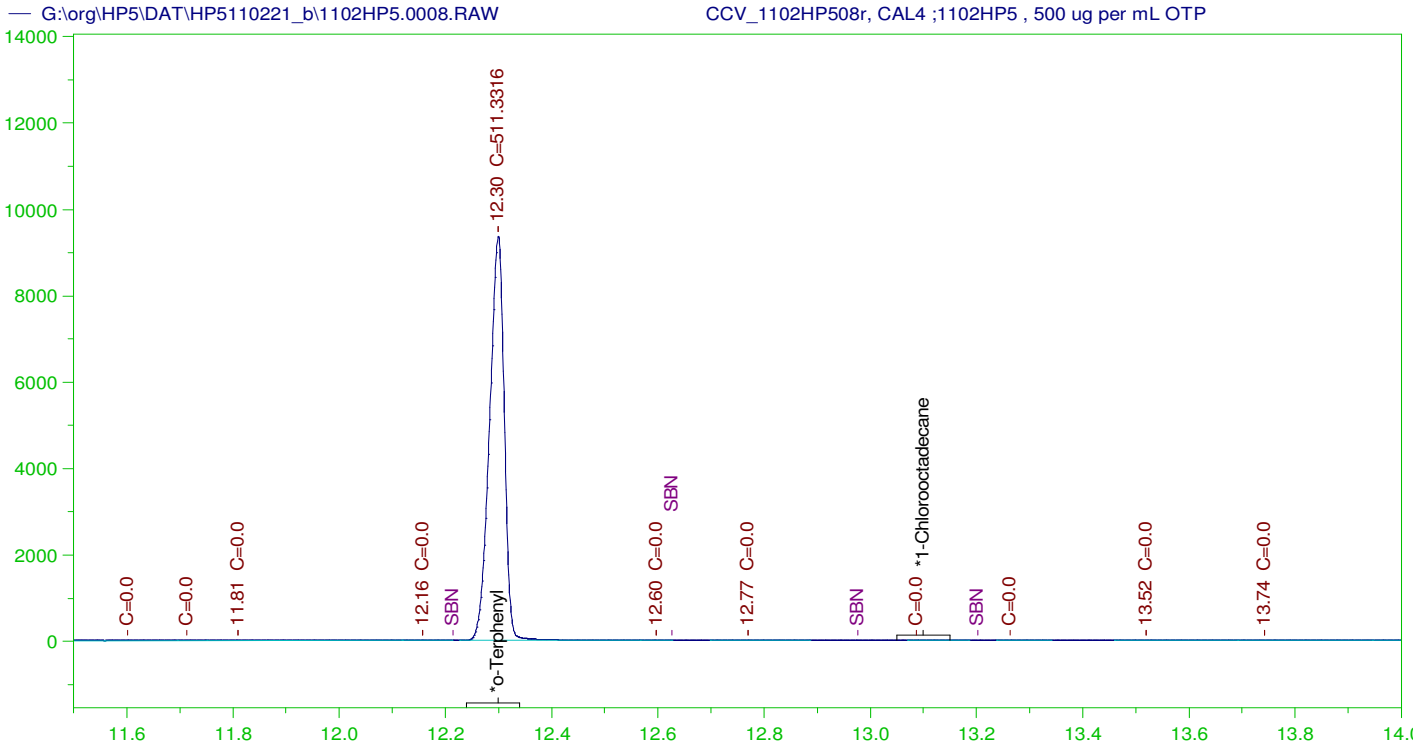
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.29	200.	193.957	96.98	-
*1-Chlorooctadecane	15.779	200.	.	.	-

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

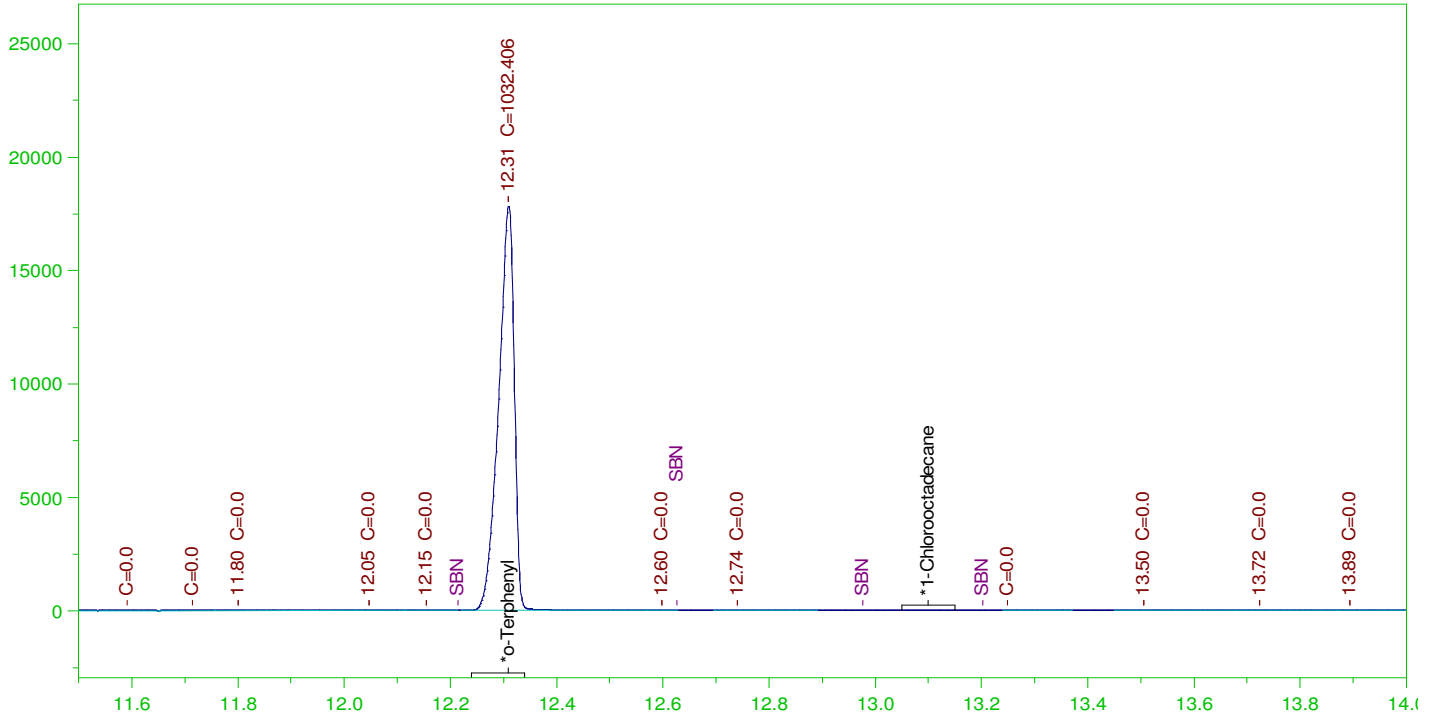
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0008.RAW

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

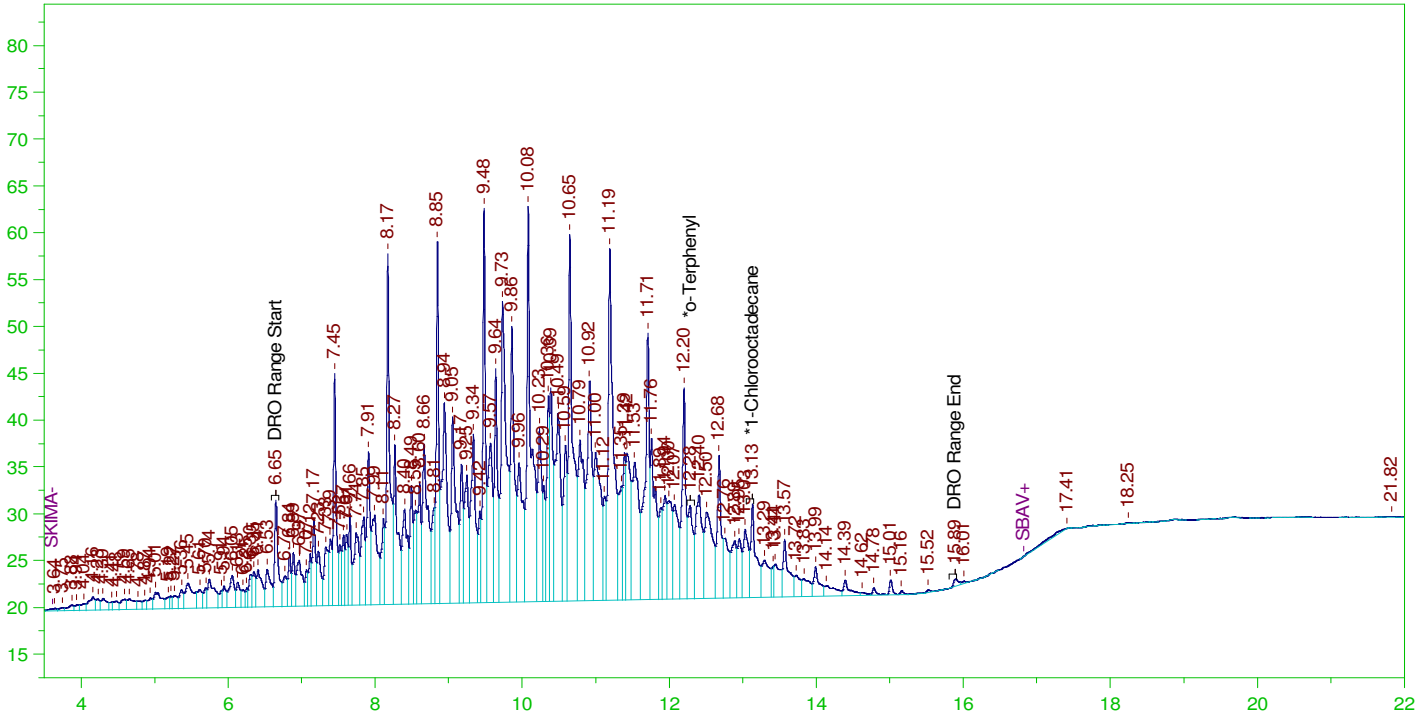
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0009.RAW

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

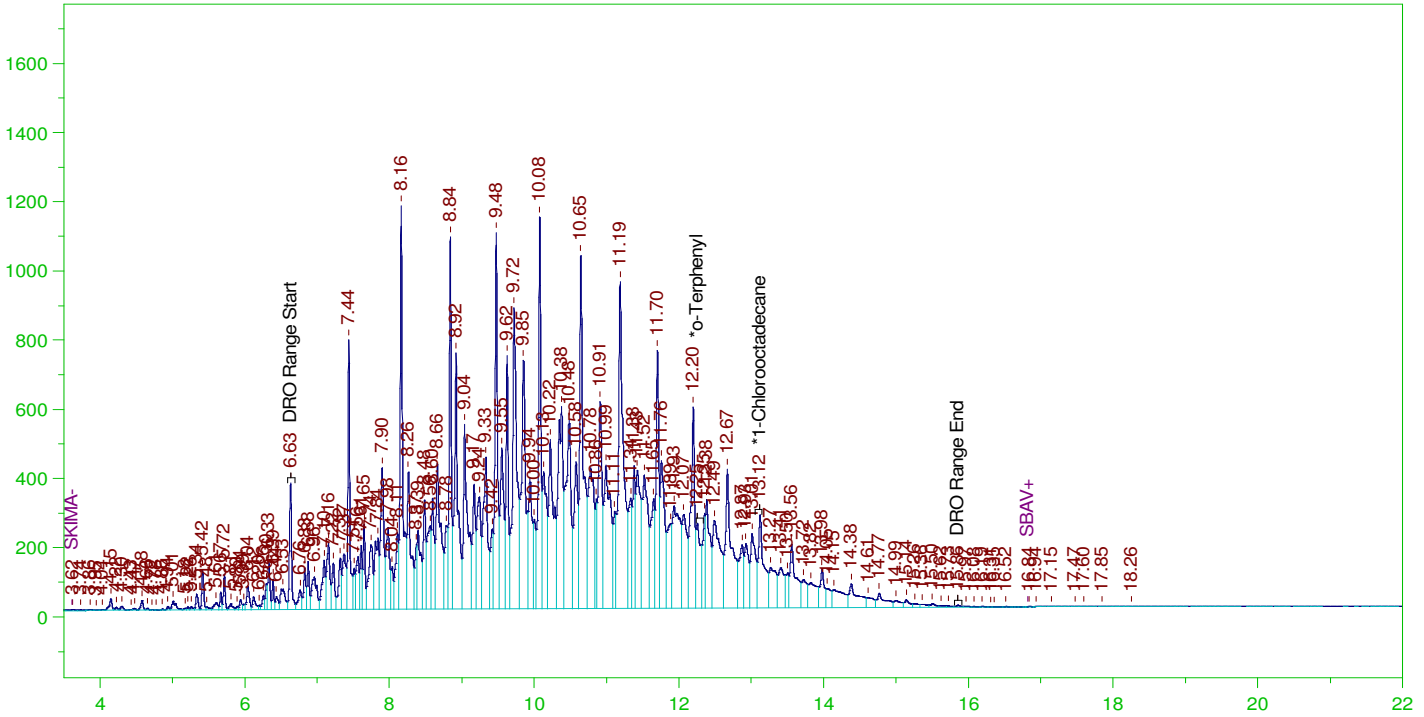
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0010.RAW

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

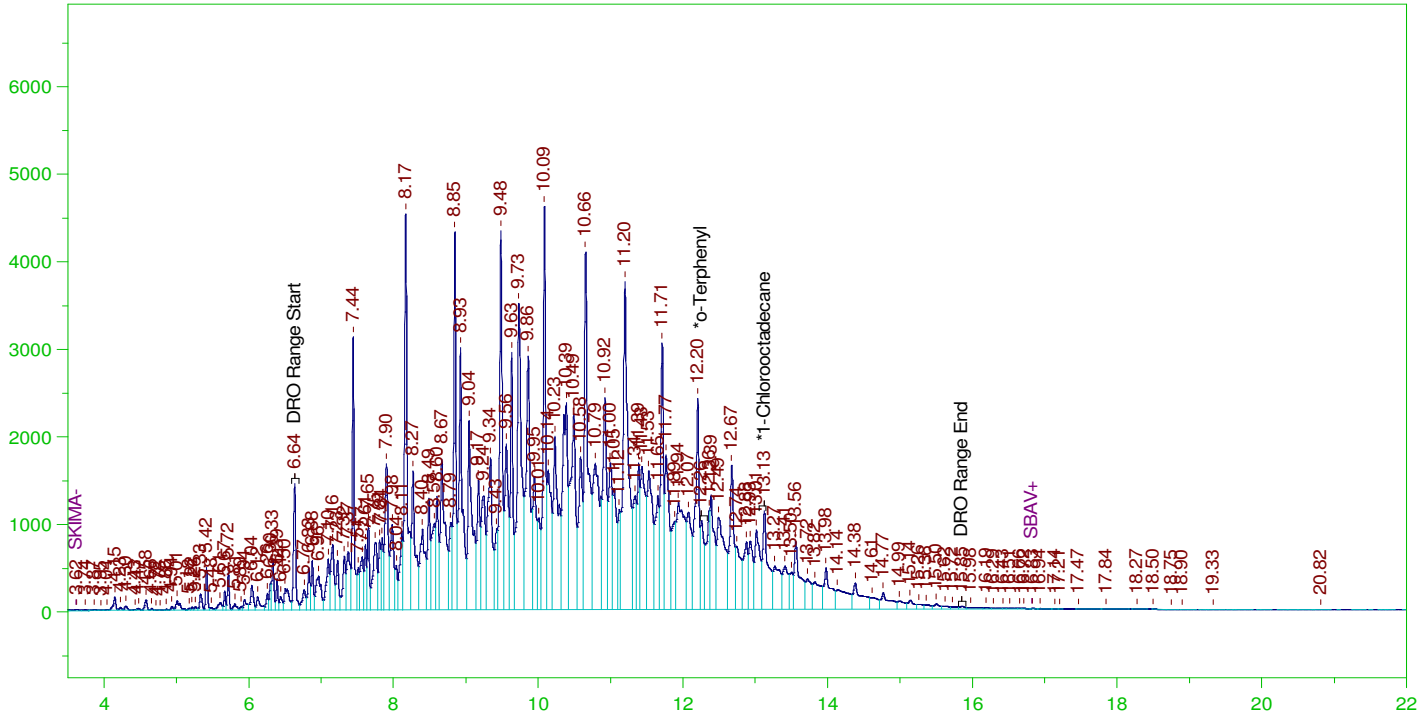
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0011.RAW

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

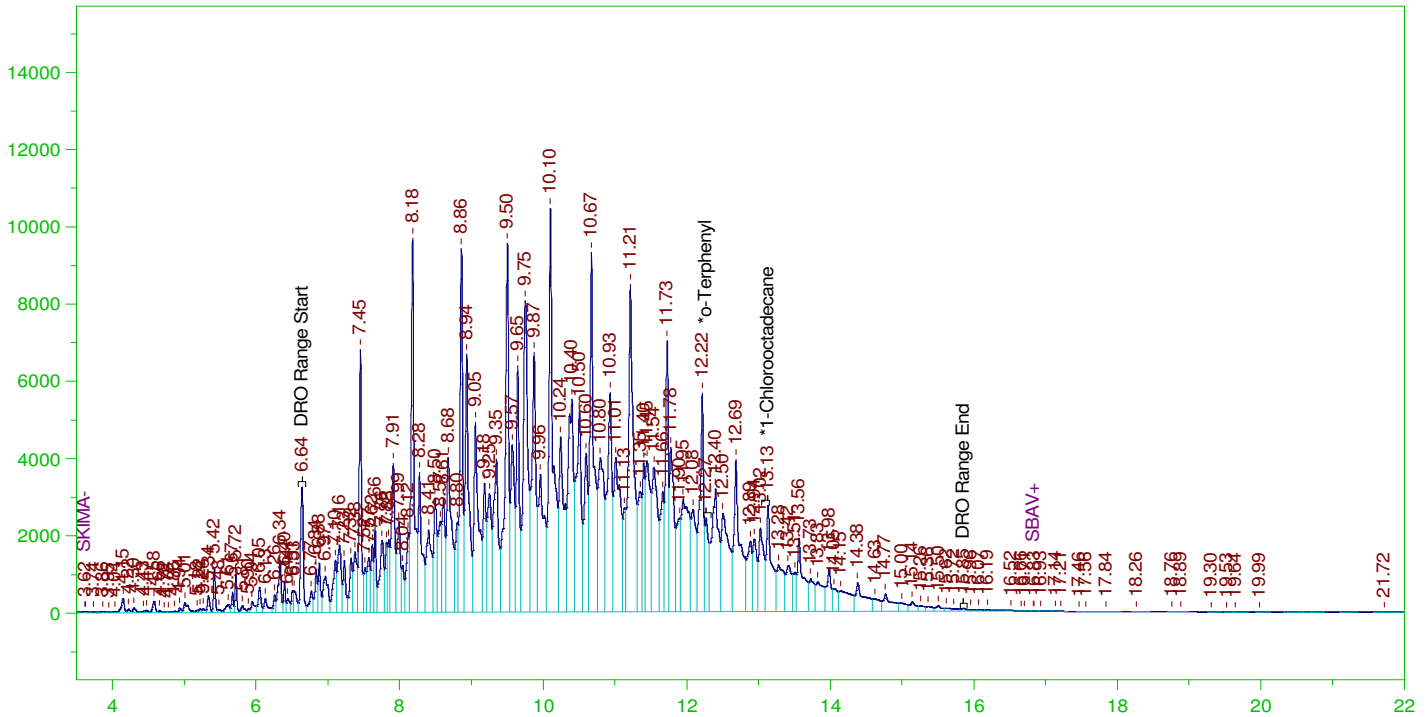
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0012.RAW

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

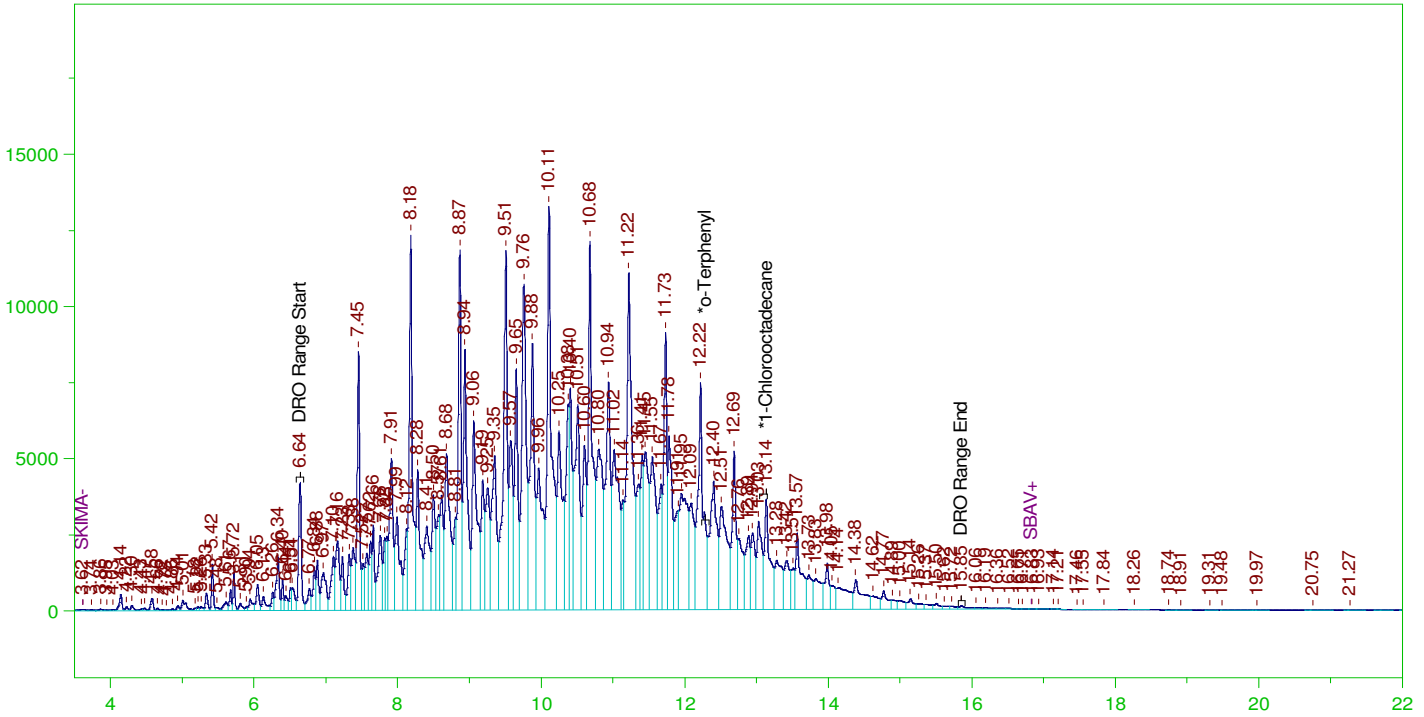
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5110221_b\1102HP5.0013.RAW

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

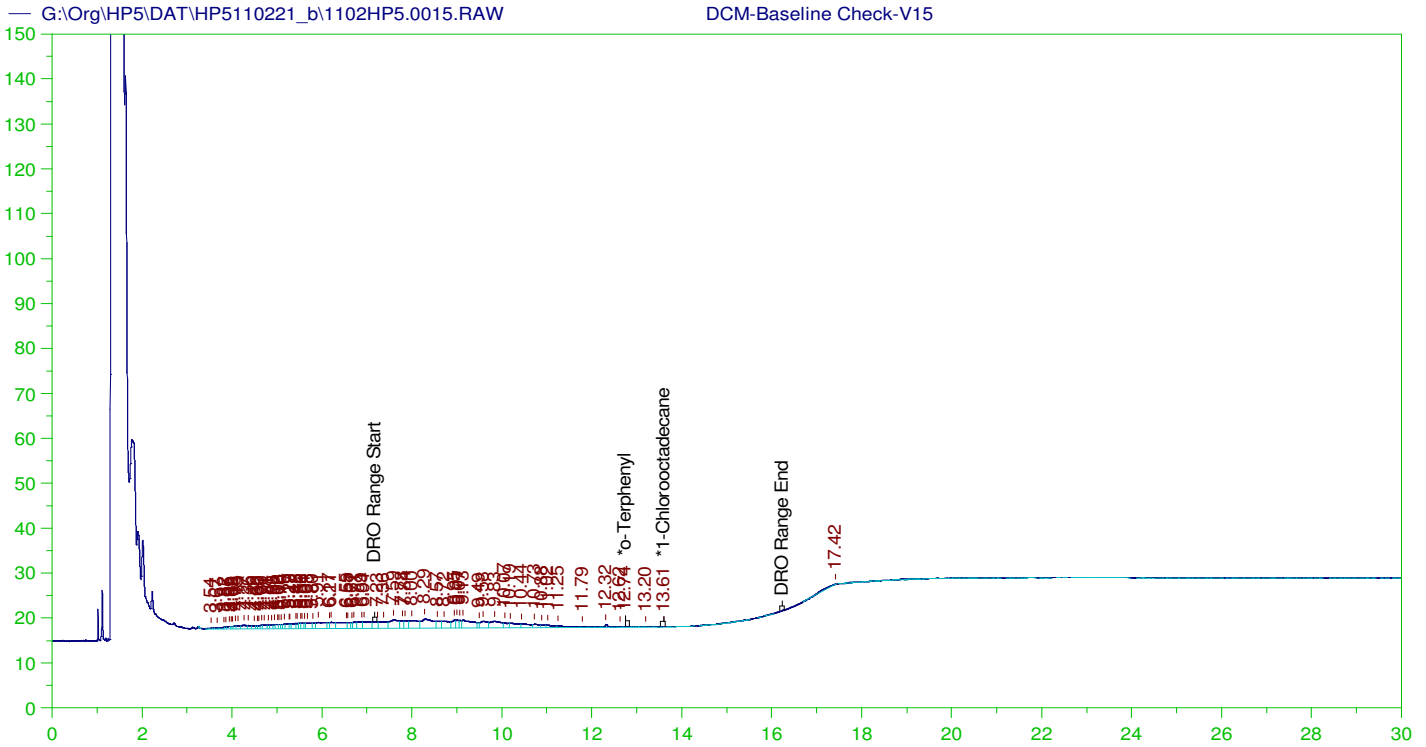
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.921	200.	.	-
*1-Chlorooctadecane	13.135	200.	512.63	256.31

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



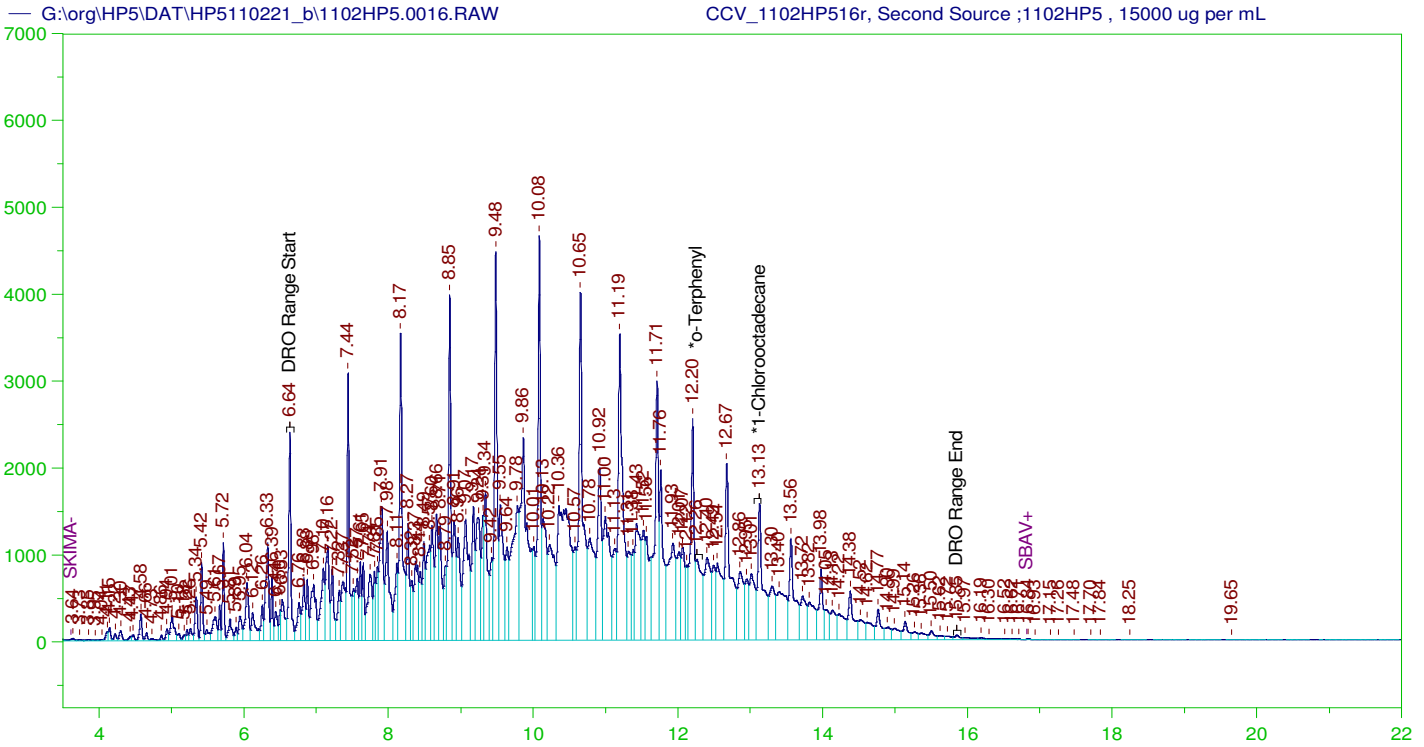
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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 Inj.	IS	Cal ID	Manul Integrations
		CCV_1102HP508r, DRO ;1102HP5 , DRO211025A	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	No integrations
		DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0	No integrations
		CCV_1102HP505r, CAL1 ;1102HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
		CCV_1102HP506r, CAL2 ;1102HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
		CCV_1102HP507r, CAL3 ;1102HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
		CCV_1102HP508r, CAL4 ;1102HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
		CCV_1102HP509r, CAL5 ;1102HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211011A + 750 DCM(14408)	G:\Org\HP5\Methods\DS_8015-IA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.21 and slightly after the surrogate peak at 12.63 and scaling showing surrogate peak from 11.5-14.
		CCV_1102HP510r, CAL1 ;1102HP5 , 150 ug per mL Diesel (10 uL of Cal3 + 990 uL DCM(14408),	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.83
		CCV_1102HP511r, CAL2 ;1102HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.5
		CCV_1102HP512r, CAL3 ;1102HP5 , 15000 ug per mL Diesel (300 uL of DRO211012A + 700 uL DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.5
		CCV_1102HP513r, CAL4 ;1102HP5 , 37500ug per mL Diesel (750 uL of DRO211012A + 250 uL DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.5
		CCV_1102HP514r, CAL5 ;1102HP5 , 50000 ug per mL Diesel (200 uL of DRO211012A)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.5
		DCM-Baseline Check-V15	G:\Org\HP5\Methods\DR_8015-HP-LEXP.met	1	1	1	1	0	No integrations
		CCV_1102HP516r, Second Source ;1102HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14408)	G:\Org\HP5\Methods\DC_8015-IA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.5

Ann Nebel

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

Energy Laboratories Inc

ANALYTICAL RUN Summary

31-Mar-21

Run ID GCFID-HP5-B_210218B

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

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

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14282665	CCV_0218HP50	HC-8015-DRO-	CAL1		2/18/2021 12:03:	1	R356533		0	0							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)		A	mg/L		0.1468323		0.15	0	0	0	0.3	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14282666	CCV_0218HP50	HC-8015-DRO-	CAL2		2/18/2021 1:27:3	1	R356533		0	0							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)		A	mg/L		1.062811		1	0	0	0.15	0.3	0	106%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14282667	CCV_0218HP50	HC-8015-DRO-	CAL3		2/18/2021 2:51:0	1	R356533		0	0							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)		A	mg/L		5.035713		5	0	0	0.15	0.3	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14282668	CCV_0218HP50	HC-8015-DRO-	CAL4		2/18/2021 4:14:3	1	R356533		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		14.69295		15	0	0	0.15	0.3	0	98%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14282669	CCV_0218HP51	HC-8015-DRO-	CAL5		2/18/2021 5:38:3	1	R356533		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		28.20769		30	0	0	0.15	0.3	0	94%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14282670	CCV_0218HP51	HC-8015-DRO-	ICV		2/18/2021 8:27:3	1	R356533		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.474465		5	0	0	0.15	0.3	0	109%	80	120	0%	

Write Sequence	Data File	Sample 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

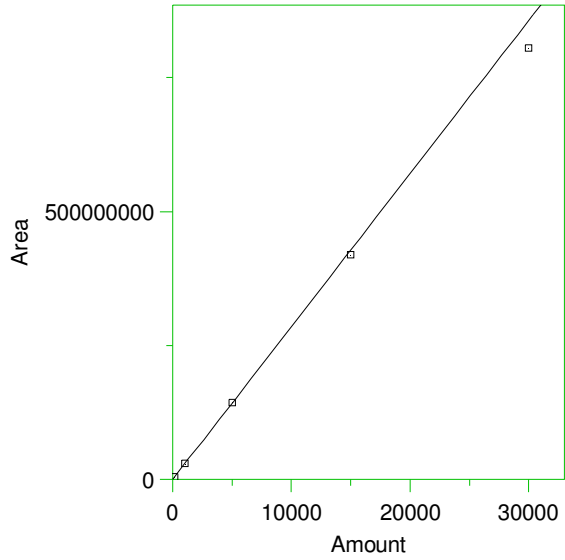
No default component

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

No calibration update report

All levels are normal data points.

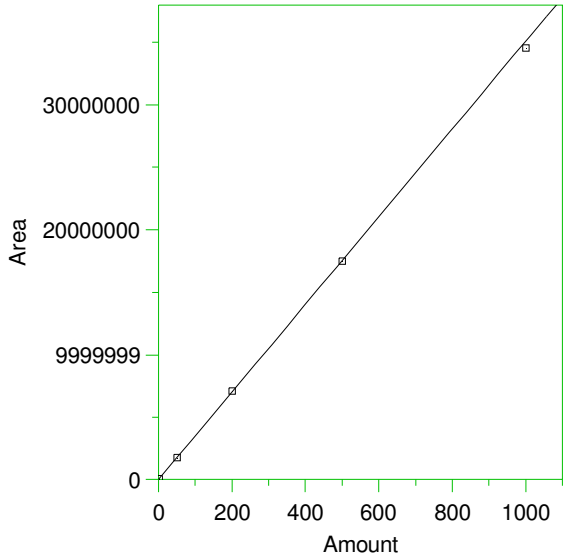
1 DRO Range Start



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

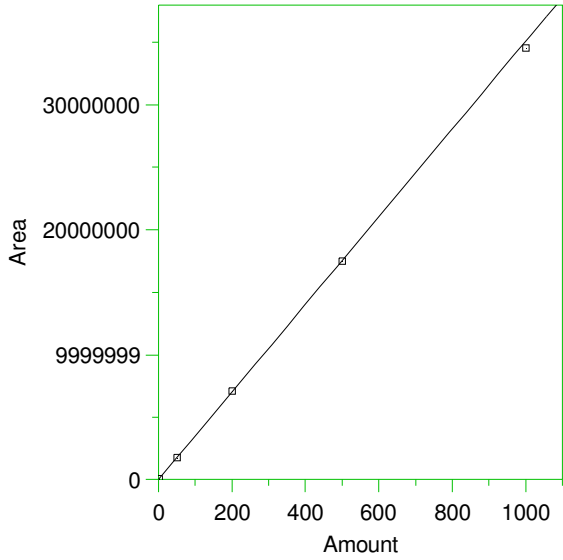
2 *o-Terphenyl



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%

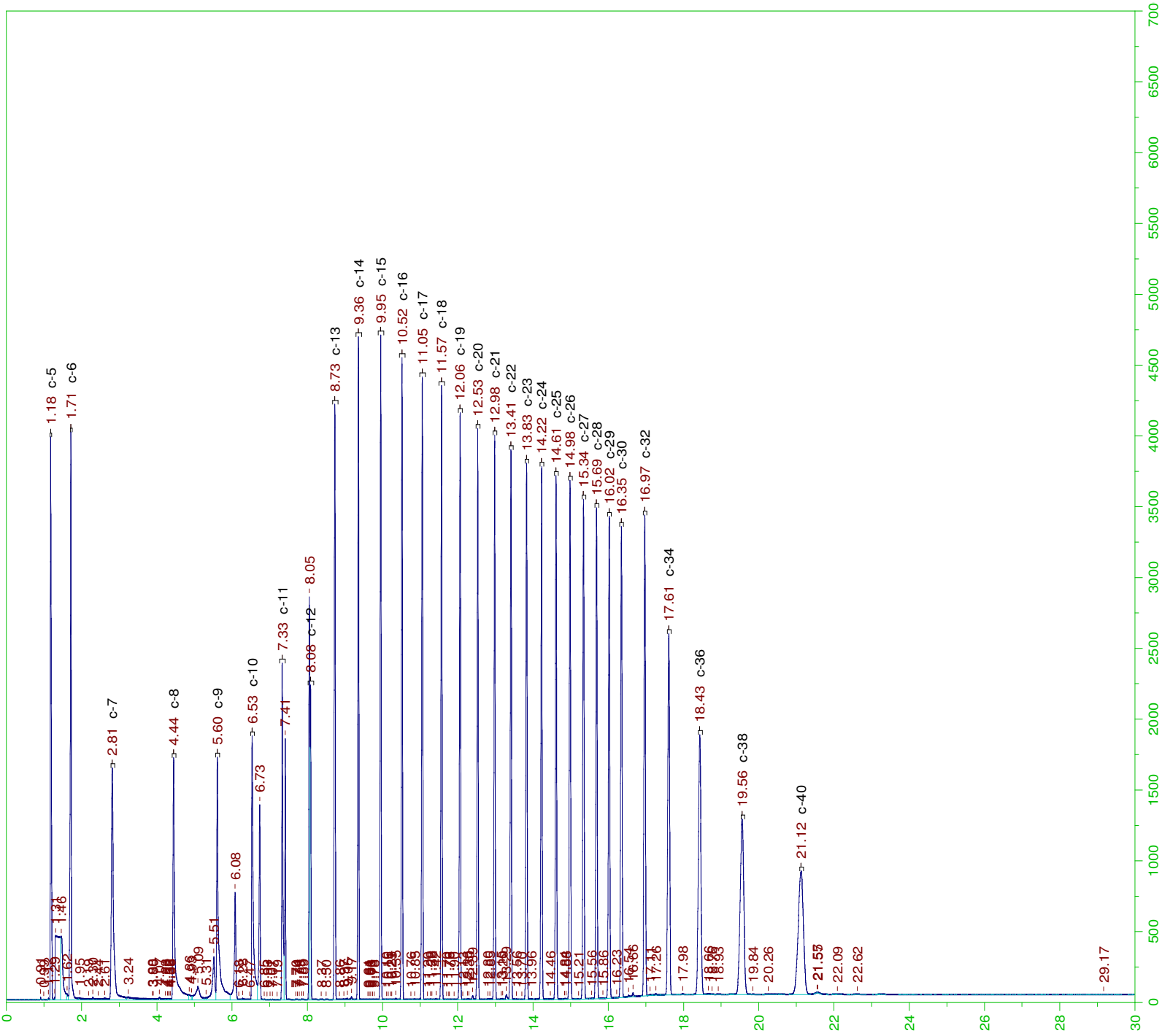
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	70648.41	35324.2	0.721	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0011.BND	1/11/2021 9:44:43 AM
2	50	1746406	34928.12	-0.408	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0012.BND	1/11/2021 9:44:50 AM
3	200	7110604	35553.02	1.374	G:\Org\HP5\DAT\HP5010821_b\0108HP5.0013.BND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

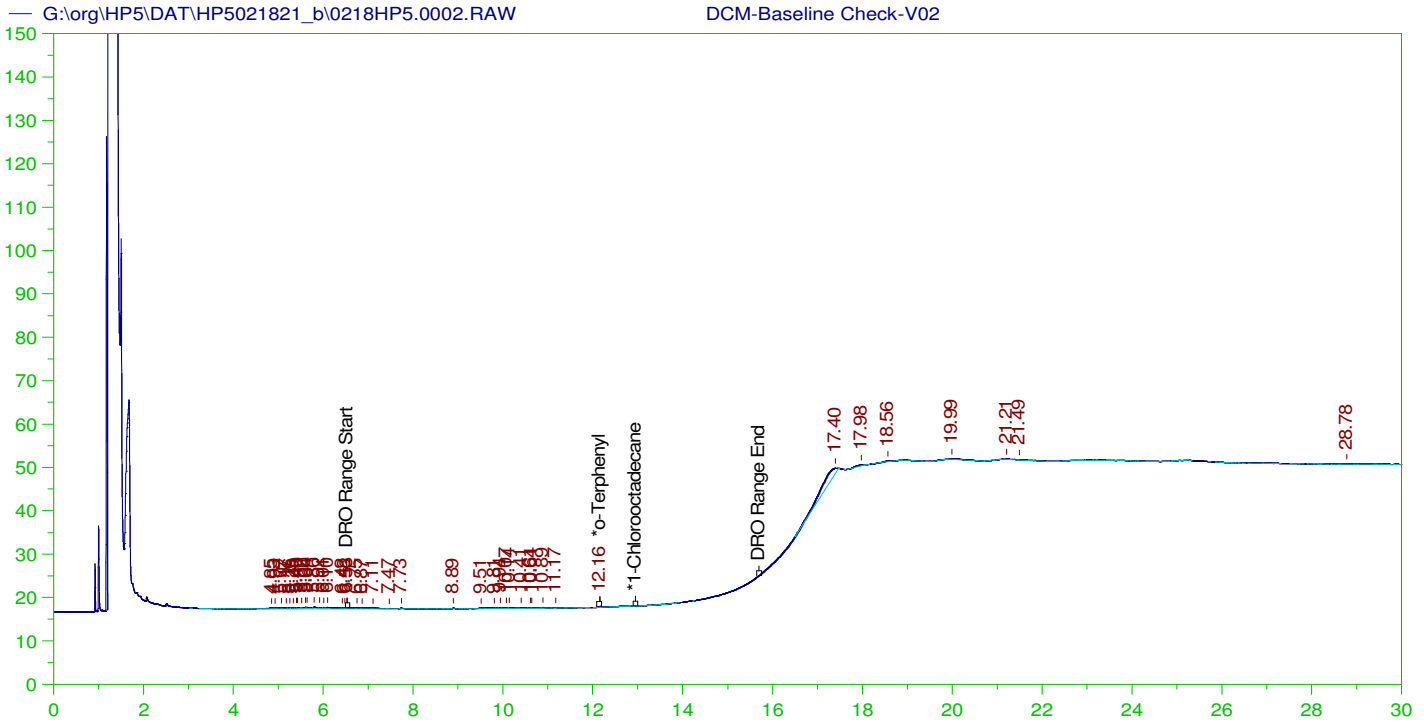
3 *1-Chlorooctadecane



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

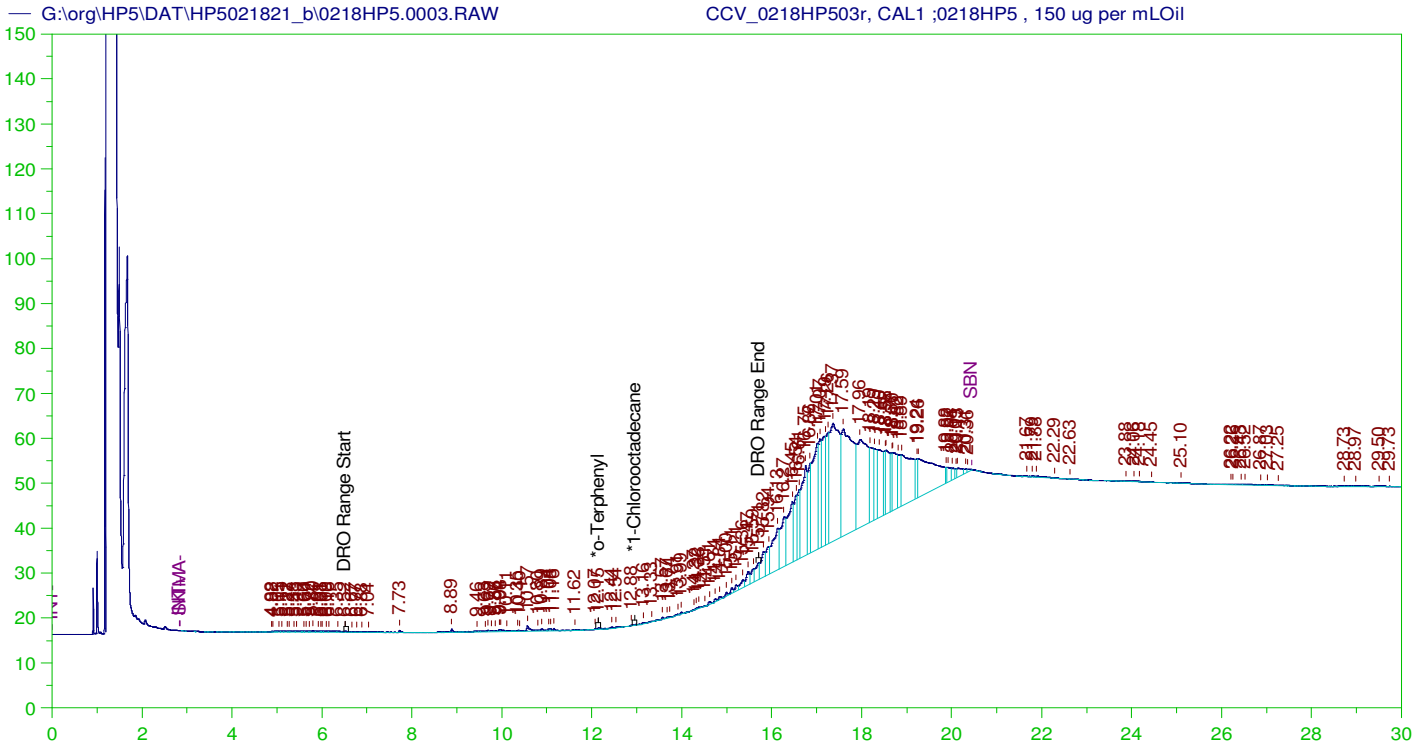
Sample Name: DCM-Baseline Check-V02
 Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0002.RAW
 Date & Time Acquired: 2/18/2021 11:21:40 AM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

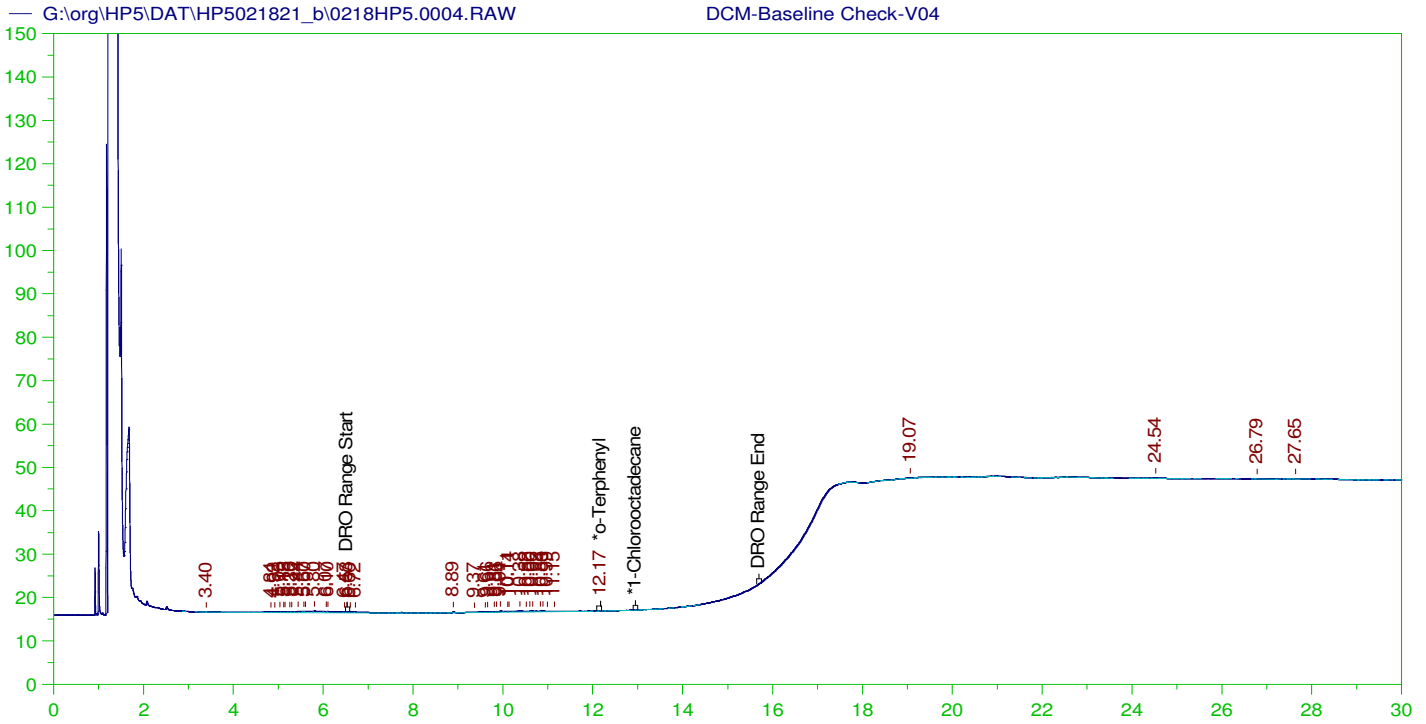
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.146	200.	.02	.01
*1-Chlorooctadecane	29.979	200.	.	.

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



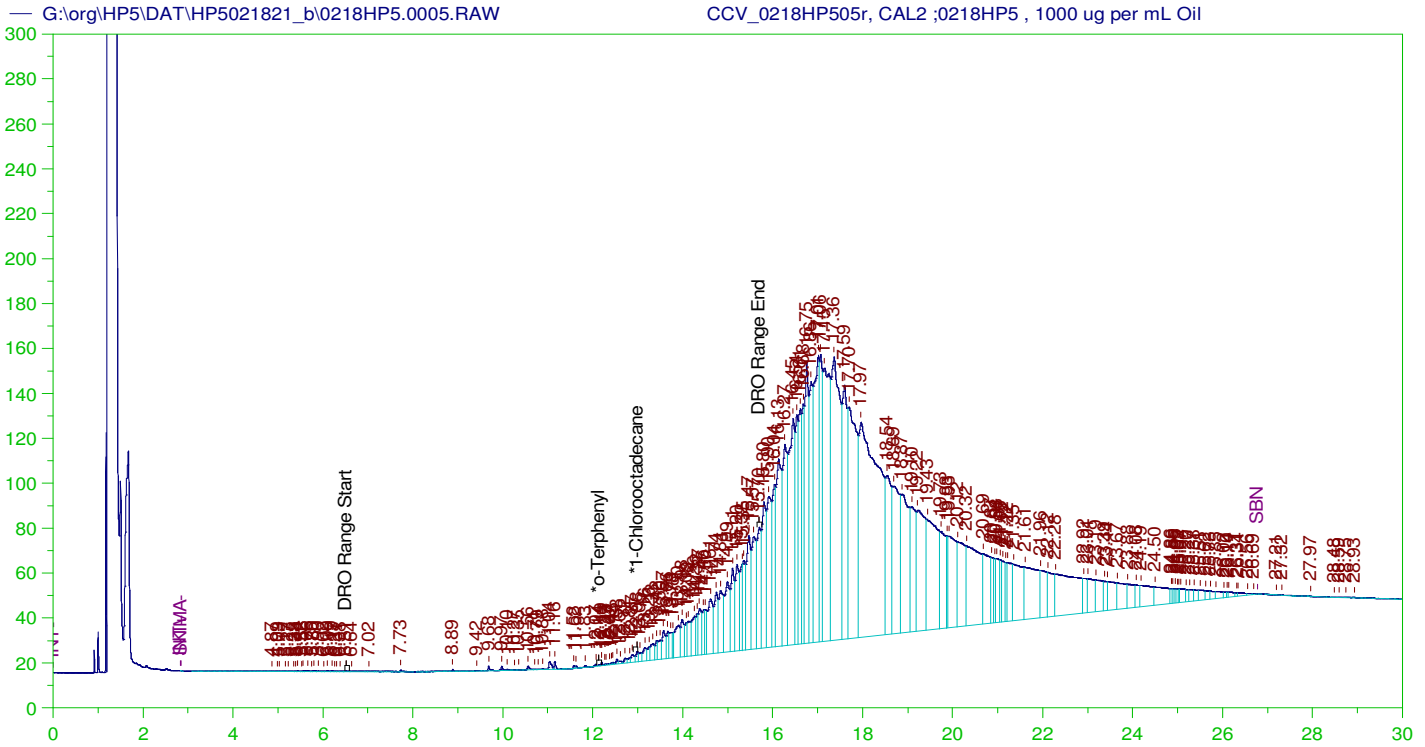
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

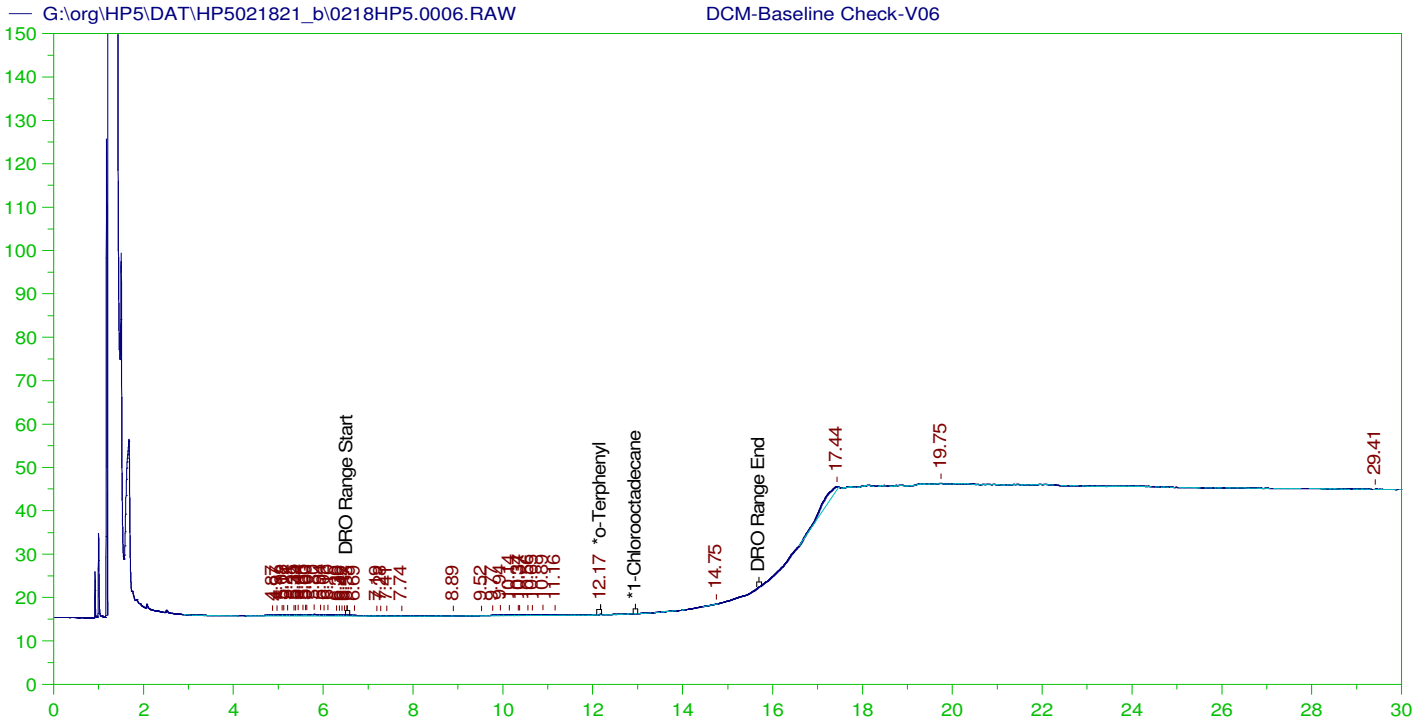
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.136	200.	.034	.02	-
*1-Chlorooctadecane	12.983	200.	.496	.25	-

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



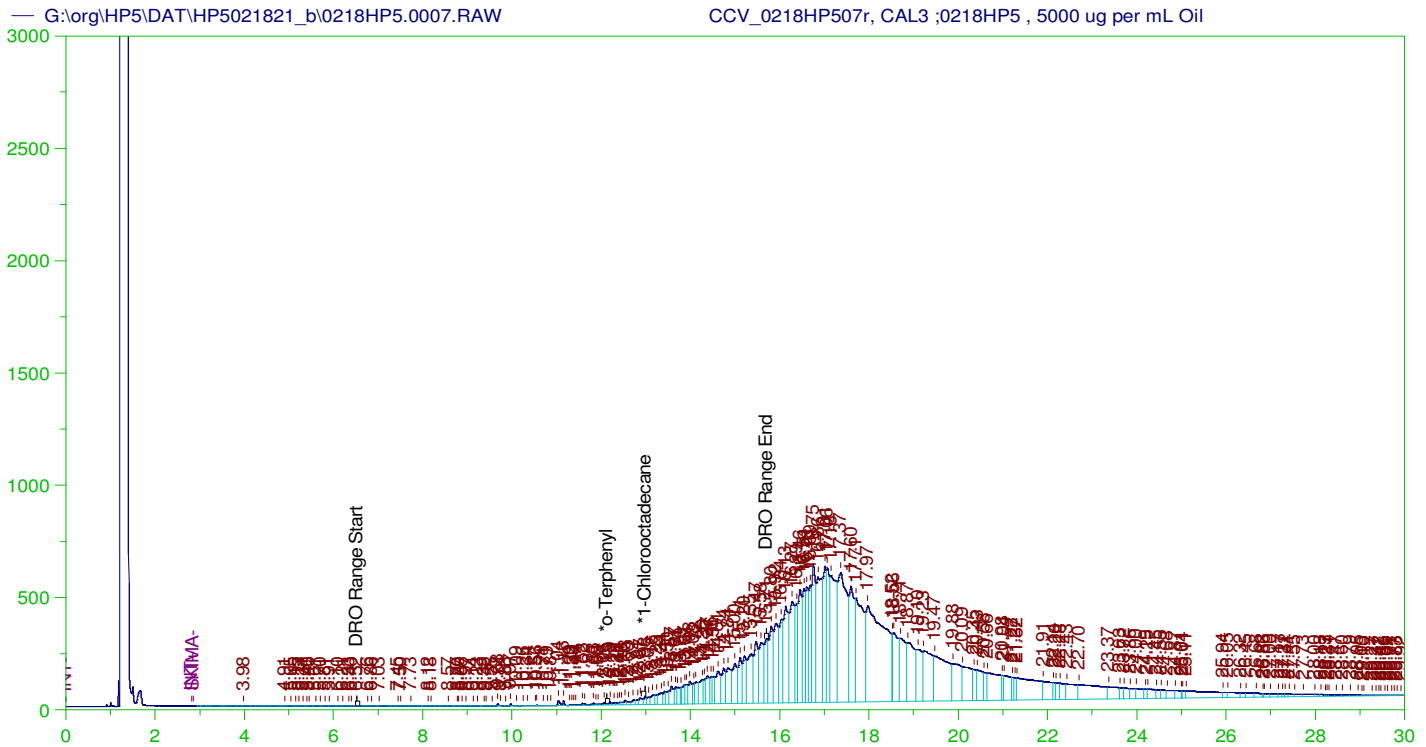
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

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

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

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



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

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

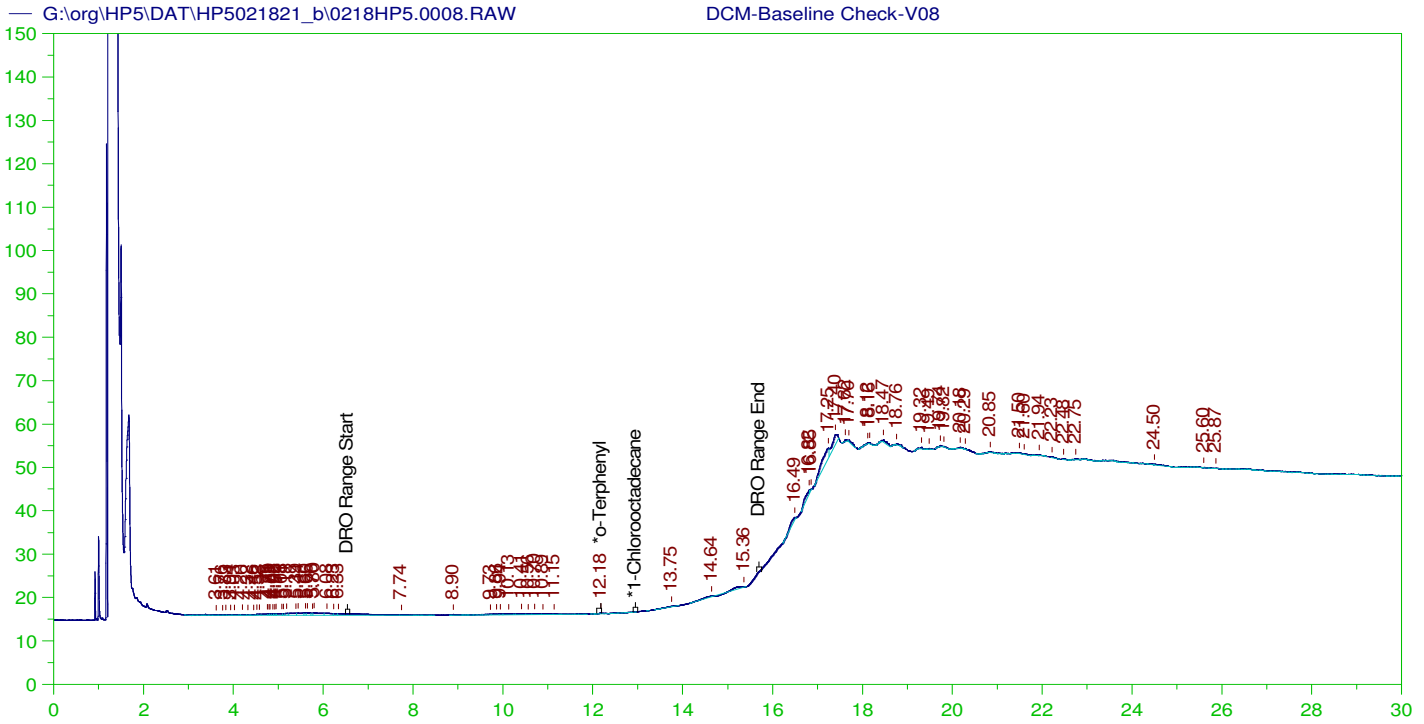
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.129	200.	.538	.27	-
*1-Chlorooctadecane	12.981	200.	4.244	2.12	-

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

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

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

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



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

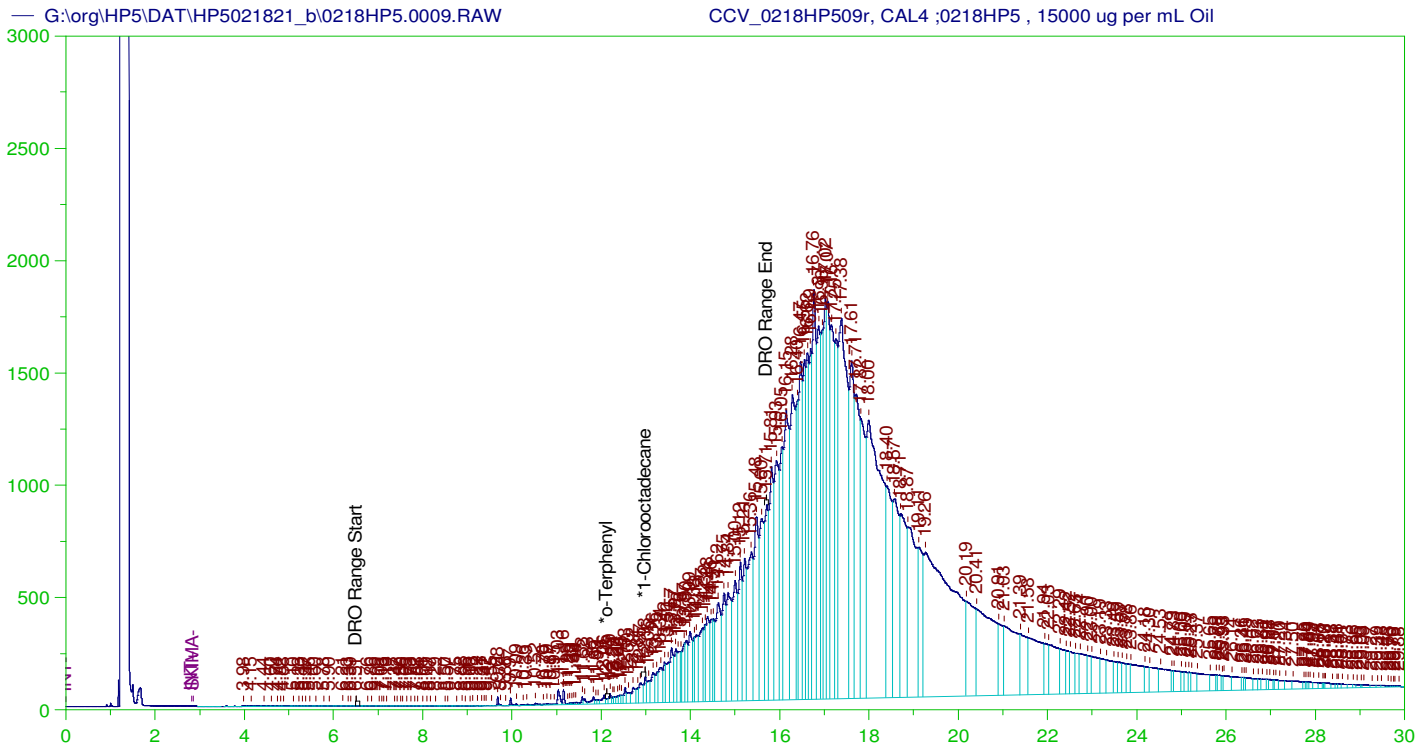
Sample Name: DCM-Baseline Check-V08
 Raw File: G:\org\HP5\DAT\HP5021821_b\0218HP5.0008.RAW
 Date & Time Acquired: 2/18/2021 3:32:46 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29457.33

Rt range for Diesel Range Organics: 6.49 to 15.75

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

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



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

Mean RF for TEH: 28542.41

Rt range for Diesel Range Organics: 6.49 to 15.75

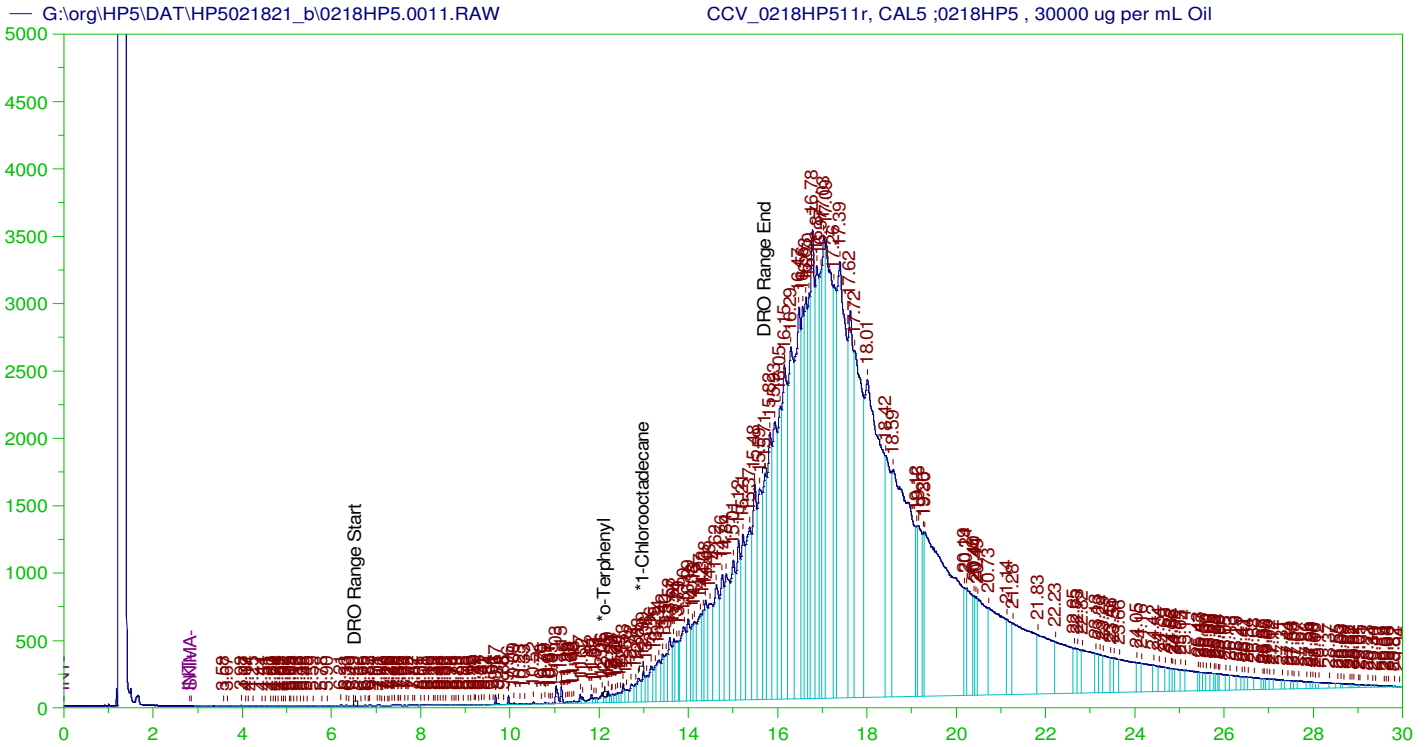
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.124	200.	1.888	.94	-
*1-Chlorooctadecane	12.984	200.	13.129	6.56	-

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

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

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

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



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

Mean RF for TEH: 28542.41

Rt range for Diesel Range Organics: 6.49 to 15.75

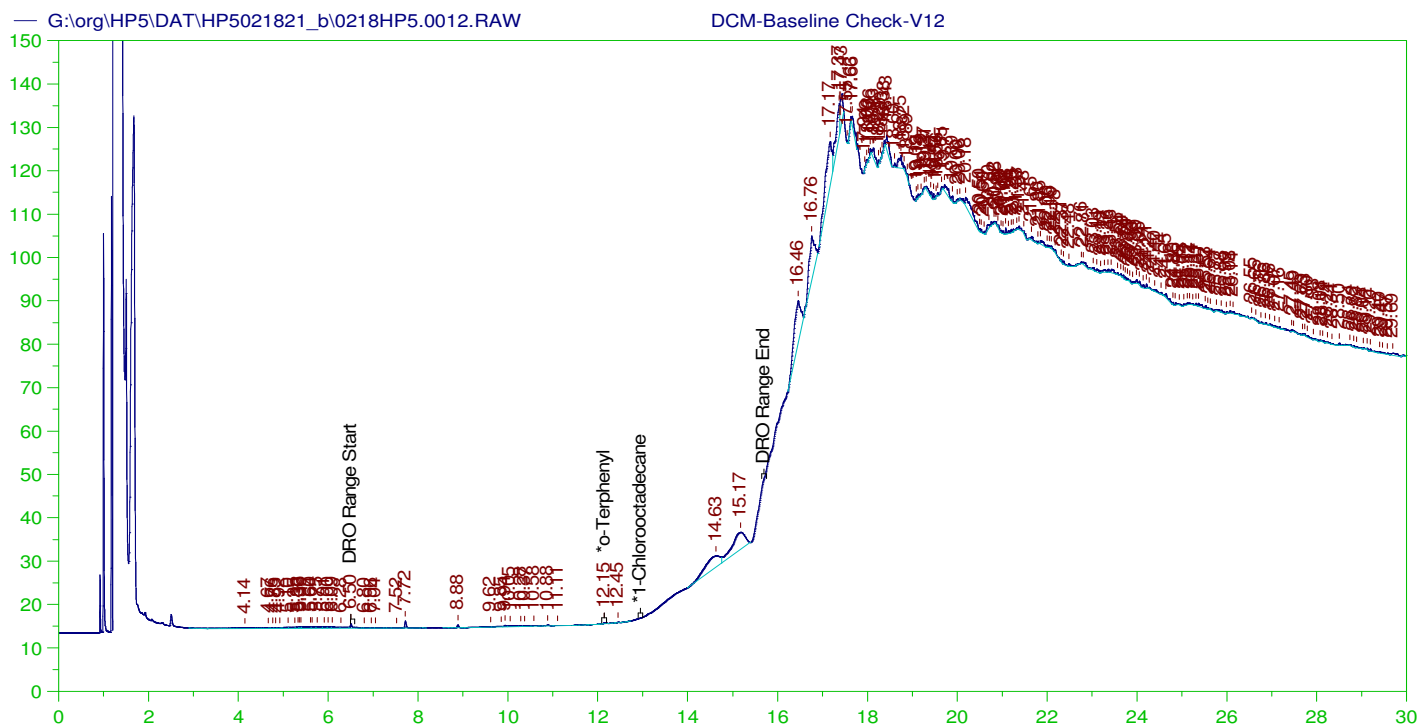
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.128	200.	3.828	1.91	-
*1-Chlorooctadecane	12.985	200.	28.22	14.11	-

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

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

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

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



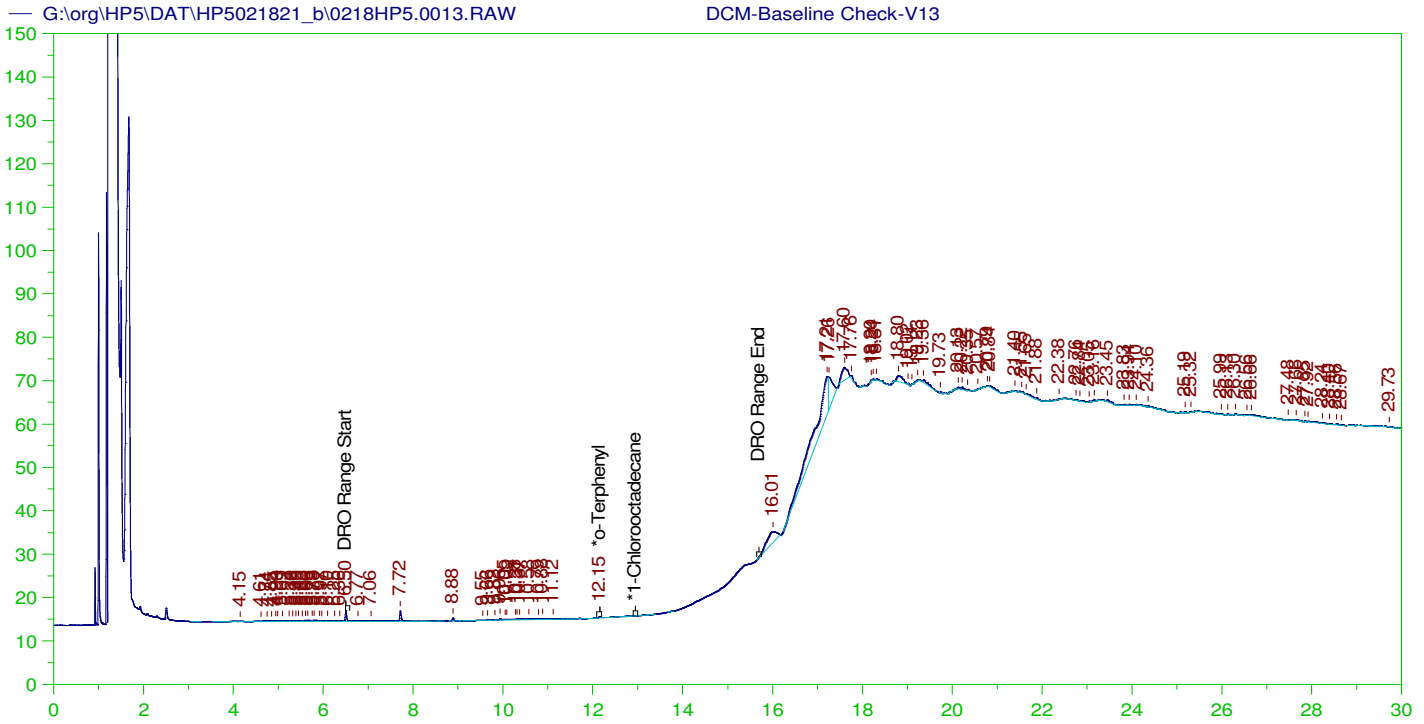
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

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

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

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



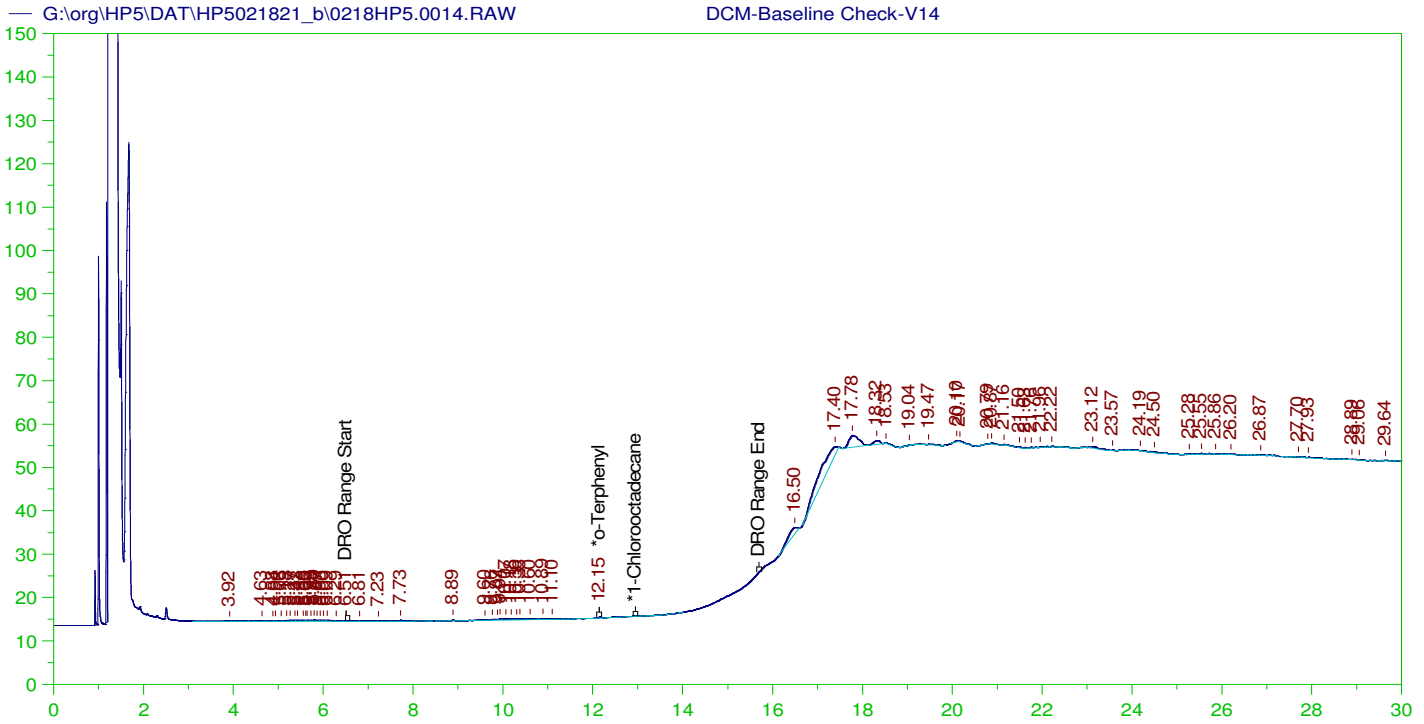
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

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

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

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



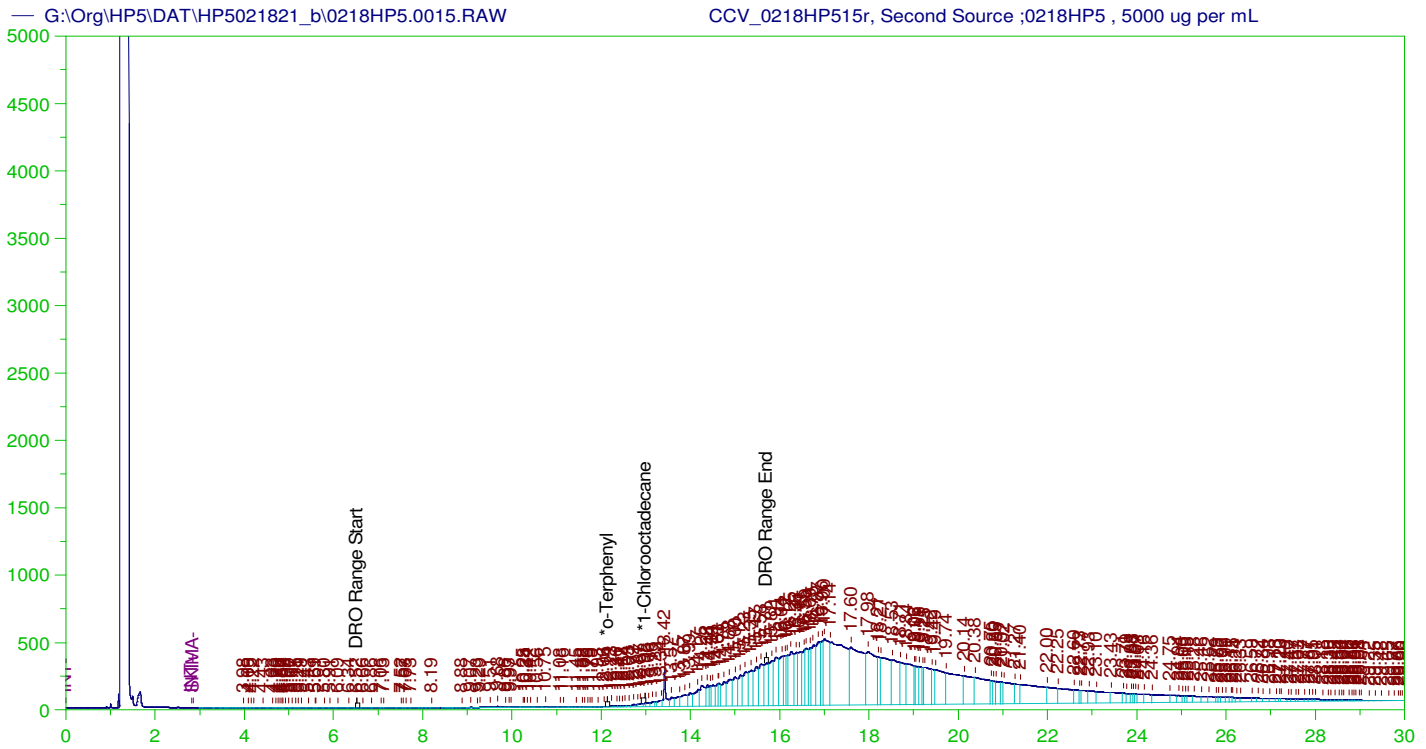
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

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

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

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



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

Mean RF for TEH: 28542.41

Rt range for Diesel Range Organics: 6.49 to 15.75

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

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

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

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

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

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj	IS	Cal ID	Manual Integration
		Marker_0218HP501r, DRO C40 ;0218HP5_ , DRO210204A	G:\Org\HP5\Methods\CSC210212.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		CCV_0218HP503r, CAL1 ;0218HP5 , 150 ug per mL Oil (10 uL of Cal4 + 990 uL DCM(13510))	G:\Org\HP5\Methods\DR_OIL-021803-AA-L0.MET						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 20.91 changed peak width and scale was set at 150 for the Yaxis.
		DCM-Baseline Check-V04	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		CCV_0218HP505r, CAL2 ;0218HP5 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(13510))	G:\Org\HP5\Methods\DR_OIL-021805-AA-L0.MET						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 26.79 changed peak width and scale was set at 300 for the Yaxis.
		DCM-Baseline Check-V06	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		CCV_0218HP507r, CAL3 ;0218HP5 , 5000 ug per mL Oil (100 uL of DRO180918C + 900 uL DCM(13510))	G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Scale was set at 3000 for the Yaxis.
		DCM-Baseline Check-V08	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		CCV_0218HP509r, CAL4 ;0218HP5 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(13510))	G:\Org\HP5\Methods\DR_OIL-021807-AA-L0.MET						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Scale was set at 3000 for the Yaxis.
		DCM-Baseline Check-V10	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		CCV_0218HP511r, CAL5 ;0218HP5 , 30000 ug per mL Oil (600 uL of DRO180918C + 400 uL of DCM)	G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Scale was set at 5000 for the Yaxis.
		DCM-Baseline Check-V12	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V13	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V14	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integration
		CCV_0218HP515r, Second Source ;0218HP5 , 5000 ug per mL (100uL of DRO210217A + 300uL DCM(13510))	G:\Org\HP5\Methods\DR_OIL-021811-AA-L0.MET						The integration of Total Extractable Hydrocarbons (OIL) is the hydrocarbon response with reference to the baseline. Scale was set at 5000 for the Yaxis.

Ann Nebel

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

Energy Laboratories Inc

ANALYTICAL RUN Summary

13-Oct-21

Run ID GCFID-HP4-B_211006B

Run Start Date: 10/6/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments: 8015C Oil Range

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-OIL	8/31/2025
DRO210902A	50,000 ug/mL Oil Std for RRO-In DCM					Second Sou	9/1/2026

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist				
14764069	CCV_1006HP41	HC-8015-DRO-	CAL1		10/7/2021 12:16:	1	R368535			0	0				
Analyte		T Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD Q
TEH(Oil Range)		A mg/L		0.1652093		0.15	0	0	0	0.3	0	110%	80	120	0%
14764070	CCV_1006HP41	HC-8015-DRO-	CAL2		10/7/2021 1:47:3	1	R368535			0	0				
Analyte		T Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD Q
TEH(Oil Range)		A mg/L		1.022149		1	0	0	0	0.3	0	102%	80	120	0%
14764071	CCV_1006HP41	HC-8015-DRO-	CAL3		10/7/2021 3:19:0	1	R368535			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		4.956371		5	0	0	0	0.3	0	99%	80	120	0%
14764072	CCV_1006HP41	HC-8015-DRO-	CAL4		10/7/2021 4:50:1	1	R368535			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					
14764072	CCV_1006HP41	HC-8015-DRO-	CAL4		10/7/2021 4:50:1	1	R368535		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		14.79833		15	0	0	0	0.3	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					
14764073	CCV_1006HP42	HC-8015-DRO-	CAL5		10/7/2021 6:21:2	1	R368535		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		29.29968		30	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					
14764074	CCV_1006HP42	HC-8015-DRO-	ICV		10/7/2021 9:21:4	1	R368535		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		5.390338		5	0	0	0	0.3	0	108%	80	120	0%	

File Name: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
Version: 43

Creator: AMN
Description: 8015C-Oil Range w/Triacontane. New ICal Per 1006HP4 (2021)-2 uL Inj.;
Reason for change:

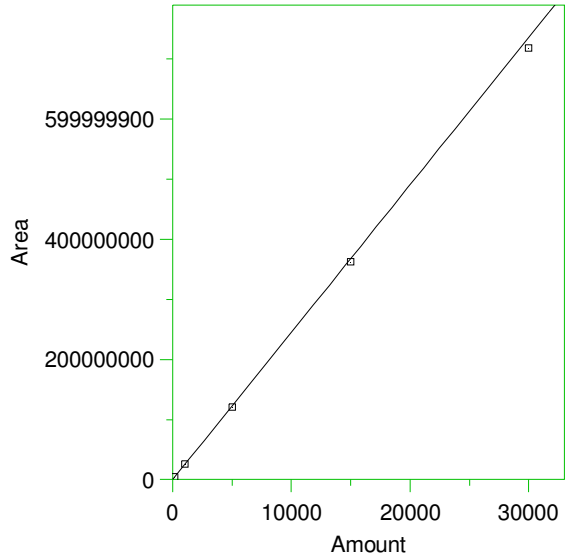
External standard calibration

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.

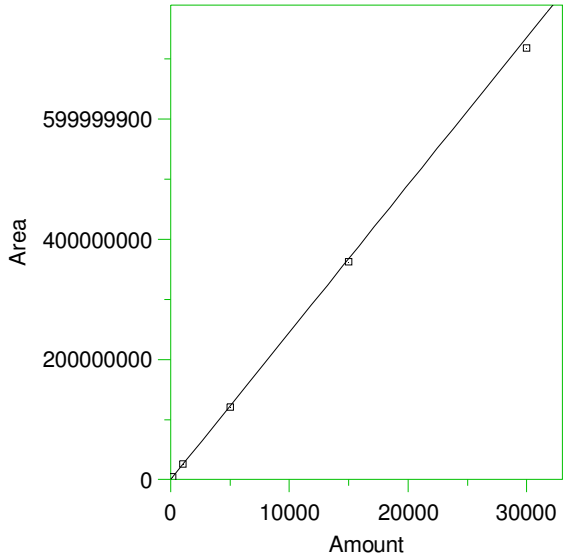
1 *30-40 Motor Oil



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 = 24529.56 X + 0
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9990484
 Average error: 1.972%
 Average CF: 24529.56
 RSD: 2.304%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	3765836	25105.57	2.348	Manual	1/1/2022 10:32:22 AM
2	1000	2.516261E+07	25162.61	2.581	Manual	10/7/2021 12:56:01 PM
3	5000	1.213971E+08	24279.42	-1.020	Manual	10/7/2021 12:55:18 PM
4	15000	3.623479E+08	24156.53	-1.521	Manual	10/7/2021 12:55:30 PM
5	30000	7.183105E+08	23943.68	-2.388	Manual	10/7/2021 12:55:47 PM

2 #C20



Expected retention time: 12.58 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

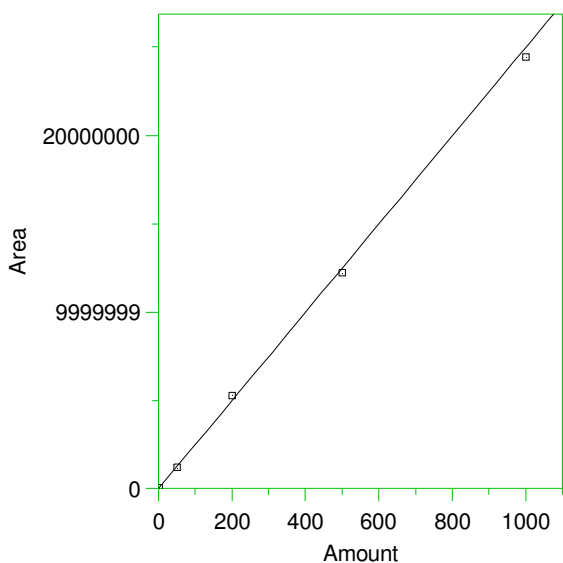
Single peak quantification by area

$Y = 24529.56 X + 0$

Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9990484
 Average error: 1.972%
 Average CF: 24529.56
 RSD: 2.304%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	3765836	25105.57	2.348	Manual	1/1/2022 10:32:46 AM
2	1000	2.516261E+07	25162.61	2.581	Manual	1/1/2022 10:32:43 AM
3	5000	1.213971E+08	24279.42	-1.020	Manual	1/1/2022 10:32:41 AM
4	15000	3.623479E+08	24156.53	-1.521	Manual	1/1/2022 10:32:39 AM
5	30000	7.183105E+08	23943.68	-2.388	Manual	1/1/2022 10:32:36 AM

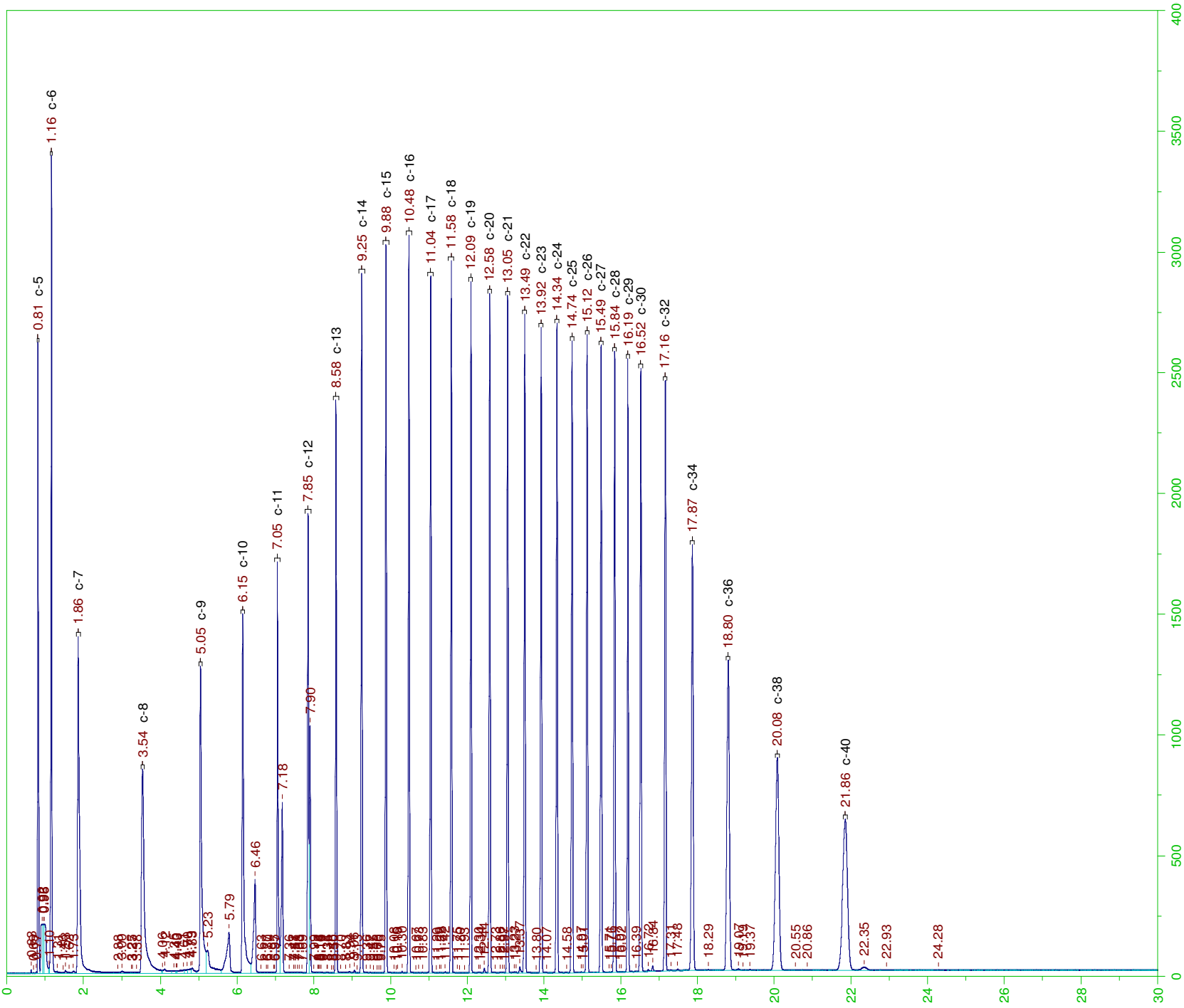
3 *#Triacontane

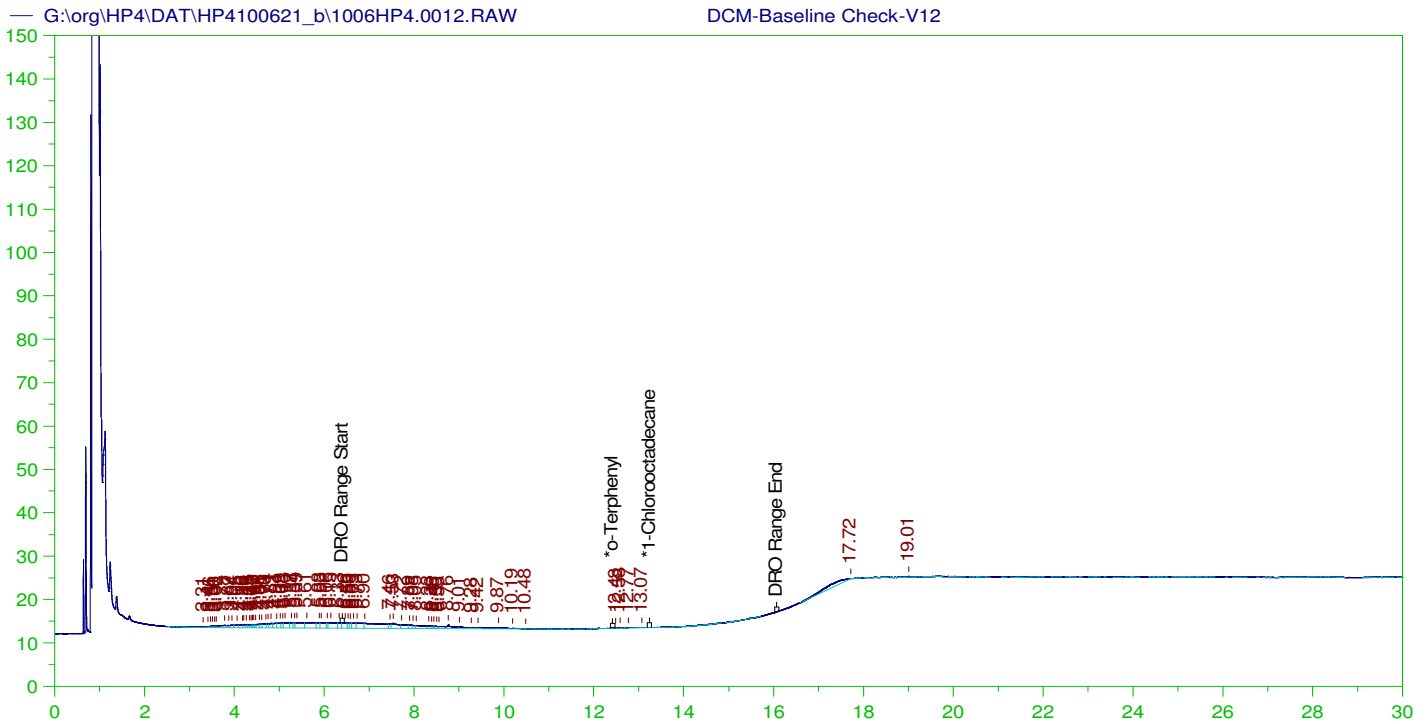


Expected retention time: 16.34 minutes
 Search window: 0.05 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 24973.81 X + 0
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9989417
 Average error: 2.783%
 Average CF: 24973.81
 RSD: 3.701%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	50369.5	25184.75	0.845	Manual	10/7/2021 1:17:20 PM
2	50	1212157	24243.14	-2.926	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0015.BND	10/7/2021 12:47:26 PM
3	200	5300126	26500.63	6.114	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0017.BND	10/7/2021 12:47:56 PM
4	500	1.22448E+07	24489.6	-1.939	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0019.BND	10/7/2021 12:48:04 PM
5	1000	2.445095E+07	24450.95	-2.094	Manual	10/7/2021 4:09:51 PM

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
		Insert Entries(Have the first cell for entries select)						
	G:\org\HP4\DAT\HP4100621_b\1006HP4.11r	CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A	G:\org\HP4\Methods\CSC211006.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.12r	DCM-Baseline Check-V12	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.13r	CCV_1006HP413r, CAL1 ;1006HP4 , 150 ug per mL Oil (10 uL of Cal4 + 990 uL DCM)(14354)	G:\Org\HP4\methods\DR_8015-13-OIL-AA-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.14r	DCM-Baseline Check-V14	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.15r	CCV_1006HP415r, CAL2 ;1006HP4 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM)(14354)	G:\Org\HP4\methods\DR_8015-15-OIL-AA-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.16r	DCM-Baseline Check-V16	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.17r	CCV_1006HP417r, CAL3 ;1006HP4 , 5000 ug per mL Oil (200 uL of Cal 4 + 400 uL DCM)(14354)	G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.18r	DCM-Baseline Check-V18	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.19r	CCV_1006HP419r, CAL4 ;1006HP4 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM)(14354)	G:\Org\HP4\methods\DR_8015-19-OIL-AA-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.20r	DCM-Baseline Check-V20	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.21r	CCV_1006HP423r, CAL5 ;1006HP4 , 30000 ug per mL Oil (600 uL of DRO180918C + 400 uL of DCM)(14354)	G:\Org\HP4\methods\DR_8015-21-OIL-AA-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.22r	DCM-Baseline Check-V22	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.23r	DCM-Baseline Check-V23	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.24r	DCM-Baseline Check-V24	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.25r	CCV_1006HP425r, Second Source ;1006HP4 , 5000 ug per mL Oil (100 uL of DRO210902A + 900 uL of DCM)	G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met	1	1	1	1	0





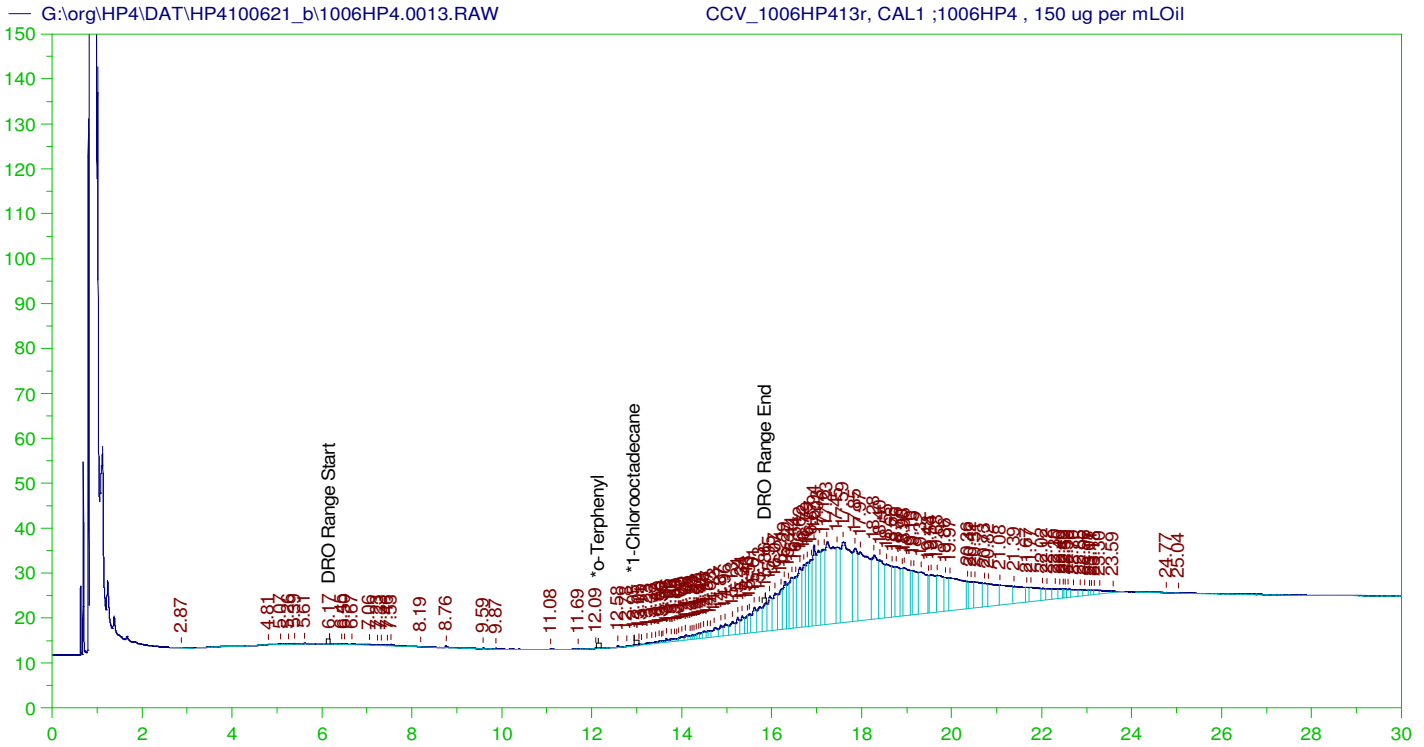
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V12
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0012.RAW
 Date & Time Acquired: 10/6/2021 11:30:37 PM
 Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
 Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.914	200.	.	-
*1-Chlorooctadecane	29.914	200.	.	-

DRO Area:151604.2 DRO Amount: 5.824311
 TEH Area:344150.3 TEH Amount: 13.22152



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP413r, CAL1 ;1006HP4 , 150 ug per mL Oil
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0013.RAW
 Date & Time Acquired: 10/7/2021 12:16:08 AM
 Method File: G:\Org\HP4\methods\DR_8015-13-OIL-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56

Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.973	200.	.	-
*1-Chlorooctadecane	12.946	200.	.024	.01

DRO Area: 350454.1

DRO Amount: 14.28701

TEH (Oil Range) Area: 4052512

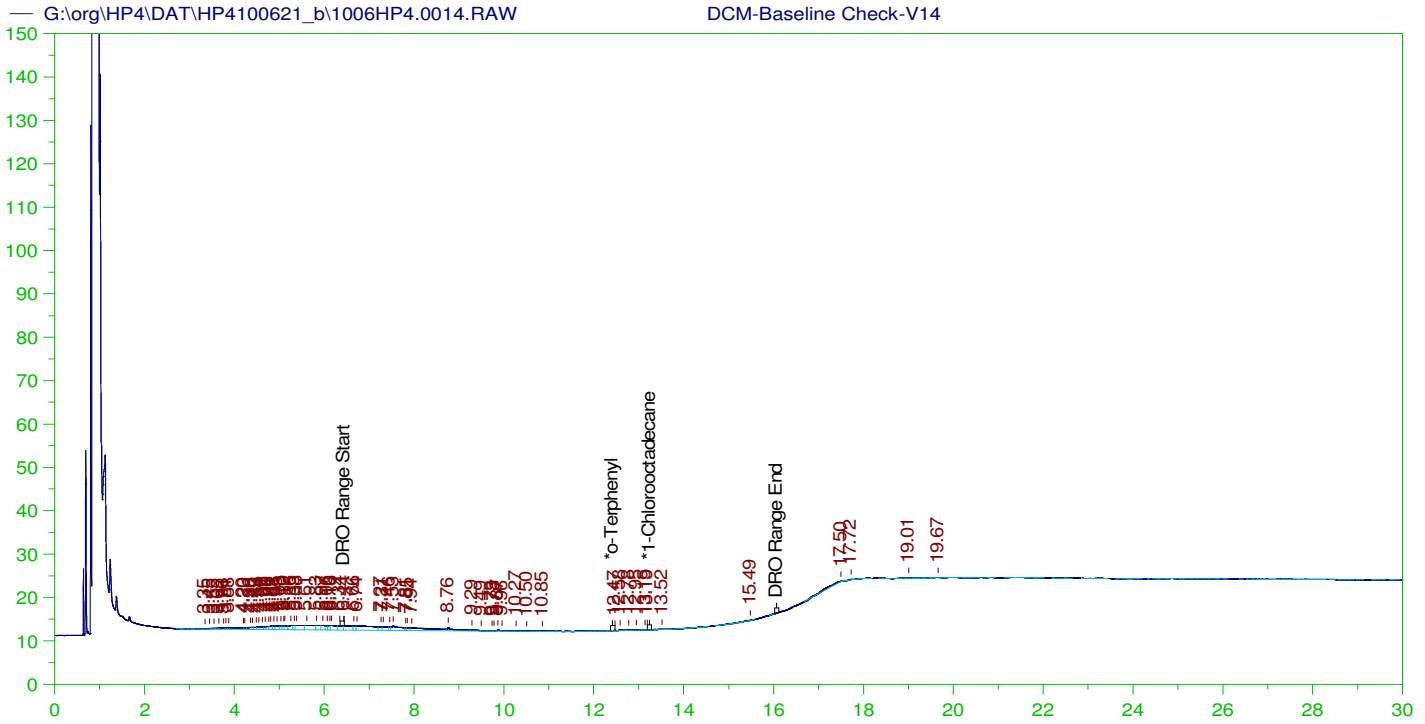
TEH (Oil Range) Amount: 165.2093

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0013.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	165.21	3.3	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	29.973	200.	.	.	85-115
*1-Chlorooctadecane	12.946	200.	.024	.01	85-115

AMN 10/13/2021



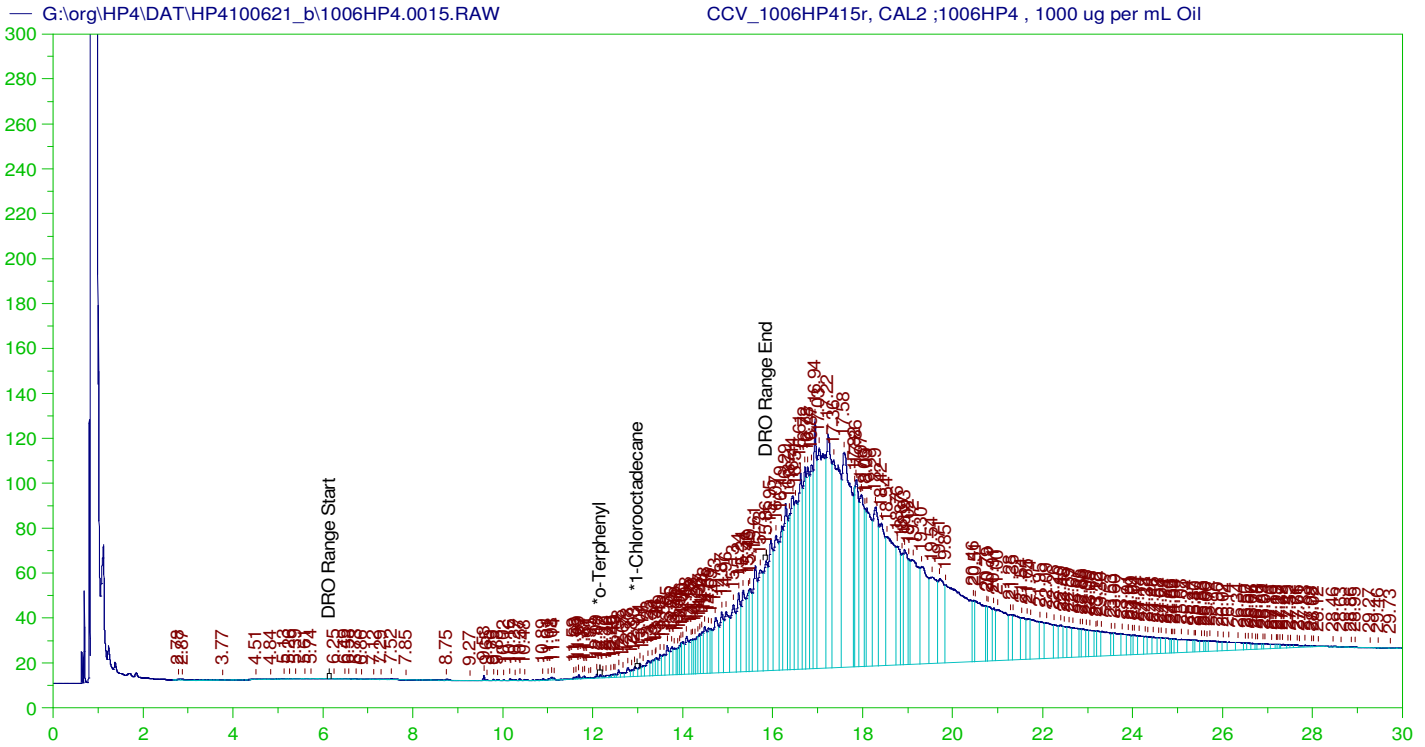
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V14
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0014.RAW
 Date & Time Acquired: 10/7/2021 1:01:51 AM
 Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
 Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.884	200.	.	-
*1-Chlorooctadecane	29.884	200.	.	-

DRO Area:131624.4 DRO Amount: 5.056731
 TEH Area:277425.9 TEH Amount: 10.65811



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP415r, CAL2 ;1006HP4 , 1000 ug per mL Oil
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0015.RAW
 Date & Time Acquired: 10/7/2021 1:47:37 AM
 Method File: G:\Org\HP4\methods\DR_8015-15-OIL-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56

Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.166	200.	.147	.07
*1-Chlorooctadecane	29.932	200.	.	.

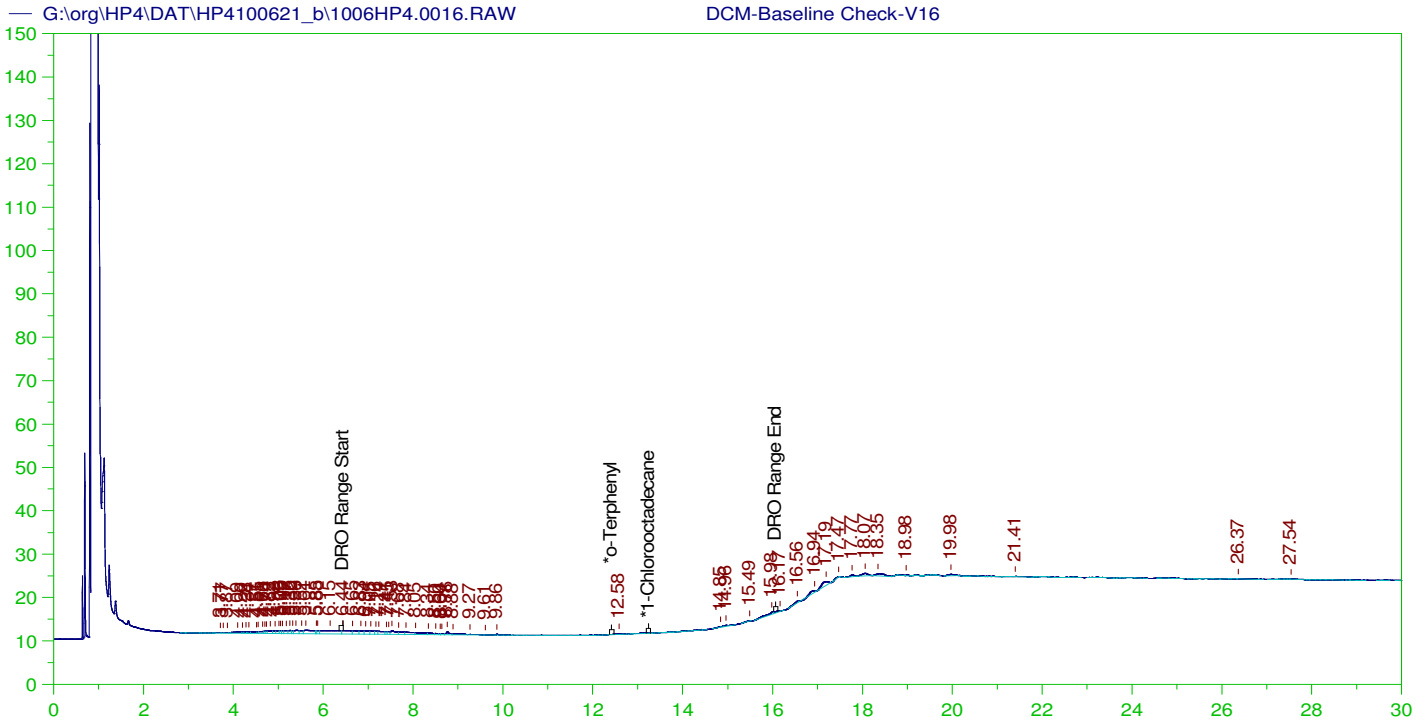
DRO Area: 3765940 DRO Amount: 153.5266
 TEH (Oil Range) Area: 2.507288E+07 TEH (Oil Range) Amount: 1022.149

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0015.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	1022.15	20.44	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.166	200.	.147	.07	85-115
*1-Chlorooctadecane	29.932	200.	.	.	85-115

AMN 10/13/2021



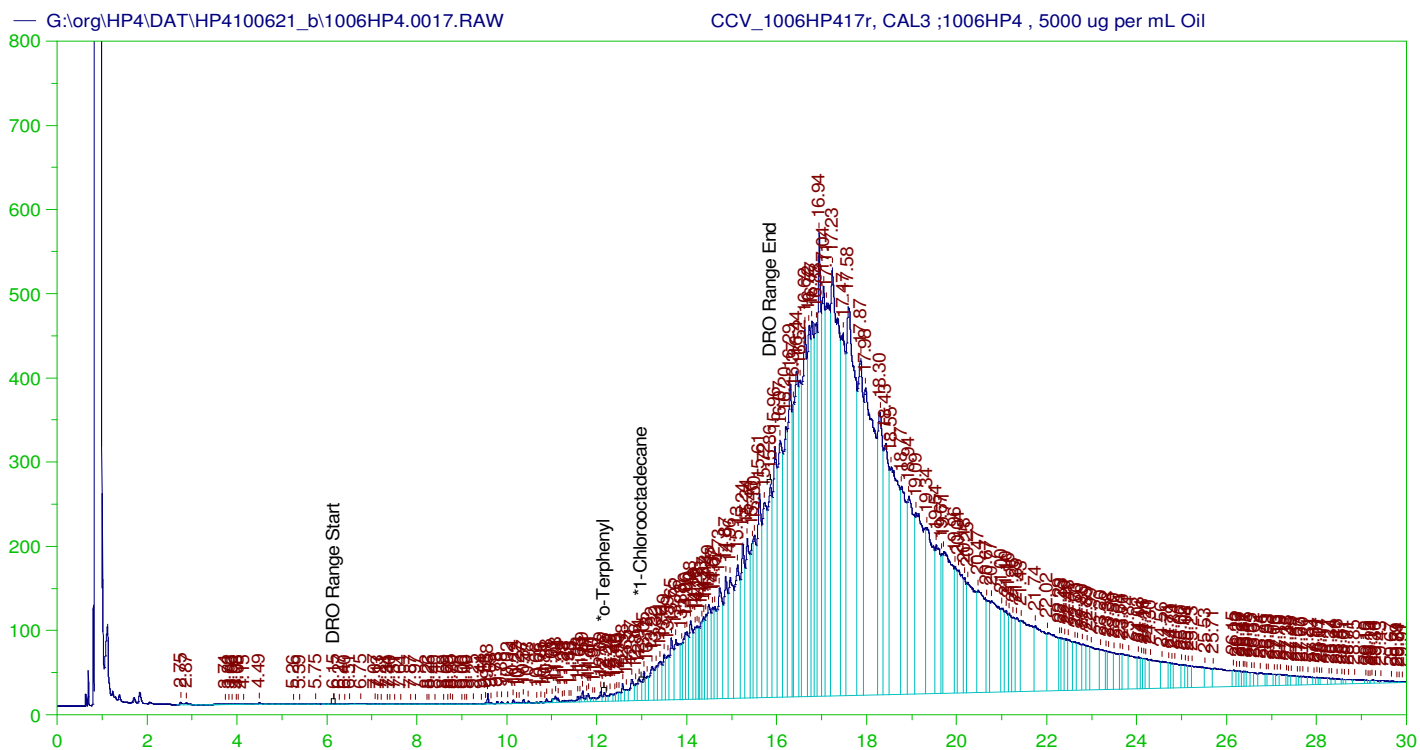
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V16
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0016.RAW
 Date & Time Acquired: 10/7/2021 2:33:20 AM
 Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
 Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.907	200.	.	-
*1-Chlorooctadecane	29.907	200.	.	-

DRO Area:114216.7 DRO Amount: 4.387964
 TEH Area:265335.9 TEH Amount: 10.19364



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP417r, CAL3 ;1006HP4 , 5000 ug per mL Oil
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0017.RAW
 Date & Time Acquired: 10/7/2021 3:19:06 AM
 Method File: G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56

Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.165	200.	1.127	.56
*1-Chlorooctadecane	29.907	200.	.	-

DRO Area: 2.051403E+07

DRO Amount: 836.2982

TEH (Oil Range) Area: 1.215776E+08

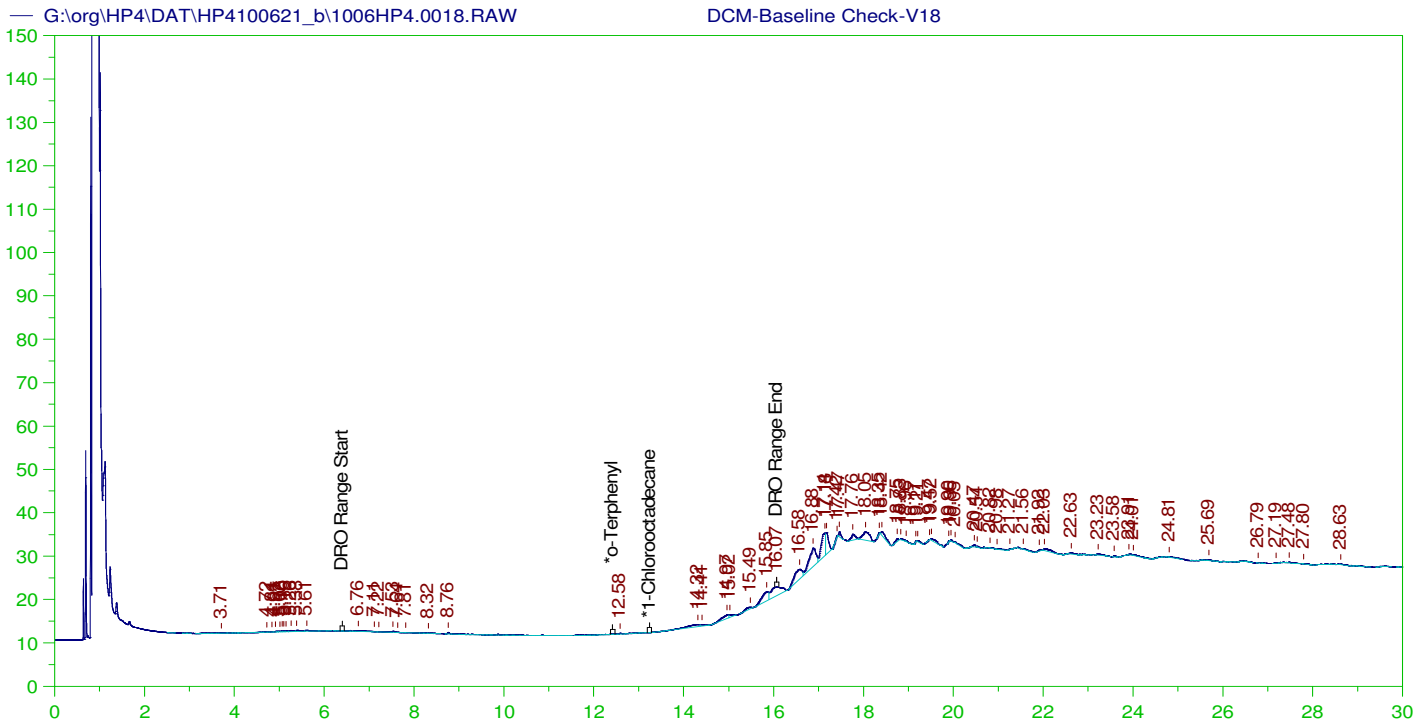
TEH (Oil Range) Amount: 4956.371

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0017.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	4956.37	99.13	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.165	200.	1.127	.56	85-115
*1-Chlorooctadecane	29.907	200.	.	.	85-115

AMN 10/13/2021



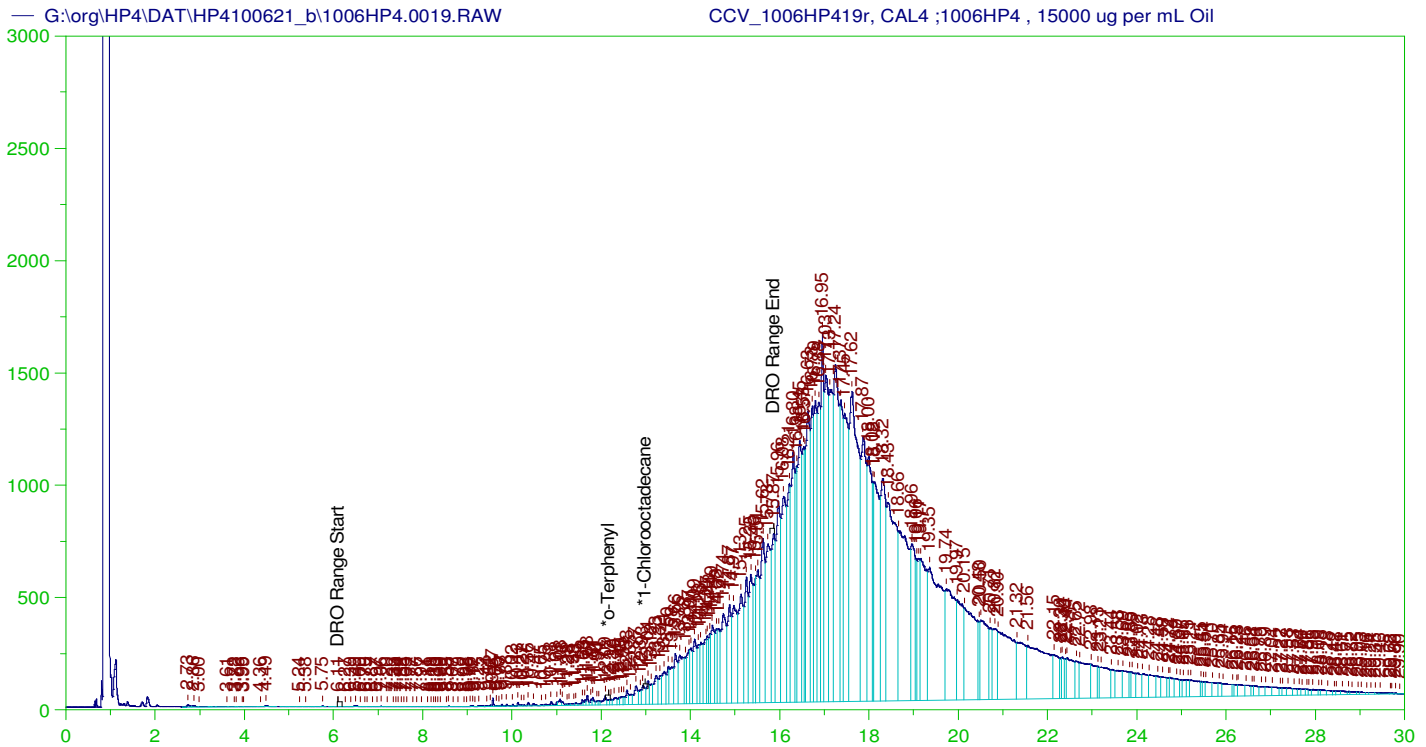
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V18
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0018.RAW
 Date & Time Acquired: 10/7/2021 4:04:45 AM
 Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
 Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.931	200.	.	-
*1-Chlorooctadecane	29.931	200.	.	-

DRO Area:108588.8 DRO Amount: 4.171752
 TEH Area:364372 TEH Amount: 13.9984



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP419r, CAL4 ;1006HP4 , 15000 ug per mL Oil
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0019.RAW
 Date & Time Acquired: 10/7/2021 4:50:17 AM
 Method File: G:\Org\HP4\methods\DR_8015-19-OIL-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56
 Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.166	200.	2.668	1.33
*1-Chlorooctadecane	29.898	200.	.	-

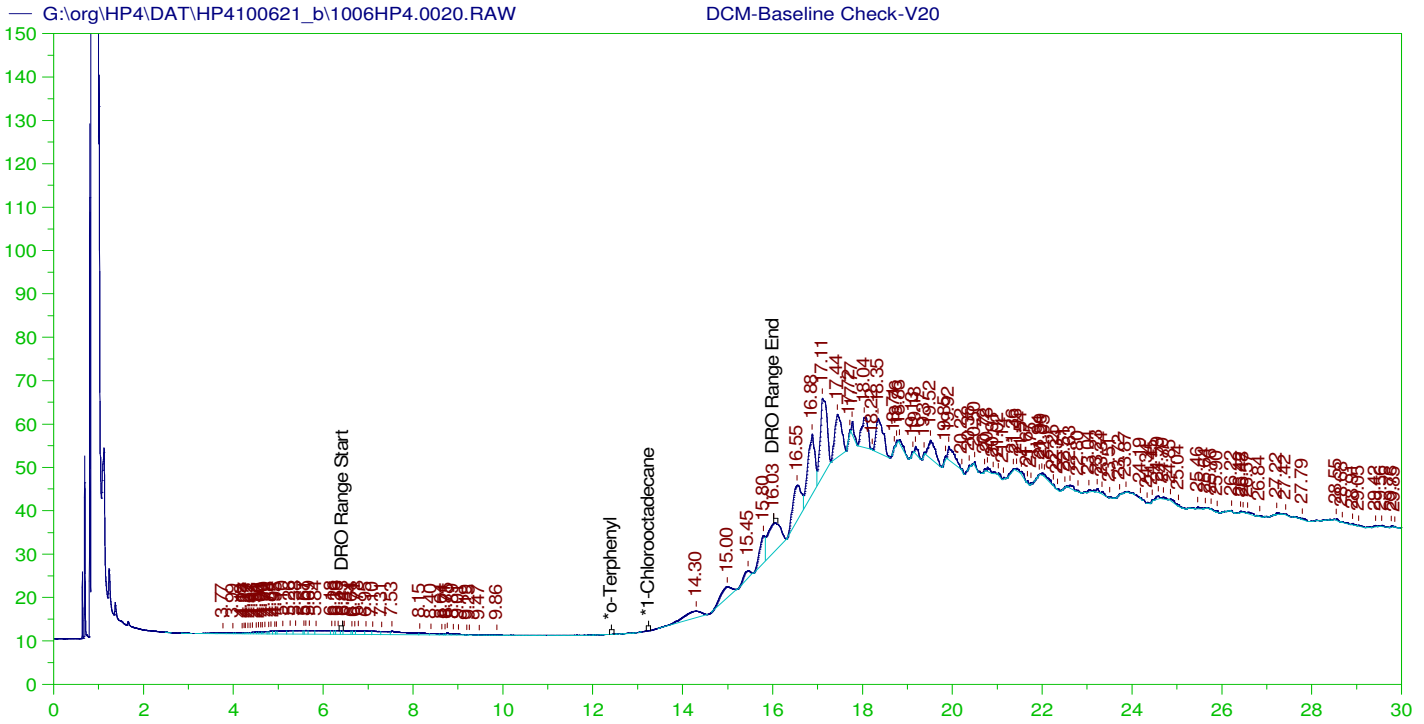
DRO Area: 6.321696E+07 DRO Amount: 2577.175
 TEH (Oil Range) Area: 3.629964E+08 TEH (Oil Range) Amount: 14798.33

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0019.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	14798.33	295.97	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.166	200.	2.668	1.33	85-115
*1-Chlorooctadecane	29.898	200.	.	.	85-115

AMN 10/13/2021



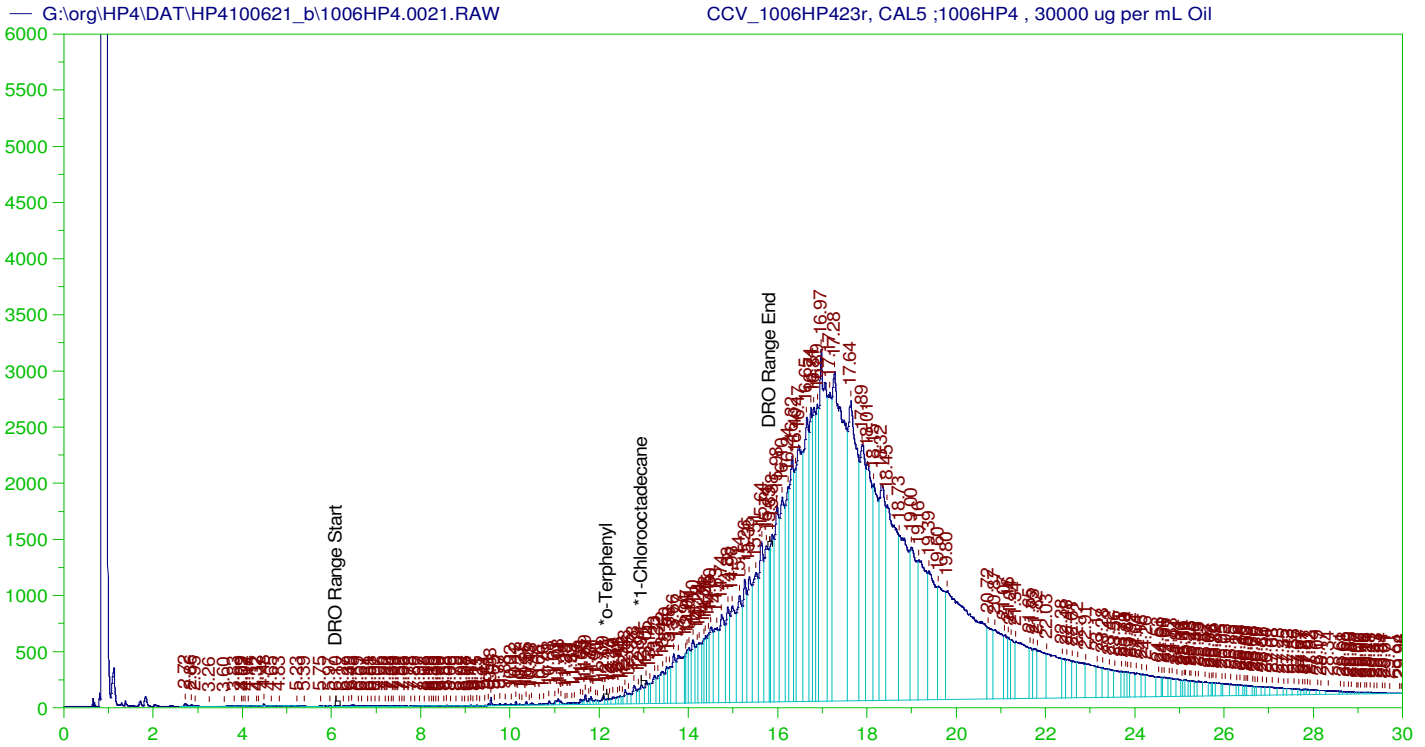
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V20
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0020.RAW
 Date & Time Acquired: 10/7/2021 5:35:48 AM
 Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
 Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.983	200.	.	.
*1-Chlorooctadecane	29.983	200.	.	.

DRO Area:396511 DRO Amount: 15.23311
 TEH Area:1438866 TEH Amount: 55.27819



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP423r, CAL5 ;1006HP4 , 30000 ug per mL Oil
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0021.RAW
 Date & Time Acquired: 10/7/2021 6:21:29 AM
 Method File: G:\Org\HP4\methods\DR_8015-21-OIL-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56

Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.17	200.	5.119	2.56	-
*1-Chlorooctadecane	12.944	200.	32.459	16.23	-

DRO Area: 1.18208E+08

DRO Amount: 4819.003

TEH (Oil Range) Area: 7.187084E+08

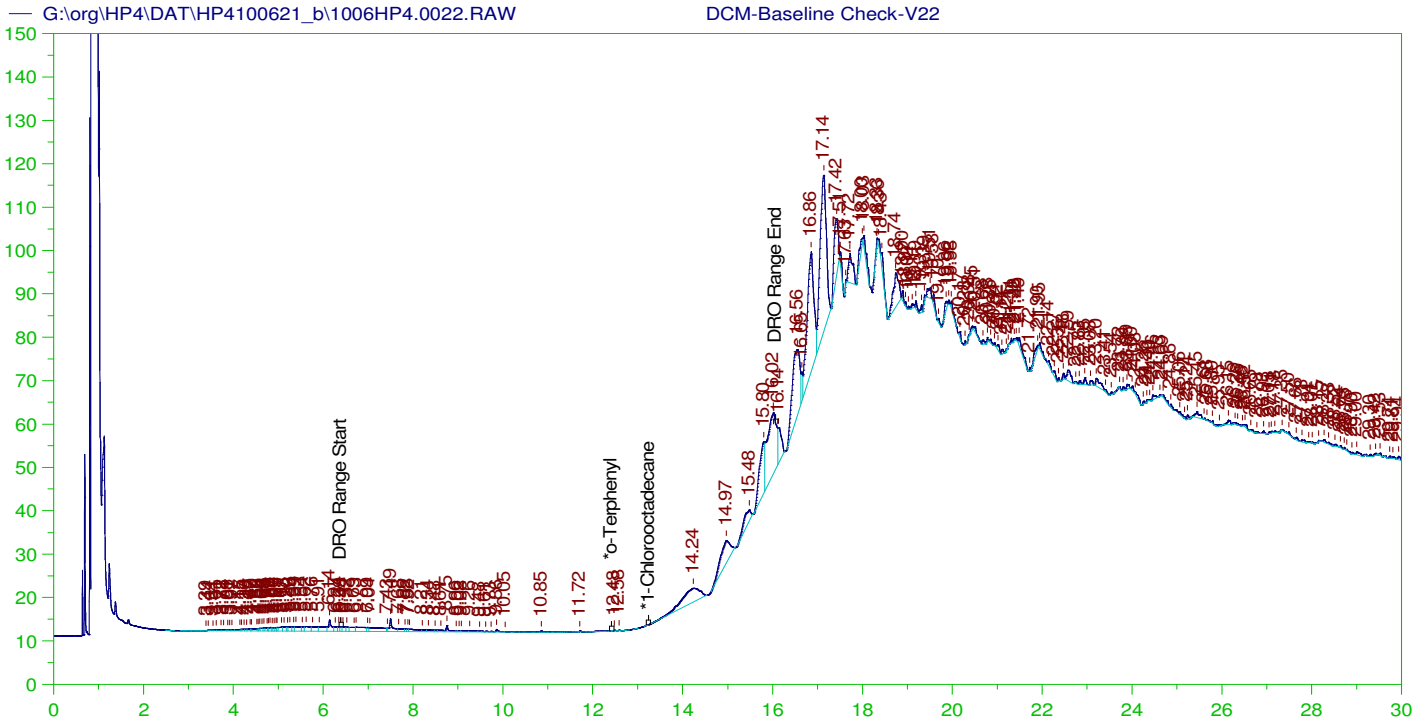
TEH (Oil Range) Amount: 29299.68

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0021.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	29299.68	585.99	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.17	200.	5.119	2.56	85-115
*1-Chlorooctadecane	12.944	200.	32.459	16.23	85-115

AMN 10/13/2021



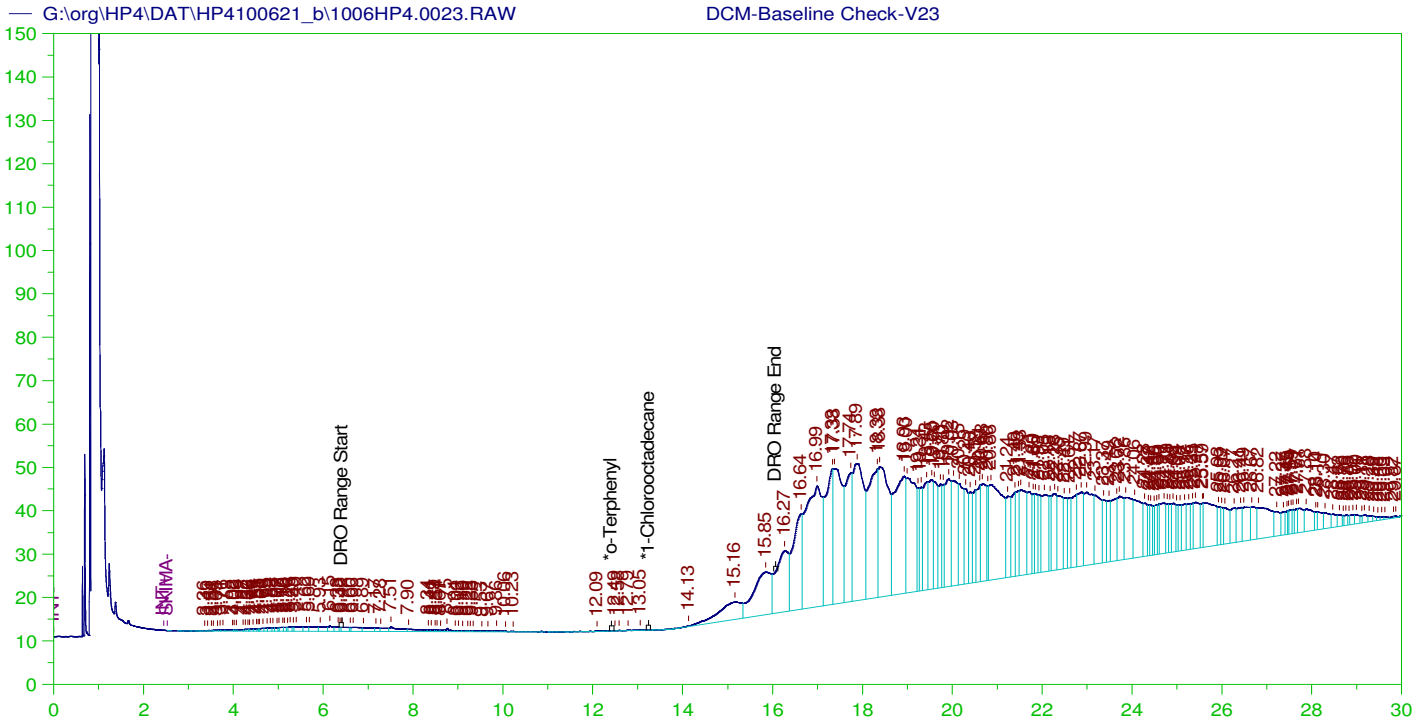
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V22
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0022.RAW
 Date & Time Acquired: 10/7/2021 7:06:39 AM
 Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
 Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.94	200.	.	-
*1-Chlorooctadecane	29.94	200.	.	-

DRO Area:659389.9 DRO Amount: 25.33236
 TEH Area:2246216 TEH Amount: 86.29485



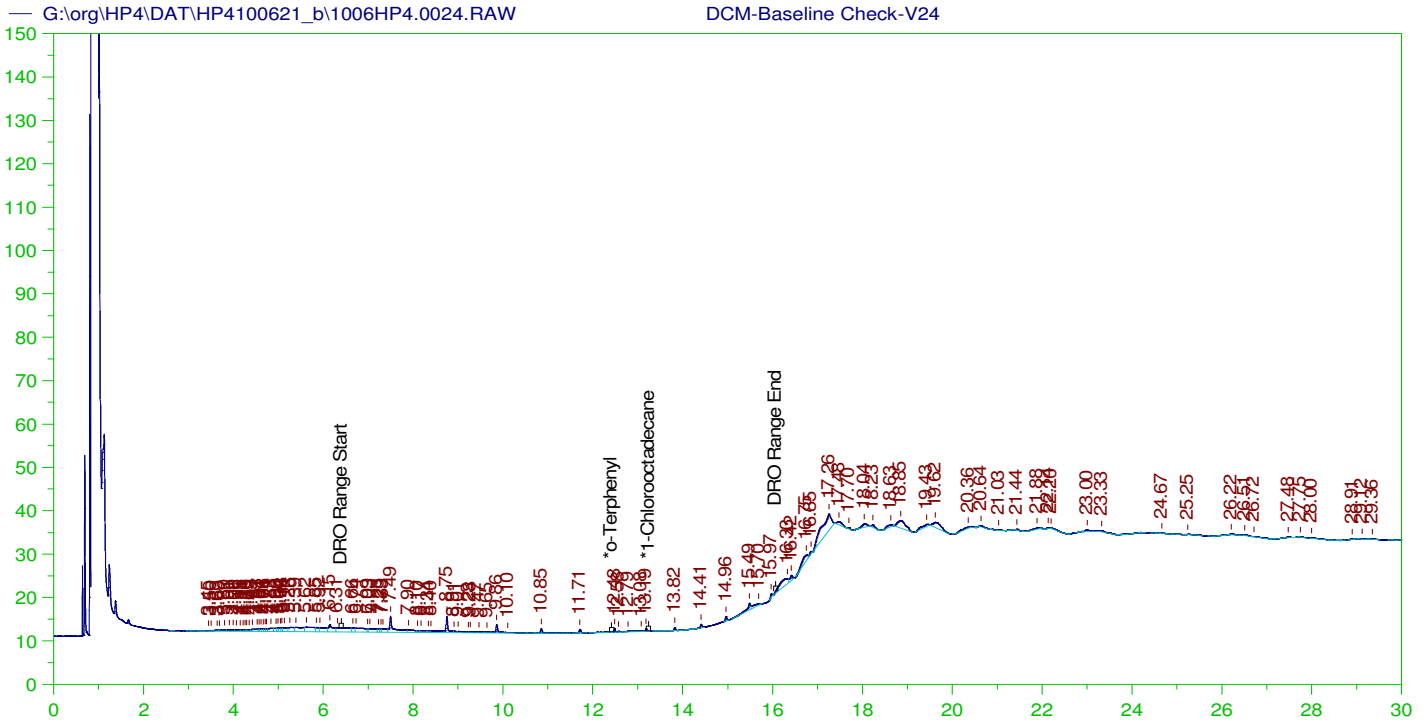
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V23
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0023.RAW
 Date & Time Acquired: 10/7/2021 7:51:25 AM
 Method File: G:\Org\HP4\methods\D3_8015-MX-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
 Rt range for Diesel Range Organics: 6.35 to 16.12

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

DRO Area: 556661.1 DRO Amount: 21.38574
 TEH Area: 1.320998E+07 TEH Amount: 507.4994



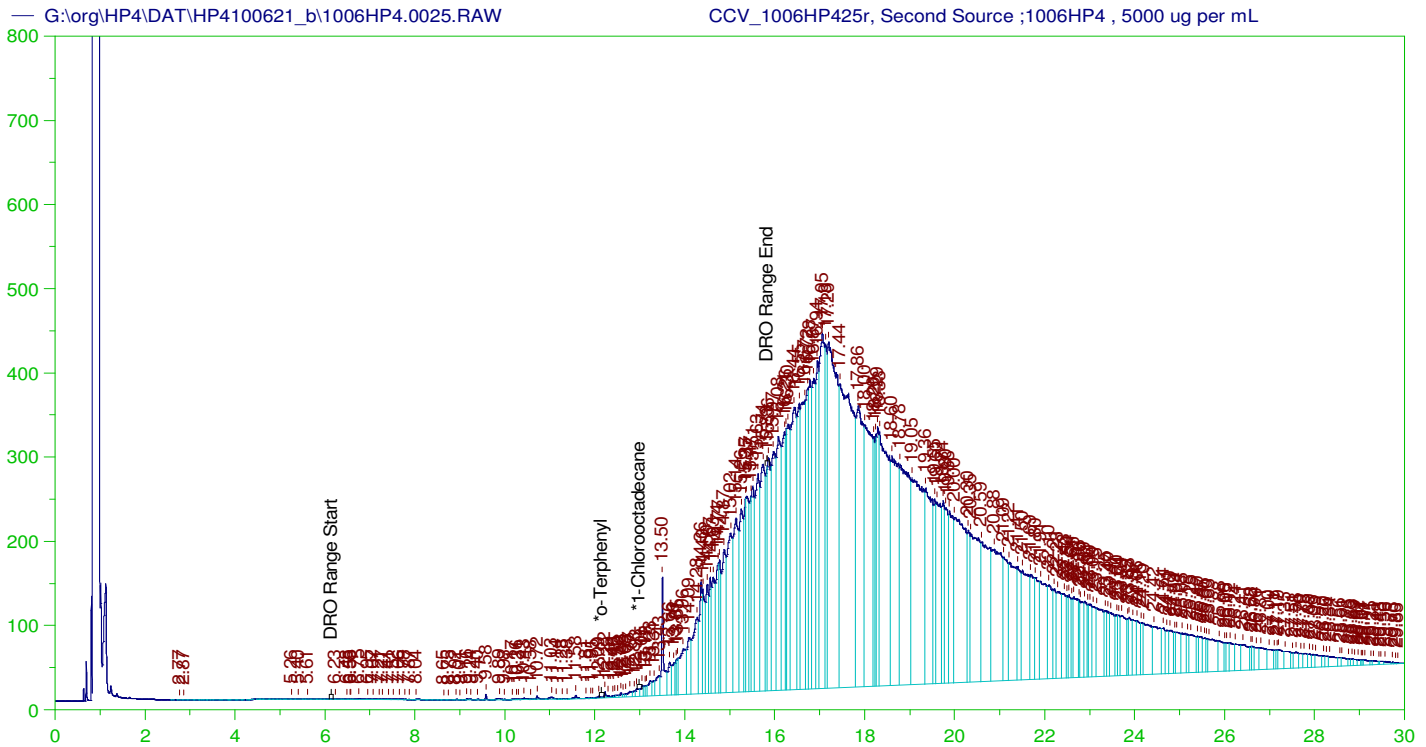
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V24
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0024.RAW
 Date & Time Acquired: 10/7/2021 8:36:35 AM
 Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
 Rt range for Diesel Range Organics: 6.35 to 16.12

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.993	200.	.	-
*1-Chlorooctadecane	29.993	200.	.	-

DRO Area:143991.1 DRO Amount: 5.531833
 TEH Area:496648.4 TEH Amount: 19.08018



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1006HP425r, Second Source ;1006HP4 , 5000 ug per mL
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0025.RAW
 Date & Time Acquired: 10/7/2021 9:21:40 AM
 Method File: G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_Oil_210106AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 24529.56

Rt range for Diesel Range Organics: 6.09 to 15.88

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.852	200.	.	-
*1-Chlorooctadecane	29.852	200.	.	-

DRO Area: 2.19787E+07

DRO Amount: 896.0085

TEH (Oil Range) Area: 1.322226E+08

TEH (Oil Range) Amount: 5390.338

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0025.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	5000.	5390.34	107.81	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	29.852	200.	.	.	85-115
*1-Chlorooctadecane	29.852	200.	.	.	85-115

AMN 10/13/2021

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.11r	CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A	G:\org\HP4\Methods\CSC211006.met	1	1	1	1	0	No integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.12r	DCM-Baseline Check-V12	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.13r	CCV_1006HP413r, CAL1 ;1006HP4 , 150 ug per mL Oil (10 uL of Cal4 + 90 uL DCM)(14354)	G:\Org\HP4\methods\DR_8015-13-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Set Baseline Now at 23.18
	G:\org\HP4\DAT\HP4100621_b1006HP4.14r	DCM-Baseline Check-V14	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.15r	CCV_1006HP415r, CAL2 ;1006HP4 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM)(14354)	G:\Org\HP4\methods\DR_8015-15-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline. Set Baseline Now at 28.22
	G:\org\HP4\DAT\HP4100621_b1006HP4.16r	DCM-Baseline Check-V16	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.17r	CCV_1006HP417r, CAL3 ;1006HP4 , 5000 ug per mL Oil (200 uL of Cal 4 + 400 uL DCM)(14354)	G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline.
	G:\org\HP4\DAT\HP4100621_b1006HP4.18r	DCM-Baseline Check-V18	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.19r	CCV_1006HP419r, CAL4 ;1006HP4 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM)(14354)	G:\Org\HP4\methods\DR_8015-19-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline.
	G:\org\HP4\DAT\HP4100621_b1006HP4.20r	DCM-Baseline Check-V20	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.21r	CCV_1006HP423r, CAL5 ;1006HP4 , 30000 ug per mL Oil (600 uL of DRO180918C + 400 uL of DCM)(14354)	G:\Org\HP4\methods\DR_8015-21-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline.
	G:\org\HP4\DAT\HP4100621_b1006HP4.22r	DCM-Baseline Check-V22	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.23r	DCM-Baseline Check-V23	G:\Org\HP4\methods\D3_8015-MX-LEXP.met	1	1	1	1	0	No integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.24r	DCM-Baseline Check-V24	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No integrations
	G:\org\HP4\DAT\HP4100621_b1006HP4.25r	CCV_1006HP425r, Second Source ;1006HP4 , 5000 ug per mL Oil (100 uL of DRO210902A + 900 uL of DCM)	G:\Org\HP4\methods\DR_8015-17-OIL-AA-L%.met	1	1	1	1	0	The integration of Oil Range hydrocarbon is the hydrocarbon response with reference to the baseline.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.17 15:08:07 -07:00

Energy Laboratories Inc

ANALYTICAL RUN Summary

18-Oct-21

Run ID GCFID-HP4-B_211006C

Run Start Date: 10/6/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments:

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

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
--------	--------	-----------	------------	---------	---------------	----	----------	-----------	--------	--------	--------

14764037	CCV_1006HP43	HC-8015-DRO-	CAL1		10/7/2021 1:07:4	1	R368536		0	0	
----------	--------------	--------------	------	--	------------------	---	---------	--	---	---	--

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.0019847		0.002	0	0	0	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
--------	--------	-----------	------------	---------	---------------	----	----------	-----------	--------	--------	--------

14764038	CCV_1006HP43	HC-8015-DRO-	CAL2		10/7/2021 1:53:0	1	R368536		0	0	
----------	--------------	--------------	------	--	------------------	---	---------	--	---	---	--

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.04853713		0.05	0	0	0.002	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
--------	--------	-----------	------------	---------	---------------	----	----------	-----------	--------	--------	--------

14764039	CCV_1006HP43	HC-8015-DRO-	CAL3		10/7/2021 2:38:3	1	R368536		0	0	
----------	--------------	--------------	------	--	------------------	---	---------	--	---	---	--

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.2121789		0.2	0	0	0.002	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
--------	--------	-----------	------------	---------	---------------	----	----------	-----------	--------	--------	--------

14764040	CCV_1006HP43	HC-8015-DRO-	CAL4		10/7/2021 3:23:5	1	R368536		0	0	
----------	--------------	--------------	------	--	------------------	---	---------	--	---	---	--

Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.4903055		0.5	0	0	0.002	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					
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
14764041	CCV_1006HP43	HC-8015-DRO-	CAL5		10/7/2021 4:09:3	1	R368536		0	0						
n-Triacontane	S	mg/L		0.9788904		1	0	0	0.002	0.002	0	98%	80	120	0%	

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	G:\org\HP4\DAT\HP4100621_b\1006HP4.28r	CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A	G:\org\HP4\Methods\CSC211006.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.29r	DCM-Baseline Check-V29	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.30r	CCV_1006HP407r, CAL1 ;1006HP4 , 2 ug per mL Triacotane (10 uL of Cal3 + 990 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.31r	CCV_1006HP408r, CAL2 ;1006HP4 , 50 ug per mL Triacotane (100 uL Cal4 + 900 uL of DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.32r	CCV_1006HP409r, CAL3 ;1006HP4 , 200 ug per mL Triacotane (100uL of Cal5 + 400 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.33r	CCV_1006HP404r, CAL4 ;1006HP4 , 500 ug per mL Triacotane (250uL of Cal5 + 250 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4100621_b\1006HP4.34r	CCV_1006HP405r, CAL5 ;1006HP4 , 1000 ug per mL Triacotane (500 uL 2000 ug/mL Triacotane DRO211006A + 500 DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0

File Name: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
Version: 43

Creator: AMN
Description: 8015C-Oil Range w/Triacontane. New ICal Per 1006HP4 (2021)-2 uL Inj.;
Reason for change:

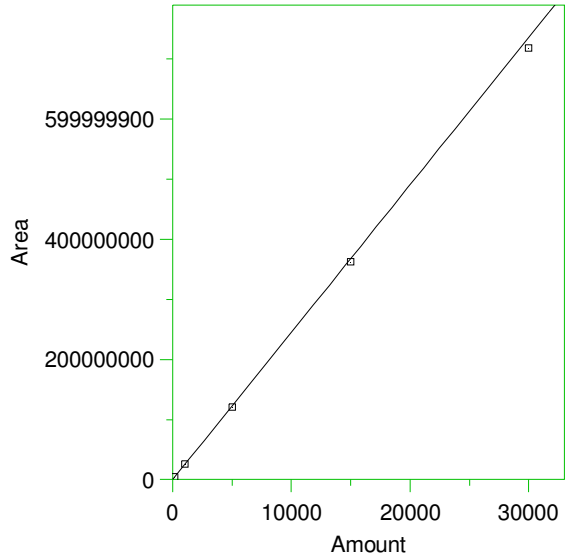
External standard calibration

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.

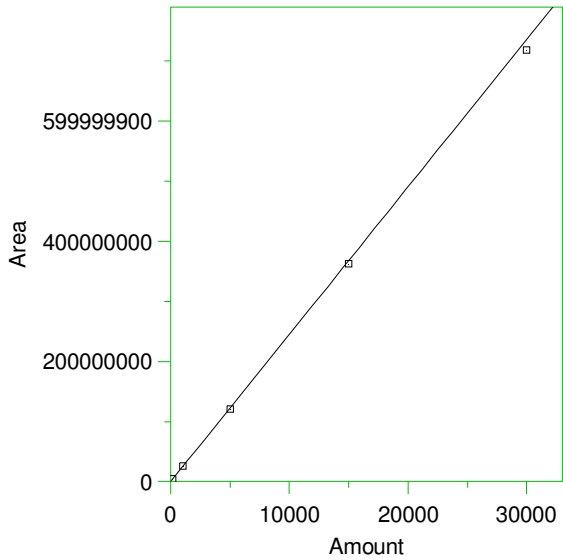
1 *30-40 Motor Oil



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
 $Y = 24529.56 X + 0$
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9990484
 Average error: 1.972%
 Average CF: 24529.56
 RSD: 2.304%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	3765836	25105.57	2.348	Manual	1/1/2022 10:32:22 AM
2	1000	2.516261E+07	25162.61	2.581	Manual	10/7/2021 12:56:01 PM
3	5000	1.213971E+08	24279.42	-1.020	Manual	10/7/2021 12:55:18 PM
4	15000	3.623479E+08	24156.53	-1.521	Manual	10/7/2021 12:55:30 PM
5	30000	7.183105E+08	23943.68	-2.388	Manual	10/7/2021 12:55:47 PM

2 #C20



Expected retention time: 12.58 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

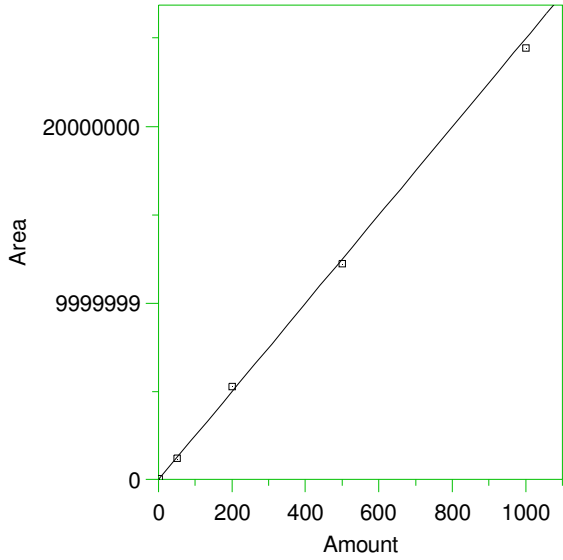
Single peak quantification by area

$Y = 24529.56 X + 0$

Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9990484
 Average error: 1.972%
 Average CF: 24529.56
 RSD: 2.304%

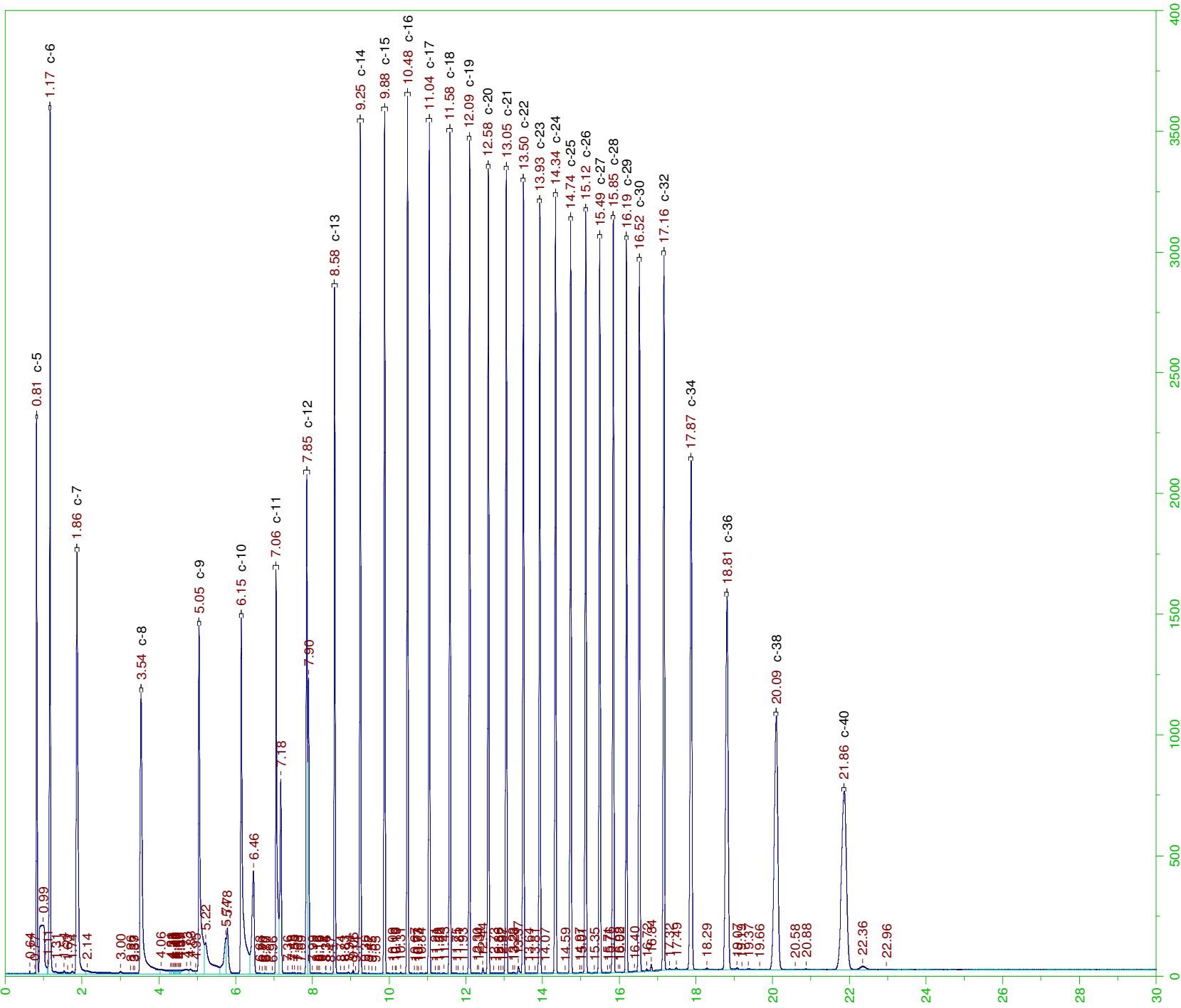
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	3765836	25105.57	2.348	Manual	1/1/2022 10:32:46 AM
2	1000	2.516261E+07	25162.61	2.581	Manual	1/1/2022 10:32:43 AM
3	5000	1.213971E+08	24279.42	-1.020	Manual	1/1/2022 10:32:41 AM
4	15000	3.623479E+08	24156.53	-1.521	Manual	1/1/2022 10:32:39 AM
5	30000	7.183105E+08	23943.68	-2.388	Manual	1/1/2022 10:32:36 AM

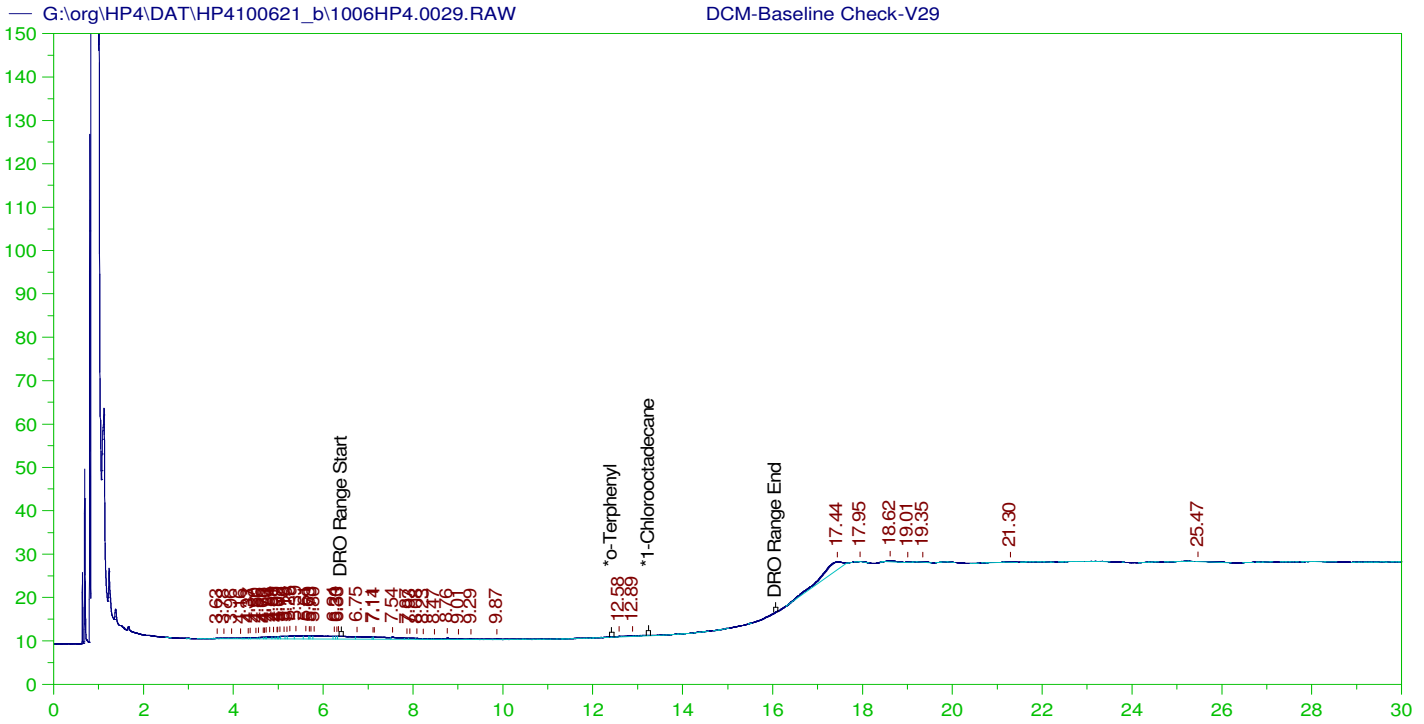
3 *#Triacontane



Expected retention time: 16.34 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 = 24973.81 X + 0
 Average CF fit with equal weighting, forced to origin
 Coefficient of determination: 0.9989417
 Average error: 2.783%
 Average CF: 24973.81
 RSD: 3.701%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	50369.5	25184.75	0.845	Manual	10/7/2021 1:17:20 PM
2	50	1212157	24243.14	-2.926	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0015.BND	10/7/2021 12:47:26 PM
3	200	5300126	26500.63	6.114	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0017.BND	10/7/2021 12:47:56 PM
4	500	1.22448E+07	24489.6	-1.939	G:\Org\HP4\DAT\HP4100621_b\1006HP4.0019.BND	10/7/2021 12:48:04 PM
5	1000	2.445095E+07	24450.95	-2.094	Manual	10/7/2021 4:09:51 PM





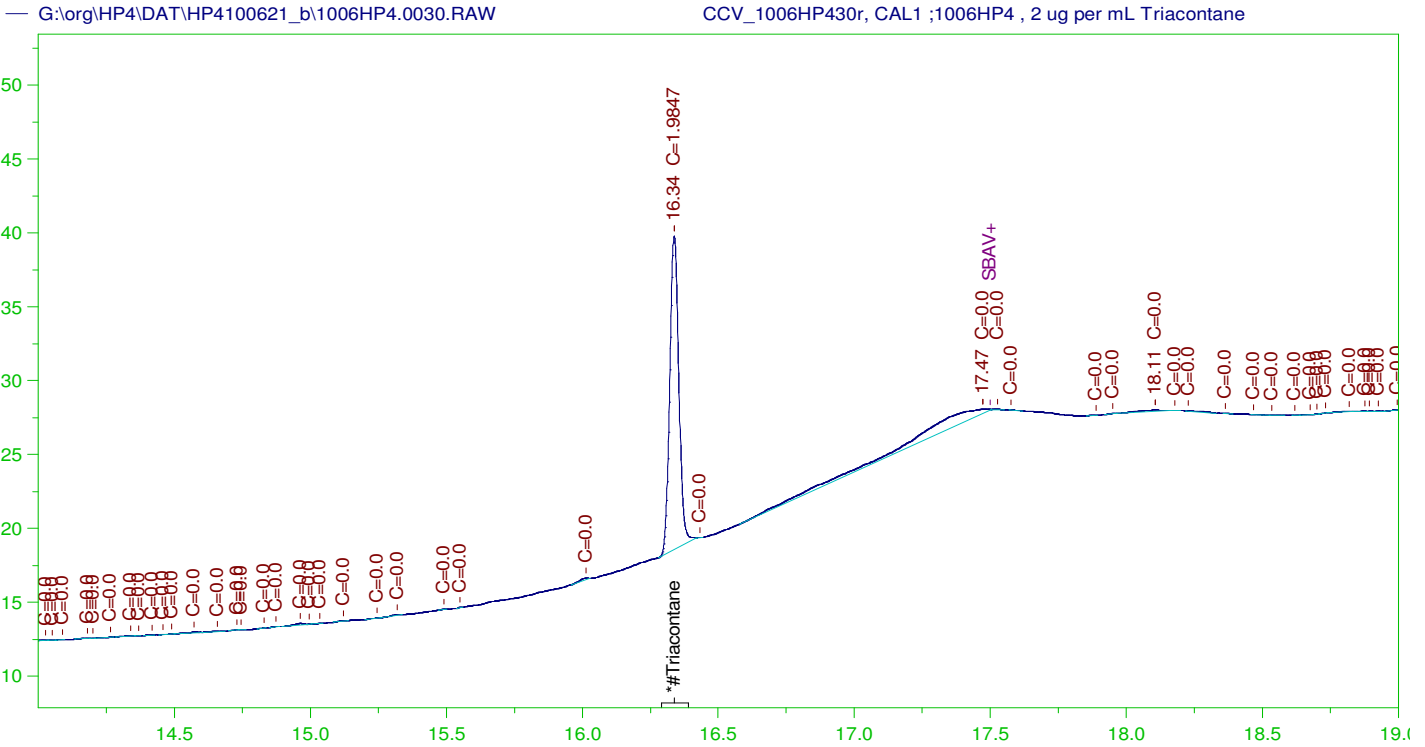
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V29
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0029.RAW
 Date & Time Acquired: 10/7/2021 12:22:20 PM
 Method File: G:\Org\HP4\methods\DR_8015-MX-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO201204MX.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 26029.55
 Rt range for Diesel Range Organics: 6.35 to 16.12

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

DRO Area:46051.94 DRO Amount: 1.769218
 TEH Area:213678.8 TEH Amount: 8.209086



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP430r, CAL1 ;1006HP4 , 2 ug per mL Triacontane
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0030.RAW
 Date & Time Acquired: 10/7/2021 1:07:43 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

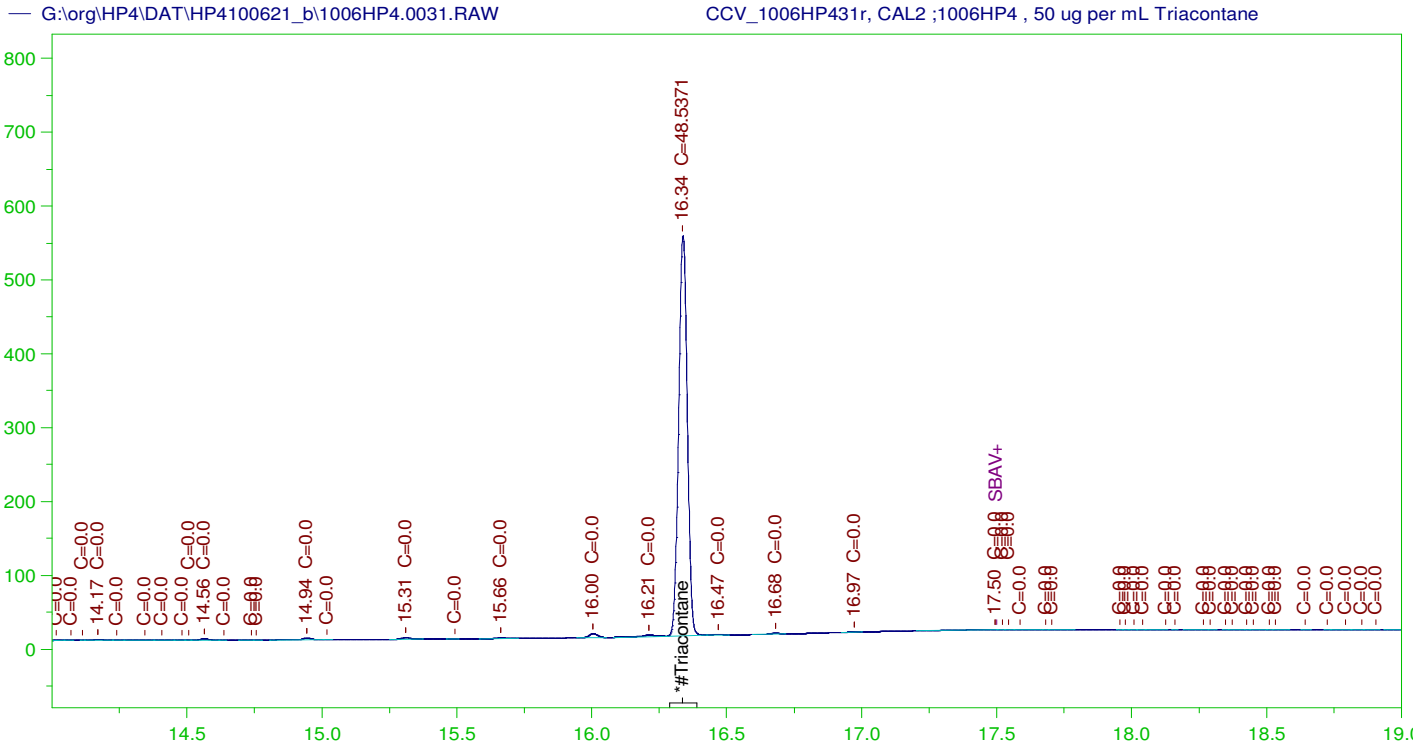
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.337	500.	1.985	.4

RRO Area:16216.42 RRO AMOUNT: 0.6610969

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0030.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.337	200.	1.985	.99	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP431r, CAL2 ;1006HP4 , 50 ug per mL Triacontane
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0031.RAW
 Date & Time Acquired: 10/7/2021 1:53:07 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

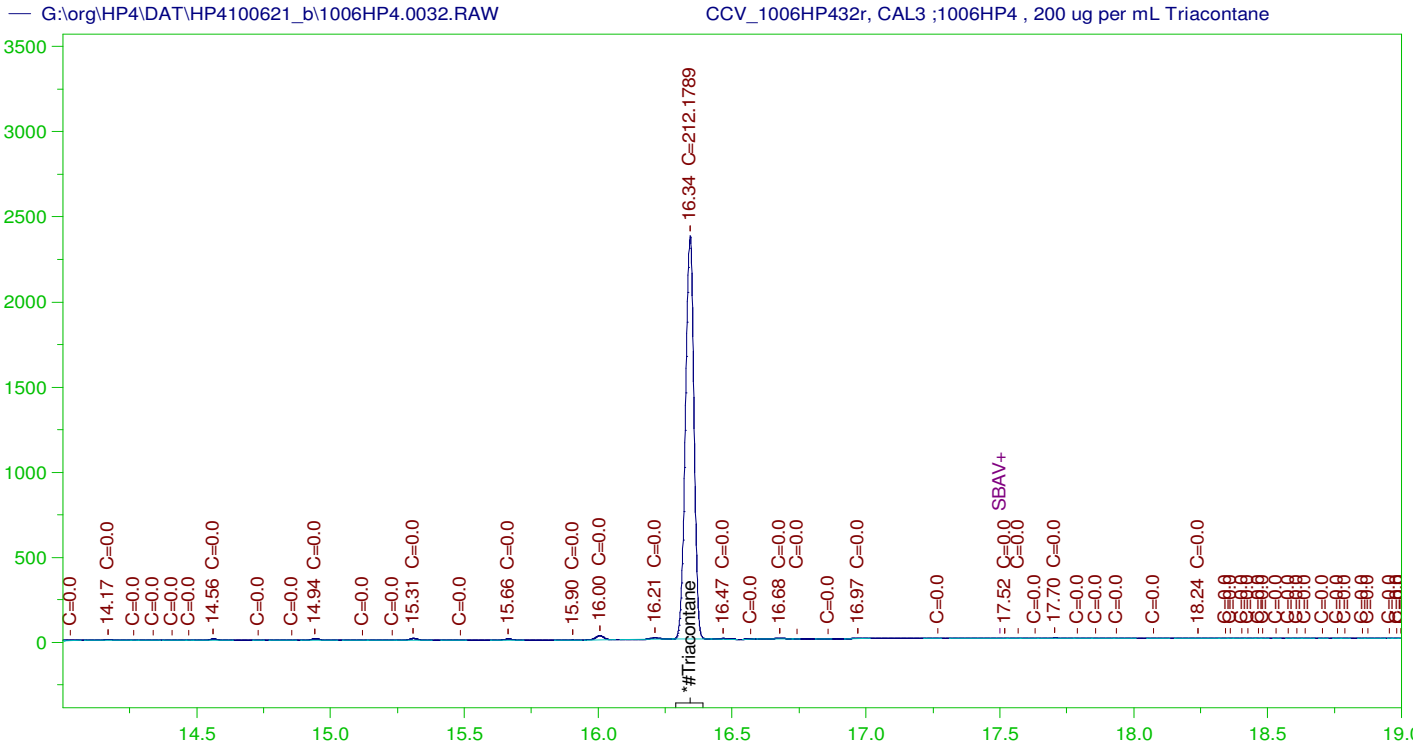
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.337	500.	48.537	9.71	-

RRO Area:50498.79 RRO AMOUNT: 2.058691

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0031.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.337	200.	48.537	24.27	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP432r, CAL3 ;1006HP4 , 200 ug per mL Triacontane
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0032.RAW
 Date & Time Acquired: 10/7/2021 2:38:34 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

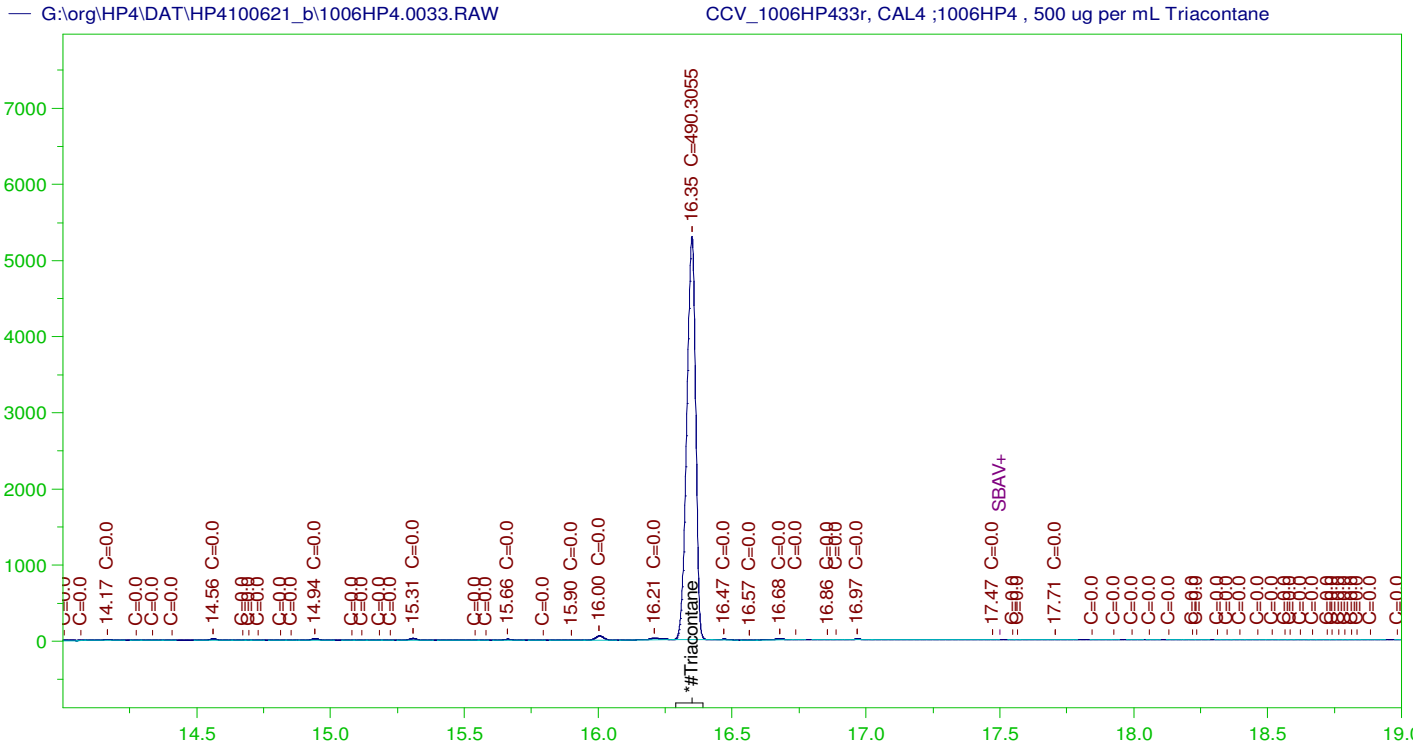
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.343	500.	212.179	42.44	-

RRO Area:223185.5 RRO AMOUNT: 9.098632

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0032.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.343	200.	212.179	106.09	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP433r, CAL4 ;1006HP4 , 500 ug per mL Triacontane
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0033.RAW
 Date & Time Acquired: 10/7/2021 3:23:59 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

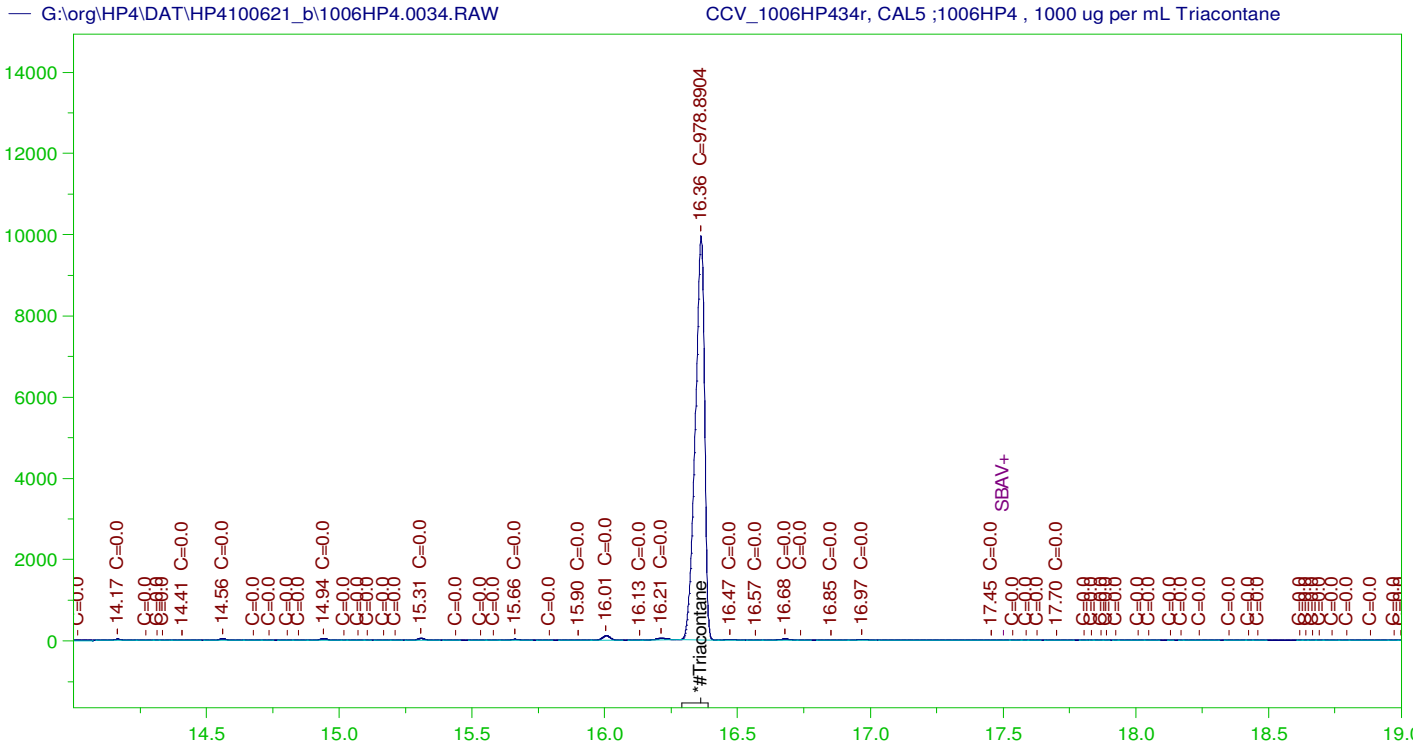
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.35	500.	490.306	98.06	-

RRO Area:522651.3 RRO AMOUNT: 21.307

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0033.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.35	200.	490.306	245.15	75-125



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1006HP434r, CAL5 ;1006HP4 , 1000 ug per mL Triacontane
 Raw File: G:\org\HP4\DAT\HP4100621_b\1006HP4.0034.RAW
 Date & Time Acquired: 10/7/2021 4:09:35 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-AA-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.363	500.	978.89	195.78

RRO Area:1029665 RRO AMOUNT: 41.9765

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4100621_b\1006HP4.0034.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.363	200.	978.89	489.45	75-125

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
		CCV_1006HP411r, CSCAN ;1006HP4 , DRO210708A	G:\org\HP4\Methods\CSC211006.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V29	G:\Org\HP4\methods\DR_8015-MX-LEXP.met	1	1	1	1	0	No Integration
		CCV_1006HP407r, CAL1 ;1006HP4 , 2 ug per mL Triacotane (10 uL of Cal3 + 990 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacotane is integrated using a valley to valley integration.
		CCV_1006HP408r, CAL2 ;1006HP4 , 50 ug per mL Triacotane (100 uL Cal4 + 900 uL of DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacotane is integrated using a valley to valley integration.
		CCV_1006HP409r, CAL3 ;1006HP4 , 200 ug per mL Triacotane (100uL of Cal5 + 400 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacotane is integrated using a valley to valley integration.
		CCV_1006HP404r, CAL4 ;1006HP4 , 500 ug per mL Triacotane (250uL of Cal5 + 250 uL DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacotane is integrated using a valley to valley integration.
		CCV_1006HP405r, CAL5 ;1006HP4 , 1000 ug per mL Triacotane (500 uL 2000 ug/mL Triacotane DRO211006A + 500 DCM(14354)	G:\Org\HP4\Methods\DS_ORO-AA-L%.met	1	1	1	1	0	The integration of Triacotane is integrated using a valley to valley integration.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.20 13:43:22 -07:00

Energy Laboratories Inc

ANALYTICAL RUN Summary

25-Oct-21

Run ID GCFID-HP5-B_211017A

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

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

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
--------	--------	-----------	------------	---------	---------------	----	----------	-----------	--------	--------	--------

14777567	CCV_1017HP50	HC-8015-DRO-	CAL1		10/17/2021 3:30:	1	R368813		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.00202757		0.002	0	0	0.002	0.002	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
--------	--------	-----------	------------	---------	---------------	----	----------	-----------	--------	--------	--------

14777568	CCV_1017HP50	HC-8015-DRO-	CAL2		10/17/2021 4:12:	1	R368813		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.04817772		0.05	0	0	0.002	0.002	0	96%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
--------	--------	-----------	------------	---------	---------------	----	----------	-----------	--------	--------	--------

14777569	CCV_1017HP50	HC-8015-DRO-	CAL3		10/17/2021 4:55:	1	R368813		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.2231112		0.2	0	0	0.002	0.002	0	112%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist
--------	--------	-----------	------------	---------	---------------	----	----------	-----------	--------	--------	--------

14777570	CCV_1017HP50	HC-8015-DRO-	CAL4		10/17/2021 5:38:	1	R368813		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.4700634		0.5	0	0	0.002	0.002	0	94%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
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%	

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

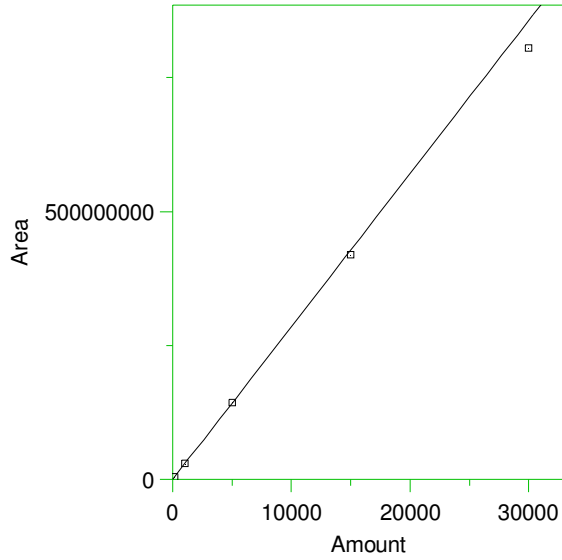
No default component

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

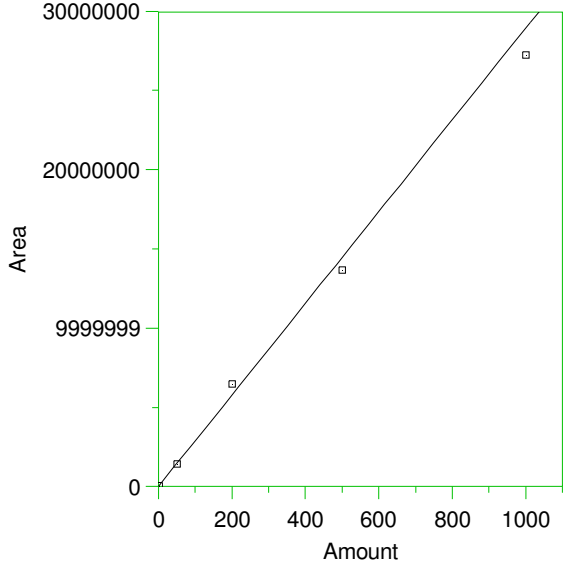
$Y = 28542.41 X + 0$

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

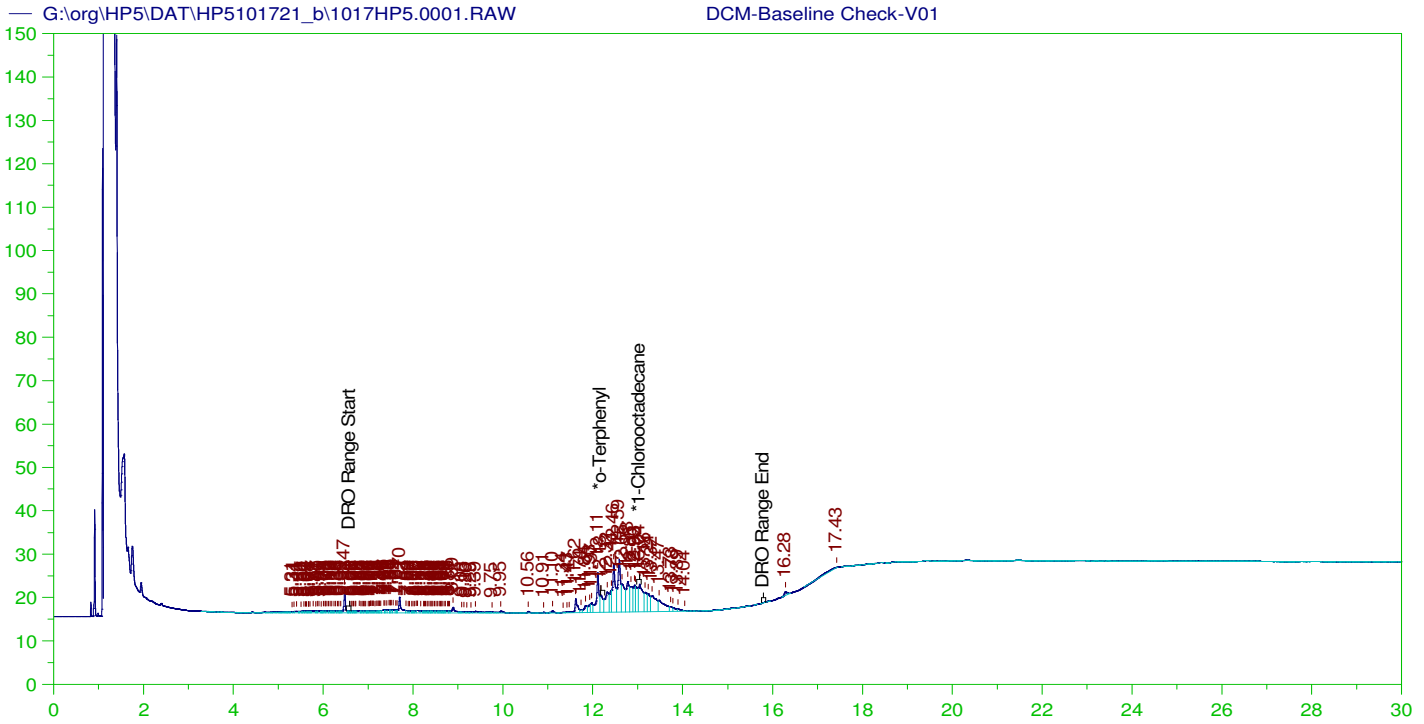
*#Triacontane



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

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



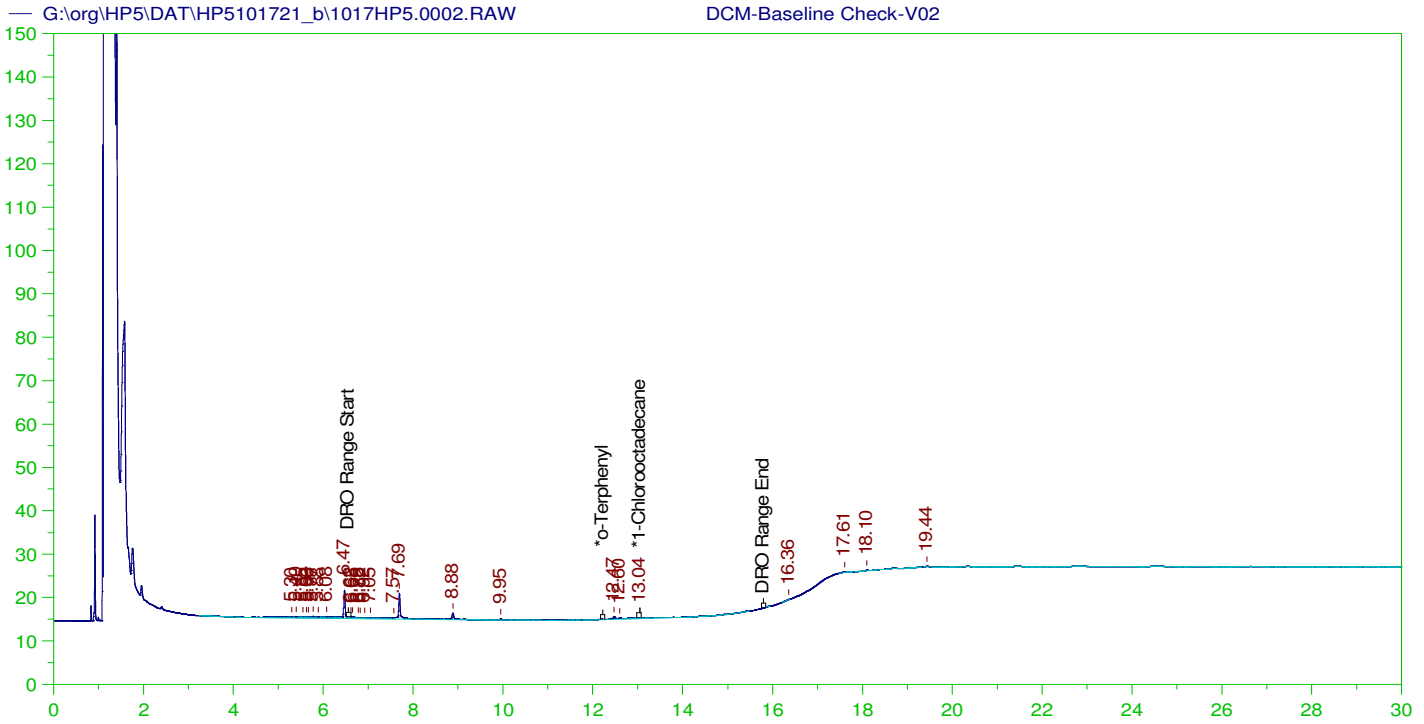
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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



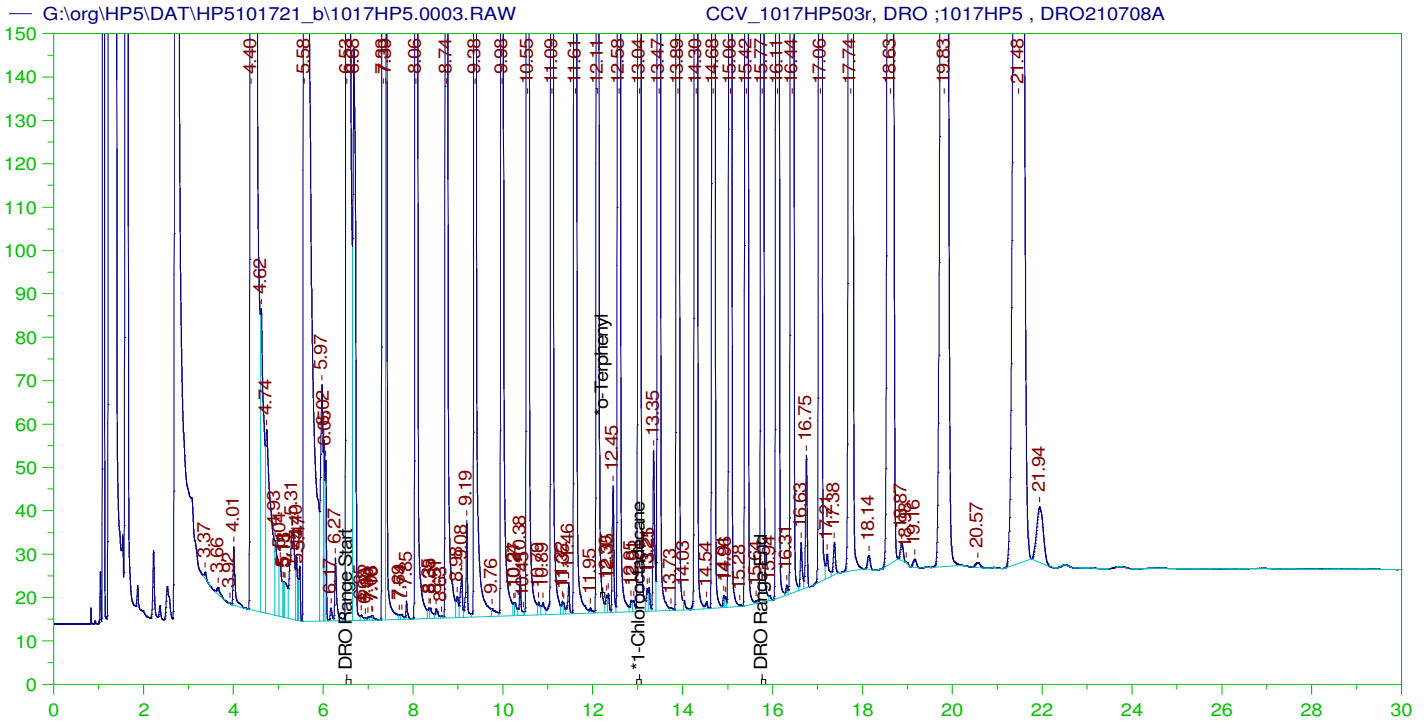
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

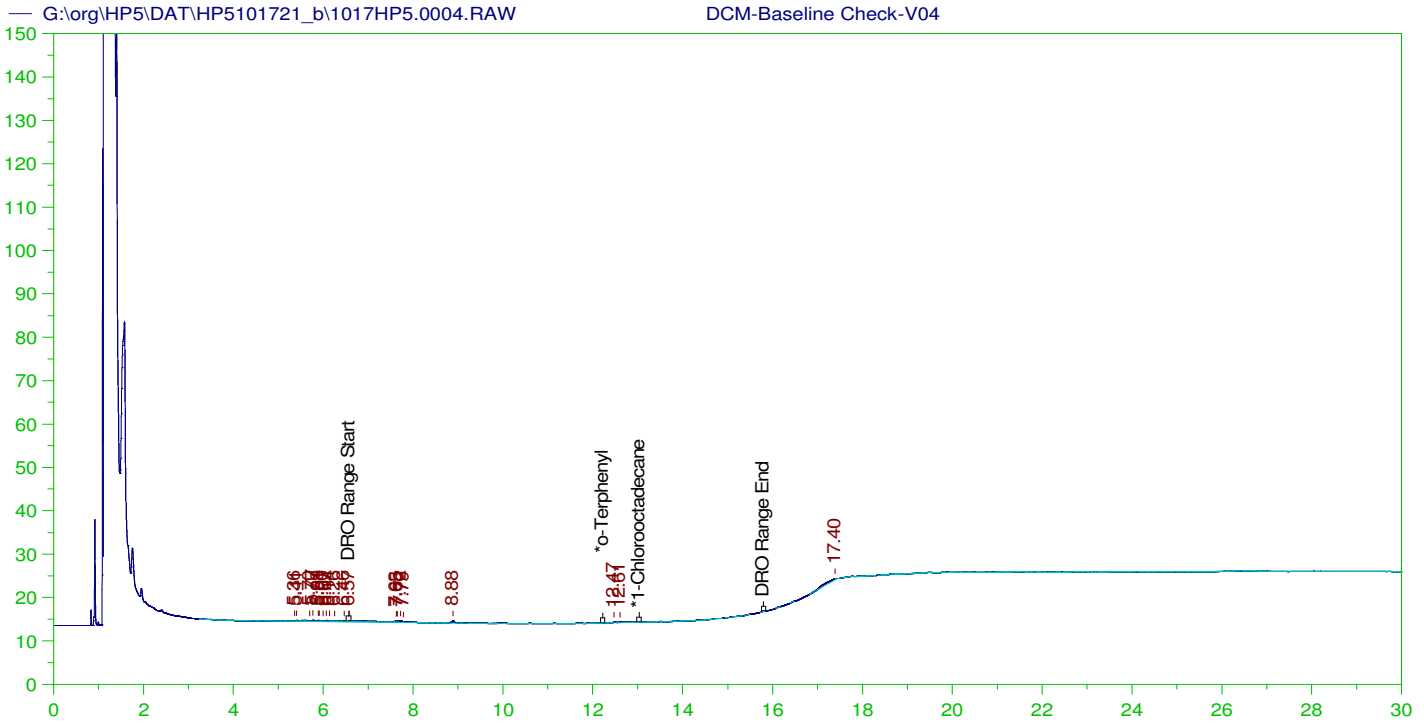
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.982	200.	.	-
*1-Chlorooctadecane	13.037	200.	255.634	127.82 -

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



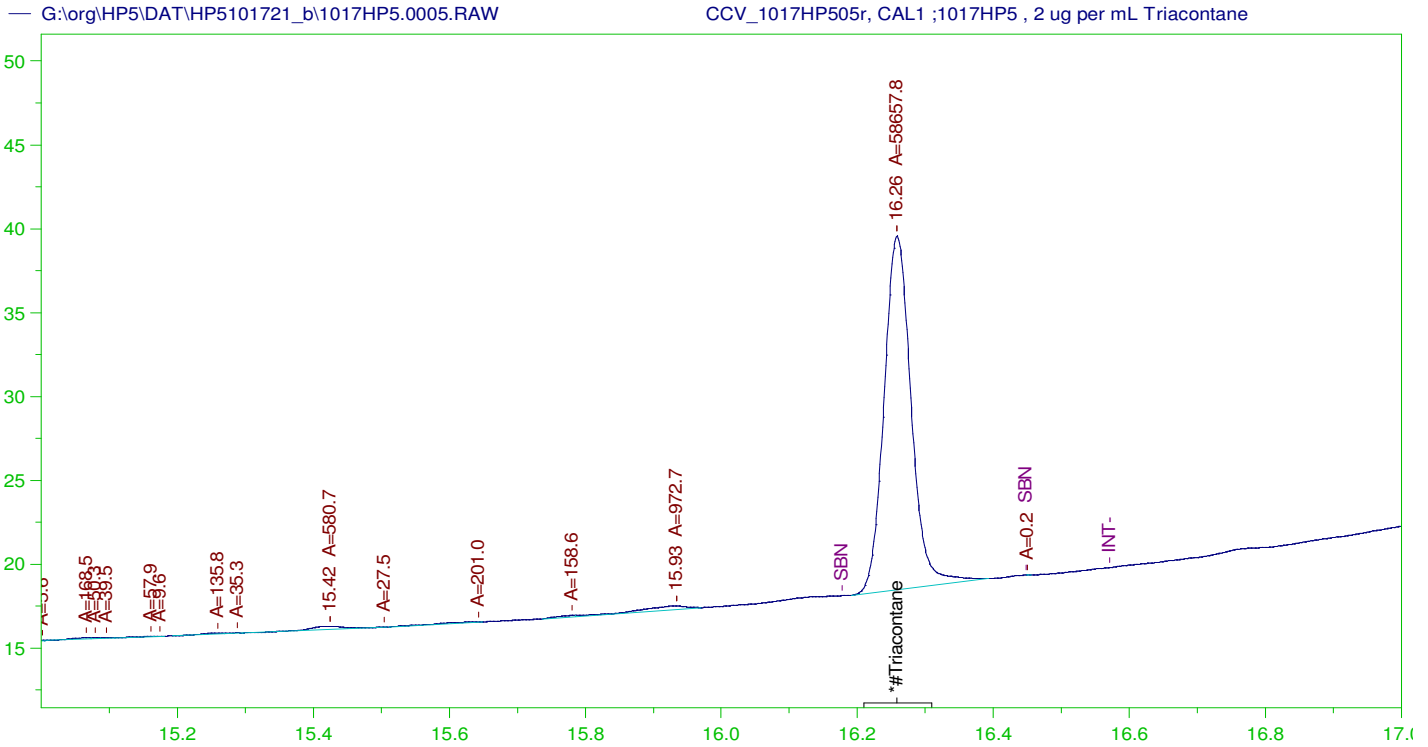
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

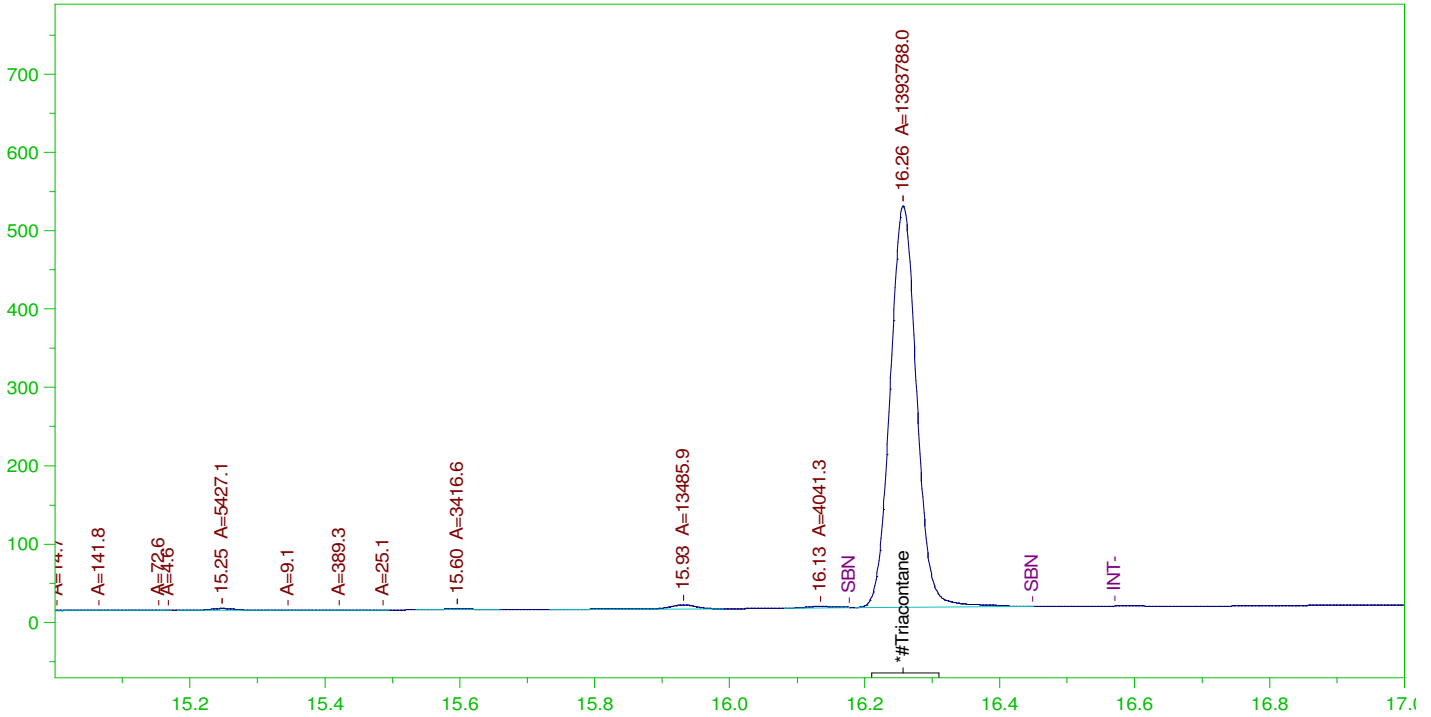
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0005.RAW

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

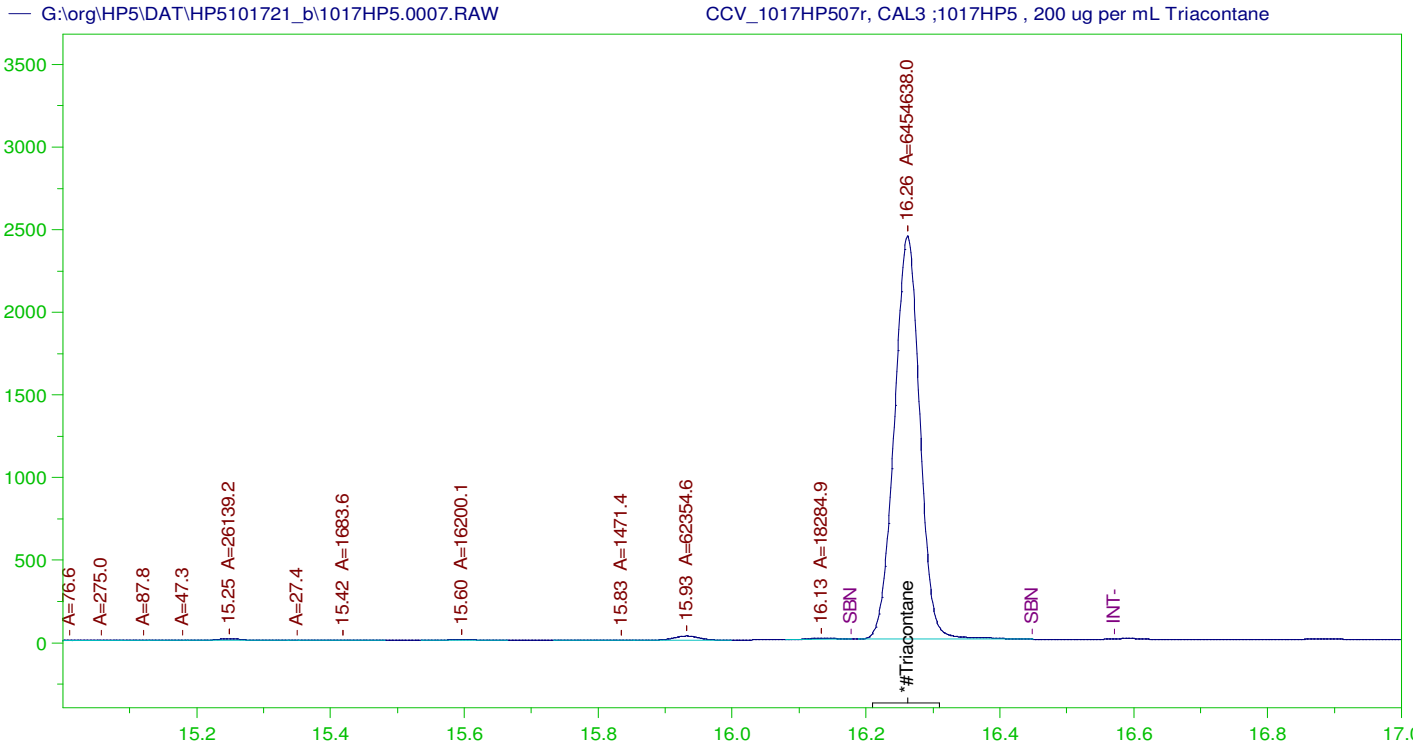
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.257	500.	48.178	9.64	-

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

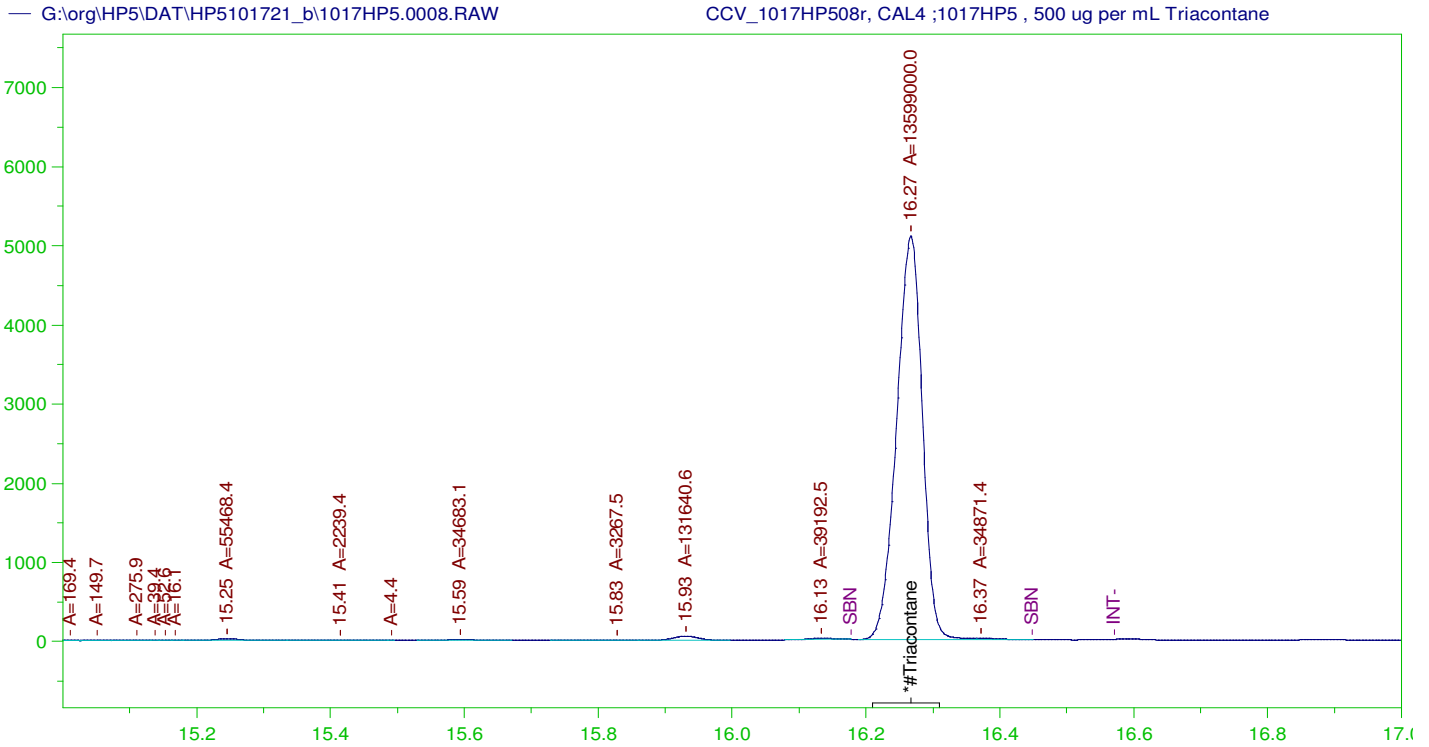
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.262	500.	223.111	44.62	-

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

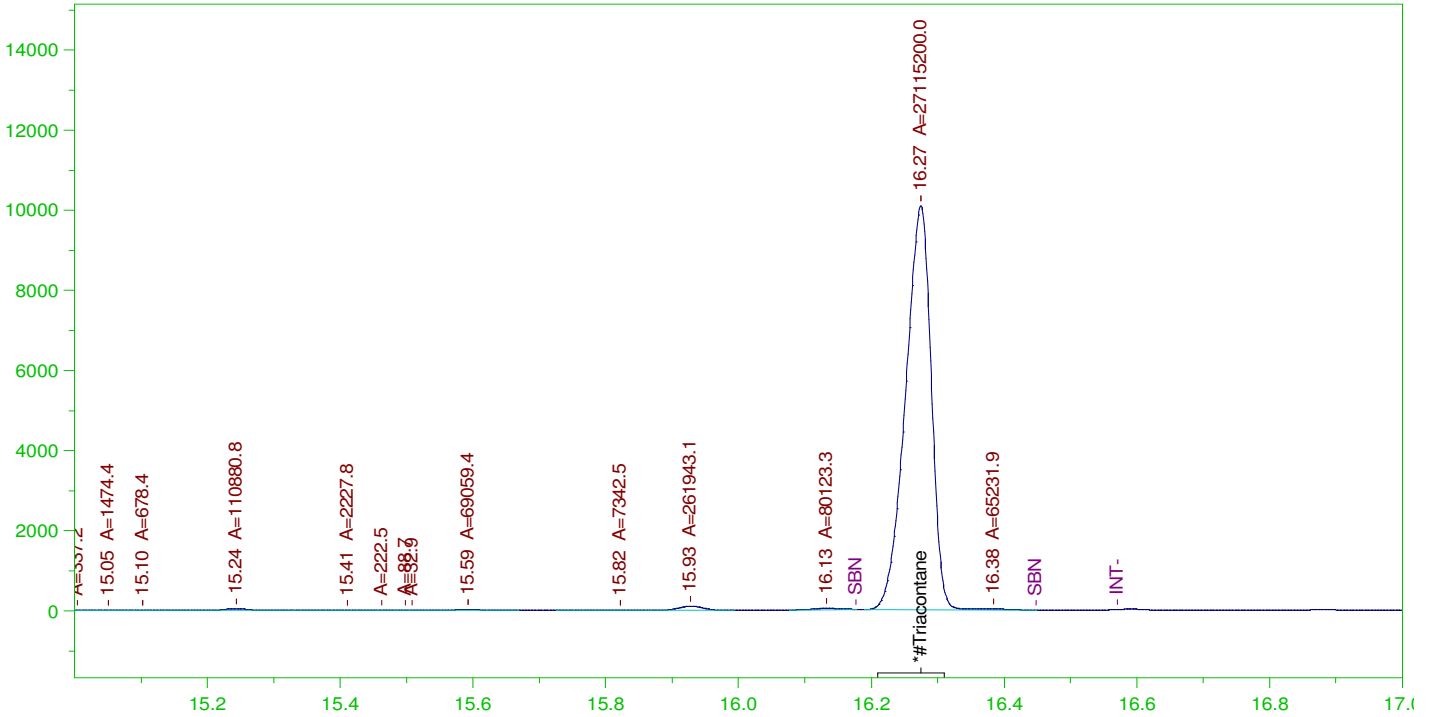
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5101721_b\1017HP5.0008.RAW

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

G:\org\HP5\DAT\HP5101721_b\1017HP5.0009.RAW

CCV_1017HP509r, CAL5 ;1017HP5 , 1000 ug per mL Triacontane



RESIDUAL RANGE ORGANICS CHROMATOGRAM

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

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

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

RRO Area:979213.9 RRO AMOUNT: 34.30733

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

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

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

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



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

PREP BATCH REPORT

Prep Code: **HC-3520-DRO**
 Prep Batch **162579** Prep Temp: **NA °C**

Technician: **Ann Nebel**
 Batch Units: **ML**

Prep Start Date: **12/29/2021 2:18:47 P**
 Prep End Date: **12/30/2021 11:10:00 A**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-162579			1000	0	0	1.00	0.001		12/29/2021	12/30/2021
Start time: 12/29/2021 at 2:15 PM. End time: 12/30/2021 at 8:15 AM SGT was carried out on remainder of samples on 01/03/2022 by amn.										
LCS-162579			1000	0	0	1.00	0.001		12/29/2021	12/30/2021
All bottles were completely used, defaced and disposed of on 12/29/2021. SGT was carried out on remainder of samples on 01/03/2022 by amn.										
LCSD-162579			1000	0	0	1.00	0.001		12/29/2021	12/30/2021
SGT was carried out on remainder of samples on 01/03/2022 by amn.										
LCSD-162579-RRO			1000	0	0	1.00	0.001		12/29/2021	12/30/2021
SGT was carried out on remainder of samples on 01/03/2022 by amn.										
LCS-162579-RRO			1000	0	0	1.00	0.001		12/29/2021	12/30/2021
SGT was carried out on remainder of samples on 01/03/2022 by amn.										
B21122077-001D	Ground Water	2	1000	0	0	1.00	0.001		12/29/2021	12/30/2021
Bottle 1/2 Clear SGT was carried out on remainder of samples on 01/03/2022 by amn.										
B21122077-001DMS	Ground Water	2	1050	0	0	1.00	0.000952		12/29/2021	12/30/2021
Bottle 2/2 Clear SGT was carried out on remainder of samples on 01/03/2022 by amn.										
B21122088-001D	Ground Water	2	1050	0	0	1.00	0.000952		12/29/2021	12/30/2021
Bottle 1/2 Light sediment. SGT was carried out on remainder of samples on 01/03/2022 by amn.										
B21122088-001DMS-RRO	Ground Water	2	950	0	0	1.00	0.00105		12/29/2021	12/30/2021
Bottle 2/2 Light sediment. SGT was carried out on remainder of samples on 01/03/2022 by amn.										
B21122090-001D	Ground Water	2	1020	0	0	1.00	0.00098		12/29/2021	12/30/2021
Bottle 1/2 Clear										
B21122105-001D	Ground Water	2	1030	0	0	1.00	0.000971		12/29/2021	12/30/2021
Bottle 1/2 Clear										

Number	Reagent Name	Exp Date
11	Carbon Filter Water	1/1/2023
13379	PTFE Boiling Stones 27463755	12/30/2025
14206	pH-indicator Strips 0-14 HC160347	8/26/2026
14563	4ML, Amber Vial, 171001407106	11/30/2022
14647	Dichloromethane EC832	10/28/2023

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP211227 14446	DCM RINSED FILTER PAPER	all	1	4/6/2026
Sulfate 12/26/21 (	Baked Sodium Sulfate	all	Varies	11/29/2026
DRO211220D	Triacontane SURR 1000 ug/mL	all except LCS/D,	100 uL	4/6/2026
DRO211213A	OTP only SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
SG220101 (13376)	Baked Silica Gel	ALL-SGT	5 g	2/28/2030
DRO211012B	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS	100 uL	11/5/2023
DRO210902A	50,000 ug/mL Oil Std for RRO-In D	LCS/D-RRO, MS-	100 uL	9/1/2026

Energy Laboratories Inc

ANALYTICAL RUN Summary

18-Jan-22

Run ID GCFID-HP5-B_211230A

Run Start Date: 12/30/2021
Analyst: Ann Nebel
Ical:
Column ID:
Comments: DRO-8015-ICAL information is in Index GCFID-HP5-B_211102A 8015C OIL range calibration GCFID-HP5-B_210218B

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211220B	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO211220C	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV	4/6/2026
DRO211229A	8015 CCV-15,000ug/mL + 200 OTP/COD					CCV	4/30/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14958841	CCV_1230HP50	HC-8015-DRO-	CCV		12/30/2021 8:42:	1	R372599			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		4.77979980		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane		S	mg/L		0.2130301		0.2	0	0	0.000336	0.002	0	107%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14958842	CCV_1230HP50	HC-8015-DRO-	CCV		12/30/2021 9:25:	1	R372599			0	0						
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)		A	mg/L		13.61581		15	0	0	0.0389	0.3	0	91%	80	120	0%	
Total Extractable Hydrocarbons		A	mg/L		14.12364		15	0	0	0.0749	0.3	50	94%	80	120	0%	
o-Terphenyl		S	mg/L		0.1812456		0.2	0	0	0.000429	0.002	0	91%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14958843	LCS-162579	HC-8015-DRO-	LCS-DOD		12/30/2021 10:5	1	162579	12/29/2021		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					
14958843	LCS-162579	HC-8015-DRO-	LCS-DOD		12/30/2021 10:5	1	162579	12/29/2021	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		14.91695		15	0	0	0.0389	0.3	0	99%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		15.9859		15	0	0	0.0749	0.3	50	107%	60	132	0%	
o-Terphenyl	S	mg/L		0.2022835		0.2	0	0	0.000429	0.002	0	101%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14958844	LCSD-162579	HC-8015-DRO-	LCSD-DOD		12/30/2021 11:3	1	162579	12/29/2021	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		14.41975		15	0	14.91695	0.0389	0.3	0	96%	36	132	3%	
Total Extractable Hydrocarbons	A	mg/L		15.43263		15	0	15.9859	0.0749	0.3	50	103%	60	132	4%	
o-Terphenyl	S	mg/L		0.1991237		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					
14958845	MB-162579	HC-8015-DRO-	MBLK		12/31/2021 12:1	1	162579	12/29/2021	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		0.1138		0.1	0	0	0.000336	0.002	0	114%	50	150	0%	
o-Terphenyl	S	mg/L		0.1966718		0.2	0	0	0.000429	0.002	0	98%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14958846	B21122077-001	HC-8015-DRO-	SAMP		12/31/2021 1:01:	1	162579	12/29/2021	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	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0879	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0749	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.1065		0.1	0	0	0.000336	0.002	0	106%	50	150	0%	
o-Terphenyl	S	mg/L		0.1821869		0.2	0	0	0.000429	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					
14958847	B21122077-001	HC-8015-DRO-	MS-DOD		12/31/2021 1:44:	1	162579	12/29/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.78807		14.28	0	0	0.0370328	0.3	0	97%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		14.90867		14.28	0	0	0.0713048	0.3	50	104%	60	132	0%	
o-Terphenyl	S	mg/L		0.1912696		0.1904	0	0	0.0004084	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					
14958848	B21122088-001	HC-8015-DRO-	SAMP		12/31/2021 3:10:	1	162579	12/29/2021		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		0.2790392		0	0	0	0.0370328	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.4921003		0	0	0	0.0836808	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		1.620555		0	0	0	0.0713048	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.1047		0.0952	0	0	0.0003199	0.001904	0	110%	50	150	0%	
o-Terphenyl	S	mg/L		0.1685421		0.1904	0	0	0.0004084	0.002	0	89%	56	125	0%	
TEH(Oil Range)	X	mg/L		1.64482188		0	0	0	0.0836808	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					
14958849	B21122088-001	HC-8015-DRO-	MS-DOD		12/31/2021 6:45:	1	162579	12/29/2021	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		6.87232542		5.25	1.6448219	0	0.092295	0.315	0	100%	41	113	0%	
n-Triacontane	S	mg/L		0.1123		0.105	0	0	0.0003528	0.0021	0	107%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14958850	CCV_1230HP52	HC-8015-DRO-	CCV		12/31/2021 8:11:	1	R372599			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		5.22595410		5	0	0	0.0879	0.3	0	105%	80	120	0%	
n-Triacontane	S	mg/L		0.211947		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					
14958851	CCV_1230HP52	HC-8015-DRO-	CCV		12/31/2021 8:54:	1	R372599			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					
14958851	CCV_1230HP52	HC-8015-DRO-	CCV		12/31/2021 8:54:	1	R372599		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		14.42186		15	0	0	0.0389	0.3	0	96%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.94903		15	0	0	0.0749	0.3	50	100%	80	120	0%	
o-Terphenyl	S	mg/L		0.1939919		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					
14958852	LCS-162579-RR	HC-8015-DRO-	LCS-DOD		12/31/2021 10:2	1	162579	12/29/2021	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		4.99758434		5	0	0	0.0879	0.3	0	100%	41	113	0%	
n-Triacontane	S	mg/L		0.1144		0.1	0	0	0.000336	0.002	0	114%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14958853	LCSD-162579-R	HC-8015-DRO-	LCSD-DOD		12/31/2021 11:4	1	162579	12/29/2021	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		4.80772066		5	0	4.9975843	0.0879	0.3	0	96%	41	113	4%	
n-Triacontane	S	mg/L		0.1075		0.1	0	0	0.000336	0.002	0	107%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14958854	CCV_1230HP52	HC-8015-DRO-	CCV		12/31/2021 1:12:	1	R372599		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		4.97486572		5	0	0	0.0879	0.3	0	99%	80	120	0%	
n-Triacontane	S	mg/L		0.2173862		0.2	0	0	0.000336	0.002	0	109%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14958856	CCV_1230HP53	HC-8015-DRO-	CCV		1/1/2022 12:38:0	1	R372599		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		4.59272852		5	0	0	0.0879	0.3	0	92%	80	120	0%	
n-Triacontane	S	mg/L		0.2069369		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					
14958857	CCV_1230HP53	HC-8015-DRO-	CCV		1/1/2022 1:21:12	1	R372599		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.91795		15	0	0	0.0389	0.3	0	93%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.43764		15	0	0	0.0749	0.3	50	96%	80	120	0%	
o-Terphenyl	S	mg/L		0.1847652		0.2	0	0	0.000429	0.002	0	92%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14958858	B21122105-001	HC-8015-DRO-	SAMP		1/1/2022 2:47:14	1	162579	12/29/2021	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	0.0377719	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.0853509	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.0727279	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.0959		0.0971	0	0	0.0003263	0.001942	0	99%	50	150	0%	
o-Terphenyl	S	mg/L		0.1635268		0.1942	0	0	0.0004166	0.002	0	84%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14958859	B21122090-001	HC-8015-DRO-	SAMP		1/1/2022 3:30:00	1	162579	12/29/2021	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	0.038122	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.086142	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.073402	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.102		0.098	0	0	0.0003293	0.00196	0	104%	50	150	0%	
o-Terphenyl	S	mg/L		0.1732585		0.196	0	0	0.0004204	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					
14958860	CCV_1230HP54	HC-8015-DRO-	CCV		1/1/2022 4:55:51	1	R372599		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		4.52372314		5	0	0	0.0879	0.3	0	90%	80	120	0%	
n-Triacontane	S	mg/L		0.2016855		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					
14958861	CCV_1230HP54	HC-8015-DRO-	CCV		1/1/2022 6:22:06	1	R372599		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		13.91602		15	0	0	0.0389	0.3	0	93%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.43006		15	0	0	0.0749	0.3	50	96%	80	120	0%	
o-Terphenyl	S	mg/L		0.1845335		0.2	0	0	0.000429	0.002	0	92%	80	120	0%	

Energy Laboratories Inc

ANALYTICAL RUN Summary

05-Jan-22

Run ID GCFID-HP4-B_220102B

Run Start Date: 1/2/2022
Analyst: Ann Nebel
Ical:
Column ID:
Comments: DRO-8015 CAL information is in Index GCFID-HP4-B_211101A; DRO-8015-OIL CAL information is in Index GCFID-HP4-B_211006B

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211220B	Carbon Scan STD-Marker					MARKER	3/5/2028
DRO211229A	8015 CCV-15,000ug/mL + 200 OTP/COD					CCV-DRO	4/30/2023
DRO220102A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963960	CCV_0102HP44	HC-8015-DRO-	CCV		1/3/2022 10:57:3	1	R372718		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		4.46053516		5	0	0	0.0513	0.3	0	89%	80	120	0%	
n-Triacontane	S	mg/L		0.2288589		0.2	0	0	0.00054	0.002	0	114%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963961	CCV_0102HP44	HC-8015-DRO-	CCV		1/3/2022 11:42:5	1	R372718		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		15.26908		15	0	0	0.0358	0.3	0	102%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.84203		15	0	0	0.0782	0.3	50	106%	80	120	0%	
o-Terphenyl	S	mg/L		0.2076149		0.2	0	0	0.000531	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					
14963962	LCS-162579	HC-8015-DRO-	LCS-DOD		1/4/2022 1:13:41	1	162579	12/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

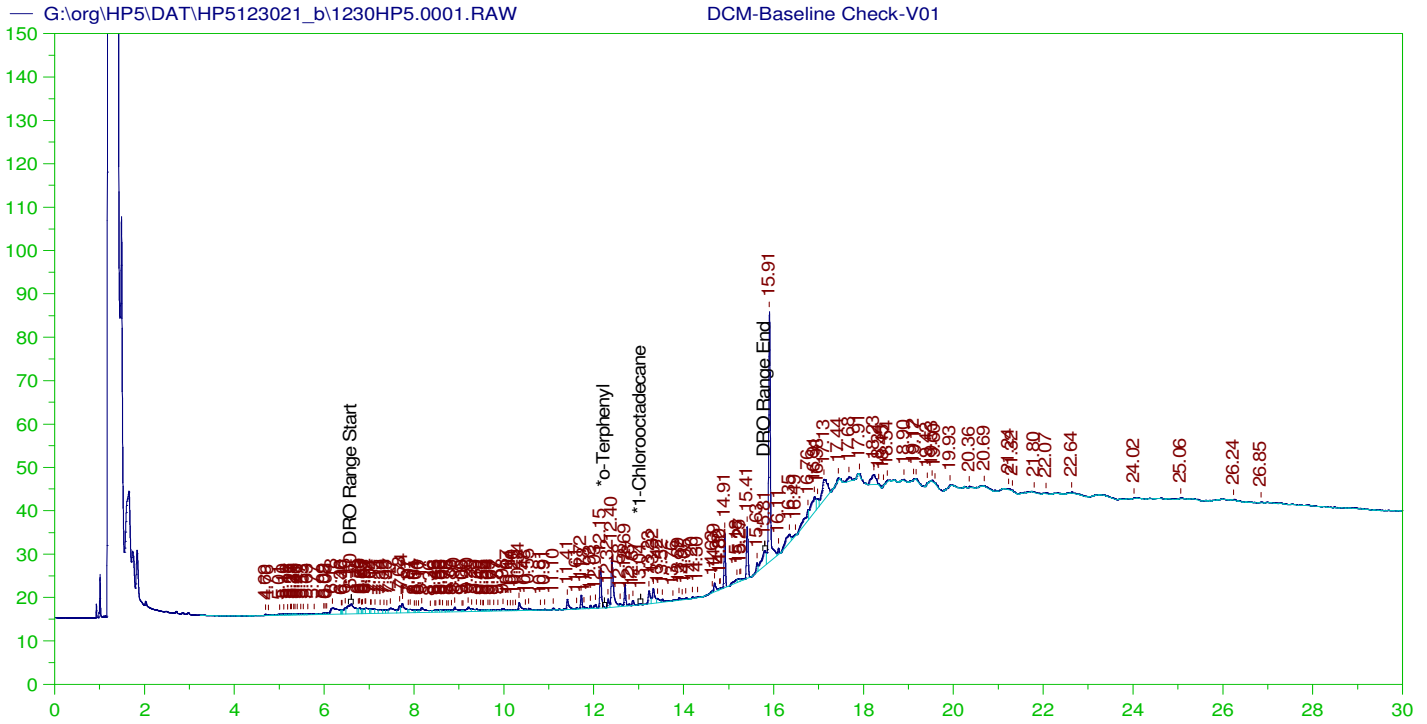
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963962	LCS-162579	HC-8015-DRO-	LCS-DOD		1/4/2022 1:13:41	1	162579	12/29/2021	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		13.57448		15	0	0	0.0358	0.3	0	90%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		14.44347		15	0	0	0.0782	0.3	0	96%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1802983		0.2	0	0	0.000531	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					
14963963	LCSD-162579	HC-8015-DRO-	LCSD-DOD		1/4/2022 1:59:14	1	162579	12/29/2021	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		11.76162		15	0	13.57448	0.0358	0.3	0	78%	36	132	14%	
Total Extractable Hydrocarbons (SGT	A	mg/L		12.49642		15	0	14.44347	0.0782	0.3	0	83%	60	132	14%	
o-Terphenyl (SGT)	S	mg/L		0.159775		0.2	0	0	0.000531	0.002	0	80%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963964	MB-162579	HC-8015-DRO-	MBLK		1/4/2022 2:44:43	1	162579	12/29/2021	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	0.0358	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0513	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0782	0.15	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.1191		0.1	0	0	0.00054	0.002	0	119%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1826396		0.2	0	0	0.000531	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					
14963965	B21122077-001	HC-8015-DRO-	SAMP		1/4/2022 7:42:41	1	162579	12/29/2021	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	0.0358	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0513	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0782	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.1018		0.1	0	0	0.00054	0.002	0	102%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.159422		0.2	0	0	0.000531	0.002	0	80%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963966	B21122077-001	HC-8015-DRO-	MS-DOD		1/4/2022 8:27:48	1	162579	12/29/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		12.67061		14.28	0	0	0.0340816	0.3	0	89%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		13.48191		14.28	0	0	0.0744464	0.3	0	94%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.165824		0.1904	0	0	0.0005055	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					
14963967	B21122088-001	HC-8015-DRO-	SAMP		1/4/2022 9:12:51	1	162579	12/29/2021		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	0.0340816	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0.07339213		0	0	0	0.0488376	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons (SGT	A	mg/L		0.09162474		0	0	0	0.0744464	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.1004		0.0952	0	0	0.0005141	0.001904	0	105%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.15528		0.1904	0	0	0.0005055	0.001904	0	82%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963968	CCV_0102HP45	HC-8015-DRO-	CCV		1/4/2022 10:43:2	1	R372718			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		4.48372363		5	0	0	0.0513	0.3	0	90%	80	120	0%	
n-Triacontane	S	mg/L		0.2275489		0.2	0	0	0.00054	0.002	0	114%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963969	CCV_0102HP45	HC-8015-DRO-	CCV		1/4/2022 11:28:4	1	R372718			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		15.72657		15	0	0	0.0358	0.3	0	105%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		16.2815		15	0	0	0.0782	0.3	50	109%	80	120	0%	
o-Terphenyl	S	mg/L		0.2220606		0.2	0	0	0.000531	0.002	0	111%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963970	B21122088-001	HC-8015-DRO-	MS-DOD		1/4/2022 12:59:1	1	162579	12/29/2021	1E+07	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					
14963970	B21122088-001	HC-8015-DRO-	MS-DOD		1/4/2022 12:59:1	1	162579	12/29/2021	1E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH (SGT-Oil Range)	A	mg/L		4.49000454		5.25	0	0	0.053865	0.315	0	86%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.1028		0.105	0	0	0.000567	0.0021	0	98%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963971	LCS-162579-RR	HC-8015-DRO-	LCS-DOD		1/4/2022 1:44:51	1	162579	12/29/2021		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		4.48162365		5	0	0	0.0513	0.3	0	90%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.1042		0.1	0	0	0.00054	0.002	0	104%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963972	LCSD-162579-R	HC-8015-DRO-	LCSD-DOD		1/4/2022 3:15:10	1	162579	12/29/2021		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		4.24705267		5	0	4.4816236	0.0513	0.3	0	85%	41	113	5%	
n-Triacontane (SGT)	S	mg/L		0.1011		0.1	0	0	0.00054	0.002	0	101%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14963973	CCV_0102HP46	HC-8015-DRO-	CCV		1/4/2022 4:45:30	1	R372718			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		4.55510205		5	0	0	0.0513	0.3	0	91%	80	120	0%	
n-Triacontane	S	mg/L		0.2272932		0.2	0	0	0.00054	0.002	0	114%	80	120	0%	

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj	IS	Cal ID
G:\org\HP5\DAT\HP5123021_b1230HP5.01r	b1230HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.02r	b1230HP5.02r	DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.03r	b1230HP5.03r	MARKER_1230HP503r; DRO ;1230HP5 , DRO211220B	G:\Org\HP5\Methods\CSC211230.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.04r	b1230HP5.04r	CCV_1230HP504r; RRO ;1230HP5 , DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.05r	b1230HP5.05r	CCV_1230HP505r; DRO ;1230HP5 , DRO211229A	G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.06r	b1230HP5.06r	DCM-Baseline Check-V06	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.07r	b1230HP5.07r	LCS-162579 ;1230HP5 ,	G:\Org\HP5\Methods\D3_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.08r	b1230HP5.08r	LCS-162579 ;1230HP5 ,	G:\Org\HP5\Methods\D3_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.09r	b1230HP5.09r	MB-162579 ;1230HP5 ,	G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.10r	b1230HP5.10r	B21122077-001D ;1230HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L#.met	1000	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.11r	b1230HP5.11r	B21122077-001DMS ;1230HP5 ,	G:\Org\HP5\Methods\D3_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met	1050	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.12r	b1230HP5.12r	DCM-Baseline Check-V12	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.13r	b1230HP5.13r	B21122088-001D ;1230HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L#.met	1050	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.14r	b1230HP5.14r	DCM-Baseline Check-V14	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.15r	b1230HP5.15r	B21122105-001D ;1230HP5 , \$HC-8015-DRO-W, Rerun due to baseline	G:\Org\HP5\Methods\DR_8015-C24T-IM-L0.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.16r	b1230HP5.16r	DCM-Baseline Check-V16	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.17r	b1230HP5.17r	B21122090-001D ;1230HP5 , \$HC-8015-DRO-W, Rerun due to baseline	G:\Org\HP5\Methods\DR_8015-C24T-IM-L0.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.18r	b1230HP5.18r	B21122088-001DMS-RRO ;1230HP5 ,	G:\Org\HP5\Methods\D3_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-L%.MET	950	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.19r	b1230HP5.19r	MARKER_1230HP519r; DRO ;1230HP5 , DRO211220B	G:\Org\HP5\Methods\CSC211230.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.20r	b1230HP5.20r	CCV_1230HP520r; RRO ;1230HP5 , DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.21r	b1230HP5.21r	CCV_1230HP521r; DRO ;1230HP5 , DRO211229A	G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.22r	b1230HP5.22r	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.23r	b1230HP5.23r	LCS-162579-RRO ;1230HP5 ,	G:\Org\HP5\Methods\D3_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-L%.MET	1000	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.24r	b1230HP5.24r	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.25r	b1230HP5.25r	LCS-162579-RRO ;1230HP5 ,	G:\Org\HP5\Methods\D3_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-L%.MET	1000	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.26r	b1230HP5.26r	MARKER_1230HP519r; DRO ;1230HP5 , DRO211220B	G:\Org\HP5\Methods\CSC211230.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.27r	b1230HP5.27r	CCV_1230HP520r; RRO ;1230HP5 , DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.36r	b1230HP5.36r	DCM-Baseline Check-V36	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.37r	b1230HP5.37r	MARKER_1230HP537r; DRO ;1230HP5 , DRO211220B	G:\Org\HP5\Methods\CSC211230A.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.38r	b1230HP5.38r	CCV_1230HP538r; RRO ;1230HP5 , DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.39r	b1230HP5.39r	CCV_1230HP539r; DRO ;1230HP5 , DRO211229A	G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-123039-IMA-L#.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.40r	b1230HP5.40r	DCM-Baseline Check-V40	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.41r	b1230HP5.41r	B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DR_OROS-AMB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L#.met	1030	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.42r	b1230HP5.42r	B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DR_OROS-AMB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L#.met	1020	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.43r	b1230HP5.43r	MARKER_1230HP543r; DRO ;1230HP5 , DRO211220B	G:\Org\HP5\Methods\CSC211230.met	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.44r	b1230HP5.44r	CCV_1230HP544r; RRO ;1230HP5 , DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-L%.MET	1	1	1	1	0
G:\org\HP5\DAT\HP5123021_b1230HP5.46r	b1230HP5.46r	CCV_1230HP546r; DRO ;1230HP5 , DRO211229A	G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-123039-IMA-L#.met	1	1	1	1	0

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj	IS	Cal ID
	G:\org\HP4\DAT\HP4010222_b\0102HP4.46r	Marker_0102HP446, DRO ;0102HP4 , DRO211220B	G:\org\HP4\Methods\CSC220102.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.47r	CCV_0102HP447r, RRO ;0102HP4 , DRO220102A	G:\Org\HP4\Methods\DC_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.48r	CCV_0102HP448r, DRO ;0102HP4 , DRO220102A	G:\Org\HP4\Methods\DC_8015-C24-OH-L%.met G:\Org\HP4\Methods\DS_8015-C24-OH-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.49r	DCM-Baseline Check-V49	G:\Org\HP4\Methods\DR_8015-OH-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.50r	LCS-162579 ;0102HP4 , SGT	G:\Org\HP4\Methods\D3_8015-24-OH-L%.met G:\Org\HP4\Methods\DS_8015-C24-OH-L%.met	1000	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.51r	LCSD-162579 ;0102HP4 , SGT	G:\Org\HP4\Methods\D3_8015-24-OH-L%.met G:\Org\HP4\Methods\DS_8015-C24-OH-L%.met	1000	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.52r	MB-162579 ;0102HP4 , SGT	G:\Org\HP4\Methods\DR_8015-C24-OH-L%.met G:\Org\HP4\Methods\DR_ORO-S-AB-L%.met G:\Org\HP4\Methods\DS_8015-T-OH-L%.met	1000	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.53r	B21122077-001D ;0102HP4 , \$HC-8015-DRO-W, SGT	G:\Org\HP4\Methods\DR_8015-C24-OH-L%.met G:\Org\HP4\Methods\DR_ORO-S-AB-L%.met G:\Org\HP4\Methods\DS_8015-T-OH-L%.met	1000	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.54r	B21122077-001DMS ;0102HP4 , SGT	G:\Org\HP4\Methods\D3_8015-24-OH-L%.met G:\Org\HP4\Methods\DS_8015-C24-OH-L%.met	1050	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.55r	B21122088-001D ;0102HP4 , \$HC-8015-DRO-W, SGT	G:\Org\HP4\Methods\DR_8015-010255-OH-L%.met G:\Org\HP4\Methods\DR_ORO-010255-AB-L%.met G:\Org\HP4\Methods\DS_8015-T-OH-L%.met	1050	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.56r	Marker_0102HP456, DRO ;0102HP4 , DRO211220B	G:\org\HP4\Methods\CSC220102.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.57r	CCV_0102HP457r, RRO ;0102HP4 , DRO220102A	G:\Org\HP4\Methods\DC_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.58r	CCV_0102HP458r, DRO ;0102HP4 , DRO220102A	G:\Org\HP4\Methods\DC_8015-C24-OH-L%.met G:\Org\HP4\Methods\DS_8015-C24-OH-L%.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.59r	DCM-Baseline Check-V59	G:\Org\HP4\Methods\DR_8015-OH-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.60r	B21122088-001DMS-RRO ;0102HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met	950	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.61r	LCS-162579-RRO ;0102HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met	1000	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.62r	DCM-Baseline Check-V62	G:\Org\HP4\Methods\DR_8015-OH-LEXP.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.63r	LCSD-162579-RRO ;0102HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met	1000	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.64r	Marker_0102HP464, DRO ;0102HP4 , DRO211220B	G:\org\HP4\Methods\CSC220102.met	1	1	1	1	0
	G:\org\HP4\DAT\HP4010222_b\0102HP4.65r	CCV_0102HP465r, RRO ;0102HP4 , DRO220102A	G:\Org\HP4\Methods\DC_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met	1	1	1	1	0



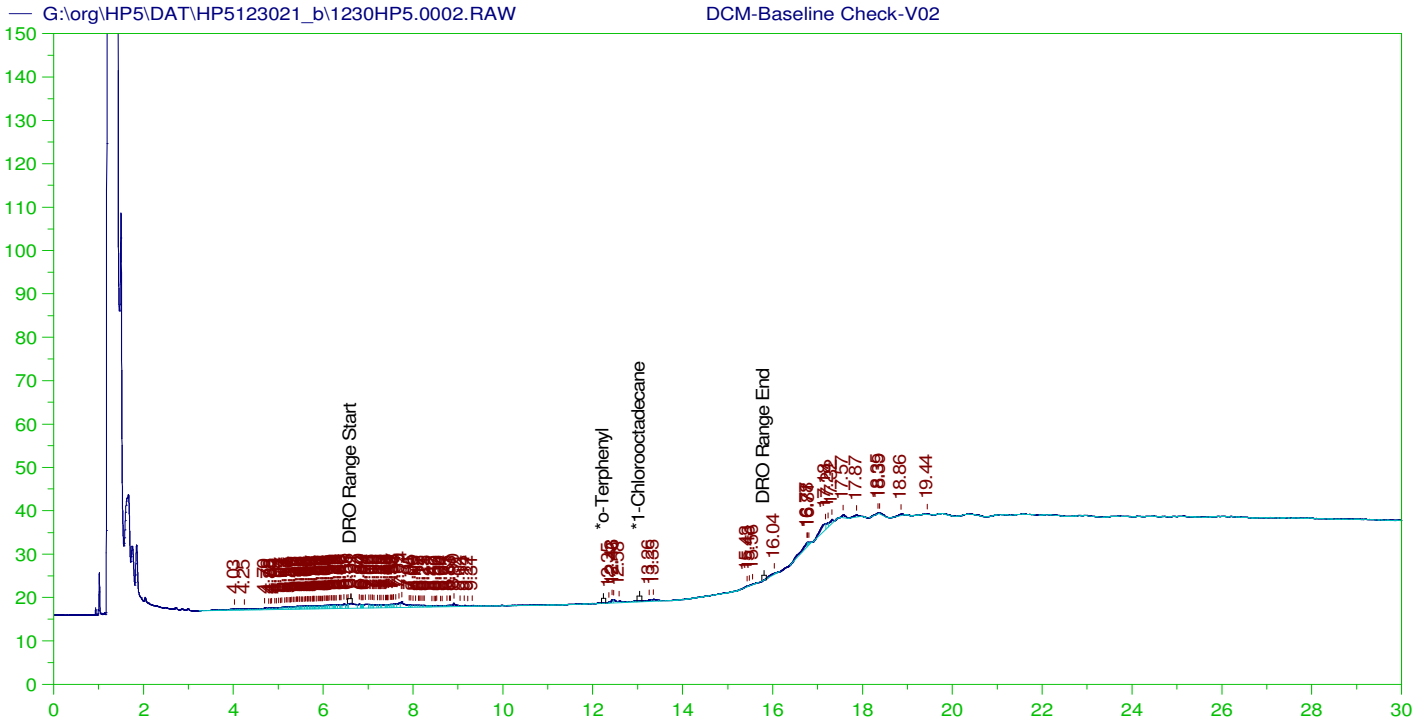
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V01
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0001.RAW
 Date & Time Acquired: 12/30/2021 6:33:07 PM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.975	200.	.014	.01
*1-Chlorooctadecane	13.039	200.	.014	.01

DRO Area:440481.7 DRO Amount: 14.04902
 TEH Area:848663.5 TEH Amount: 27.06785



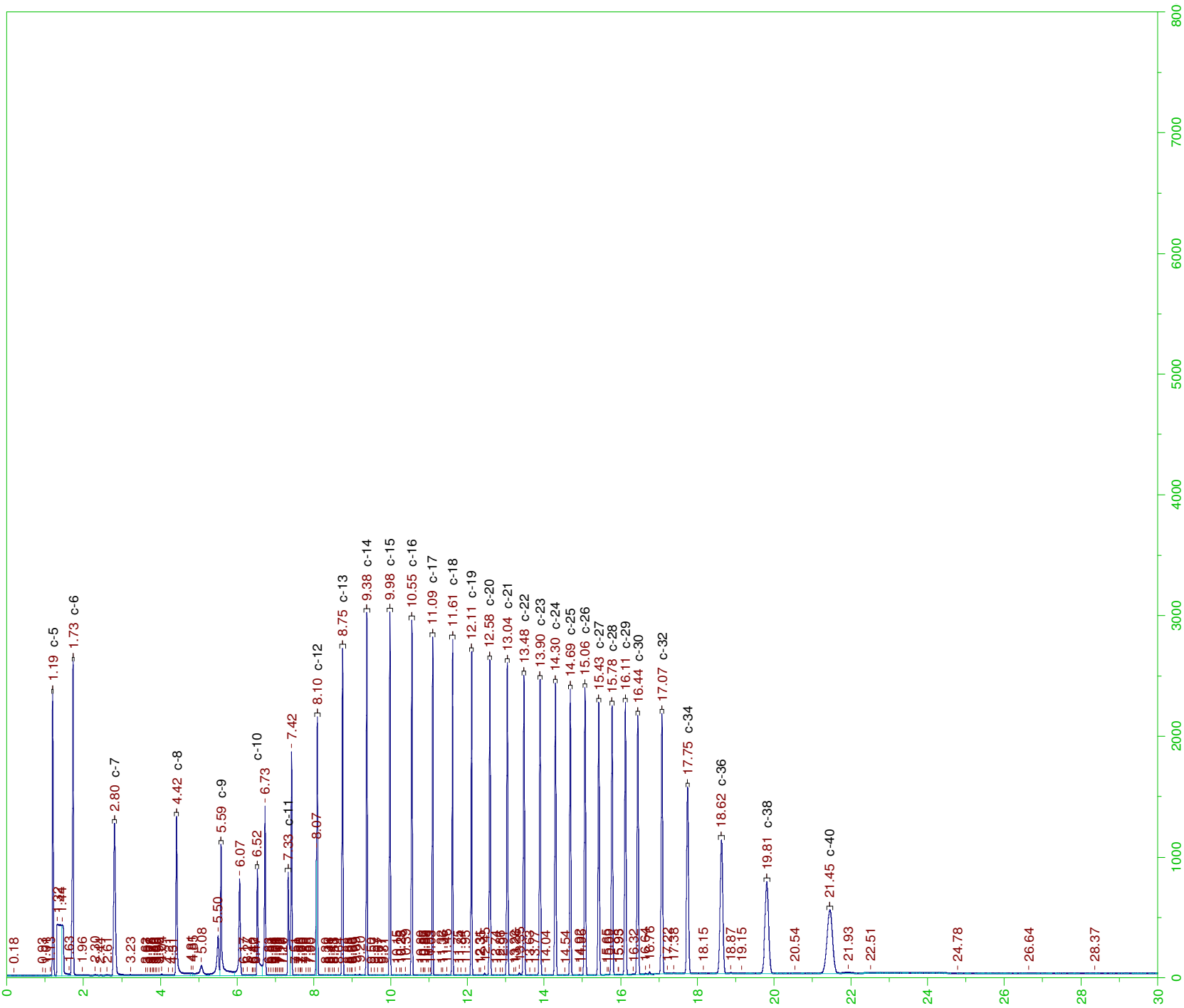
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

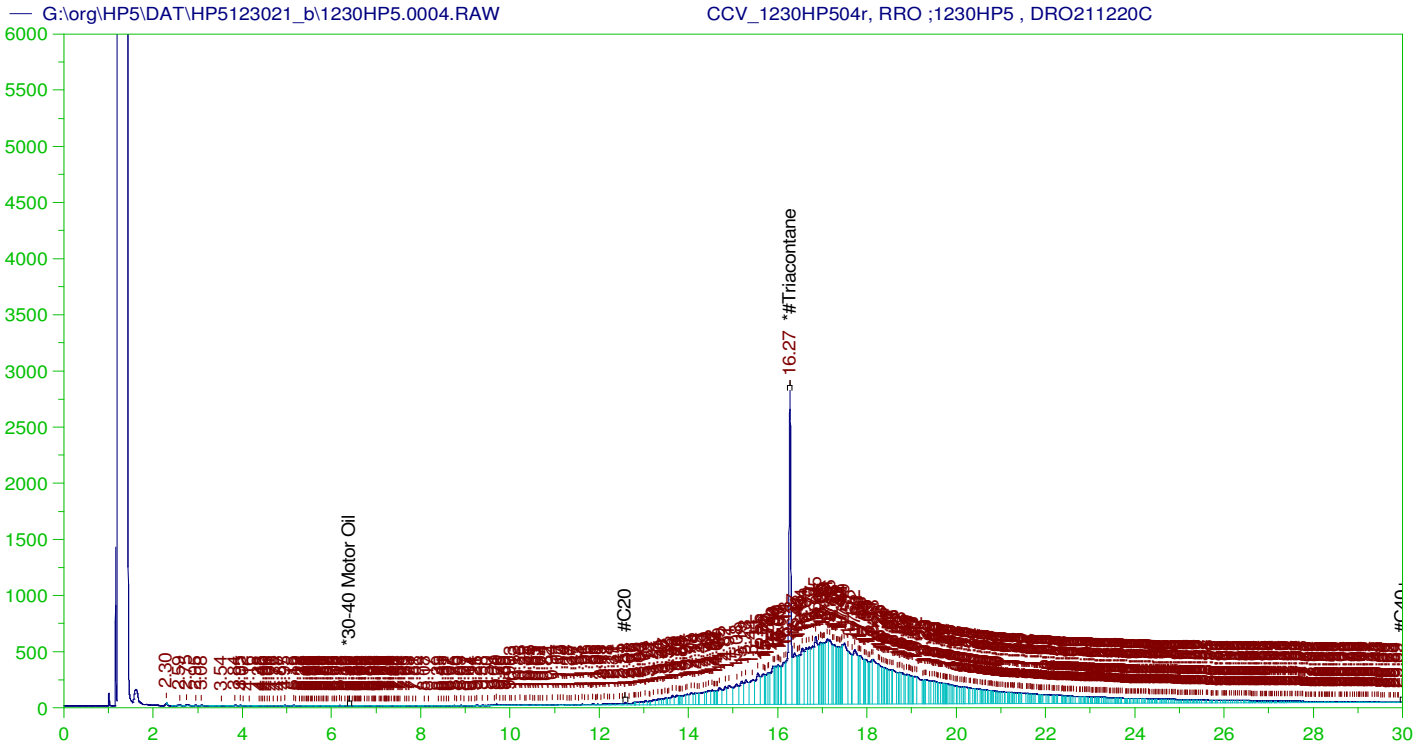
Sample Name: DCM-Baseline Check-V02
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0002.RAW
 Date & Time Acquired: 12/30/2021 7:16:16 PM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

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

DRO Area:127197.5 DRO Amount: 4.056922
 TEH Area:274104.9 TEH Amount: 8.742488





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP504r, RRO ;1230HP5 , DRO211220C
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0004.RAW
 Date & Time Acquired: 12/30/2021 8:42:37 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.272	500.	335.251	67.05	-

RRO TEH (Oil Range) Area:1.36427E+08 RRO TEH (Oil Range) AMOUNT: 4779.8

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0004.RAW

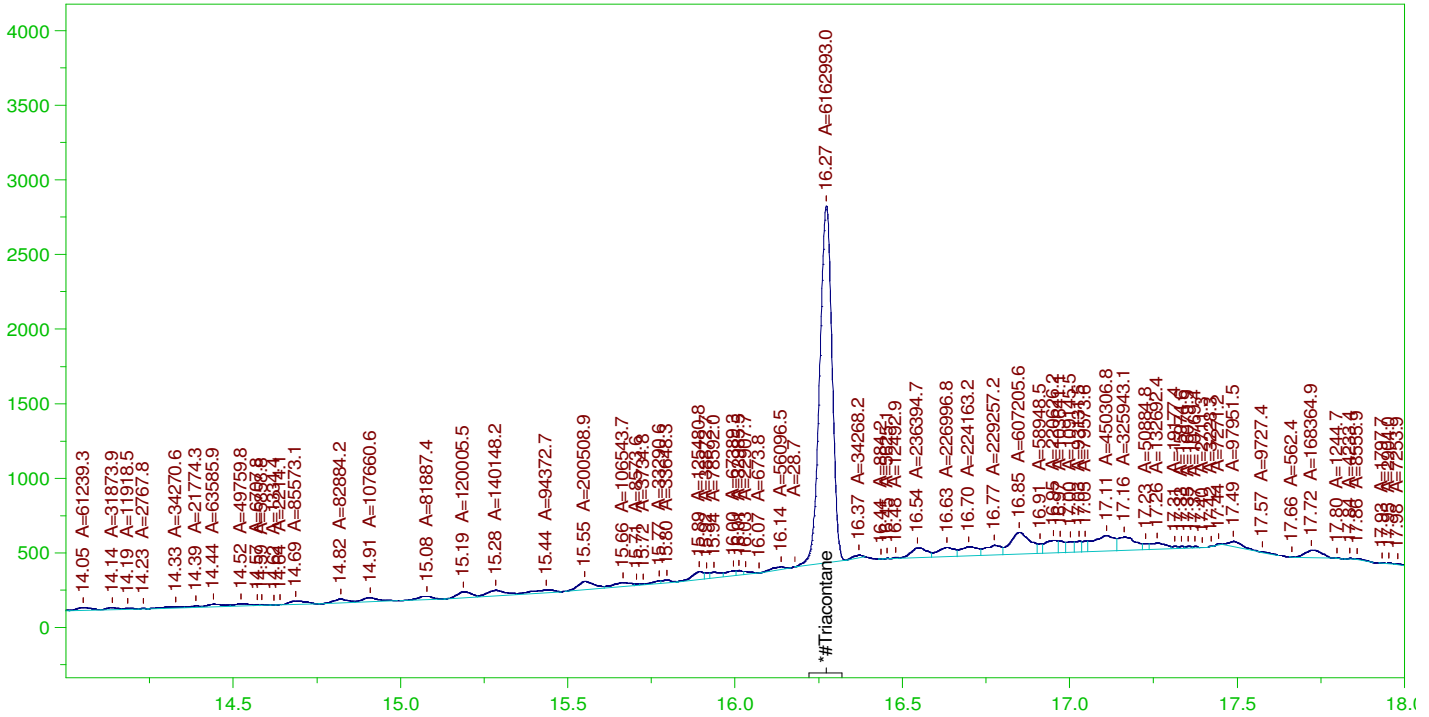
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.024	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.272	200.	335.251	167.63	75-125

AMN 01/19/2022

G:\org\HP5\DAT\HP5123021_b\1230HP5.0004.RAW

CCV_1230HP504r, RRO ;1230HP5 , DRO211220C



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP504r, RRO ;1230HP5 , DRO211220C
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0004.RAW
Date & Time Acquired: 12/30/2021 8:42:37 PM
Method File: G:\Org\HP5\Methods\DS_ORO-AM-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.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	16.272	500.	213.03	42.61

RRO Area:6123259 RRO AMOUNT: 214.5319

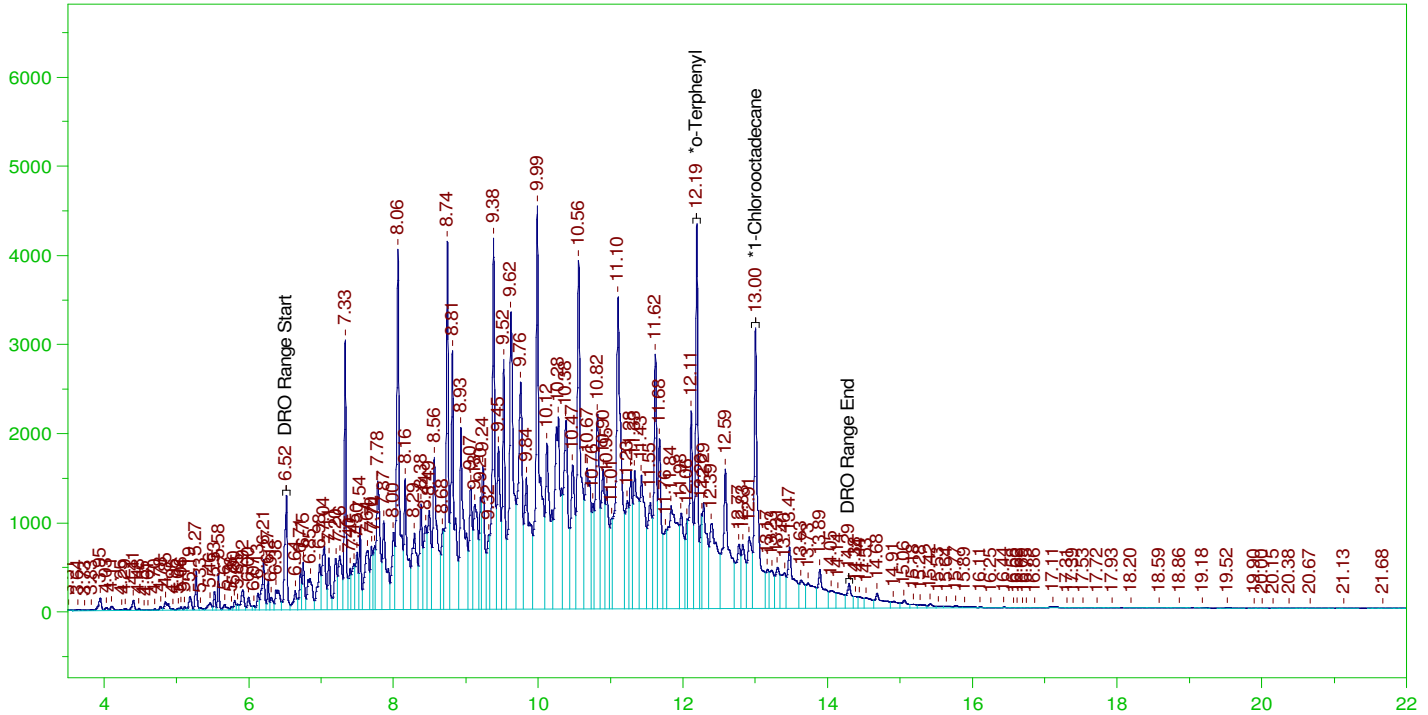
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0004.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.024	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.272	200.	213.03	106.52	75-125

G:\org\HP5\DAT\HP5123021_b\1230HP5.0005.RAW

CCV_1230HP505r, DRO ;1230HP5 , DRO211229A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1230HP505r, DRO ;1230HP5 , DRO211229A
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0005.RAW
 Date & Time Acquired: 12/30/2021 9:25:48 PM
 Method File: G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.191	200.	296.609	148.3
*1-Chlorooctadecane	13.002	200.	326.553	163.28

DRO Area: 4.268991E+08 DRO Amount: 13615.81
 TEH Area: 4.428213E+08 TEH Amount: 14123.64

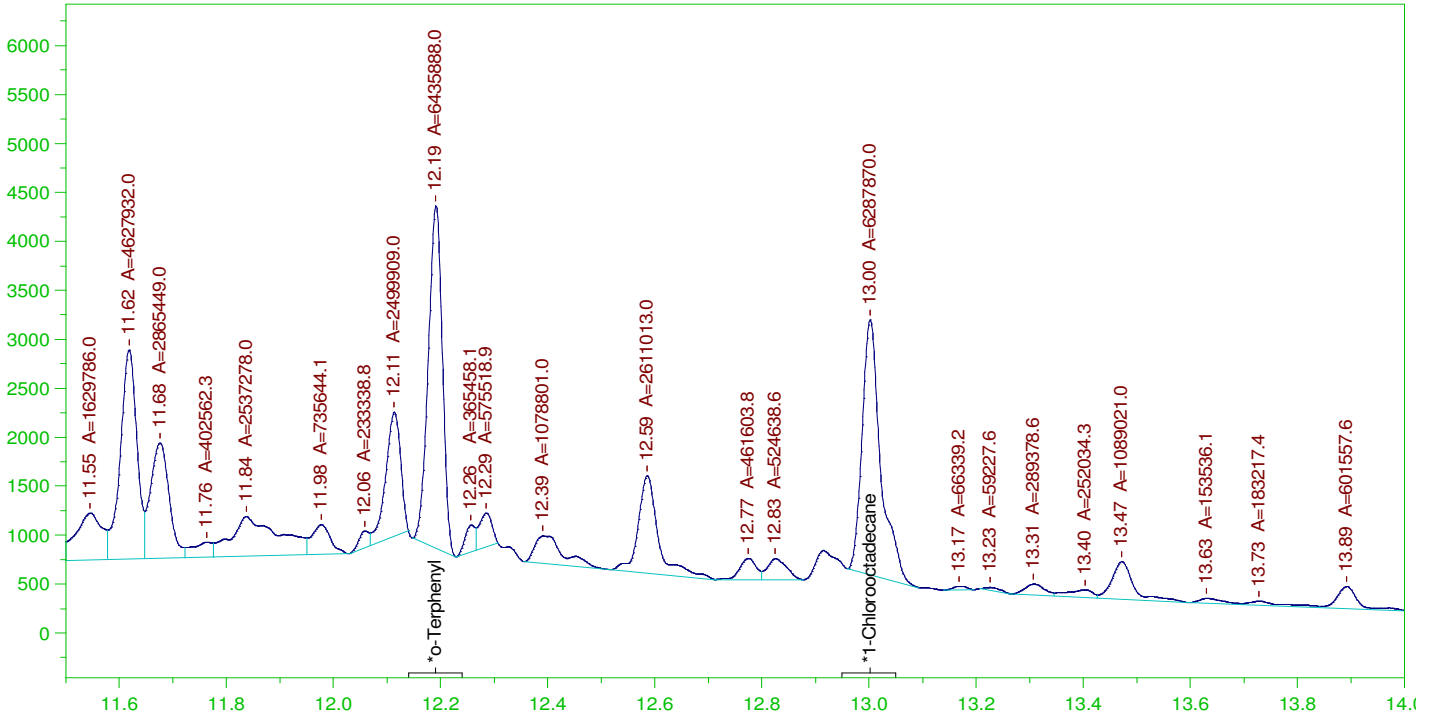
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0005.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14123.64	94.16	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.191	200.	296.609	148.3	85-115
*1-Chlorooctadecane	13.002	200.	326.553	163.28	85-115

G:\org\HP5\DAT\HP5123021_b\1230HP5.0005.RAW

CCV_1230HP505r, DRO ;1230HP5 , DRO211229A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1230HP505r, DRO ;1230HP5 , DRO211229A
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0005.RAW
 Date & Time Acquired: 12/30/2021 9:25:48 PM
 Method File: G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

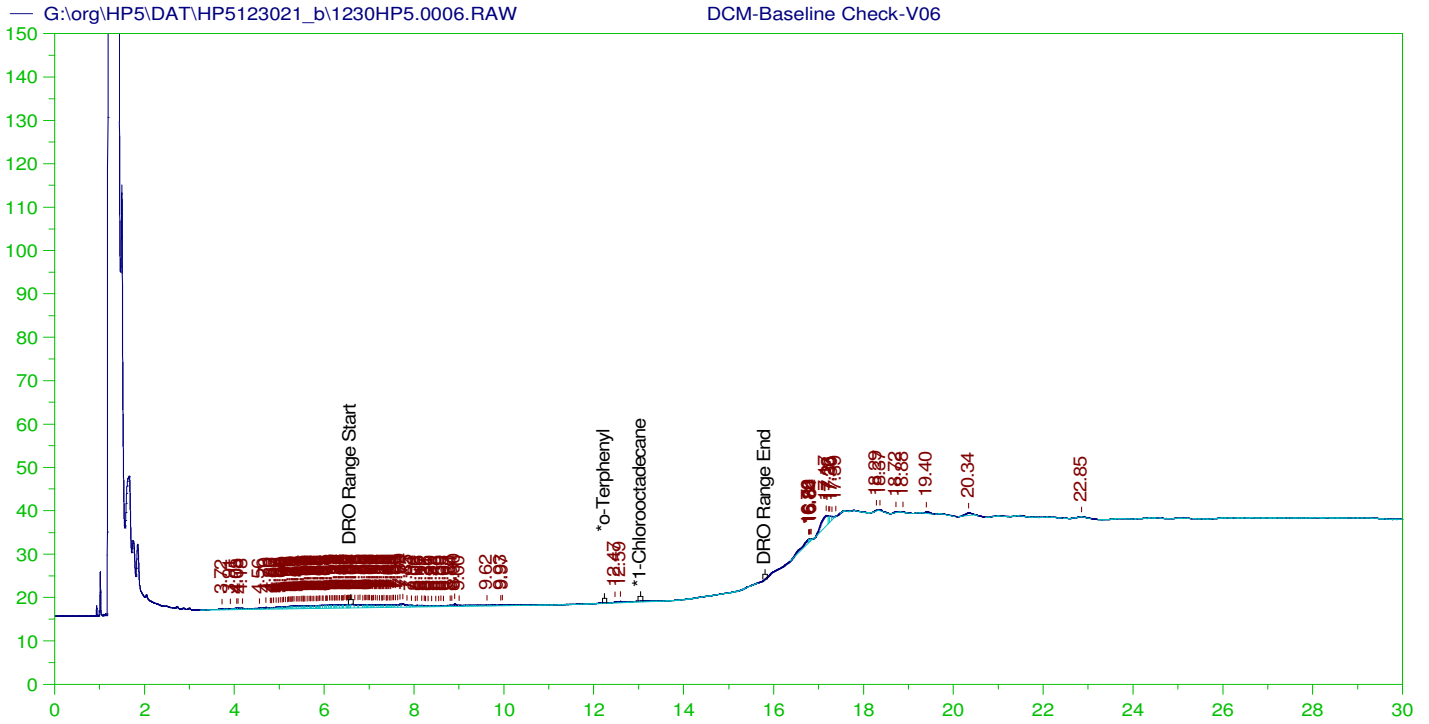
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.191	200.	181.246	90.62
*1-Chlorooctadecane	13.002	200.	177.077	88.54

DRO Area: 2.403819E+08 DRO Amount: 7666.902
 TEH Area: 2.502766E+08 TEH Amount: 7982.493

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0005.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7982.49	53.22	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.191	200.	181.246	90.62	85-115
*1-Chlorooctadecane	13.002	200.	177.077	88.54	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V06
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0006.RAW
 Date & Time Acquired: 12/30/2021 10:09:02 PM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

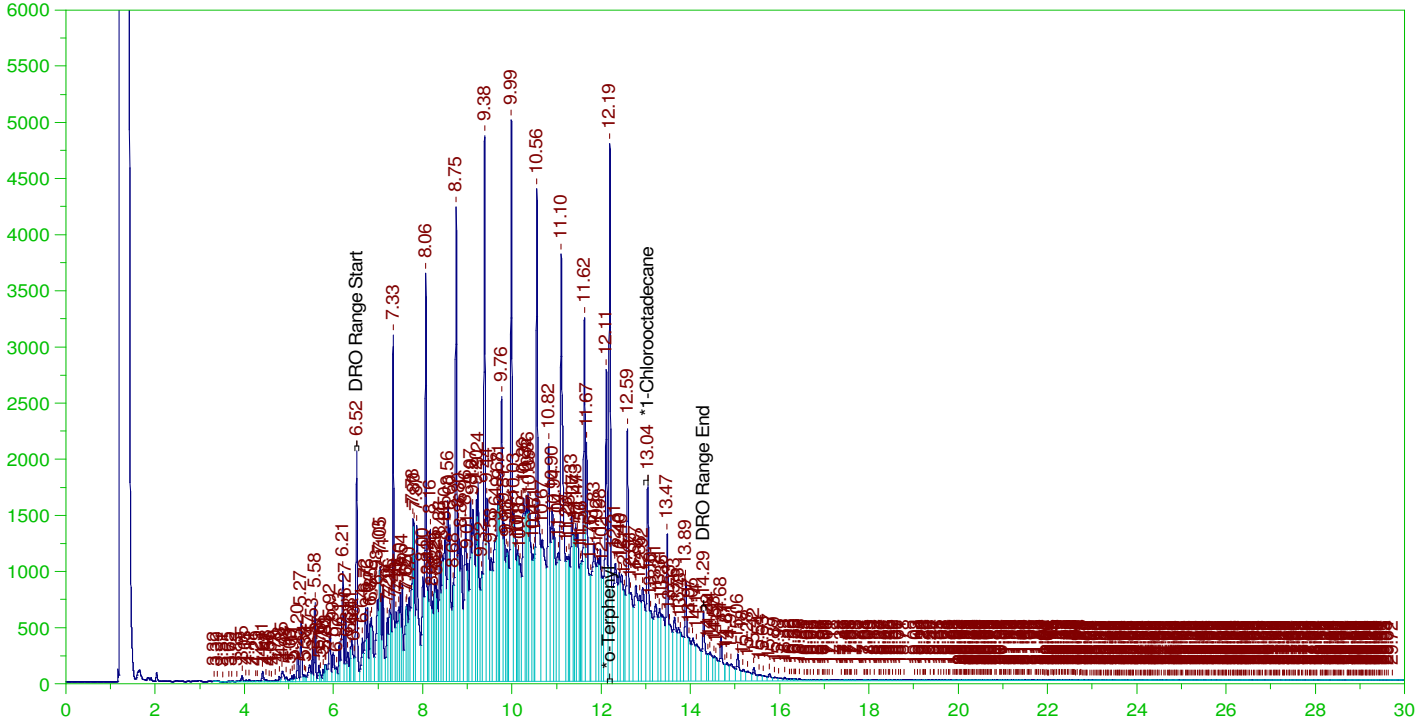
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.976	200.	.	-
*1-Chlorooctadecane	29.976	200.	.	-

DRO Area: 97878.87 DRO Amount: 3.121815
 TEH Area: 250521 TEH Amount: 7.990285

Batch ID: 162579

LCS-162579 ;1230HP5 ,

G:\org\HP5\DAT\HP5123021_b\1230HP5.0007.RAW



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

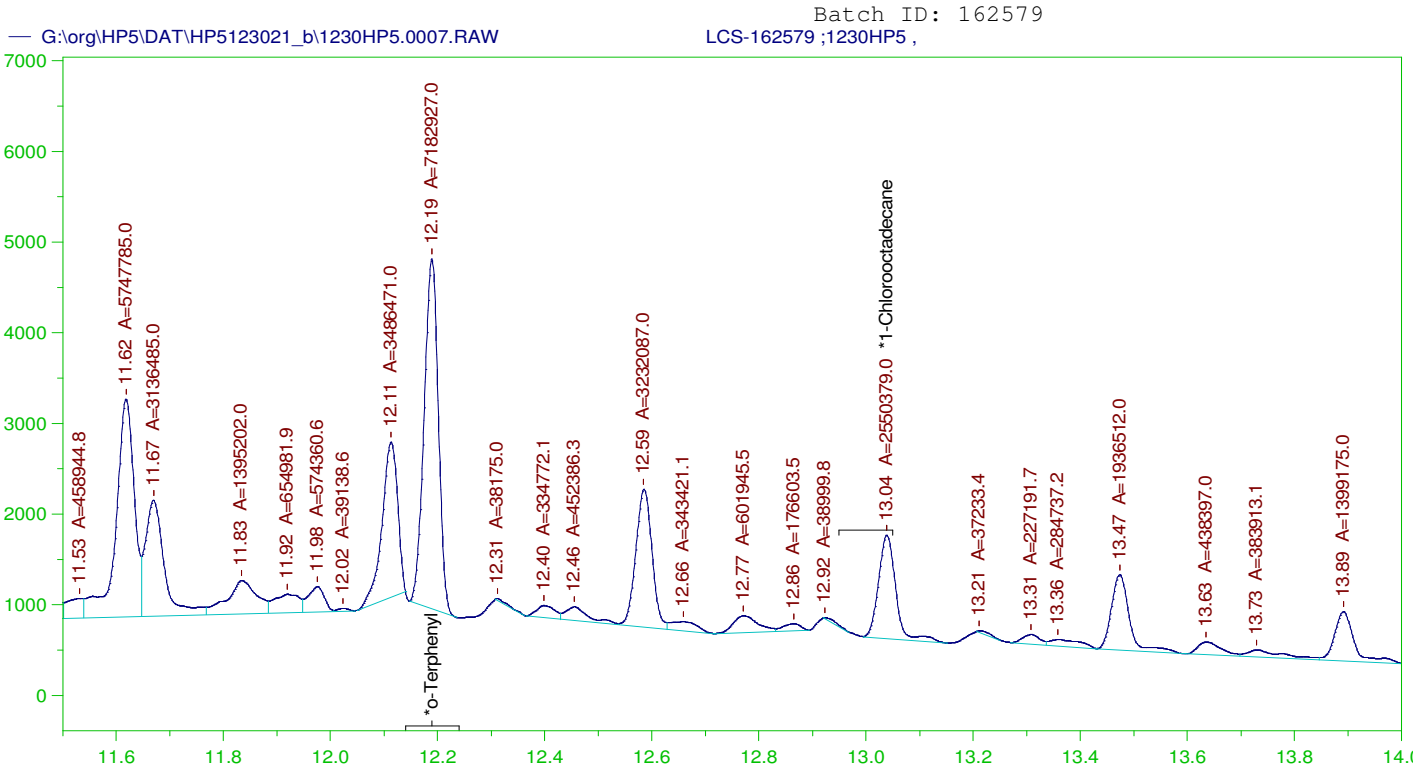
Sample Name: LCS-162579 ;1230HP5 ,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0007.RAW
Date & Time Acquired: 12/30/2021 10:52:13 PM
Method File: G:\Org\HP5\Methods\D3_8015-24-IMA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.189	.2	.345	172.5	-
*1-Chlorooctadecane	13.038	.2	.165	82.41	-

DRO Area: 4.67694E+08 DRO Amount: 14.91695
TEH Area: 5.01209E+08 TEH Amount: 15.9859



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-162579 ;1230HP5 ,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0007.RAW
 Date & Time Acquired: 12/30/2021 10:52:13 PM
 Method File: G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

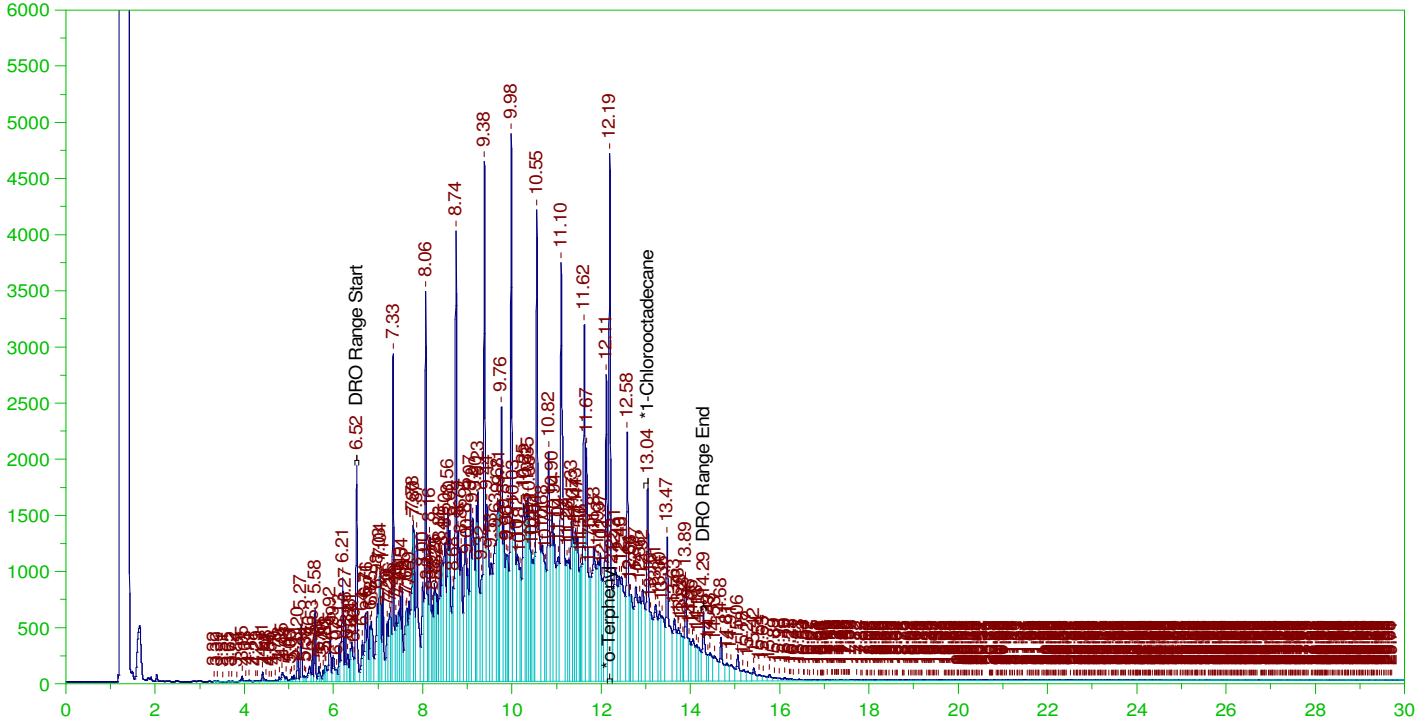
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.189	.2	.202	101.14
*1-Chlorooctadecane	13.038	.2	.072	35.91

DRO Area: 2.320845E+08 DRO Amount: 7.402261
 TEH Area: 2.48045E+08 TEH Amount: 7.911317

Batch ID: 162579

LCSD-162579 ;1230HP5 ,

G:\org\HP5\DAT\HP5123021_b\1230HP5.0008.RAW



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCSD-162579 ;1230HP5 ,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0008.RAW
Date & Time Acquired: 12/30/2021 11:35:16 PM
Method File: G:\Org\HP5\Methods\D3_8015-24-IMA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

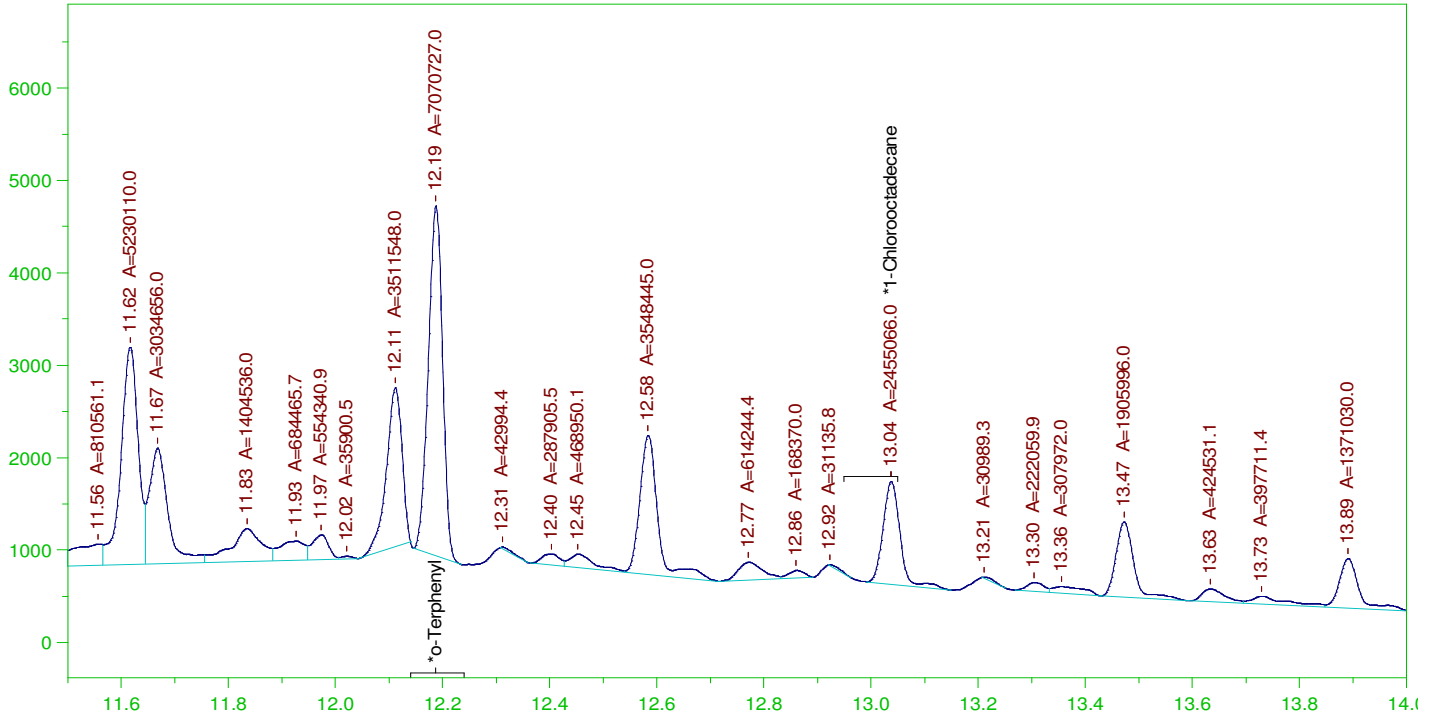
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.187	.2	.341	170.29	-
*1-Chlorooctadecane	13.037	.2	.166	82.91	-

DRO Area: 4.521052E+08 DRO Amount: 14.41975
TEH Area: 4.838621E+08 TEH Amount: 15.43263

Batch ID: 162579
G:\org\HP5\DAT\HP5123021_b\1230HP5.0008.RAW LCSD-162579 ;1230HP5 ,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

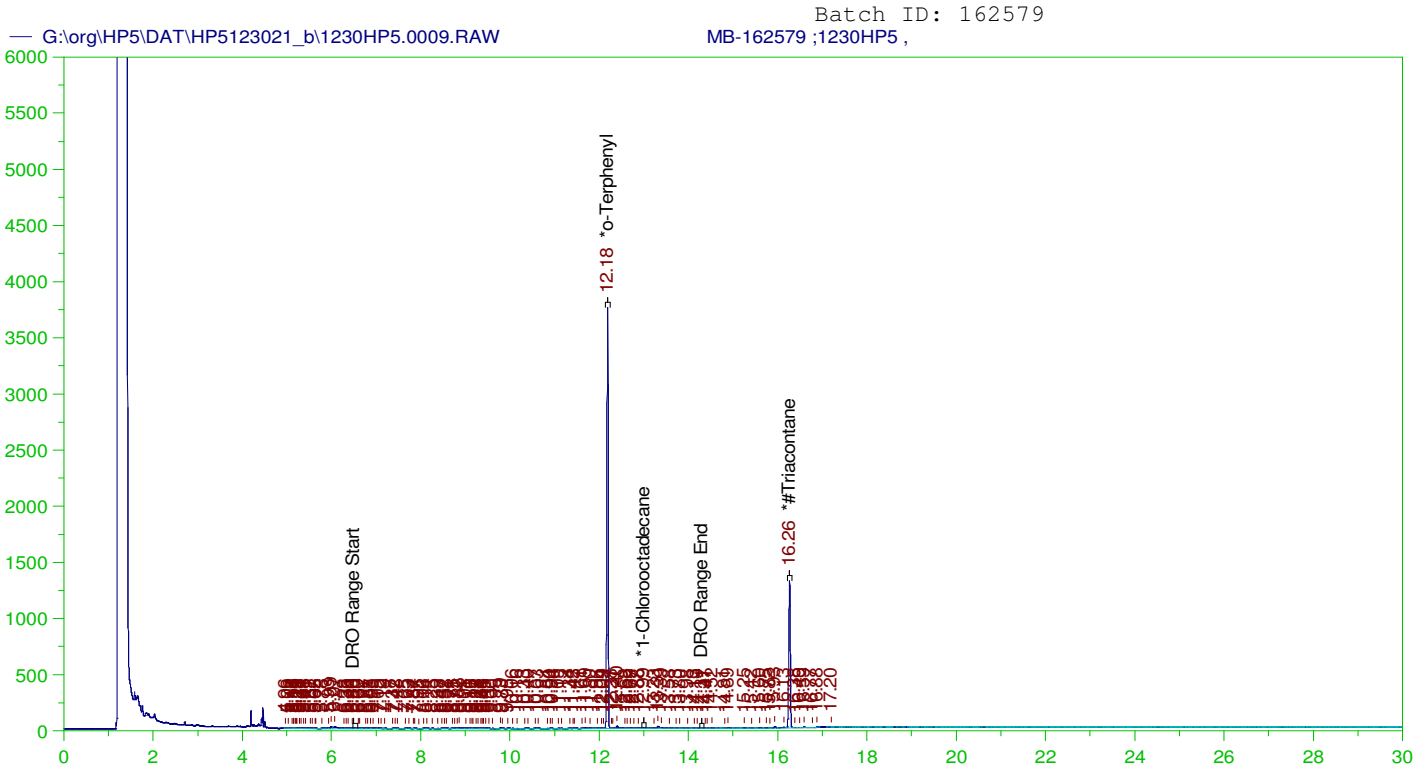
Sample Name: LCSD-162579 ;1230HP5 ,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0008.RAW
Date & Time Acquired: 12/30/2021 11:35:16 PM
Method File: G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.187	.2	.199	99.56
*1-Chlorooctadecane	13.037	.2	.069	34.57

DRO Area: 2.225174E+08 DRO Amount: 7.09712
TEH Area: 2.374571E+08 TEH Amount: 7.573619



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

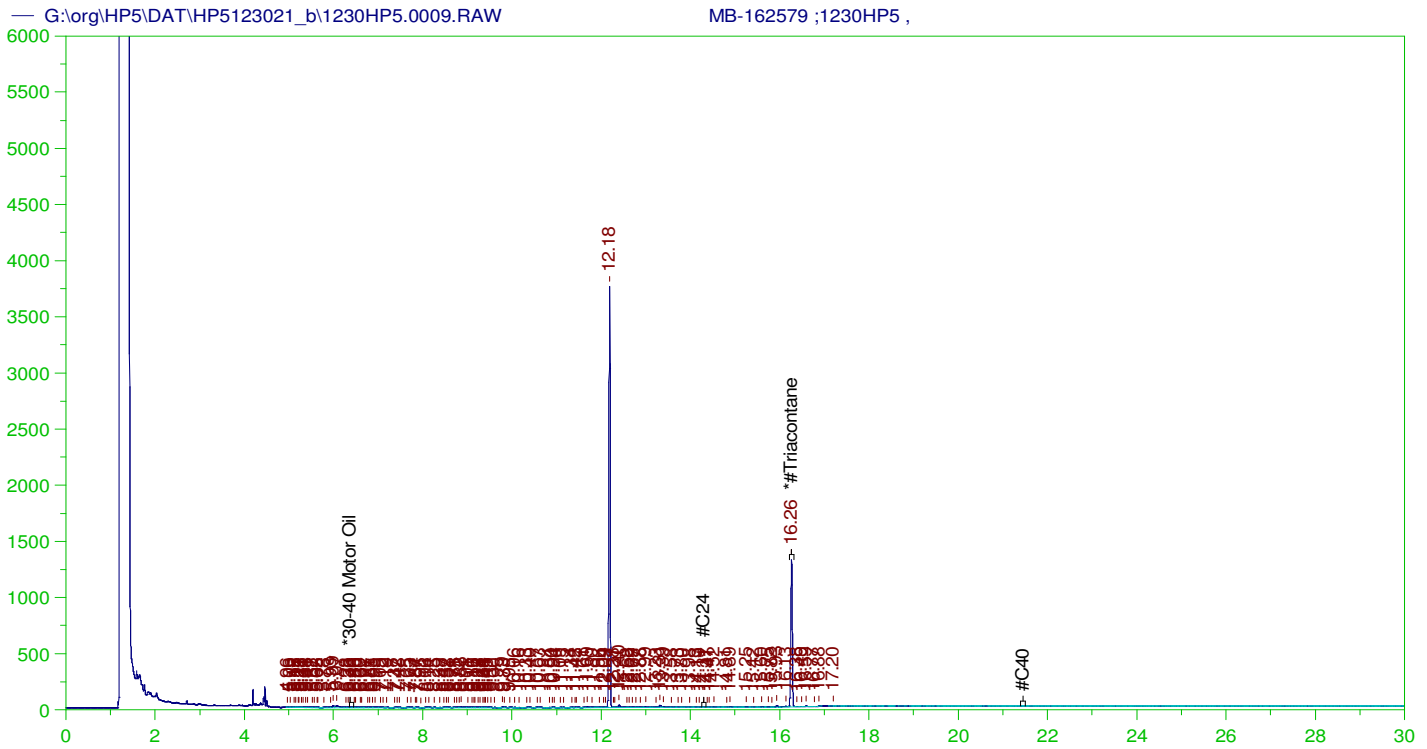
Sample Name: MB-162579 ;1230HP5 ,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0009.RAW
Date & Time Acquired: 12/31/2021 12:18:22 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.183	.2	.197	98.45	-
*1-Chlorooctadecane	12.994	.2	.	.21	-
*#Triacontane	16.262	.2	.114	57.09	-

DRO Area:493811.3 DRO Amount: 1.574995E-02
TEH Area:911993.7 TEH Amount: 2.908775E-02



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: MB-162579 ;1230HP5 ,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0009.RAW
 Date & Time Acquired: 12/31/2021 12:18:22 AM
 Method File: G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AMA-SAMP.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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

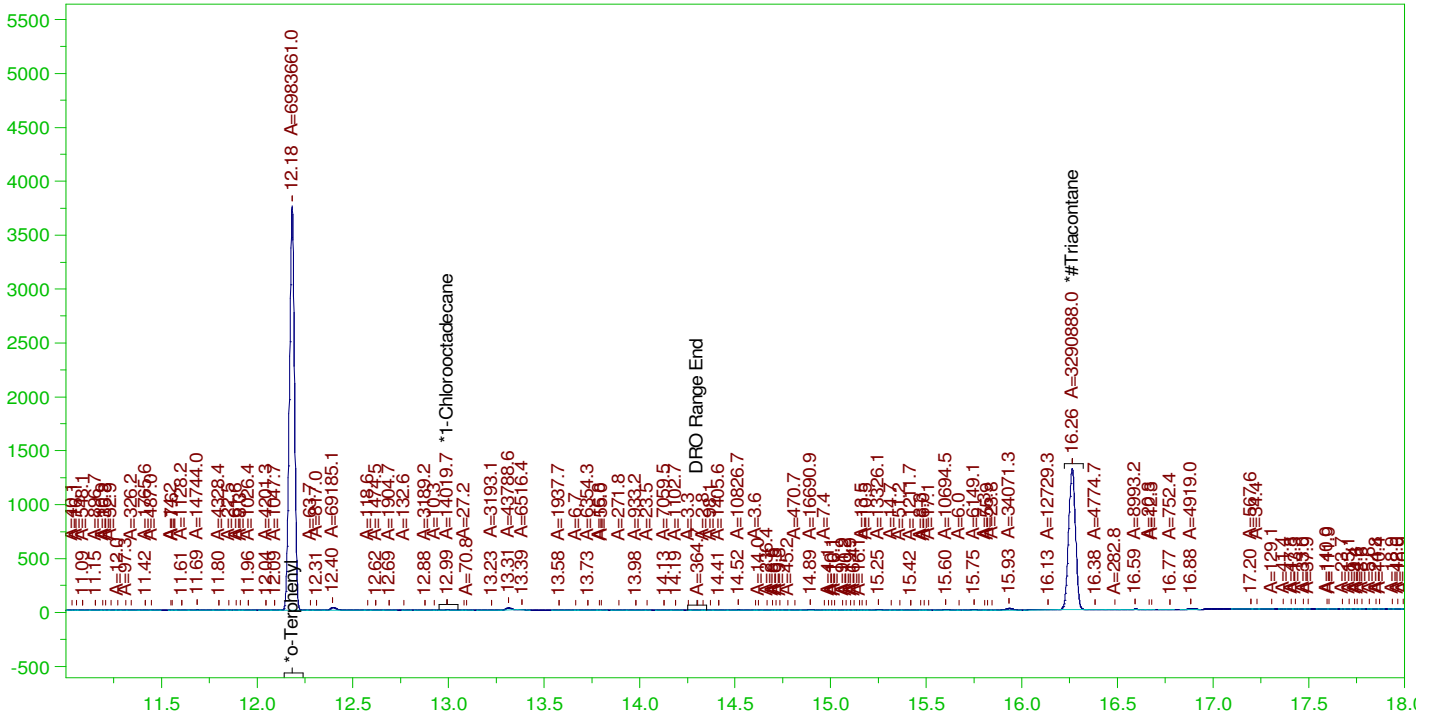
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.262	.5	.114	22.83	-

RRO Area:150317.7 RRO AMOUNT: 5.266469E-03

Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0009.RAW

MB-162579 ;1230HP5 ,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162579 ;1230HP5 ,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0009.RAW
Date & Time Acquired: 12/31/2021 12:18:22 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IMA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.183	.2	.197	98.34
*1-Chlorooctadecane	12.994	.2	.2	-
*#Triacontane	16.262	.2	.114	56.88

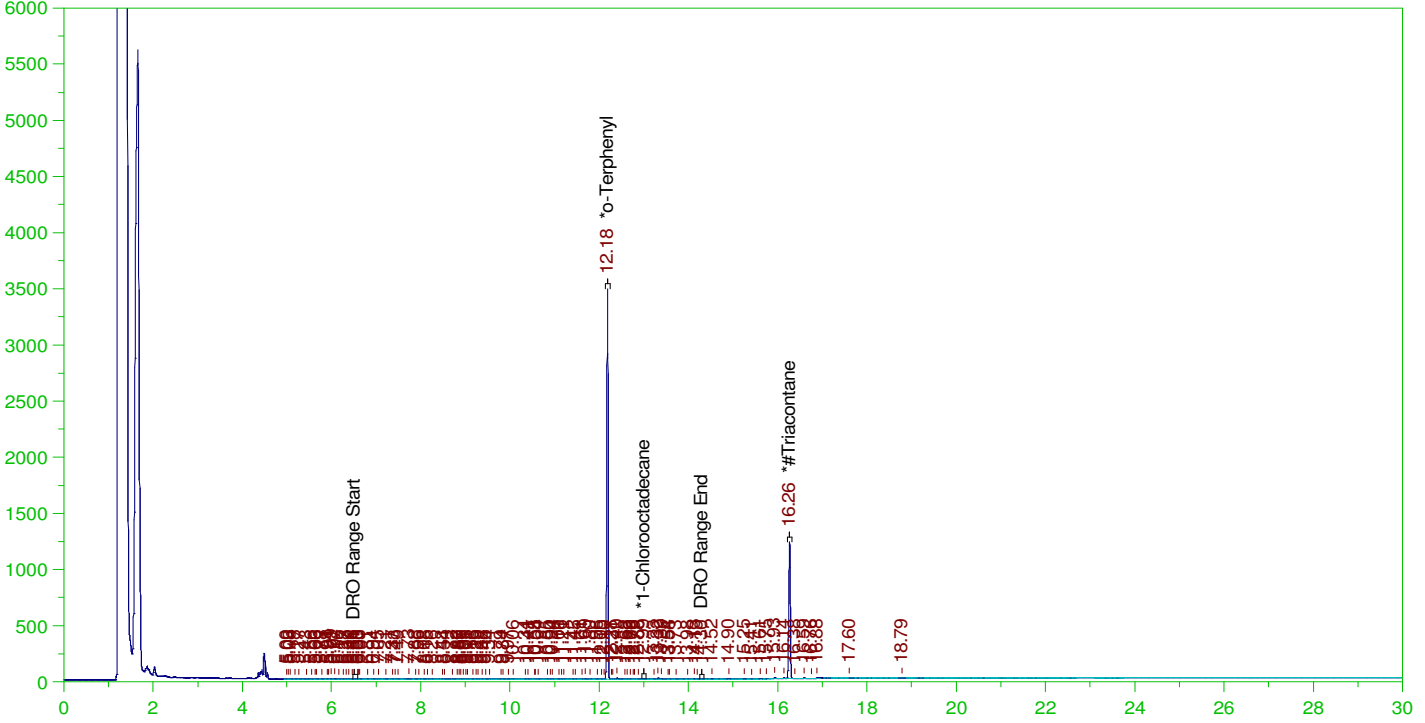
DRO Area:389825.9 DRO Amount: 1.243337E-02
TEH Area:2026783 TEH Amount: 6.464358E-02

ERH2251 (RHMW16)

G:\org\HP5\DAT\HP5123021_b\1230HP5.0010.RAW

Batch ID: 162579

B21122077-001D ;1230HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122077-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0010.RAW
Date & Time Acquired: 12/31/2021 1:01:29 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.183	.2	.182	91.2	-
*1-Chlorooctadecane	12.993	.2	.001	.28	-
*#Triacontane	16.262	.2	.107	53.45	-

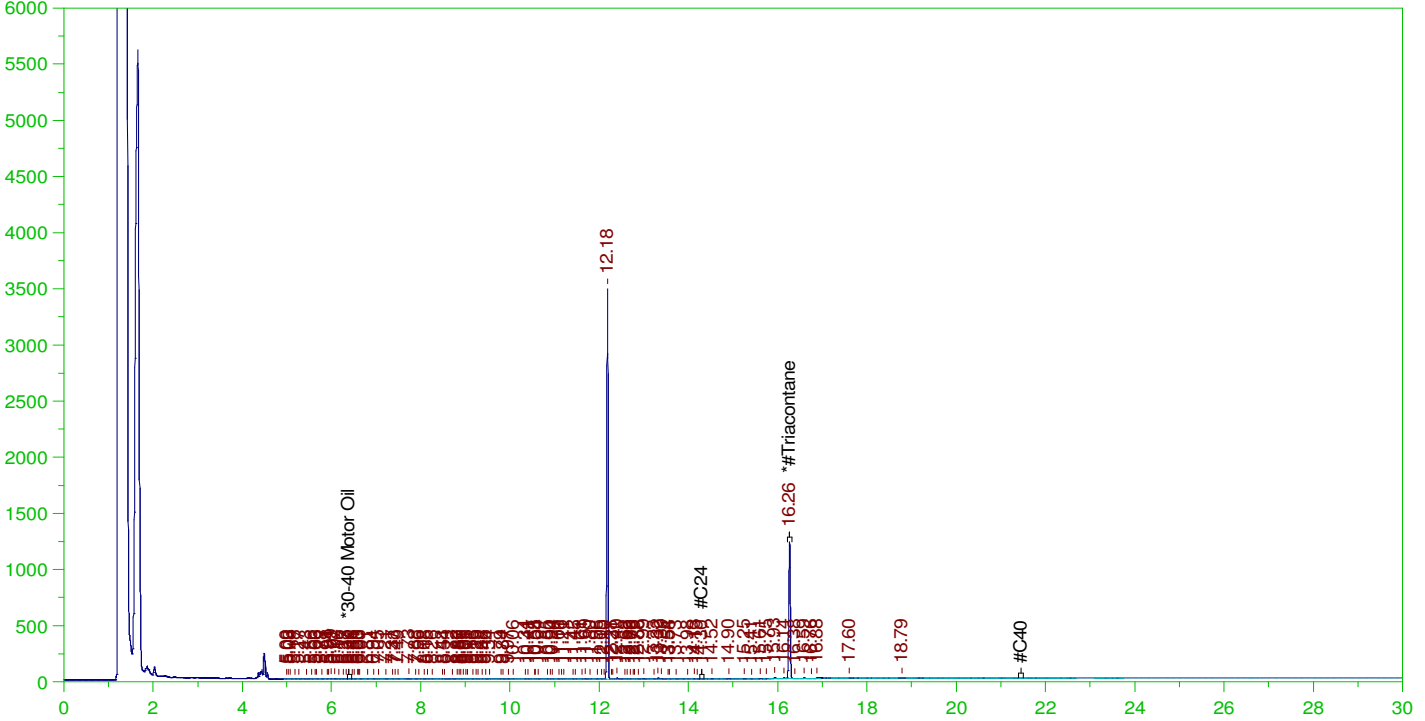
DRO Area:318520.6 DRO Amount: 1.015911E-02
TEH Area:610584 TEH Amount: 1.947438E-02

ERH2251 (RHMW16)

G:\org\HP5\DAT\HP5123021_b\1230HP5.0010.RAW

Batch ID: 162579

B21122077-001D ;1230HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21122077-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0010.RAW
Date & Time Acquired: 12/31/2021 1:01:29 AM
Method File: G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AMA-SAMP.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.262	.5	.107	21.38

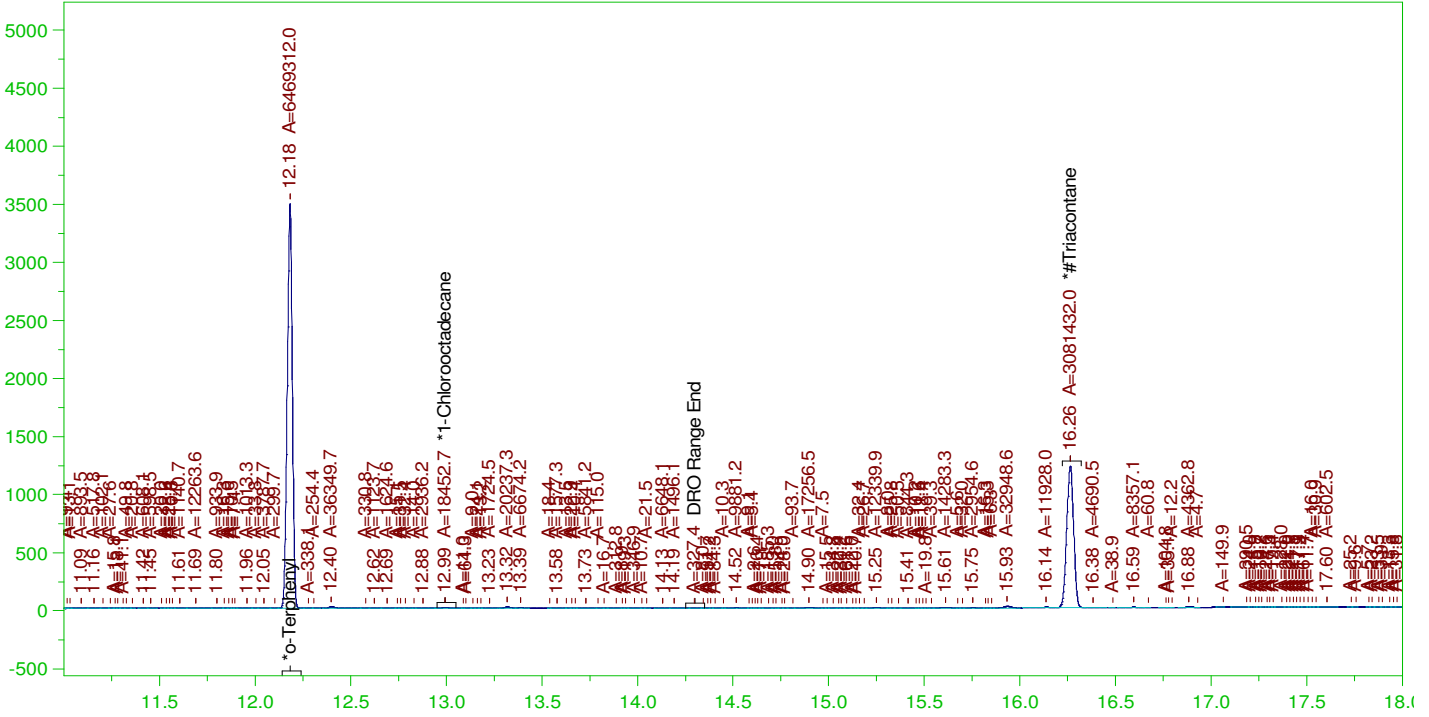
RRO Area:141070.9 RRO AMOUNT: 4.942502E-03

ERH2251 (RHMW16)

Batch ID: 162579

G:\Org\HP5\DAT\HP5123021_b\1230HP5.0010.RAW

B21122077-001D ;1230HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122077-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\Org\HP5\DAT\HP5123021_b\1230HP5.0010.RAW
Date & Time Acquired: 12/31/2021 1:01:29 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IMA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

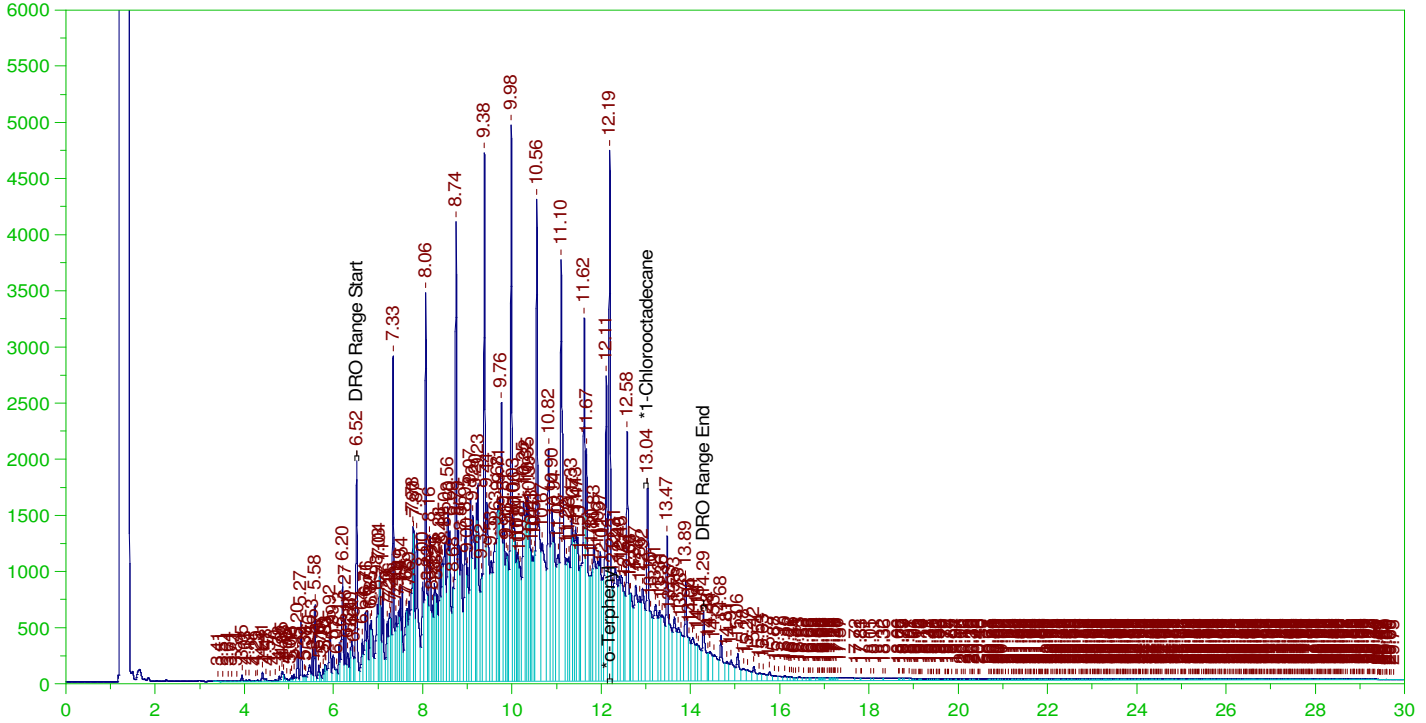
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.183	.2	.182	91.09	-
*1-Chlorooctadecane	12.993	.2	.001	.26	-
*#Triacontane	16.262	.2	.107	53.26	-

DRO Area:235696.7 DRO Amount: 7.517472E-03
TEH Area:1803598 TEH Amount: 5.752517E-02

Batch ID: 162579

B21122077-001DMS ;1230HP5 ,

G:\org\HP5\DAT\HP5123021_b\1230HP5.0011.RAW



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122077-001DMS ;1230HP5 ,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0011.RAW
 Date & Time Acquired: 12/31/2021 1:44:37 AM
 Method File: G:\Org\HP5\Methods\D3_8015-24-IMA-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

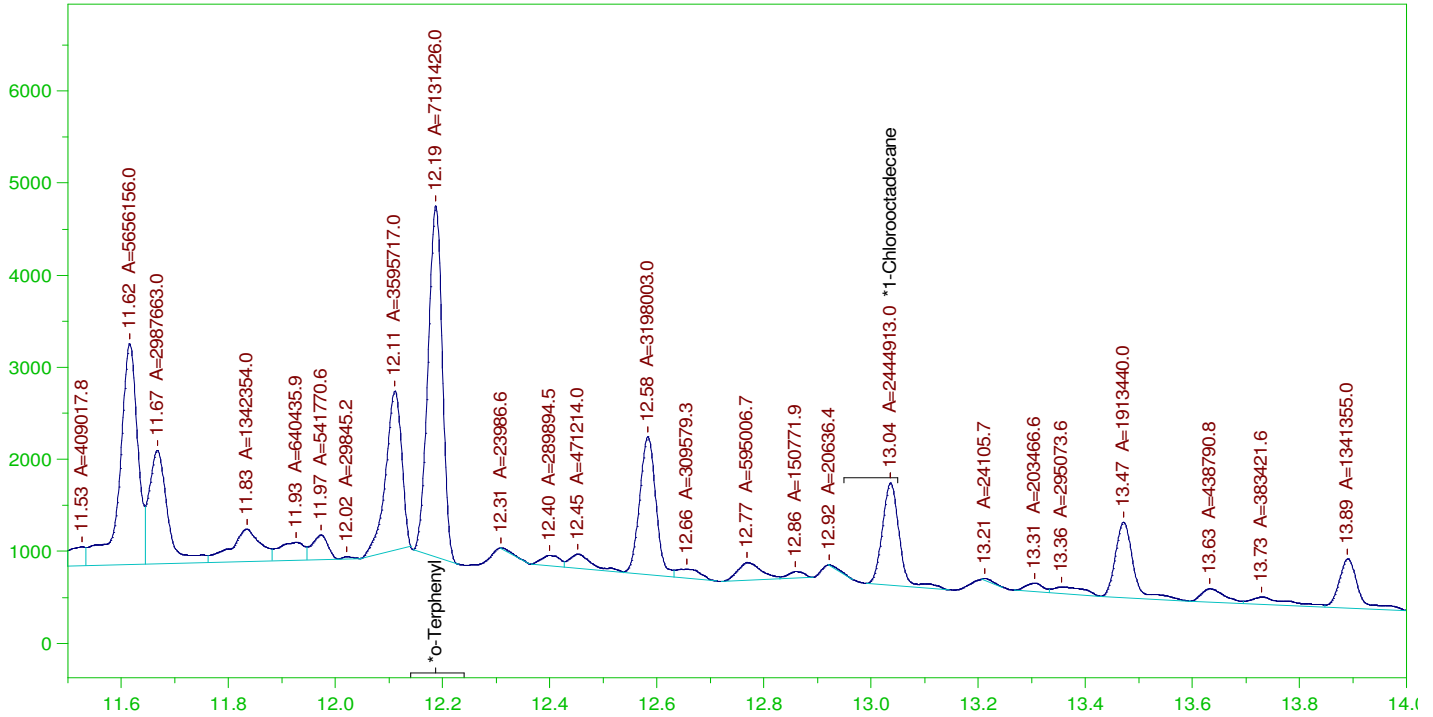
Rt range for Diesel Range Organics: 6.47 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.187	.19	.336	176.26	-
*1-Chlorooctadecane	13.036	.19	.156	82.14	-

DRO Area: 4.539151E+08 DRO Amount: 13.78807
 TEH Area: 4.908061E+08 TEH Amount: 14.90867

G:\org\HP5\DAT\HP5123021_b\1230HP5.0011.RAW

Batch ID: 162579
B21122077-001DMS ;1230HP5 ,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

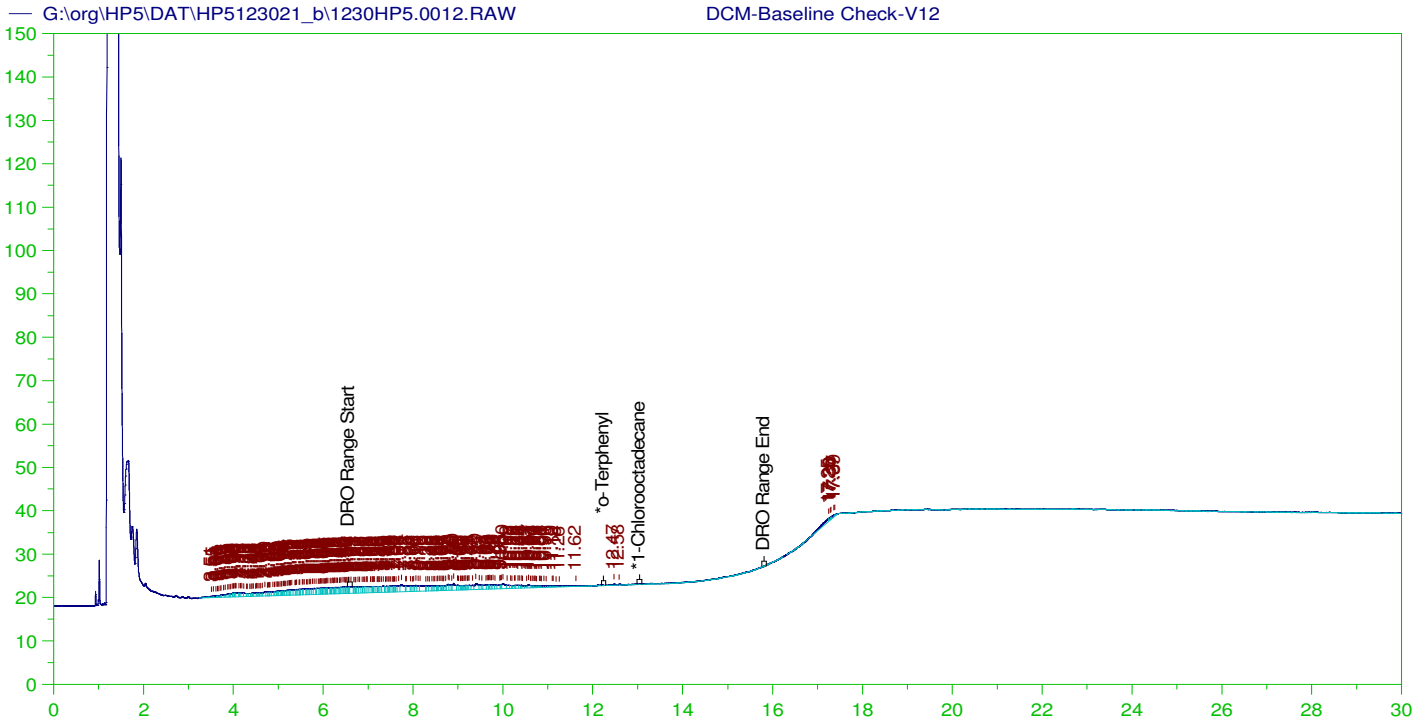
Sample Name: B21122077-001DMS ;1230HP5 ,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0011.RAW
 Date & Time Acquired: 12/31/2021 1:44:37 AM
 Method File: G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.187	.19	.191	100.42	-
*1-Chlorooctadecane	13.036	.19	.066	34.43	-

DRO Area: 2.209913E+08 DRO Amount: 6.712806
 TEH Area: 2.361858E+08 TEH Amount: 7.174352



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V12
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0012.RAW
 Date & Time Acquired: 12/31/2021 2:27:41 AM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.962	200.	.	-
*1-Chlorooctadecane	29.962	200.	.	-

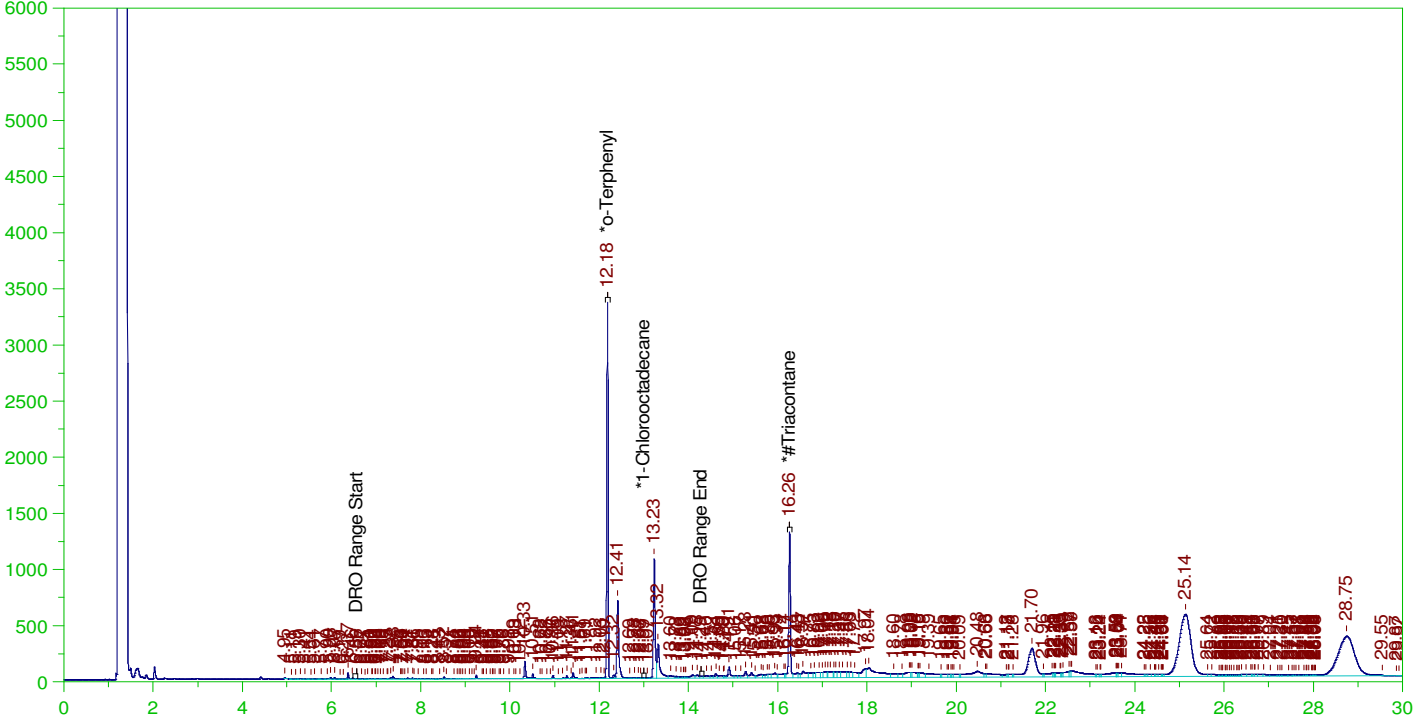
DRO Area:313665.3 DRO Amount: 10.00425
 TEH Area:530276.1 TEH Amount: 16.91299

ERH2247 (RHMW09)

G:\org\HP5\DAT\HP5123021_b\1230HP5.0013.RAW

Batch ID: 162579

B21122088-001D ;1230HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122088-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0013.RAW
Date & Time Acquired: 12/31/2021 3:10:45 AM
Method File: G:\Org\HP5\Methods\D3_8015-C24T-IMA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.183	.19	.169	88.91	-
*1-Chlorooctadecane	12.993	.19	.	.22	-
*#Triacontane	16.263	.19	.115	60.61	-

DRO Area: 9186207 DRO Amount: 0.2790392

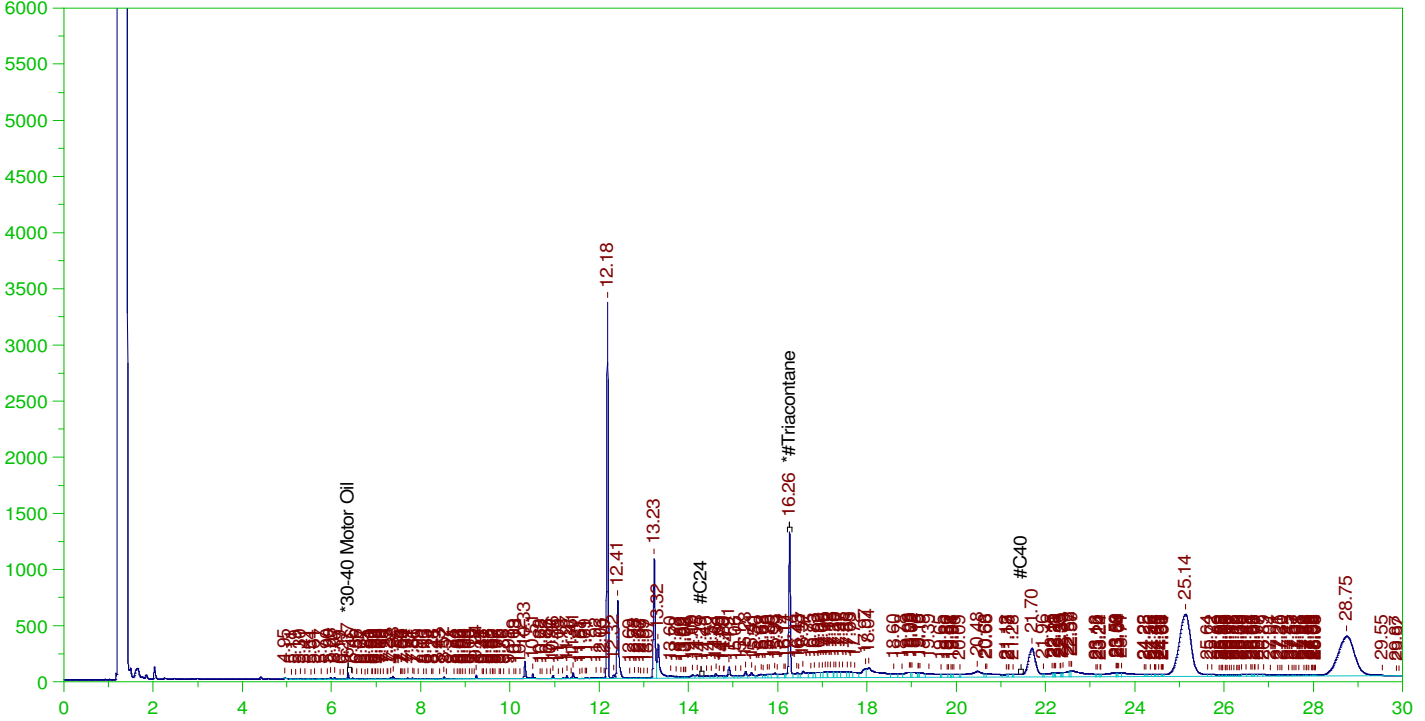
TEH Area: 5.335006E+07 TEH Amount: 1.620555

ERH2247 (RHMW09)

G:\org\HP5\DAT\HP5123021_b\1230HP5.0013.RAW

Batch ID: 162579

B21122088-001D ;1230HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21122088-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0013.RAW
Date & Time Acquired: 12/31/2021 3:10:45 AM
Method File: G:\Org\HP5\Methods\D3_OROS-AMA-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AMA-SAMP.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.263	.476	.115	24.24	-

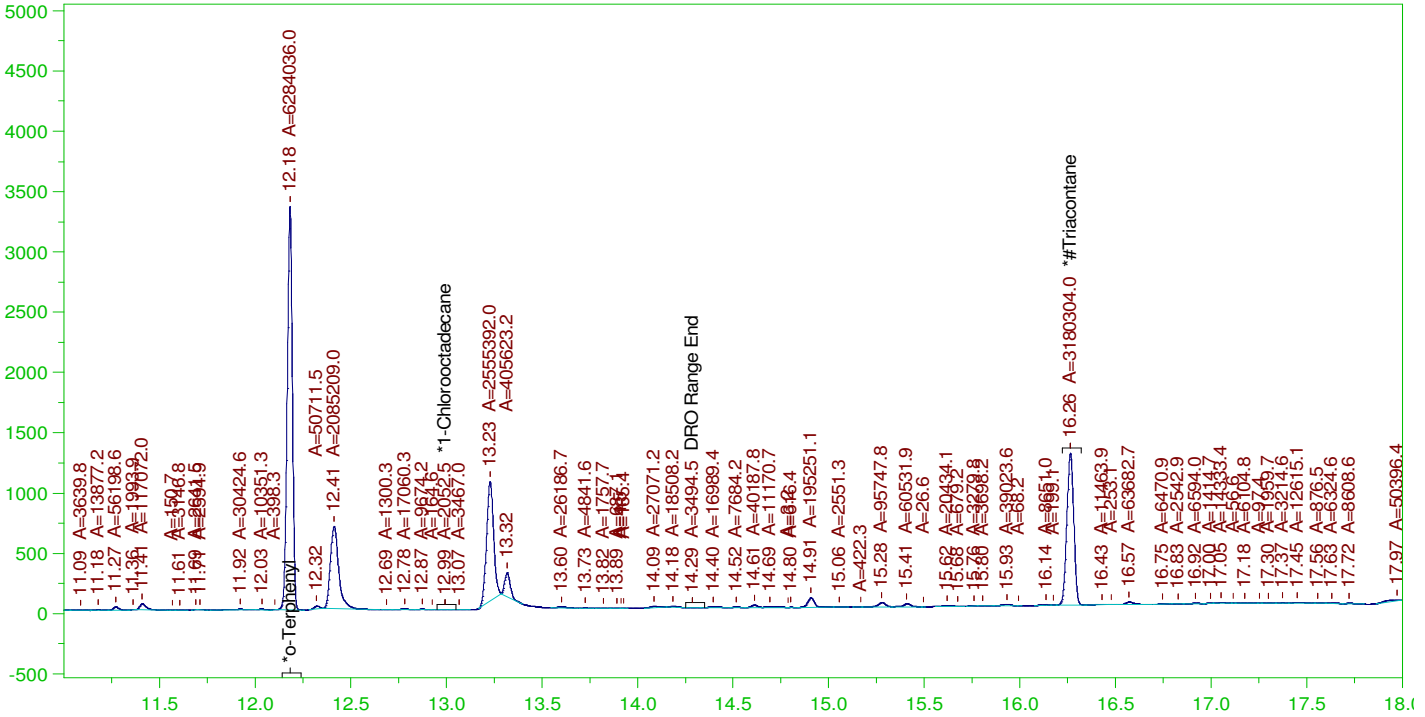
RRO Area:1.474802E+07 RRO AMOUNT: 0.4921003

ERH2247 (RHMW09)

G:\org\HP5\DAT\HP5123021_b\1230HP5.0013.RAW

Batch ID: 162579

B21122088-001D ;1230HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

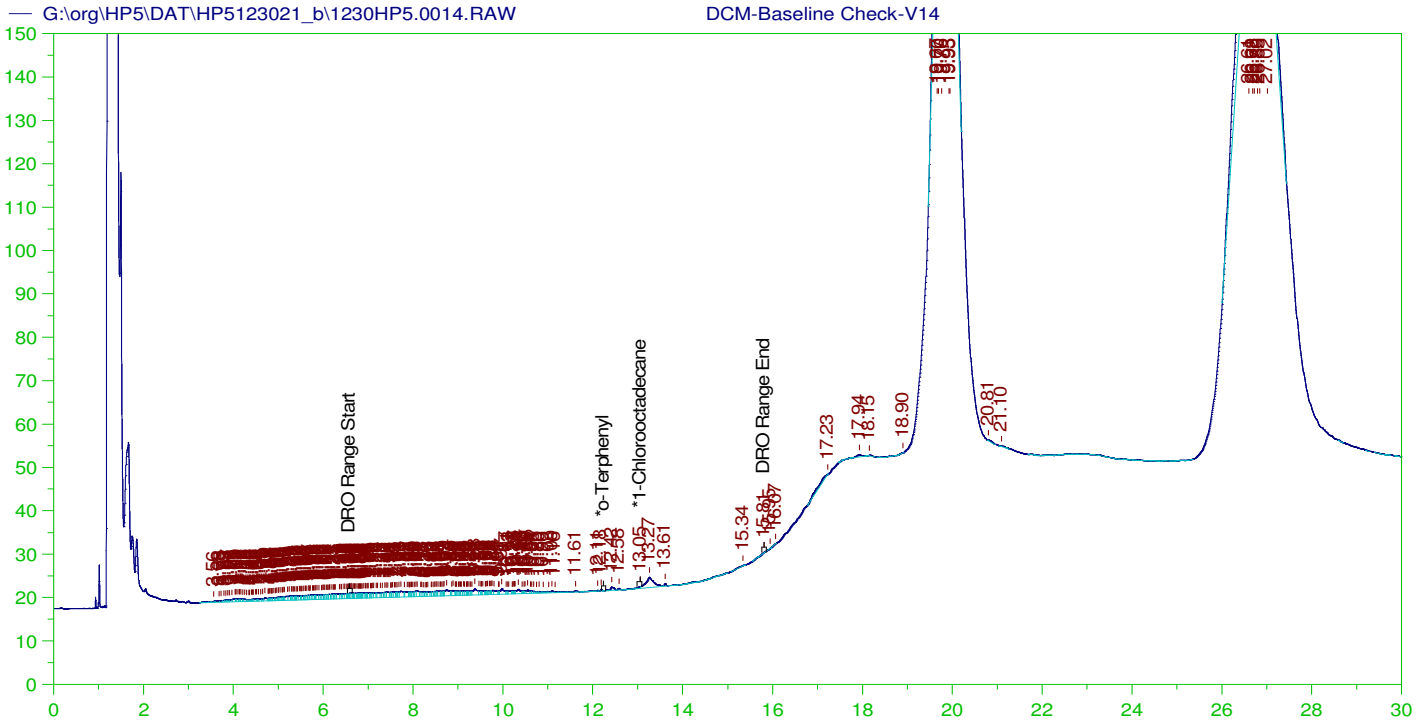
Sample Name: B21122088-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0013.RAW
Date & Time Acquired: 12/31/2021 3:10:45 AM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-IMA-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.183	.19	.169	88.48	-
*1-Chlorooctadecane	12.993	.19	.	.03	-
*#Triacontane	16.263	.19	.105	54.97	-

DRO Area: 6567885 DRO Amount: 0.1995053
TEH Area: 2.918853E+07 TEH Amount: 0.8866273



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V14
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0014.RAW
 Date & Time Acquired: 12/31/2021 3:53:47 AM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.925	200.	.032	.02
*1-Chlorooctadecane	13.052	200.		

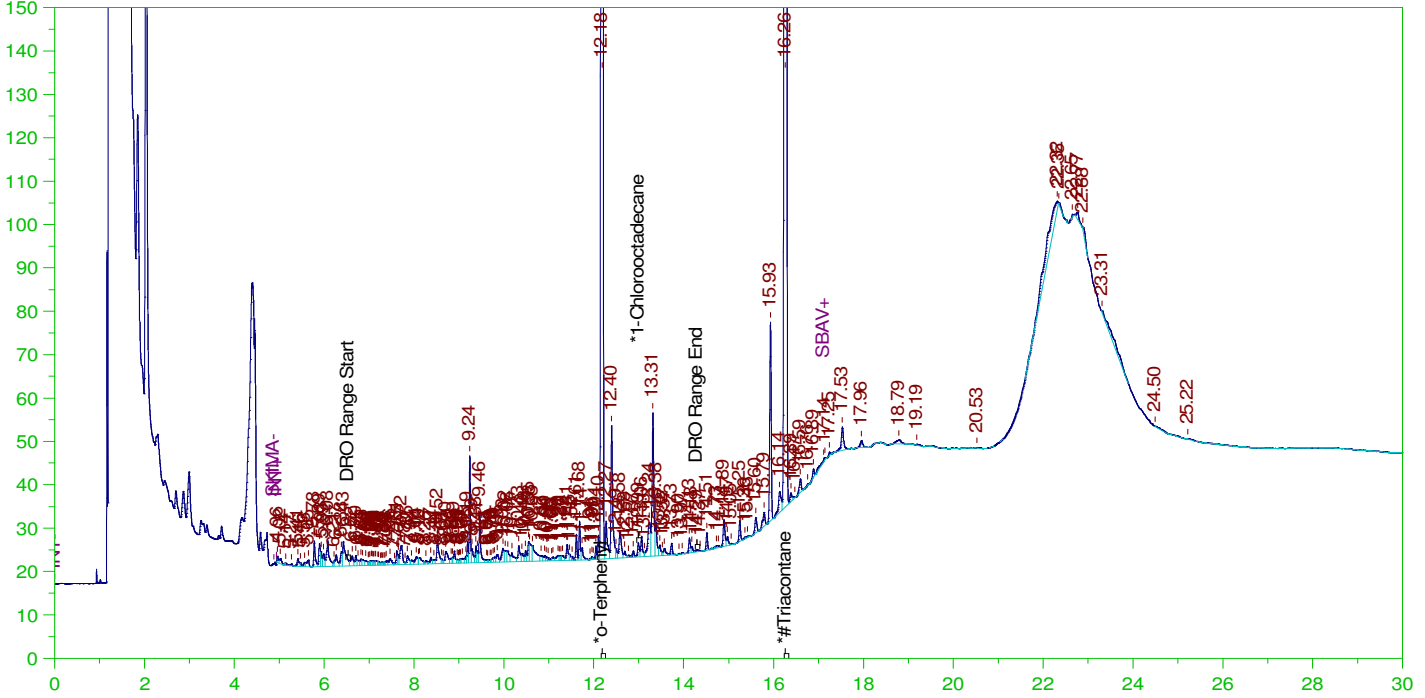
DRO Area:313445.7 DRO Amount: 9.997249
 TEH Area:1173518 TEH Amount: 37.42897

ERH2249 (RHMW12A)

Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0015.RAW

B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

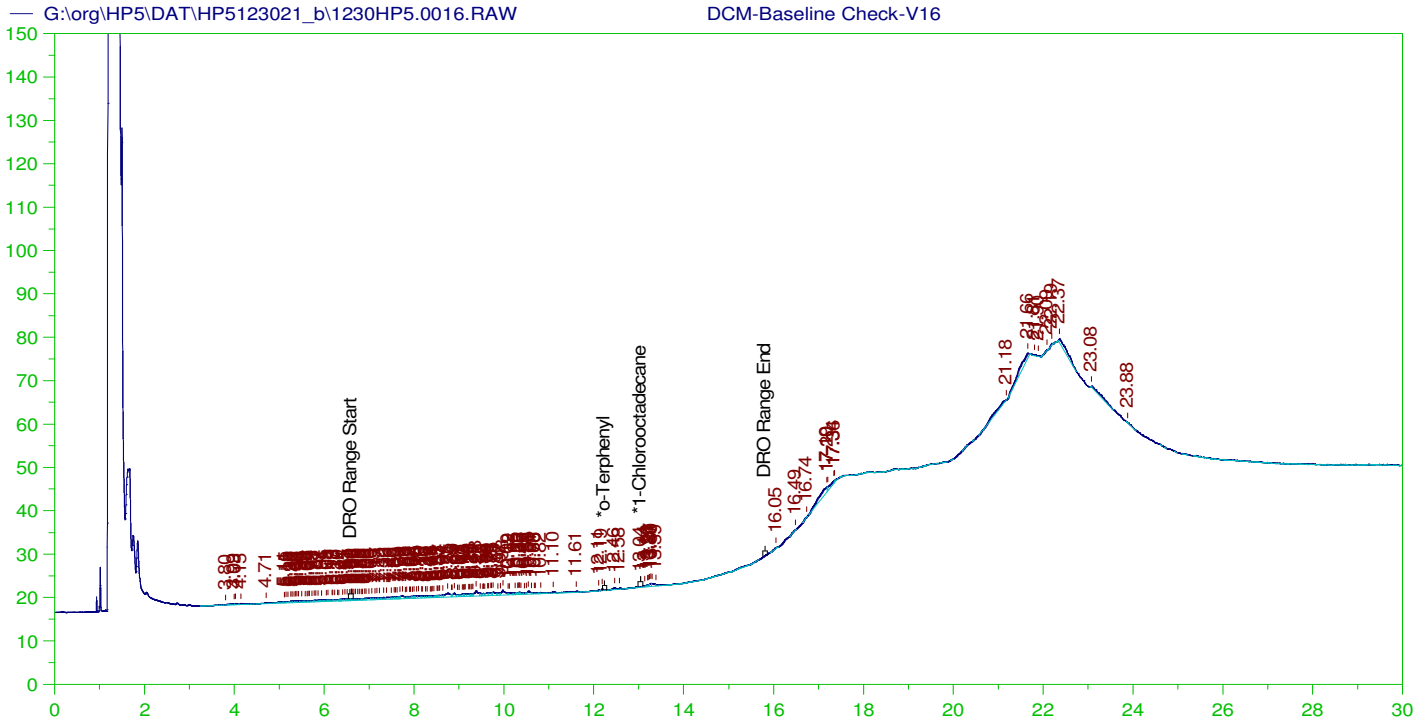
Sample Name: B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0015.RAW
Date & Time Acquired: 12/31/2021 4:36:52 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IM-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IM-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.36

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.183	.194	.169	86.91	-
*1-Chlorooctadecane	12.992	.194	.	.12	-
*#Triacontane	16.261	.194	.099	51.	-

DRO Area:862703.6 DRO Amount: 2.671423E-02
TEH Area:1457561 TEH Amount: 0.0451344



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V16
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0016.RAW
 Date & Time Acquired: 12/31/2021 5:19:52 AM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.978	200.	.	-
*1-Chlorooctadecane	13.043	200.	.024	.01

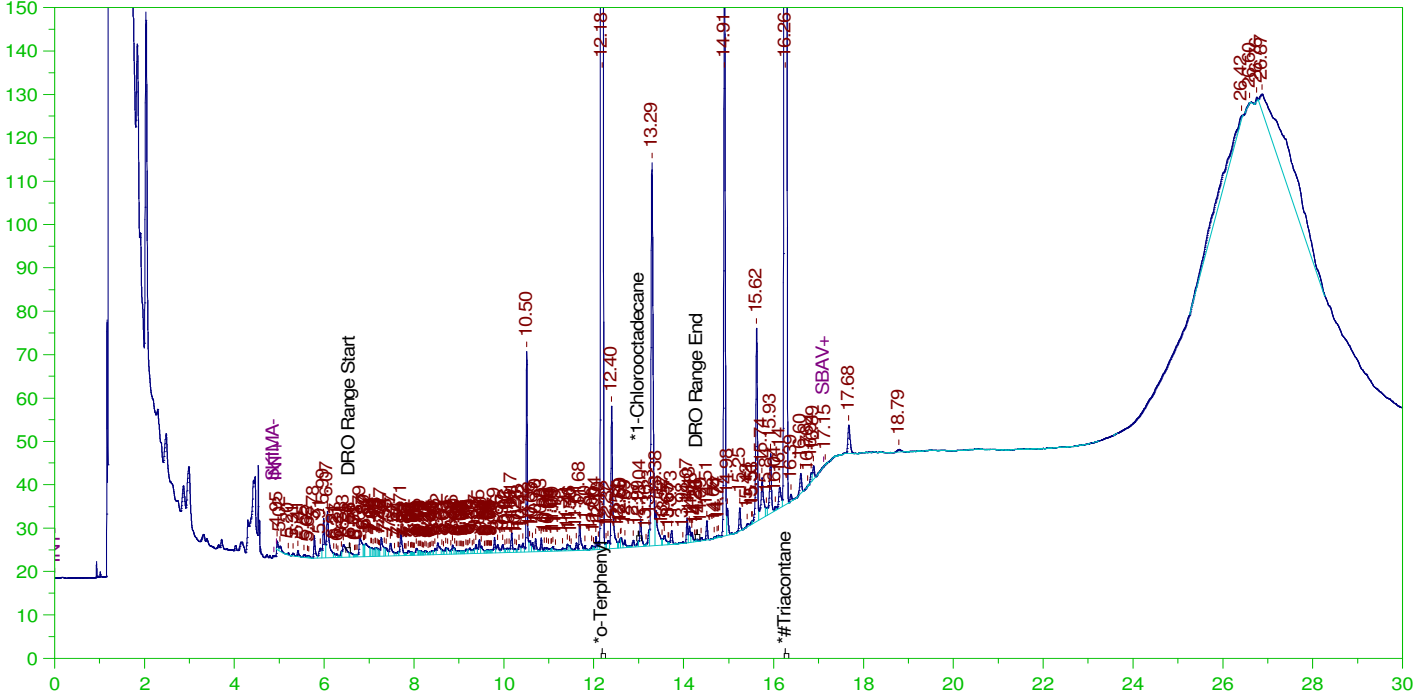
DRO Area:153727.7 DRO Amount: 4.903096
 TEH Area:323057.2 TEH Amount: 10.30381

ERH2256 (RHMW13 Zone 5)

Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0017.RAW

B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,



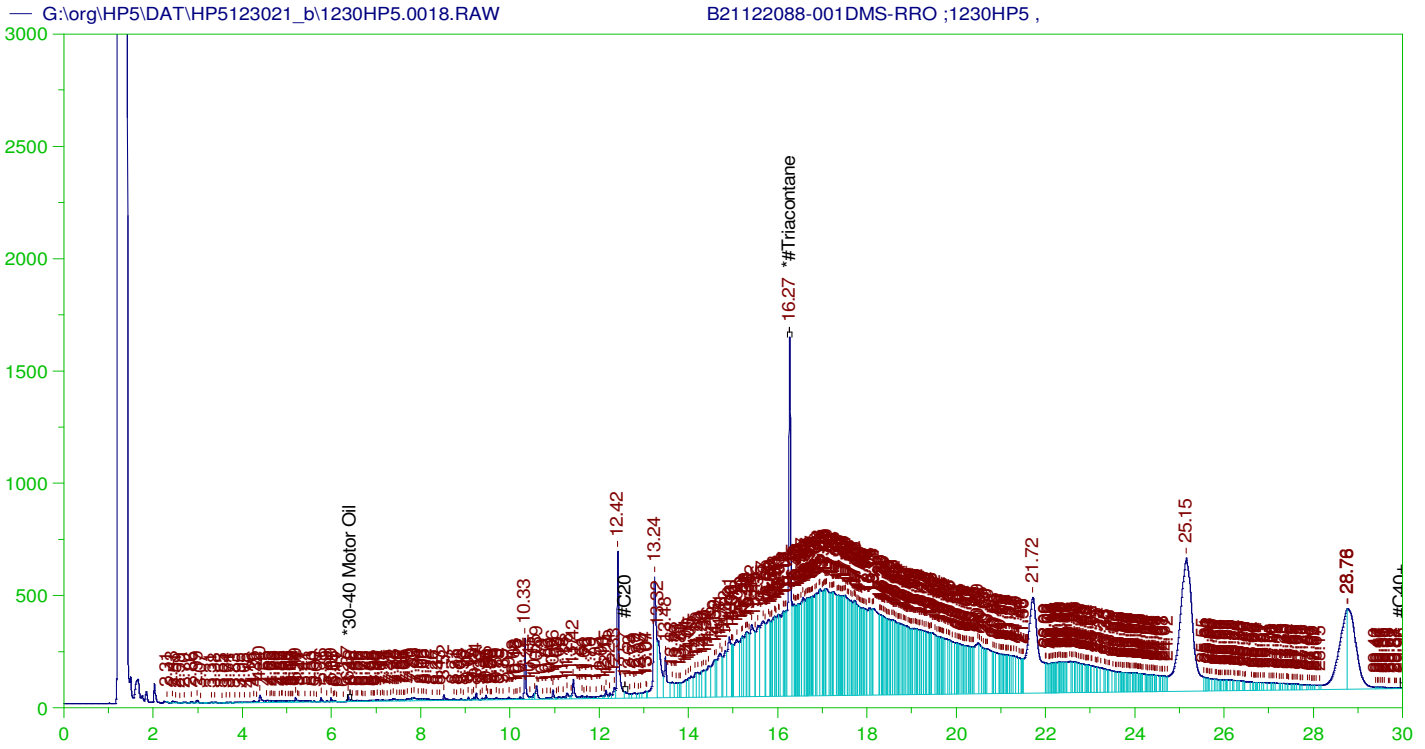
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0017.RAW
Date & Time Acquired: 12/31/2021 6:02:57 AM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IM-L0.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IM-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19
Rt range for Diesel Range Organics: 6.48 to 14.36

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.183	.196	.181	92.55	-
*1-Chlorooctadecane	12.991	.196	.	.04	-
*#Triacontane	16.263	.196	.107	54.75	-

DRO Area:955902.9 DRO Amount: 2.989041E-02
TEH Area:2400361 TEH Amount: 0.0750576



RESIDUAL RANGE ORGANICS CHROMATOGRAM

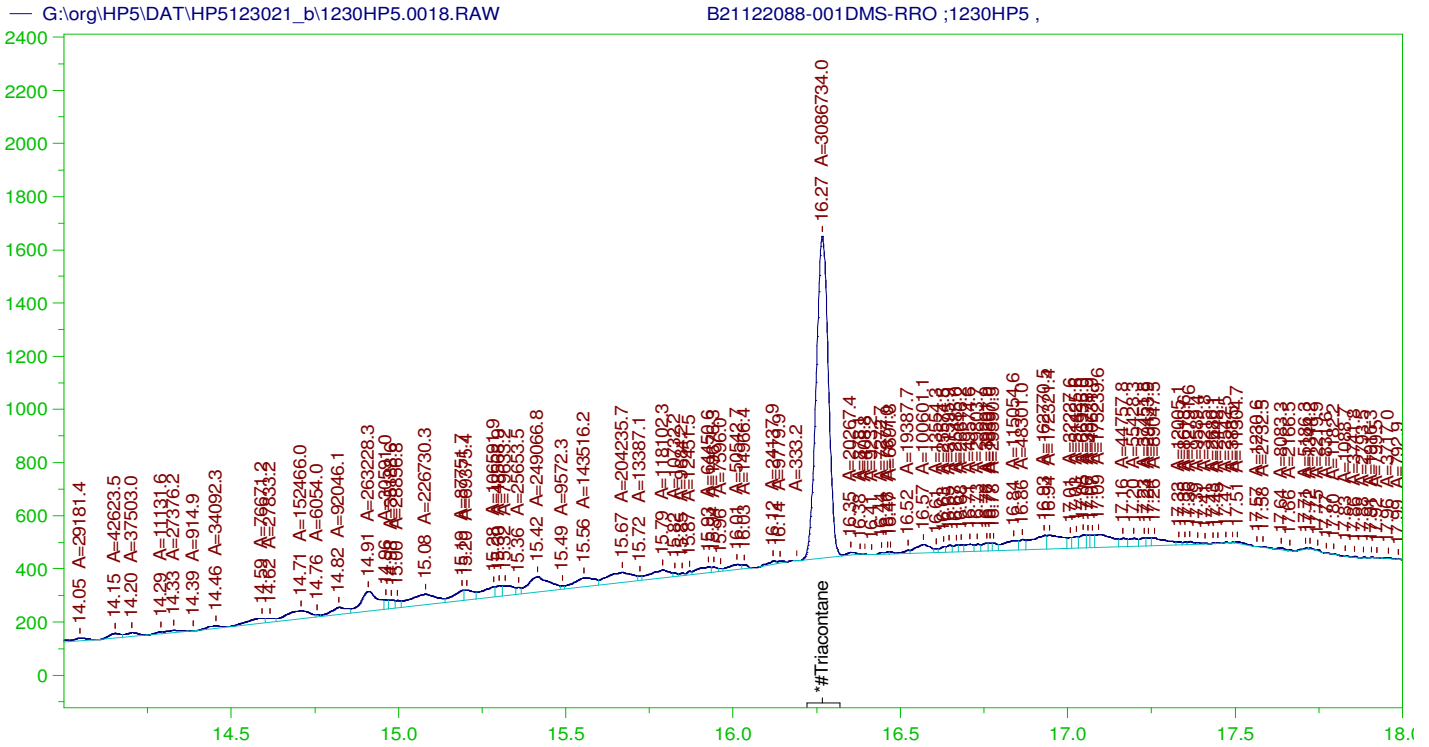
Sample Name: B21122088-001DMS-RRO ;1230HP5 ,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0018.RAW
 Date & Time Acquired: 12/31/2021 6:45:54 AM
 Method File: G:\Org\HP5\Methods\D3_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 950 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.266	.526	.221	41.94	-

RRO TEH (Oil Range) Area:1.863451E+08 RRO TEH (Oil Range) AMOUNT: 6.872325

AMN 01/19/2022



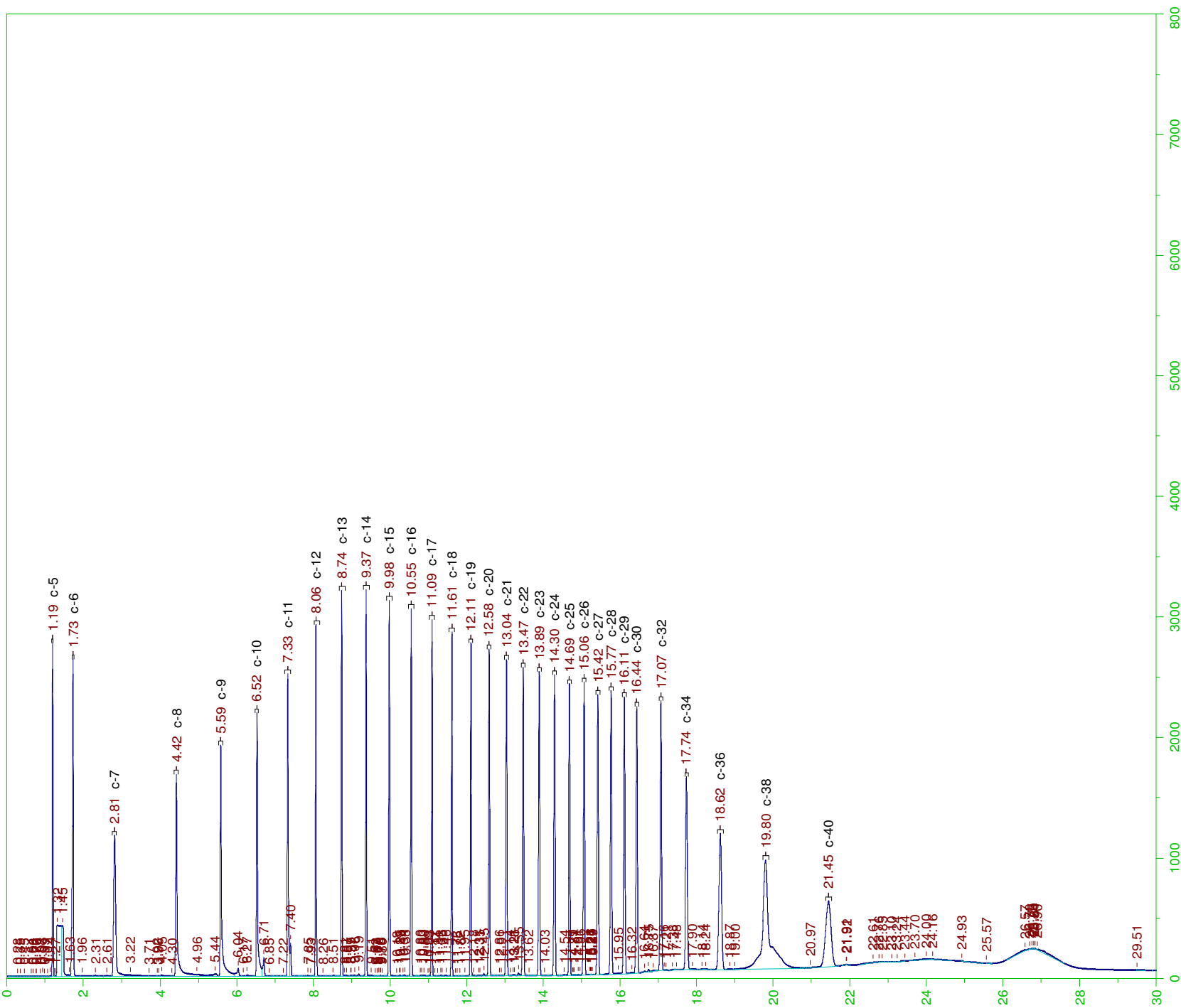
RESIDUAL RANGE ORGANICS CHROMATOGRAM

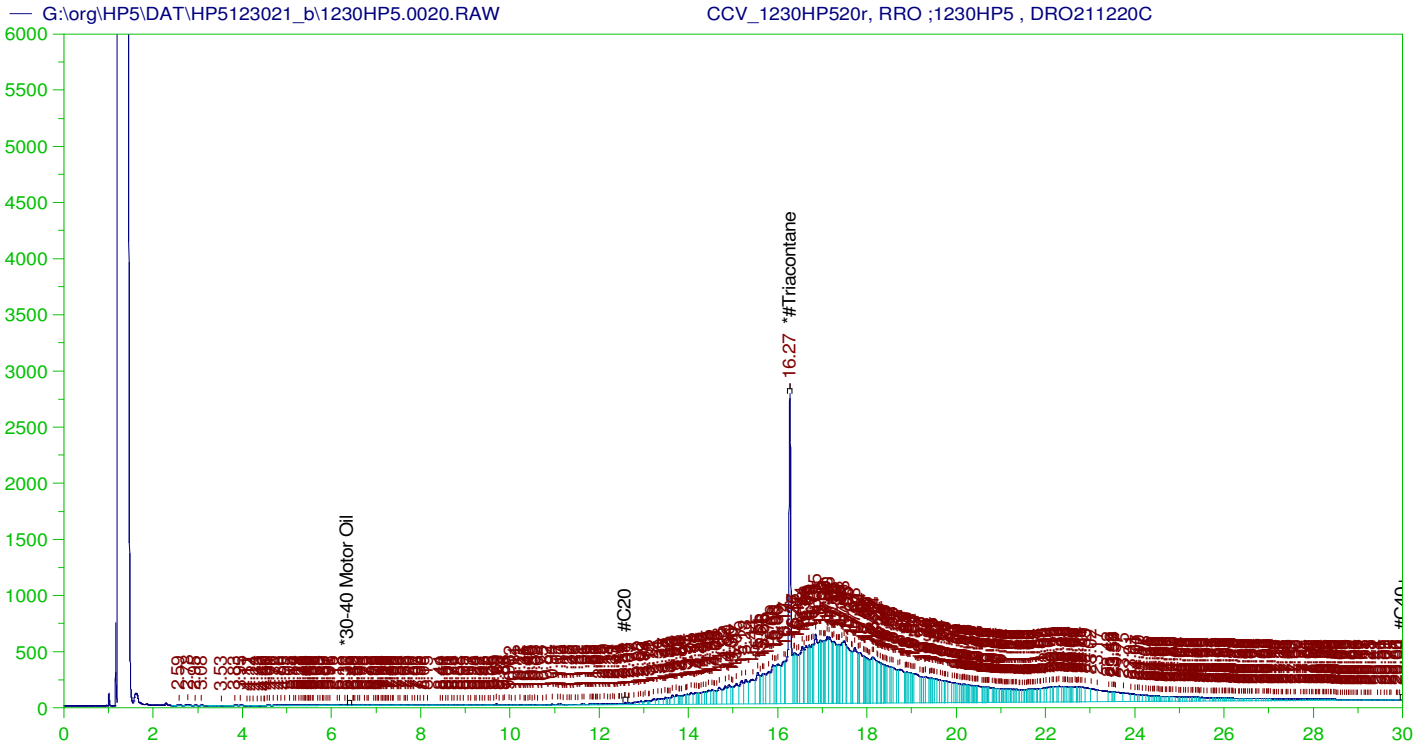
Sample Name: B21122088-001DMS-RRO ;1230HP5 ,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0018.RAW
 Date & Time Acquired: 12/31/2021 6:45:54 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 950 Dilution: 1 S.A.: 1

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	16.266	.526	.112	21.34

RRO Area: 2.010316E+07 RRO AMOUNT: 0.7413958





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP520r, RRO ;1230HP5 , DRO211220C
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0020.RAW
 Date & Time Acquired: 12/31/2021 8:11:57 AM
 Method File: G:\Org\HP5\Methods\DC_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.269	500.	346.454	69.29	-

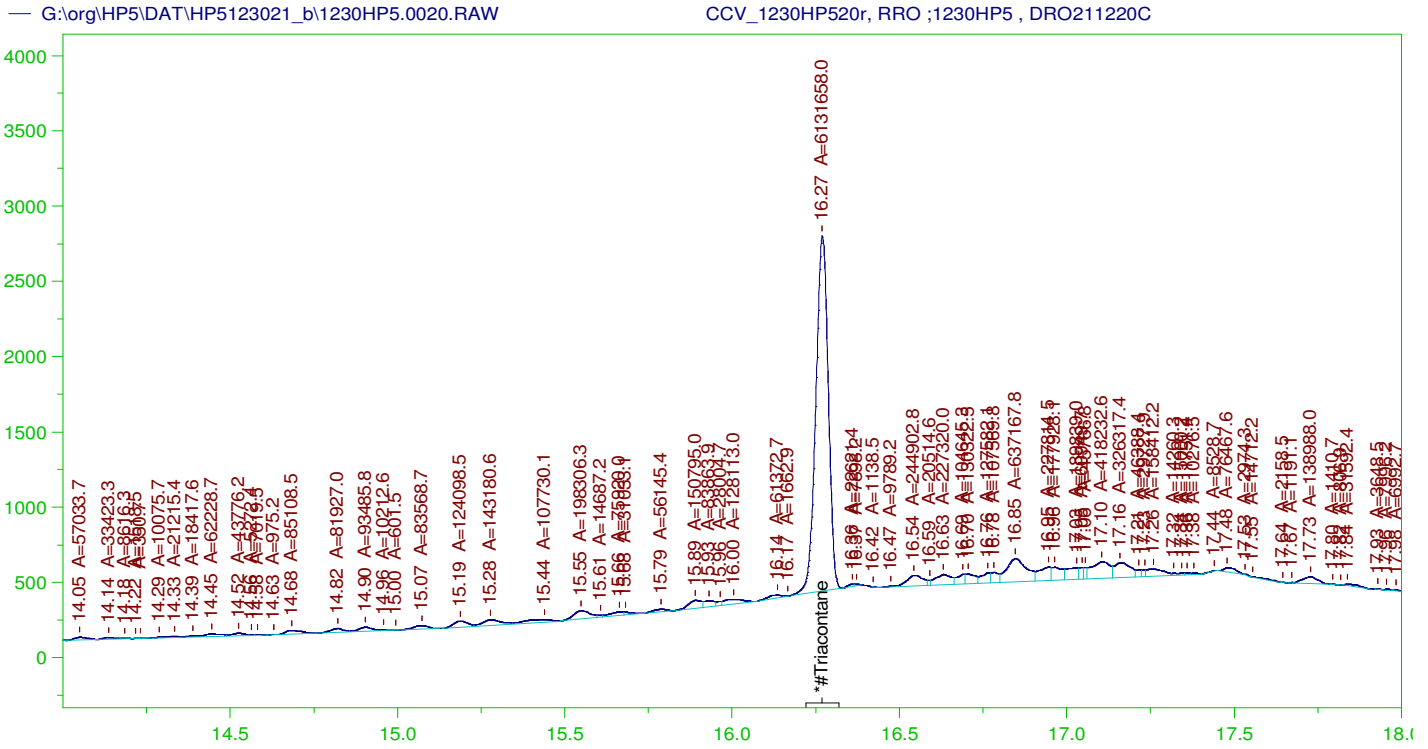
RRO TEH (Oil Range) Area:1.491613E+08 RRO TEH (Oil Range) AMOUNT: 5225.954

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.049	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	346.454	173.23	75-125

AMN 01/19/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP520r, RRO ;1230HP5 , DRO211220C
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0020.RAW
 Date & Time Acquired: 12/31/2021 8:11:57 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

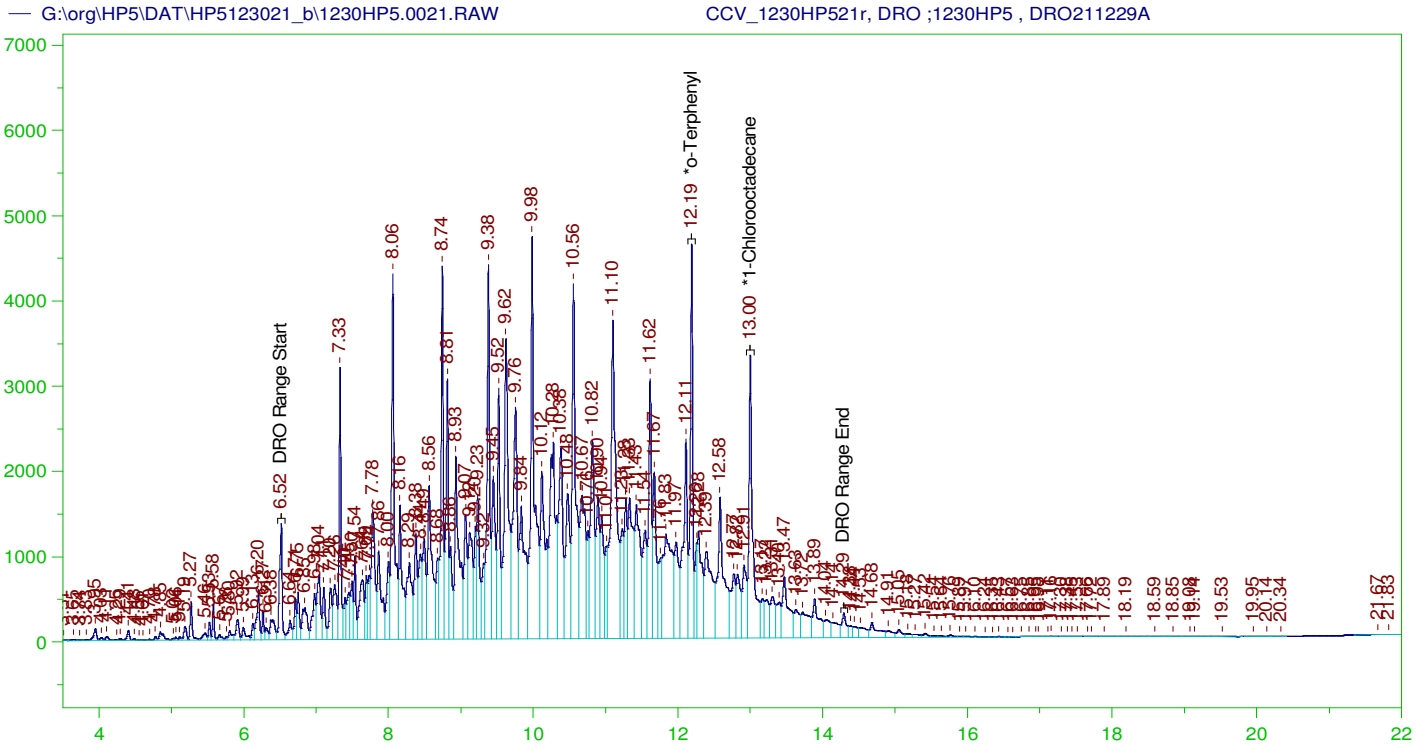
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.269	500.	211.947	42.39	-

RRO Area:6261472 RRO AMOUNT: 219.3743

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.049	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	211.947	105.97	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1230HP521r, DRO ;1230HP5 , DRO211229A
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0021.RAW
 Date & Time Acquired: 12/31/2021 8:54:59 AM
 Method File: G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.189	200.	317.647	158.82
*1-Chlorooctadecane	12.999	200.	344.576	172.29

DRO Area: 4.521712E+08 DRO Amount: 14421.86
 TEH Area: 4.686999E+08 TEH Amount: 14949.03

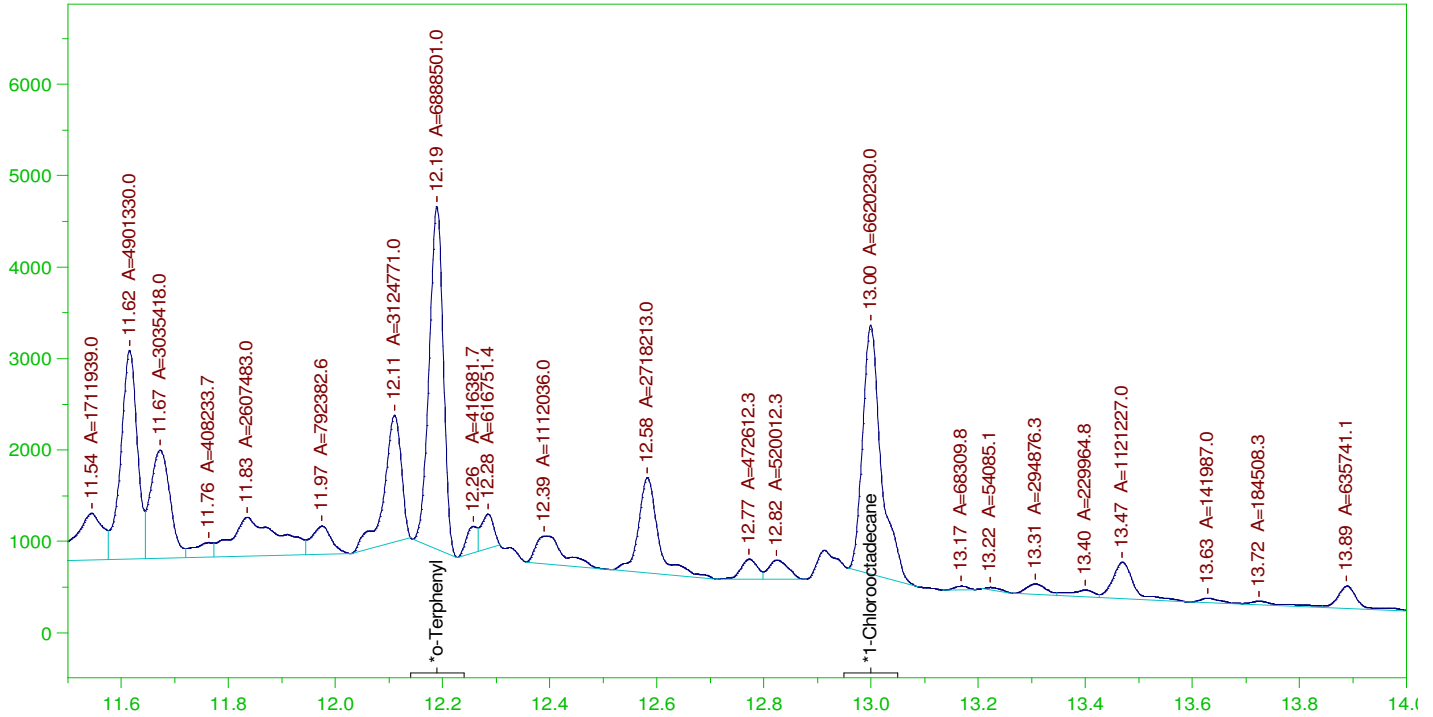
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0021.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14949.03	99.66	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.189	200.	317.647	158.82	85-115
*1-Chlorooctadecane	12.999	200.	344.576	172.29	85-115

G:\org\HP5\DAT\HP5123021_b\1230HP5.0021.RAW

CCV_1230HP521r, DRO ;1230HP5 , DRO211229A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1230HP521r, DRO ;1230HP5 , DRO211229A
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0021.RAW
 Date & Time Acquired: 12/31/2021 8:54:59 AM
 Method File: G:\Org\HP5\Methods\DS_8015-24-IMA-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

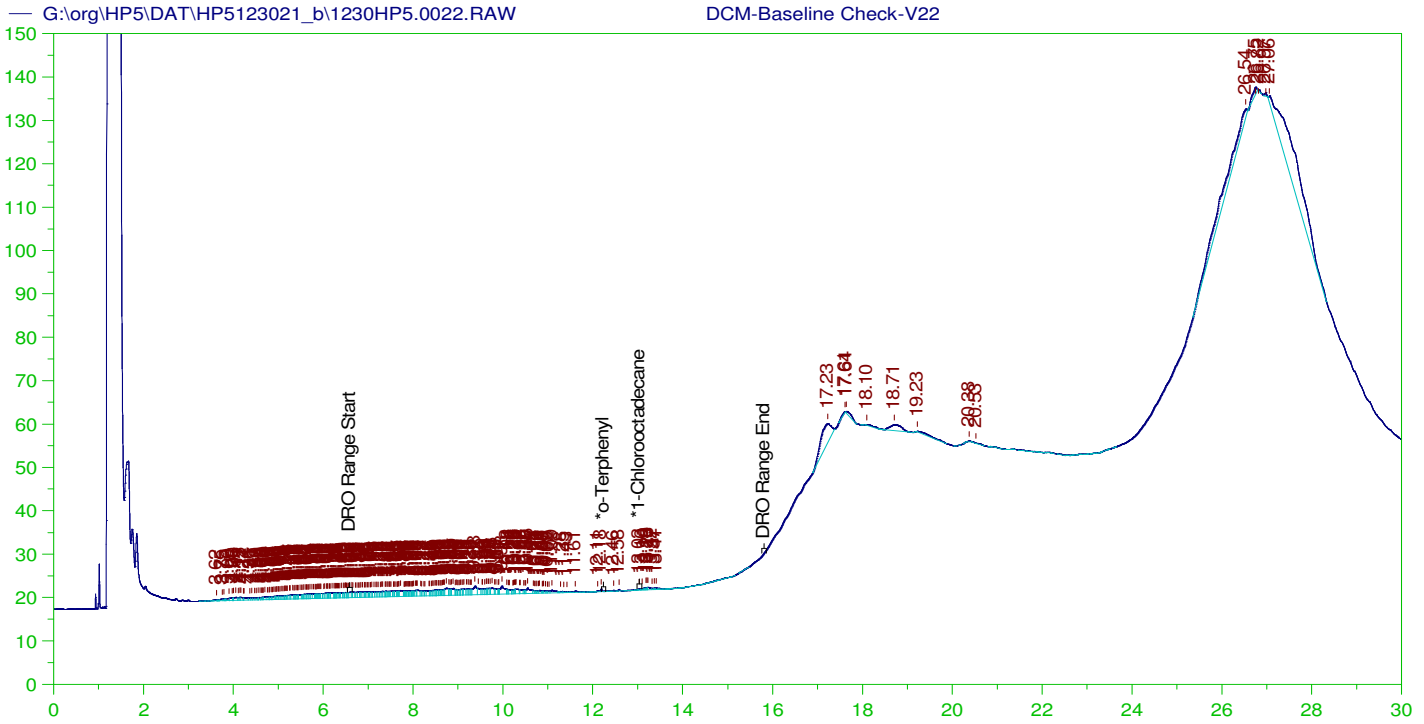
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.189	200.	193.992	97.
*1-Chlorooctadecane	12.999	200.	186.437	93.22

DRO Area: 2.544411E+08 DRO Amount: 8115.318
 TEH Area: 2.648238E+08 TEH Amount: 8446.47

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0021.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8446.47	56.31	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.189	200.	193.992	97.	85-115
*1-Chlorooctadecane	12.999	200.	186.437	93.22	85-115



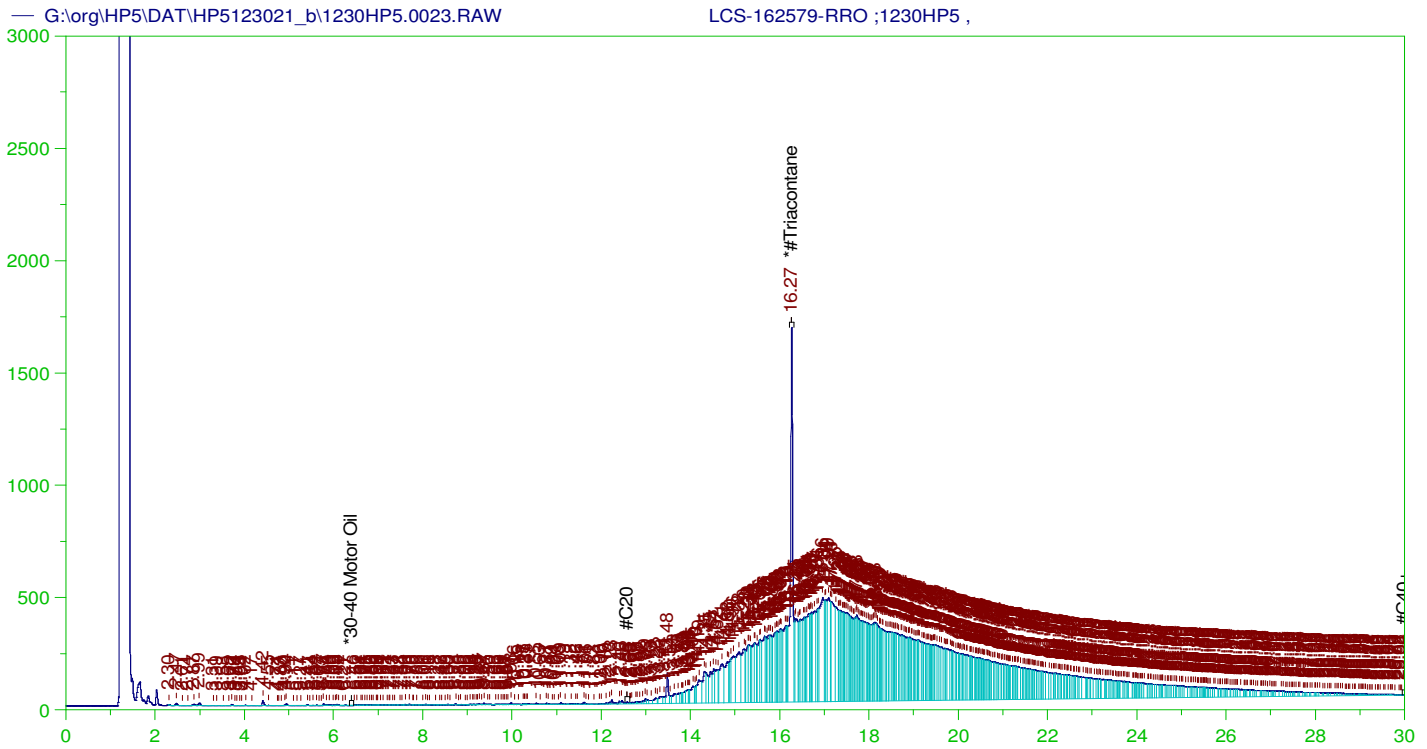
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V22
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0022.RAW
 Date & Time Acquired: 12/31/2021 9:37:55 AM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	27.063	200.	.	-
*1-Chlorooctadecane	13.035	200.	.02	.01

DRO Area:359995.1 DRO Amount: 11.48193
 TEH Area:1199412 TEH Amount: 38.25488



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCS-162579-RRO ;1230HP5 ,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0023.RAW
 Date & Time Acquired: 12/31/2021 10:20:56 AM
 Method File: G:\Org\HP5\Methods\D3_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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

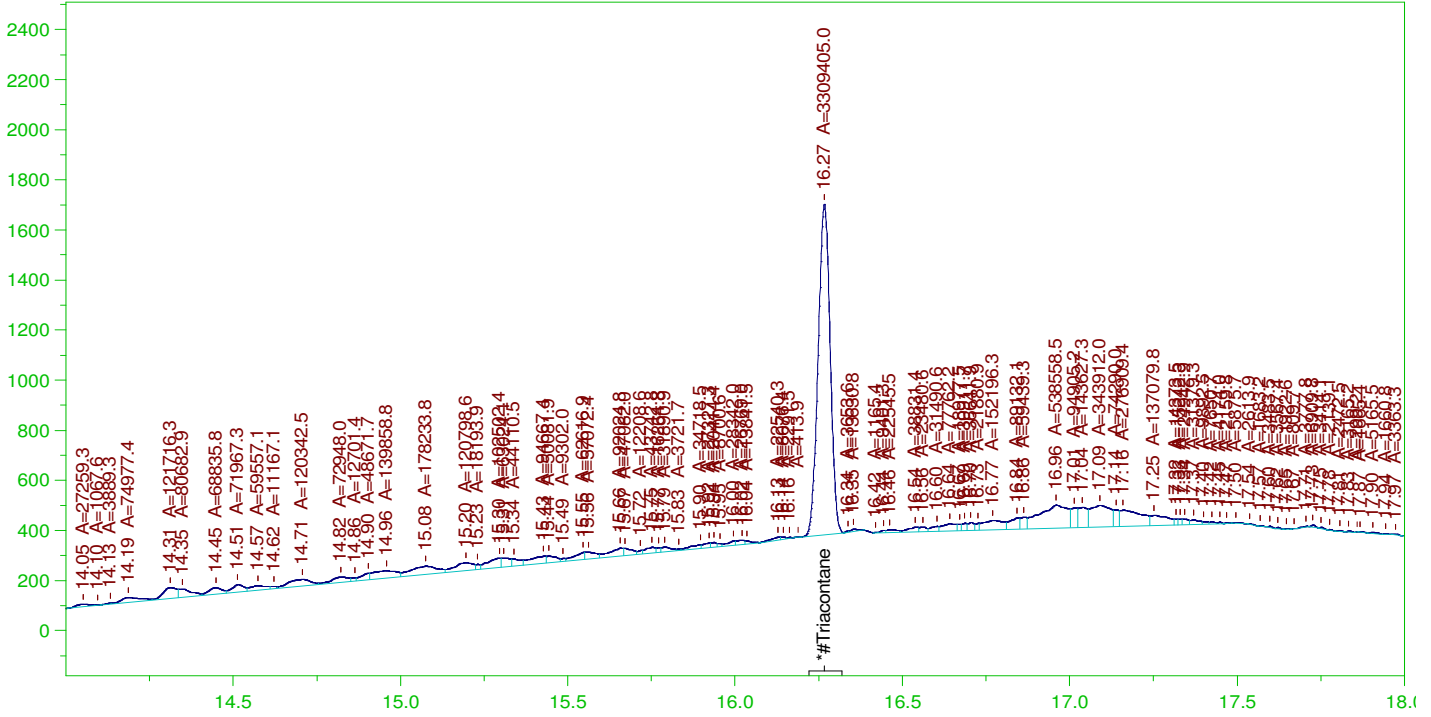
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.266	.5	.209	41.8

RRO TEH (Oil Range) Area:1.426431E+08 RRO TEH (Oil Range) AMOUNT: 4.997584

AMN 01/19/2022

G:\org\HP5\DAT\HP5123021_b\1230HP5.0023.RAW

LCS-162579-RRO ;1230HP5 ,



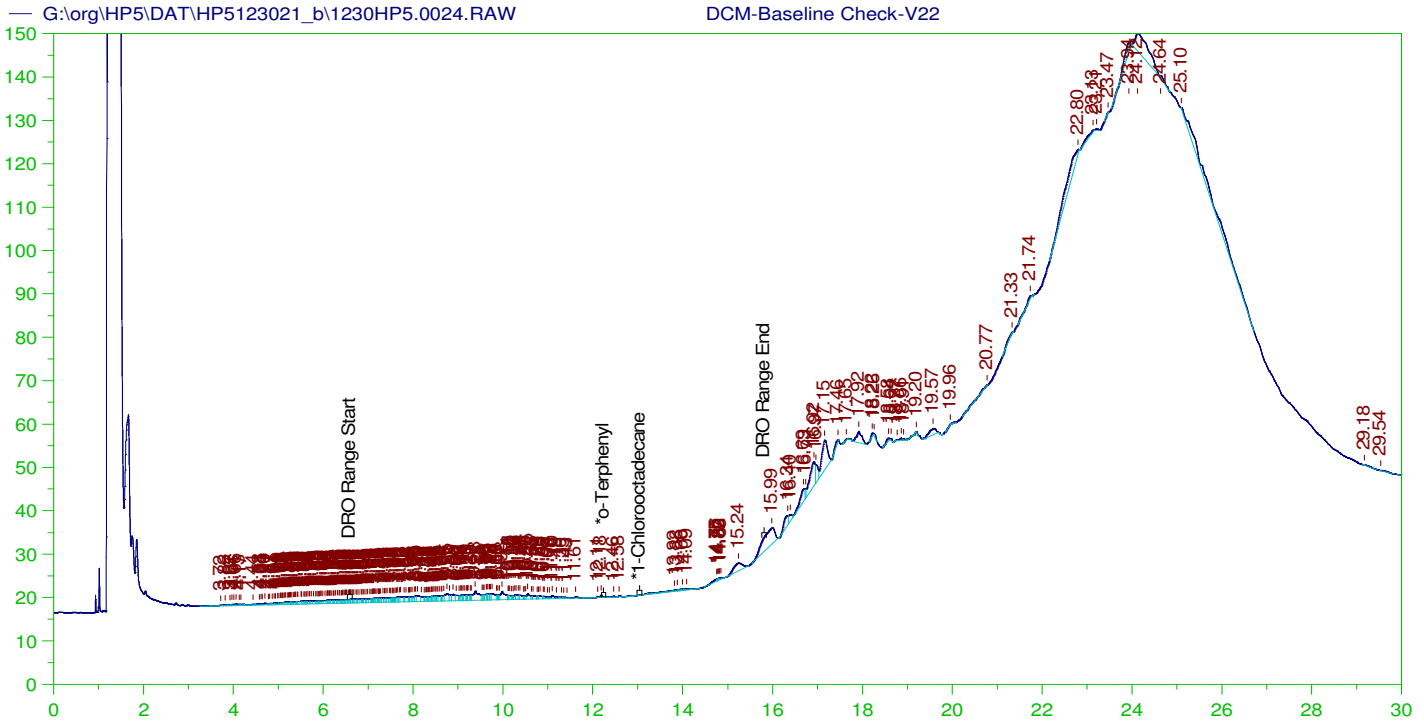
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCS-162579-RRO ;1230HP5 ,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0023.RAW
Date & Time Acquired: 12/31/2021 10:20:56 AM
Method File: G:\Org\HP5\Methods\DS_ORO-AM-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.266	.5	.114	22.88

RRO Area:5128501 RRO AMOUNT: 0.17968



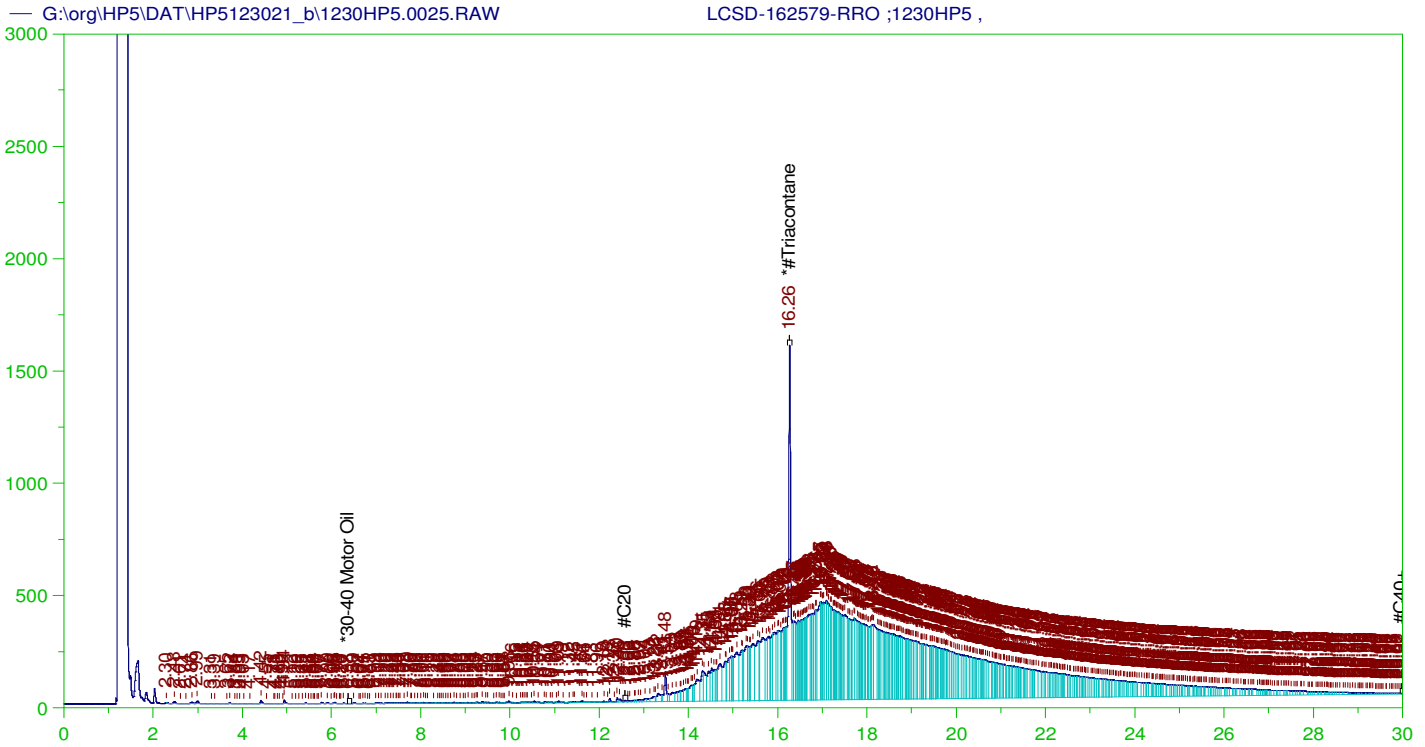
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V22
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0024.RAW
 Date & Time Acquired: 12/31/2021 11:03:53 AM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.953	200.	.	-
*1-Chlorooctadecane	29.953	200.	.	-

DRO Area:362941 DRO Amount: 11.57589
 TEH Area:1125046 TEH Amount: 35.88297



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCSD-162579-RRO ;1230HP5 ,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0025.RAW
 Date & Time Acquired: 12/31/2021 11:46:58 AM
 Method File: G:\Org\HP5\Methods\D3_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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

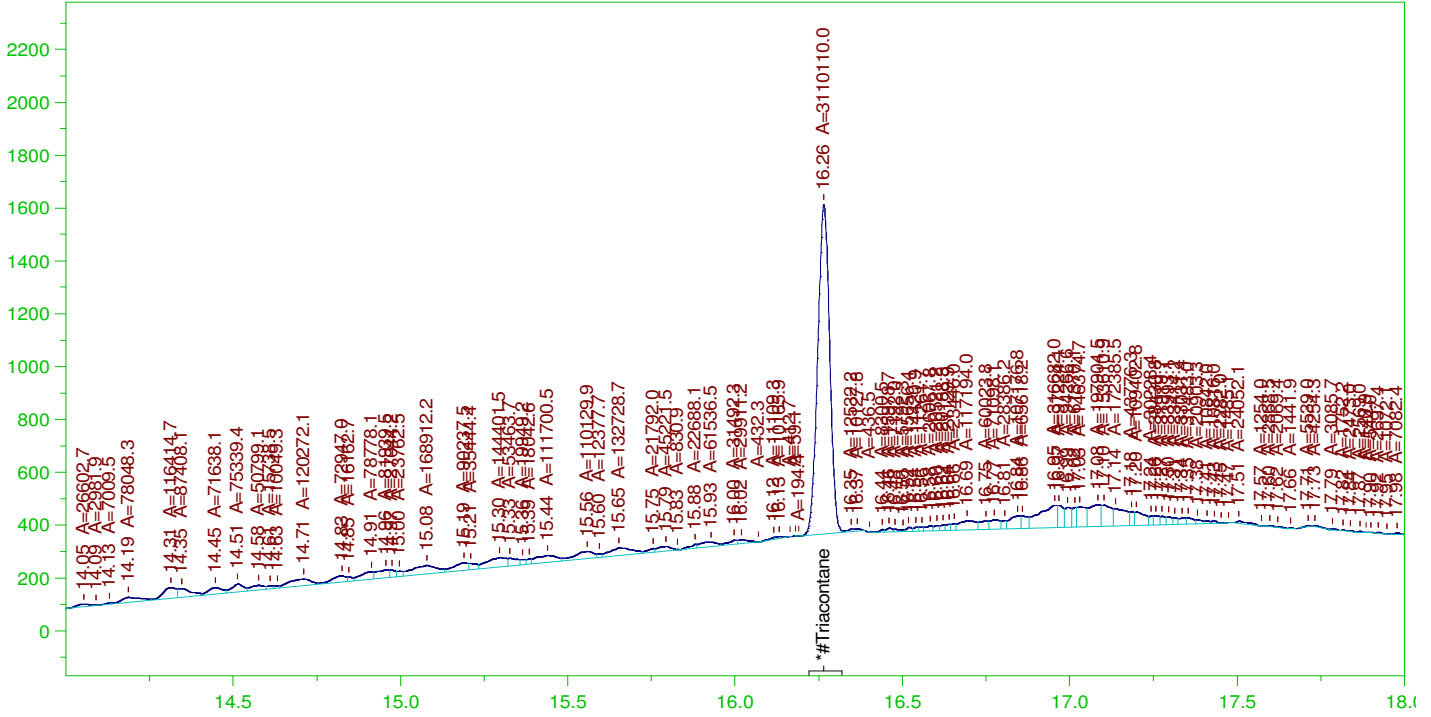
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.265	.5	.194	38.88	-

RRO TEH (Oil Range) Area:1.372239E+08 RRO TEH (Oil Range) AMOUNT: 4.807721

AMN 01/19/2022

G:\org\HP5\DAT\HP5123021_b\1230HP5.0025.RAW

LCSD-162579-RRO ;1230HP5 ,



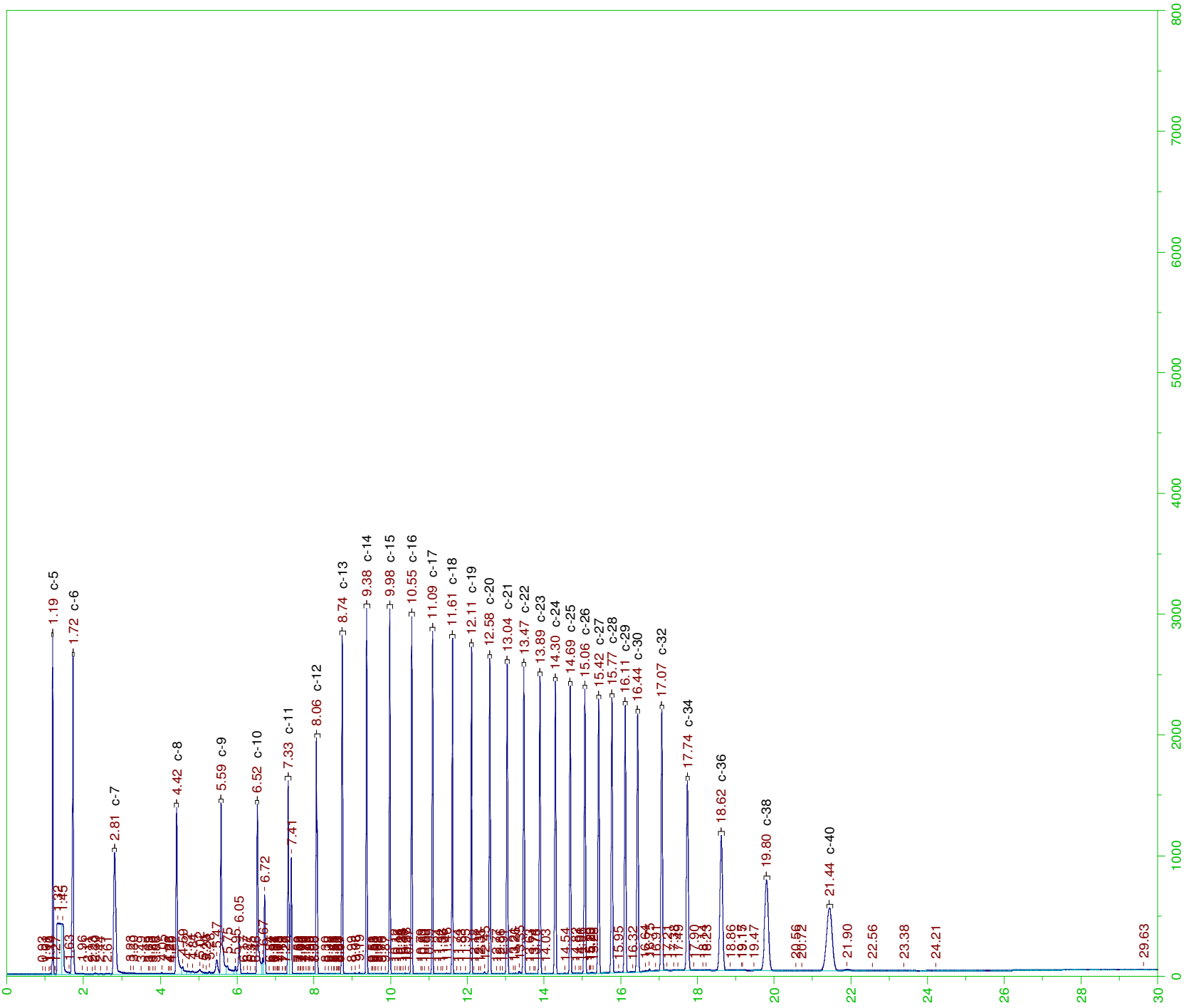
RESIDUAL RANGE ORGANICS CHROMATOGRAM

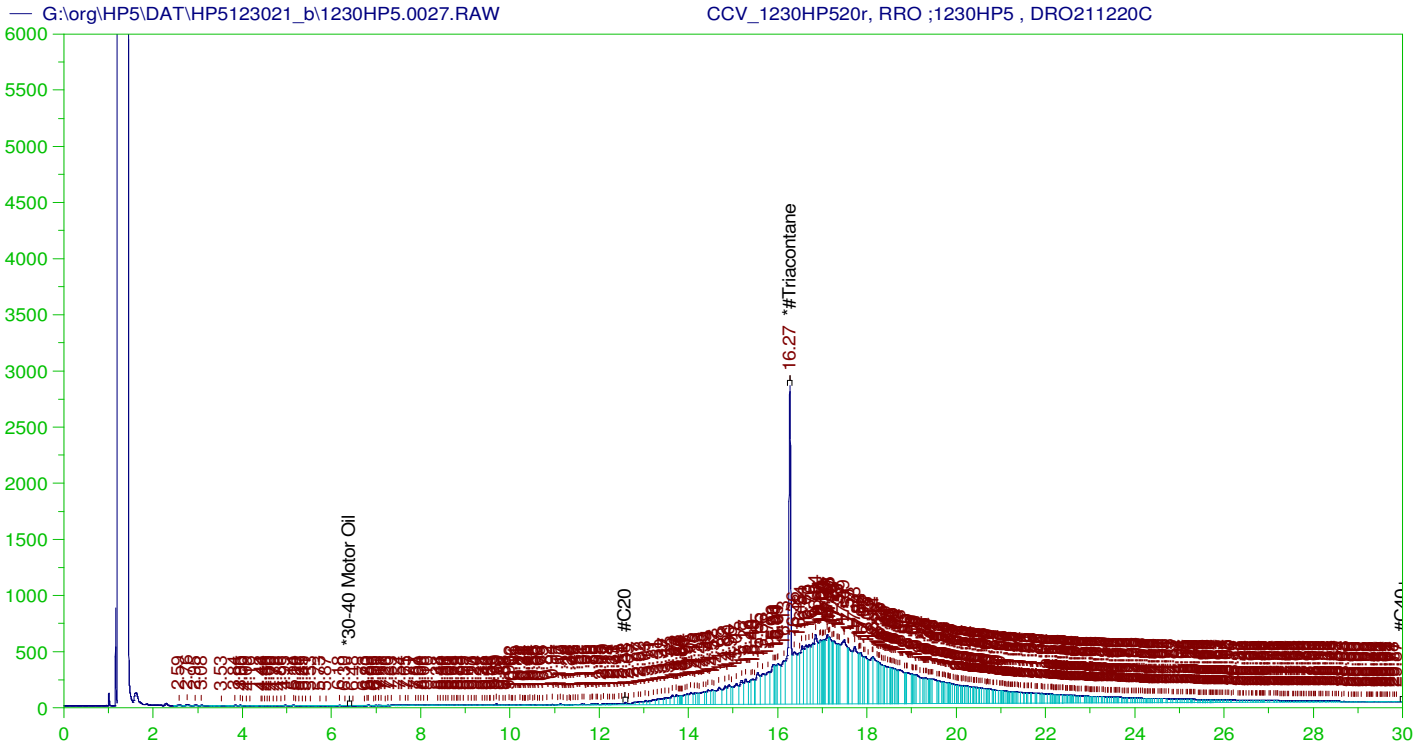
Sample Name: LCSD-162579-RRO ;1230HP5 ,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0025.RAW
 Date & Time Acquired: 12/31/2021 11:46:58 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.265	.5	.108	21.5

RRO Area:5056264 RRO AMOUNT: 0.1771491





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP520r, RRO ;1230HP5 , DRO211220C
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0027.RAW
 Date & Time Acquired: 12/31/2021 1:12:57 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.269	500.	356.358	71.27	-

RRO TEH (Oil Range) Area:1.419947E+08 RRO TEH (Oil Range) AMOUNT: 4974.866

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0027.RAW

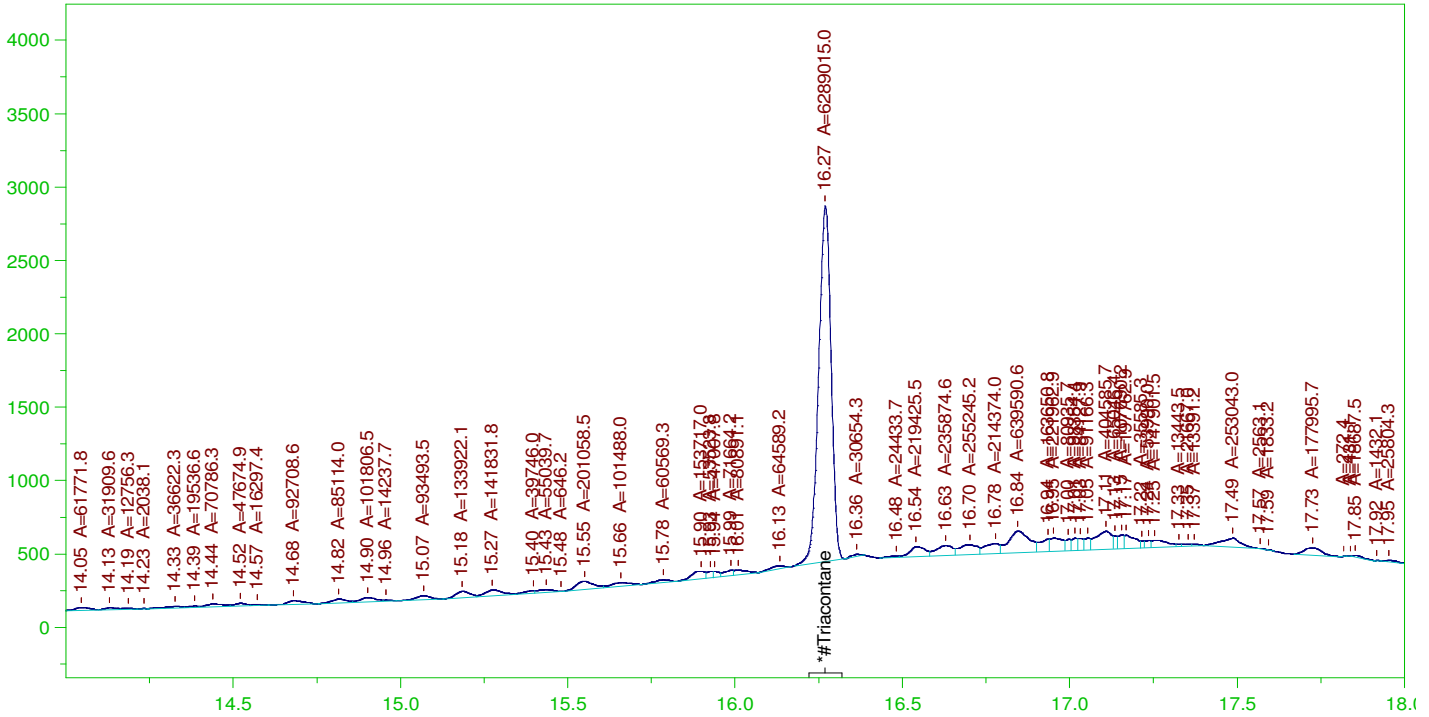
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	75-125	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	356.358	178.18	75-125

AMN 01/19/2022

G:\org\HP5\DAT\HP5123021_b\1230HP5.0027.RAW

CCV_1230HP520r, RRO ;1230HP5 , DRO211220C



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP520r, RRO ;1230HP5 , DRO211220C
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0027.RAW
 Date & Time Acquired: 12/31/2021 1:12:57 PM
 Method File: G:\Org\HP5\Methods\DS_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

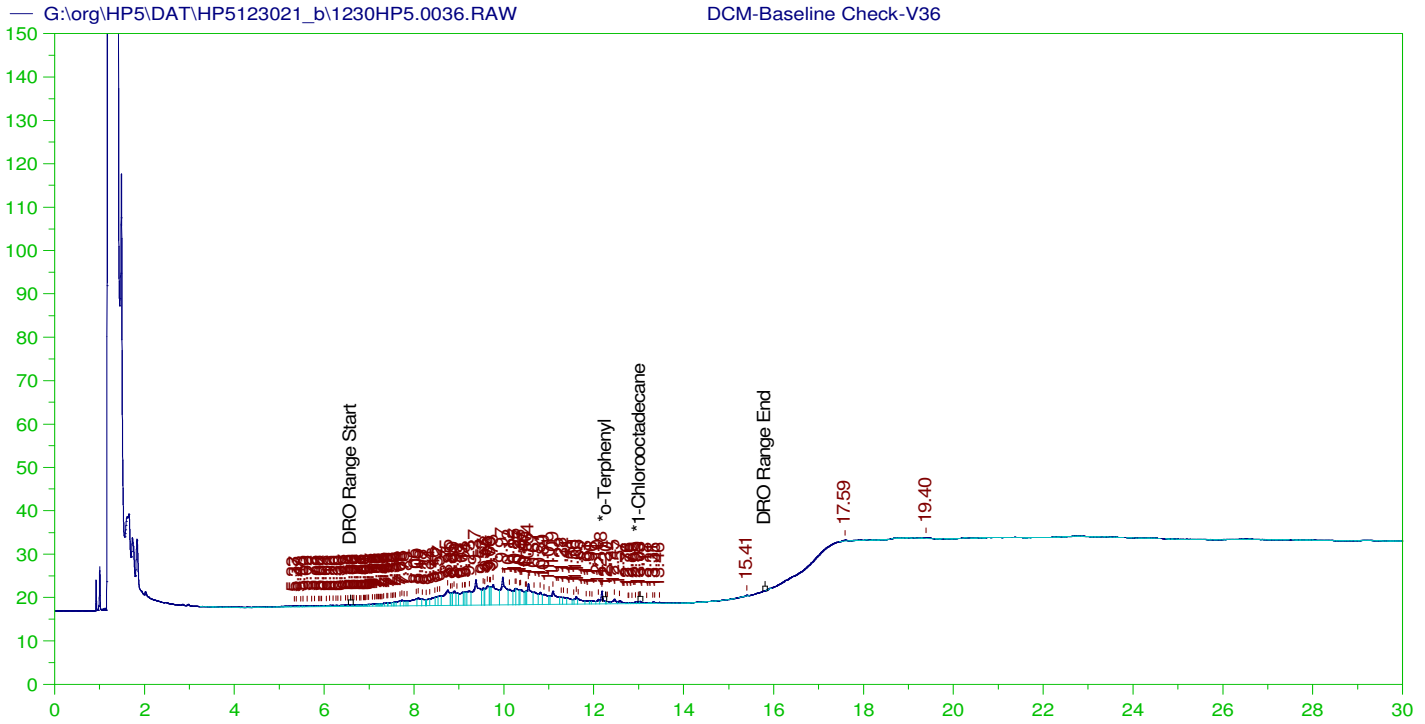
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.269	500.	217.386	43.48

RRO Area:6550145 RRO AMOUNT: 229.4882

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0027.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.269	200.	217.386	108.69	75-125



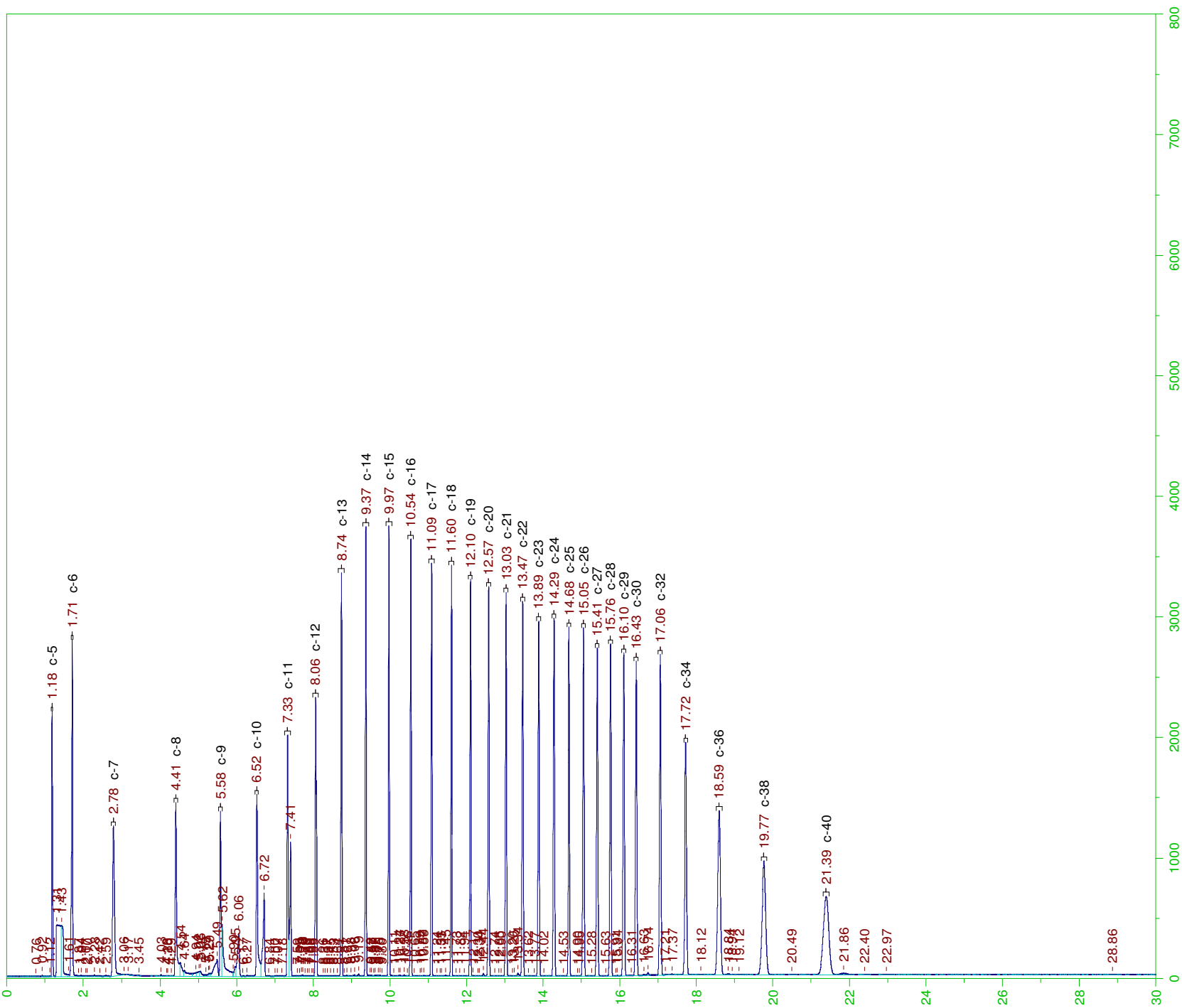
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

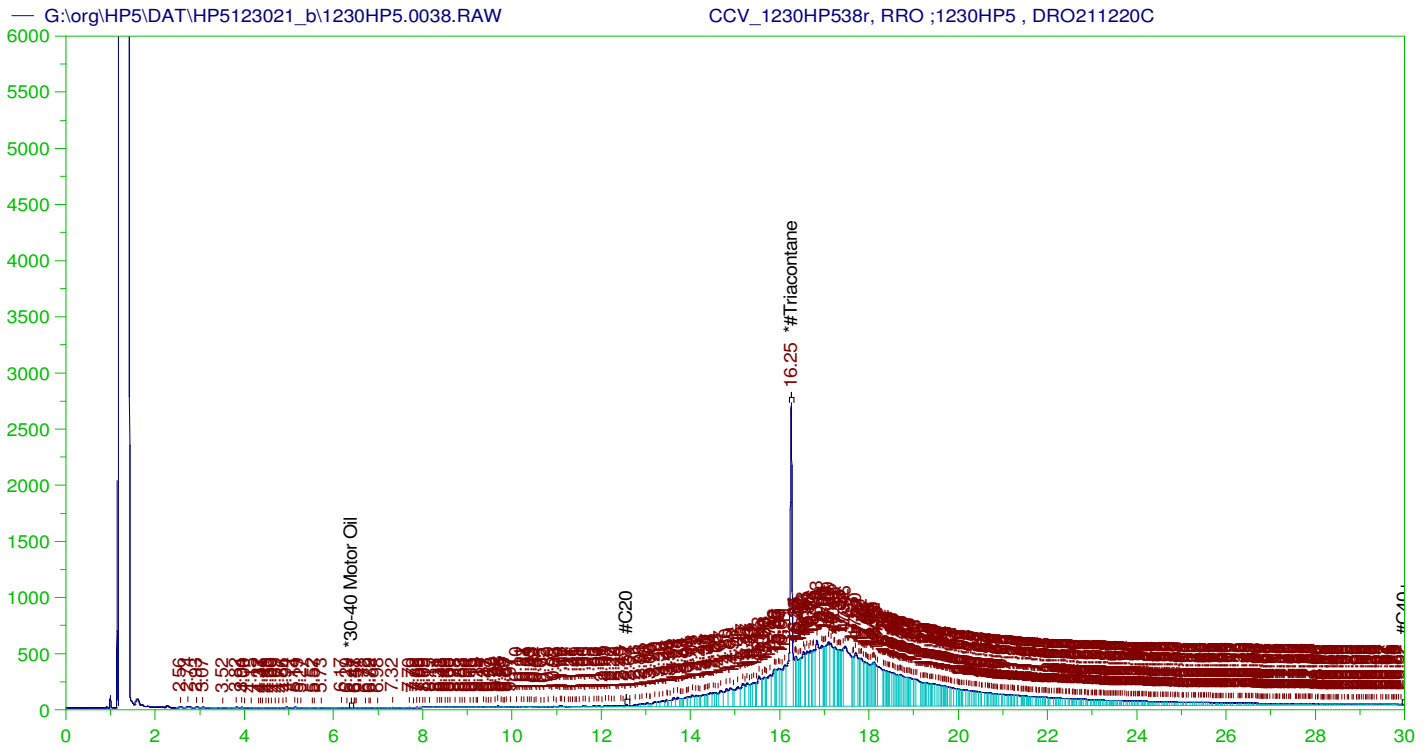
Sample Name: DCM-Baseline Check-V36
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0036.RAW
 Date & Time Acquired: 1/1/2022 11:11:57 AM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.265	200.	.029	.01	-
*1-Chlorooctadecane	13.026	200.	.062	.03	-

DRO Area:720639.1 DRO Amount: 22.98455
 TEH Area:754058.8 TEH Amount: 24.05046





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP538r, RRO ;1230HP5 , DRO211220C
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0038.RAW
 Date & Time Acquired: 1/1/2022 12:38:03 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.254	500.	344.51	68.9	-

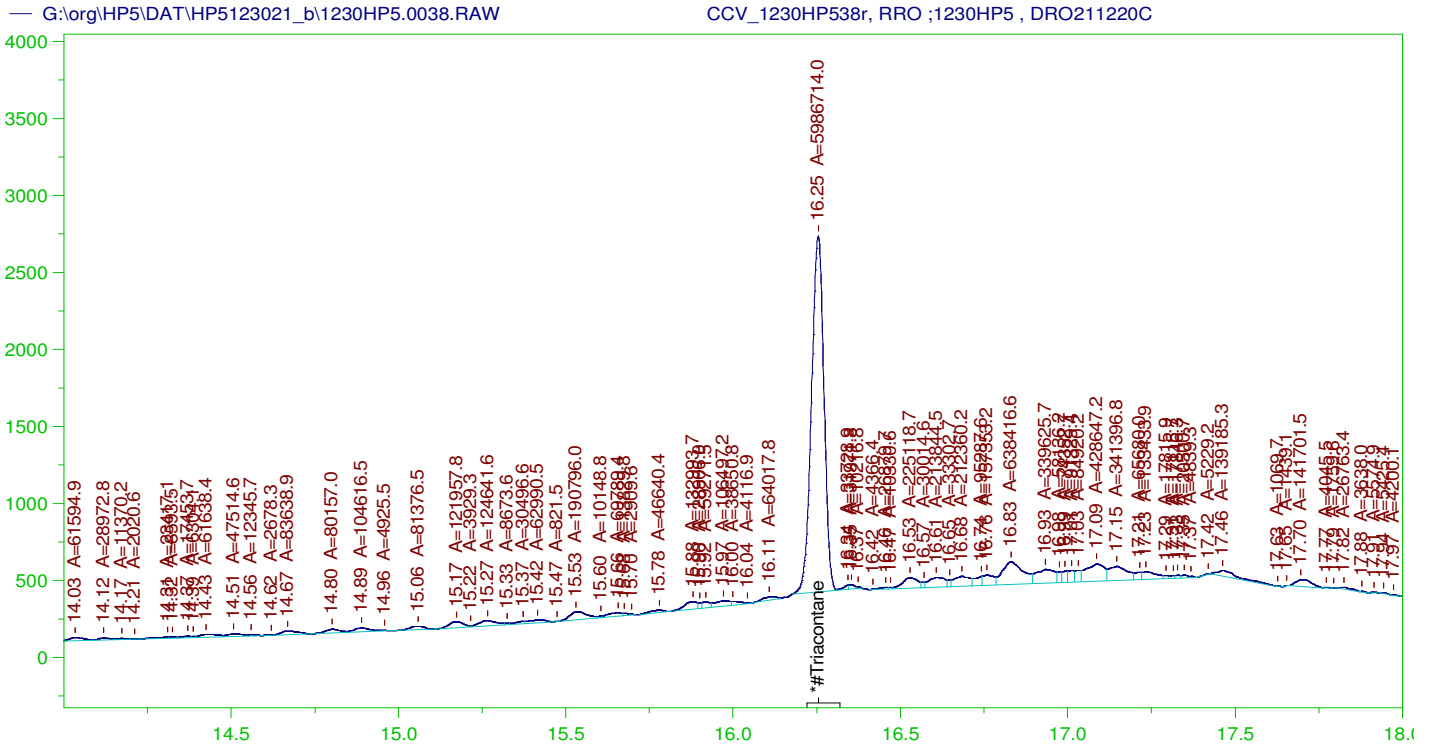
~~RRO~~ TEH (Oil Range) Area:1.310875E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4592.729

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0038.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.254	200.	344.51	172.25	75-125

AMN 01/19/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP538r, RRO ;1230HP5 , DRO211220C
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0038.RAW
 Date & Time Acquired: 1/1/2022 12:38:03 PM
 Method File: G:\Org\HP5\Methods\DS_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.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	16.254	500.	206.937	41.39	-

RRO Area:6206541 RRO AMOUNT: 217.4498

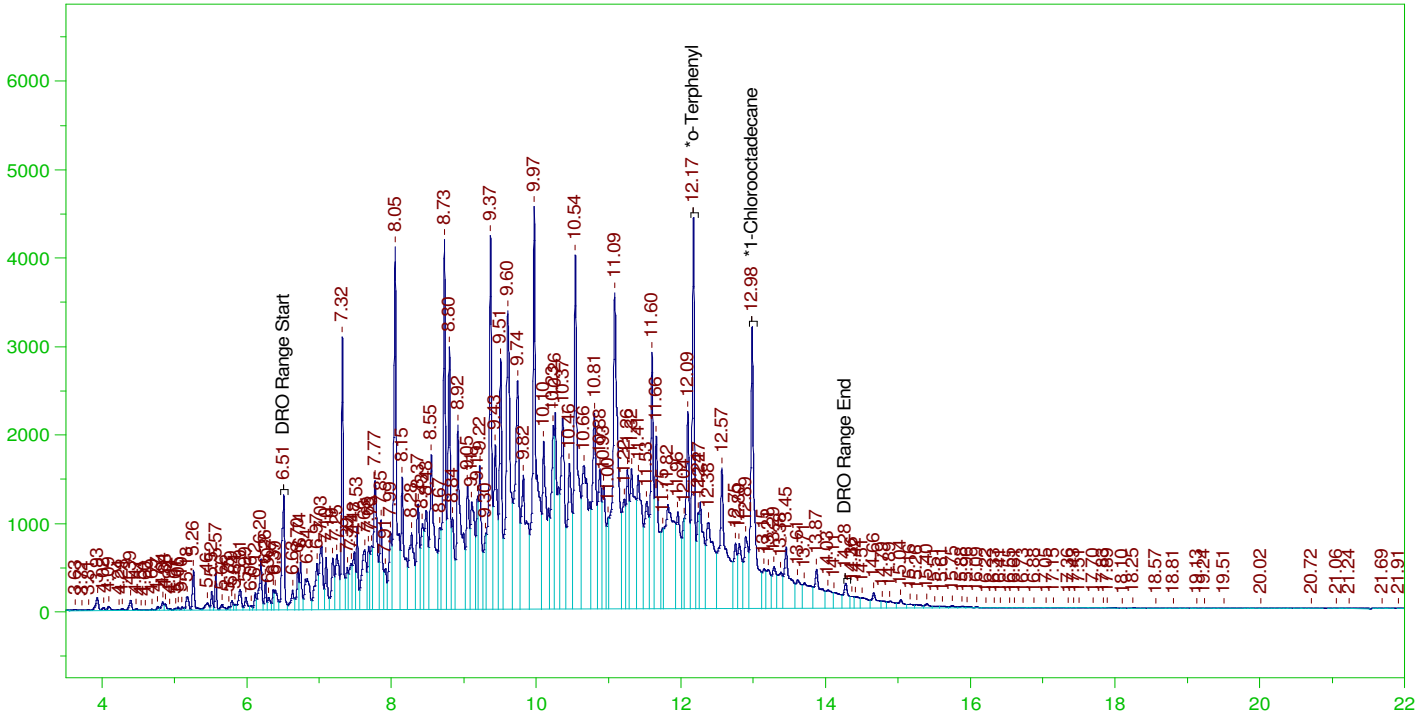
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0038.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.254	200.	206.937	103.47	75-125

G:\org\HP5\DAT\HP5123021_b\1230HP5.0039.RAW

CCV_1230HP539r, DRO ;1230HP5 , DRO211229A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1230HP539r, DRO ;1230HP5 , DRO211229A
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0039.RAW
 Date & Time Acquired: 1/1/2022 1:21:12 PM
 Method File: G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.172	200.	302.25	151.12
*1-Chlorooctadecane	12.982	200.	333.525	166.76

DRO Area: 4.363722E+08 DRO Amount: 13917.95
 TEH Area: 4.526661E+08 TEH Amount: 14437.64

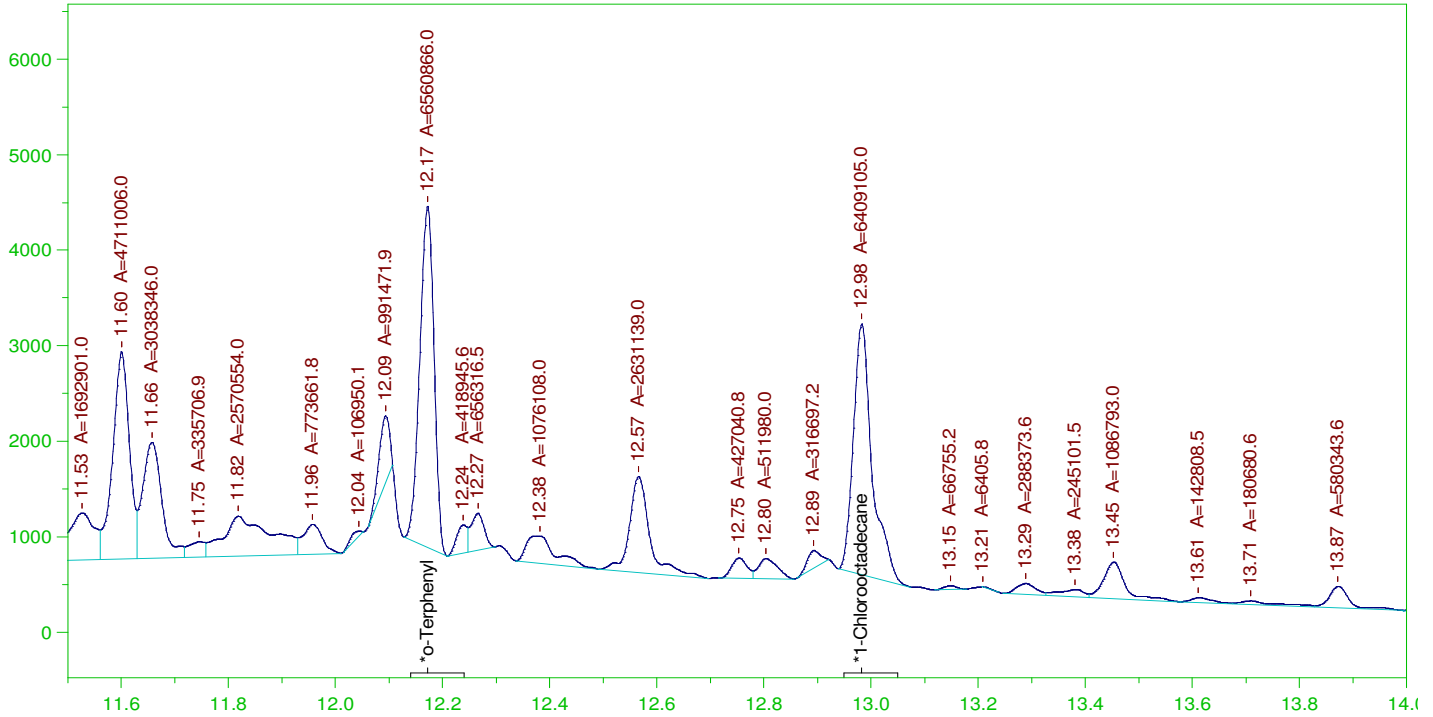
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0039.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14437.64	96.25	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.172	200.	302.25	151.12	85-115
*1-Chlorooctadecane	12.982	200.	333.525	166.76	85-115

G:\org\HP5\DAT\HP5123021_b\1230HP5.0039.RAW

CCV_1230HP539r, DRO ;1230HP5 , DRO211229A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1230HP539r, DRO ;1230HP5 , DRO211229A
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0039.RAW
 Date & Time Acquired: 1/1/2022 1:21:12 PM
 Method File: G:\Org\HP5\Methods\DS_8015-123039-IMA-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

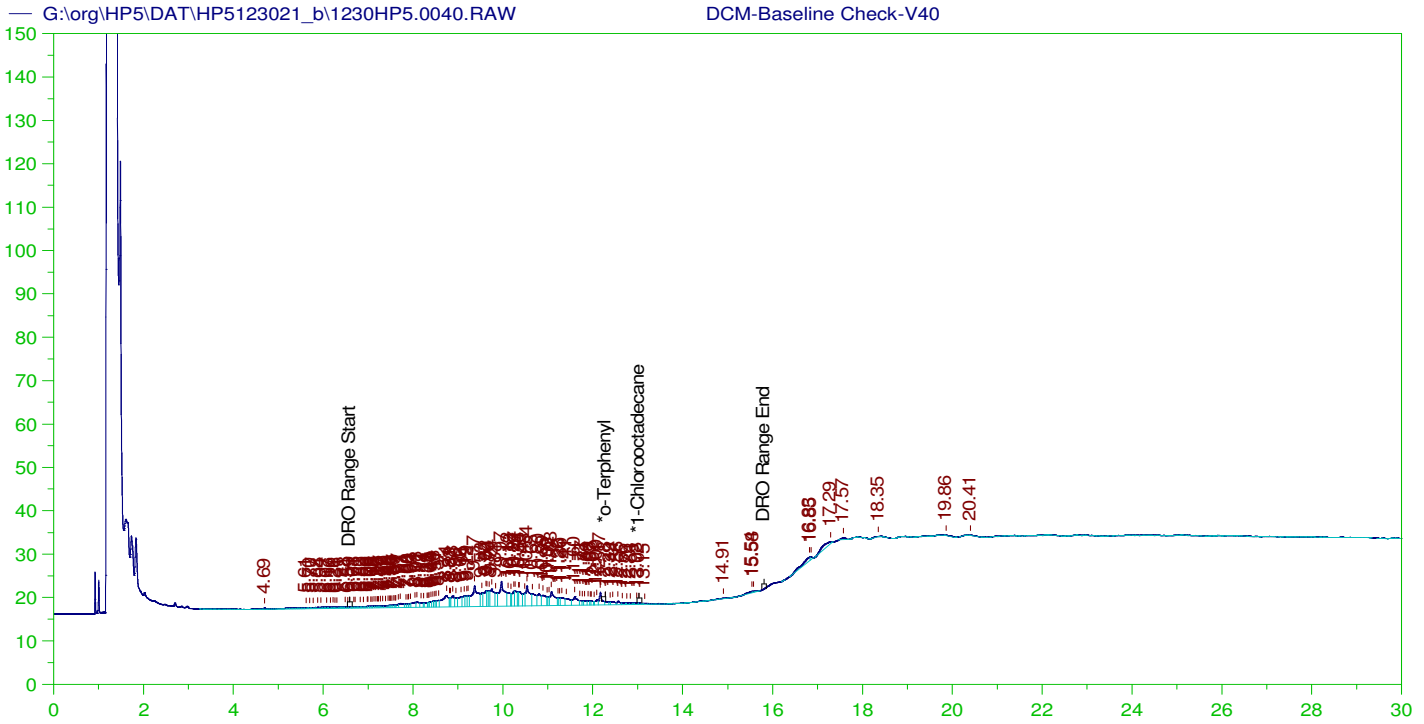
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.172	200.	184.765	92.38	-
*1-Chlorooctadecane	12.982	200.	180.491	90.25	-

DRO Area: 2.440307E+08 DRO Amount: 7783.282
 TEH Area: 2.541596E+08 TEH Amount: 8106.339

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0039.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8106.34	54.04	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.172	200.	184.765	92.38	85-115
*1-Chlorooctadecane	12.982	200.	180.491	90.25	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V40
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0040.RAW
 Date & Time Acquired: 1/1/2022 2:04:15 PM
 Method File: G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.282	200.	.094	.05	-
*1-Chlorooctadecane	13.021	200.	.028	.01	-

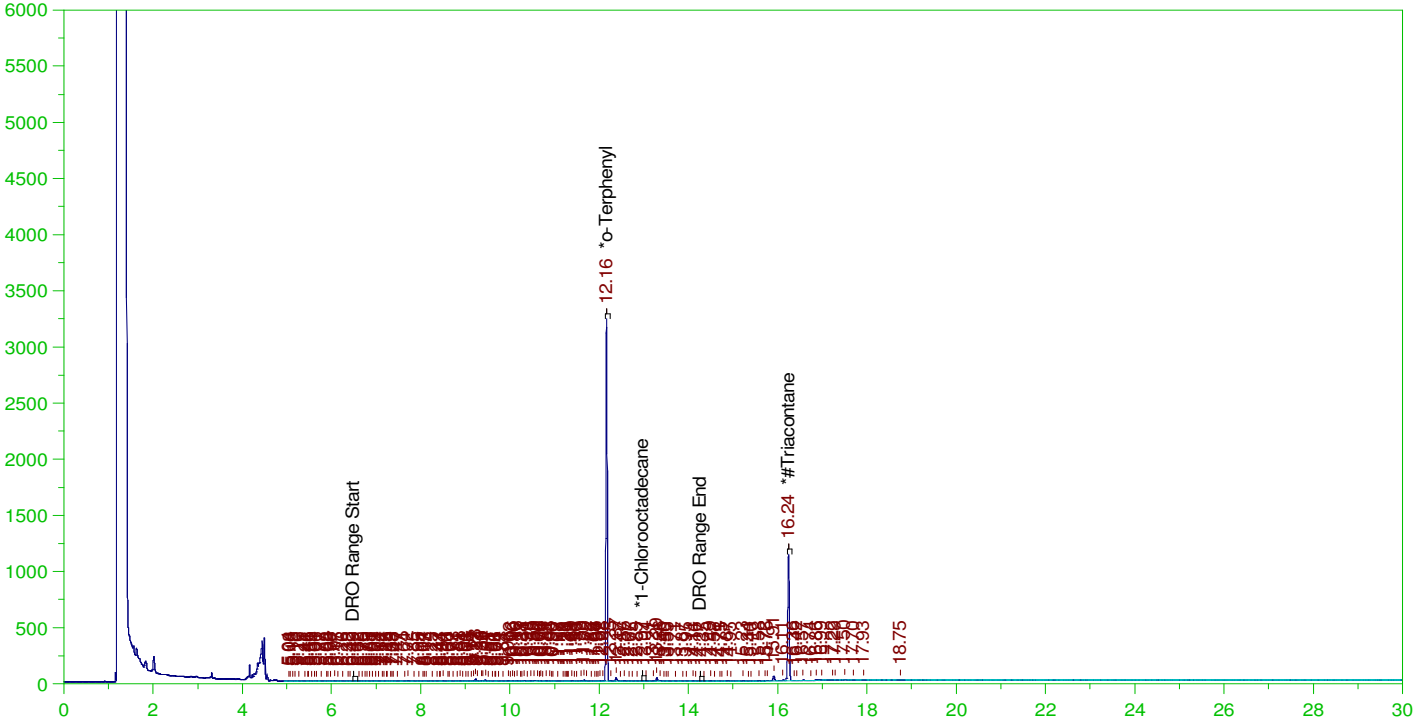
DRO Area: 622927.9 DRO Amount: 19.86809
 TEH Area: 693599.9 TEH Amount: 22.12215

ERH2249 (RHMW12A)

G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW

Batch ID: 162579

B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW
Date & Time Acquired: 1/1/2022 2:47:14 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.163	.194	.164	84.45	-
*1-Chlorooctadecane	12.972	.194	.	.14	-
*#Triacontane	16.239	.194	.096	49.68	-

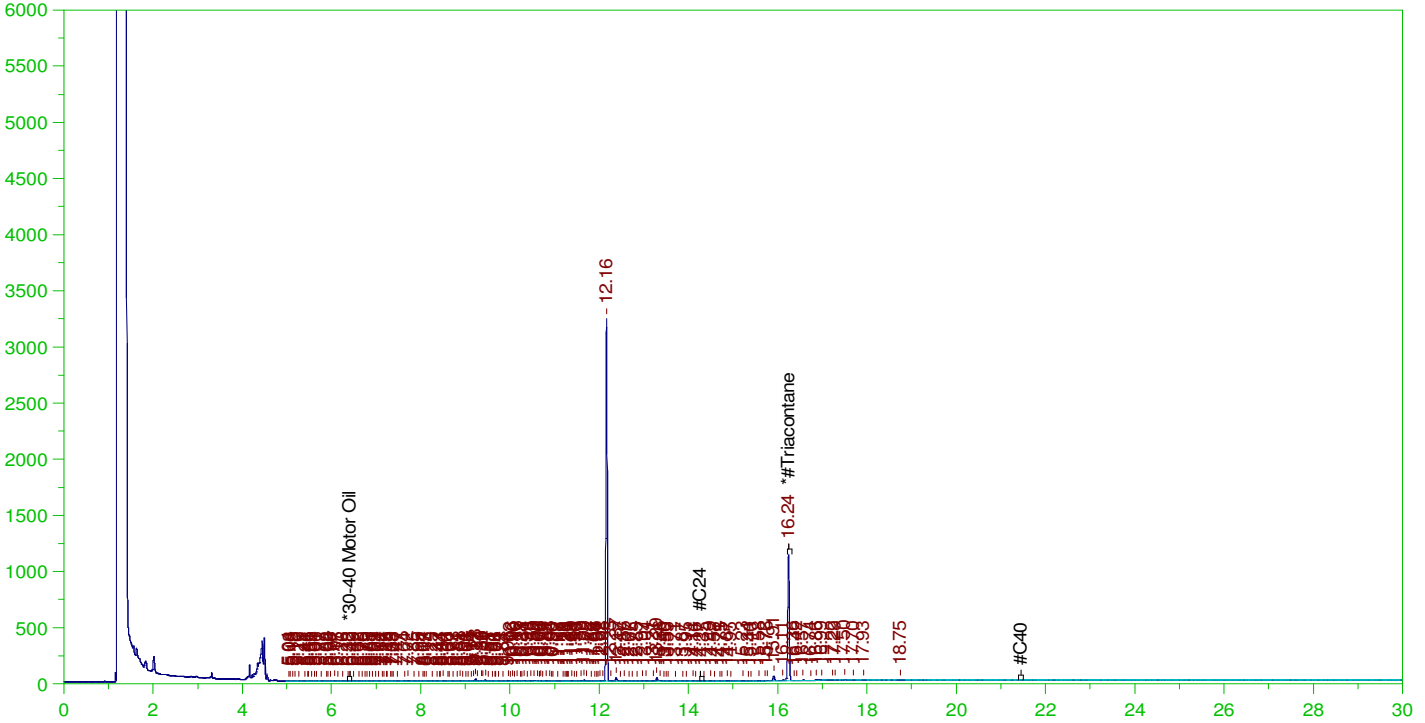
DRO Area:1185603 DRO Amount: 3.671302E-02
TEH Area:1599520 TEH Amount: 4.953028E-02

ERH2249 (RHMW12A)

Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW

B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW
Date & Time Acquired: 1/1/2022 2:47:14 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AMA-SAMP.CAL
Sample Weight: 1030 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.239	.485	.096	19.87

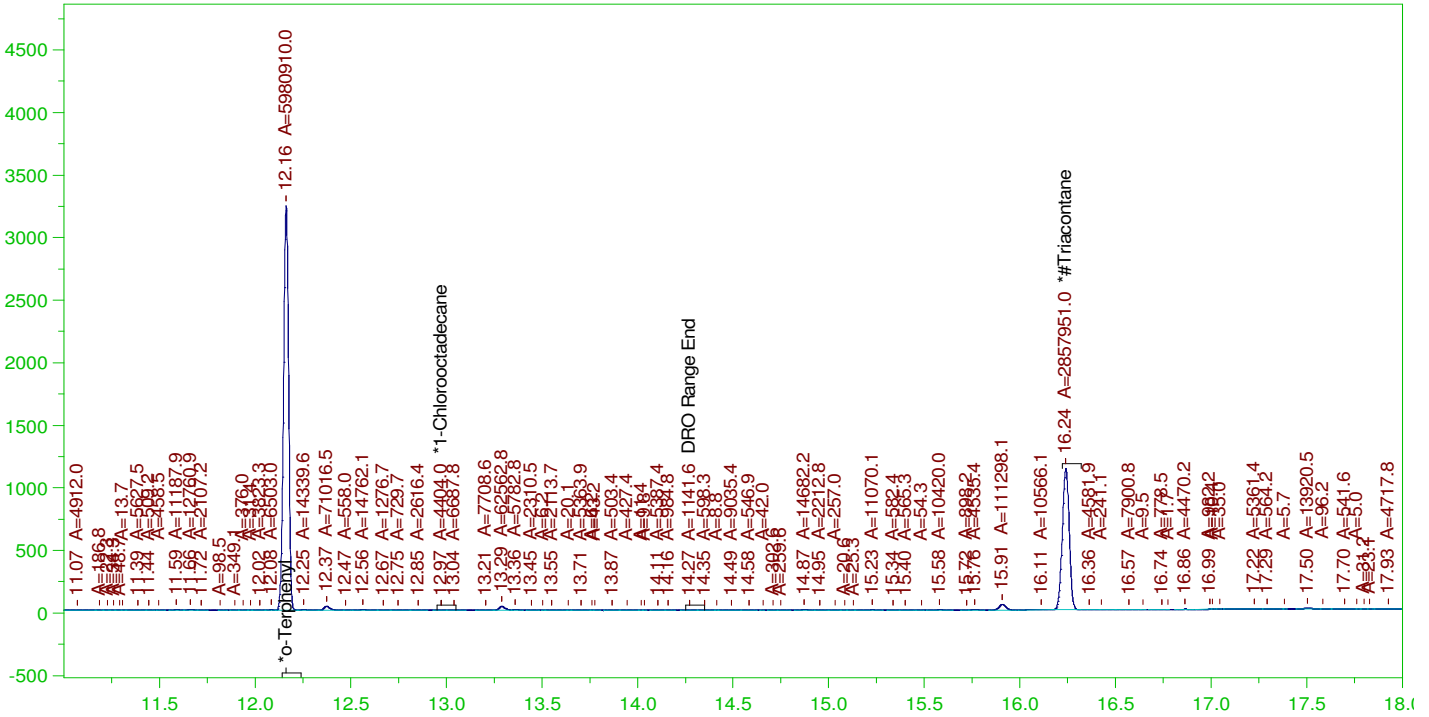
RRO Area:275433.7 RRO AMOUNT: 9.368914E-03

ERH2249 (RHMW12A)

Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW

B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0041.RAW
 Date & Time Acquired: 1/1/2022 2:47:14 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-IMA-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
 Sample Weight: 1030 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.163	.194	.164	84.22	-
*1-Chlorooctadecane	12.972	.194	.	.06	-
*#Triacontane	16.239	.194	.096	49.39	-

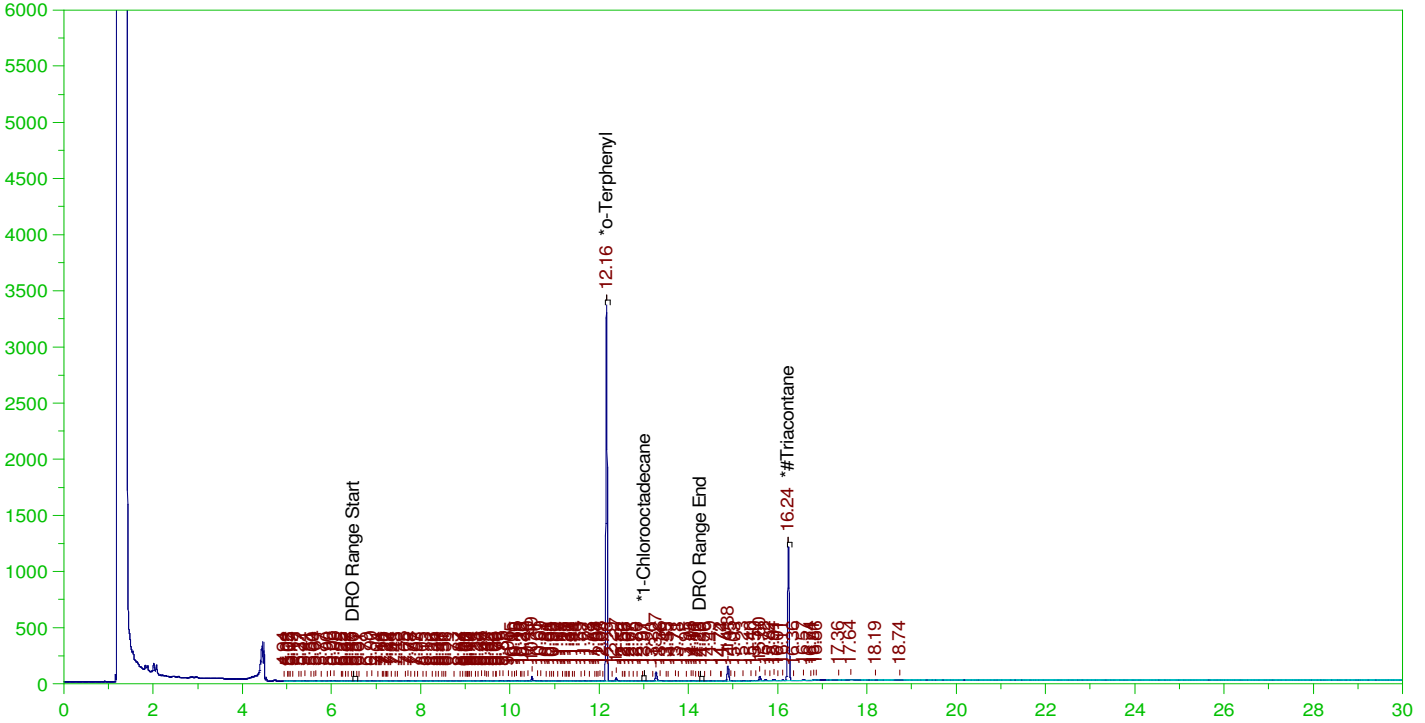
DRO Area:562514.1 DRO Amount: 1.741865E-02
 TEH Area:4386485 TEH Amount: 0.1358306

ERH2256 (RHMW13 Zone 5)

Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0042.RAW

B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0042.RAW
Date & Time Acquired: 1/1/2022 3:30:00 PM
Method File: G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.163	.196	.174	88.52	-
*1-Chlorooctadecane	13.014	.196	.	.22	-
*#Triacontane	16.236	.196	.102	52.2	-

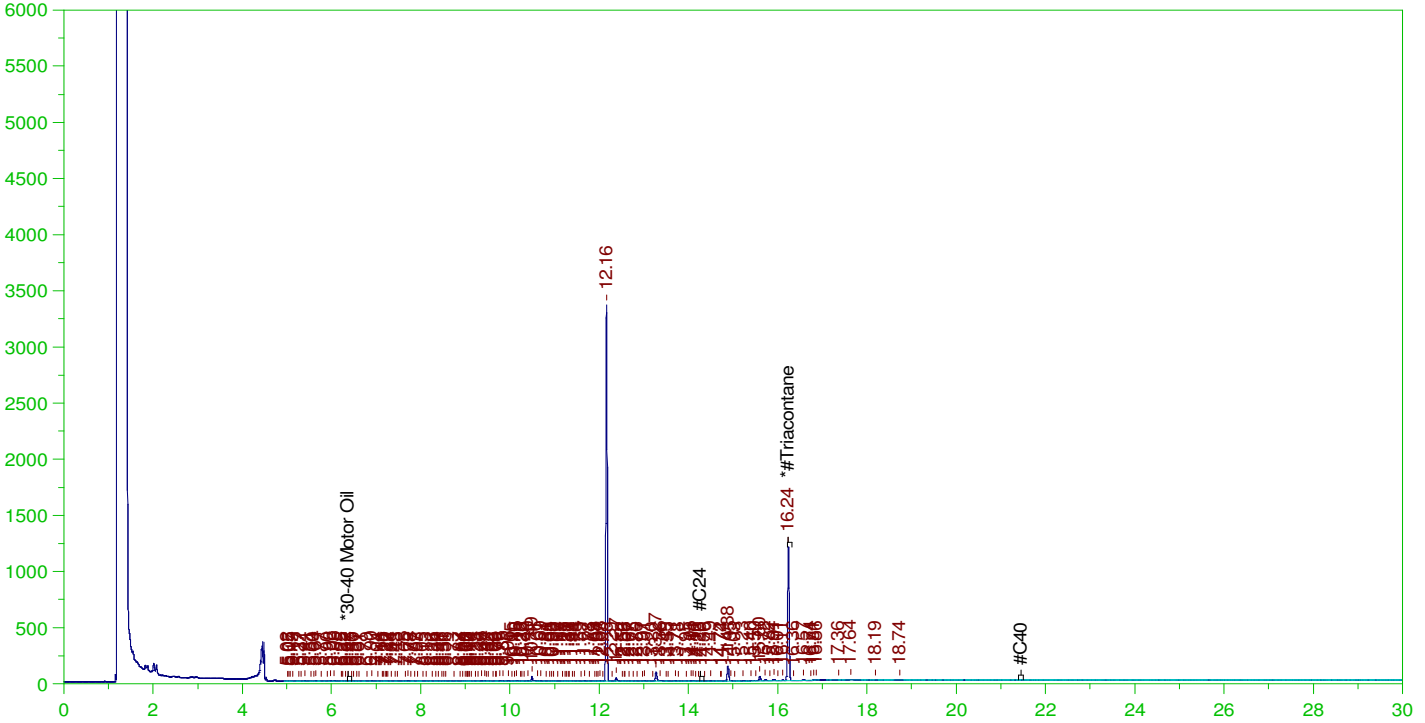
DRO Area:1123890 DRO Amount: 3.514325E-02
TEH Area:1937949 TEH Amount: 6.059828E-02

ERH2256 (RHMW13 Zone 5)

Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0042.RAW

B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0042.RAW
Date & Time Acquired: 1/1/2022 3:30:00 PM
Method File: G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AMA-SAMP.CAL
Sample Weight: 1020 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.236	.49	.102	20.88	-

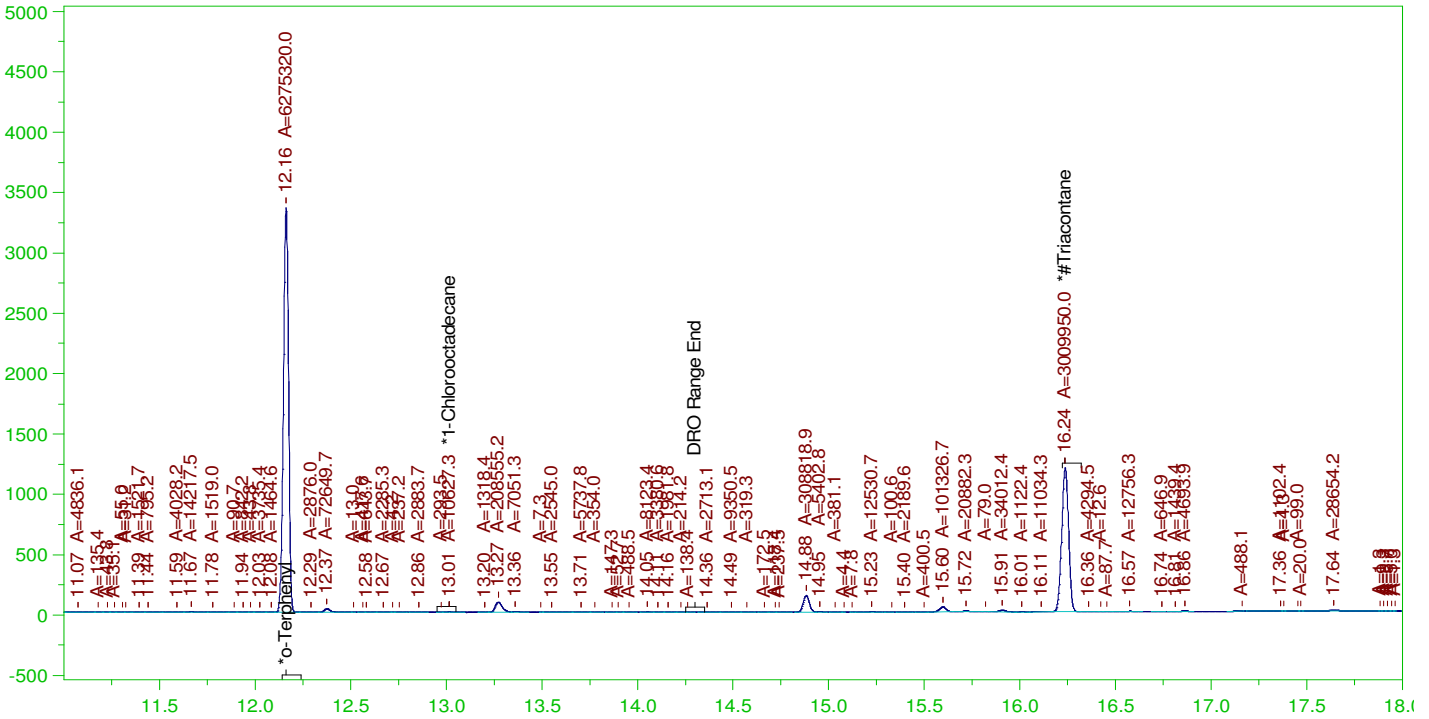
RRO Area:668690.3 RRO AMOUNT: 2.296858E-02

ERH2256 (RHMW13 Zone 5)

Batch ID: 162579

G:\org\HP5\DAT\HP5123021_b\1230HP5.0042.RAW

B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

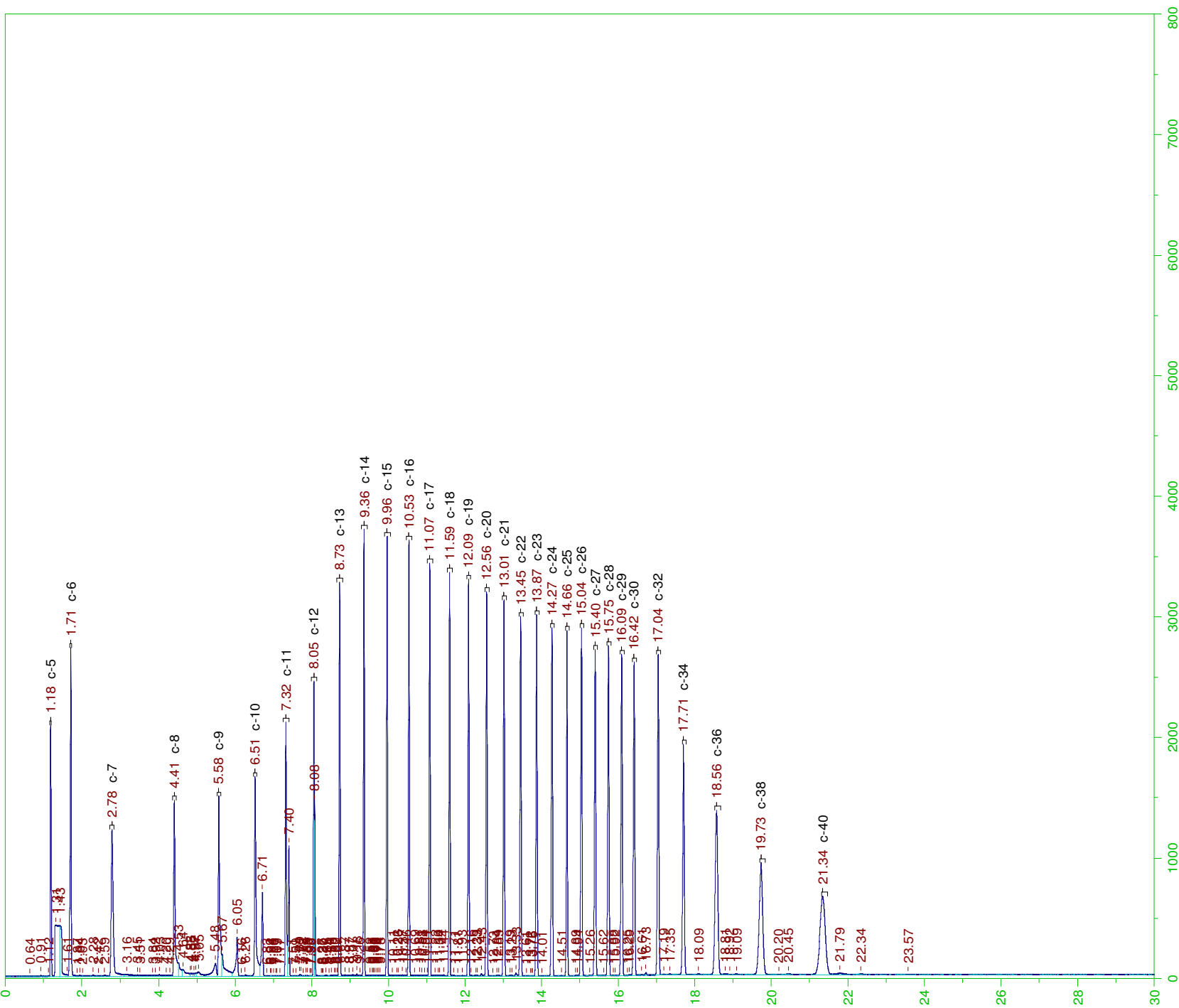
Sample Name: B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0042.RAW
 Date & Time Acquired: 1/1/2022 3:30:00 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-IMA-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24-Tri.CAL
 Sample Weight: 1020 Dilution: 1 S.A.: 1

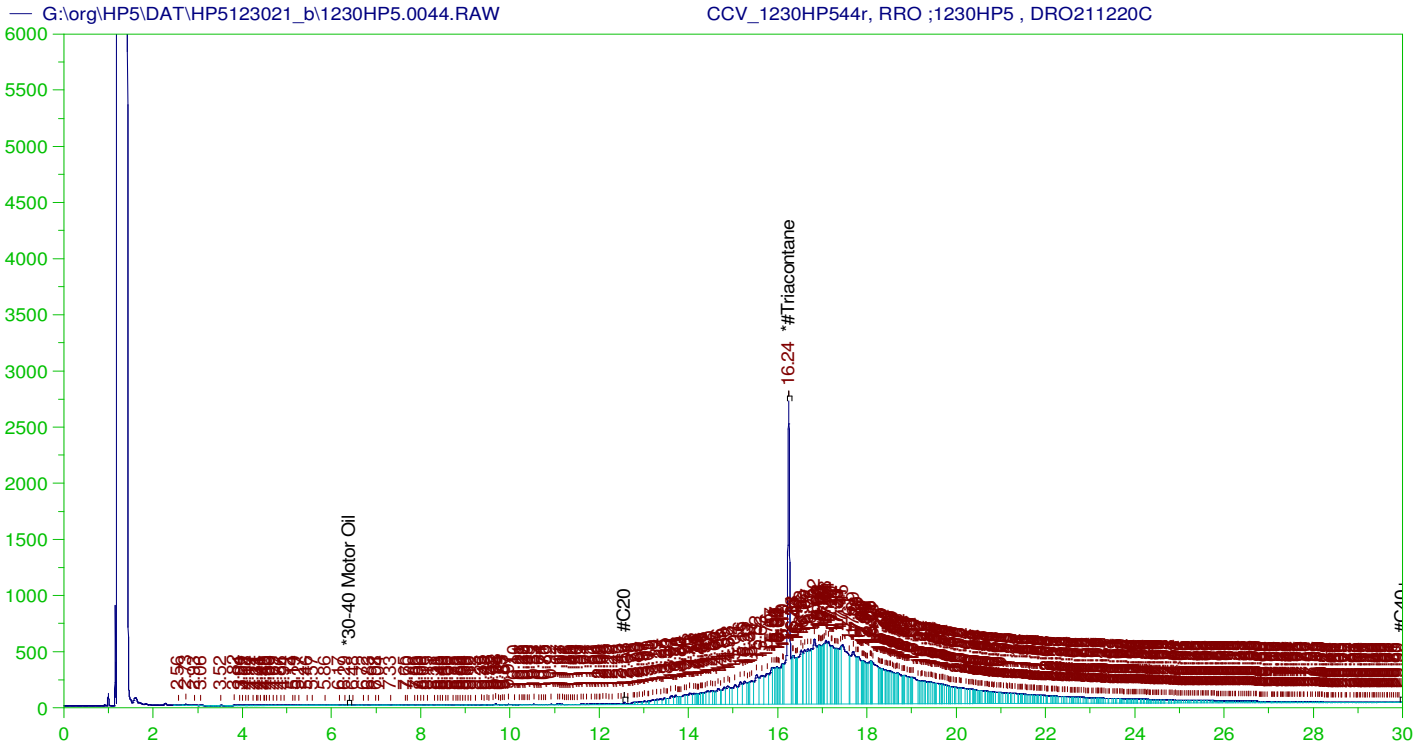
Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.48 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.163	.196	.173	88.36
*1-Chlorooctadecane	13.014	.196	.	.15
*#Triacontane	16.236	.196	.102	52.02

DRO Area: 741767.6 DRO Amount: 2.319455E-02
 TEH Area: 4033262 TEH Amount: 0.1261172





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP544r, RRO ;1230HP5 , DRO211220C
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0044.RAW
 Date & Time Acquired: 1/1/2022 4:55:51 PM
 Method File: G:\Org\HP5\Methods\DC_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.243	500.	334.567	66.91	-

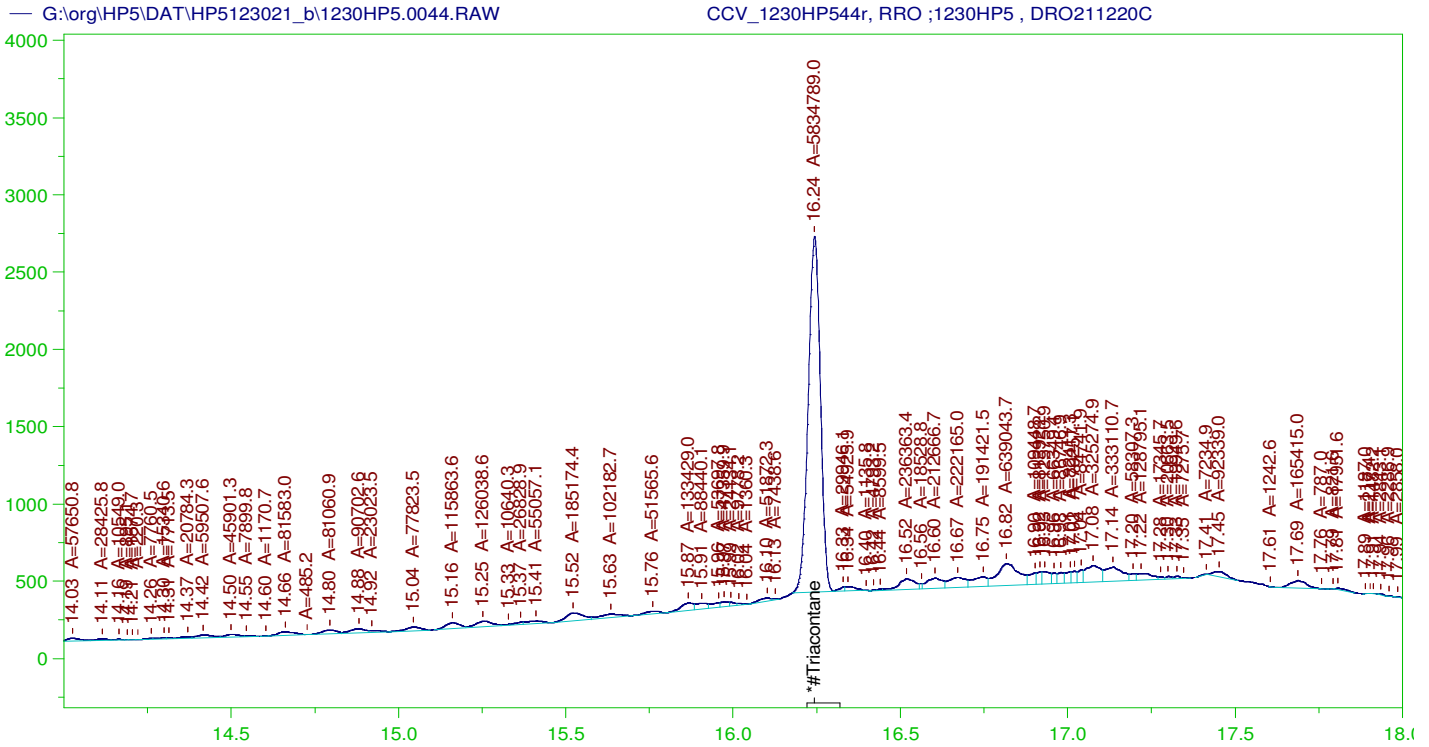
~~RRO~~ TEH (Oil Range) Area:1.29118E+08 ~~RRO~~ TEH (Oil Range) AMOUNT: 4523.723

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0044.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.243	200.	334.567	167.28	75-125

AMN 01/19/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_1230HP544r, RRO ;1230HP5 , DRO211220C
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0044.RAW
 Date & Time Acquired: 1/1/2022 4:55:51 PM
 Method File: G:\Org\HP5\Methods\DS_ORO-AM-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO211017AM.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	16.243	500.	201.686	40.34

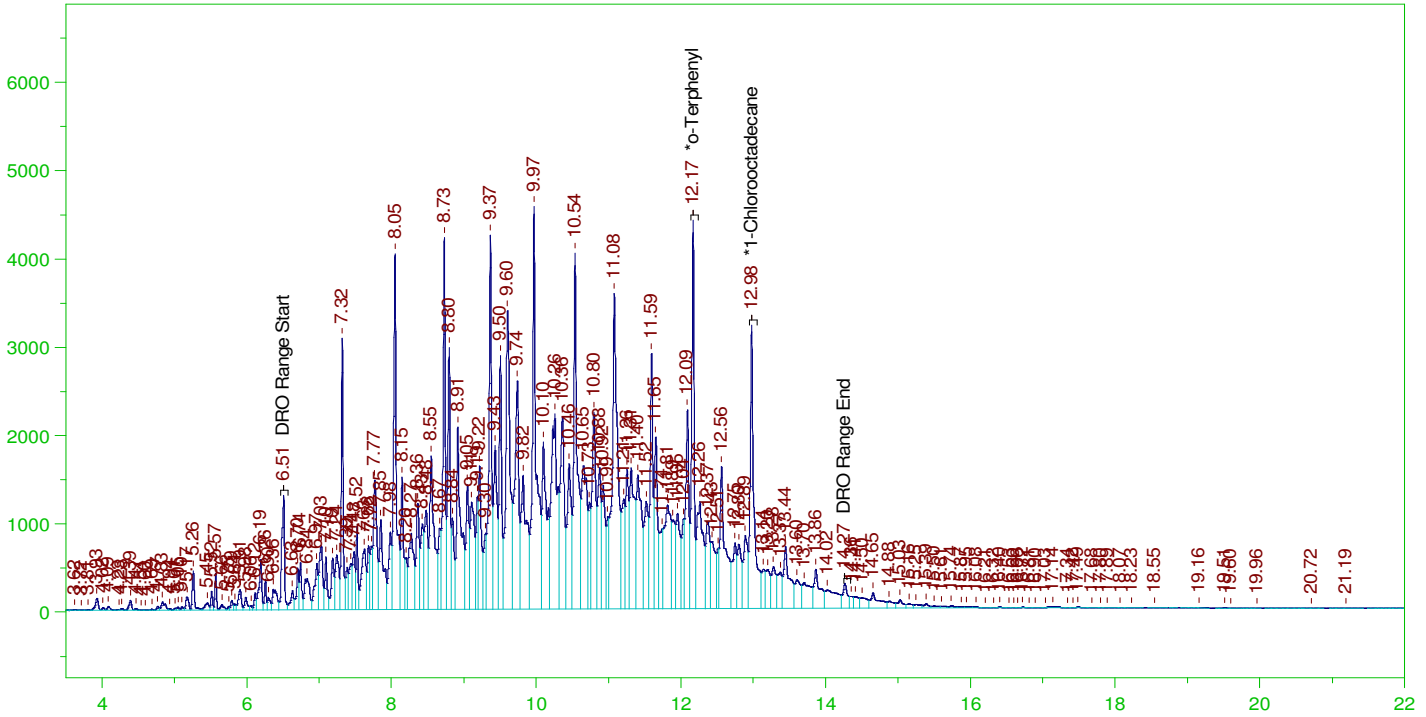
RRO Area:5914391 RRO AMOUNT: 207.2141

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0044.RAW
 COMPOUND ACTUAL (NG) MEASURED (NG) %RECOVERY LIMITS
 *30-40 Motor Oil 5000. . . 75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.243	200.	201.686	100.84	75-125

G:\org\HP5\DAT\HP5123021_b\1230HP5.0046.RAW

CCV_1230HP546r, DRO ;1230HP5 , DRO211229A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1230HP546r, DRO ;1230HP5 , DRO211229A
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0046.RAW
 Date & Time Acquired: 1/1/2022 6:22:06 PM
 Method File: G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.166	200.	303.593	151.8
*1-Chlorooctadecane	12.975	200.	333.87	166.93

DRO Area: 4.363116E+08 DRO Amount: 13916.02
 TEH Area: 4.524284E+08 TEH Amount: 14430.06

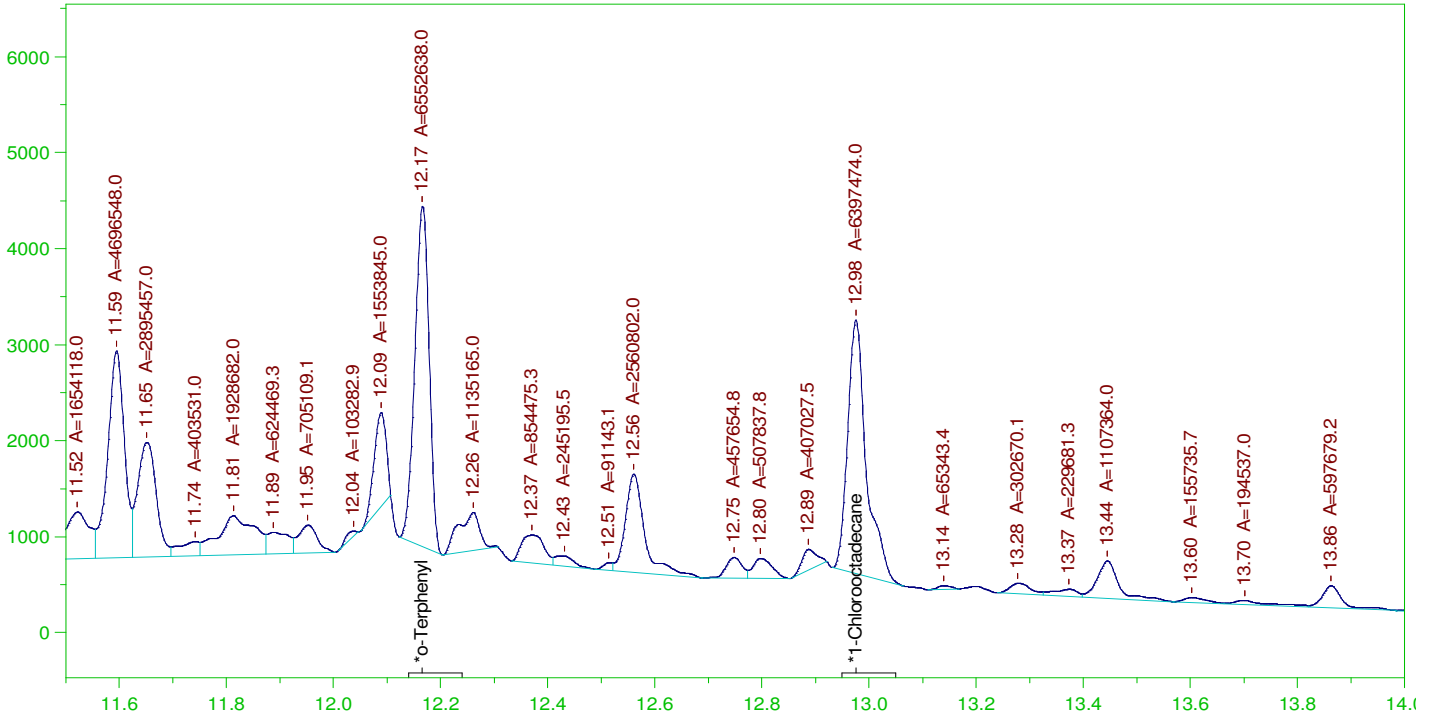
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0046.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14430.06	96.2	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.166	200.	303.593	151.8	85-115
*1-Chlorooctadecane	12.975	200.	333.87	166.93	85-115

G:\org\HP5\DAT\HP5123021_b\1230HP5.0046.RAW

CCV_1230HP546r, DRO ;1230HP5 , DRO211229A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_1230HP546r, DRO ;1230HP5 , DRO211229A
 Raw File: G:\org\HP5\DAT\HP5123021_b\1230HP5.0046.RAW
 Date & Time Acquired: 1/1/2022 6:22:06 PM
 Method File: G:\Org\HP5\Methods\DS_8015-123039-IMA-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IMA-24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19

Rt range for Diesel Range Organics: 6.47 to 14.35

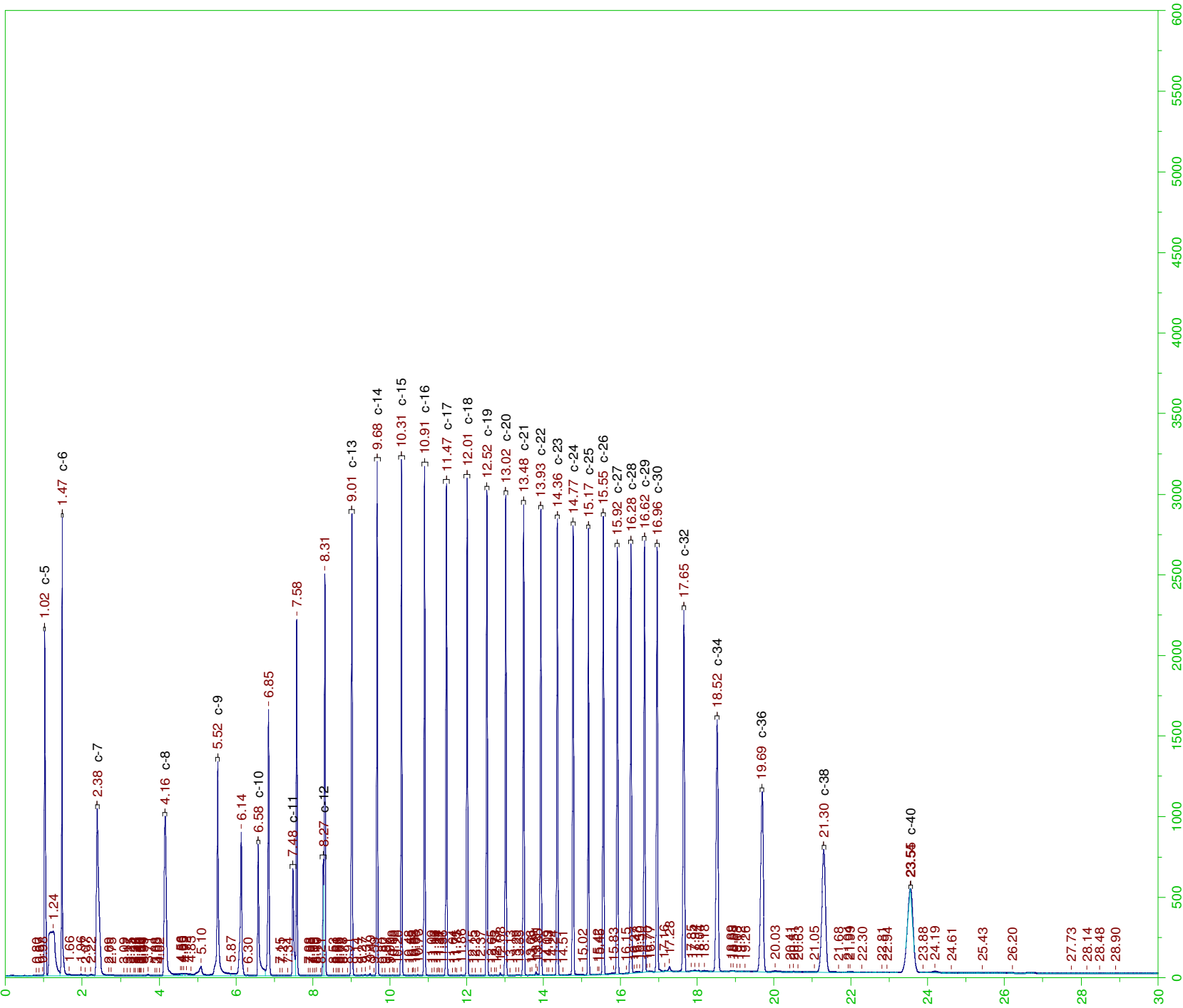
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.166	200.	184.534	92.27	-
*1-Chlorooctadecane	12.975	200.	180.164	90.08	-

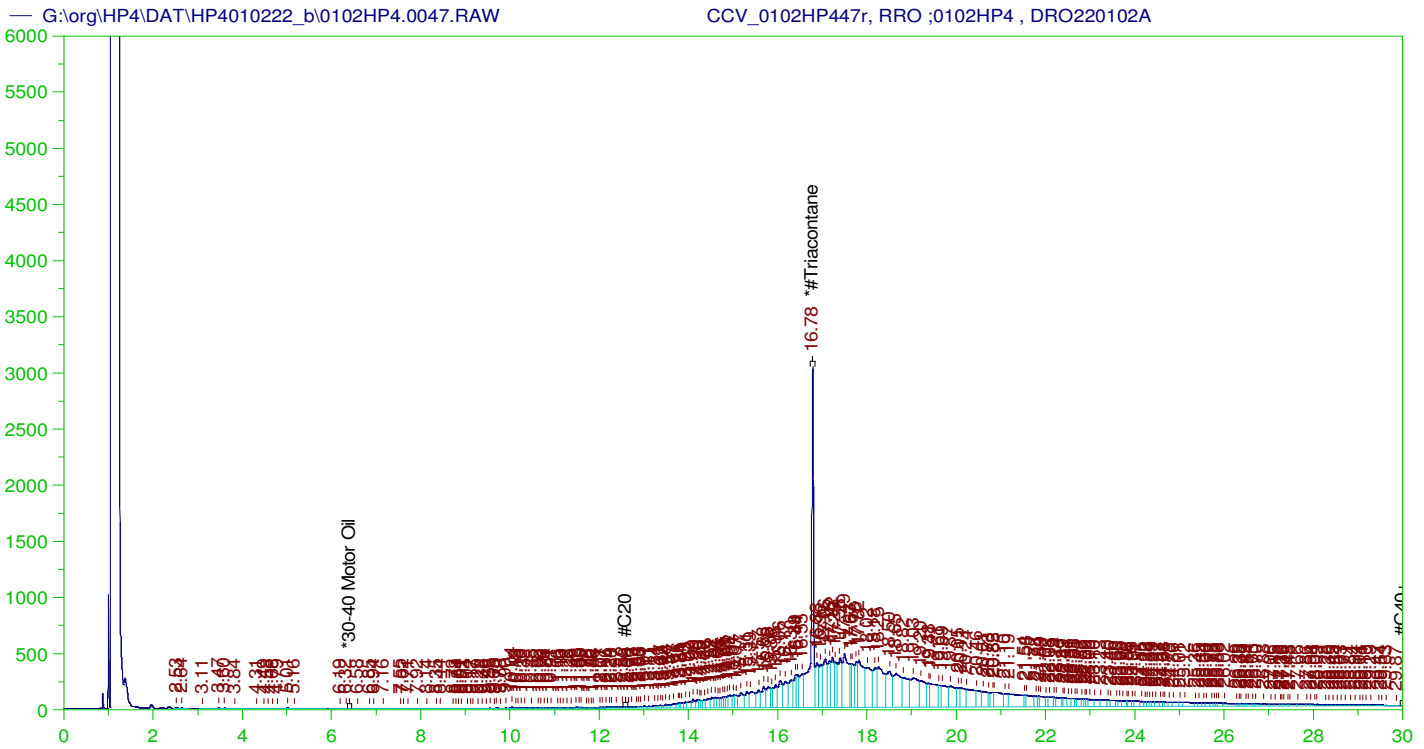
DRO Area: 2.440223E+08 DRO Amount: 7783.013
 TEH Area: 2.540797E+08 TEH Amount: 8103.792

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5123021_b\1230HP5.0046.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8103.79	54.03	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.166	200.	184.534	92.27	85-115
*1-Chlorooctadecane	12.975	200.	180.164	90.08	85-115





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0102HP447r, RRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0047.RAW
 Date & Time Acquired: 1/3/2022 10:57:39 PM
 Method File: G:\Org\HP4\Methods\DC_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
 Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.781	500.	432.592	86.52	-

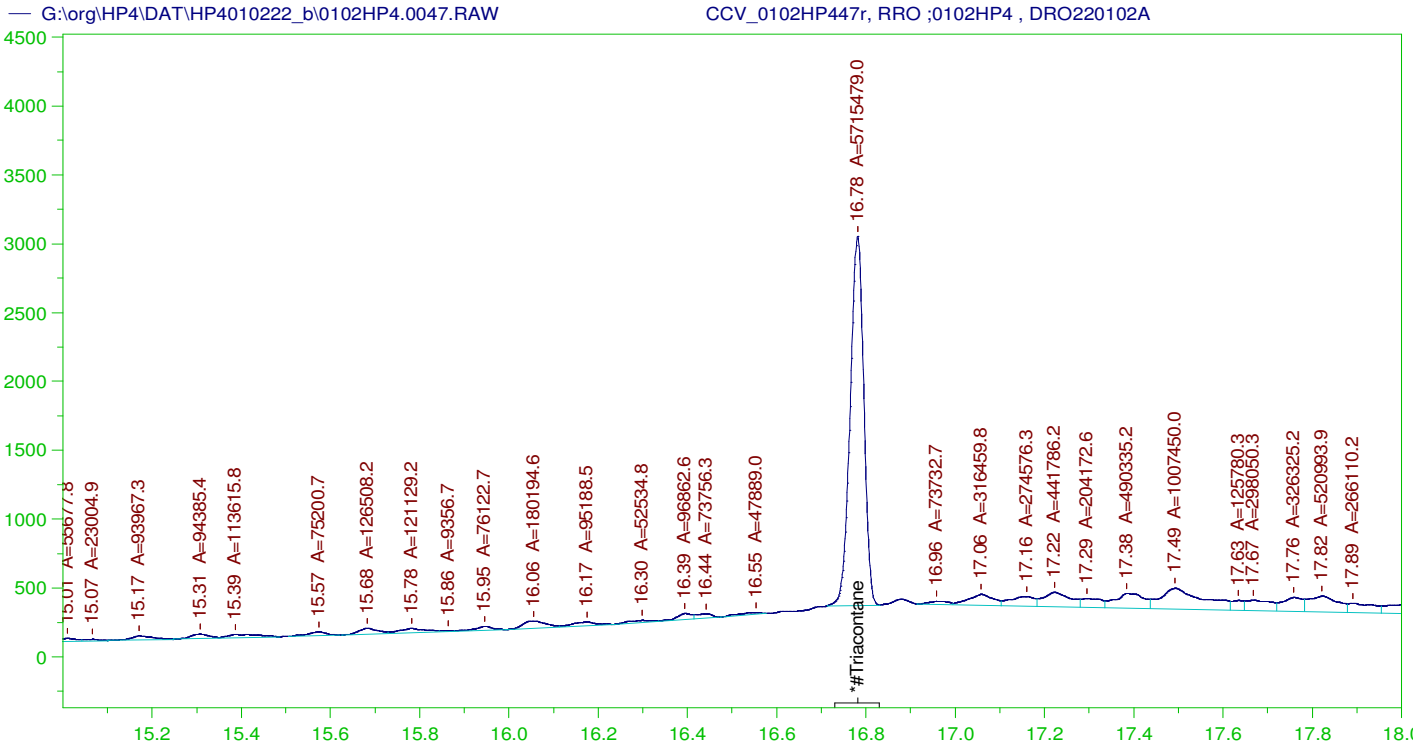
RRO TEH (Oil Range) Area:1.09415E+08 RRO TEH (Oil Range) AMOUNT: 4460.535

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0047.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.781	200.	432.592	216.3	75-125

AMN 01/20/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0102HP447r, RRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0047.RAW
 Date & Time Acquired: 1/3/2022 10:57:39 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

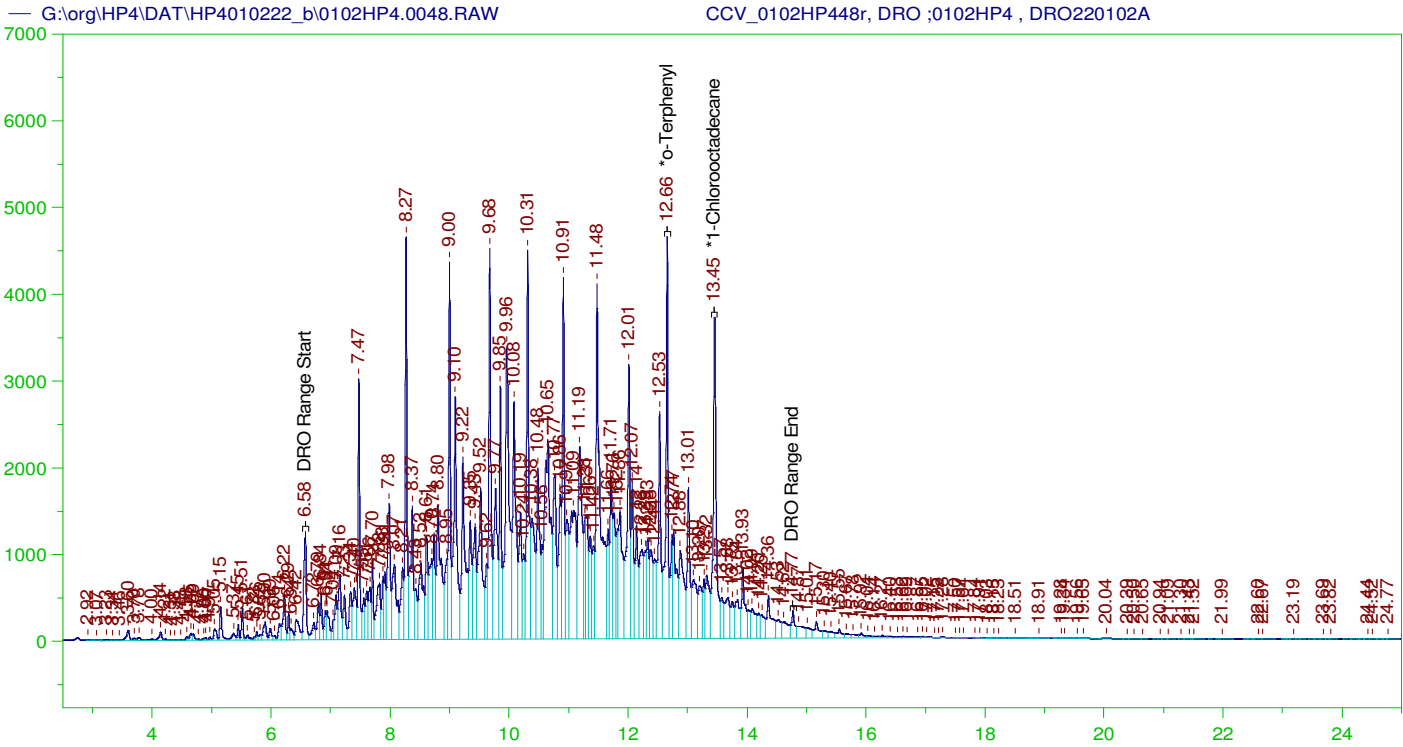
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.781	500.	228.859	45.77

RRO Area:1.047904E+07 RRO AMOUNT: 427.2006

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0047.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.781	200.	228.859	114.43	75-125



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0102HP448r, DRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0048.RAW
 Date & Time Acquired: 1/3/2022 11:42:57 PM
 Method File: G:\Org\HP4\methods\DC_8015-C24-OH-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.657	200.	377.246	188.62
*1-Chlorooctadecane	13.453	200.	375.017	187.51

DRO Area: 4.48503E+08 DRO Amount: 15269.08
 TEH Area: 4.653323E+08 TEH Amount: 15842.03

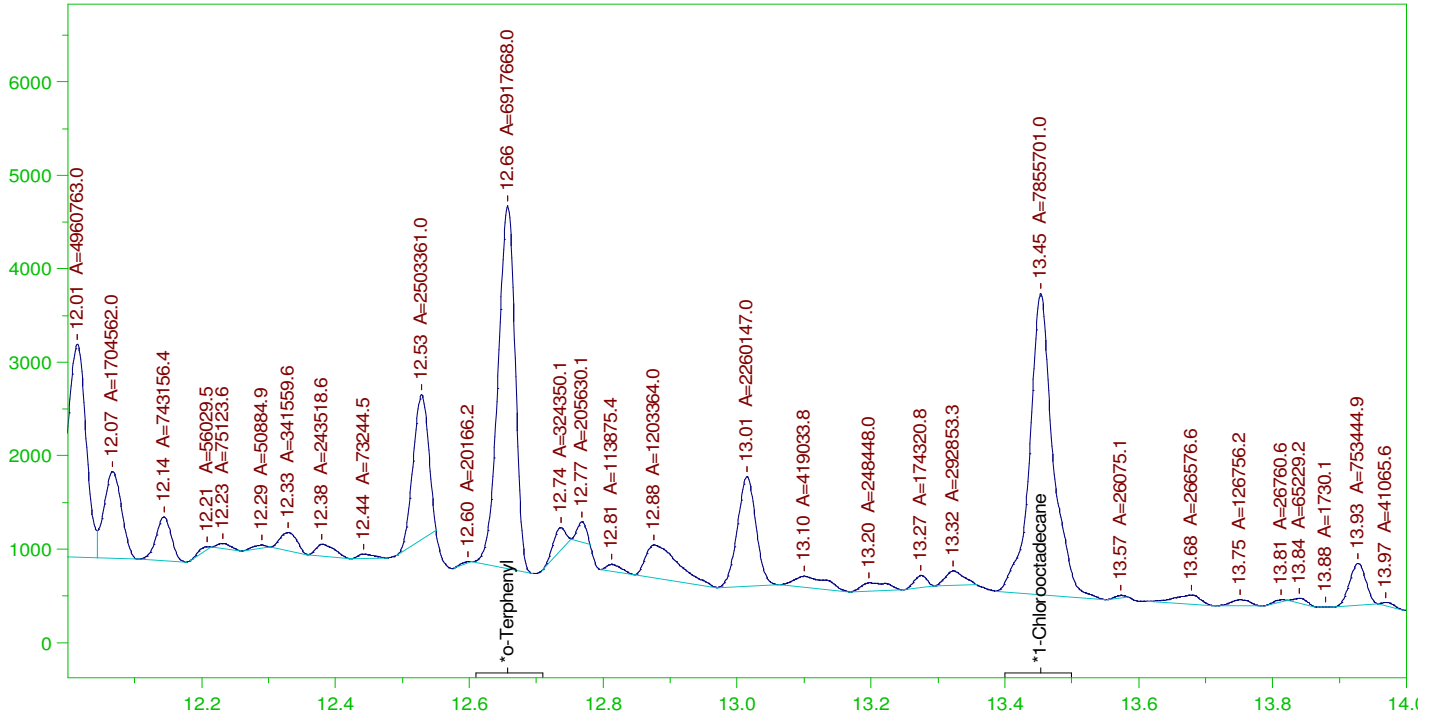
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0048.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15842.03	105.61	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.657	200.	377.246	188.62	85-115
*1-Chlorooctadecane	13.453	200.	375.017	187.51	85-115

G:\org\HP4\DAT\HP4010222_b\0102HP4.0048.RAW

CCV_0102HP448r, DRO ;0102HP4 , DRO220102A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0102HP448r, DRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0048.RAW
 Date & Time Acquired: 1/3/2022 11:42:57 PM
 Method File: G:\Org\HP4\methods\DS_8015-C24-OH-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

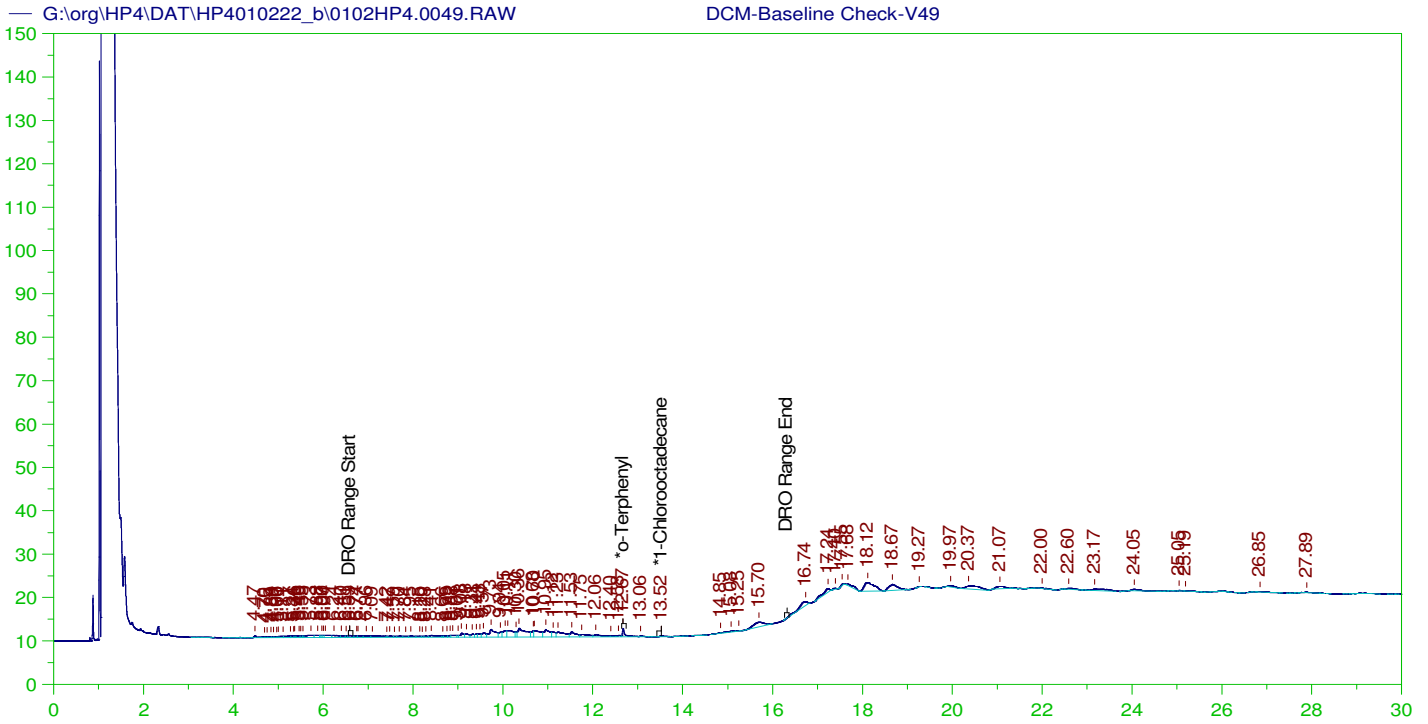
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.657	200.	207.615	103.81
*1-Chlorooctadecane	13.453	200.	235.768	117.88

DRO Area: 1.978598E+08 DRO Amount: 6736.049
 TEH Area: 2.083648E+08 TEH Amount: 7093.685

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0048.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7093.69	47.29	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.657	200.	207.615	103.81	85-115
*1-Chlorooctadecane	13.453	200.	235.768	117.88	85-115



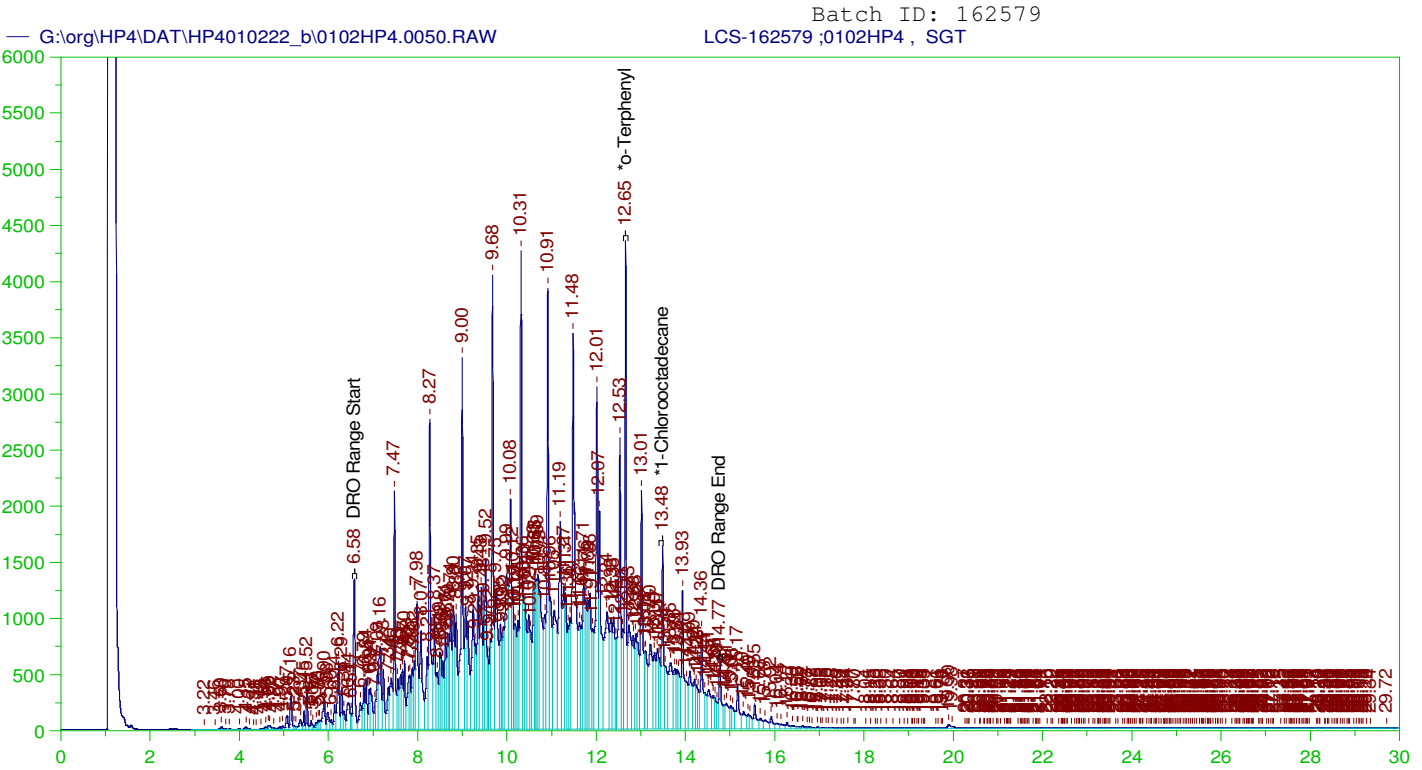
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V49
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0049.RAW
 Date & Time Acquired: 1/4/2022 12:28:16 AM
 Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
 Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.674	200.	.252	.13	-
*1-Chlorooctadecane	13.524	200.	.033	.02	-

DRO Area: 259999.3 DRO Amount: 8.851558
 TEH Area: 442143.8 TEH Amount: 15.05259



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-162579 ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0050.RAW
 Date & Time Acquired: 1/4/2022 1:13:41 AM
 Method File: G:\Org\HP4\methods\D3_8015-24-OH-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

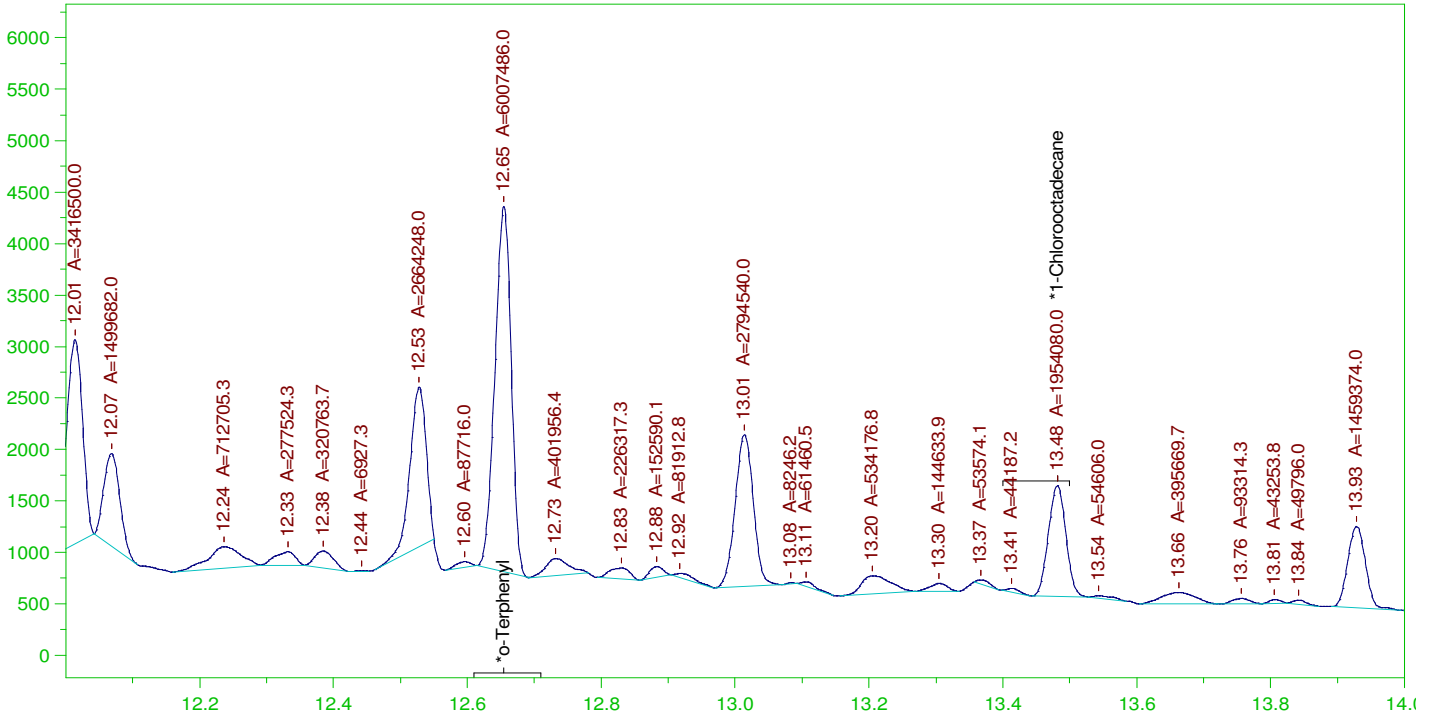
Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.654	.2	.291	145.36	-
*1-Chlorooctadecane	13.481	.2	.144	72.04	-

DRO Area: 3.98727E+08 DRO Amount: 13.57448
 TEH Area: 4.24252E+08 TEH Amount: 14.44347

G:\org\HP4\DAT\HP4010222_b\0102HP4.0050.RAW

Batch ID: 162579
LCS-162579 ;0102HP4 , SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-162579 ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0050.RAW
 Date & Time Acquired: 1/4/2022 1:13:41 AM
 Method File: G:\Org\HP4\methods\DS_8015-C24-OH-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

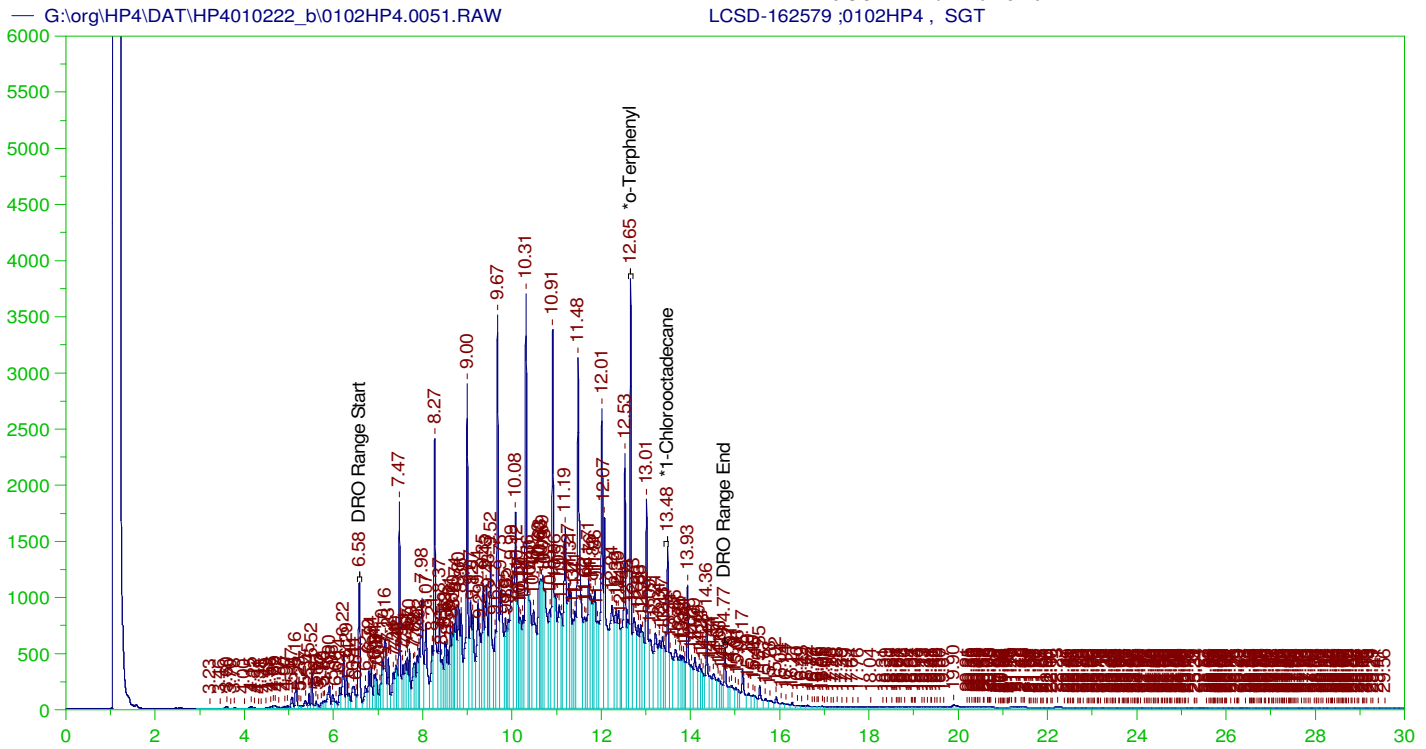
Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.654	.2	.18	90.15
*1-Chlorooctadecane	13.481	.2	.059	29.32

DRO Area:1.542492E+08 DRO Amount: 5.251344
 TEH Area:1.653802E+08 TEH Amount: 5.630293

Batch ID: 162579
LCSD-162579 ;0102HP4 , SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

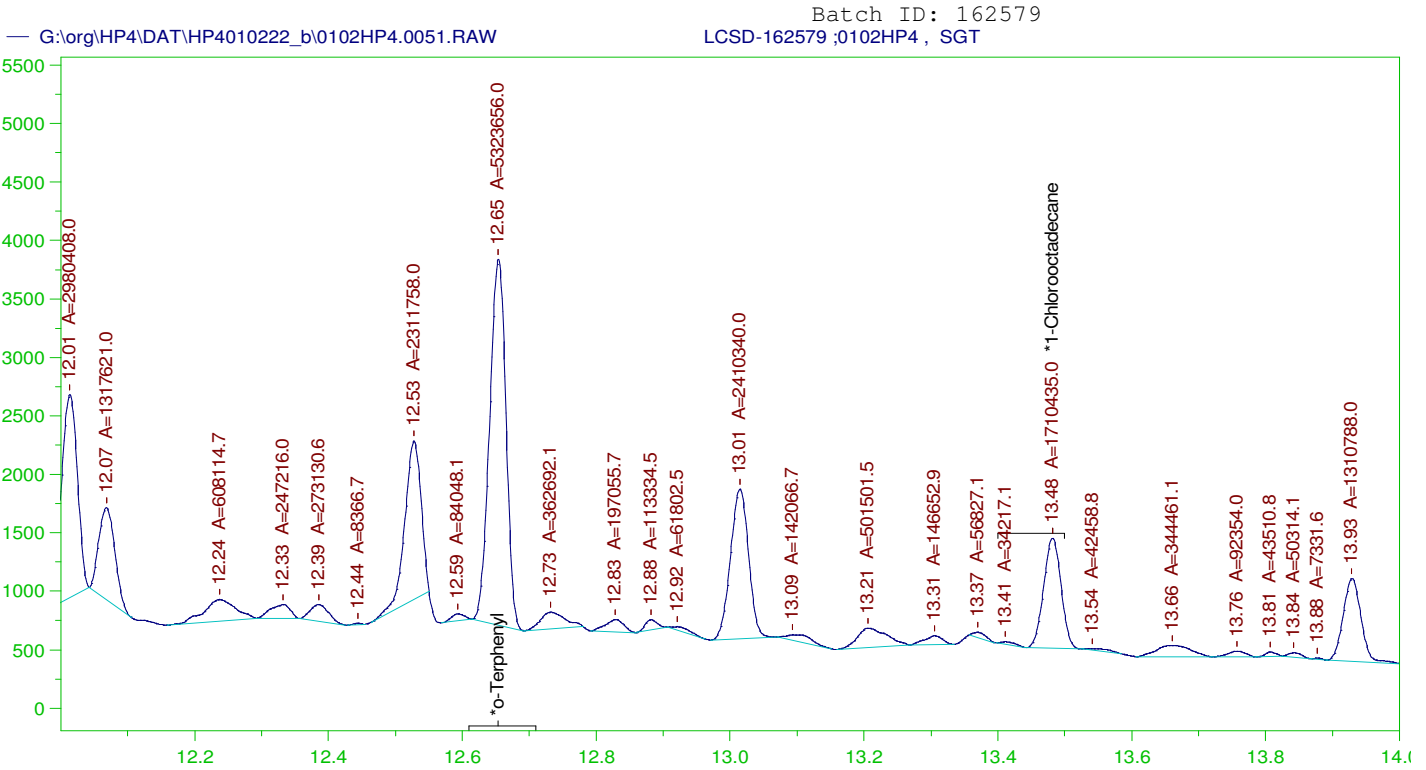
Sample Name: LCSD-162579 ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0051.RAW
 Date & Time Acquired: 1/4/2022 1:59:14 AM
 Method File: G:\Org\HP4\methods\D3_8015-24-OH-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.654	.2	.258	129.17
*1-Chlorooctadecane	13.481	.2	.127	63.37

DRO Area: 3.454774E+08 DRO Amount: 11.76162
 TEH Area: 3.67061E+08 TEH Amount: 12.49642



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

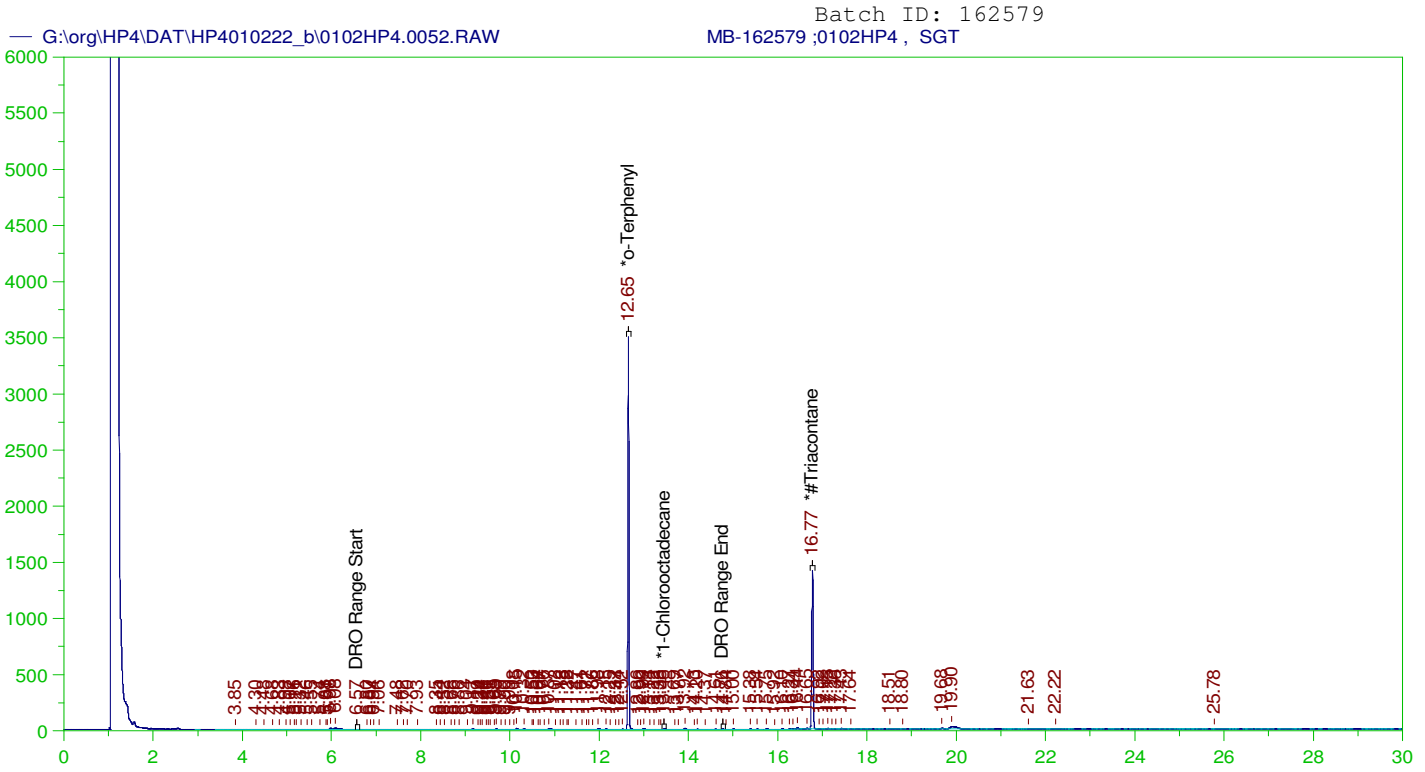
Sample Name: LCSD-162579 ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0051.RAW
 Date & Time Acquired: 1/4/2022 1:59:14 AM
 Method File: G:\Org\HP4\methods\DS_8015-C24-OH-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.654	.2	.16	79.89
*1-Chlorooctadecane	13.481	.2	.051	25.67

DRO Area: 1.32224E+08 DRO Amount: 4.501507
 TEH Area: 1.415036E+08 TEH Amount: 4.817426



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162579 ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0052.RAW
 Date & Time Acquired: 1/4/2022 2:44:43 AM
 Method File: G:\Org\HP4\methods\DR_8015-C24-OH-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24-TRI.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
 Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.65	.2	.183	91.63	-
*1-Chlorooctadecane	13.458	.2	.001	.26	-
*#Triacontane	16.775	.2	.12	59.81	-

DRO Area:503722.1 DRO Amount: 1.714899E-02
 TEH Area:1055034 TEH Amount: 3.591815E-02



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: MB-162579 ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0052.RAW
 Date & Time Acquired: 1/4/2022 2:44:43 AM
 Method File: G:\Org\HP4\Methods\DR_ORO-S-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB-SAMPLE.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 14.73 to 23.61

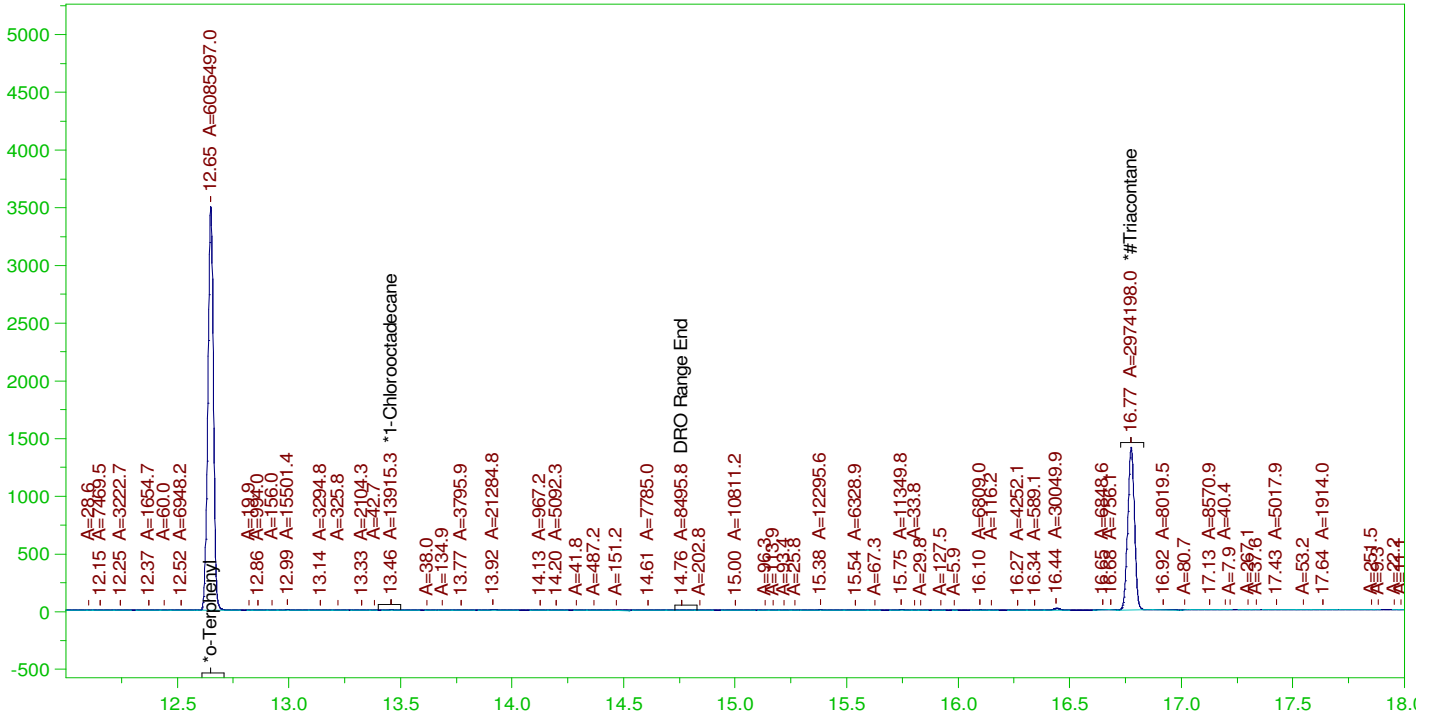
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.775	.5	.119	23.84

RRO Area:326355.1 RRO AMOUNT: 1.330456E-02

Batch ID: 162579

G:\org\HP4\DAT\HP4010222_b\0102HP4.0052.RAW

MB-162579 ;0102HP4 , SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: MB-162579 ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0052.RAW
 Date & Time Acquired: 1/4/2022 2:44:43 AM
 Method File: G:\Org\HP4\methods\DS_8015-T-OH-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24-TRI.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.65	.2	.183	91.32
*1-Chlorooctadecane	13.458	.2	.21	-
*#Triacontane	16.775	.2	.119	59.55

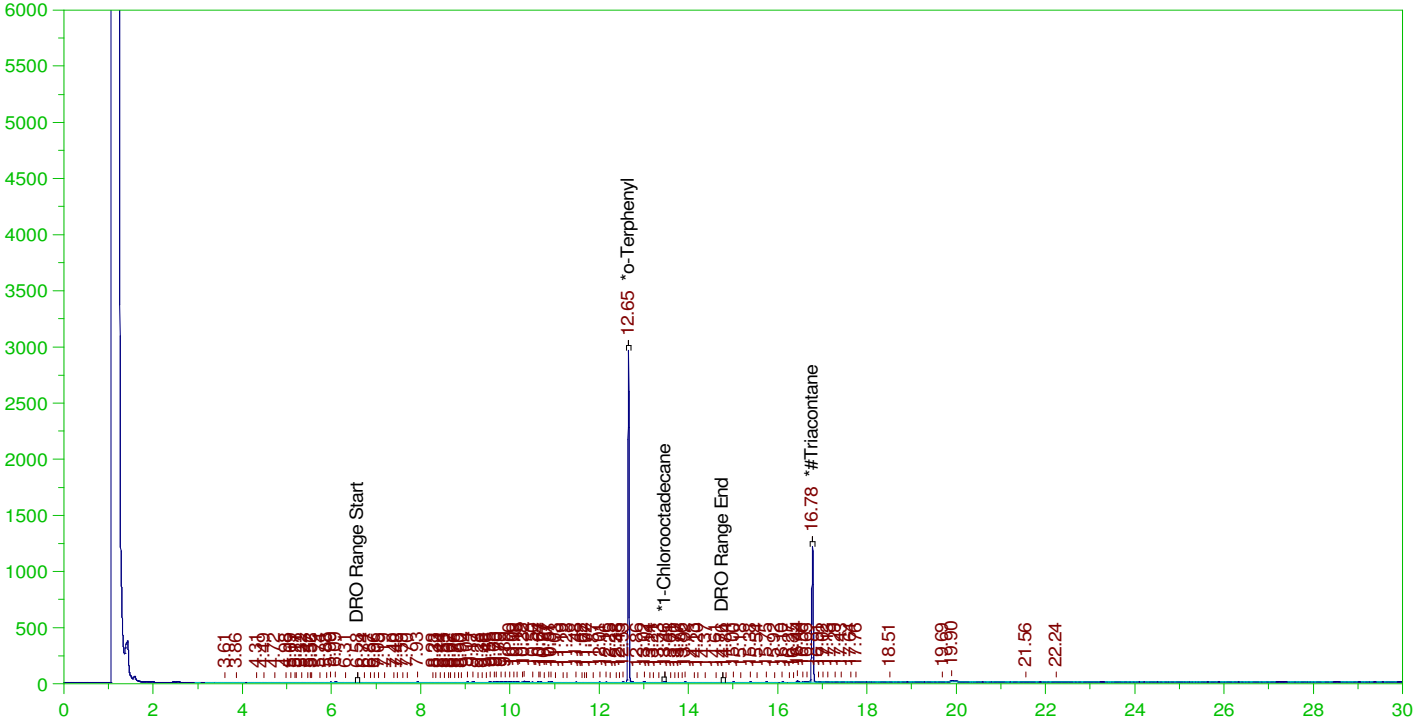
DRO Area:342789.3 DRO Amount: 1.167011E-02
 TEH Area:737009.6 TEH Amount: 2.509116E-02

ERH2251 (RHMW16)

Batch ID: 162579

G:\org\HP4\DAT\HP4010222_b\0102HP4.0053.RAW

B21122077-001D ;0102HP4 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122077-001D ;0102HP4 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0053.RAW
 Date & Time Acquired: 1/4/2022 7:42:41 AM
 Method File: G:\Org\HP4\methods\DR_8015-C24-OH-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24-TRI.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.652	.2	.16	80.11	-
*1-Chlorooctadecane	13.46	.2	.001	.45	-
*#Triacontane	16.776	.2	.102	51.13	-

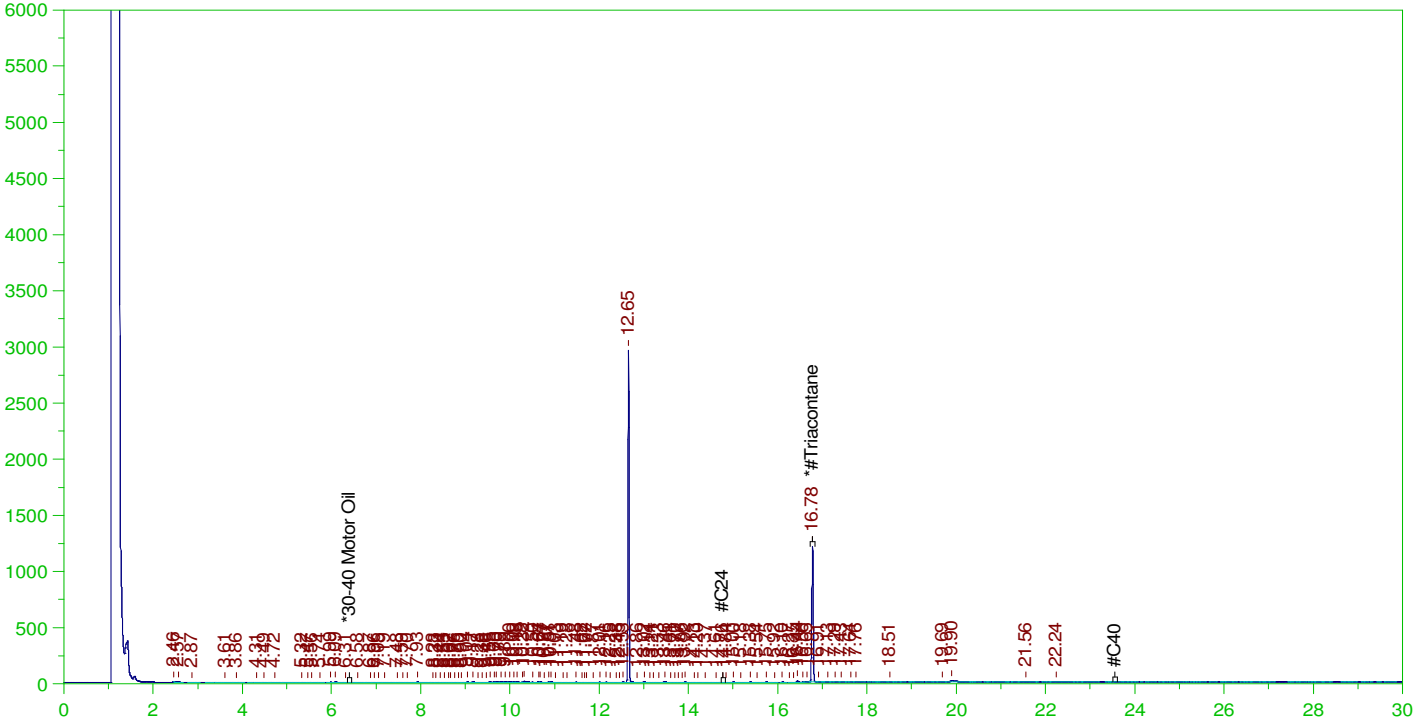
DRO Area:967479.8 DRO Amount: 3.293741E-02
 TEH Area:1282459 TEH Amount: 4.366073E-02

ERH2251 (RHMW16)

Batch ID: 162579

G:\org\HP4\DAT\HP4010222_b\0102HP4.0053.RAW

B21122077-001D ;0102HP4 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21122077-001D ;0102HP4 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0053.RAW
 Date & Time Acquired: 1/4/2022 7:42:41 AM
 Method File: G:\Org\HP4\Methods\DR_ORO-S-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB-SAMPLE.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 14.73 to 23.61

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.776	.5	.102	20.37

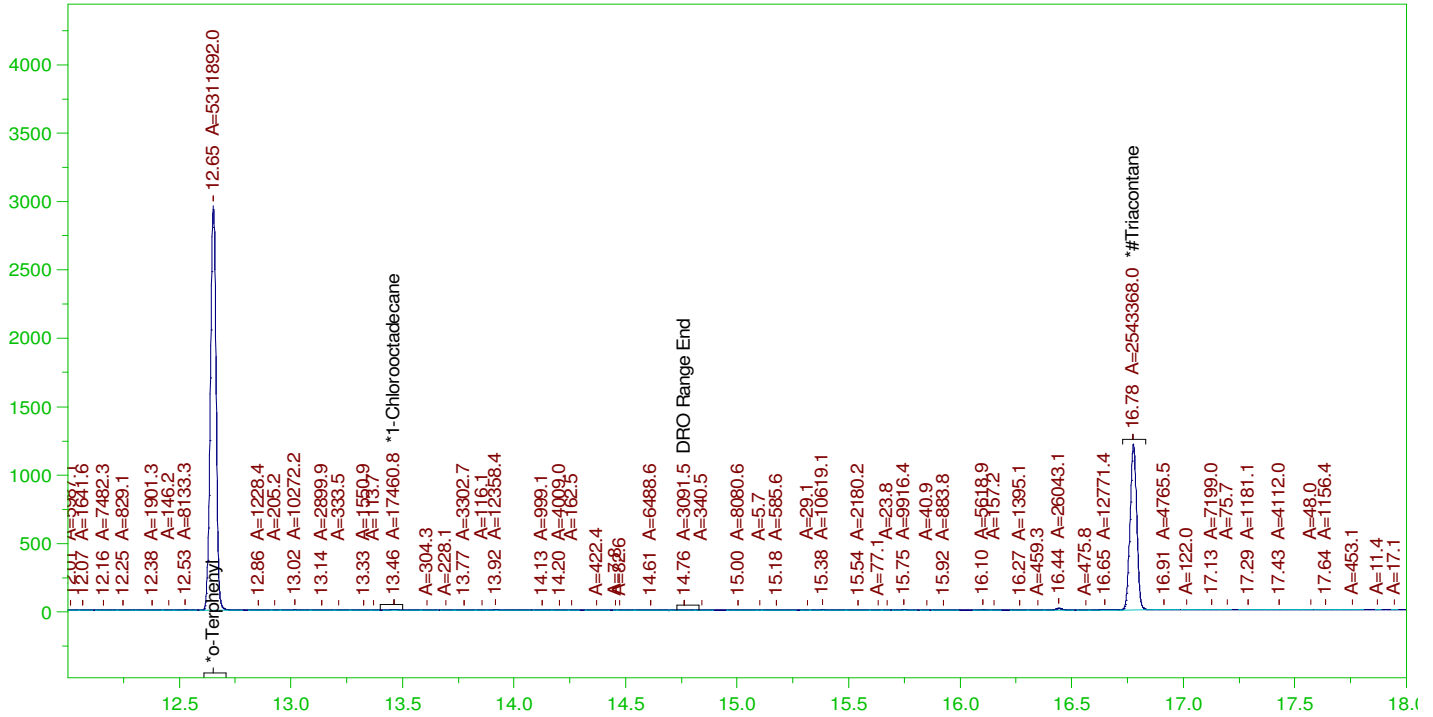
RRO Area:173975.9 RRO AMOUNT: 7.092498E-03

ERH2251 (RHMW16)

Batch ID: 162579

G:\org\HP4\DAT\HP4010222_b\0102HP4.0053.RAW

B21122077-001D ;0102HP4 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122077-001D ;0102HP4 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0053.RAW
 Date & Time Acquired: 1/4/2022 7:42:41 AM
 Method File: G:\Org\HP4\methods\DS_8015-T-OH-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24-TRI.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

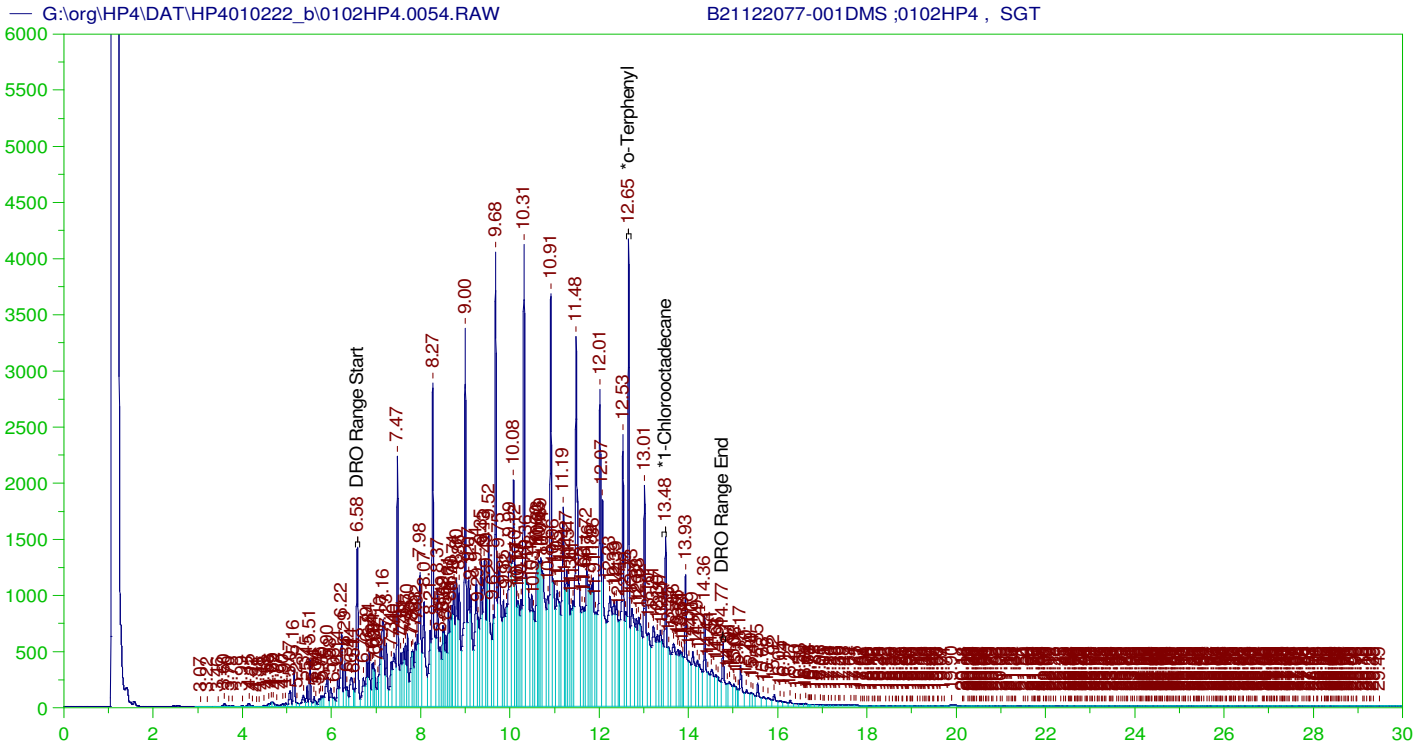
Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.652	.2	.159	79.71	-
*1-Chlorooctadecane	13.46	.2	.001	.26	-
*#Triacontane	16.776	.2	.102	50.92	-

DRO Area:550749.5 DRO Amount: 1.875002E-02
 TEH Area:788691.6 TEH Amount: 2.685065E-02

Batch ID: 162579
B21122077-001DMS ;0102HP4 , SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122077-001DMS ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0054.RAW
 Date & Time Acquired: 1/4/2022 8:27:48 AM
 Method File: G:\Org\HP4\methods\D3_8015-24-OH-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

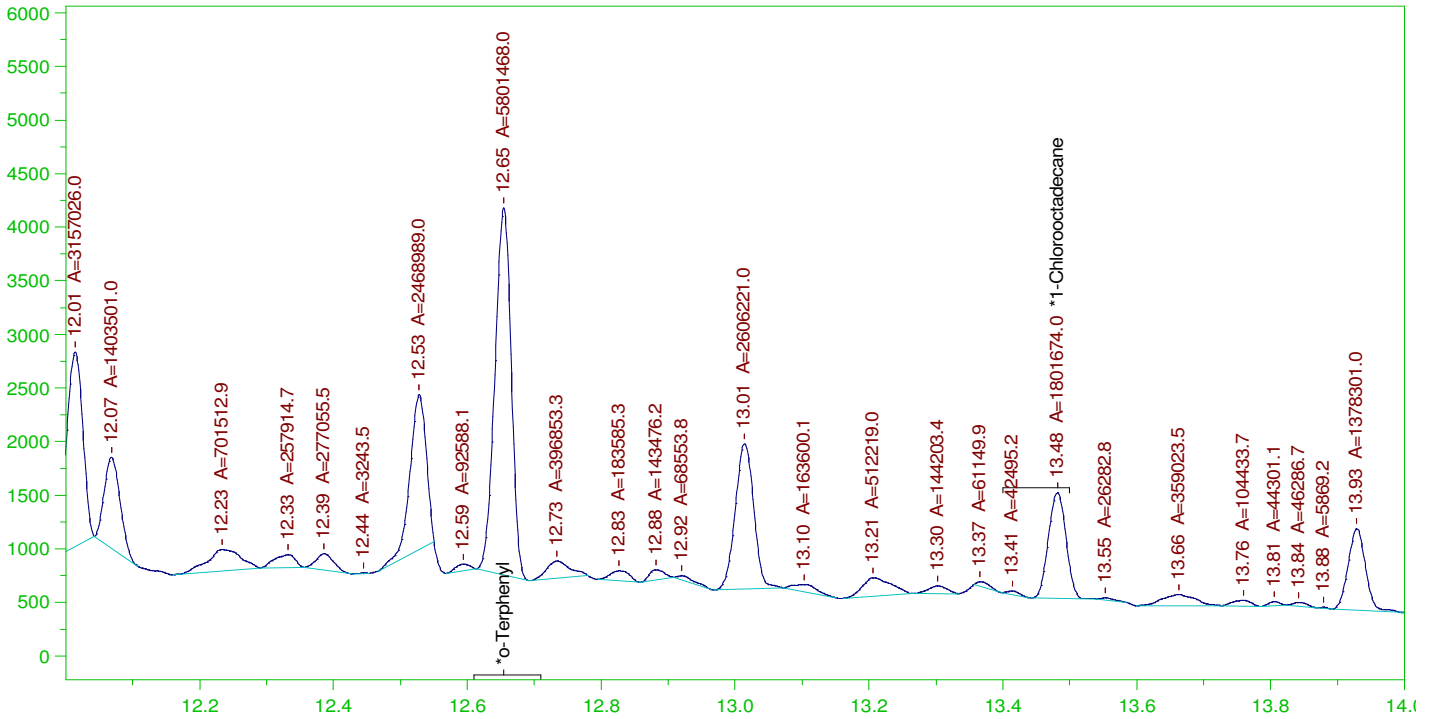
Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.654	.19	.268	140.76	-
*1-Chlorooctadecane	13.481	.19	.139	73.13	-

DRO Area: 3.907863E+08 DRO Amount: 12.67061
 TEH Area: 4.158082E+08 TEH Amount: 13.48191

G:\org\HP4\DAT\HP4010222_b\0102HP4.0054.RAW

Batch ID: 162579
B21122077-001DMS ;0102HP4 , SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122077-001DMS ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0054.RAW
 Date & Time Acquired: 1/4/2022 8:27:48 AM
 Method File: G:\Org\HP4\methods\DS_8015-C24-OH-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.654	.19	.166	87.06	-
*1-Chlorooctadecane	13.481	.19	.051	27.04	-

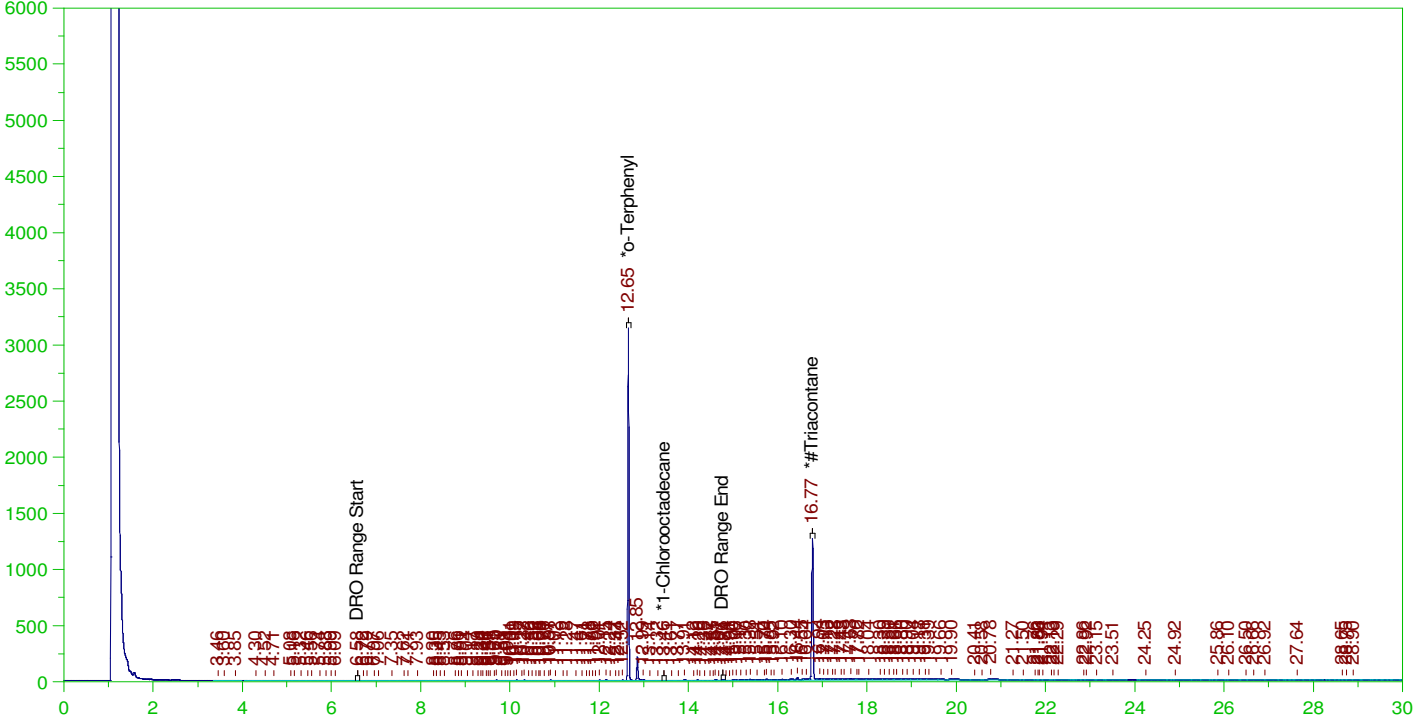
DRO Area:1.561443E+08 DRO Amount: 5.062727
 TEH Area:1.679798E+08 TEH Amount: 5.446473

ERH2247 (RHMW09)

G:\org\HP4\DAT\HP4010222_b\0102HP4.0055.RAW

Batch ID: 162579

B21122088-001D ;0102HP4 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: B21122088-001D ;0102HP4 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0055.RAW
 Date & Time Acquired: 1/4/2022 9:12:51 AM
 Method File: G:\Org\HP4\methods\DR_8015-010255-OH-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24-TRI.CAL
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.649	.19	.155	81.63	-
*1-Chlorooctadecane	13.456	.19	.	.09	-
*#Triacontane	16.774	.19	.103	54.23	-

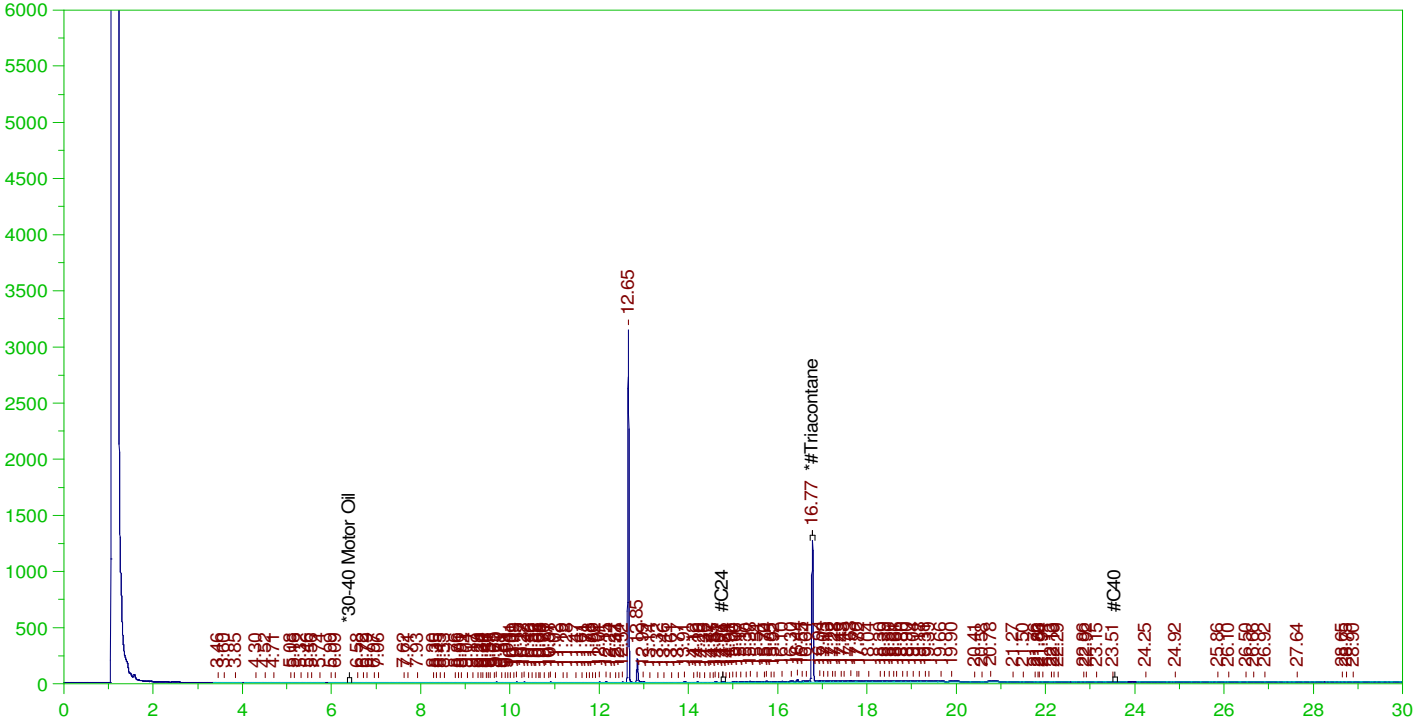
DRO Area:817976 DRO Amount: 2.652155E-02
 TEH Area:2825885 TEH Amount: 9.162474E-02

ERH2247 (RHMW09)

Batch ID: 162579

G:\org\HP4\DAT\HP4010222_b\0102HP4.0055.RAW

B21122088-001D ;0102HP4 , \$HC-8015-DRO-W, SGT



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21122088-001D ;0102HP4 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0055.RAW
 Date & Time Acquired: 1/4/2022 9:12:51 AM
 Method File: G:\Org\HP4\Methods\DR_ORO-010255-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB-SAMPLE.CAL
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 14.73 to 23.61

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.774	.476	.103	21.69

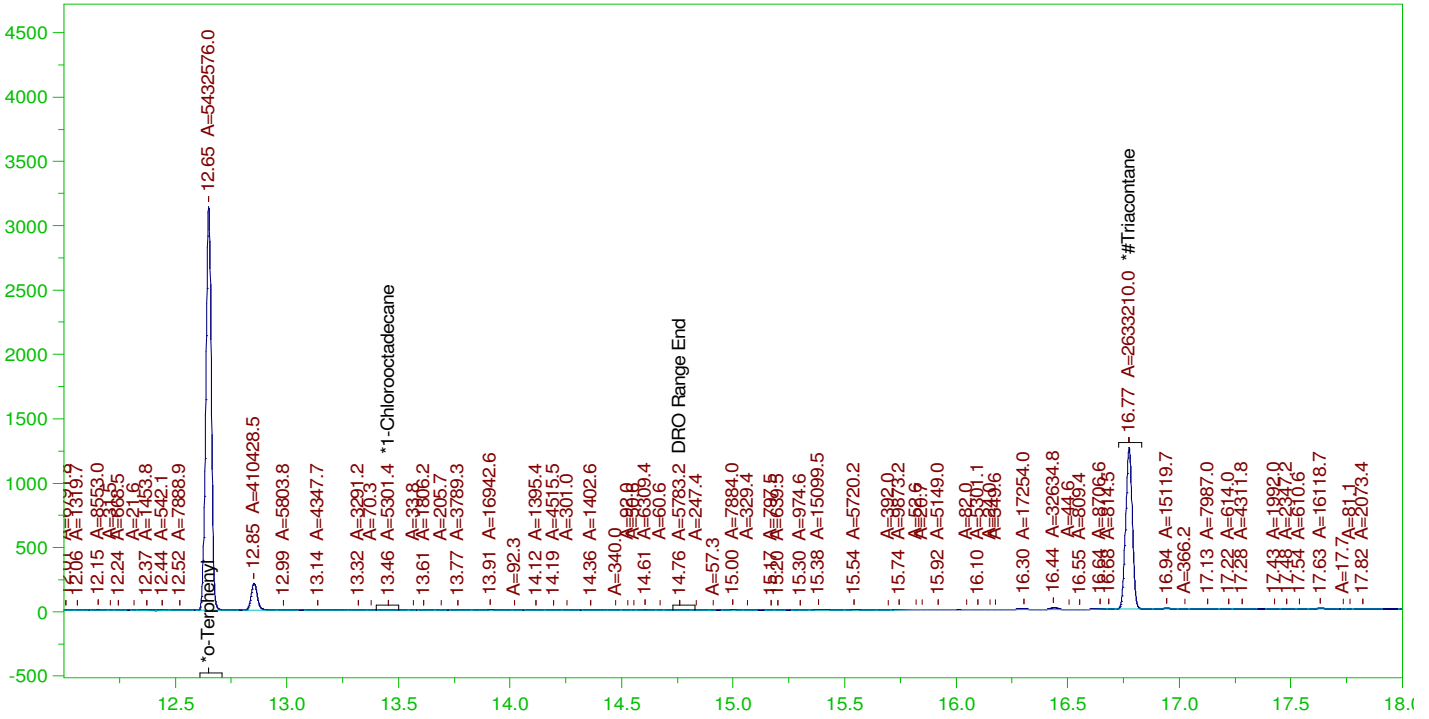
RRO Area:1890291 RRO AMOUNT: 7.339213E-02

ERH2247 (RHMW09)

G:\org\HP4\DAT\HP4010222_b\0102HP4.0055.RAW

Batch ID: 162579

B21122088-001D ;0102HP4 , \$HC-8015-DRO-W, SGT



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

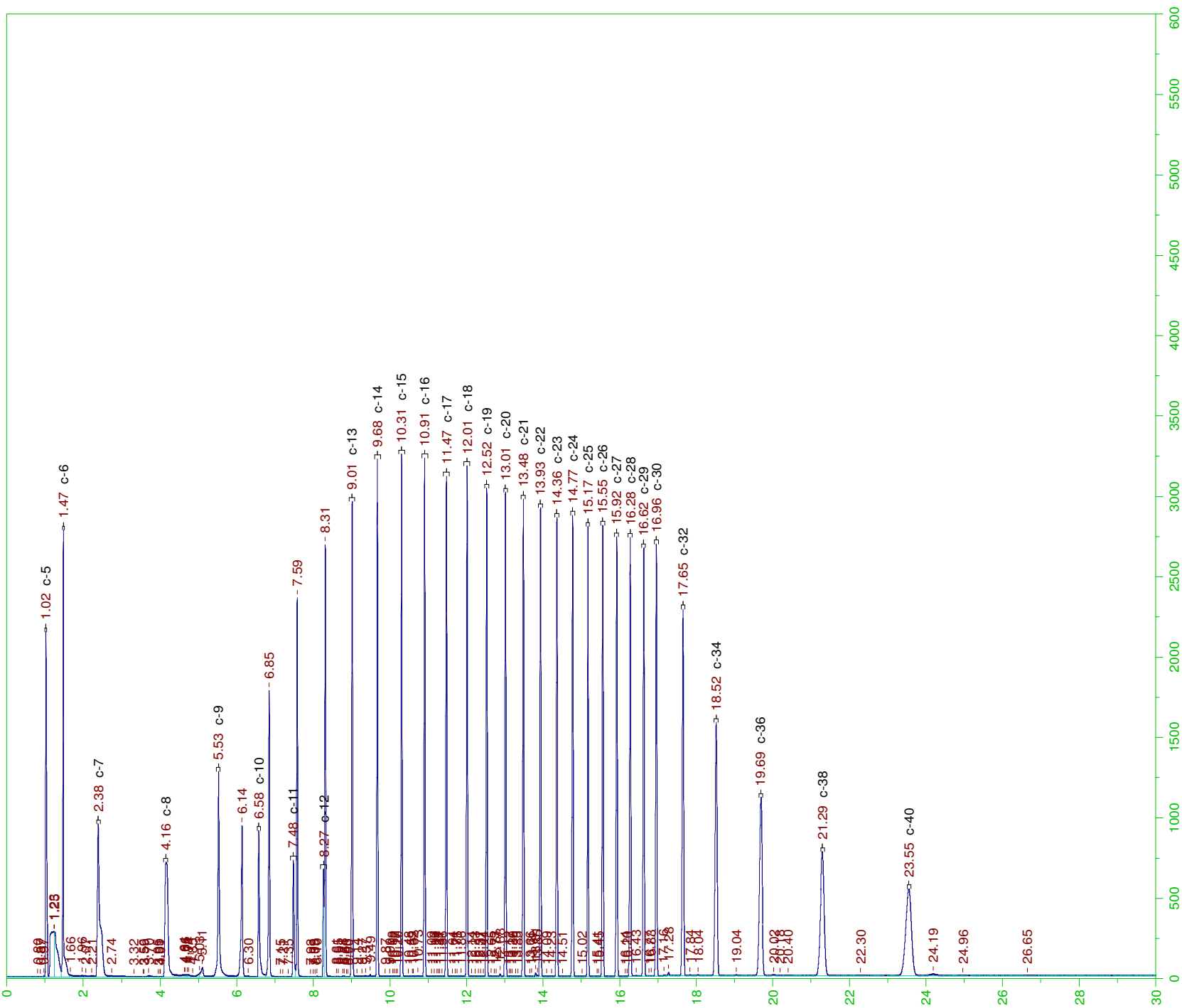
Sample Name: B21122088-001D ;0102HP4 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0055.RAW
 Date & Time Acquired: 1/4/2022 9:12:51 AM
 Method File: G:\Org\HP4\methods\DS_8015-T-OH-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24-TRI.CAL
 Sample Weight: 1050 Dilution: 1 S.A.: 1

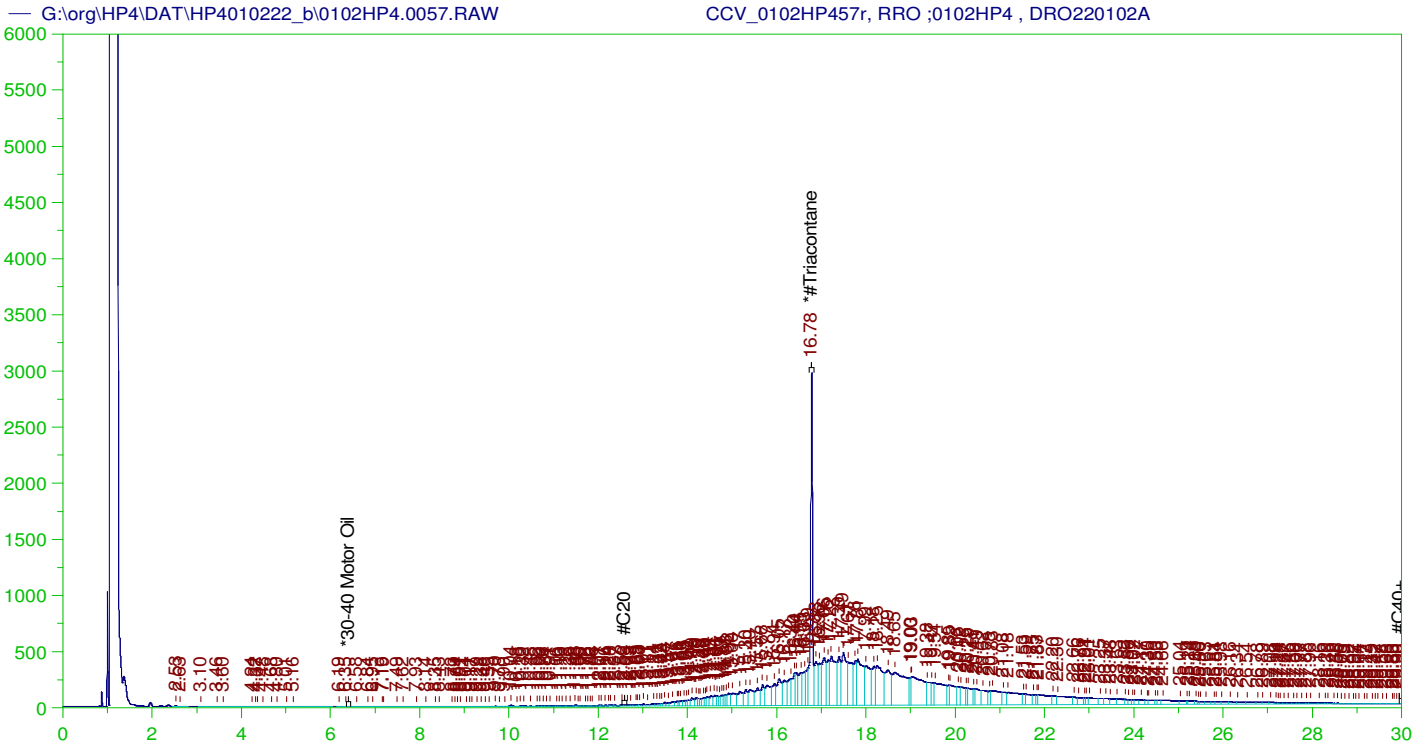
Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.649	.19	.155	81.52	-
*1-Chlorooctadecane	13.456	.19	.	.08	-
*#Triacontane	16.774	.19	.1	52.72	-

DRO Area:701537 DRO Amount: 0.0227462
 TEH Area:1066348 TEH Amount: 3.457461E-02





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0102HP457r, RRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0057.RAW
 Date & Time Acquired: 1/4/2022 10:43:23 AM
 Method File: G:\Org\HP4\Methods\DC_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
 Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.78	500.	339.7	67.94	-

RRO TEH (Oil Range) Area:1.099838E+08 RRO TEH (Oil Range) AMOUNT: 4483.724

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0057.RAW

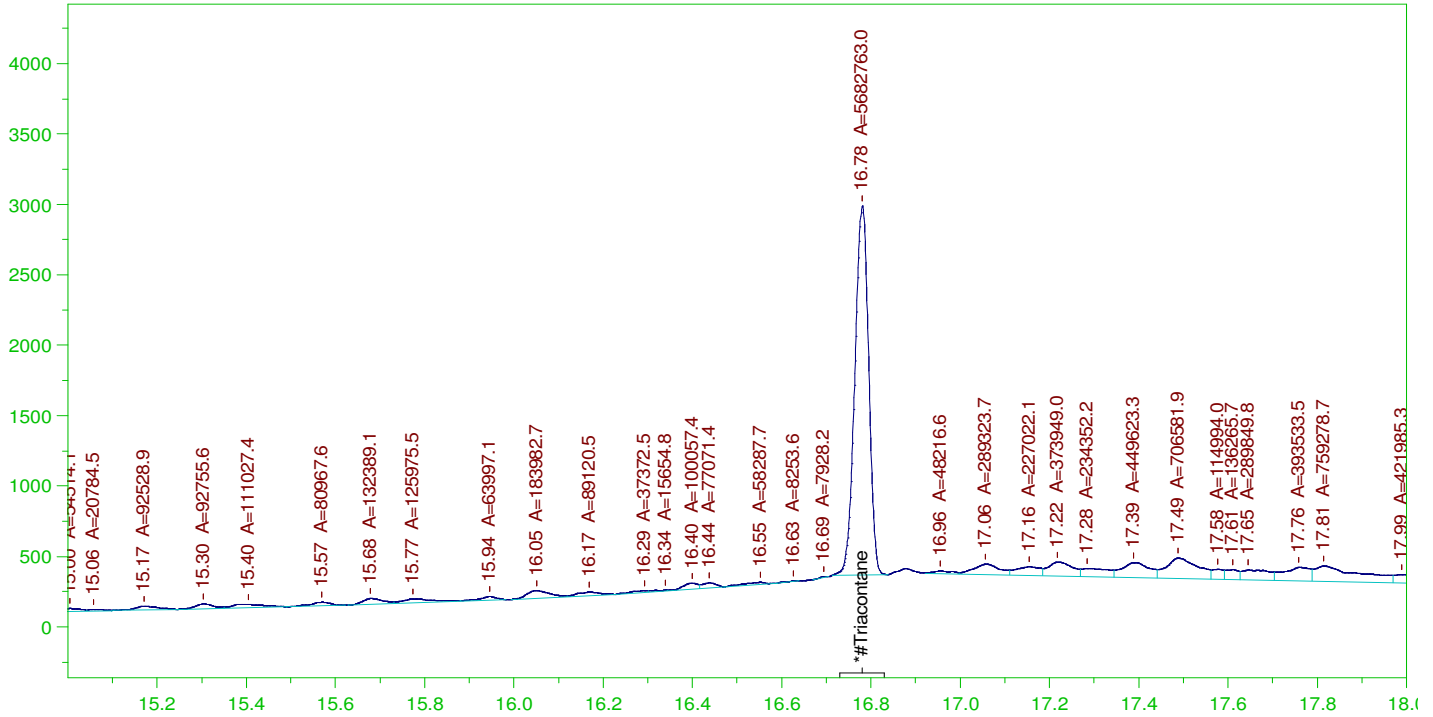
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.	75-125	

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.78	200.	339.7	169.85	75-125

AMN 01/20/2022

G:\org\HP4\DAT\HP4010222_b\0102HP4.0057.RAW

CCV_0102HP457r, RRO ;0102HP4 , DRO220102A



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0102HP457r, RRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0057.RAW
 Date & Time Acquired: 1/4/2022 10:43:23 AM
 Method File: G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.78	500.	227.549	45.51	-

RRO Area:9821795 RRO AMOUNT: 400.4064

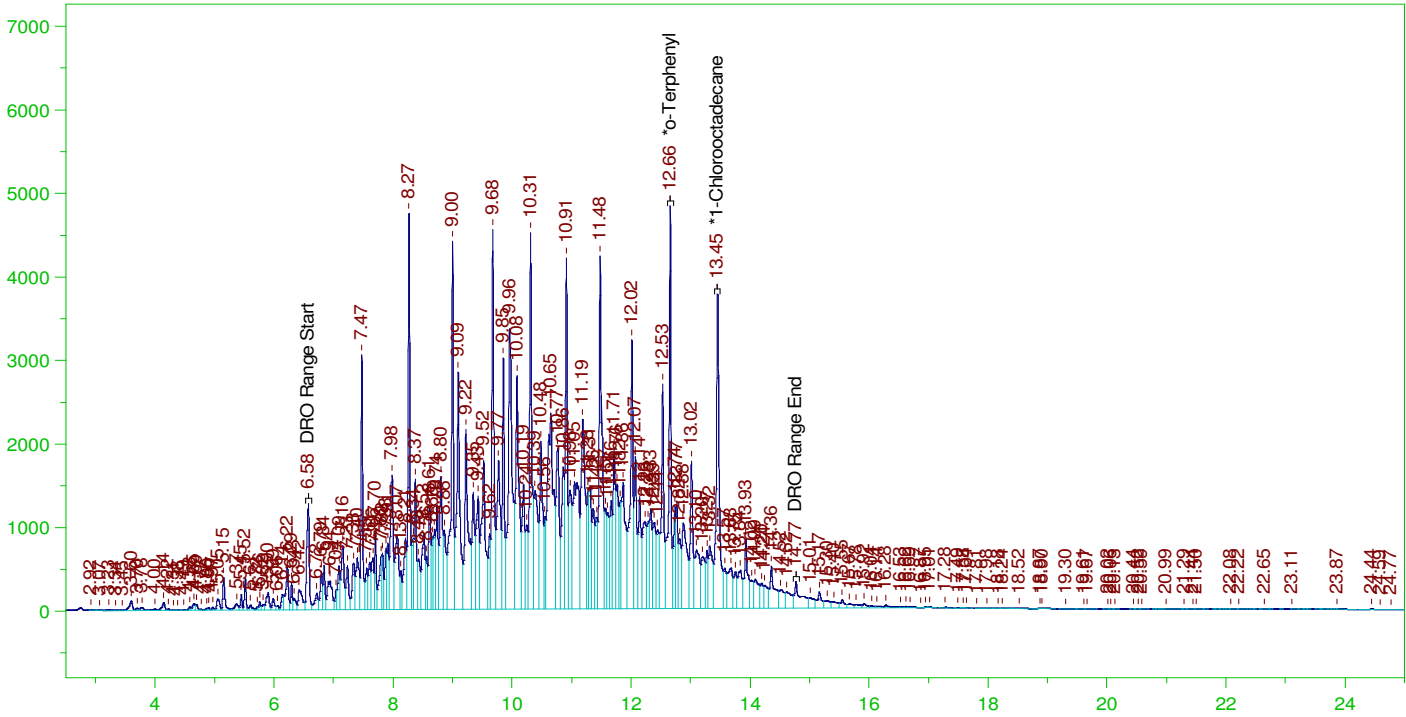
CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0057.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.78	200.	227.549	113.77	75-125

G:\org\HP4\DAT\HP4010222_b\0102HP4.0058.RAW

CCV_0102HP458r, DRO ;0102HP4 , DRO220102A



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0102HP458r, DRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0058.RAW
 Date & Time Acquired: 1/4/2022 11:28:43 AM
 Method File: G:\Org\HP4\methods\DC_8015-C24-OH-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

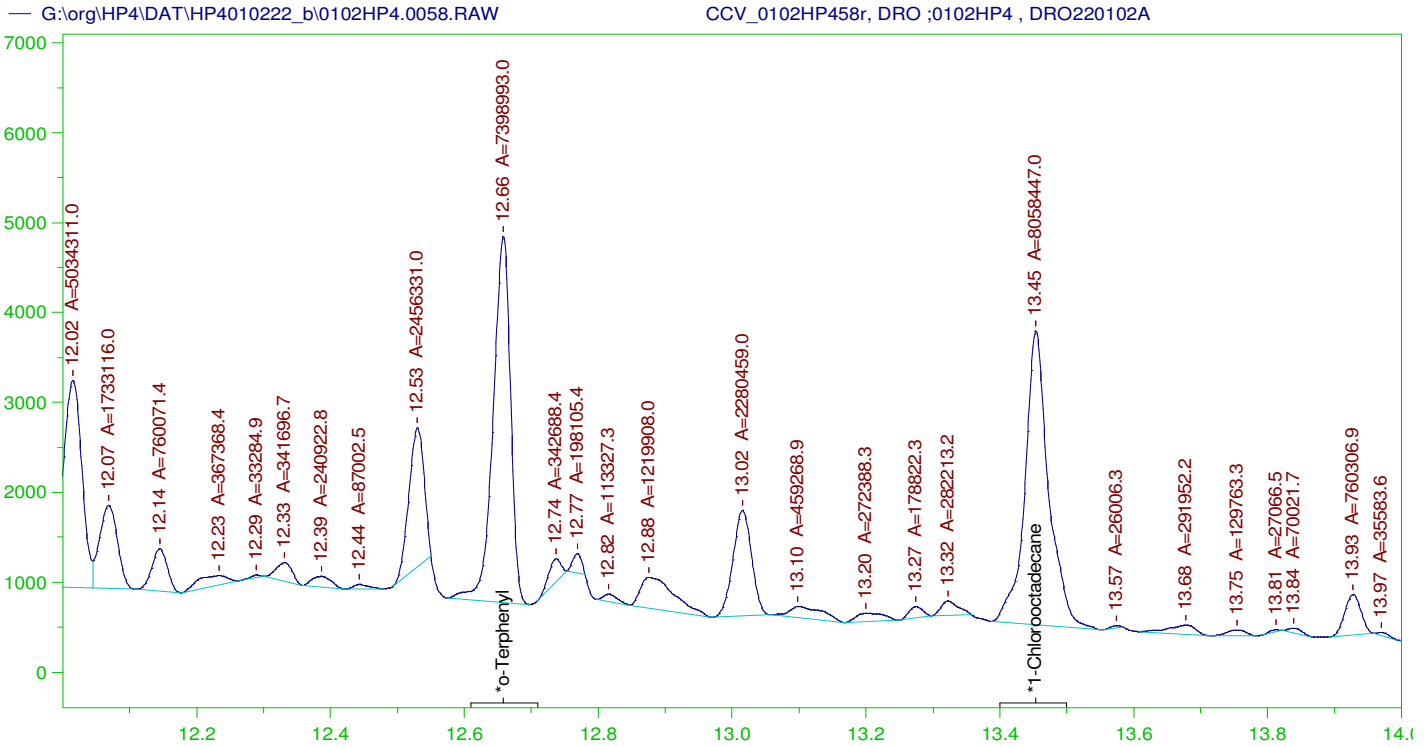
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.658	200.	388.193	194.1
*1-Chlorooctadecane	13.453	200.	384.643	192.32

DRO Area: 4.619409E+08 DRO Amount: 15726.57
 TEH Area: 4.78241E+08 TEH Amount: 16281.5

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0058.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	16281.5	108.54	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.658	200.	388.193	194.1	85-115
*1-Chlorooctadecane	13.453	200.	384.643	192.32	85-115



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: CCV_0102HP458r, DRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0058.RAW
 Date & Time Acquired: 1/4/2022 11:28:43 AM
 Method File: G:\Org\HP4\methods\DS_8015-C24-OH-L#.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH-C24.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.53 to 14.83

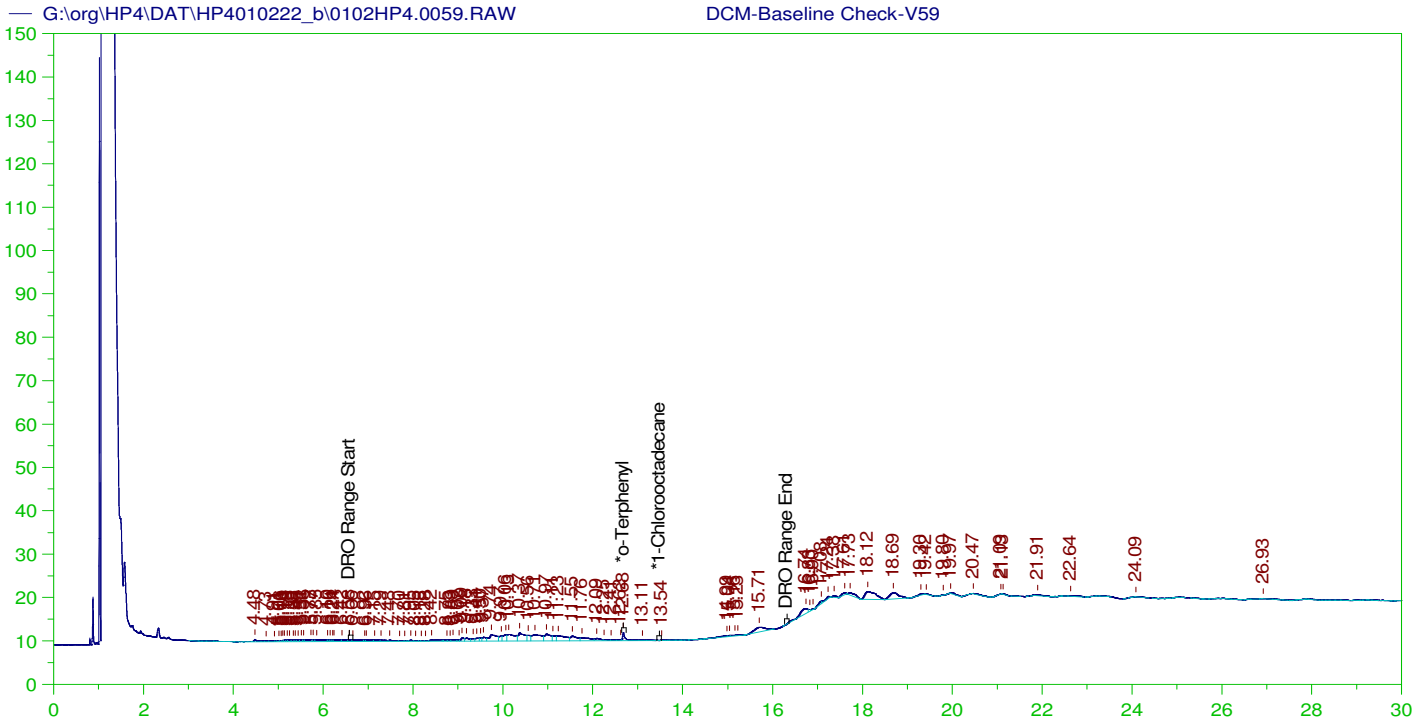
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.658	200.	222.061	111.03
*1-Chlorooctadecane	13.453	200.	241.852	120.93

DRO Area: 2.020643E+08 DRO Amount: 6879.188
 TEH Area: 2.129027E+08 TEH Amount: 7248.176

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0058.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7248.18	48.32	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.658	200.	222.061	111.03	85-115
*1-Chlorooctadecane	13.453	200.	241.852	120.93	85-115



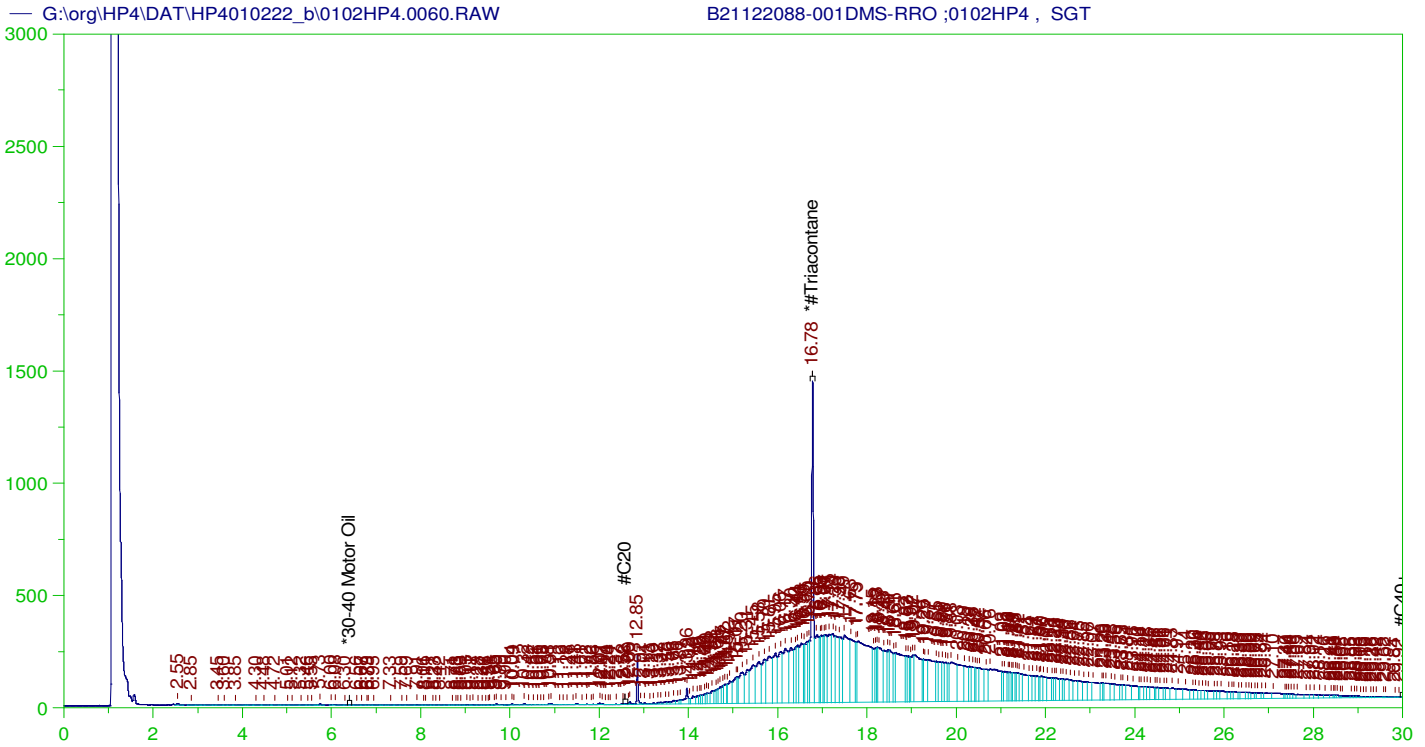
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V59
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0059.RAW
 Date & Time Acquired: 1/4/2022 12:13:52 PM
 Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28
 Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.678	200.	.279	.14
*1-Chlorooctadecane	29.882	200.	.	.

DRO Area:252122.4 DRO Amount: 8.583392
 TEH Area:407950 TEH Amount: 13.88848



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21122088-001DMS-RRO ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0060.RAW
 Date & Time Acquired: 1/4/2022 12:59:18 PM
 Method File: G:\Org\HP4\Methods\D3_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 950 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
 Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

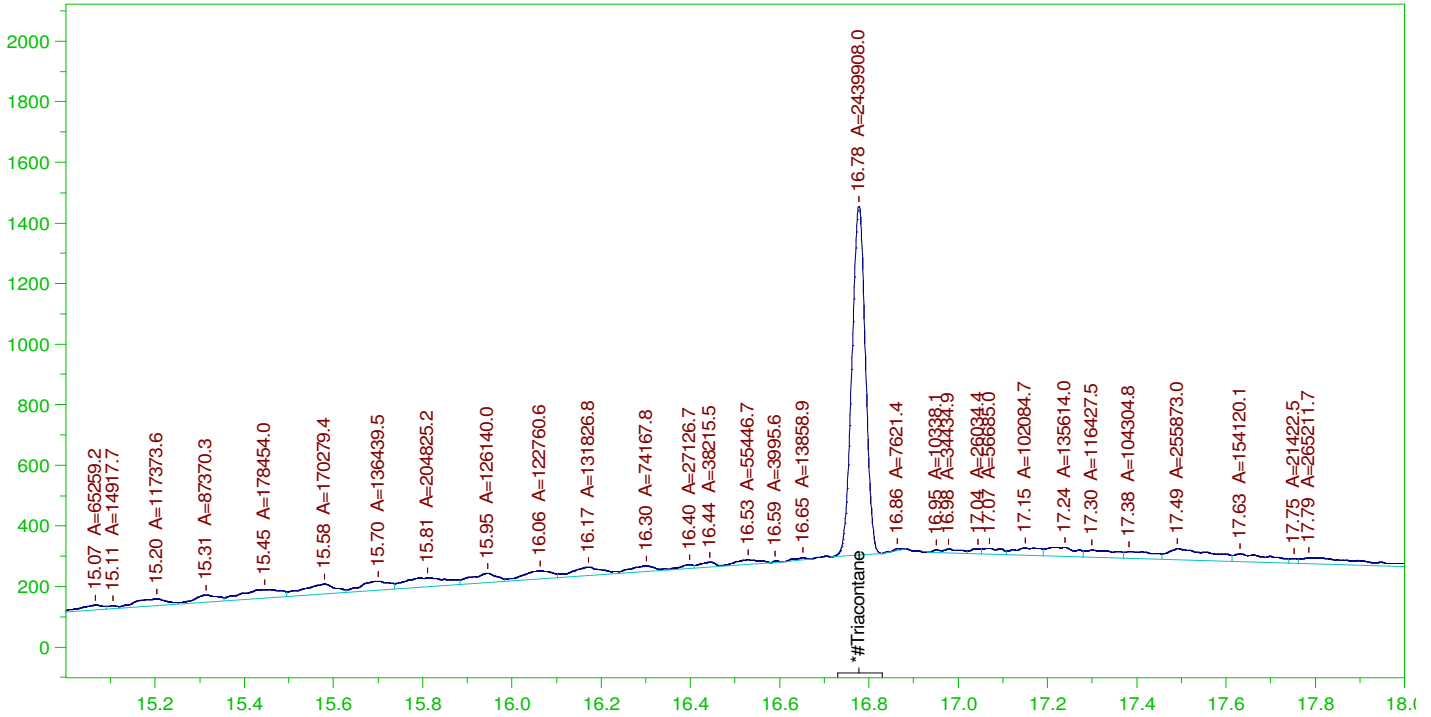
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.777	.526	.182	34.62	-

RRO TEH (Oil Range) Area:1.04631E+08 RRO TEH (Oil Range) AMOUNT: 4.490005

AMN 01/20/2022

G:\org\HP4\DAT\HP4010222_b\0102HP4.0060.RAW

B21122088-001DMS-RRO ;0102HP4 , SGT



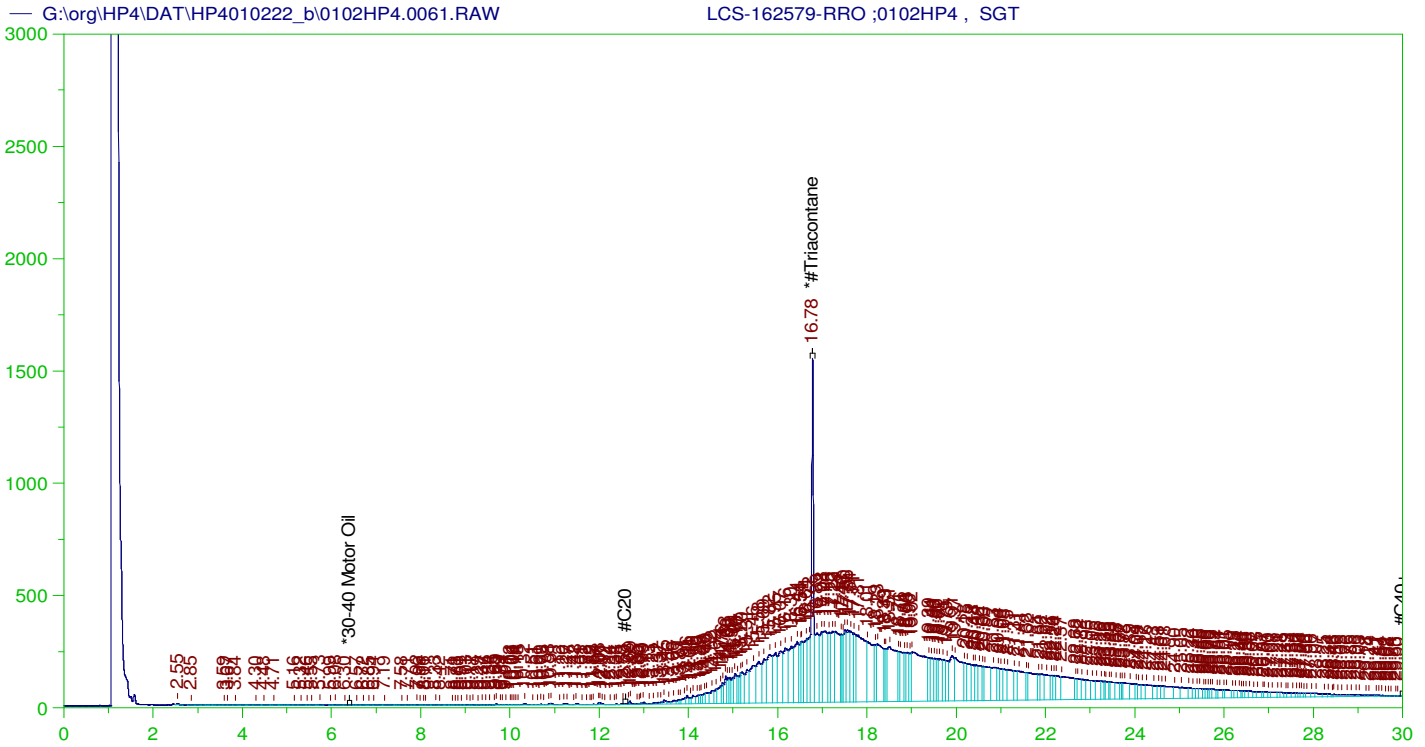
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: B21122088-001DMS-RRO ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0060.RAW
 Date & Time Acquired: 1/4/2022 12:59:18 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 950 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.777	.526	.103	19.54

RRO Area:5342749 RRO AMOUNT: 0.2292722



RESIDUAL RANGE ORGANICS CHROMATOGRAM

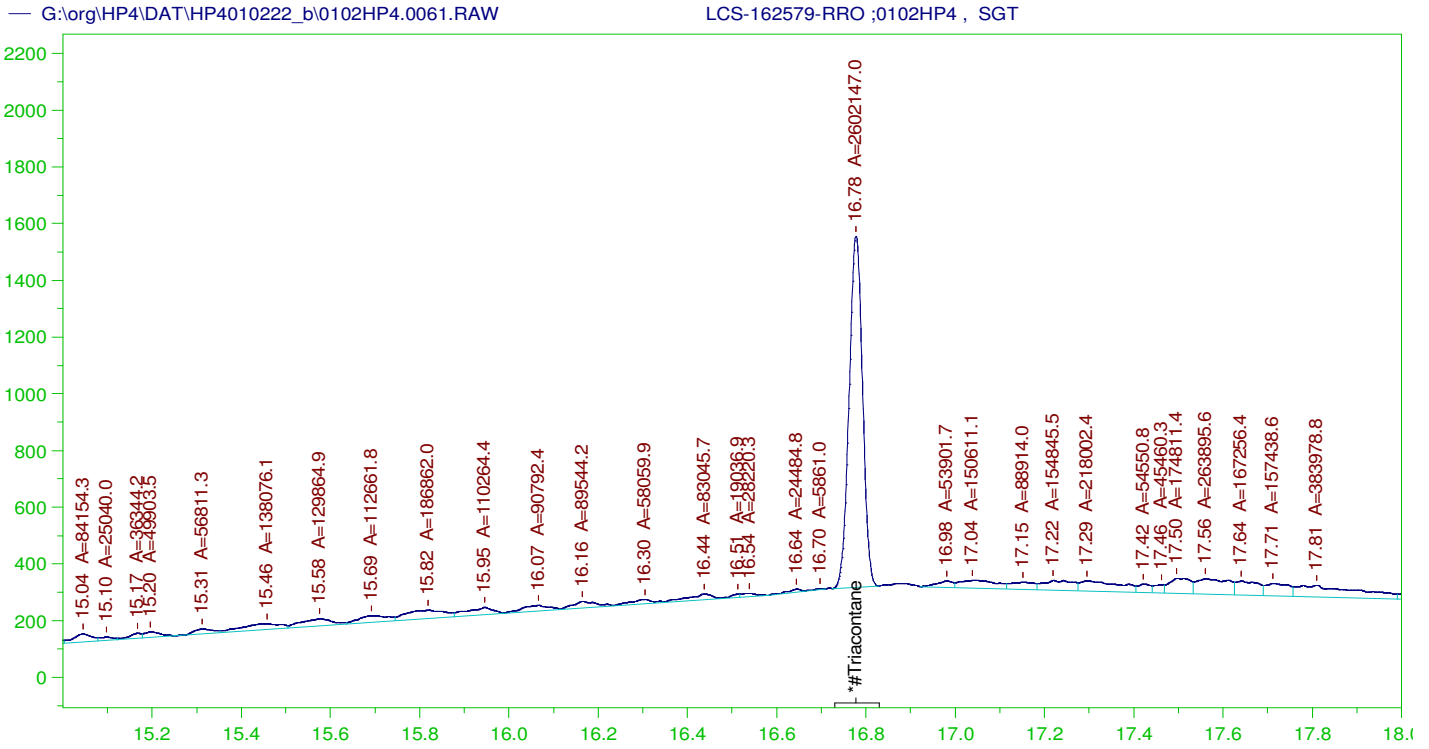
Sample Name: LCS-162579-RRO ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0061.RAW
 Date & Time Acquired: 1/4/2022 1:44:51 PM
 Method File: G:\Org\HP4\Methods\D3_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
 Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.777	.5	.177	35.34

RRO TEH (Oil Range) Area:1.099323E+08 RRO TEH (Oil Range) AMOUNT: 4.481624

AMN 01/20/2022



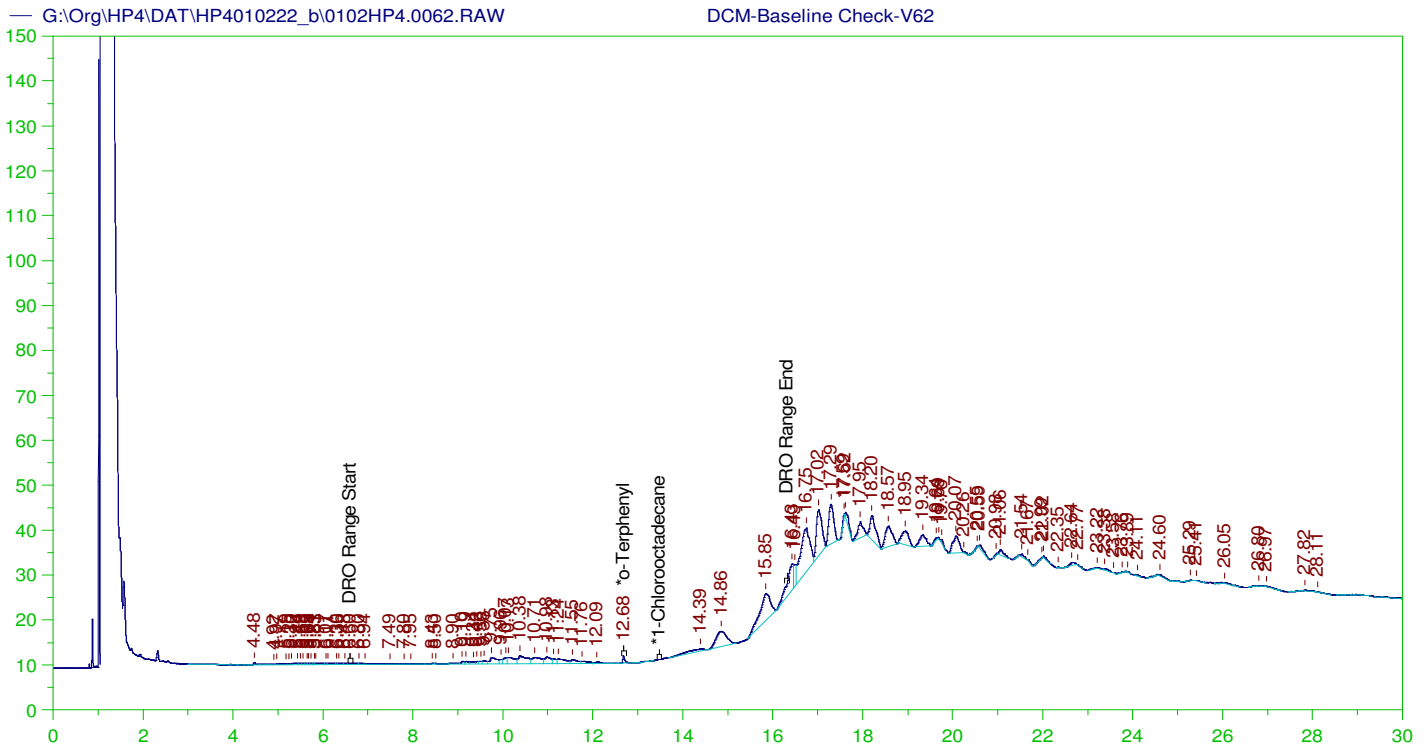
RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCS-162579-RRO ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0061.RAW
 Date & Time Acquired: 1/4/2022 1:44:51 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.777	.5	.104	20.84

RRO Area:5952310 RRO AMOUNT: 0.2426586



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

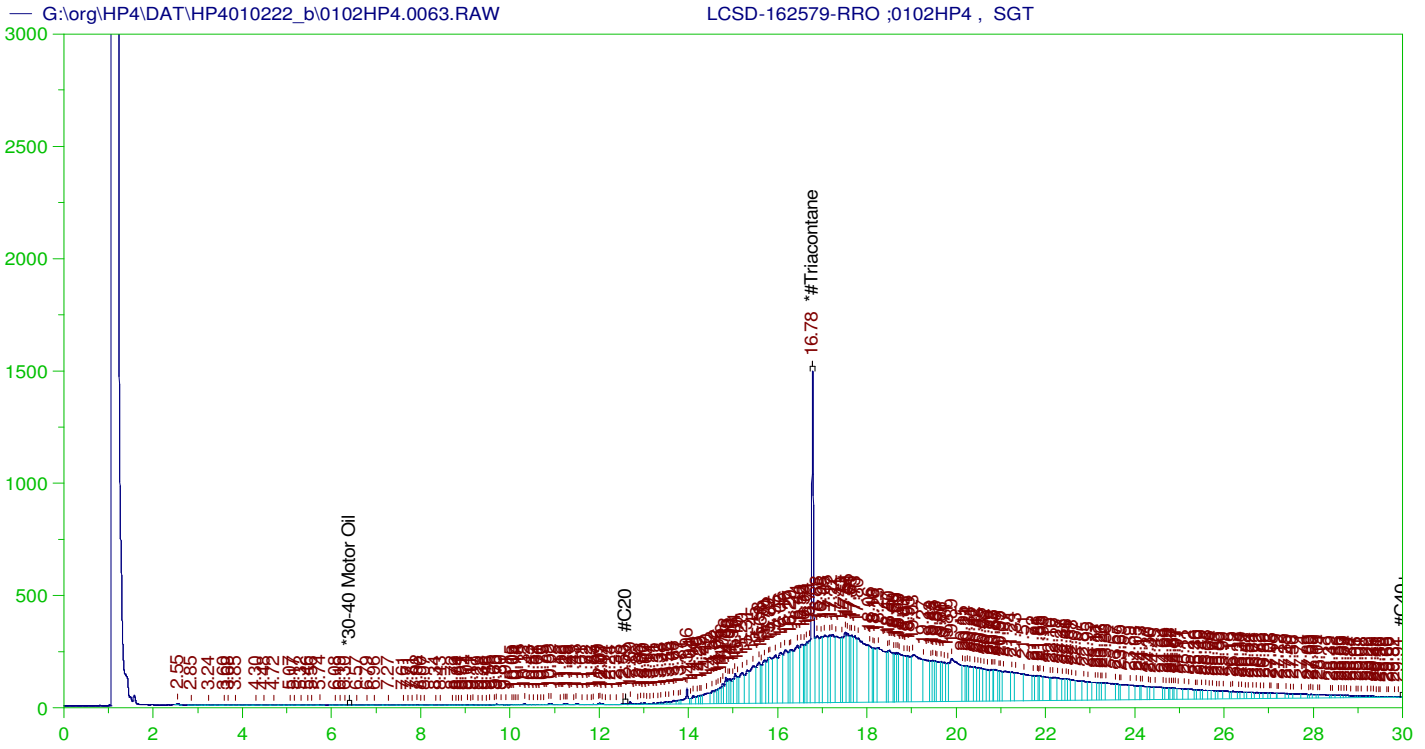
Sample Name: DCM-Baseline Check-V62
 Raw File: G:\Org\HP4\DAT\HP4010222_b\0102HP4.0062.RAW
 Date & Time Acquired: 1/4/2022 2:29:33 PM
 Method File: G:\Org\HP4\methods\DR_8015-OH-LEXP.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_DRO211102OH.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 29373.28

Rt range for Diesel Range Organics: 6.56 to 16.37

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.68	200.	.172	.09
*1-Chlorooctadecane	29.808	200.	.	.

DRO Area:366829.4 DRO Amount: 12.48854
 TEH Area:1100513 TEH Amount: 37.46646



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: LCSD-162579-RRO ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0063.RAW
 Date & Time Acquired: 1/4/2022 3:15:10 PM
 Method File: G:\Org\HP4\Methods\D3_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
 Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

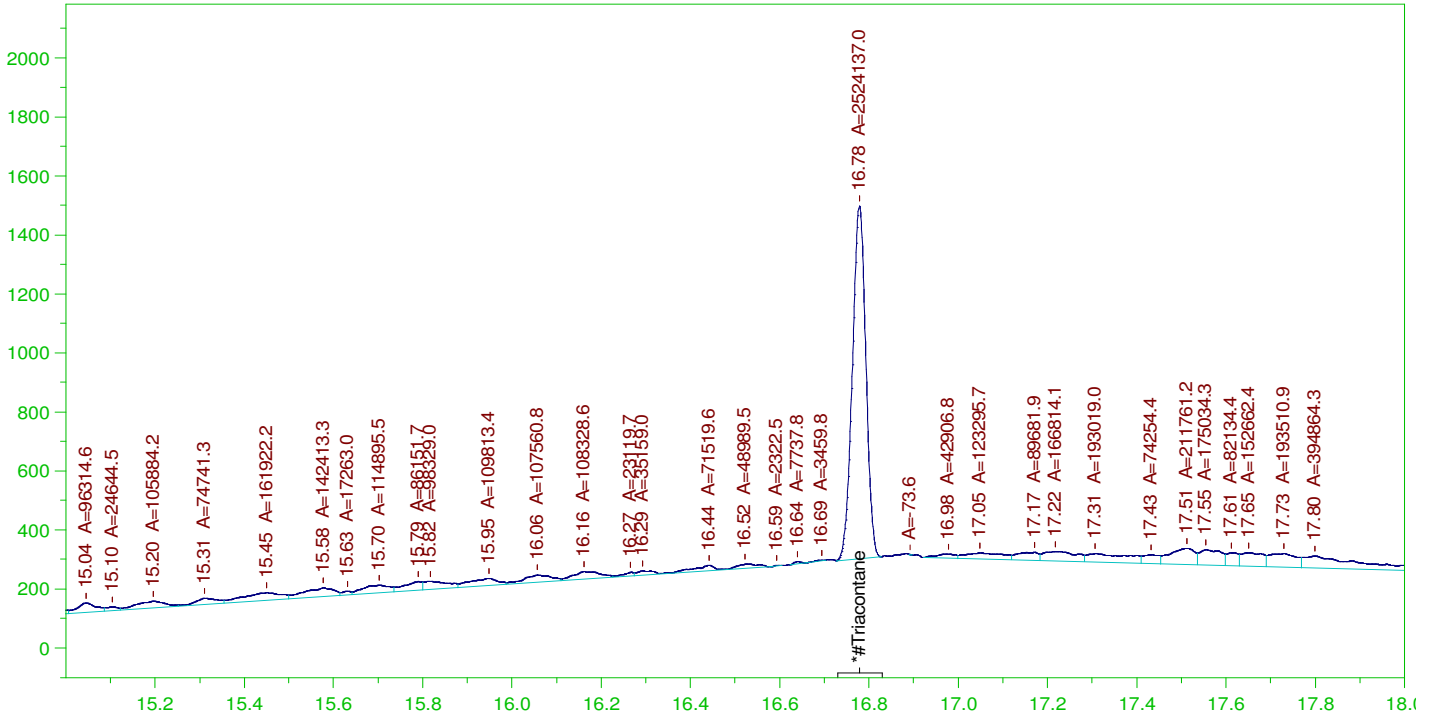
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.778	.5	.179	35.72	-

RRO TEH (Oil Range) Area:1.041783E+08 RRO TEH (Oil Range) AMOUNT: 4.247053

AMN 01/20/2022

G:\org\HP4\DAT\HP4010222_b\0102HP4.0063.RAW

LCSD-162579-RRO ;0102HP4 , SGT



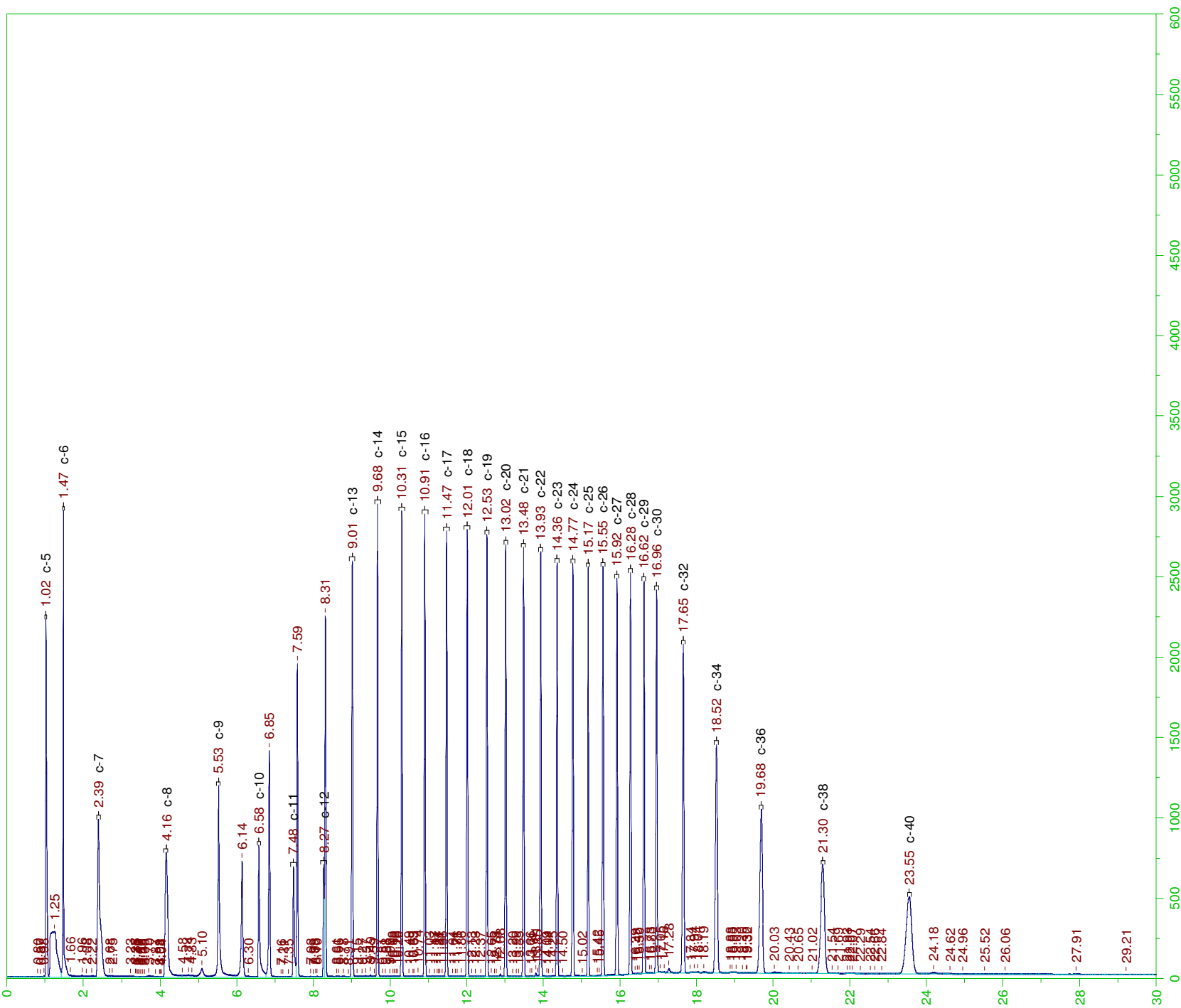
RESIDUAL RANGE ORGANICS CHROMATOGRAM

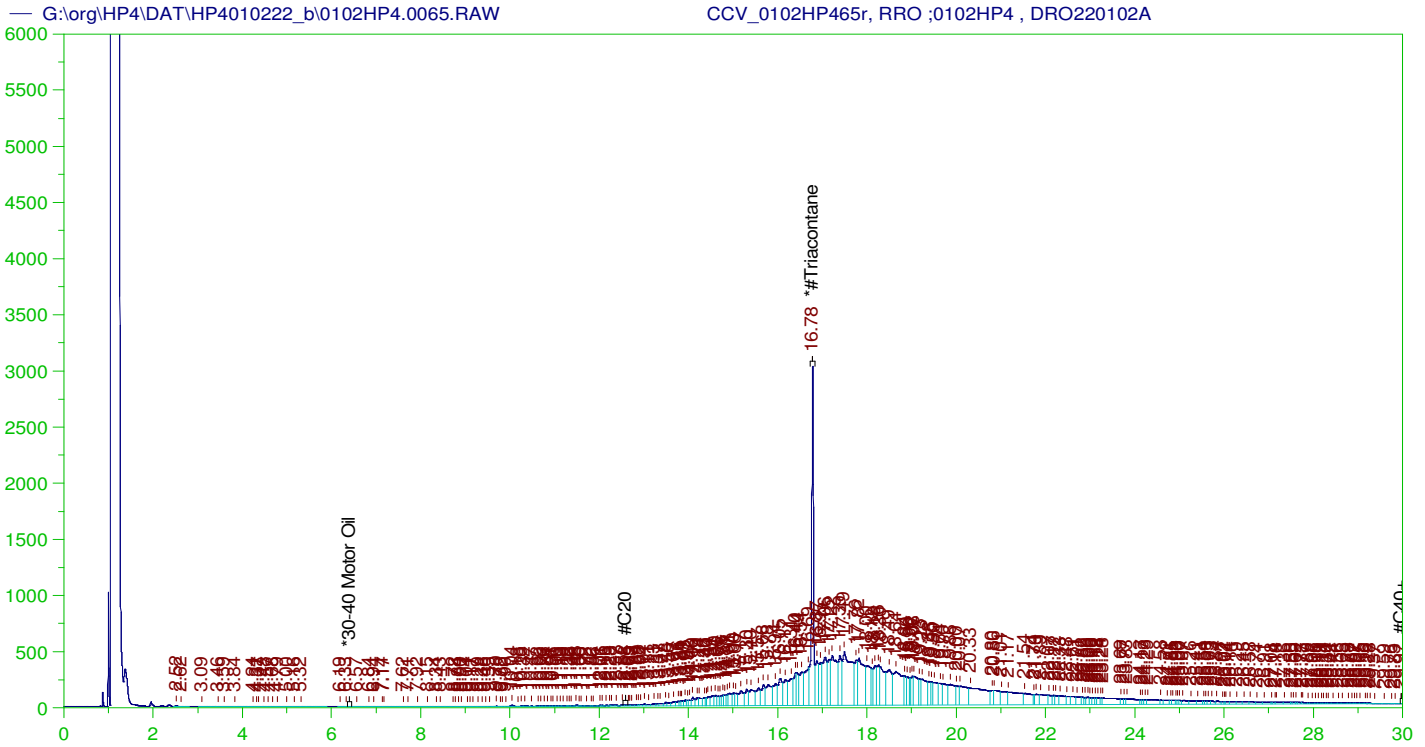
Sample Name: LCSD-162579-RRO ;0102HP4 , SGT
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0063.RAW
 Date & Time Acquired: 1/4/2022 3:15:10 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.778	.5	.101	20.21

RRO Area:5753641 RRO AMOUNT: 0.2345594





RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0102HP465r, RRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0065.RAW
 Date & Time Acquired: 1/4/2022 4:45:30 PM
 Method File: G:\Org\HP4\Methods\DC_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH (Oil Range) Organics Calculations: 24529.56
 Rt range for ~~Residual~~ TEH (Oil Range) Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.779	500.	339.78	67.96	-

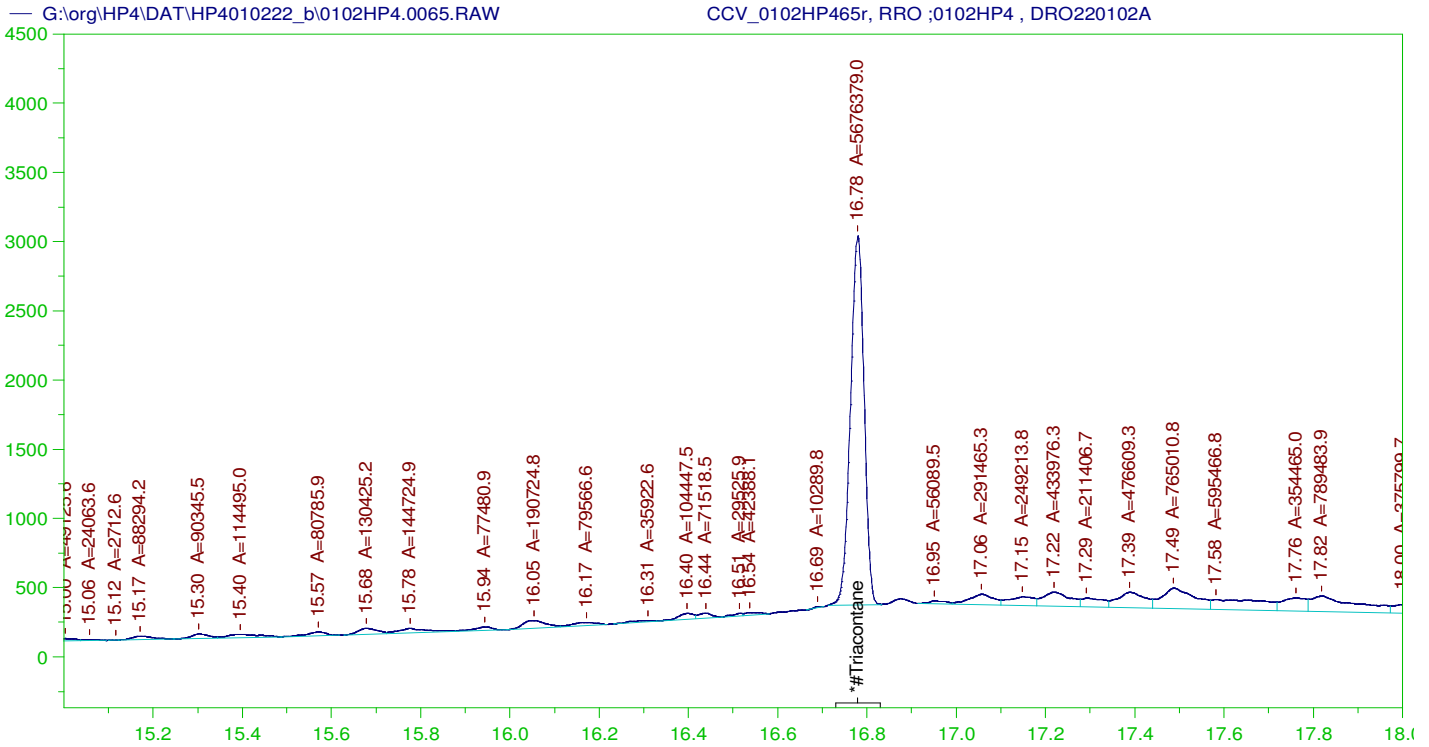
RRO TEH (Oil Range) Area:1.117347E+08 RRO TEH (Oil Range) AMOUNT: 4555.102

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0065.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.779	200.	339.78	169.89	75-125

AMN 01/20/2022



RESIDUAL RANGE ORGANICS CHROMATOGRAM

Sample Name: CCV_0102HP465r, RRO ;0102HP4 , DRO220102A
 Raw File: G:\org\HP4\DAT\HP4010222_b\0102HP4.0065.RAW
 Date & Time Acquired: 1/4/2022 4:45:30 PM
 Method File: G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met
 Calibration File: G:\Org\HP4\Cals\SW8015C_ORO211007AB.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 24529.56
 Rt range for Residual Range Organics: 12.53 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.779	500.	227.293	45.46

RRO Area:1.025613E+07 RRO AMOUNT: 418.113

CONTINUING CALIBRATION REPORT: G:\org\HP4\DAT\HP4010222_b\0102HP4.0065.RAW
 COMPOUND ACTUAL (NG) MEASURED (NG) %RECOVERY LIMITS
 *30-40 Motor Oil 5000. . . 75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.779	200.	227.293	113.65	75-125

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
	G:\org\HP5\DAT\HP5123021_b1230HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.02r	DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.03r	MARKER_1230HP503r_DRO_1230HP5_DRO211220B	G:\org\HP5\Methods\CSC211230.met	1	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.04r	CCV_1230HP504r_RRO_1230HP5_DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-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 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.05r	CCV_1230HP505r_DRO_1230HP5_DRO211229A	G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-24-IMA-L%.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.06r	DCM-Baseline Check-V06	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.07r	LCS-162579_1230HP5	G:\Org\HP5\Methods\DS_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-24-IMA-L%.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.08r	LCS-D-162579_1230HP5	G:\Org\HP5\Methods\DS_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-24-IMA-L%.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.09r	MB-162579_1230HP5	G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L%.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.10r	B21122077-001D_1230HP5_SHC-8015-DRO-W	G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DR_OROS-AMA-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L%.met	1000	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.11r	B21122077-001DMS_1230HP5	G:\Org\HP5\Methods\DS_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-24-IMA-L%.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.12r	DCM-Baseline Check-V12	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.13r	B21122088-001D_1230HP5_SHC-8015-DRO-W	G:\Org\HP5\Methods\DS_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DS_OROS-AMA-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L%.met	1050	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.14r	DCM-Baseline Check-V14	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.15r	B21122105-001D_1230HP5_SHC-8015-DRO-W_Rerun due to baseline	G:\Org\HP5\Methods\DR_8015-C24T-IM-L0.met	1030	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.16r	DCM-Baseline Check-V16	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.17r	B21122090-001D_1230HP5_SHC-8015-DRO-W_Rerun due to baseline	G:\Org\HP5\Methods\DR_8015-C24T-IM-L0.met	1020	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.18r	B21122088-001DMS-RRO_1230HP5	G:\Org\HP5\Methods\DS_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-L%.MET	950	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 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.19r	MARKER_1230HP519r_DRO_1230HP5_DRO211220B	G:\org\HP5\Methods\CSC211230.met	1	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.20r	CCV_1230HP520r_RRO_1230HP5_DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-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 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.22r	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.
	G:\org\HP5\DAT\HP5123021_b1230HP5.23r	LCS-162579-RRO_1230HP5	G:\Org\HP5\Methods\DS_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-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 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
	G:\org\HP5\DAT\HP5123021_b1230HP5.24r	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.

G:\org\HP5\DAT\HP5123021_b\1230HP5.25r	LCSD-162579-RRO ;1230HP5 .	G:\Org\HP5\Methods\DS_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-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 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5123021_b\1230HP5.26r	MARKER_1230HP519r, DRO ;1230HP5 , DRO211220B	G:\org\HP5\Methods\CS211230A.met	1	1	1	1	0	No Integrations.
G:\org\HP5\DAT\HP5123021_b\1230HP5.27r	CCV_1230HP520r, RRO ;1230HP5 , DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-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 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5123021_b\1230HP5.36r	DCM-Baseline Check-V36	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.
G:\org\HP5\DAT\HP5123021_b\1230HP5.37r	MARKER_1230HP537r, DRO ;1230HP5 , DRO211220B	G:\org\HP5\Methods\CS211230A.met	1	1	1	1	0	No Integrations.
G:\org\HP5\DAT\HP5123021_b\1230HP5.38r	CCV_1230HP538r, RRO ;1230HP5 , DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-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 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5123021_b\1230HP5.39r	CCV_1230HP539r, DRO ;1230HP5 , DRO211229A	G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-123039-IMA-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.14 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.
G:\org\HP5\DAT\HP5123021_b\1230HP5.40r	DCM-Baseline Check-V40	G:\Org\HP5\Methods\DR_8015-IBb-LEXP.met	1	1	1	1	0	No Integrations.
G:\org\HP5\DAT\HP5123021_b\1230HP5.41r	B21122105-001D ;1230HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DR_OROS-AMB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L#.met	1030	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5123021_b\1230HP5.42r	B21122090-001D ;1230HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-C24T-IMA-L%.met G:\Org\HP5\Methods\DR_OROS-AMB-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-IM-L#.met	1020	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 17.12 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on at 10.78 minutes and X-axis scaling showing surrogate peak from 11-18 minutes.
G:\org\HP5\DAT\HP5123021_b\1230HP5.43r	MARKER_1230HP543r, DRO ;1230HP5 , DRO211220B	G:\org\HP5\Methods\CS211230A.met	1	1	1	1	0	No Integrations.
G:\org\HP5\DAT\HP5123021_b\1230HP5.44r	CCV_1230HP544r, RRO ;1230HP5 , DRO211220C	G:\Org\HP5\Methods\DC_ORO-AM-L%.MET G:\Org\HP5\Methods\DS_ORO-AM-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 16.18 minutes slightly after the surrogate peak at 16.4 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5123021_b\1230HP5.46r	CCV_1230HP546r, DRO ;1230HP5 , DRO211229A	G:\Org\HP5\Methods\DC_8015-24-IMA-L%.met G:\Org\HP5\Methods\DS_8015-123039-IMA-L#.met	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.83 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.11 minutes and slightly after the surrogate peak at 12.31 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.20 13:42:21 -07:00

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amnt Inj.	IS	Cal ID	Manual Integrations
G:\org\HP4\DAT\HP4010222_b\0102HP4.46	Marker_0102HP446, DRO_0102HP4, DRO211220B	Marker_0102HP446, DRO_0102HP4, DRO211220B	G:\org\HP4\Methods\CSC220102.met	1	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4010222_b\0102HP4.47	CCV_0102HP447r, RRO_0102HP4, DRO220102A	CCV_0102HP447r, RRO_0102HP4, DRO220102A	G:\Org\HP4\Methods\DC_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-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 16.71 minutes slightly after the surrogate peak at 16.88 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.48	CCV_0102HP448r, DRO_0102HP4, DRO220102A	CCV_0102HP448r, DRO_0102HP4, DRO220102A	G:\Org\HP4\methods\DC_8015-C24-OH-L%.met G:\Org\HP4\methods\DS_8015-C24-OH-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 17.11 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.55 minutes and slightly after the surrogate peak at 12.78minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.49	DCM-Baseline Check-V49	DCM-Baseline Check-V49	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4010222_b\0102HP4.50	LCS-162579_0102HP4, SGT	LCS-162579_0102HP4, SGT	G:\Org\HP4\methods\D3_8015-24-OH-L%.met G:\Org\HP4\methods\DS_8015-C24-OH-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 12.55 minutes and slightly after the surrogate peak at 12.78minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.51	LCSD-162579_0102HP4, SGT	LCSD-162579_0102HP4, SGT	G:\Org\HP4\methods\D3_8015-24-OH-L%.met G:\Org\HP4\methods\DS_8015-C24-OH-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 12.55 minutes and slightly after the surrogate peak at 12.78minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.52	MB-162579_0102HP4, SGT	MB-162579_0102HP4, SGT	G:\Org\HP4\methods\DR_8015-C24-OH-L%.met G:\Org\HP4\Methods\DR_ORO-S-AB-L%.met G:\Org\HP4\methods\DS_8015-T-OH-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 17.39 minutes and 16.93 minutes for the C24-C40. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.57 minutes and slightly after the surrogate peak at 12.78 minutes and an Assigned Set Baseline All Valley on at 14.07 minutes with the X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.53	B21122077-001D_0102HP4, \$HC-8015-DRO-W, SGT	B21122077-001D_0102HP4, \$HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-C24-OH-L%.met G:\Org\HP4\Methods\DR_ORO-S-AB-L%.met G:\Org\HP4\methods\DS_8015-T-OH-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 17.39 minutes and 16.93 minutes for the C24-C40. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.57 minutes and slightly after the surrogate peak at 12.78 minutes and an Assigned Set Baseline All Valley on at 14.07 minutes with the X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.54	B21122077-001DMS_0102HP4, SGT	B21122077-001DMS_0102HP4, SGT	G:\Org\HP4\methods\D3_8015-24-OH-L%.met G:\Org\HP4\methods\DS_8015-C24-OH-L%.met	1050	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 12.55 minutes and slightly after the surrogate peak at 12.78minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.55	B21122088-001D_0102HP4, \$HC-8015-DRO-W, SGT	B21122088-001D_0102HP4, \$HC-8015-DRO-W, SGT	G:\Org\HP4\methods\DR_8015-010255-OH-L%.met G:\Org\HP4\Methods\DR_ORO-010255-AB-L%.met G:\Org\HP4\methods\DS_8015-T-OH-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 17.39 minutes and 16.93 minutes for the C24-C40. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.57 minutes and slightly after the surrogate peak at 12.78 minutes and an Assigned Set Baseline All Valley on at 14.07 minutes with the X-axis scaling showing surrogate peak from 12-18 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.56	Marker_0102HP456, DRO_0102HP4, DRO211220B	Marker_0102HP456, DRO_0102HP4, DRO211220B	G:\org\HP4\Methods\CSC220102.met	1	1	1	1	1	0 No Integrations
G:\org\HP4\DAT\HP4010222_b\0102HP4.57	CCV_0102HP457r, RRO_0102HP4, DRO220102A	CCV_0102HP457r, RRO_0102HP4, DRO220102A	G:\Org\HP4\Methods\DC_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-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 16.71 minutes slightly after the surrogate peak at 16.88 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.58	CCV_0102HP458r, DRO_0102HP4, DRO220102A	CCV_0102HP458r, DRO_0102HP4, DRO220102A	G:\Org\HP4\methods\DC_8015-C24-OH-L%.met G:\Org\HP4\methods\DS_8015-C24-OH-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 17.11 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline Now placed slight before at 12.55 minutes and slightly after the surrogate peak at 12.78minutes and X-axis scaling showing surrogate peak from 12-14 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.59	DCM-Baseline Check-V59	DCM-Baseline Check-V59	G:\Org\HP4\methods\DR_8015-OH-LEXP.met	1	1	1	1	1	0 No Integrations

G:\org\HP4\DAT\HP4010222_b\0102HP4.60	B21122088-001DMS-RRO ,0102HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-L%.met	950	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 16.71 minutes slightly after the surrogate peak at 16.88 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.61	LCS-162579-RRO ,0102HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-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 16.71 minutes slightly after the surrogate peak at 16.88 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.62	DCM-Baseline Check-V62	G:\Org\HP4\Methods\DR_8015-OH-LEXP.met	1	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4010222_b\0102HP4.63	LCSD-162579-RRO ,0102HP4 , SGT	G:\Org\HP4\Methods\D3_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-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 16.71 minutes slightly after the surrogate peak at 16.88 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.
G:\org\HP4\DAT\HP4010222_b\0102HP4.64	Marker_0102HP464 , DRO ,0102HP4 , DRO211220B	G:\org\HP4\Methods\CSC220102.met	1	1	1	1	1	0	No Integrations
G:\org\HP4\DAT\HP4010222_b\0102HP4.65	CCV_0102HP465r , RRO ,0102HP4 , DRO220102A	G:\Org\HP4\Methods\DC_ORO-T-AB-L%.met G:\Org\HP4\Methods\DS_ORO-T-AB-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 16.71 minutes slightly after the surrogate peak at 16.88 minutes and X-axis scaling showing surrogate peak from 15-18 minutes.

Ann Nebel

Digitally signed by
Ann Nebel
Date: 2022.01.20 13:42:45 -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 • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C18H14
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

Energyl Laboratories Inc 1120 So. 27th Street

Billings MT 59107

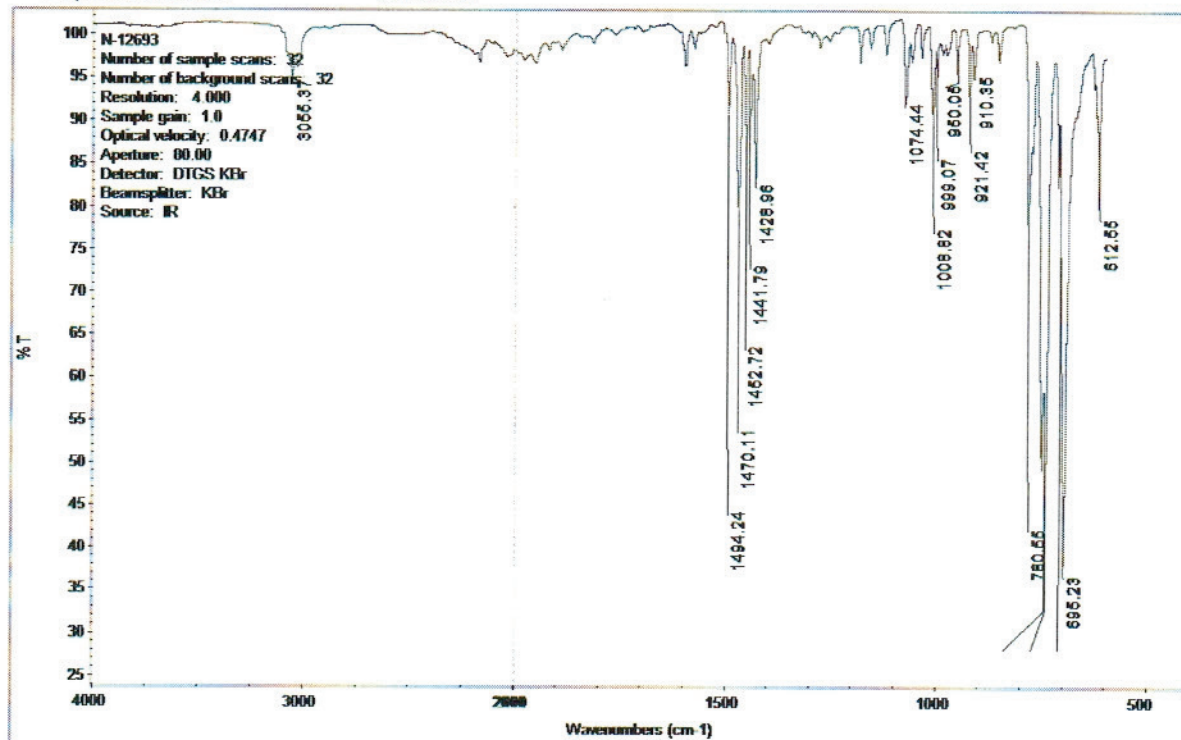
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

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



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



CERTIFICATE OF ANALYSIS

Analysis Method:

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

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

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

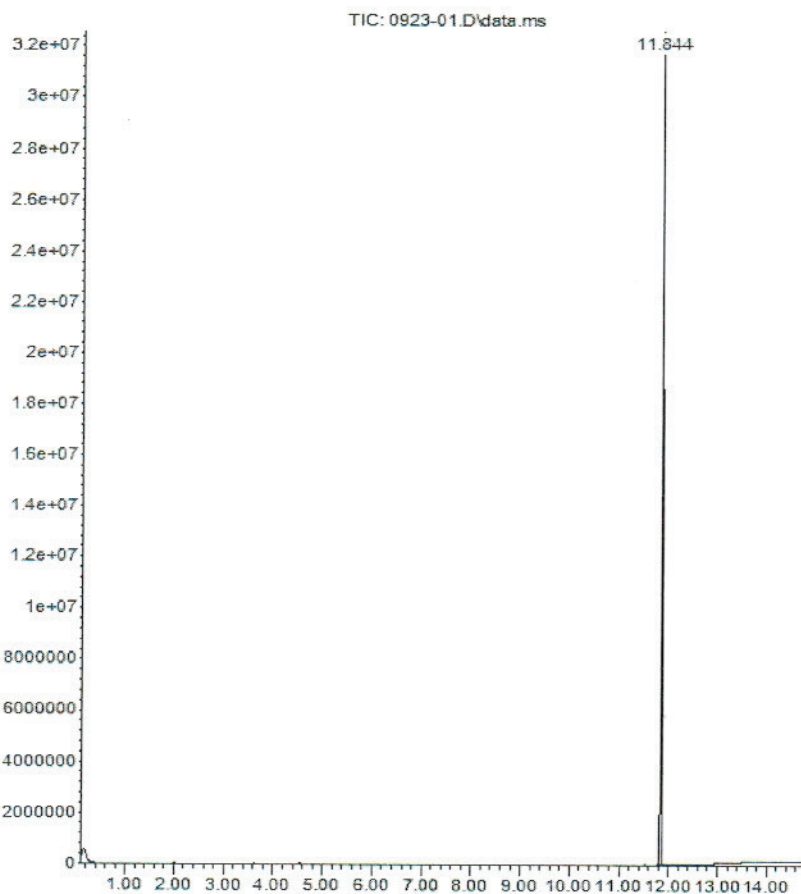
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

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



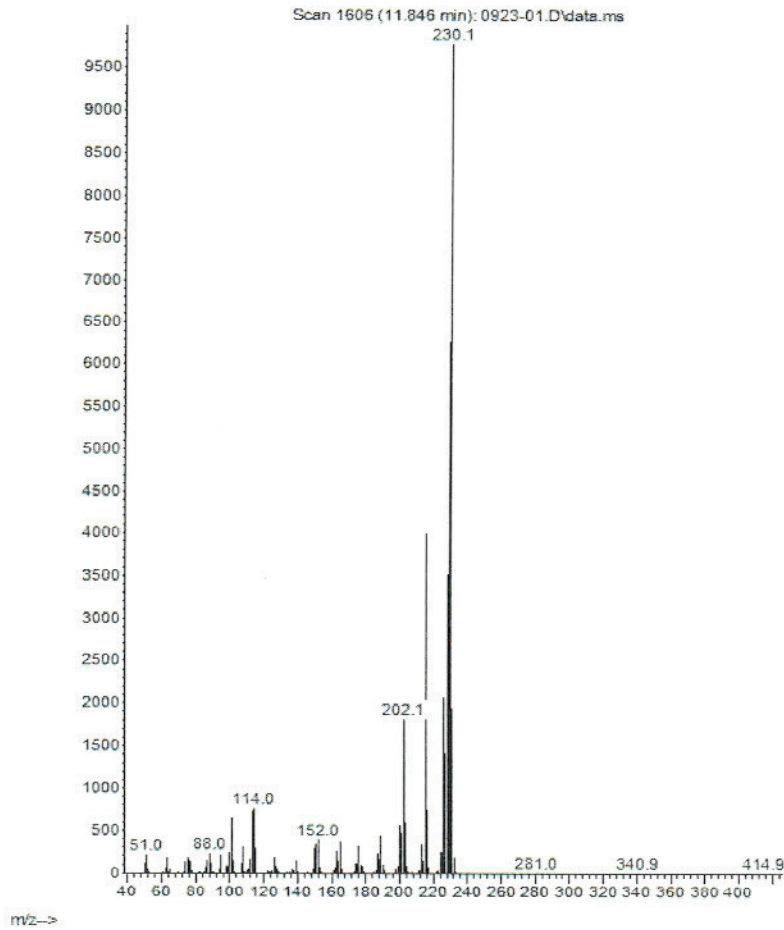
660 Tower Lane • P. O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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 • 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



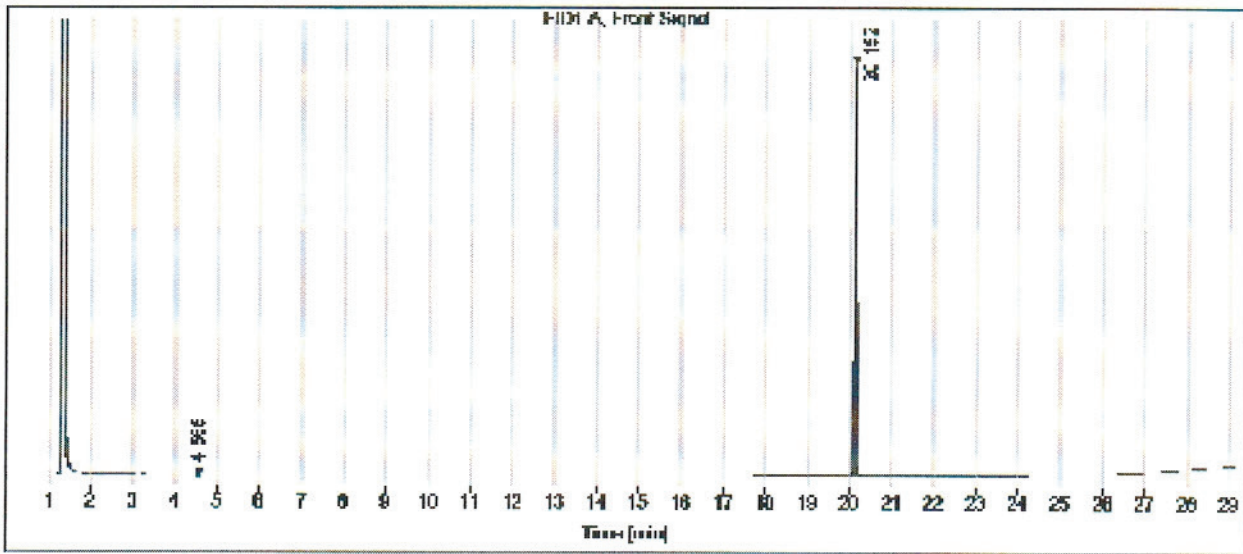
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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

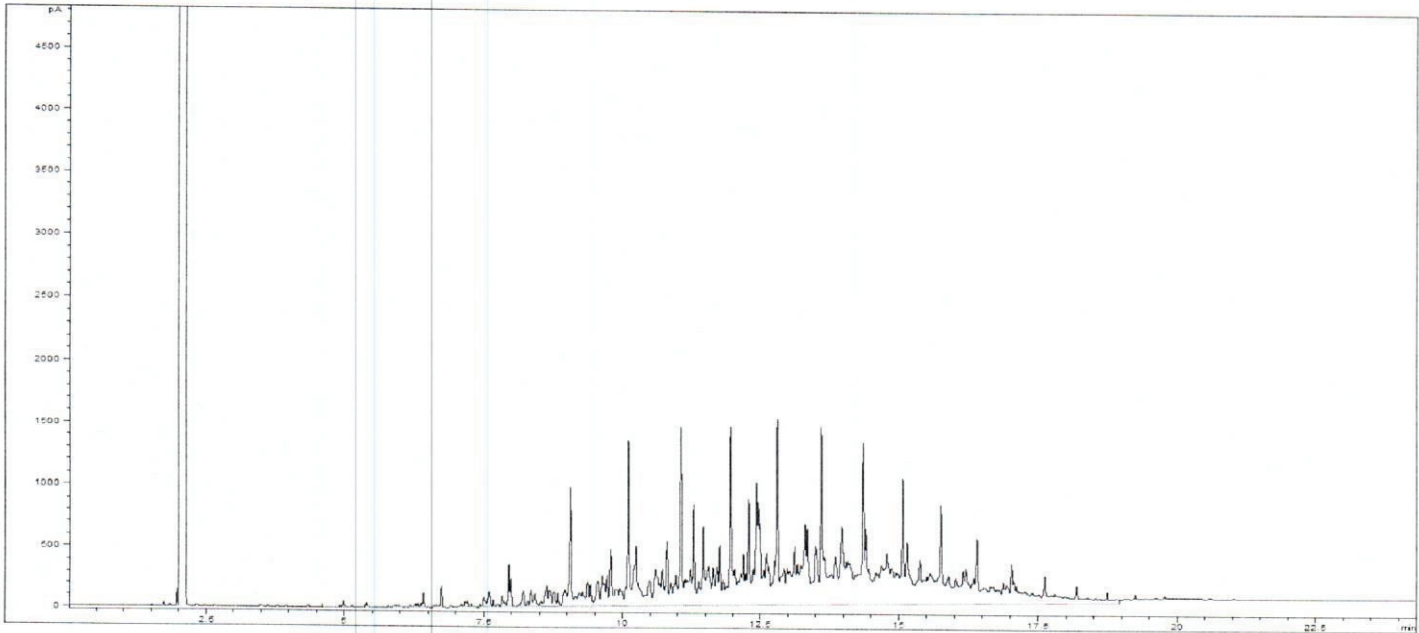
Rec'd: 10/12/2021

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

Certified Values

Analyte	Certified Value ^{1,4}	Units	Raw Material Purity,%	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H₂, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10:1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



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.

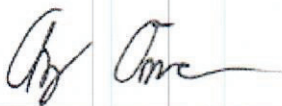
Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual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

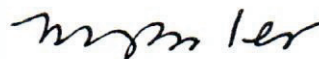
Expiration is at end of month given on certificate and label.

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: 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: _____

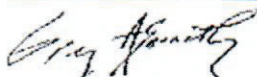
Triacontane-d62-98 atom % D

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

Type: Primary
BY: Ann Nebel
Status: Open

Comments:

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

Final Volume: 1 mL

Stock Source

Base Units

Amount Added

Analtes

CAS

Conc: **ug/mL**



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31817 Lot No.: A0140080

Description : Residual Range Calibration Standard (RCS)

Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL Pkg Amt: > 1 mL

Expiration Date : August 31, 2025 Storage: 25°C nominal

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil) CAS # 64742-65-0.F (Lot A0126386) Purity ----%	50,113.0 µg/mL	+/- 293.4226	µg/mL	Gravimetric
			+/- 1,492.4284	µg/mL	Unstressed
			+/- 1,591.6738	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

ID #: 10787

Opened: _____

Residual Range Calibration Standard

Expires: **8/31/2025**

Rec'd: 9/18/2018

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

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

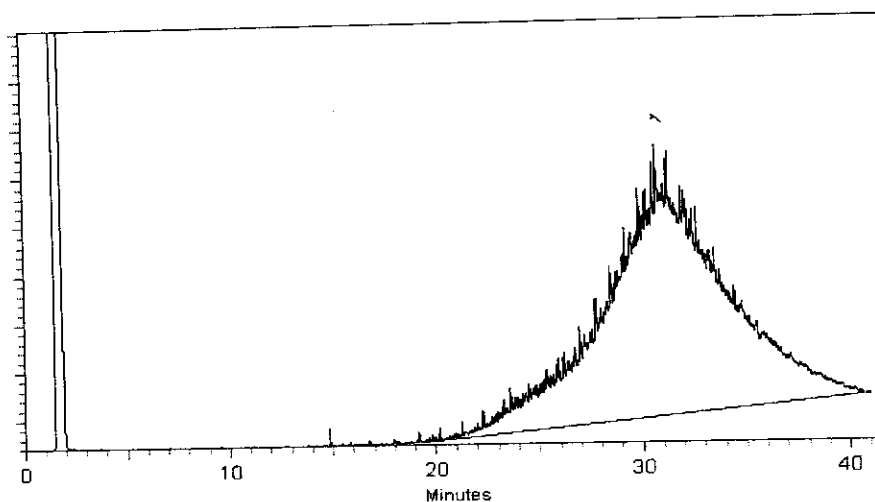
Carrier Gas:
hydrogen-constant pressure 10 psi.

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

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



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

Brandon Reish

Brandon Reish - Mix Technician

Date Mixed: 28-Jul-2018

Balance: B345965662

Diane Shaffer

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 30-Jul-2018

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

Energy Laboratories Inc

Standard LOG

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

Energy Laboratories Inc

Standard LOG

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

Type: Secondary
 BY: Ann Nebel
 Status: Expired

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

Final Volume: 25 mL

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

<u>Analtes</u>		CAS	Conc:	ug/mL
A	30W Motor Oil			10000
A	30W-Motor oil			0
A	40W Motor Oil			10000
A	40W-Motor oil			0

Energy Laboratories Inc

Standard LOG

Standard ID: DRO160823C
Standard Name: 30W Motor Oil-Valvoline
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.

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 30 Motor Oil	8637		mL	8/23/

Final Volume: mL

Stock Source

Base Units

Amount Added

Analtes

CAS

Conc: ug/mL

A 30W-Motor oil

1

Energy Laboratories Inc

Standard LOG

Standard ID: DRO160823D
Standard Name: 40W Motor Oil-Valvoline
Date Prepared: 8/23/2016
Date Expires: 8/23/2021
Department: dropr
Vendor:
Lot Number:
Balance ID:
Type: Primary
BY: Todd C Cooper
Status: Expired
Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 40 Motor Oil	8638		mL	8/23/

Final Volume: mL

Stock Source

Base Units

Amount Added

Analtes

CAS

Conc: ug/mL

A 40W-Motor oil

1

Energy Laboratories Inc

Standard LOG

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

Type: Secondary
 BY: Jillian L Bostwick
 Status: New

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

Final Volume: 25 mL

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

<u>Analtes</u>	<u>CAS</u>	<u>Conc:</u>	<u>ug/mL</u>
A 30W Motor Oil			10000
A 30W-Motor oil			0
A 40W Motor Oil			10000
A 40W-Motor oil			0

Energy Laboratories Inc

Standard LOG

Standard ID: DRO210901A
 Standard Name: 30W Motor Oil-Valvoline
 Date Prepared: 9/1/2021
 Date Expires: 9/1/2026
 Department: dropr
 Vendor:
 Lot Number: F1620C1
 Balance ID:
 Comments: Used to make 2nd Source Standard for AK103 method.

Type: Primary
 BY: Jillian L Bostwick
 Status: New

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 30 Motor Oil	14232		mL	9/1/2026

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: DRO210901B
Standard Name: 40W Motor Oil-Valvoline
Date Prepared: 9/1/2021
Date Expires: 9/1/2026
Department: dropr
Vendor:
Lot Number: L0717H2
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: DRO211229A
 Standard Name: 8015 CCV-15,000ug/mL + 200 OTP/COD
 Date Prepared: 12/29/2021
 Date Expires: 4/30/2023
 Department: dropr
 Vendor:
 Lot Number:
 Balance ID:
 Comments: 8015DRO CCV MIX-15,000ug/mL +200 OTP/COD #2 Diesel

Type: Secondary
 BY: Ann Nebel
 Status: New

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Dichloromethane EC832	14647	2.4	mL	10/28

Final Volume: 4 mL

<u>Stock Source</u>	<u>Base Units</u>	<u>Amount Added</u>
DRO211112C OTP/COD SURR 2000 ug/mL	ug/mL	0.4 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
A 1-Chlorooctadecane	3386-33-2		200
Diesel Fuel #2			0
A O-Terphenyl	84-15-1		200

Energy Laboratories Inc

Standard LOG

Standard ID: DRO211102B
Standard Name Diesel Fuel #2 50,000 ug/mL in DCM Type: Primary
Date Prepared 11/2/2021 BY: Ann Nebel
Date Expires: 4/30/2023
Department dropr Status: New
Vendor: Sigma-Aldrich
Lot Number: LRAC6316
Balance ID:
Comments: Diesel Fuel #2 For CCVs.

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Diesel Fuel No. 2	14478	1	mL	4/30/

Final Volume: mL

Stock Source

Base Units

Amount Added

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

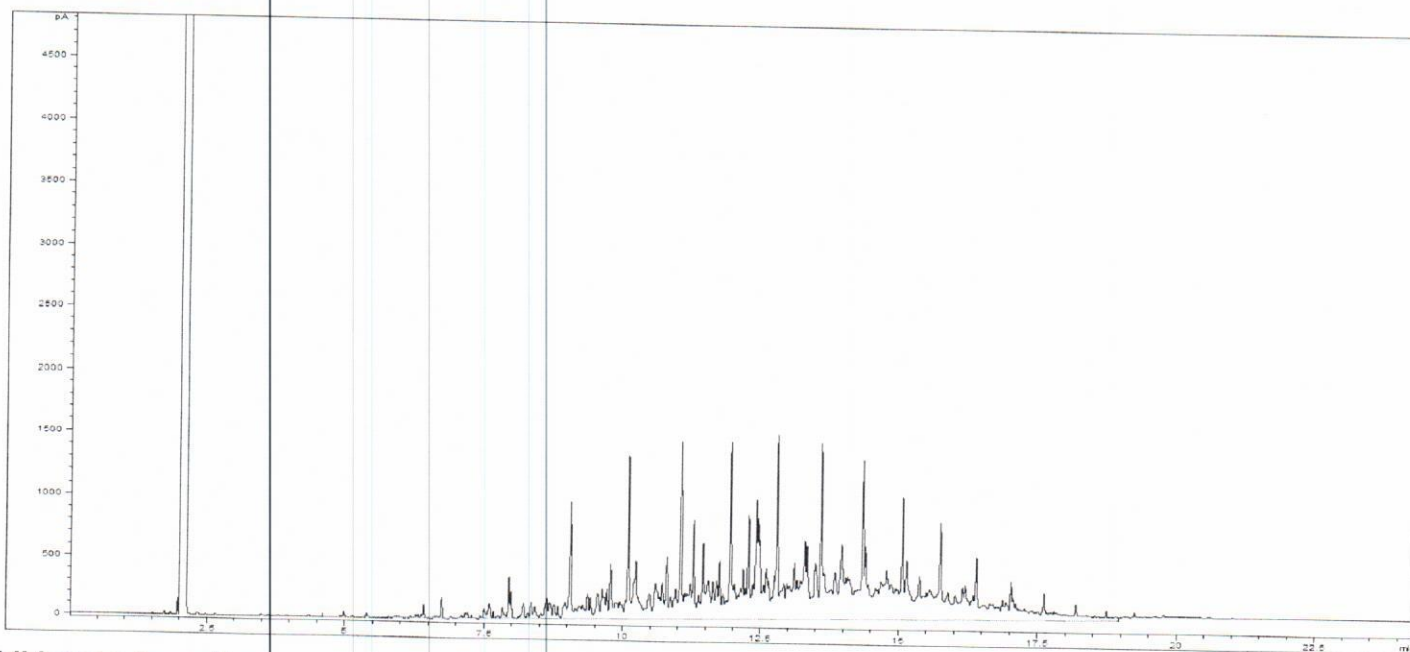
Rec'd: 11/2/2021

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

Certified Values

Analyte	Certified Value ^{1,4}	Units	Raw Material Purity, %	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H₂, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



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.

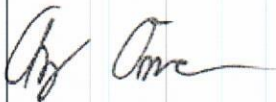
Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual 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: DRO211112C
 Standard Name: OTP/COD SURR 2000 ug/mL
 Date Prepared: 11/12/2021
 Date Expires: 9/30/2024
 Department: dropr
 Vendor:
 Lot Number:
 Balance ID: BAL-DRO
 Comments: OTP/COD SURR 2000 ug/mL

Type: Secondary
 BY: Jillian L Bostwick
 Status: New

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

Final Volume: 100 mL

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

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

Energy Laboratories Inc

Standard LOG

Standard ID: 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 • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C₁₈H₁₄
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

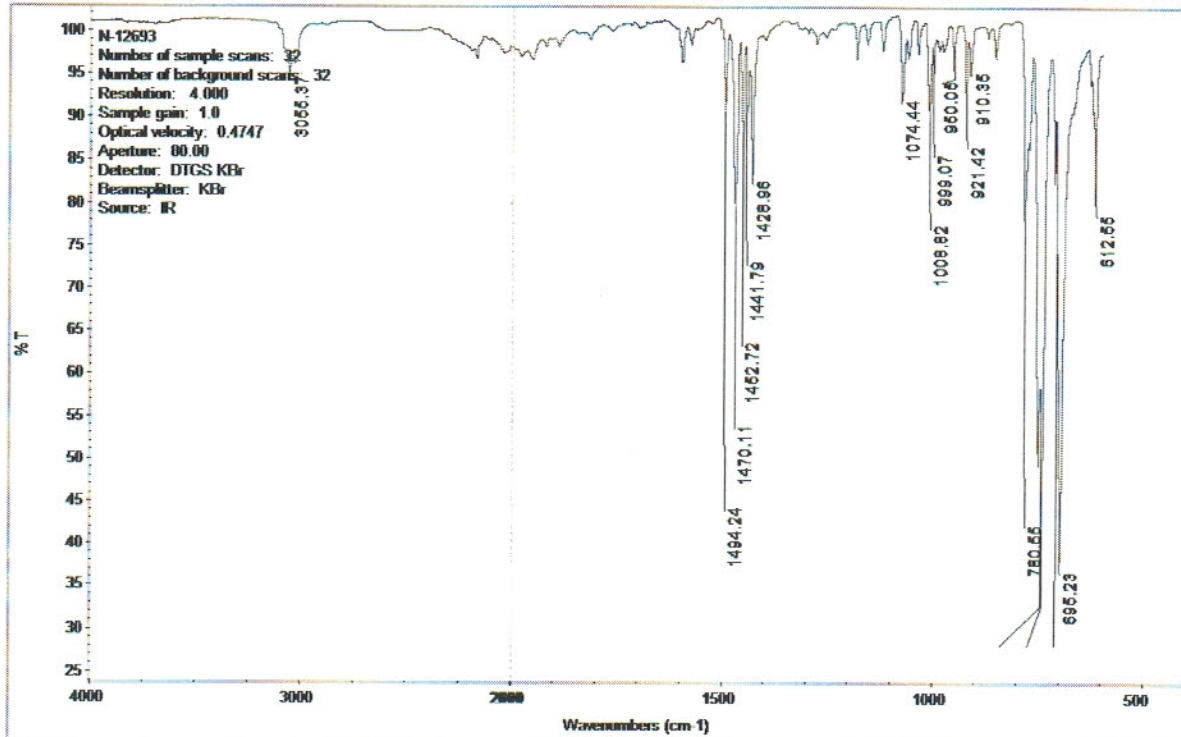
Rec'd: 4/30/2020

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

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 • 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

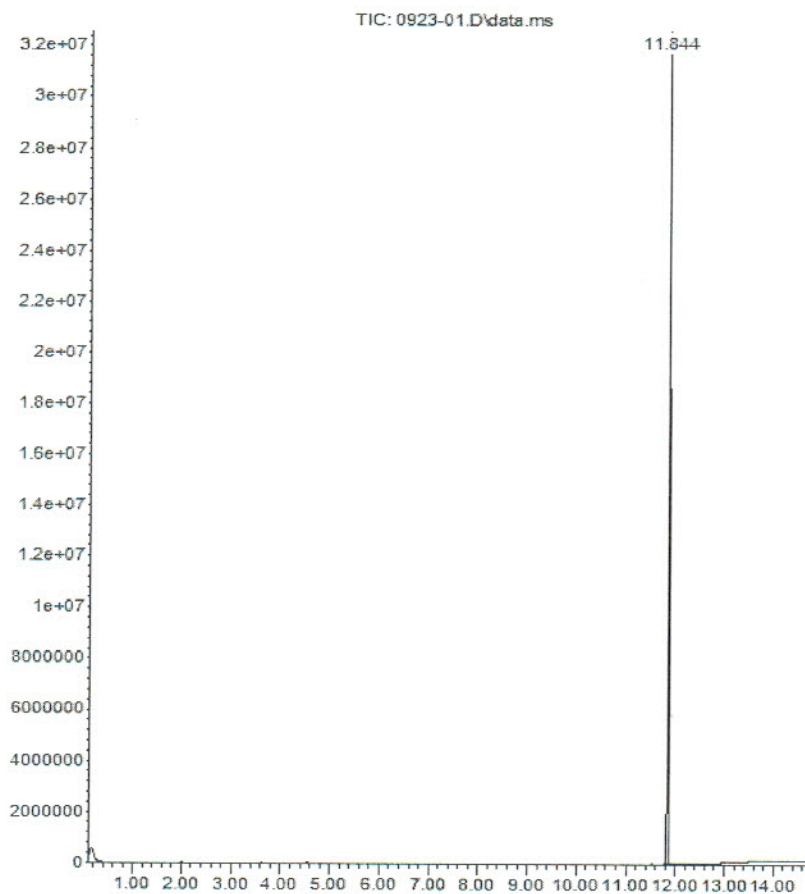
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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



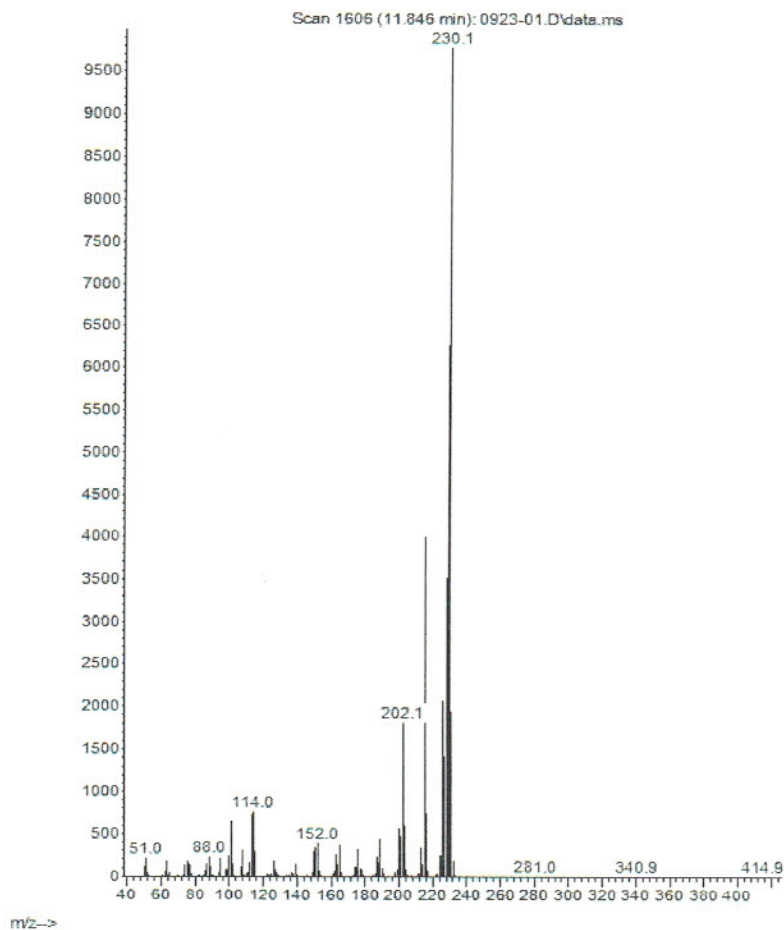
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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 • 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



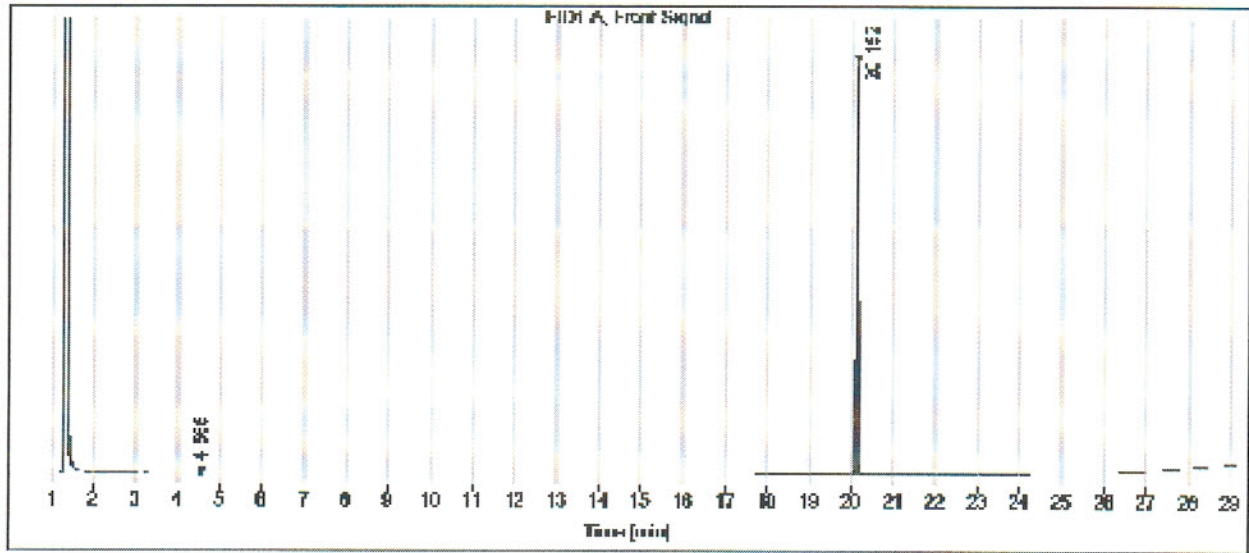
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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: 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 • 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.

<u>Analytical Test</u>	<u>Value</u>
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

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

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

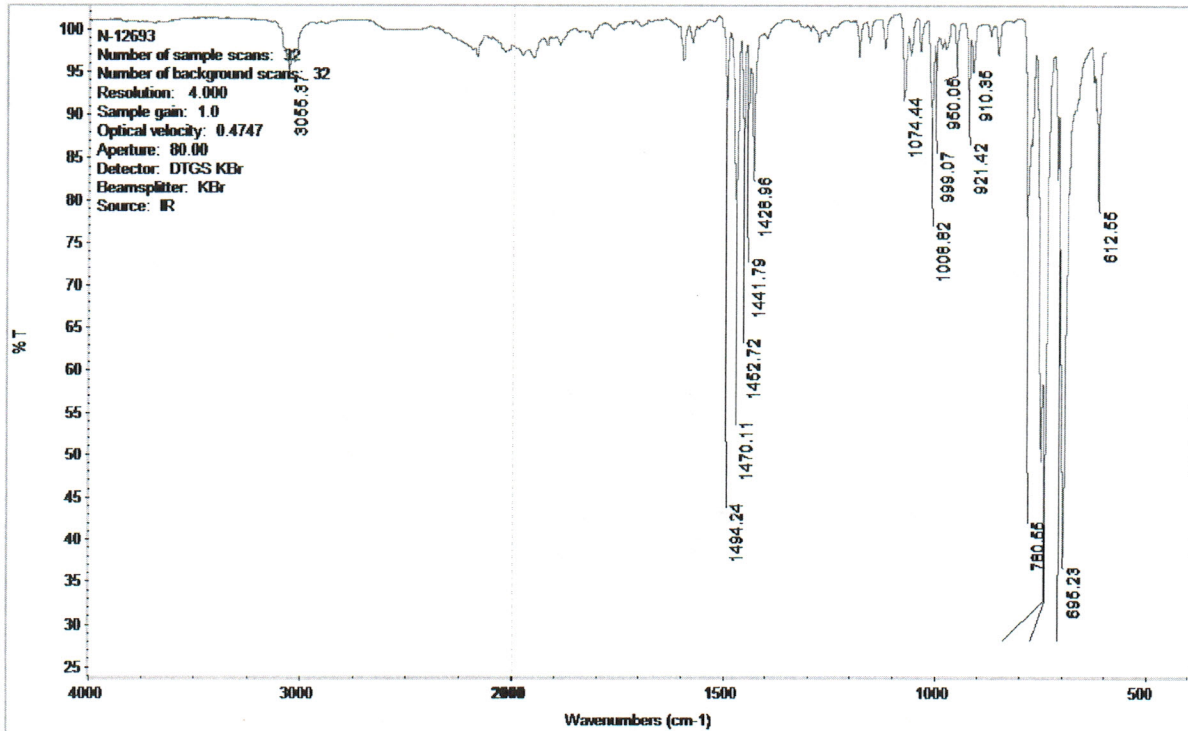
COA Form
Revision 3 (3/2015)



CERTIFICATE OF ANALYSIS

Analysis Method:

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



CERTIFICATE OF ANALYSIS

Analysis Method:

Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 10029300
Expiration Date: 09/30/24
Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

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

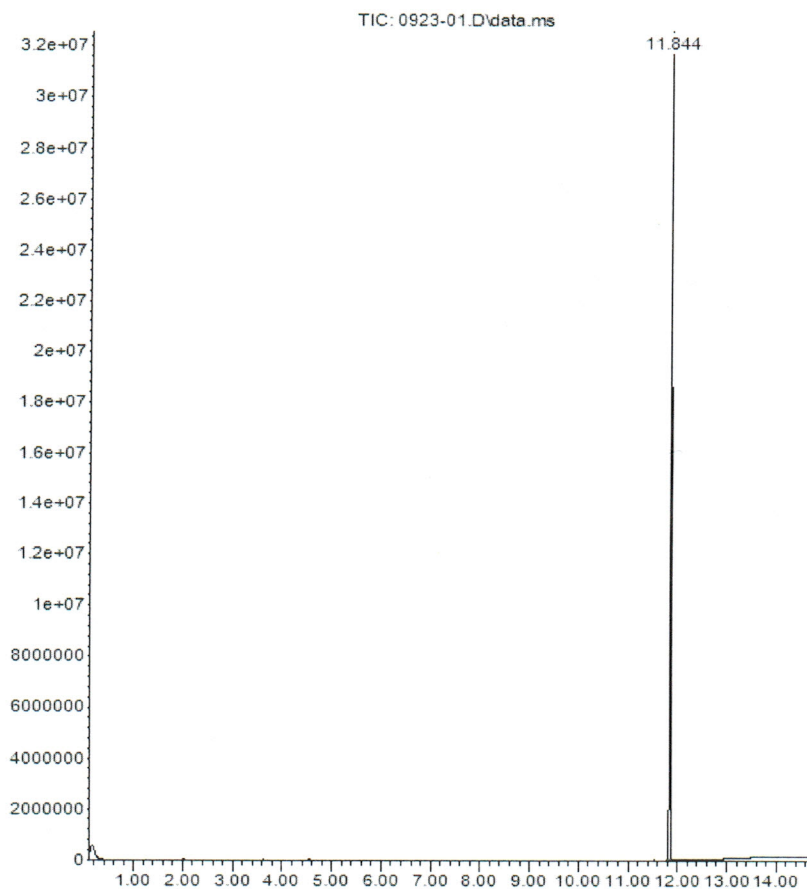
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

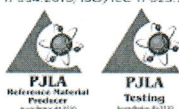
Catalog Number: N-12693-500MG
Description: o-Terphenyl
Lot Number: 10029300
Expiration Date: 09/30/24

Abundance



Time-->

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



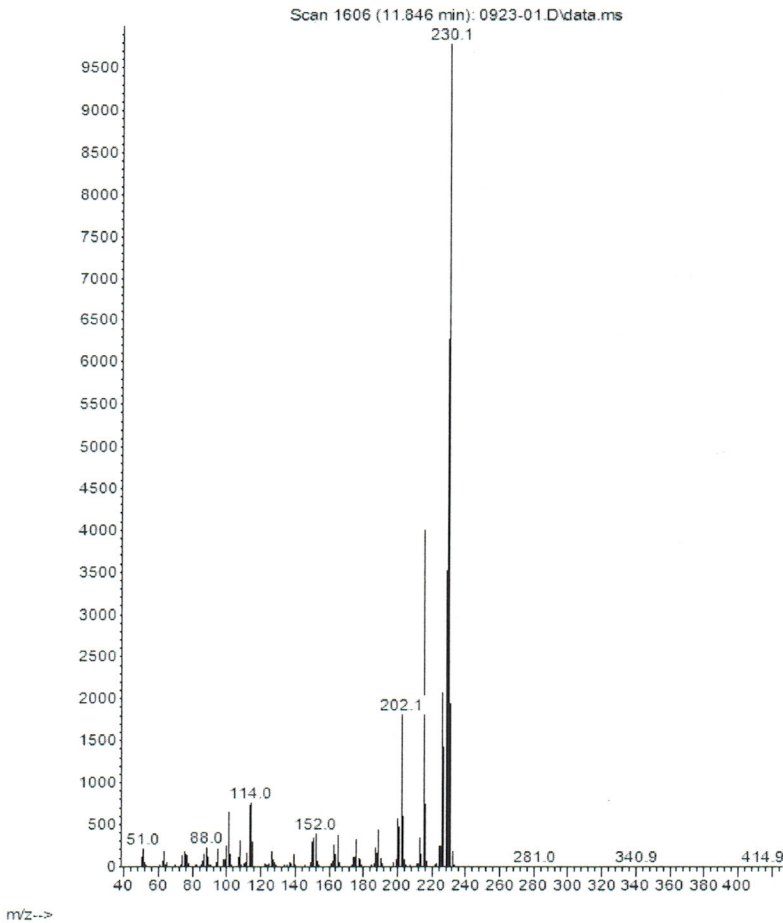
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

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

Abundance



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



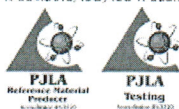
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

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

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



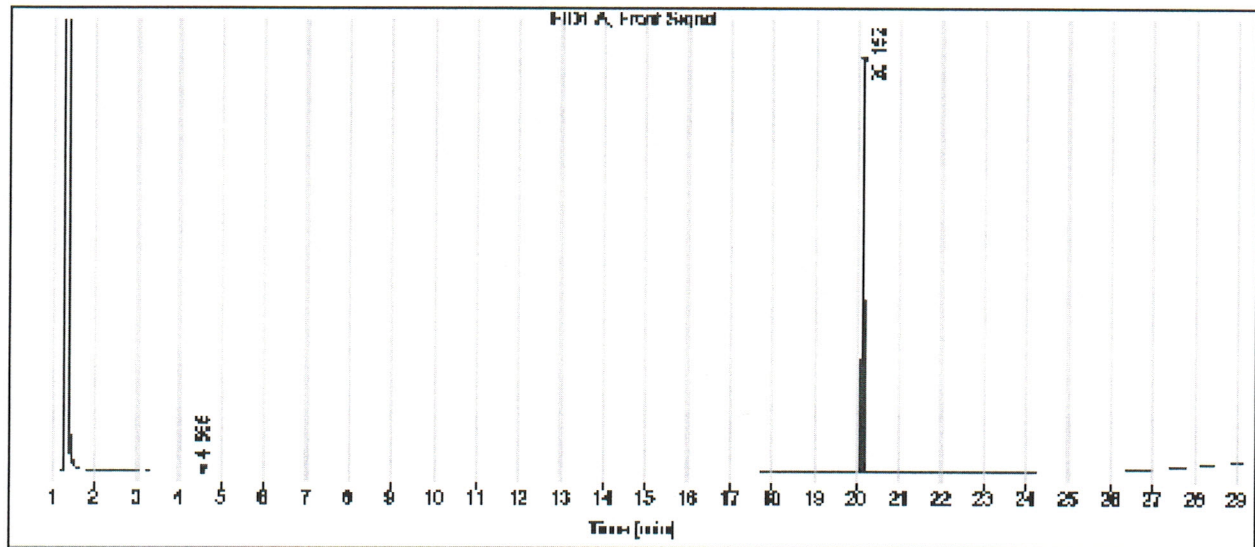
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

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

CERTIFICATE OF ANALYSIS

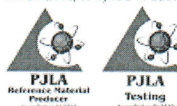
Sample type: Sample
 Location: Vial 141
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

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



Energy Laboratories Inc

Standard LOG

Standard ID: DRO220102A
Standard Name: 5,000 ug/mL RRO CCV 200 ug/mL Triaconta Type: Secondary
Date Prepared: 1/2/2022 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 EC757	14596	2.8	mL	10/20

Final Volume: 4 mL

Stock Source

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

Base Units

ug/mL
ug/mL

Amount Added

400 µL
800 µL

Analtes

A 30/40W Motor Oil
A Triacontane-d62

CAS

Conc: **ug/mL**
5000
200

Energy Laboratories Inc

Standard LOG

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

Type: Primary
BY: Ann Nebel
Status: Open

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Residual Range Calibration Standard (	13714	1	mL	1/31/

Final Volume: 1 mL

Stock Source

Base Units

Amount Added

Analtes

CAS

Conc: **ug/mL**



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31817 **Lot No.:** A0166827

Description : Residual Range Calibration Standard (RCS)
Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2028 **Storage:** 25°C nominal

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil) CAS # 64742-65-0.F (Lot A0126386) Purity ----%	50,056.0 µg/mL	+/- 293.0889 µg/mL	Gravimetric	
			+/- 1,490.7309 µg/mL	Unstressed	
			+/- 1,589.8634 µg/mL	Stressed	

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

ID #: 13714
Opened: _____
Residual Range Calibration Standard (RCS)
Expires: 1/31/2028
Rec'd: 4/1/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

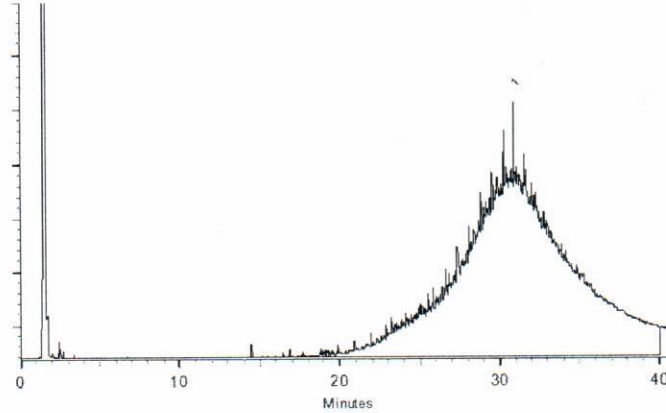
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Kylie Struble
Kylie Struble - Operations Technician I

Date Mixed: 02-Dec-2020

Balance: 1128353505

Justin Albertson
Justin Albertson - Operations Tech-ARM QC

Date Passed: 07-Dec-2020

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Energy Laboratories Inc

Standard LOG

Standard ID: DRO211129A
Standard Name: Triacotane SURR 1000 ug/mL
Date Prepared: 11/29/2021
Date Expires: 4/6/2026
Department: dropr
Vendor:
Lot Number:
Balance ID: BAL-DRO
Comments: 2X dilution of Triacotane SURR 2000 ug/mL

Type: Secondary
BY: Jillian L Bostwick
Status: New

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

Final Volume: 10 mL

Stock Source
DRO211006A Triacotane SURR 2000 ug/mL

Base Units
ug/mL

Amount Added
5 mL

Analtes
A Triacotane-d62

CAS

Conc: ug/mL
1000

Energy Laboratories Inc

Standard LOG

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

Type: Secondary
BY: Jillian L Bostwick
Status: New

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

Final Volume: 50 mL

Stock Source
DRO210406A Triacontane-d62 Surr For AK103 RRO

Base Units
ug/mL

Amount Added
0.1001 g

Analtes
A Triacontane-d62

CAS

Conc: **ug/mL**
2000

Energy Laboratories Inc

Standard LOG

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

Type: Neat
BY: Ann Nebel
Status: New

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

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

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: _____

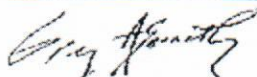
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

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: DRO211220C
Standard Name 5,000 ug/mL RRO CCV 200 ug/mL Triaconta Type: Secondary
Date Prepared 12/20/2021 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 EC757	14596	2.8	mL	10/20

Final Volume: 4 mL

Stock Source

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

Base Units

ug/mL
ug/mL

Amount Added

400 µL
800 µL

Analtes

A 30/40W Motor Oil
A Triacontane-d62

CAS

Conc: **ug/mL**
5000
200

Energy Laboratories Inc

Standard LOG

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

Type: Primary
BY: Ann Nebel
Status: Open

Comments:

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Residual Range Calibration Standard (	13714	1	mL	1/31/

Final Volume: 1 mL

Stock Source

Base Units

Amount Added

Analtes

CAS

Conc: **ug/mL**



CERTIFIED REFERENCE MATERIAL

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

www.restek.com

Certificate of Analysis



FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 31817 **Lot No.:** A0166827

Description : Residual Range Calibration Standard (RCS)
Residual Range Calib Std (RCS) 50,000µg/mL, Methylene Chloride, 1mL/ampul

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

Expiration Date : January 31, 2028 **Storage:** 25°C nominal

Ship: Ambient

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Motor Oil SAE30 & SAE40 Blend (Pennzoil) CAS # 64742-65-0.F (Lot A0126386) Purity ----%	50,056.0 µg/mL	+/- 293.0889 µg/mL	Gravimetric	
			+/- 1,490.7309 µg/mL	Unstressed	
			+/- 1,589.8634 µg/mL	Stressed	

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

ID #: 13714
Opened: _____
Residual Range Calibration Standard (RCS)
Expires: 1/31/2028
Rec'd: 4/1/2021
Energy Laboratories Inc 1120 So. 27th Street
Billings MT 59107

Column:

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

Carrier Gas:

hydrogen-constant pressure 10 psi.

Temp. Program:

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

Inj. Temp:

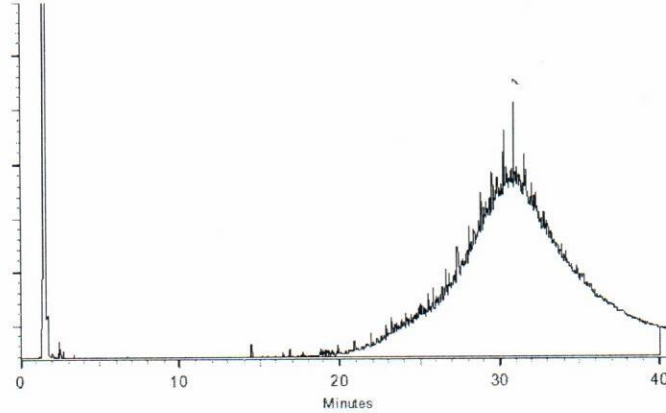
250°C

Det. Temp:

330°C

Det. Type:

FID



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

Kylie Struble
Kylie Struble - Operations Technician I

Date Mixed: 02-Dec-2020

Balance: 1128353505

Justin Albertson
Justin Albertson - Operations Tech-ARM QC

Date Passed: 07-Dec-2020

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

General Certified Reference Material Notes

Expiration Notes:

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

Purity Notes:

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

Certified Uncertainty Value Notes:

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

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

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

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

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

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

Manufacturing Notes:

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

Handling Notes:

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

Energy Laboratories Inc

Standard LOG

Standard ID: DRO211129A
Standard Name: Triacotane SURR 1000 ug/mL
Date Prepared: 11/29/2021
Date Expires: 4/6/2026
Department: dropr
Vendor:
Lot Number:
Balance ID: BAL-DRO
Comments: 2X dilution of Triacotane SURR 2000 ug/mL

Type: Secondary
BY: Jillian L Bostwick
Status: New

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

Final Volume: 10 mL

Stock Source
DRO211006A Triacotane SURR 2000 ug/mL

Base Units
ug/mL

Amount Added
5 mL

Analtes
A Triacotane-d62

CAS

Conc: **ug/mL**
1000

Energy Laboratories Inc

Standard LOG

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

Type: Secondary
BY: Jillian L Bostwick
Status: New

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

Final Volume: 50 mL

Stock Source
DRO210406A Triacontane-d62 Surr For AK103 RRO

Base Units
ug/mL

Amount Added
0.1001 g

Analtes
A Triacontane-d62

CAS

Conc: **ug/mL**
2000

Energy Laboratories Inc

Standard LOG

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

Type: Neat
BY: Ann Nebel
Status: New

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

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

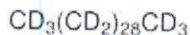
Email USA: techserv@sial.com

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: _____

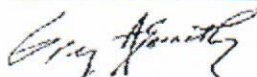
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

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

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C



Greg Abernathy, Supervisor
 Quality Control
 Miamisburg, Ohio US

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

Energy Laboratories Inc

Standard LOG

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

Type: Secondary
 BY: Jillian L Bostwick
 Status: New

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

Final Volume: 25 mL

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

<u>Analtes</u>	<u>CAS</u>	<u>Conc:</u>	<u>ug/mL</u>
A 30W Motor Oil			10000
A 30W-Motor oil			0
A 40W Motor Oil			10000
A 40W-Motor oil			0

Energy Laboratories Inc

Standard LOG

Standard ID: DRO210901B
Standard Name: 40W Motor Oil-Valvoline
Date Prepared: 9/1/2021
Date Expires: 9/1/2026
Department: dropr
Vendor:
Lot Number:
Balance ID:
Type: Primary
BY: Jillian L Bostwick
Status: New
Comments: Used to Make 2nd Source Standards For Alaska AK103 RRO Method and Oil

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 40 Motor Oil	14231		mL	9/1/2026

Final Volume: mL

Stock Source

Base Units

Amount Added

Analtes

CAS

Conc: ug/mL

A 40W-Motor oil

1

Energy Laboratories Inc

Standard LOG

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

Chemical / Solvent Used	BottleNo	Amt	Units	Exp
Valvoline SAE 30 Motor Oil	14232		mL	9/1/2026

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: DRO211220D
Standard Name: Triacotane SURR 1000 ug/mL
Date Prepared: 12/20/2021
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 EC757	14596	5	mL	10/20

Final Volume: 10 mL

Stock Source
DRO211006A Triacotane SURR 2000 ug/mL

Base Units
ug/mL

Amount Added
5 mL

Analtes
A Triacotane-d62

CAS

Conc: ug/mL
1000

Energy Laboratories Inc

Standard LOG

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

Type: Secondary
BY: Jillian L Bostwick
Status: New

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

Final Volume: 50 mL

Stock Source
DRO210406A Triacontane-d62 Surr For AK103 RRO

Base Units
ug/mL

Amount Added
0.1001 g

Analtes
A Triacontane-d62

CAS

Conc: **ug/mL**
2000

Energy Laboratories Inc

Standard LOG

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

Type: Neat
BY: Ann Nebel
Status: New

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

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

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: _____

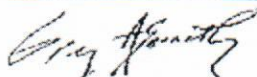
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

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: DRO211213A
Standard Name: OTP only SURR 2000 ug/mL
Date Prepared: 12/13/2021
Date Expires: 9/30/2024
Department: dropr
Vendor:
Lot Number:
Balance ID: BAL-DRO
Comments: OTP SURR 2000 ug/mL

Type: Secondary
BY: Jillian L Bostwick
Status: New

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

Final Volume: 100 mL

Stock Source

DRO200430B O-Terphenyl

Base Units

ug/mL

Amount Added

0.2015 g

Analtes

A 1-Chlorooctadecane

CAS

3386-33-2

Conc:

ug/mL

2000

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 • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C₁₈H₁₄
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

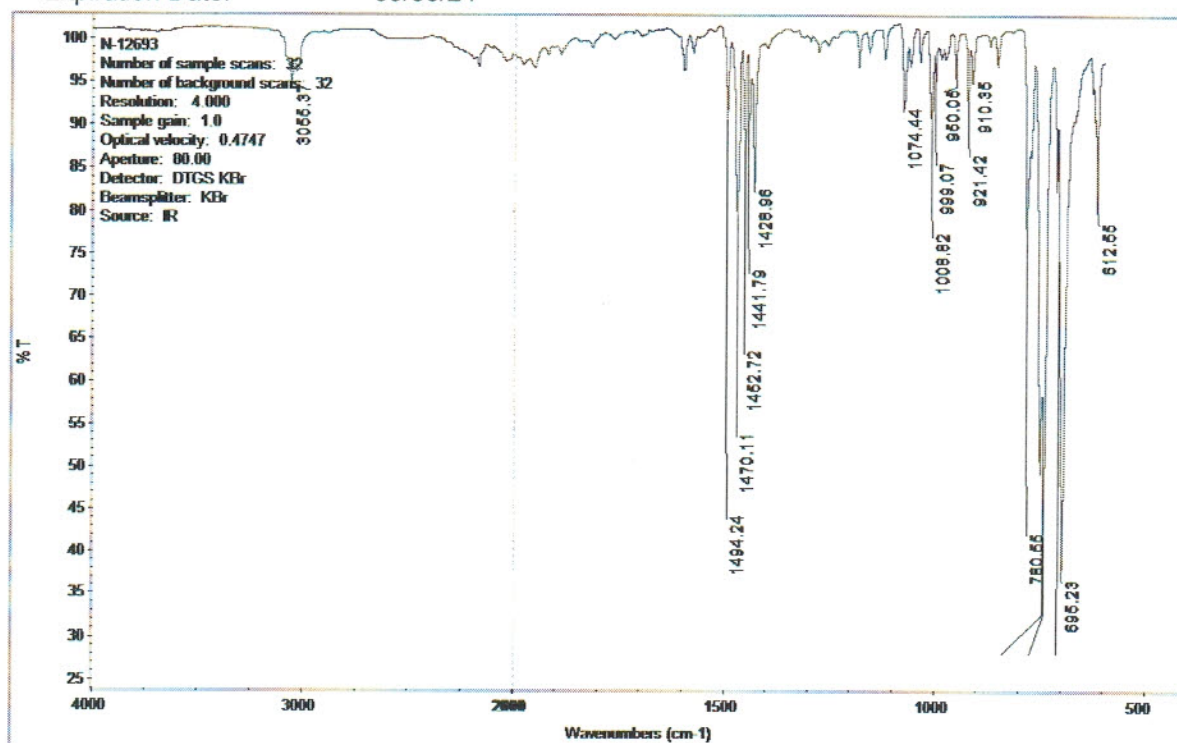
Rec'd: 4/30/2020

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

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 • 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

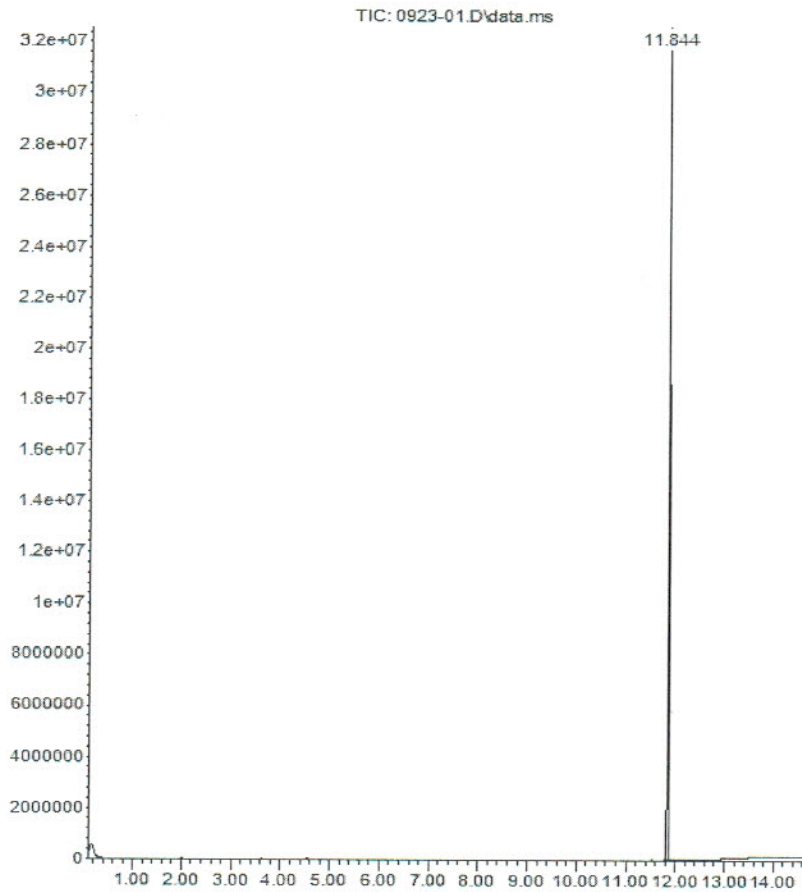
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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



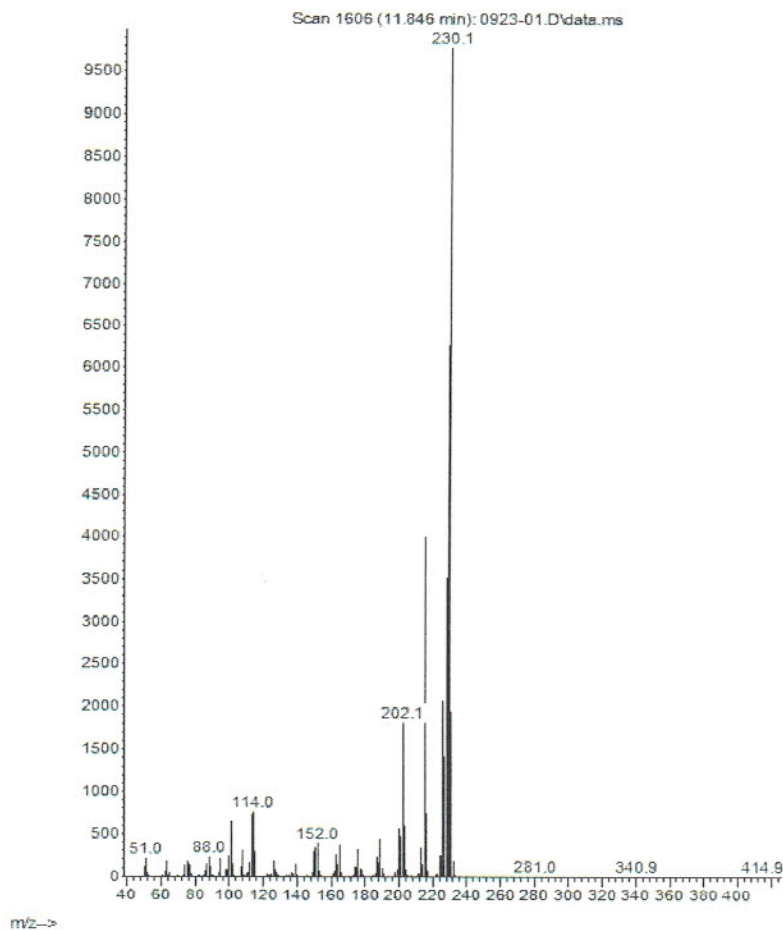
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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 • 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



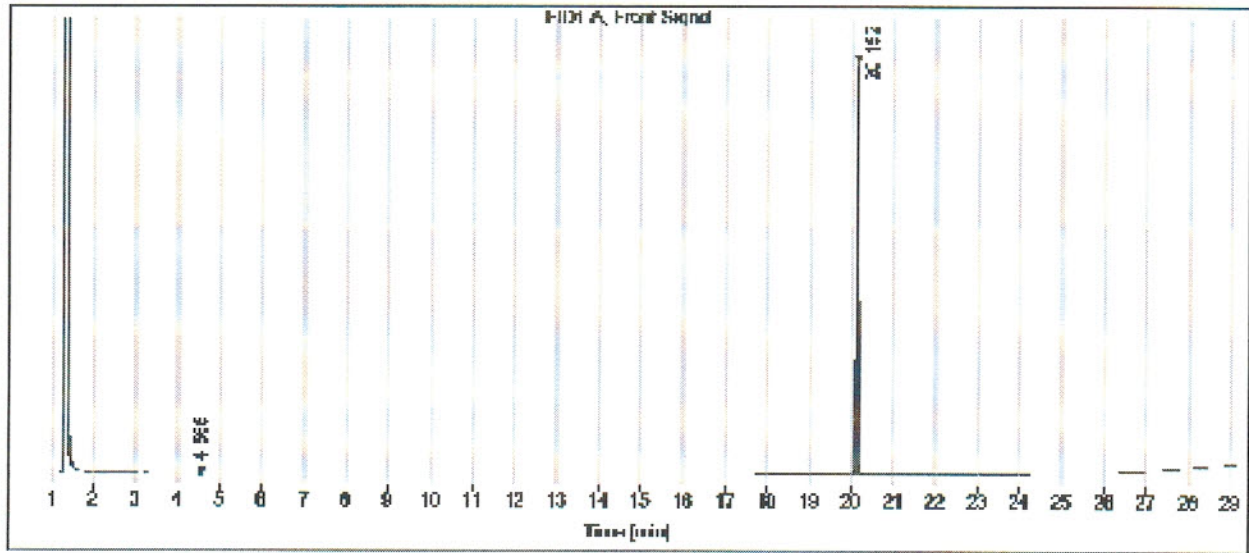
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

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

