

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

13-Jan-22

Run ID GCFID-HP5-B\_220111A

<b>Run Start Date:</b>	1/11/2022
<b>Analyst:</b>	Ann Nebel
<b>Ical:</b>	
<b>Column ID:</b>	
<b>Comments:</b>	ICAL- SW8015C_DRO220111JA.CAL

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO211012B	#2 Diesel in Acetone 150,000 ug/mL					ICV	11/5/2023
DRO211101A	OTP-4000 ug/mL DCM					OTP-CAL	9/30/2024
DRO211214C	Diesel Fuel #2 50,000 ug/mL in DCM					CCV-CAL	4/30/2023
DRO220102D	ALASKA MARKER-200ug/mL					MARKER	5/31/2022

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14976981	CCV_0111HP50	HC-8015-DRO-	CCV		1/11/2022 8:59:2	1	R373149		0	0							
<b>Analyte</b>		<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
Total Extractable Hydrocarbons		A	mg/L		3.205893		15	0	0	0.0749	0.3	50	21%	80	120	0%	S
o-Terphenyl		S	mg/L		0.1968894		0.2	0	0	0.000429	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14976982	CCV_0111HP50	HC-8015-DRO-	CAL1		1/11/2022 10:25:	1	R373149		0	0							
<b>Analyte</b>		<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
o-Terphenyl		S	mg/L		0.00201677		0.002	0	0	0.000429	0.002	0	101%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
14976983	CCV_0111HP50	HC-8015-DRO-	CAL2		1/11/2022 11:08:	1	R373149		0	0							
<b>Analyte</b>		<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
o-Terphenyl		S	mg/L		0.0489019		0.05	0	0	0.000429	0.002	0	98%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976984	CCV_0111HP50	HC-8015-DRO-	CAL3		1/11/2022 11:51:	1	R373149		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.2047389		0.2	0	0	0.000429	0.002	0	102%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976985	CCV_0111HP50	HC-8015-DRO-	CAL4		1/11/2022 12:34:	1	R373149		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.4884362		0.5	0	0	0.000429	0.002	0	98%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976986	CCV_0111HP50	HC-8015-DRO-	CAL5		1/11/2022 1:17:0	1	R373149		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		1.013008		1	0	0	0.000429	0.002	0	101%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976987	CCV_0111HP50	HC-8015-DRO-	CAL1		1/11/2022 1:59:5	1	R373149		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		0.1635249		0.15	0	0	0.0749	0.3	50	109%	80	120	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14976989	CCV_0111HP51	HC-8015-DRO-	CAL2		1/11/2022 2:42:3	1	R373149		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		3.698293		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					
14976990	CCV_0111HP51	HC-8015-DRO-	CAL3		1/11/2022 3:25:2	1	R373149		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		14.75864		15	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					
14976991	CCV_0111HP51	HC-8015-DRO-	CAL4		1/11/2022 4:08:0	1	R373149		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		36.29137		37.5	0	0	0.0749	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					
14976992	CCV_0111HP51	HC-8015-DRO-	CAL5		1/11/2022 4:51:0	1	R373149		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		48.59718		50	0	0	0.0749	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					
14976993	CCV_0111HP51	HC-8015-DRO-	ICV		1/11/2022 5:34:2	1	R373149		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		14.05379		15	0	0	0.0749	0.3	50	94%	80	120	0%	

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	G:\org\HP5\DAT\HP5011122_b\0111HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.02r	CCV_0111HP502r, DRO ;0111HP5 , DRO220102D	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.03r	DCM-Baseline Check-V03	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.04r	CCV_0111HP504r, CAL1 ;0111HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.05r	CCV_0111HP505r, CAL2 ;0111HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.06r	CCV_0111HP506r, CAL3 ;0111HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.07r	CCV_0111HP507r, CAL4 ;0111HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.08r	CCV_0111HP508r, CAL5 ;0111HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14647)	G:\Org\HP5\Methods\DS_8015-JA-L#.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.09r	CCV_0111HP509r, CAL1 ;0111HP5 , 150 ug per mL Diesel (20 uL of Cal3 + 980 uL DCM(14647), then 100 uL of that + 100 uL of DCM (14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.10r	CCV_0111HP510r, CAL2 ;0111HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.11r	CCV_0111HP511r, CAL3 ;0111HP5 , 15000 ug per mL Diesel (300 uL of DRO211214C + 700 uL DCM(14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.12r	CCV_0111HP512r, CAL4 ;0111HP5 , 37500ug per mL Diesel (750 uL of DRO211214C + 250 uL DCM(14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.13r	CCV_0111HP513r, CAL5 ;0111HP5 , 50000 ug per mL Diesel (200 uL of DRO211214C)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122_b\0111HP5.14r	CCV_0111HP514r, Second Source ;0111HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14647)	G:\Org\HP5\Methods\DC_8015-JA-L%.met	1	1	1	1	0

File Name: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL

Version: 12

Creator: AMN 01/13/2022

Description: 8015C-DRO. New ICal Per 0111HP5 (2022)-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

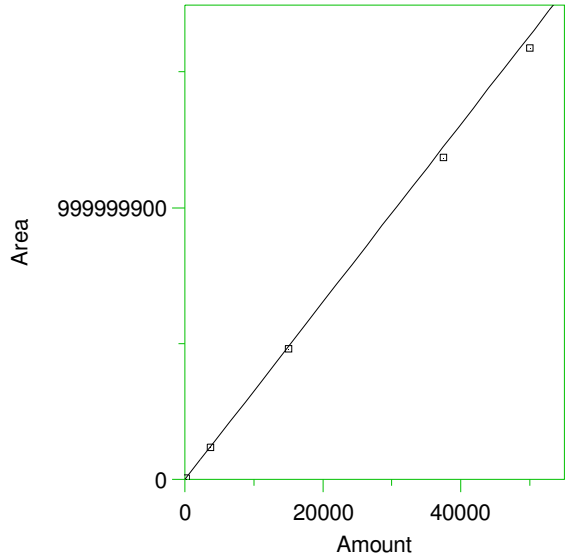
No default component

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

No calibration update report

All levels are normal data points.

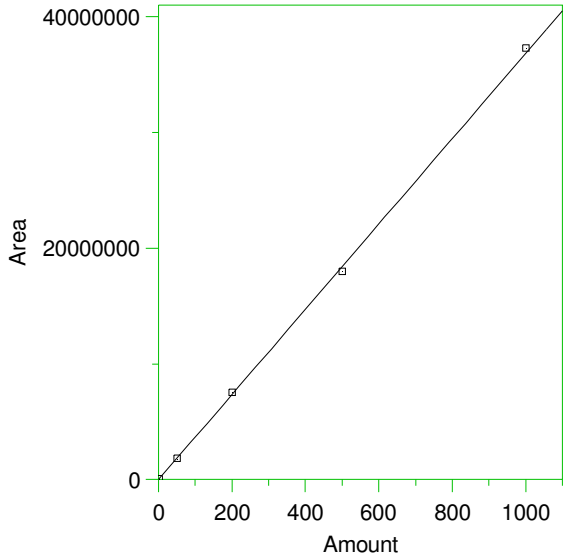
1 DRO Range Start



Expected retention time: 6.68 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 = 32675.36 X + 0  
 Average CF fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9980255  
 Average error: 3.607%  
 Average CF: 32675.36  
 RSD: 5.100%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	5343235	35621.57	9.017	Manual	1/13/2022 12:28:36 PM
2	3750	1.20843E+08	32224.8	-1.379	Manual	1/13/2022 12:29:11 PM
3	15000	4.82244E+08	32149.6	-1.609	Manual	1/13/2022 12:29:24 PM
4	37500	1.185834E+09	31622.24	-3.223	Manual	1/13/2022 12:29:37 PM
5	50000	1.58793E+09	31758.6	-2.806	Manual	1/13/2022 12:28:57 PM

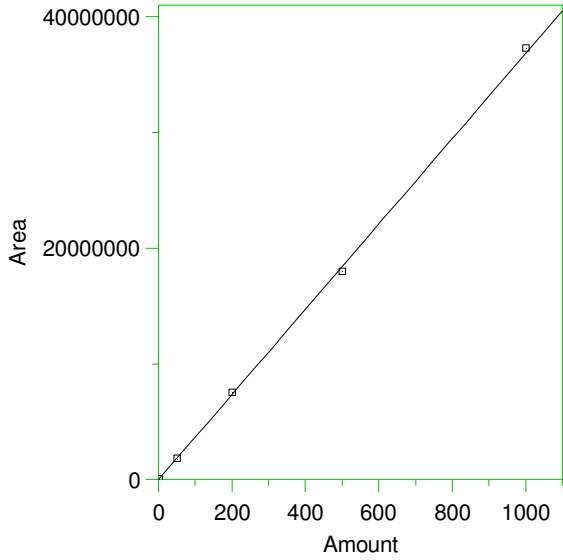
2 \*o-Terphenyl



Expected retention time: 12.35 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 = 36857.86 X + 0  
 Average CF fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9995278  
 Average error: 1.804%  
 Average CF: 36857.86  
 RSD: 2.132%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	74333.97	37166.98	0.839	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0004.BND	1/13/2022 12:27:15 PM
2	50	1802420	36048.4	-2.196	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0005.BND	1/13/2022 12:27:23 PM
3	200	7546240	37731.2	2.369	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0006.BND	1/13/2022 12:27:28 PM
4	500	1.800271E+07	36005.42	-2.313	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0007.BND	1/13/2022 12:27:34 PM
5	1000	3.733731E+07	37337.31	1.301	G:\Org\HP5\DAT\HP5011122_b\0111HP5.0008.BND	1/13/2022 12:27:40 PM

3 \*1-Chlorooctadecane



Expected retention time: 13.16 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  
 $Y = 36857.86 X + 0$   
 Average CF fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9995278  
 Average error: 1.804%  
 Average CF: 36857.86  
 RSD: 2.132%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	74333.97	37166.98	0.839	Manual	1/13/2022 12:27:45 PM
2	50	1802420	36048.4	-2.196	Manual	1/13/2022 12:27:47 PM
3	200	7546240	37731.2	2.369	Manual	1/13/2022 12:27:49 PM
4	500	1.800271E+07	36005.42	-2.313	Manual	1/13/2022 12:27:51 PM
5	1000	3.733731E+07	37337.31	1.301	Manual	1/13/2022 12:27:53 PM



Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
		DCM-Baseline Check-V01	G:\Org\HP5-Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integration
		CCV_0111HP502r, DRO ;0111HP5 , DRO220102D	G:\Org\HP5-Methods\DC_8015-JA-L%.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V03	G:\Org\HP5-Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integration
	G:\org\HP5\DAT\HP5011122_b\0111HP5.04r	CCV_0111HP504r, CAL1 ;0111HP5 , 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.05r	CCV_0111HP505r, CAL2 ;0111HP5 , 50 ug per mL OTP (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.06r	CCV_0111HP506r, CAL3 ;0111HP5 , 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.07r	CCV_0111HP507r, CAL4 ;0111HP5 , 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.08r	CCV_0111HP508r, CAL5 ;0111HP5 , 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14647)	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.09r	CCV_0111HP509r, CAL1 ;0111HP5 , 150 ug per mL Diesel (20 uL of Cal3 + 980 uL DCM(14647), then 100 uL of that + 100 uL of DCM (14647))	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.10r	CCV_0111HP510r, CAL2 ;0111HP5 , 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.11r	CCV_0111HP511r, CAL3 ;0111HP5 , 15000 ug per mL Diesel (300 uL of DRO211214C + 700 uL DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.12r	CCV_0111HP512r, CAL4 ;0111HP5 , 37500ug per mL Diesel (750 uL of DRO211214C + 250 uL DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.13r	CCV_0111HP513r, CAL5 ;0111HP5 , 50000 ug per mL Diesel (200 uL of DRO211214C)	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.14r	CCV_0111HP514r, Second Source ;0111HP5 , 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14647)	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.

*Ann Nebel*

Digitally signed by  
Ann Nebel  
Date: 2022.02.11 10:29:19 -07:00

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
		DCM-Baseline Check-V01	G:\Org\HP5-Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integration
		CCV_0111HP502r, DRO_0111HP5, DRO220102D	G:\Org\HP5-Methods\DC_8015-JA-L%.met	1	1	1	1	0	No Integration
		DCM-Baseline Check-V03	G:\Org\HP5-Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integration
		CCV_0111HP504r, CAL1_0111HP5, 2 ug per mL OTP (10 uL of Cal3 + 990 uL DCM(14647))	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP505r, CAL2_0111HP5, 50 ug per mL OTP (100 uL Cal4 + 900 uL DCM(14647))	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP506r, CAL3_0111HP5, 200 ug per mL OTP (100uL of Cal5 + 400 uL DCM(14647))	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP507r, CAL4_0111HP5, 500 ug per mL OTP (250uL of Cal5 + 250 uL DCM(14647))	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP508r, CAL5_0111HP5, 1000 ug per mL OTP (250 uL 4000 ug/mL OTP DRO211101A + 750 DCM(14647))	G:\Org\HP5-Methods\DS_8015-JA-L#.met	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 12.01 minutes.
		CCV_0111HP509r, CAL1_0111HP5, 150 ug per mL Diesel (20 uL of Cal3 + 980 uL DCM(14647)), then 100 uL of that + 100 uL of DCM (14647))	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
		CCV_0111HP510r, CAL2_0111HP5, 3750 ug per mL Diesel (100 uL Cal4 + 900 uL of DCM(14647))	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
		CCV_0111HP511r, CAL3_0111HP5, 15000 ug per mL Diesel (300 uL of DRO211214C + 700 uL DCM(14647))	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
		CCV_0111HP512r, CAL4_0111HP5, 37500ug per mL Diesel (750 uL of DRO211214C + 250 uL DCM(14647))	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
		CCV_0111HP513r, CAL5_0111HP5, 50000 ug per mL Diesel (200 uL of DRO211214C)	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.
		CCV_0111HP514r, Second Source_0111HP5, 15000 ug per mL (100uL of DRO211012B + 900uL DCM(14647))	G:\Org\HP5-Methods\DC_8015-JA-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 on All Valley on at 16.36 minutes.

*Ann Nebel*

Digitally signed by  
Ann Nebel  
Date: 2022.02.11 10:29:19 -07:00

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

14-Jan-22

Run ID GCFID-HP5-B\_220111C

<b>Run Start Date:</b> 1/11/2022
<b>Analyst:</b> Ann Nebel
<b>Ical:</b>
<b>Column ID:</b>
<b>Comments:</b> ICAL- SW8015C_ORO220111BA.CAL with Triacontane

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO210902A	50,000 ug/mL Oil Std for RRO-In DCM					ICV	9/1/2026
DRO211006A	Triacontane SURR 2000 ug/mL					CAL-SURR	4/6/2026
DRO211118A	50,000 ug/mL Oil Std For AK103 RRO-In DCM					CAL-ORO	10/31/2028

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14977288	CCV_0111HP52	HC-8015-DRO-	CAL1		1/12/2022 3:39:1	1	R373160		0	0						
<b>Analyte</b>	<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
n-Triacontane	S	mg/L	0.00190245			0.002	0	0	0.000336	0.002	0	95%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
14977289	CCV_0111HP52	HC-8015-DRO-	CAL2		1/12/2022 4:22:1	1	R373160		0	0						
<b>Analyte</b>	<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
n-Triacontane	S	mg/L	0.04984459			0.05	0	0	0.000336	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					
14977290	CCV_0111HP53	HC-8015-DRO-	CAL3		1/12/2022 5:05:2	1	R373160		0	0						
<b>Analyte</b>	<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
n-Triacontane	S	mg/L	0.2024053			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					
14977291	CCV_0111HP53	HC-8015-DRO-	CAL4		1/12/2022 5:48:3	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		0.5035697		0.5	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					
14977292	CCV_0111HP55	HC-8015-DRO-	CAL5		1/12/2022 8:49:5	1	R373160		0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
n-Triacontane	S	mg/L		1.032718		1	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					
14977293	CCV_0111HP55	HC-8015-DRO-	CAL1		1/13/2022 3:06:1	1	R373160		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		0.15954587		0.15	0	0	0.0879	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					
14977294	CCV_0111HP55	HC-8015-DRO-	CAL2		1/13/2022 4:31:3	1	R373160		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		1.03294141		1	0	0	0.0879	0.3	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					
14977295	CCV_0111HP55	HC-8015-DRO-	CAL3		1/13/2022 5:57:4	1	R373160		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		4.9326875		5	0	0	0.0879	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					
14977296	CCV_0111HP56	HC-8015-DRO-	CAL4		1/13/2022 7:24:1	1	R373160		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		14.328667		15	0	0	0.0879	0.3	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					
14977297	CCV_0111HP56	HC-8015-DRO-	CAL5		1/13/2022 8:50:3	1	R373160		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		28.7914395		30	0	0	0.0879	0.3	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					
14977298	CCV_0111HP56	HC-8015-DRO-	ICV		1/14/2022 8:18:1	0	R373160		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		5.07699902		5	0	0	0	0.3	0	102%	80	120	0%	

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	G:\org\HP5\DAT\HP5011122 b\0111HP5.25f	DCM-Baseline Check-V25	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.26f	Marker_0111HP526r, DRO :0111HP5 , DRO220111A	G:\org\HP5\Methods\CSC210212.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.27f	DCM-Baseline Check-V27	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.28f	CCV_0111HP528r, CAL1 :0111HP5 , 2 ug per mL Triacotane (10 uL of Cal3 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.29f	CCV_0111HP529r, CAL2 :0111HP5 , 50 ug per mL Triacotane (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.30f	CCV_0111HP530r, CAL3 :0111HP5 , 200 ug per mL Triacotane (100uL of Cal5 + 400 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.31f	CCV_0111HP531r, CAL4 :0111HP5 , 500 ug per mL Triacotane (250uL of Cal5 + 250 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.32f	DCM-Baseline Check-V32	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.50f	CCV_0111HP550r, CAL5 :0111HP5 , 1000 ug per mL Triacotane (DRO211006A)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.51f	DCM-Baseline Check-V51	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.52f	DCM-Baseline Check-V52	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.53f	Marker_0111HP553r, DRO :0111HP5 , DRO220111A	G:\org\HP5\Methods\CSC210212.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.54f	DCM-Baseline Check-V54	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.55f	CCV_0111HP555r, CAL1 :0111HP5 , 150 ug per mL Oil (10 uL of Cal4 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-55-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.56f	DCM-Baseline Check-V56	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.57f	CCV_0111HP557r, CAL2 :0111HP5 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-57-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.58f	DCM-Baseline Check-V58	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.59f	CCV_0111HP559r, CAL3 :0111HP5 , 5000 ug per mL Oil (100 uL of DRO211118A + 900 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-59-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.60f	DCM-Baseline Check-V60	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.61f	CCV_0111HP561r, CAL4 :0111HP5 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-61-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.62f	DCM-Baseline Check-V62	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.63f	CCV_0111HP563r, CAL5 :0111HP5 , 30000 ug per mL Oil (600 uL of DRO211118A + 400 uL of DCM)	G:\Org\HP5\Methods\DC_ORO-BA-L%.xls	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.64f	DCM-Baseline Check-V64	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.65f	DCM-Baseline Check-V65	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.66f	DCM-Baseline Check-V66	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.68f	DCM-Baseline Check-V68	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5011122 b\0111HP5.69f	CCV_0111HP567r, Second Source :0111HP5 , 5000 ug per mL (100uL of DRO210902A + 900uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-59-BA-L%.xls	1	1	1	1	0

File Name: G:\Org\HP5\Cals\SW8015C\_ORO220111BA.CAL  
Version: 11  
  
Creator: AMN  
Description: 8015C-Oil Range with Triacontane. New ICal Per 0111HP5,(2022)-2 uL Inj.;  
Reason for change:

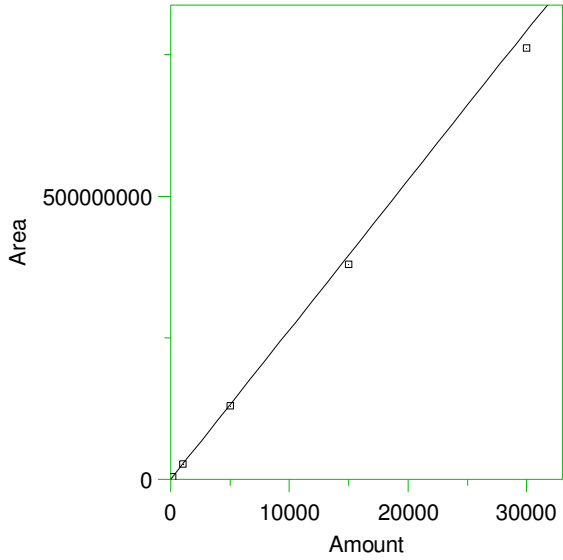
External standard calibration

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

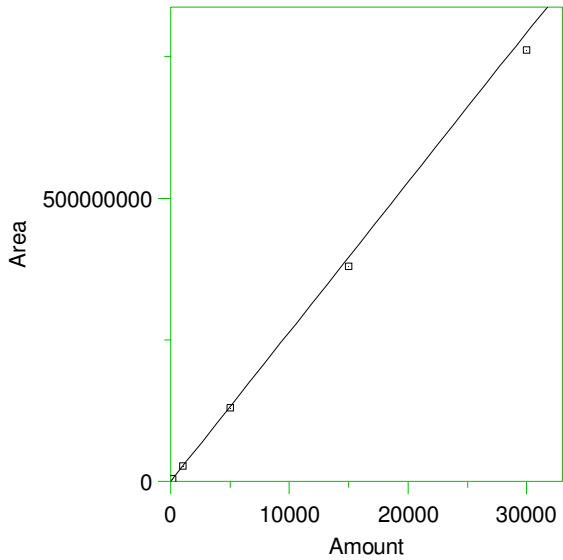
$Y = 26424.55 X + 0$

Average CF fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9969108  
 Average error: 3.495%  
 Average CF: 26424.55  
 RSD: 4.293%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4177025	27846.83	5.382	Manual	1/14/2022 7:51:42 AM
2	1000	2.73111E+07	27311.1	3.355	Manual	1/14/2022 8:05:40 AM
3	5000	1.313247E+08	26264.94	-0.604	Manual	1/14/2022 8:05:24 AM
4	15000	3.796282E+08	25308.55	-4.223	Manual	1/14/2022 8:05:07 AM
5	30000	7.617404E+08	25391.35	-3.910	Manual	1/14/2022 8:04:35 AM



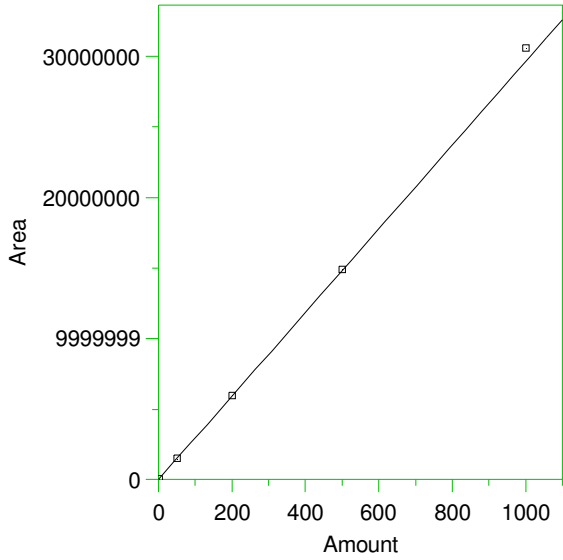
2 #C20



Expected retention time: 12.56 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 = 26424.55 X + 0  
 Average CF fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9969108  
 Average error: 3.495%  
 Average CF: 26424.55  
 RSD: 4.293%

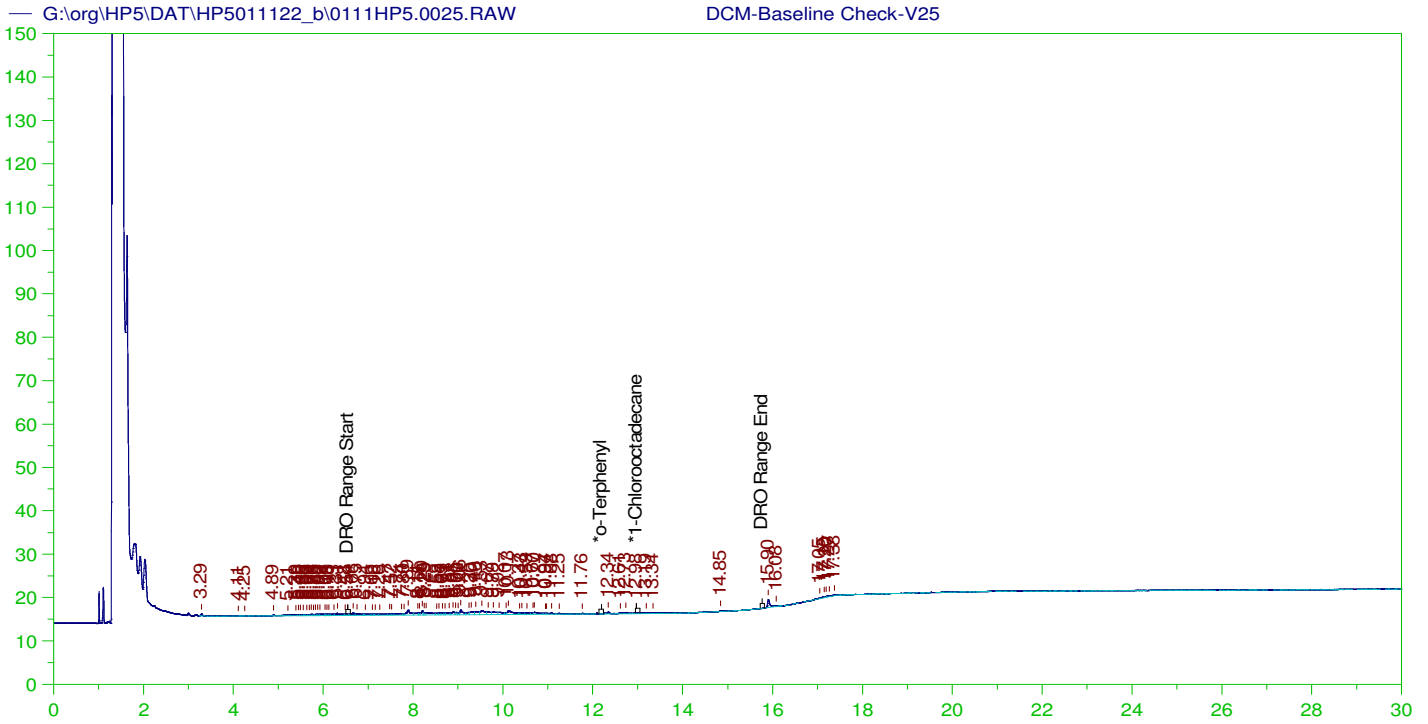
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4177025	27846.83	5.382	Manual	1/14/2022 8:06:03 AM
2	1000	2.73111E+07	27311.1	3.355	Manual	1/14/2022 8:06:05 AM
3	5000	1.313247E+08	26264.94	-0.604	Manual	1/14/2022 8:06:06 AM
4	15000	3.796282E+08	25308.55	-4.223	Manual	1/14/2022 8:06:11 AM
5	30000	7.617404E+08	25391.35	-3.910	Manual	1/14/2022 8:06:13 AM

3 \*#Triacontane



Expected retention time: 16.44 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 = 29636.1 X + 0  
 Average CF fit with equal weighting, forced to origin  
 Coefficient of determination: 0.9984925  
 Average error: 2.075%  
 Average CF: 29636.1  
 RSD: 3.023%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	2	56381.2	28190.6	-4.878	Manual	1/13/2022 12:38:47 PM
2	50	1477199	29543.98	-0.311	Manual	1/13/2022 12:38:50 PM
3	200	5998503	29992.52	1.203	Manual	1/13/2022 12:38:53 PM
4	500	1.492384E+07	29847.68	0.714	Manual	1/13/2022 12:38:56 PM
5	1000	3.060573E+07	30605.73	3.272	Manual	1/13/2022 12:39:03 PM



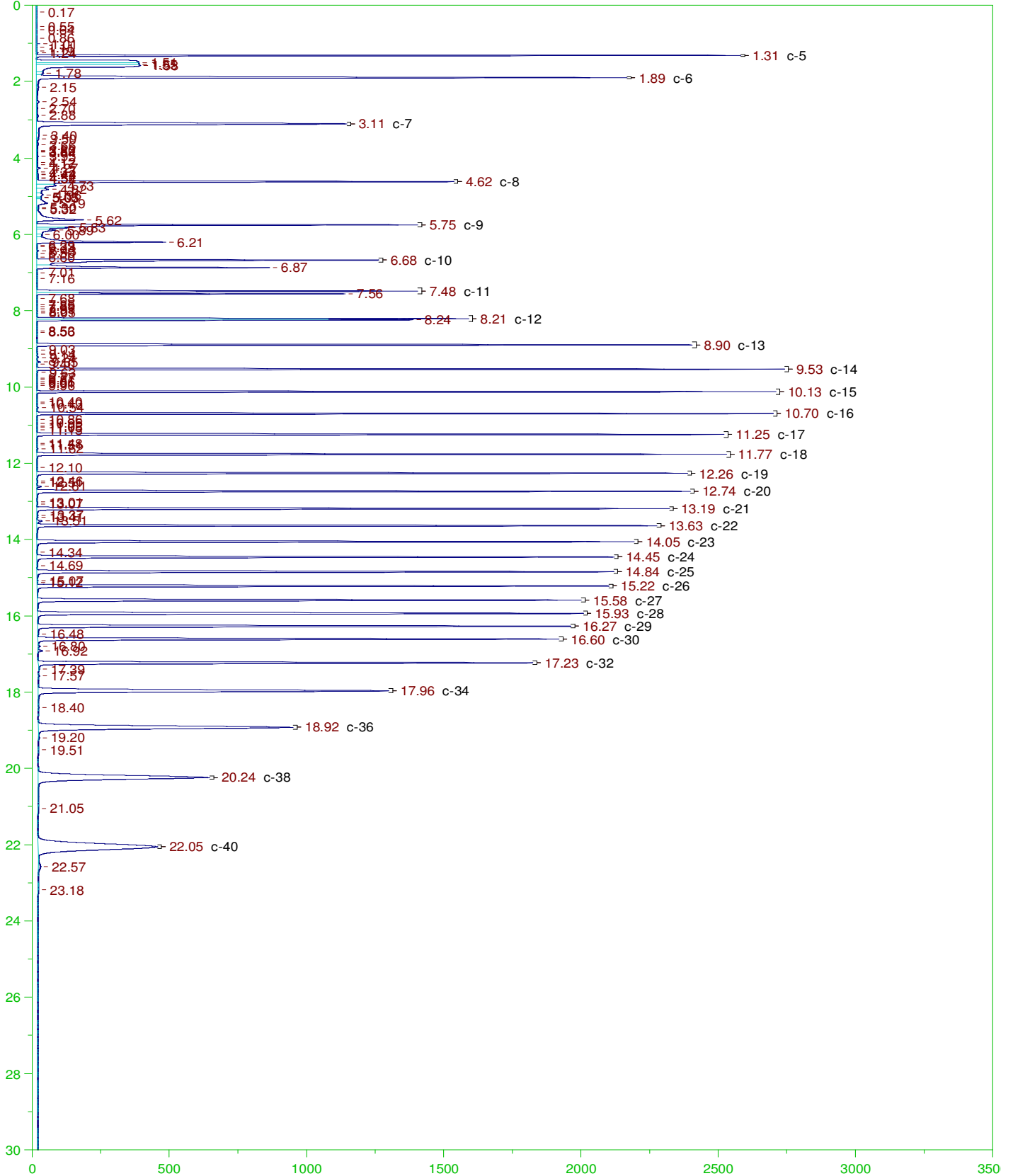
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

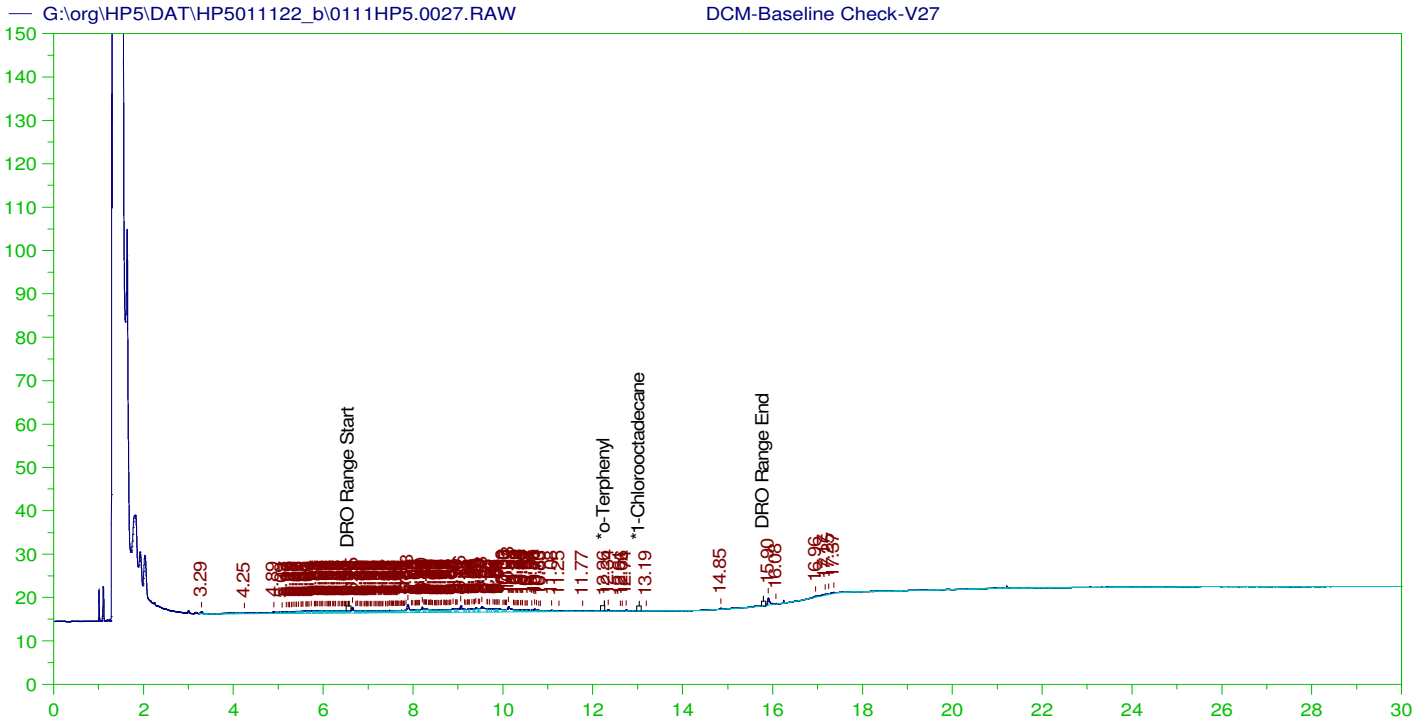
Sample Name: DCM-Baseline Check-V25  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0025.RAW  
 Date & Time Acquired: 1/12/2022 1:29:46 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-IC-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.5 to 15.82

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.899	200.	.	-
*1-Chlorooctadecane	12.975	200.	.017	.01 -

DRO Area:132028.6 DRO Amount: 4.211011  
 TEH Area:186308.4 TEH Amount: 5.942247





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V27  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0027.RAW  
 Date & Time Acquired: 1/12/2022 2:56:04 AM  
 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

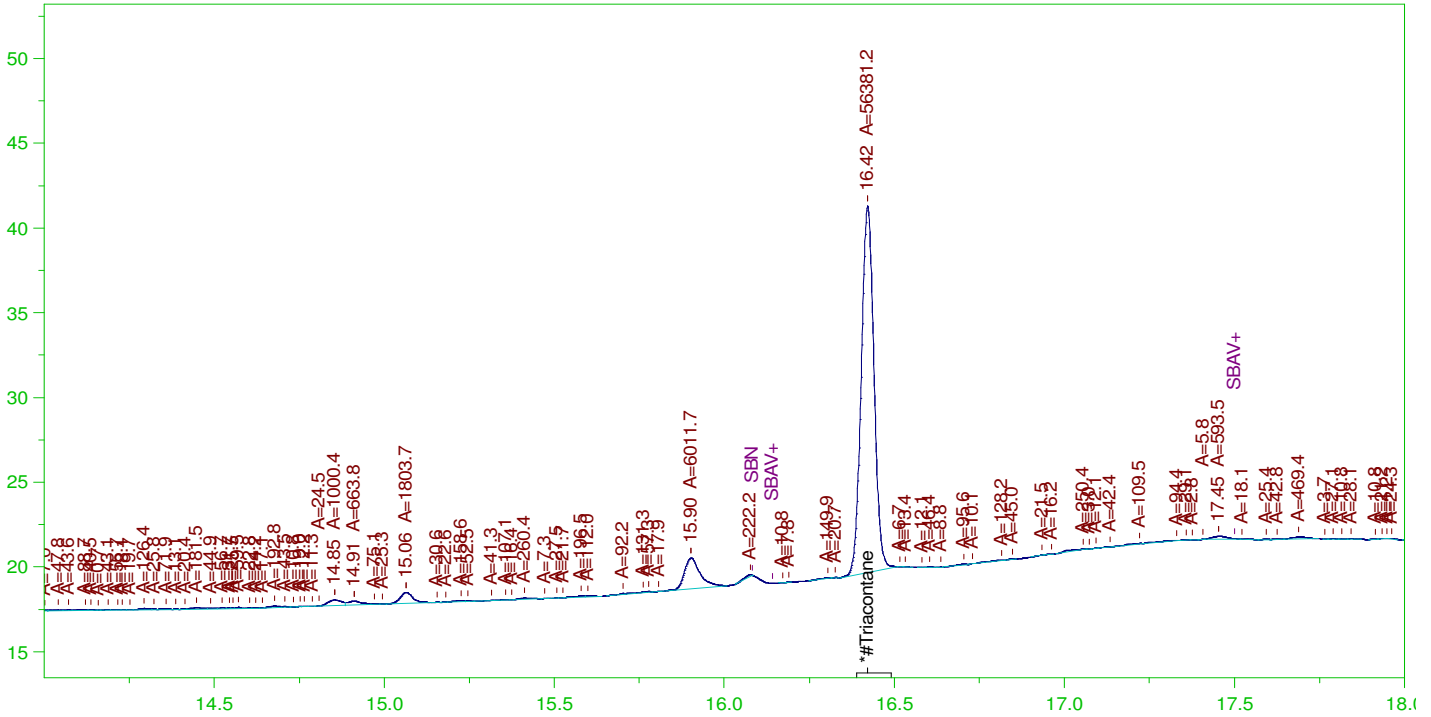
Mean RF for TEH: 29457.33  
 Rt range for Diesel Range Organics: 6.51 to 15.85

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.261	200.	.017	.01 -
*1-Chlorooctadecane	29.983	200.	.	. -

DRO Area:193795.7 DRO Amount: 6.578862  
 TEH Area:272770 TEH Amount: 9.259835

G:\Org\HP5\DAT\HP5011122\_b\0111HP5.0028.RAW

CCV\_0111HP528r, CAL1 ;0111HP5 , 2 ug per mL Triacontane



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP528r, CAL1 ;0111HP5 , 2 ug per mL Triacontane  
 Raw File: G:\Org\HP5\DAT\HP5011122\_b\0111HP5.0028.RAW  
 Date & Time Acquired: 1/12/2022 3:39:11 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111ba.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.421	500.	1.902	.38

RRO Area:11465.21 RRO AMOUNT: 0.4016902

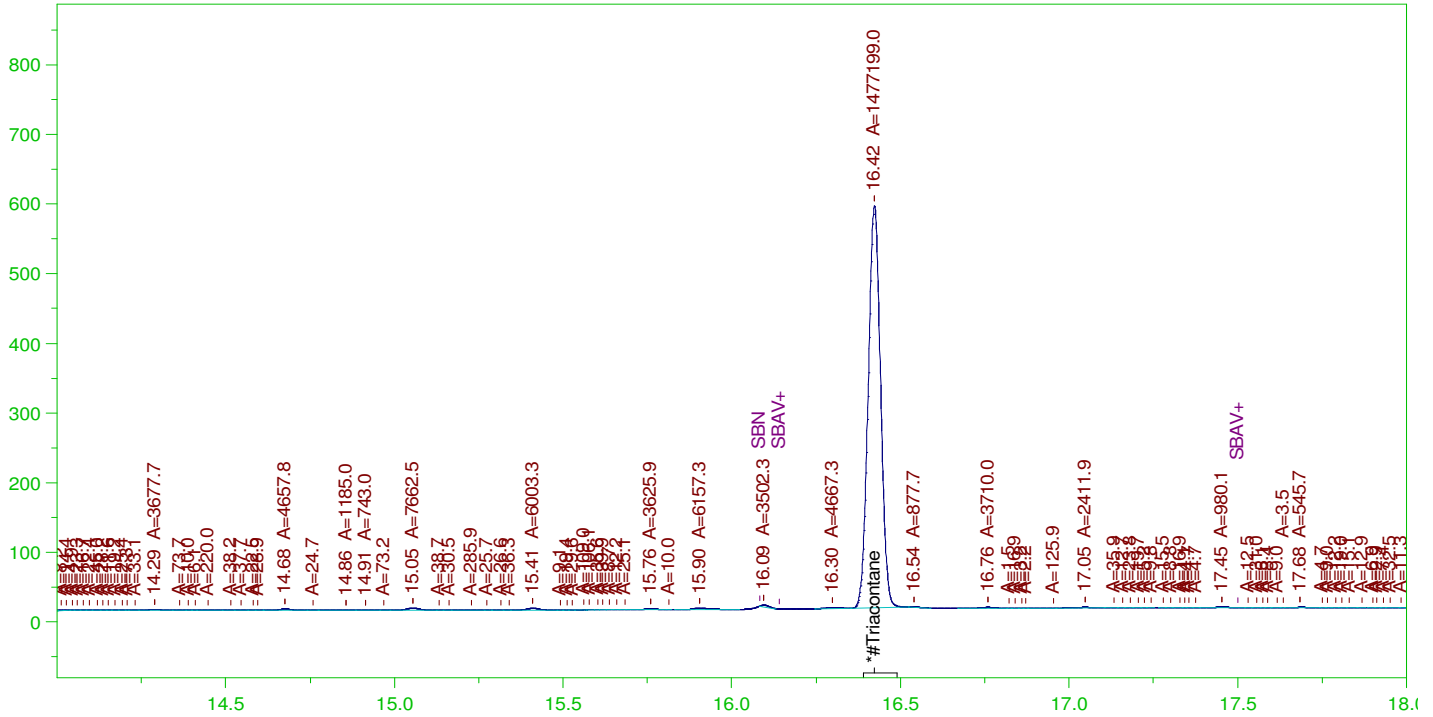
CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5011122\_b\0111HP5.0028.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.056	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.421	200.	1.902	.95	75-125

G:\org\HP5\DAT\HP5011122\_b\0111HP5.0029.RAW

CCV\_0111HP529r, CAL2 ;0111HP5 , 50 ug per mL Triacontane



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP529r, CAL2 ;0111HP5 , 50 ug per mL Triacontane  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0029.RAW  
 Date & Time Acquired: 1/12/2022 4:22:15 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111ba.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.51 to 30.05

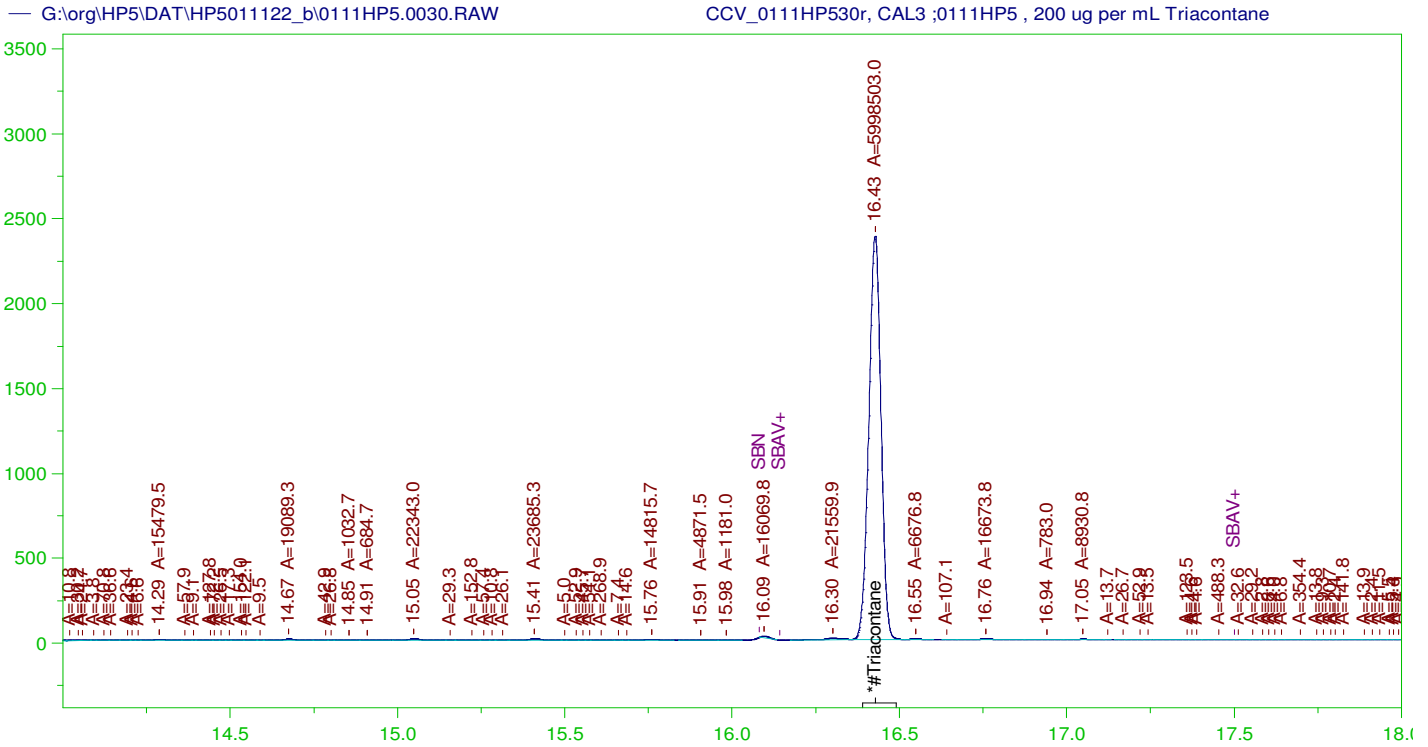
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.423	500.	49.845	9.97	-

RRO Area:60154.51 RRO AMOUNT: 2.107548

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0029.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.423	200.	49.845	24.92	75-125



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP530r, CAL3 ;0111HP5 , 200 ug per mL Triacontane  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0030.RAW  
 Date & Time Acquired: 1/12/2022 5:05:25 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111ba.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.427	500.	202.405	40.48	-

RRO Area:200104.8 RRO AMOUNT: 7.01079

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0030.RAW

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

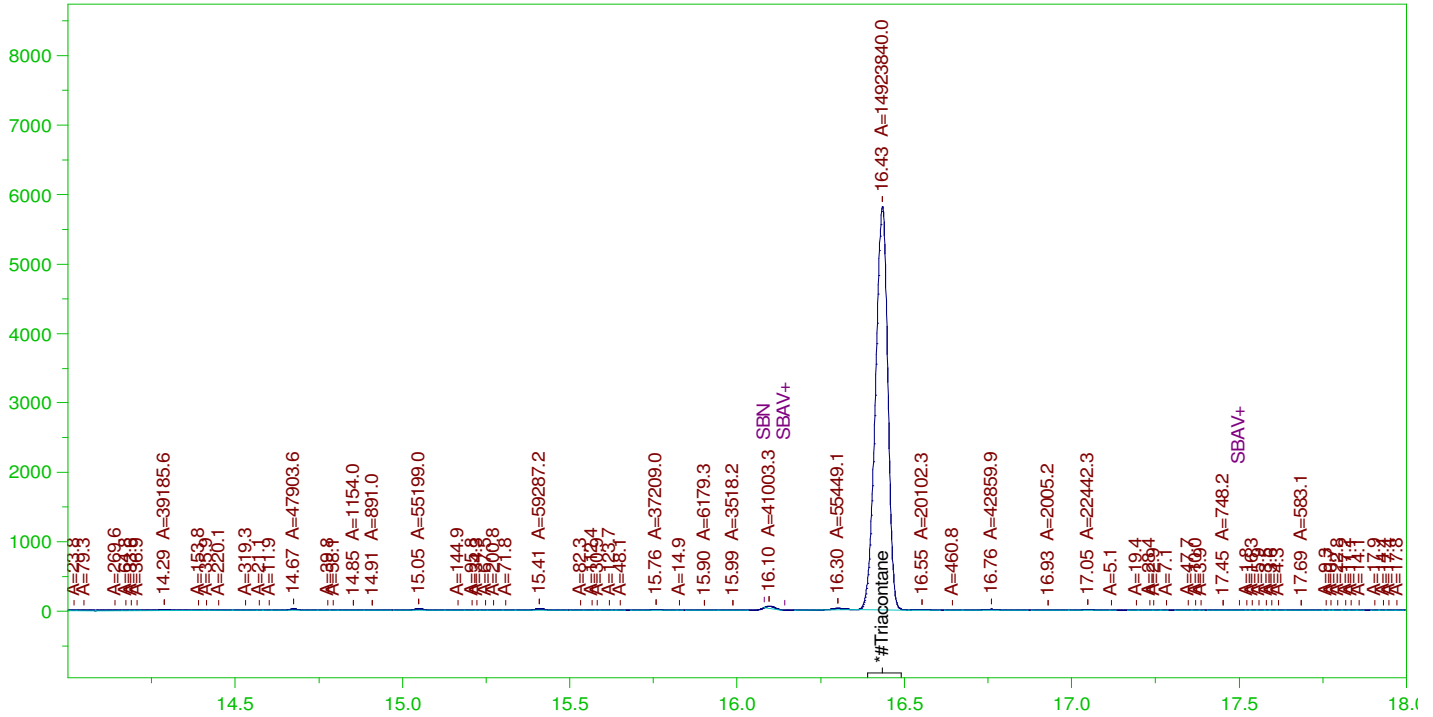
  

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.427	200.	202.405	101.2	75-125



G:\org\HP5\DAT\HP5011122\_b\0111HP5.0031.RAW

CCV\_0111HP531r, CAL4 ;0111HP5 , 500 ug per mL Triacontane



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP531r, CAL4 ;0111HP5 , 500 ug per mL Triacontane  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0031.RAW  
 Date & Time Acquired: 1/12/2022 5:48:34 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111ba.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.434	500.	503.57	100.71

RRO Area:497882.9 RRO AMOUNT: 17.44362

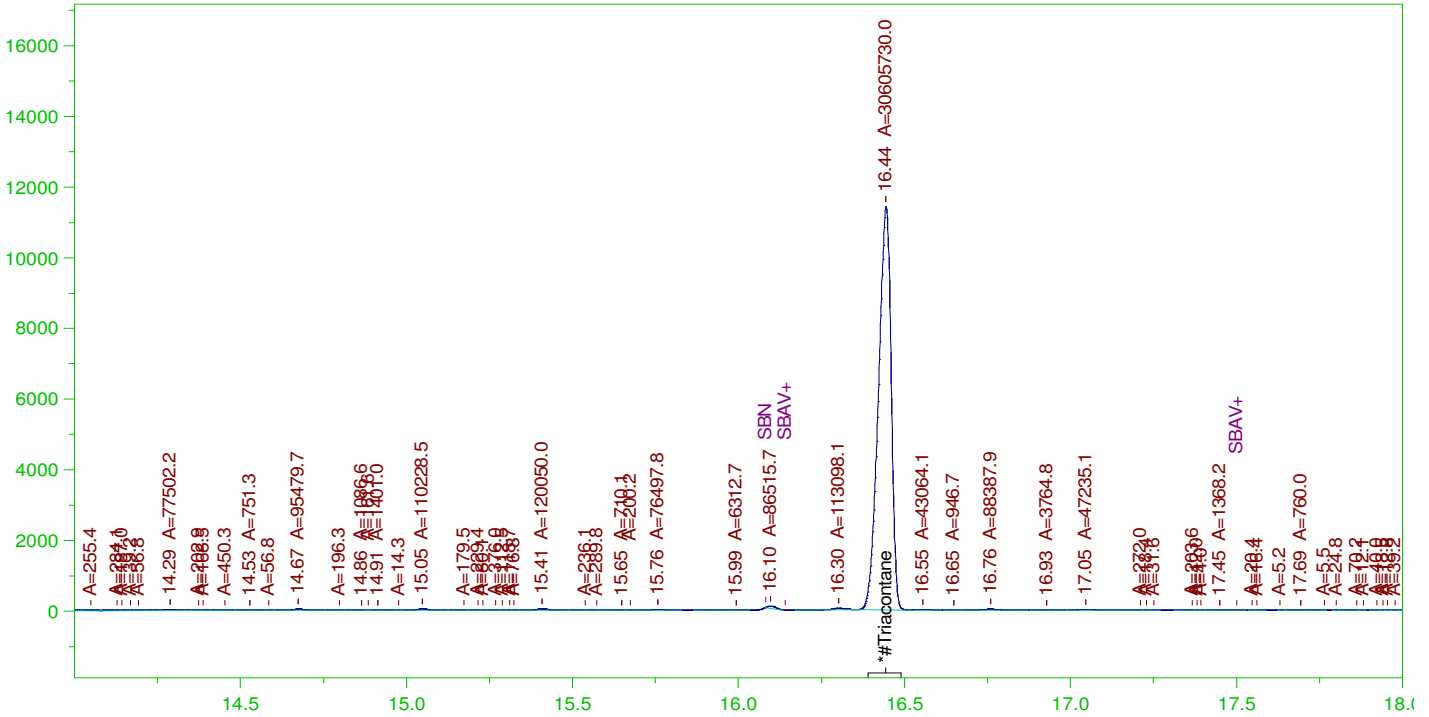
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0031.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.434	200.	503.57	251.78	75-125

G:\org\HP5\DAT\HP5011122\_b\0111HP5.0050.RAW

CCV\_0111HP550r, CAL5 ;0111HP5 , 1000 ug per mL Triacontane



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP550r, CAL5 ;0111HP5 , 1000 ug per mL Triacontane  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0050.RAW  
 Date & Time Acquired: 1/12/2022 8:49:58 PM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111ba.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 28542.41  
 Rt range for Residual Range Organics: 12.51 to 30.05

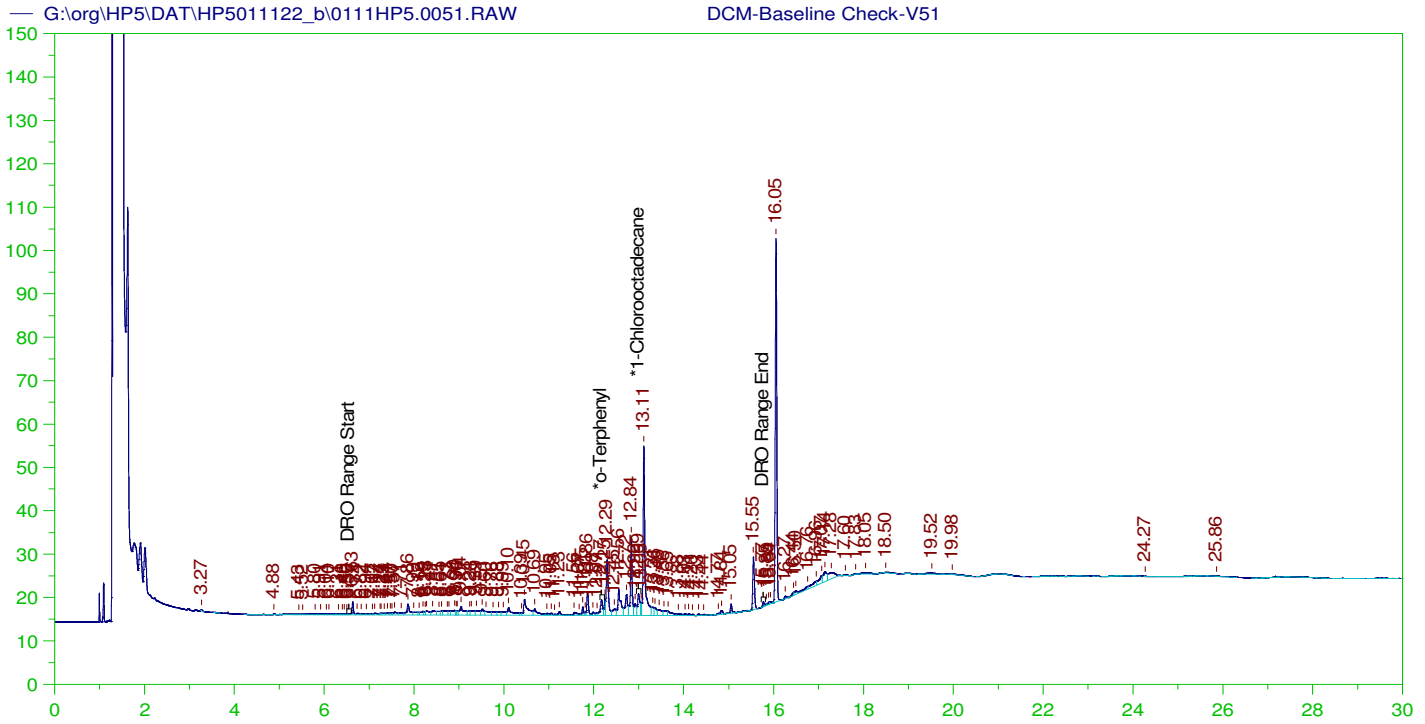
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.444	500.	1032.718	206.54

RRO Area:993904.8 RRO AMOUNT: 34.82203

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0050.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.444	200.	1032.718	516.36	75-125



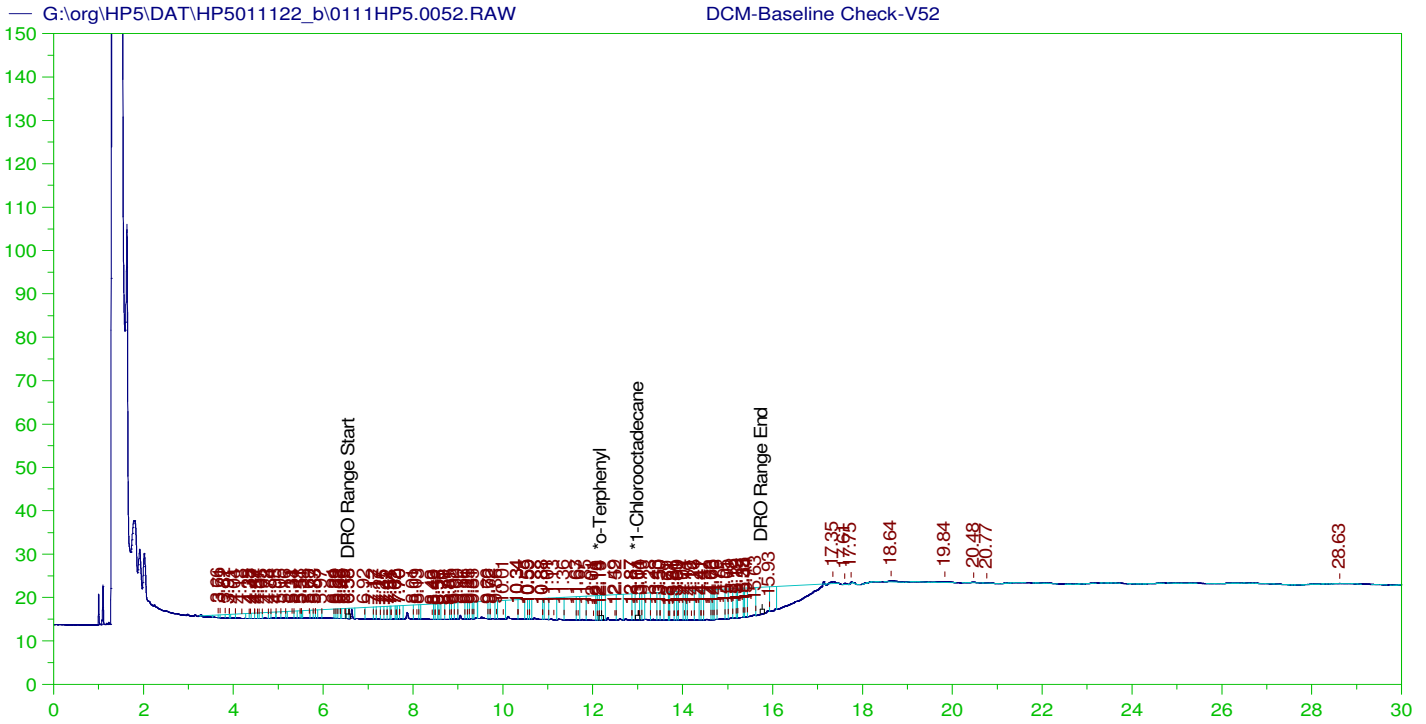
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V51  
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 Date & Time Acquired: 1/13/2022 12:15:29 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-IC-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.5 to 15.82

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.166	200.	.369	.18	-
*1-Chlorooctadecane	12.994	200.	.464	.23	-

DRO Area: 587062.5 DRO Amount: 18.72417  
 TEH Area: 891448.4 TEH Amount: 28.43246



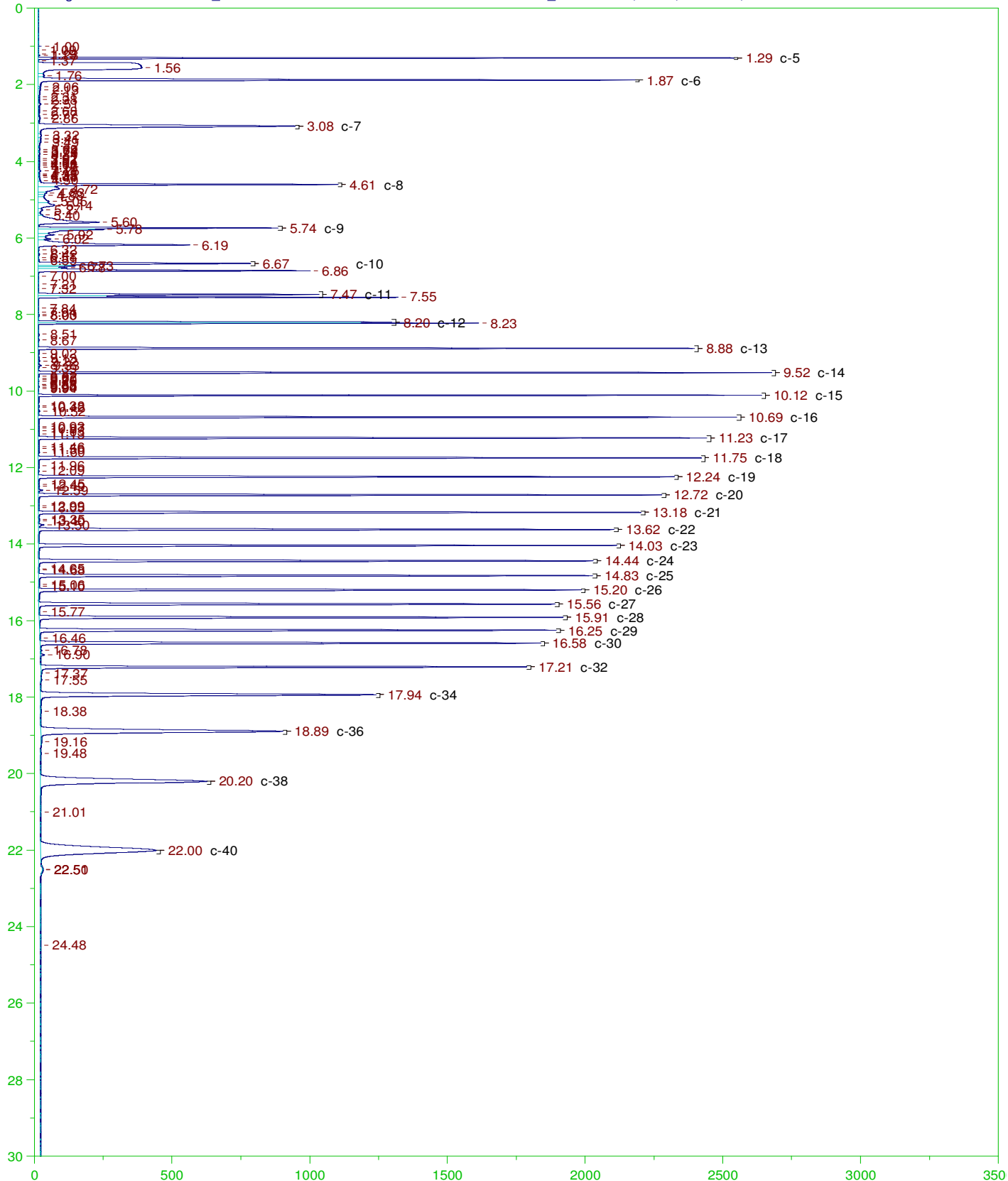
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

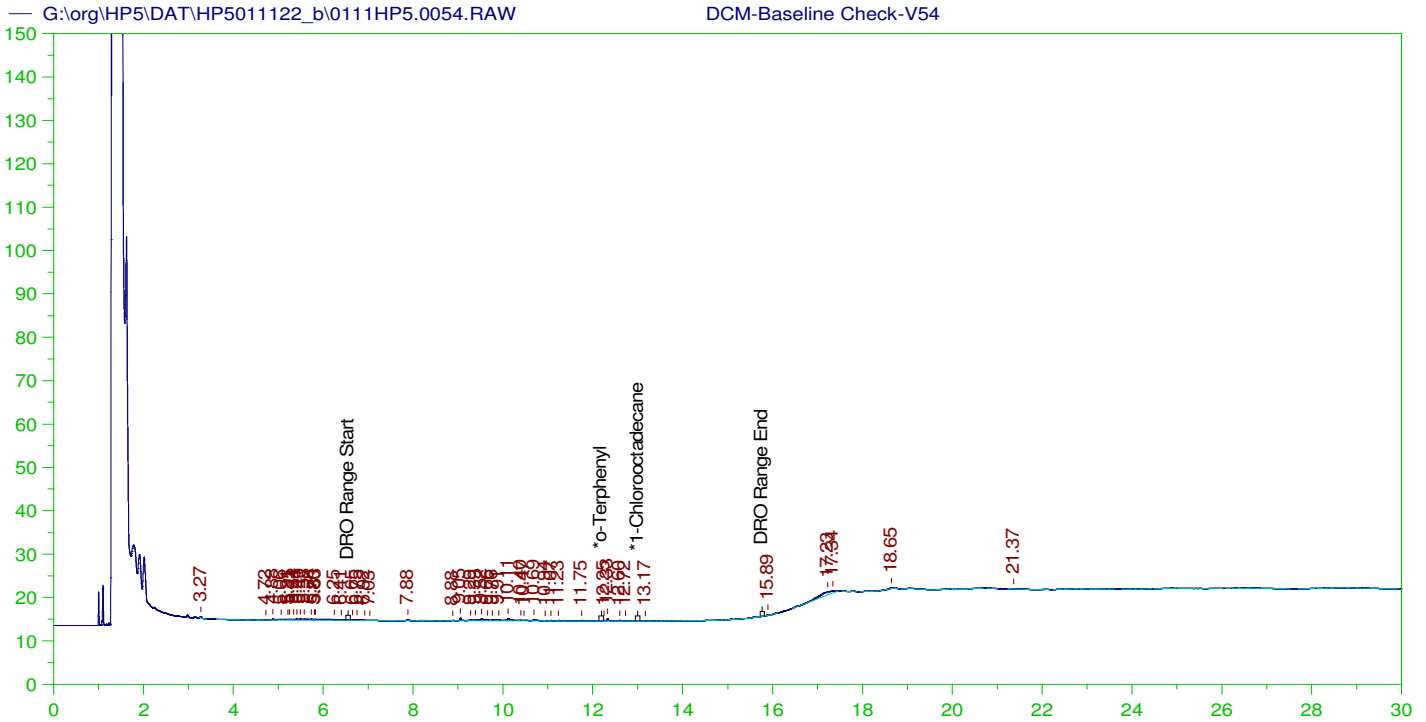
Sample Name: DCM-Baseline Check-V52  
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 Date & Time Acquired: 1/13/2022 12:58:31 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-IC-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.5 to 15.82

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.192	200.	.855	.43	-
*1-Chlorooctadecane	13.007	200.	.955	.48	-

DRO Area: 2710300 DRO Amount: 86.44414  
 TEH Area: 2842315 TEH Amount: 90.65472





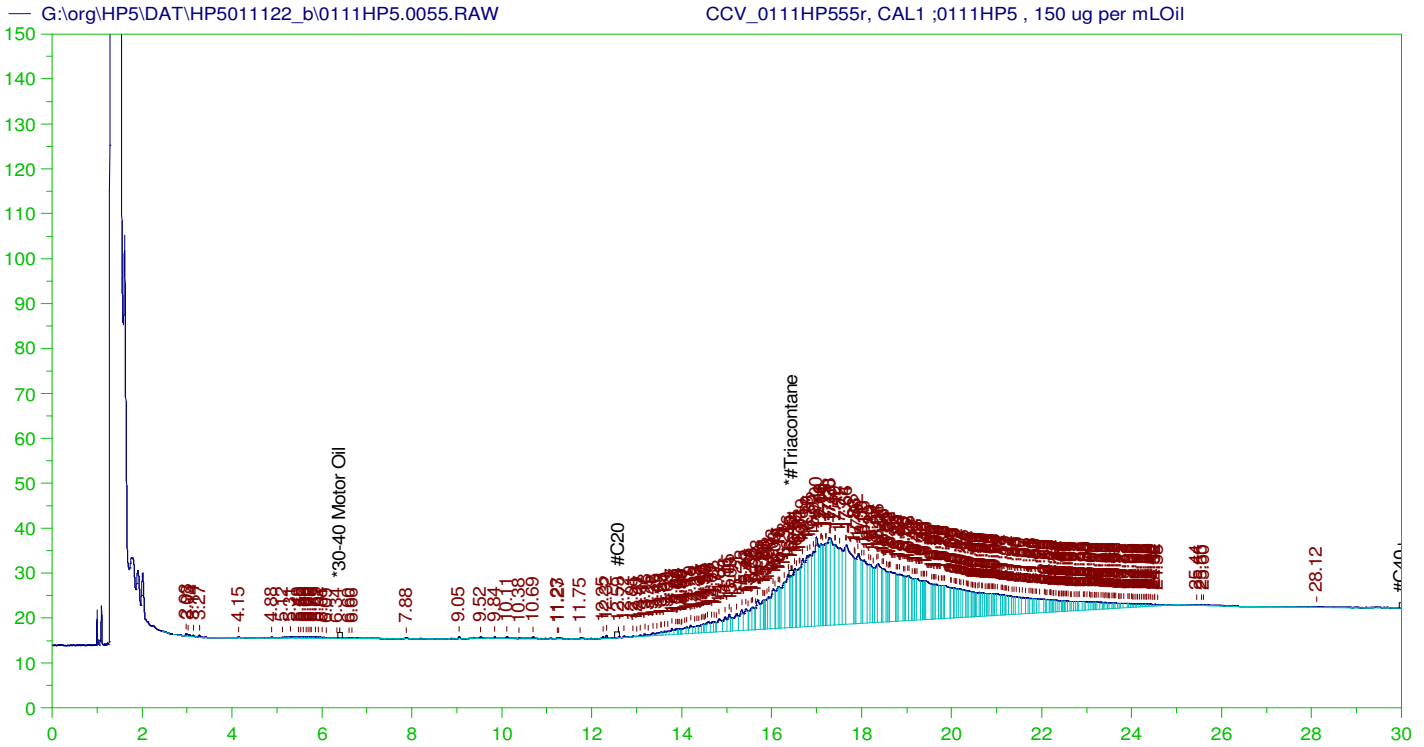
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V54  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0054.RAW  
 Date & Time Acquired: 1/13/2022 2:23:42 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-IC-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.5 to 15.82

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

DRO Area:44798.44 DRO Amount: 1.428832  
 TEH Area:97771.24 TEH Amount: 3.118382



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP555r, CAL1 ;0111HP5 , 150 ug per mL Oil  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0055.RAW  
 Date & Time Acquired: 1/13/2022 3:06:11 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-55-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.447	500.	.47	.09	-

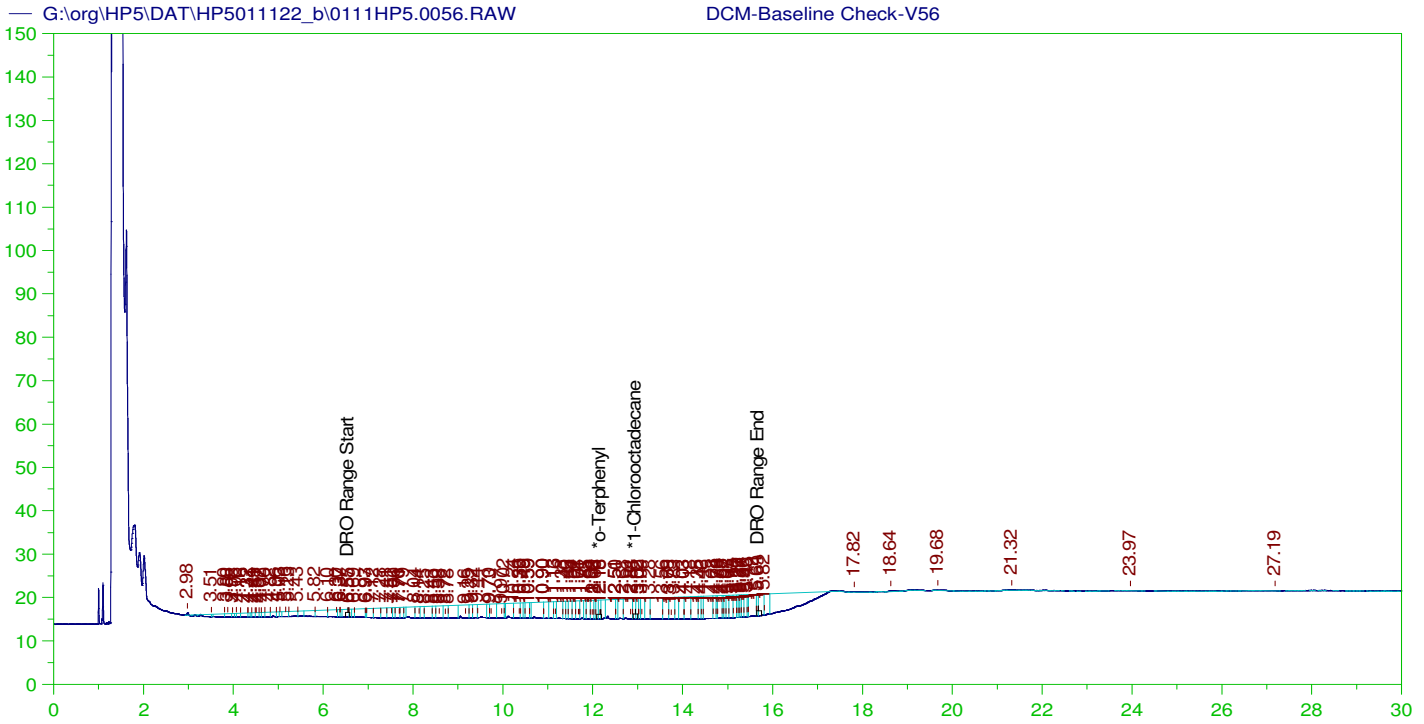
RRO Area: 4215928 RRO AMOUNT: 159.5459

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0055.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.447	200.	.47	.23	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V56  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0056.RAW  
 Date & Time Acquired: 1/13/2022 3:48:53 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

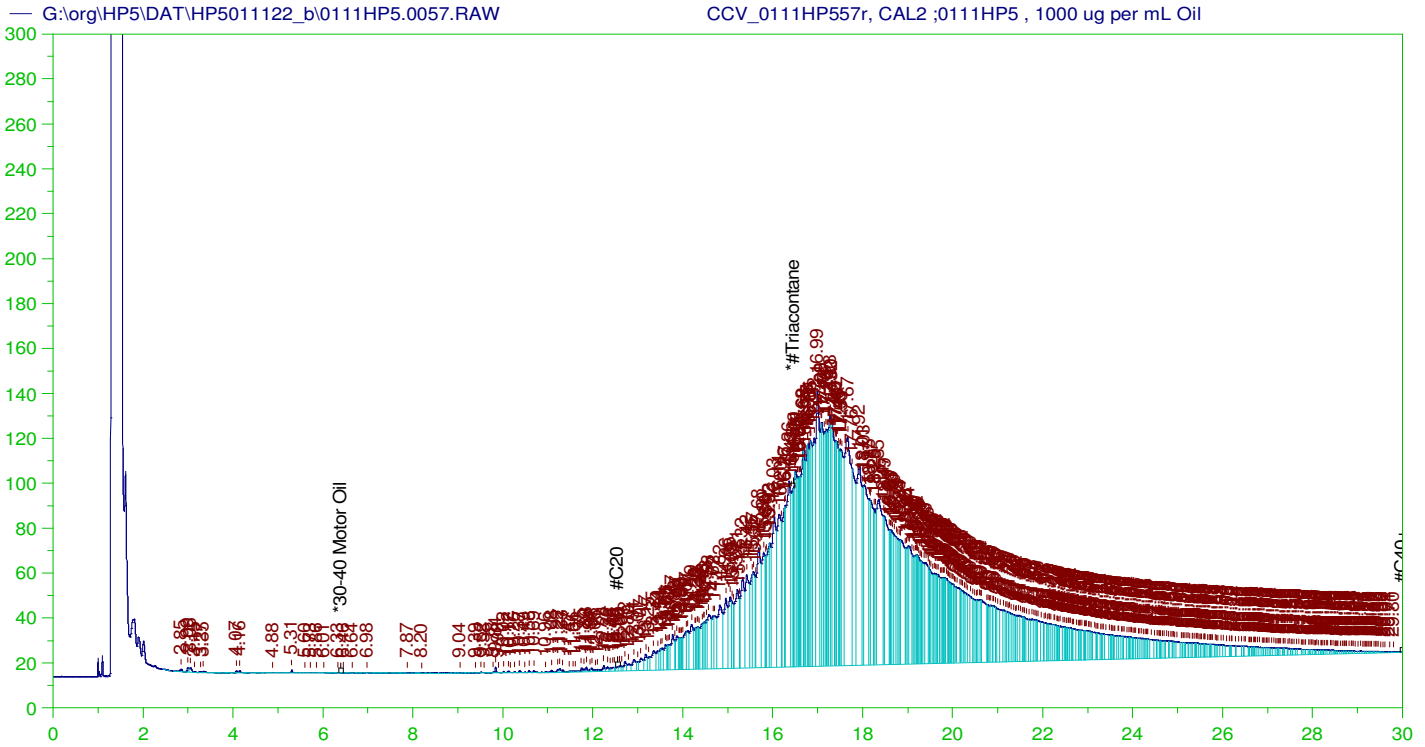
Mean RF for TEH: 29457.33

Rt range for Diesel Range Organics: 6.49 to 15.75

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.162	200.	.406	.2
*1-Chlorooctadecane	29.946	200.	.	.

DRO Area:2125703 DRO Amount: 72.16209  
 TEH Area:2146824 TEH Amount: 72.8791





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP557r, CAL2 ;0111HP5 , 1000 ug per mL Oil  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0057.RAW  
 Date & Time Acquired: 1/13/2022 4:31:31 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-57-BA-L\MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.51 to 30.05

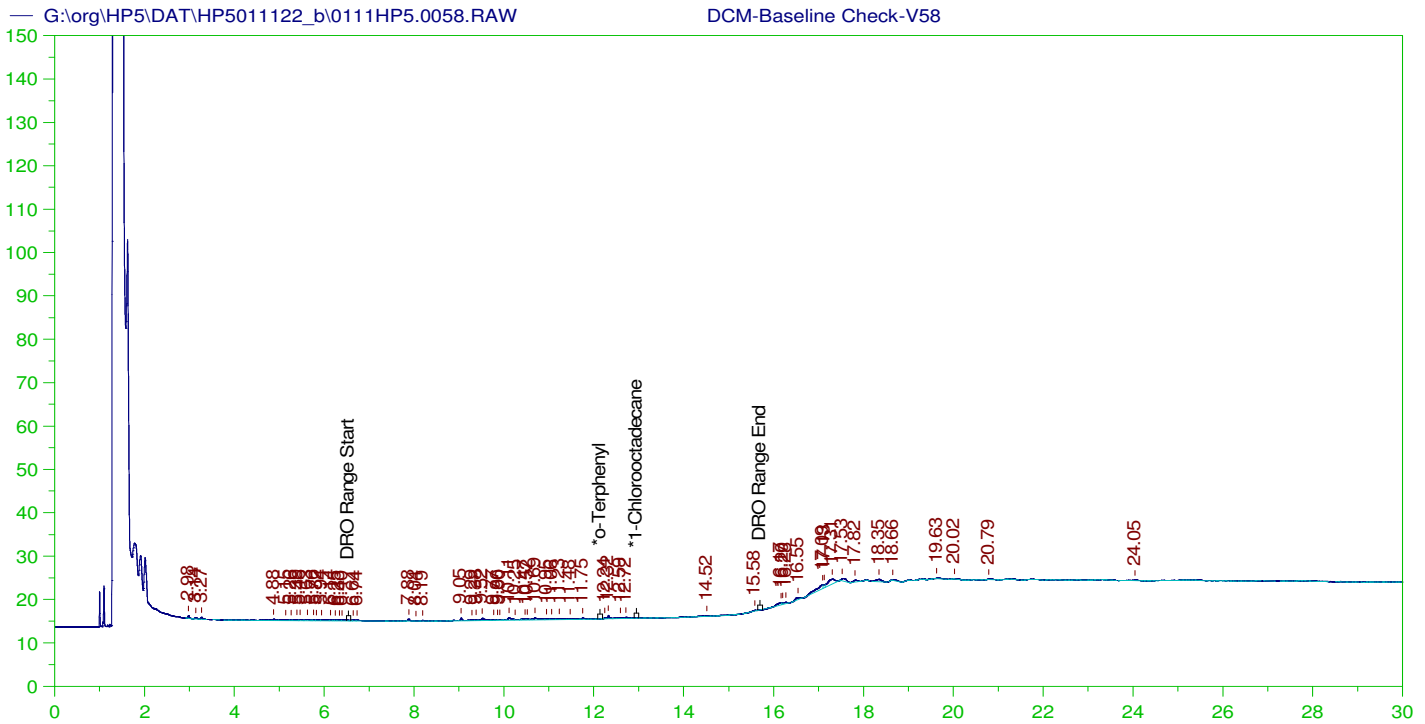
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.454	500.	3.058	.61	-

RRO Area: 2.729502E+07 RRO AMOUNT: 1032.941

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0057.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.454	200.	3.058	1.53	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

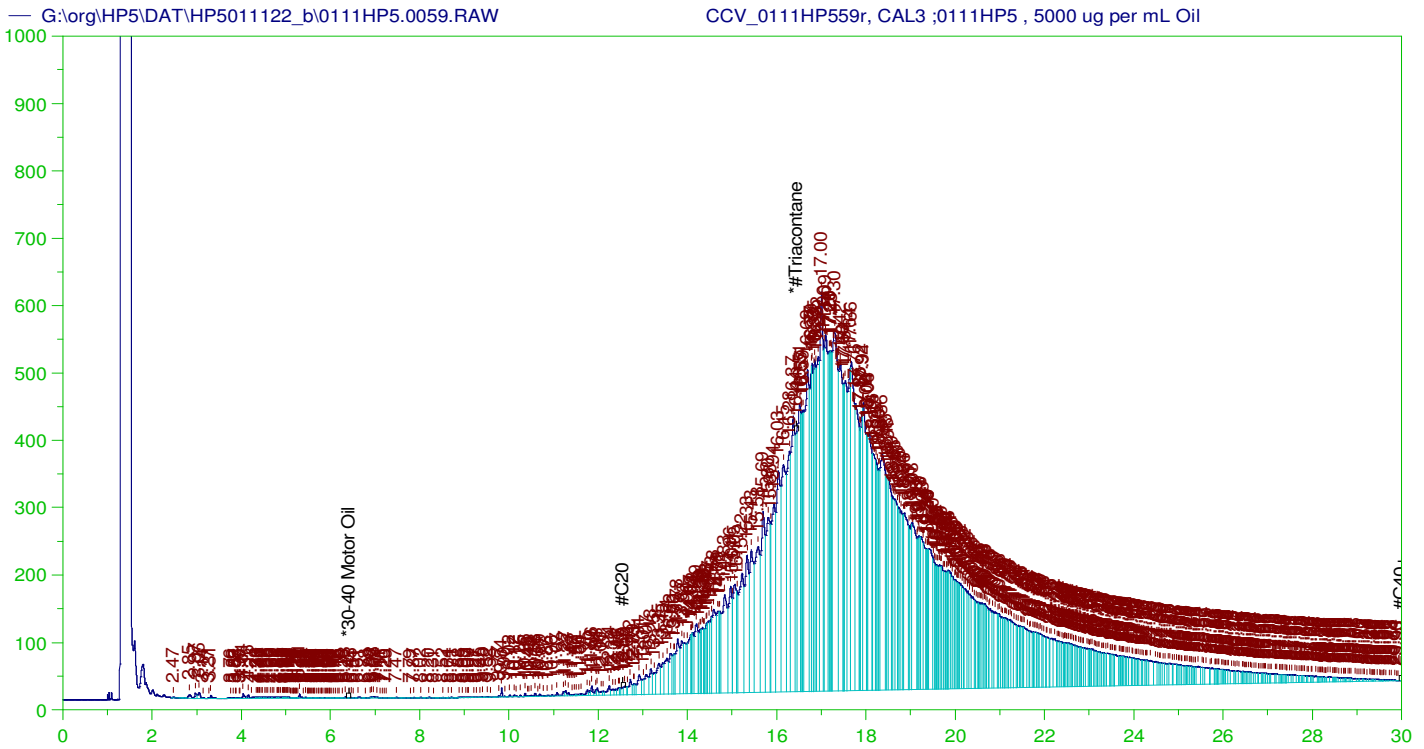
Sample Name: DCM-Baseline Check-V58  
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 Date & Time Acquired: 1/13/2022 5:14:45 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	29.94	200.	.	-
*1-Chlorooctadecane	29.94	200.	.	-

DRO Area:48306.73 DRO Amount: 1.639888  
 TEH Area:141285.5 TEH Amount: 4.796276



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP559r, CAL3 ;0111HP5 , 5000 ug per mL Oil  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0059.RAW  
 Date & Time Acquired: 1/13/2022 5:57:48 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-59-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.51 to 30.05

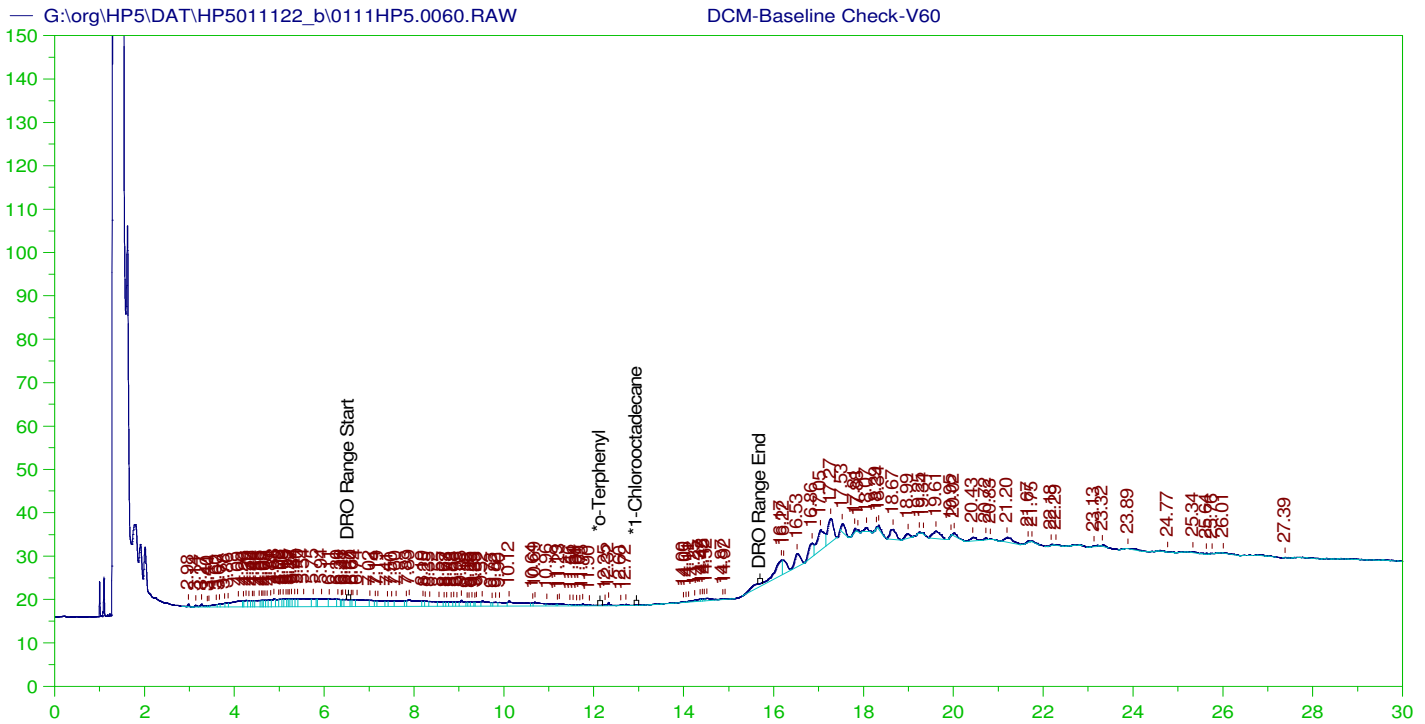
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.442	500.	33.09	6.62	-

RRO Area: 1.303441E+08 RRO AMOUNT: 4932.688

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0059.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.037	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.442	200.	33.09	16.54	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

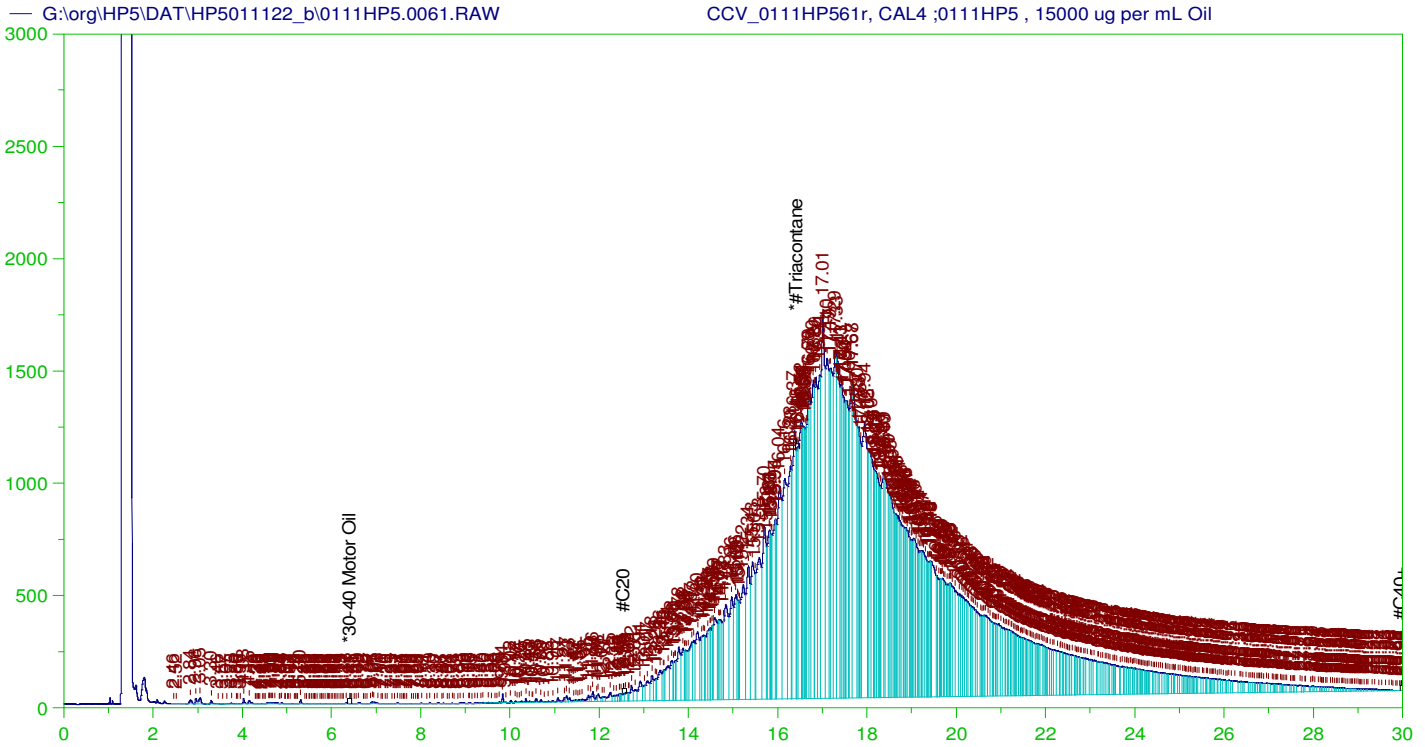
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 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	29.911	200.	.	-
*1-Chlorooctadecane	29.911	200.	.	-

DRO Area:316779.5 DRO Amount: 10.75384  
 TEH Area:980005.5 TEH Amount: 33.26864



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP561r, CAL4 ;0111HP5 , 15000 ug per mL Oil  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0061.RAW  
 Date & Time Acquired: 1/13/2022 7:24:16 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-61-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.429	500.	33.728	6.75	-

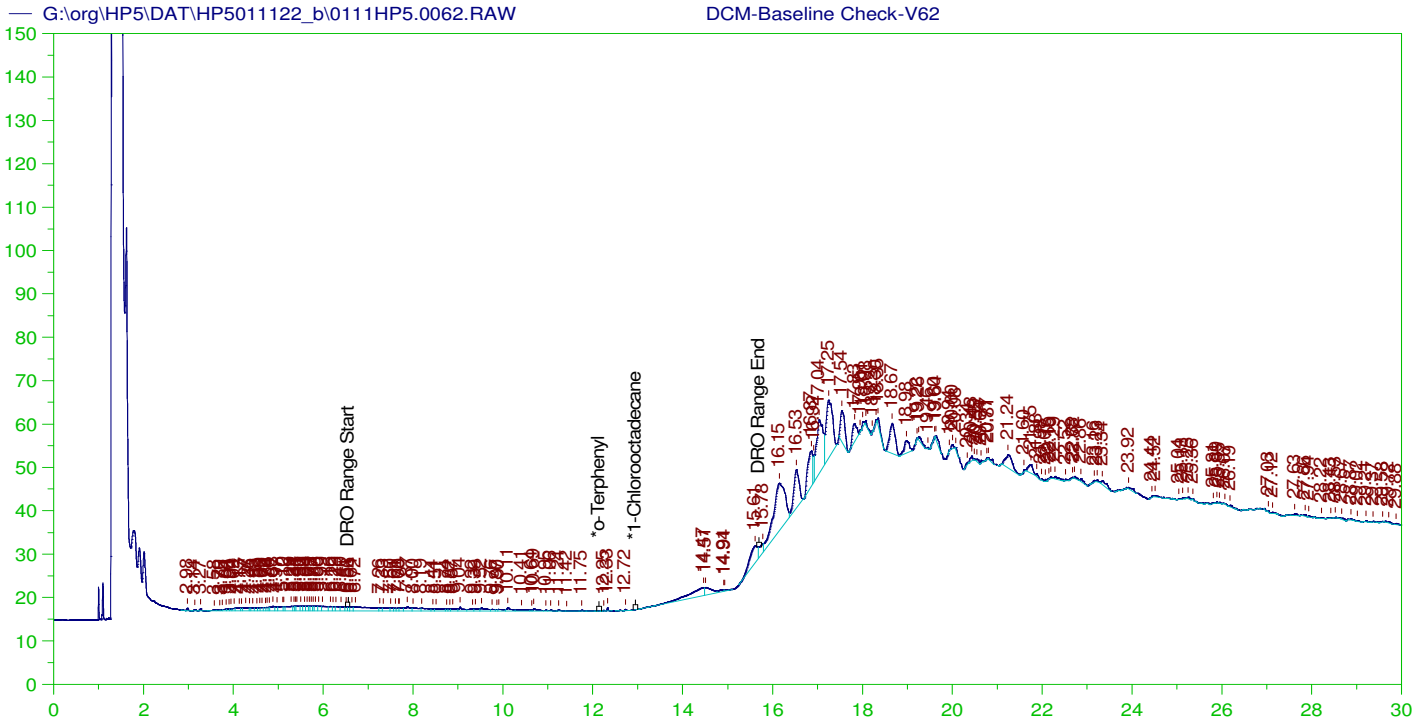
RRO Area: 3.786286E+08 RRO AMOUNT: 14328.67

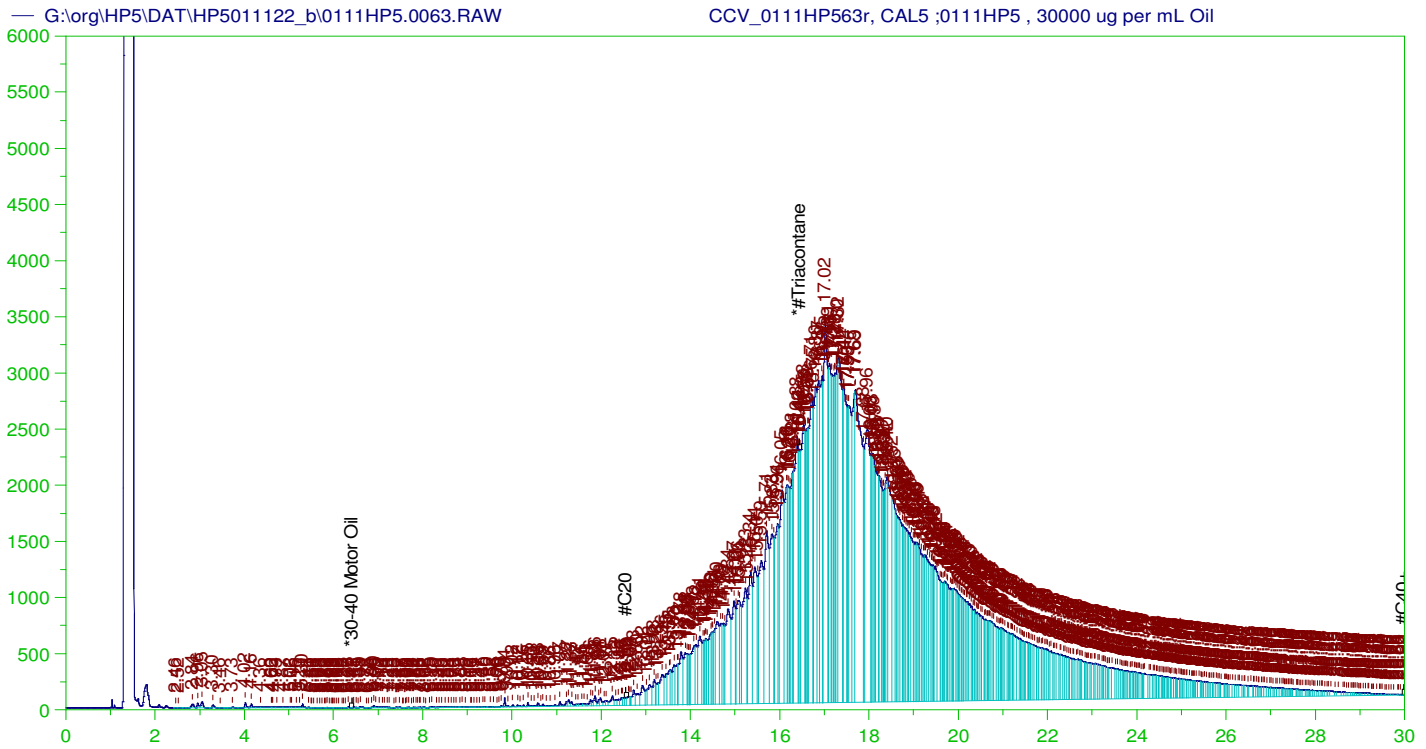
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0061.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.086	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.429	200.	33.728	16.86	75-125





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP563r, CAL5 ;0111HP5 , 30000 ug per mL Oil  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0063.RAW  
 Date & Time Acquired: 1/13/2022 8:50:32 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.51 to 30.05

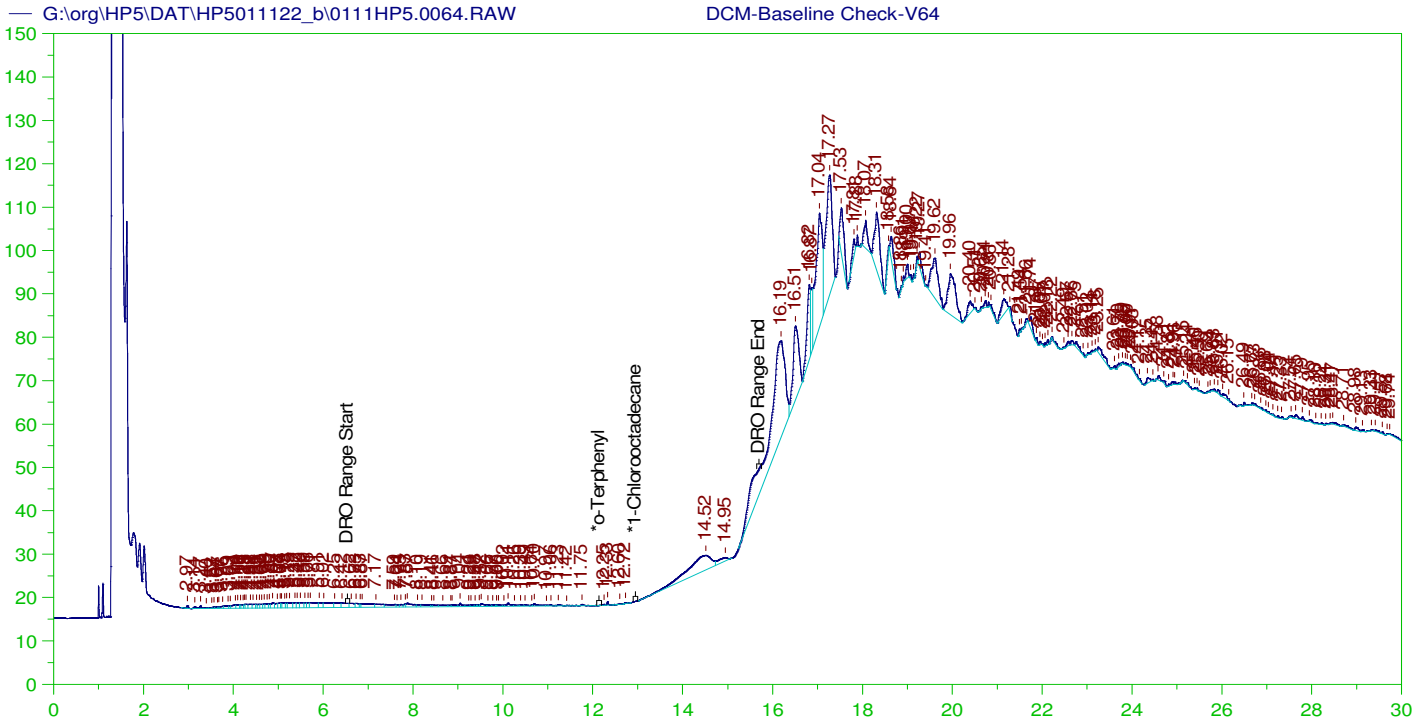
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.44	500.	102.625	20.52	-

RRO Area:7.608009E+08 RRO AMOUNT: 28791.44

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0063.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil_____	5000.	.102	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane_____	16.44	200.	102.625	51.31	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

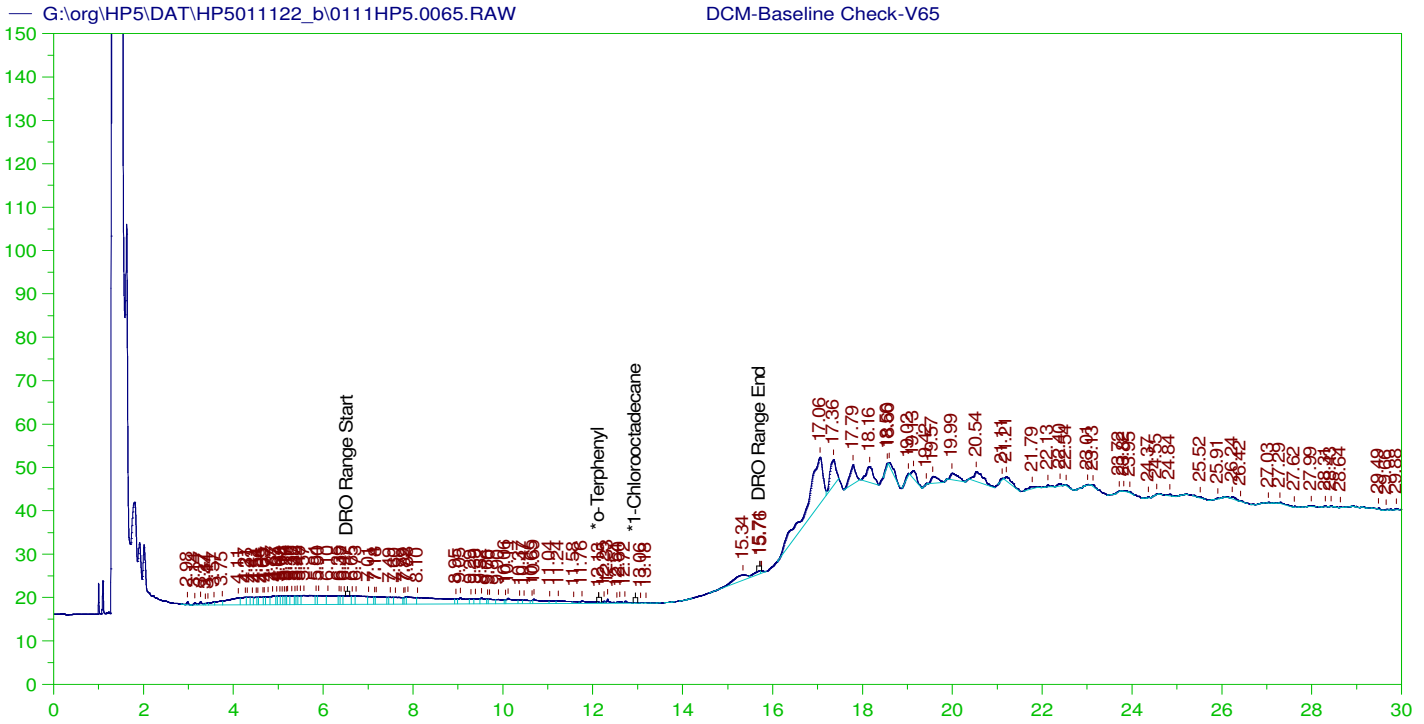
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 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	29.741	200.	.	.
*1-Chlorooctadecane	29.741	200.	.	.

DRO Area:282237.4 DRO Amount: 9.581227  
 TEH Area:2669631 TEH Amount: 90.62704





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

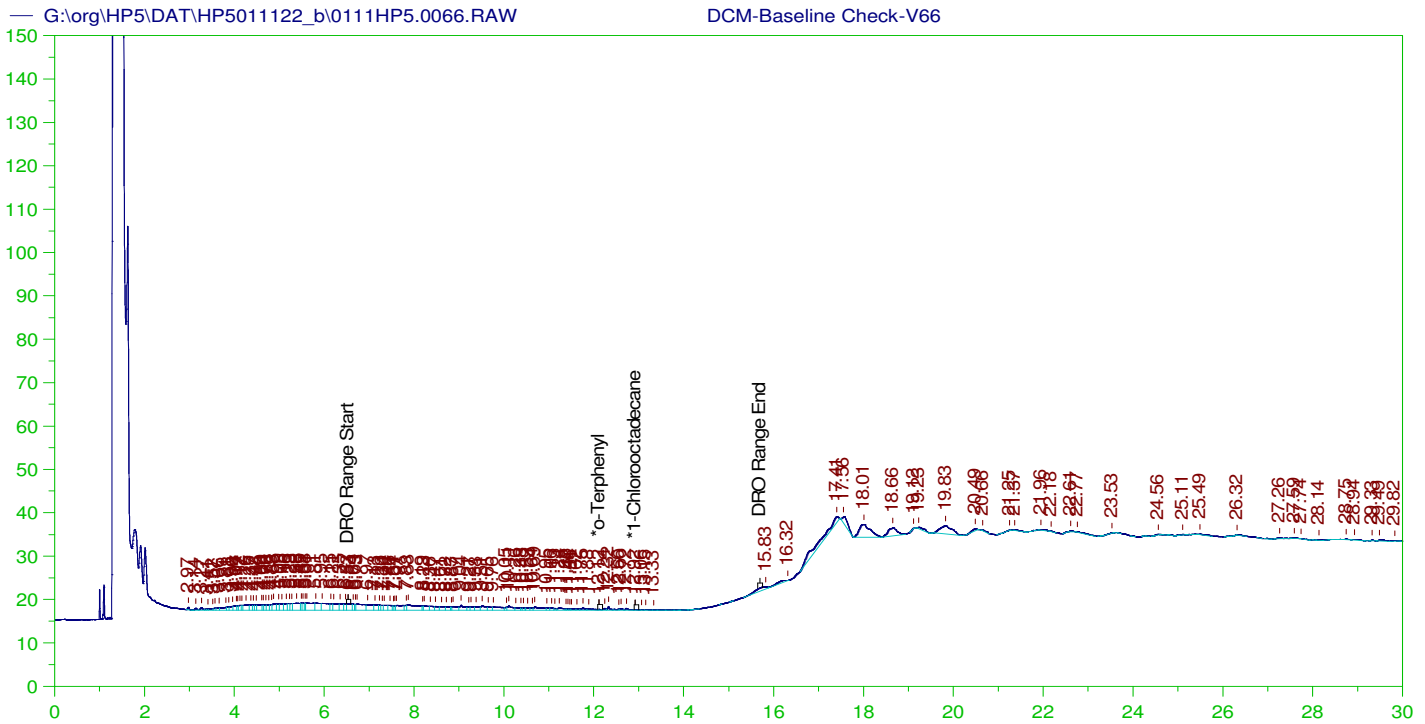
Sample Name: DCM-Baseline Check-V65  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0065.RAW  
 Date & Time Acquired: 1/13/2022 10:16:33 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-HE-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO210108HE.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	12.129	200.	.021	.01
*1-Chlorooctadecane	29.884	200.	.	.

DRO Area:397141.5 DRO Amount: 13.48192  
 TEH Area:1310457 TEH Amount: 44.48662



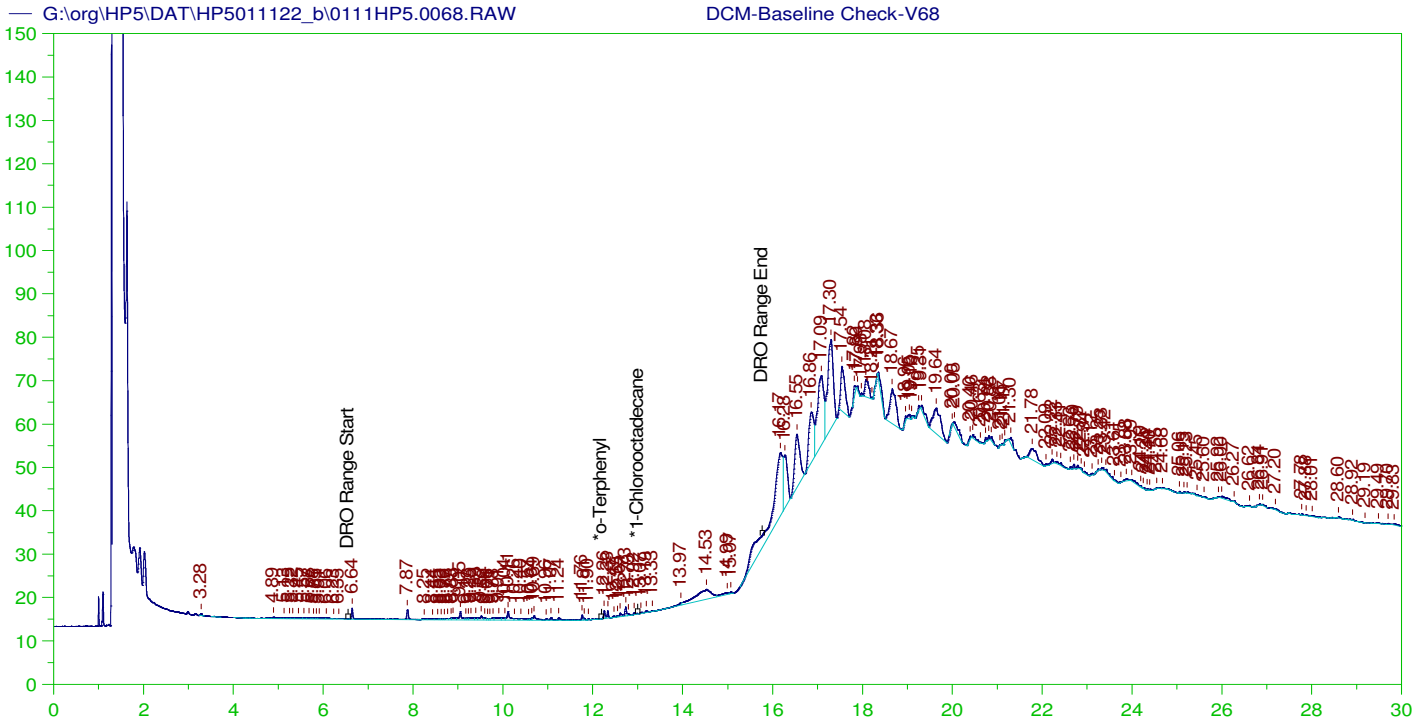
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V66  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0066.RAW  
 Date & Time Acquired: 1/13/2022 10:59:39 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	12.12	200.	.025	.01
*1-Chlorooctadecane	12.922	200.	.037	.02

DRO Area: 278500.4 DRO Amount: 9.454367  
 TEH Area: 757930.2 TEH Amount: 25.72976



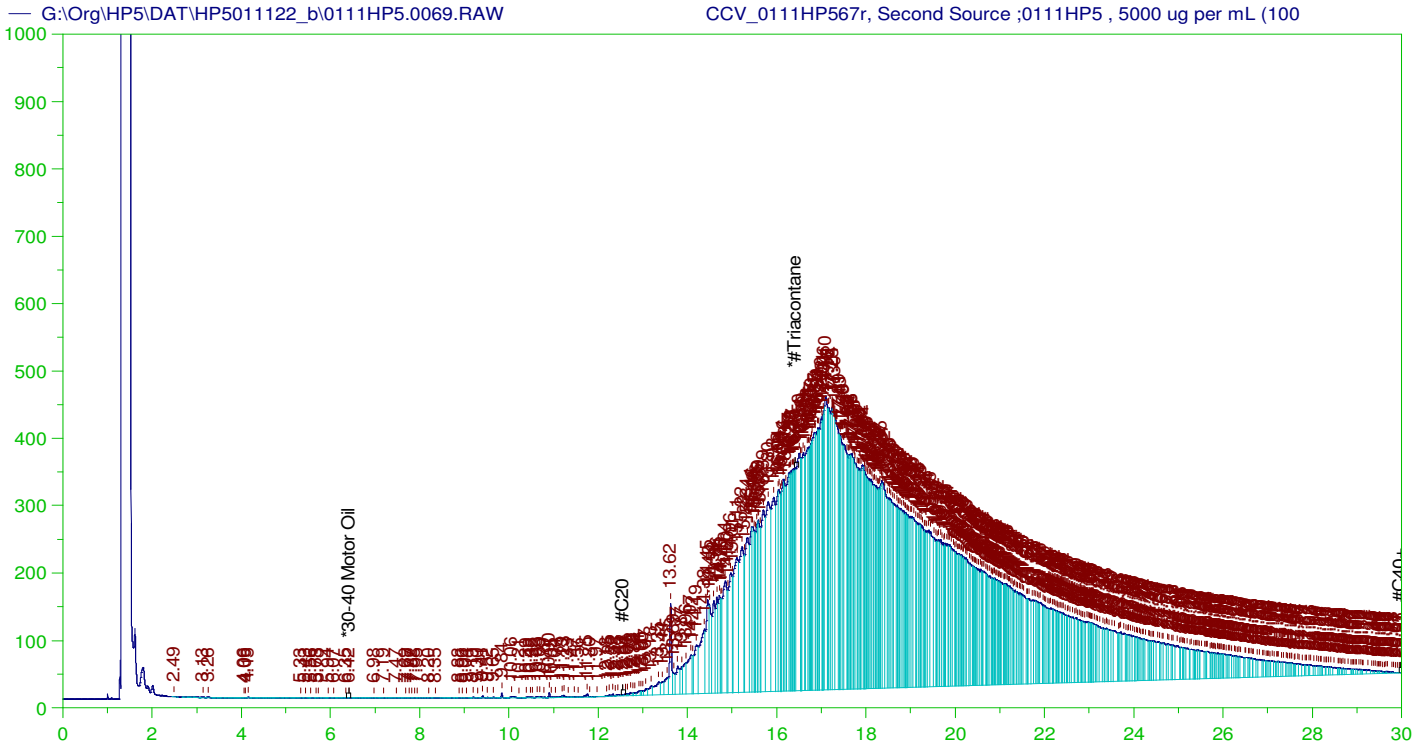
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V68  
 Raw File: G:\org\HP5\DAT\HP5011122\_b\0111HP5.0068.RAW  
 Date & Time Acquired: 1/14/2022 7:35:26 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-IC-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO211102IC.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 31353.19  
 Rt range for Diesel Range Organics: 6.5 to 15.82

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.833	200.	.	-
*1-Chlorooctadecane	29.833	200.	.	-

DRO Area:178261.1 DRO Amount: 5.685582  
 TEH Area:1513925 TEH Amount: 48.28614



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0111HP567r, Second Source ;0111HP5 , 5000 ug per mL (100  
 Raw File: G:\Org\HP5\DAT\HP5011122\_b\0111HP5.0069.RAW  
 Date & Time Acquired: 1/14/2022 8:18:14 AM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-59-BA-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.51 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.408	500.	23.958	4.79	-

RRO Area:1.341574E+08 RRO AMOUNT: 5076.999

CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5011122\_b\0111HP5.0069.RAW

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane_____	16.408	200.	23.958	11.98	75-125

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID	Manual Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.25r	DCM-Baseline Check-V25	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.26r	Marker_0111HP526r_DRO_0111HP5 , DRO220111A	G:\org\HP5\Methods\CSC210212.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.27r	DCM-Baseline Check-V27	G:\Org\HP5\Methods\DR_8015-HS-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.28r	CCV_0111HP528r, CAL1 :0111HP5 , 2 ug per mL Triacotane (10 uL of Cal3 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.29r	CCV_0111HP529r, CAL2 :0111HP5 , 50 ug per mL Triacotane (100 uL Cal4 + 900 uL of DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.30r	CCV_0111HP530r, CAL3 :0111HP5 , 200 ug per mL Triacotane (100uL of Cal5 + 400 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.31r	CCV_0111HP531r, CAL4 :0111HP5 , 500 ug per mL Triacotane (250uL of Cal5 + 250 uL DCM(14647)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.32r	DCM-Baseline Check-V33	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.50r	CCV_0111HP550r, CAL5 :0111HP5 , 1000 ug per mL Triacotane (DRO211006A)	G:\Org\HP5\Methods\DS_ORO-BA-L#.MET	1	1	1	1	0	Surrogates are integrated using a valley to valley integration Set Baseline All Valley on at 16.04 minutes.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.51r	DCM-Baseline Check-V51	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.52r	DCM-Baseline Check-V52	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.53r	Marker_0111HP553r_DRO_0111HP5 , DRO220111A	G:\org\HP5\Methods\CSC210212.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.54r	DCM-Baseline Check-V54	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.55r	CCV_0111HP555r, CAL1 :0111HP5 , 150 ug per mL Oil (10 uL of Cal4 + 990 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-55-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Assigned Set Baseline Now at 25 minutes. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.56r	DCM-Baseline Check-V56	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.57r	CCV_0111HP557r, CAL2 :0111HP5 , 1000 ug per mL Oil (200 uL of Cal 3 +800 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-57-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.58r	DCM-Baseline Check-V58	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.59r	CCV_0111HP559r, CAL3 :0111HP5 , 5000 ug per mL Oil (100 uL of DRO211118A + 900 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-59-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.60r	DCM-Baseline Check-V60	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.61r	CCV_0111HP561r, CAL4 :0111HP5 , 15000 ug per mL Oil (200 uL of CAL5 + 200 uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-61-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.62r	DCM-Baseline Check-V62	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.63r	CCV_0111HP563r, CAL5 :0111HP5 , 30000 ug per mL Oil (600 uL of DRO211118A + 400 uL of DCM)	G:\Org\HP5\Methods\DC_ORO-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.
	G:\org\HP5\DAT\HP5011122_b\0111HP5.64r	DCM-Baseline Check-V64	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.65r	DCM-Baseline Check-V65	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.66r	DCM-Baseline Check-V66	G:\Org\HP5\Methods\DR_8015-HE-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.68r	DCM-Baseline Check-V68	G:\Org\HP5\Methods\DR_8015-IC-LEXP.met	1	1	1	1	0	No Integrations
	G:\org\HP5\DAT\HP5011122_b\0111HP5.69r	CCV_0111HP567r, Second Source :0111HP5 , 5000 ug per mL (100uL of DRO210902A + 900uL DCM(14647)	G:\Org\HP5\Methods\DC_ORO-59-BA-L%.xls	1	1	1	1	0	The integration of TEH(Oil Range)is the hydrocarbon response with reference to the baseline. Y-Scale adjusted.

*Ann Nebel*

Digitally signed by  
Ann Nebel  
Date: 2022.02.11 10:29:31 -07:00

# PREP BATCH REPORT

Prep Code: **HC-3520-DRO**  
 Prep Batch **163307** Prep Temp **NA °C**

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

Prep Start Date: **1/27/2022 12:44:01 P**  
 Prep End Date: **1/28/2022 11:42:00 A**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
MB-163307			1000	0	0	1.00	0.001		1/27/2022	1/28/2022
Start time: 12:26 PM, 1/27/2022. End time: 01/28/2022 at 7:45 AM. SGT was performed on remainder of sample by AMN on 01/31/2022.										
LCS-163307			1000	0	0	1.00	0.001		1/27/2022	1/28/2022
All bottles were completely used, defaced and disposed of on 1/27/2022. SGT was performed on remainder of sample by AMN on 01/31/2022.										
LCSD-163307			1000	0	0	1.00	0.001		1/27/2022	1/28/2022
SGT was performed on remainder of sample by AMN on 01/31/2022.										
LCS-163307-RRO			1000	0	0	1.00	0.001		1/27/2022	1/28/2022
SGT was performed on remainder of sample by AMN on 01/31/2022.										
LCSD-163307-RRO			1000	0	0	1.00	0.001		1/27/2022	1/28/2022
SGT was performed on remainder of sample by AMN on 01/31/2022.										
MDL1-163307			1000	0	0	1.00	0.001		1/27/2022	1/28/2022
SGT was performed on remainder of sample by AMN on 01/31/2022.										
B22011592-001D	Ground Water	2	1000	0	0	1.00	0.001		1/27/2022	1/28/2022
Bottle 1/2. Clear. SGT was performed on remainder of sample by AMN on 01/31/2022.										
B22011592-001DMS	Ground Water	2	1060	0	0	1.00	0.000943		1/27/2022	1/28/2022
Bottle 2/2. Clear. SGT was performed on remainder of sample by AMN on 01/31/2022.										
B22011592-006D	Ground Water	2	1010	0	0	1.00	0.00099		1/27/2022	1/28/2022
Bottle 1/2. Clear. SGT was performed on remainder of sample by AMN on 01/31/2022.										
B22011592-006DMS-RRO	Ground Water	2	1000	0	0	1.00	0.001		1/27/2022	1/28/2022
Bottle 2/2. Clear. SGT was performed on remainder of sample by AMN on 01/31/2022.										
B22011592-007B	Ground Water	2	1010	0	0	1.00	0.00099		1/27/2022	1/28/2022
Bottle 1/2. Clear. SGT was performed on remainder of sample by AMN on 01/31/2022.										
B22011592-012D	Ground Water	2	1010	0	0	1.00	0.00099		1/27/2022	1/28/2022
Bottle 1/2. Clear.										
B22011592-017D	Ground Water	2	1050	0	0	1.00	0.000952		1/27/2022	1/28/2022
Bottle 1/2. Clear. SGT was performed on remainder of sample by AMN on 01/31/2022.										
B22011592-022D	Ground Water	2	1020	0	0	1.00	0.00098		1/27/2022	1/28/2022
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
14719	4ML, Amber Vial, 20220104	1/4/2027
14777	Dichloromethane EC 978	11/17/2023

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP220120 14244	DCM RINSED FILTER PAPER	all	1	4/6/2026
Sulfate 01/18/22 (	Baked Sodium Sulfate	all	Varies	11/29/2026
DRO220119A	Triacotane SURR 1000 ug/mL	All except LCS, L	100 uL	4/6/2026
DRO211213A	OTP only SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
DRO220106C	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS,	100 uL	11/5/2023
DRO220112A	50,000 ug/mL Oil Std for RRO-In D	LCS-RRO, LCSD	100 uL	9/1/2026
DRO211121C	MDL Diesel SPK 3000 ug/mL in Acet	MDL	50 uL	11/5/2023
DRO220117A	OTPonly SURR 20 ug/mL	MDL	100 uL	9/30/2024

# PREP BATCH REPORT

Prep Code: **HC-3520-DRO**  
 Prep Batch **163307** Prep Temp **NA °C**

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

Prep Start Date: **1/27/2022 12:44:01 P**  
 Prep End Date: **1/28/2022 11:42:00 A**

Sample ID	Matrix	pH	Initial Samp Amt	Sol Added	Sol Recovered	Final Vol (mL)	Factor	Balance	Prep Start Date	Prep End Date
B22011592-027D	Ground Water	2	1000	0	0	1.00	0.001		1/27/2022	1/28/2022
Bottle 1/2. Clear. SGT was performed on remainder of sample by AMN on 01/31/2022.										
B22011717-001D	Ground Water	2	960	0	0	1.00	0.00104		1/27/2022	1/28/2022
Bottle 1/2. Clear. SGT was performed on remainder of sample by AMN on 01/31/2022.										
B21121961-001D	Ground Water	2	1020	0	0	1.00	0.00098		1/27/2022	1/28/2022
Bottle 2/2. Clear. Reextracted out of hold per client's request. SGT was performed on remainder of sample by AMN on 01/31/2022.										
B21121967-001D	Ground Water	2	1020	0	0	1.00	0.00098		1/27/2022	1/28/2022
Bottle 2/2. Clear, light sediment. Reextracted out of hold per client's request. SGT was performed on remainder of sample by AMN on 01/31/2022.										

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
14719	4ML, Amber Vial, 20220104	1/4/2027
14777	Dichloromethane EC 978	11/17/2023

Spk ID	Spike Name	SampType	AmtAdd	Exp Date
FP220120 14244	DCM RINSED FILTER PAPER	all	1	4/6/2026
Sulfate 01/18/22 (	Baked Sodium Sulfate	all	Varies	11/29/2026
DRO220119A	Triacontane SURR 1000 ug/mL	All except LCS, L	100 uL	4/6/2026
DRO211213A	OTP only SURR 2000 ug/mL	All except RRO-L	100 uL	9/30/2024
DRO220106C	#2 Diesel in Acetone 150,000 ug/mL	LCS, LCSD, MS,	100 uL	11/5/2023
DRO220112A	50,000 ug/mL Oil Std for RRO-In D	LCS-RRO, LCSD	100 uL	9/1/2026
DRO211121C	MDL Diesel SPK 3000 ug/mL in Acet	MDL	50 uL	11/5/2023
DRO220117A	OTPonly SURR 20 ug/mL	MDL	100 uL	9/30/2024

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

01-Feb-22

Run ID GCFID-HP5-B\_220128A

<b>Run Start Date:</b> 1/28/2022
<b>Analyst:</b> Ann Nebel
<b>Ical:</b>
<b>Column ID:</b>
<b>Comments:</b> DRO-8015-ICAL information is in Index GCFID-HP5-B_220111A 8015C OIL range calibration GCFID-HP5-B_220111C

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO220111A	Carbon Scan STD-Marker					MARKER	7/13/2026
DRO220118A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026
DRO220124A	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist						
15006716	CCV_0128HP50	HC-8015-DRO-	CCV		1/28/2022 12:19:	1	R373923			0	0						
<b>Analyte</b>		<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
TEH(Oil Range)		A	mg/L		4.69861572		5	0	0	0.0879	0.3	0	94%	80	120	0%	
n-Triacontane		S	mg/L		0.2148861		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						
15006717	CCV_0128HP50	HC-8015-DRO-	CCV		1/28/2022 1:02:2	1	R373923			0	0						
<b>Analyte</b>		<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>
Diesel Range Organics (C10 to C24)		A	mg/L		14.01279		15	0	0	0.0389	0.3	0	93%	80	120	0%	
Total Extractable Hydrocarbons		A	mg/L		14.5101		15	0	0	0.0749	0.3	50	97%	80	120	0%	
o-Terphenyl		S	mg/L		0.1927973		0.2	0	0	0.000429	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						
15006718	LCS-163307	HC-8015-DRO-	LCS-DOD		1/28/2022 2:27:3	1	163307	1/27/2022 1		0	0						
<b>Analyte</b>		<b>T</b>	<b>Units</b>	<b>RAW</b>	<b>Final</b>	<b>Text</b>	<b>Spike</b>	<b>SPKref</b>	<b>RPDref</b>	<b>MDL</b>	<b>PQL</b>	<b>UQL</b>	<b>%REC</b>	<b>LOW</b>	<b>HIGH</b>	<b>%RPD</b>	<b>Q</b>



Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006718	LCS-163307	HC-8015-DRO-	LCS-DOD		1/28/2022 2:27:3	1	163307	1/27/2022 1	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		11.6572		15	0	0	0.0389	0.3	0	78%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		12.46694		15	0	0	0.0749	0.3	50	83%	60	132	0%	
o-Terphenyl	S	mg/L		0.1842783		0.2	0	0	0.000429	0.002	0	92%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006719	LCSD-163307	HC-8015-DRO-	LCSD-DOD		1/28/2022 3:10:0	1	163307	1/27/2022 1	0	2E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (C10 to C24)	A	mg/L		12.09242		15	0	11.6572	0.0389	0.3	0	81%	36	132	4%	
Total Extractable Hydrocarbons	A	mg/L		12.93001		15	0	12.46694	0.0749	0.3	50	86%	60	132	4%	
o-Terphenyl	S	mg/L		0.1890289		0.2	0	0	0.000429	0.002	0	95%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006720	MB-163307	HC-8015-DRO-	MBLK		1/28/2022 3:52:3	1	163307	1/27/2022 1	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		0.095		0.1	0	0	0.000336	0.002	0	95%	50	150	0%	
o-Terphenyl	S	mg/L		0.1813255		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					
15006721	B22011592-001	HC-8015-DRO-	SAMP		1/28/2022 4:35:0	1	163307	1/27/2022 1	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		0.09110422		0	0	0	0.0389	0.3	0	0%	0	0	0%	J
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		0.1475036		0	0	0	0.0749	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.097		0.1	0	0	0.000336	0.002	0	97%	50	150	0%	
o-Terphenyl	S	mg/L		0.1827226		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					
15006722	B22011592-001	HC-8015-DRO-	MS-DOD		1/28/2022 5:18:0	1	163307	1/27/2022 1	2E+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		11.00935		14.145	0.0911042	0	0.0366827	0.3	0	77%	36	132	0%	
Total Extractable Hydrocarbons	A	mg/L		11.84055		14.145	0.1475036	0	0.0706307	0.3	50	83%	60	132	0%	
o-Terphenyl	S	mg/L		0.1712401		0.1886	0	0	0.0004045	0.002	0	91%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006723	B22011592-012	HC-8015-DRO-	SAMP		1/28/2022 6:43:4	1	163307	1/27/2022 1		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	0.038511	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0		0	0	0	0.087021	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons	A	mg/L		0		0	0	0	0.074151	0.3	50	0%	0	0	0%	U
n-Triacontane	S	mg/L		0.099		0.099	0	0	0.0003326	0.00198	0	100%	50	150	0%	
o-Terphenyl	S	mg/L		0.187498		0.198	0	0	0.0004247	0.002	0	95%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006724	B22011592-022	HC-8015-DRO-	SAMP		1/28/2022 7:26:3	1	163307	1/27/2022 1		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		0.092		0.098	0	0	0.0003293	0.00196	0	94%	50	150	0%	
o-Terphenyl	S	mg/L		0.1775938		0.196	0	0	0.0004204	0.002	0	91%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006725	B22011592-007	HC-8015-DRO-	SAMP		1/28/2022 8:09:1	1	163307	1/27/2022 1		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		0.3918483		0	0	0	0.038511	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.09668136		0	0	0	0.087021	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.1910009		0	0	0	0.074151	0.3	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.086		0.099	0	0	0.0003326	0.00198	0	87%	50	150	0%	
o-Terphenyl	S	mg/L		0.1539086		0.198	0	0	0.0004247	0.002	0	78%	56	125	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006726	B22011592-006	HC-8015-DRO-	SAMP		1/28/2022 9:34:4	1	163307	1/27/2022 1	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		0.1936314		0	0	0	0.038511	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.09687627		0	0	0	0.087021	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.3811066		0	0	0	0.074151	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.095		0.099	0	0	0.0003326	0.00198	0	96%	50	150	0%	
o-Terphenyl	S	mg/L		0.1595802		0.198	0	0	0.0004247	0.002	0	81%	56	125	0%	
TEH(Oil Range)	X	mg/L		0.2487931		0	0	0	0.087021	0.3	0	0%	0	0	0%	J

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006727	B22011592-006	HC-8015-DRO-	MS-DOD		1/28/2022 10:17:	1	163307	1/27/2022 1	2E+07	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.04465675		5	0.2487931	0	0.0879	0.3	0	96%	41	113	0%	
n-Triacontane	S	mg/L		0.098		0.1	0	0	0.000336	0.002	0	98%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006728	CCV_0128HP51	HC-8015-DRO-	CCV		1/28/2022 11:43:	1	R373923			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		4.78923535		5	0	0	0.0879	0.3	0	96%	80	120	0%	
n-Triacontane	S	mg/L		0.2126188		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					
15006729	CCV_0128HP52	HC-8015-DRO-	CCV		1/29/2022 12:25:	1	R373923			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		13.85652		15	0	0	0.0389	0.3	0	92%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.34641		15	0	0	0.0749	0.3	50	96%	80	120	0%	
o-Terphenyl	S	mg/L		0.1905265		0.2	0	0	0.000429	0.002	0	95%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006730	B22011717-001	HC-8015-DRO-	SAMP		1/29/2022 2:34:1	1	163307	1/27/2022 1	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					
15006730	B22011717-001	HC-8015-DRO-	SAMP		1/29/2022 2:34:1	1	163307	1/27/2022 1	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		0.04264052		0	0	0	0.040456	0.312	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.1705028		0	0	0	0.091416	0.312	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.2989953		0	0	0	0.077896	0.312	50	0%	0	0	0%	J
n-Triacontane	S	mg/L		0.096		0.104	0	0	0.0003494	0.00208	0	92%	50	150	0%	
o-Terphenyl	S	mg/L		0.1803089		0.208	0	0	0.0004462	0.00208	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					
15006731	B22011592-017	HC-8015-DRO-	SAMP		1/29/2022 4:42:2	1	163307	1/27/2022 1	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		0.6730536		0	0	0	0.0370328	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.29527879		0	0	0	0.0836808	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.971961		0	0	0	0.0713048	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.096		0.0952	0	0	0.0003199	0.001904	0	101%	50	150	0%	
o-Terphenyl	S	mg/L		0.1804533		0.1904	0	0	0.0004084	0.002	0	95%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006732	B22011592-027	HC-8015-DRO-	SAMP		1/29/2022 5:25:0	1	163307	1/27/2022 1	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		0.6907541		0	0	0	0.0389	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.22031355		0	0	0	0.0879	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.9843346		0	0	0	0.0749	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.099		0.1	0	0	0.000336	0.002	0	99%	50	150	0%	
o-Terphenyl	S	mg/L		0.1850148		0.2	0	0	0.000429	0.002	0	93%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006733	B21121961-001	HC-8015-DRO-	SAMP		1/29/2022 6:50:3	1	163307	1/27/2022 1	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		0.2453623		0	0	0	0.038122	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.15145710		0	0	0	0.086142	0.3	0	0%	0	0	0%	J
Total Extractable Hydrocarbons	A	mg/L		0.453582		0	0	0	0.073402	0.3	50	0%	0	0	0%	
n-Triacontane	S	mg/L		0.094		0.098	0	0	0.0003293	0.00196	0	96%	50	150	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006733	B21121961-001	HC-8015-DRO-	SAMP		1/29/2022 6:50:3	1	163307	1/27/2022 1	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
o-Terphenyl	S	mg/L		0.1742627		0.196	0	0	0.0004204	0.002	0	89%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006734	B21121967-001	HC-8015-DRO-	SAMP		1/29/2022 7:33:0	1	163307	1/27/2022 1	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		5.536131		0	0	0	0.038122	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (C24 to C40)	A	mg/L		0.34685016		0	0	0	0.086142	0.3	0	0%	0	0	0%	
Total Extractable Hydrocarbons	A	mg/L		5.958234		0	0	0	0.073402	0.3	50	0%	0	0	0%	
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		0.1860992		0.196	0	0	0.0004204	0.002	0	95%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006735	LCS-163307-RR	HC-8015-DRO-	LCS-DOD		1/29/2022 8:15:3	1	163307	1/27/2022 1	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		4.61727190		5	0	0	0.0879	0.3	0	92%	41	113	0%	
n-Triacontane	S	mg/L		0.095		0.1	0	0	0.000336	0.002	0	95%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15006736	LCSD-163307-R	HC-8015-DRO-	LCSD-DOD		1/29/2022 9:40:4	1	163307	1/27/2022 1	0	2E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
TEH(Oil Range)	A	mg/L		5.07707787		5	0	4.6172719	0.0879	0.3	0	102%	41	113	9%	
n-Triacontane	S	mg/L		0.101		0.1	0	0	0.000336	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					
15006737	CCV_0128HP53	HC-8015-DRO-	CCV		1/29/2022 11:52:	1	R373923				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		4.94150928		5	0	0	0.0879	0.3	0	99%	80	120	0%	
n-Triacontane	S	mg/L		0.2129354		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					
15006738	CCV_0128HP53	HC-8015-DRO-	CCV		1/29/2022 12:34:	1	R373923		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		14.18425		15	0	0	0.0389	0.3	0	95%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.66508		15	0	0	0.0749	0.3	50	98%	80	120	0%	
o-Terphenyl	S	mg/L		0.1955172		0.2	0	0	0.000429	0.002	0	98%	80	120	0%	

# Energy Laboratories Inc

# ANALYTICAL RUN Summary

01-Feb-22

Run ID GCFID-HP5-B\_220131A

<b>Run Start Date:</b> 1/31/2022
<b>Analyst:</b> Ann Nebel
<b>Ical:</b>
<b>Column ID:</b>
<b>Comments:</b> DRO-8015-ICAL information is in Index GCFID-HP5-B_220111A 8015C OIL range calibration GCFID-HP5-B_220111C

Std ID	Std Name	Std Amount	Std Units	Samp Amount	Samp Units	SampType	Expiration Date
DRO220111A	Carbon Scan STD-Marker					MARKER	7/13/2026
DRO220118A	5,000 ug/mL RRO CCV 200 ug/mL Triacontane					CCV-RRO	4/6/2026
DRO220124A	8015 CCV-15,000ug/mL + 200 OTP					CCV-DRO	4/30/2023

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009744	CCV_0131HP50	HC-8015-DRO-	CCV		1/31/2022 12:58:	1	R373995		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		4.86206299		5	0	0	0.0879	0.3	0	97%	80	120	0%	
n-Triacontane	S	mg/L		0.219971		0.2	0	0	0.000336	0.002	0	110%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009745	CCV_0131HP50	HC-8015-DRO-	CCV		1/31/2022 1:40:4	1	R373995		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		14.43116		15	0	0	0.0389	0.3	0	96%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		14.94161		15	0	0	0.0749	0.3	50	100%	80	120	0%	
o-Terphenyl	S	mg/L		0.197084		0.2	0	0	0.000429	0.002	0	99%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009746	LCS-163307	HC-8015-DRO-	LCS-DOD		1/31/2022 3:06:3	1	163307	1/27/2022 1	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					
15009746	LCS-163307	HC-8015-DRO-	LCS-DOD		1/31/2022 3:06:3	1	163307	1/27/2022 1	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		12.00554		15	0	0	0.0389	0.3	0	80%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		12.78594		15	0	0	0.0329	0.3	0	85%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1947338		0.2	0	0	0.000429	0.002	0	97%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009747	LCSD-163307	HC-8015-DRO-	LCSD-DOD		1/31/2022 3:49:1	1	163307	1/27/2022 1	0	2E+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		11.4107		15	0	12.00554	0.0389	0.3	0	76%	36	132	5%	
Total Extractable Hydrocarbons (SGT	A	mg/L		12.15714		15	0	12.78594	0.0329	0.3	0	81%	60	132	5%	
o-Terphenyl (SGT)	S	mg/L		0.1858973		0.2	0	0	0.000429	0.002	0	93%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009748	MB-163307	HC-8015-DRO-	MBLK		1/31/2022 4:32:0	1	163307	1/27/2022 1	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0389	0.15	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.15	0	0%	0	0	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0329	0.15	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.094		0.1	0	0	0.000336	0.002	0	94%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1771848		0.2	0	0	0.000429	0.002	0	89%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009749	B22011592-001	HC-8015-DRO-	SAMP		1/31/2022 5:15:0	1	163307	1/27/2022 1	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.0389	0.3	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0		0	0	0	0.0329	0.3	0	0%	0	0	0%	U
n-Triacontane (SGT)	S	mg/L		0.091		0.1	0	0	0.000336	0.002	0	91%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1716985		0.2	0	0	0.000429	0.002	0	86%	56	125	0%	



Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009750	B22011592-001	HC-8015-DRO-	MS-DOD		1/31/2022 5:58:1	1	163307	1/27/2022 1	2E+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		10.90653		14.145	0	0	0.0366827	0.3	0	77%	36	132	0%	
Total Extractable Hydrocarbons (SGT	A	mg/L		11.59477		14.145	0	0	0.0310247	0.3	0	82%	60	132	0%	
o-Terphenyl (SGT)	S	mg/L		0.1735227		0.1886	0	0	0.0004045	0.002	0	92%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009751	B22011592-006	HC-8015-DRO-	SAMP		1/31/2022 7:24:2	1	163307	1/27/2022 1		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		0.04076273		0	0	0	0.038511	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.087021	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.05279158		0	0	0	0.032571	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.079		0.099	0	0	0.0003326	0.00198	0	80%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1362192		0.198	0	0	0.0004247	0.00198	0	69%	56	125	0%	
TEH (SGT-Oil Range)	X	mg/L		0		0	0	0	0.087021	0.297	0	0%	0	0	0%	U
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009752	B22011592-007	HC-8015-DRO-	SAMP		1/31/2022 8:07:2	1	163307	1/27/2022 1		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		0.04189432		0	0	0	0.038511	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.087021	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.05398772		0	0	0	0.032571	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.08		0.099	0	0	0.0003326	0.00198	0	81%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1408148		0.198	0	0	0.0004247	0.00198	0	71%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009753	B22011592-017	HC-8015-DRO-	SAMP		1/31/2022 9:33:2	1	163307	1/27/2022 1		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		0.2560206		0	0	0	0.0370328	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0836808	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.3102759		0	0	0	0.0313208	0.3	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.084		0.0952	0	0	0.0003199	0.001904	0	88%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1567847		0.1904	0	0	0.0004084	0.001904	0	82%	56	125	0%	

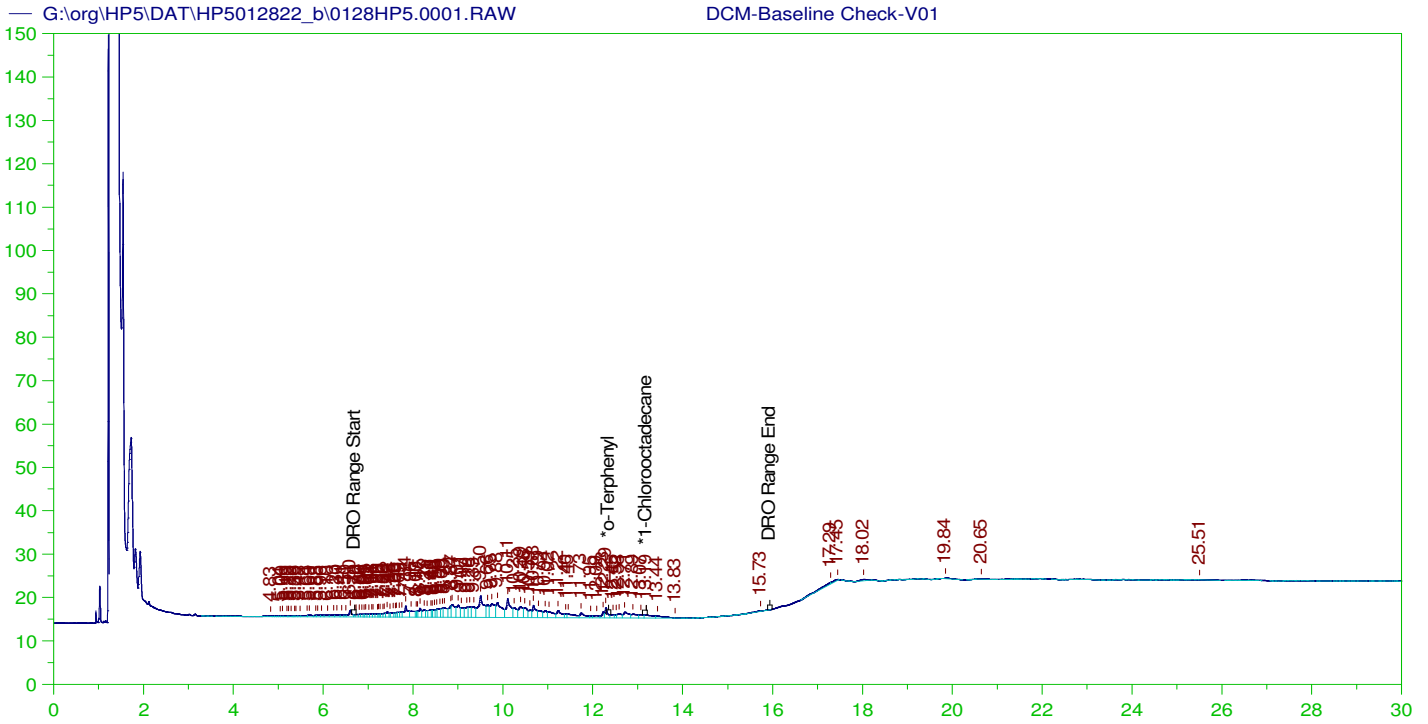
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009754	B22011592-027	HC-8015-DRO-	SAMP		1/31/2022 10:16:	1	163307	1/27/2022 1	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0.3853146		0	0	0	0.0389	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.0879	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.4442278		0	0	0	0.0329	0.3	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.087		0.1	0	0	0.000336	0.002	0	87%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1648471		0.2	0	0	0.000429	0.002	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					
15009755	B22011717-001	HC-8015-DRO-	SAMP		1/31/2022 10:59:	1	163307	1/27/2022 1	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (SGT-C10 to	A	mg/L		0		0	0	0	0.040456	0.312	0	0%	0	0	0%	U
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0.13154106		0	0	0	0.091416	0.312	0	0%	0	0	0%	J
Total Extractable Hydrocarbons (SGT	A	mg/L		0.1675611		0	0	0	0.034216	0.312	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.107		0.104	0	0	0.0003494	0.00208	0	103%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1996663		0.208	0	0	0.0004462	0.00208	0	96%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009756	CCV_0131HP52	HC-8015-DRO-	CCV		2/1/2022 12:25:0	1	R373995				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		4.95469092		5	0	0	0.0879	0.3	0	99%	80	120	0%	
n-Triacontane	S	mg/L		0.2237053		0.2	0	0	0.000336	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					
15009757	CCV_0131HP52	HC-8015-DRO-	CCV		2/1/2022 1:08:00	1	R373995				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		14.93323		15	0	0	0.0389	0.3	0	100%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.44189		15	0	0	0.0749	0.3	50	103%	80	120	0%	
o-Terphenyl	S	mg/L		0.2041525		0.2	0	0	0.000429	0.002	0	102%	80	120	0%	

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009758	B21121961-001	HC-8015-DRO-	SAMP		2/1/2022 3:16:34	1	163307	1/27/2022 1	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		0.04678278		0	0	0	0.038122	0.3	0	0%	0	0	0%	J
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.086142	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		0.06049421		0	0	0	0.032242	0.3	0	0%	0	0	0%	J
n-Triacontane (SGT)	S	mg/L		0.088		0.098	0	0	0.0003293	0.00196	0	90%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1640253		0.196	0	0	0.0004204	0.00196	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					
15009759	B21121967-001	HC-8015-DRO-	SAMP		2/1/2022 3:59:23	1	163307	1/27/2022 1	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		3.71882		0	0	0	0.038122	0.3	0	0%	0	0	0%	
Oil Range Hydrocarbons (SGT-C24 t	A	mg/L		0		0	0	0	0.086142	0.3	0	0%	0	0	0%	U
Total Extractable Hydrocarbons (SGT	A	mg/L		3.837663		0	0	0	0.032242	0.3	0	0%	0	0	0%	
n-Triacontane (SGT)	S	mg/L		0.082		0.098	0	0	0.0003293	0.00196	0	84%	50	150	0%	
o-Terphenyl (SGT)	S	mg/L		0.1539646		0.196	0	0	0.0004204	0.00196	0	79%	56	125	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009760	B22011592-006	HC-8015-DRO-	MS-DOD		2/1/2022 4:42:15	1	163307	1/27/2022 1	2E+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		5.25741625		5	0	0	0.0879	0.3	0	105%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.101		0.1	0	0	0.000336	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					
15009761	LCS-163307-RR	HC-8015-DRO-	LCS-DOD		2/1/2022 6:07:49	1	163307	1/27/2022 1	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		4.53794289		5	0	0	0.0879	0.3	0	91%	41	113	0%	
n-Triacontane (SGT)	S	mg/L		0.086		0.1	0	0	0.000336	0.002	0	86%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009762	LCSD-163307-R	HC-8015-DRO-	LCSD-DOD		2/1/2022 7:33:28	1	163307	1/27/2022 1	0	2E+07						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q

Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009762	LCSD-163307-R	HC-8015-DRO-	LCSD-DOD		2/1/2022 7:33:28	1	163307	1/27/2022 1	0	2E+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		4.62383890		5	0	4.5379429	0.0879	0.3	0	92%	41	113	2%	
n-Triacontane (SGT)	S	mg/L		0.088		0.1	0	0	0.000336	0.002	0	88%	50	150	0%	
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009763	CCV_0131HP53	HC-8015-DRO-	CCV		2/1/2022 8:59:02	1	R373995		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		4.93010254		5	0	0	0.0879	0.3	0	99%	80	120	0%	
n-Triacontane	S	mg/L		0.2213674		0.2	0	0	0.000336	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					
15009764	CCV_0131HP53	HC-8015-DRO-	CCV		2/1/2022 9:41:52	1	R373995		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		14.89199		15	0	0	0.0389	0.3	0	99%	80	120	0%	
Total Extractable Hydrocarbons	A	mg/L		15.41278		15	0	0	0.0749	0.3	50	103%	80	120	0%	
o-Terphenyl	S	mg/L		0.2034947		0.2	0	0	0.000429	0.002	0	102%	80	120	0%	

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	G:\org\HP5\DAT\HP5012822_b\0128HP5.011	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.021	MARKER_0128HP502r_DRO ;0128HP5 , DRO220111A	G:\Org\HP5\Methods\CSC220127.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.031	CCV_0128HP503r_RRO ;0128HP5 , DRO220118A	G:\Org\HP5\Methods\DC_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.041	CCV_0128HP504r_DRO ;0128HP5 , DRO220124A	G:\Org\HP5\Methods\DC_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.051	DCM-Baseline Check-V05	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.061	LCS-163307 ;0128HP5 ,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.071	LCSD-163307 ;0128HP5 ,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.081	MB-163307 ;0128HP5 ,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.091	B22011592-001D ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-012809-JD-L%.met G:\Org\HP5\Methods\DR_OROS-012809-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.101	B22011592-001DMS ;0128HP5 ,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1060	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.111	DCM-Baseline Check-V11	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.121	B22011592-012D ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-C24-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1010	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.131	B22011592-022D ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\DR_8015-C24-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.141	B22011592-007B ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\I3_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1010	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.151	DCM-Baseline Check-V15	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.161	B22011592-006D ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\I3_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1010	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.171	B22011592-006DMS-RRO ;0128HP5 ,	G:\Org\HP5\Methods\I3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1000	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.181	MARKER_0128HP518r_DRO ;0128HP5 , DRO220111A	G:\Org\HP5\Methods\CSC220127.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.191	CCV_0128HP519r_RRO ;0128HP5 , DRO220118A	G:\Org\HP5\Methods\DC_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.201	CCV_0128HP520r_DRO ;0128HP5 , DRO220124A	G:\Org\HP5\Methods\DC_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.211	DCM-Baseline Check-V21	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.221	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.231	B22011717-001D ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\I3_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	960	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.241	DCM-Baseline Check-V24	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.251	DCM-Baseline Check-V25	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.261	B22011592-017D ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\I3_8015-012826-JD-L%.met G:\Org\HP5\Methods\I3_OROS-012826-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1050	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.271	B22011592-027D ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\I3_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.281	DCM-Baseline Check-V28	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.291	B21121961-001D ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\I3_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.301	B21121967-001D ;0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\I3_8015-C24-JD-L%.met G:\Org\HP5\Methods\I3_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.311	LCS-163307-RRO ;0128HP5 ,	G:\Org\HP5\Methods\I3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1000	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.321	DCM-Baseline Check-V32	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.331	LCSD-163307-RRO ;0128HP5 ,	G:\Org\HP5\Methods\I3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1000	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.341	MARKER_0128HP534r_DRO ;0128HP5 , DRO220111A	G:\Org\HP5\Methods\CSC220127.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.351	CCV_0128HP535r_RRO ;0128HP5 , DRO220118A	G:\Org\HP5\Methods\DC_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.361	CCV_0128HP536r_DRO ;0128HP5 , DRO220124A	G:\Org\HP5\Methods\DC_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1	1	1	1	0

Write Sequence	Data File	Sample Name	Method	Weight	Dil Factor	Amt Inj.	IS	Cal ID
	G:\org\HP5\DAT\HP5013122_b\0131HP5.01f	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.02f	DCM-Baseline Check-V02	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.03f	MARKER_0131HP503r_DRO_0131HP5 , DRO220111A	g:\org\HP5\Methods\CSC220201.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.04f	CCV_0131HP504r_RRO_0131HP5 , DRO220118A	G:\Org\HP5\Methods\DC_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.05f	CCV_0131HP505r_DRO_0131HP5 , DRO220124A	G:\Org\HP5\Methods\DC_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.06f	DCM-Baseline Check-V06	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.07f	LCS-163307_0131HP5 , SGT	G:\Org\HP5\Methods\D3_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.08f	LCSD-163307_0131HP5 , SGT	G:\Org\HP5\Methods\D3_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.09f	MB-163307_0131HP5 , SGT	G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.10f	B22011592-001D_0131HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.11f	B22011592-001DMS_0131HP5 , SGT	G:\Org\HP5\Methods\DR_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1060	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.12f	DCM-Baseline Check-V12	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.13f	B22011592-006D_0131HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	1010	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.14f	B22011592-007B_0131HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	1010	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.15f	DCM-Baseline Check-V15	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.16f	B22011592-017D_0131HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	1050	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.17f	B22011592-027D_0131HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	1000	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.18f	B22011717-001D_0131HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\D3_8015-C24T-JD-L%.met G:\Org\HP5\Methods\DS_OROS-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	960	1	1	1	0
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	G:\org\HP5\DAT\HP5013122_b\0131HP5.20f	CCV_0131HP520r_RRO_0131HP5 , DRO220118A	G:\Org\HP5\Methods\DC_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.21f	CCV_0131HP521r_DRO_0131HP5 , DRO220124A	G:\Org\HP5\Methods\DC_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.22f	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
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	G:\org\HP5\DAT\HP5013122_b\0131HP5.24f	B21121961-001D_0131HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-C24T-JD-L%.met G:\Org\HP5\Methods\DR_OROS-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.25f	B21121967-001D_0131HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-013125-JD-L%.met G:\Org\HP5\Methods\DR_OROS-013125-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	1020	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.26f	B22011592-006DMS-RRO_0131HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1000	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.27f	DCM-Baseline Check-V27	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.28f	LCS-163307-RRO_0131HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1000	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.29f	DCM-Baseline Check-V29	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.30f	LCSD-163307-RRO_0131HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1000	1	1	1	0
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	G:\org\HP5\DAT\HP5013122_b\0131HP5.32f	CCV_0131HP532r_RRO_0131HP5 , DRO220118A	G:\Org\HP5\Methods\DC_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-L%.MET	1	1	1	1	0
	G:\org\HP5\DAT\HP5013122_b\0131HP5.33f	CCV_0131HP533r_DRO_0131HP5 , DRO220124A	G:\Org\HP5\Methods\DC_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1	1	1	1	0



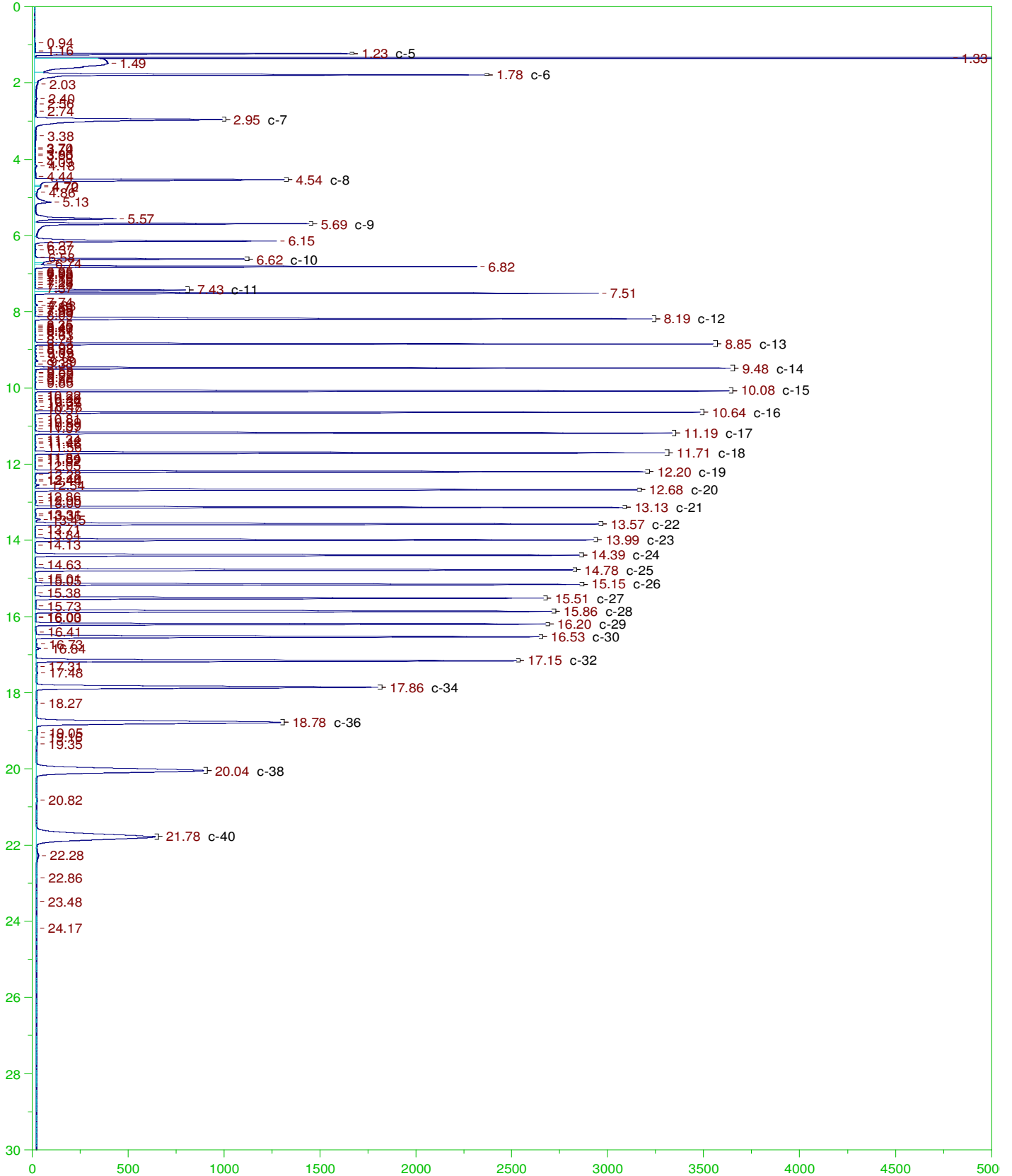
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V01  
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 Date & Time Acquired: 1/28/2022 10:55:03 AM  
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 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

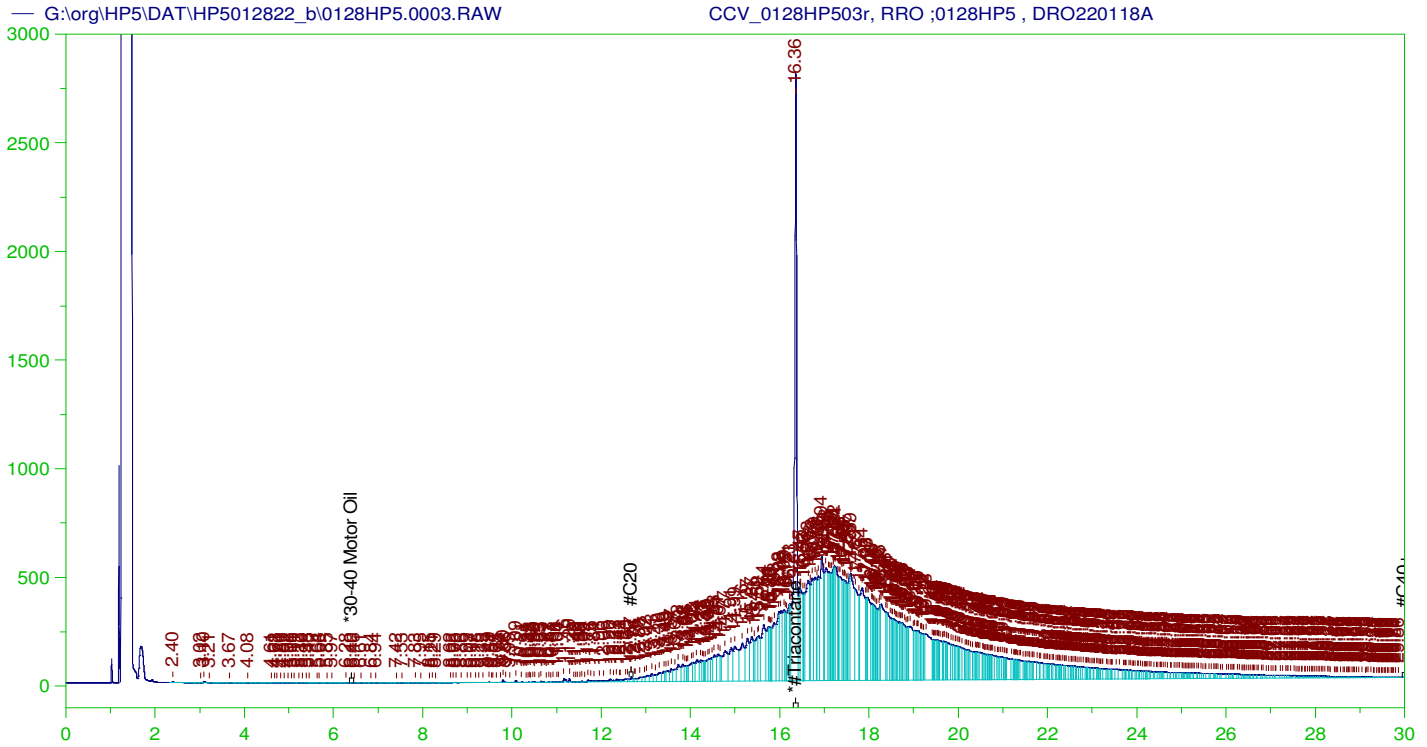
Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.911	200.	.	-
*1-Chlorooctadecane	13.19	200.	.239	.12

DRO Area:589735.4 DRO Amount: 18.04832  
 TEH Area:664421.6 TEH Amount: 20.33402







**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0128HP503r, RRO ;0128HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0003.RAW  
 Date & Time Acquired: 1/28/2022 12:19:57 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111Bd.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.355	500.	339.448	67.89	-

RRO TEH(Oil Range) Area: 1.241588E+08 RRO TEH(Oil Range) AMOUNT: 4698.616

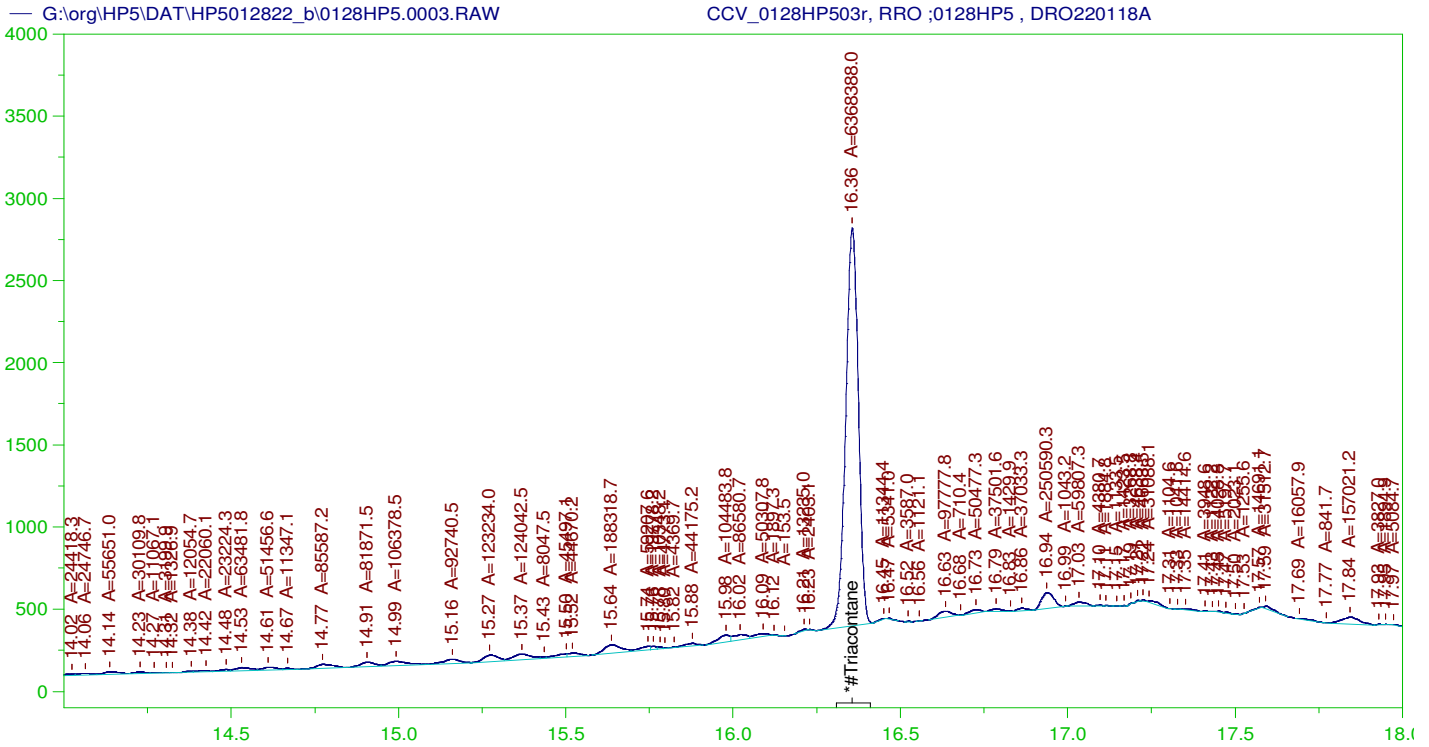
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COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.038	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.355	200.	339.448	169.72	75-125

AMN 02/11/2022



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0128HP503r, RRO ;0128HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0003.RAW  
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 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
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 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

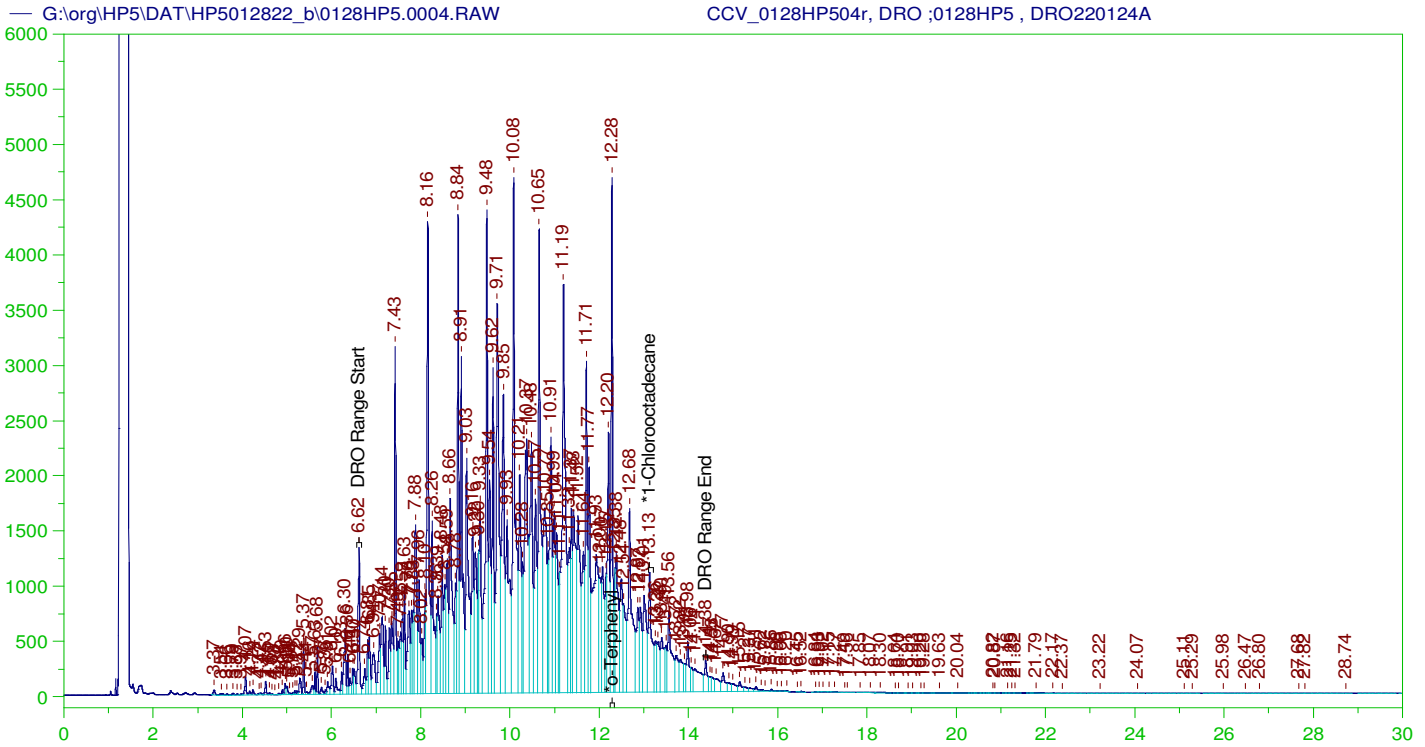
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.355	500.	214.886	42.98	-

RRO Area:3122283 RRO AMOUNT: 118.1584

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0003.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.038	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.355	200.	214.886	107.44	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0128HP504r, DRO ;0128HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0004.RAW  
 Date & Time Acquired: 1/28/2022 1:02:25 PM  
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 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.283	200.	314.231	157.12
*1-Chlorooctadecane	13.126	200.	149.574	74.79

DRO Area: 4.578728E+08 DRO Amount: 14012.79  
 TEH Area: 4.741228E+08 TEH Amount: 14510.1

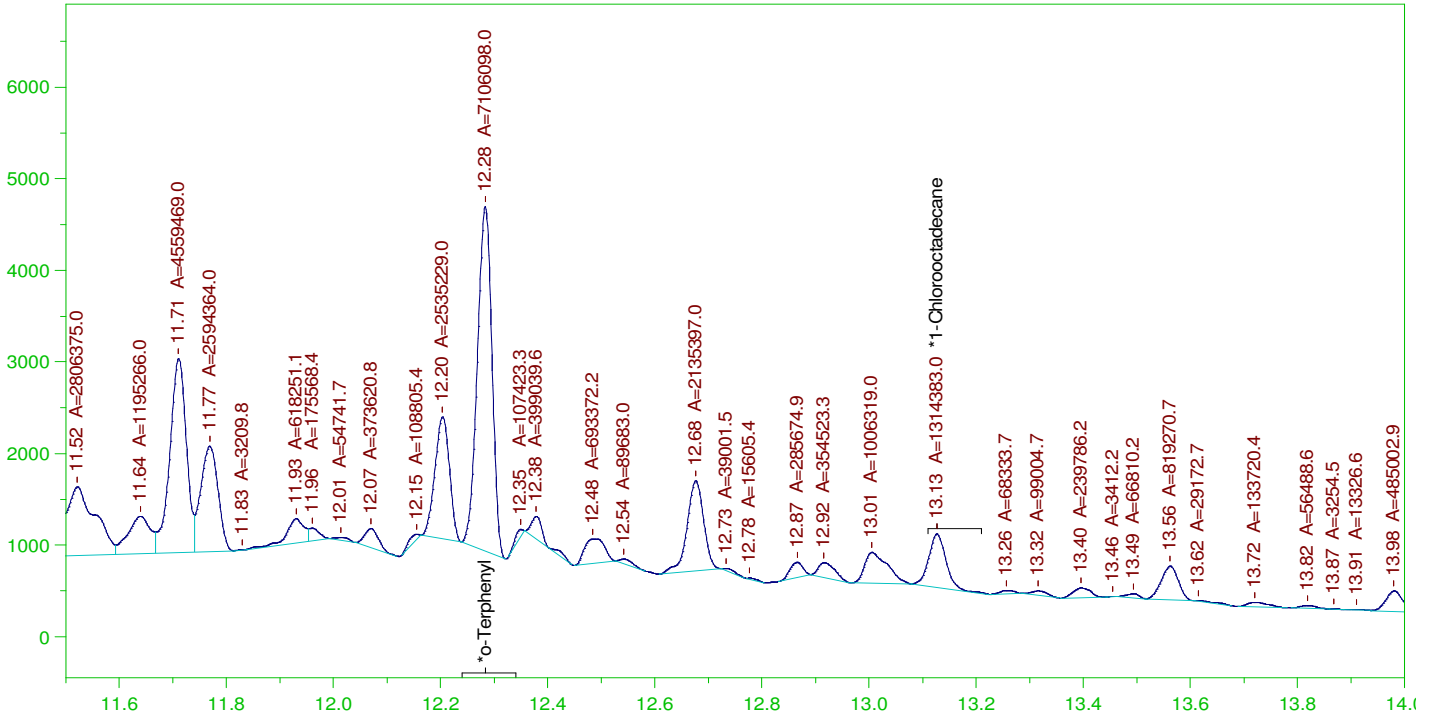
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COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14510.1	96.73	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.283	200.	314.231	157.12	85-115
*1-Chlorooctadecane	13.126	200.	149.574	74.79	85-115

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CCV\_0128HP504r, DRO ;0128HP5 , DRO220124A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0128HP504r, DRO ;0128HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0004.RAW  
 Date & Time Acquired: 1/28/2022 1:02:25 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

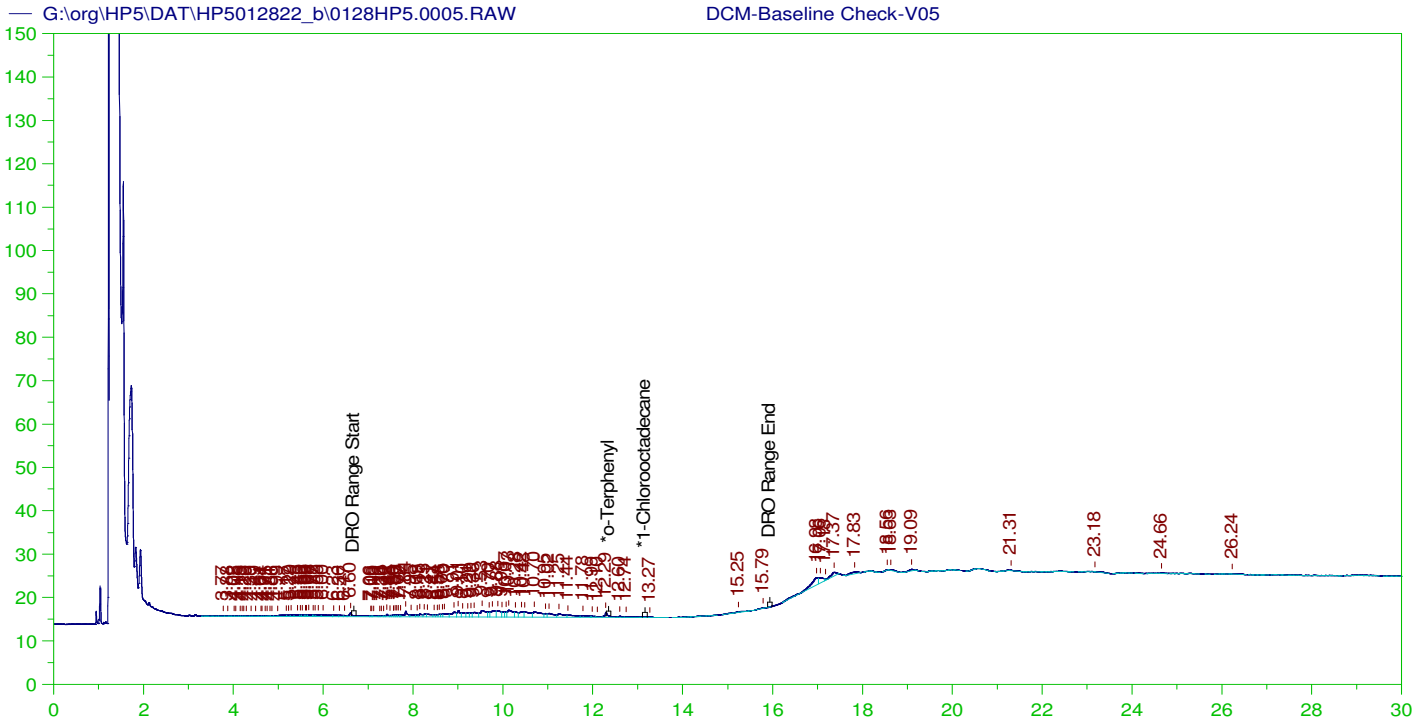
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.283	200.	192.797	96.4
*1-Chlorooctadecane	13.126	200.	35.661	17.83

DRO Area: 2.36378E+08 DRO Amount: 7234.136  
 TEH Area: 2.469995E+08 TEH Amount: 7559.199

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0004.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7559.2	50.39	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.283	200.	192.797	96.4	85-115
*1-Chlorooctadecane	13.126	200.	35.661	17.83	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V05  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0005.RAW  
 Date & Time Acquired: 1/28/2022 1:44:54 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

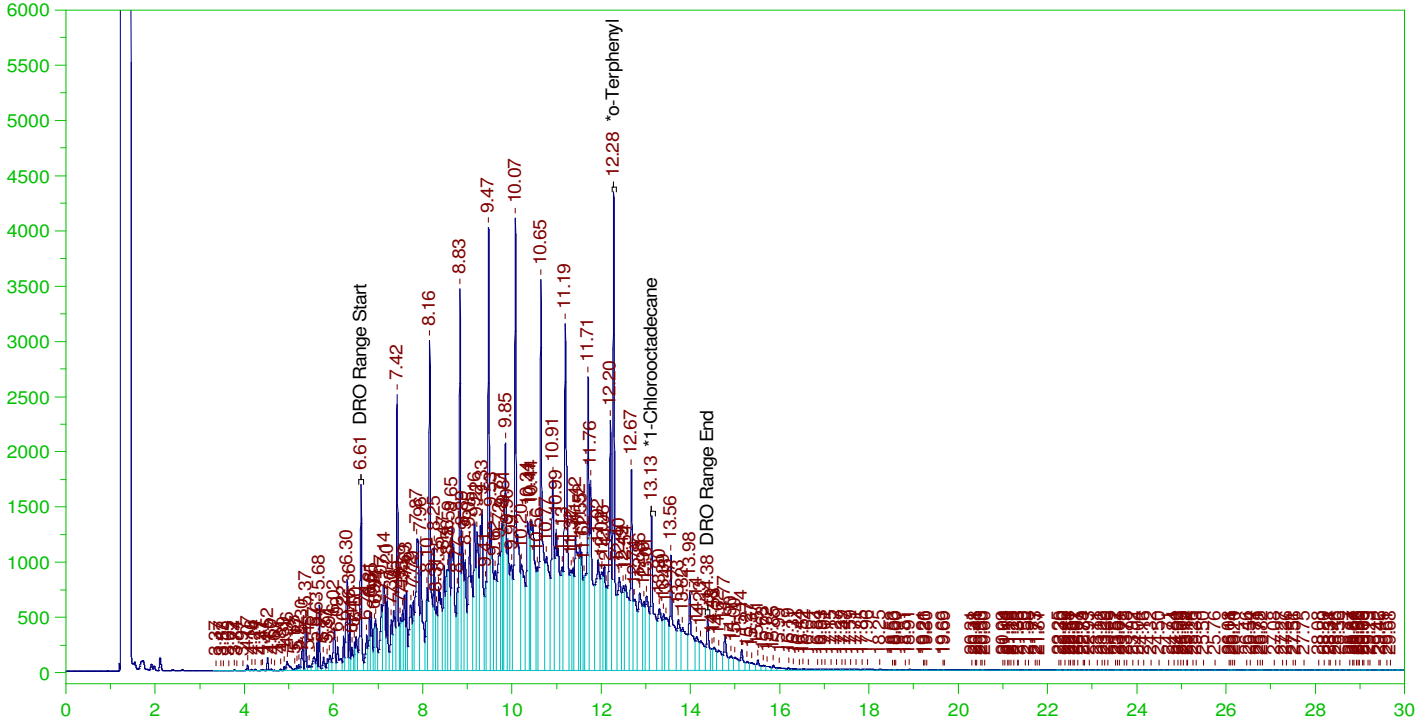
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.898	200.	.	-
*1-Chlorooctadecane	29.898	200.	.	-

DRO Area:254255.9 DRO Amount: 7.781272  
 TEH Area:385891.4 TEH Amount: 11.80986

Batch ID: 163307

LCS-163307 ;0128HP5 ,

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0006.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-163307 ;0128HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0006.RAW  
 Date & Time Acquired: 1/28/2022 2:27:34 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-C24-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

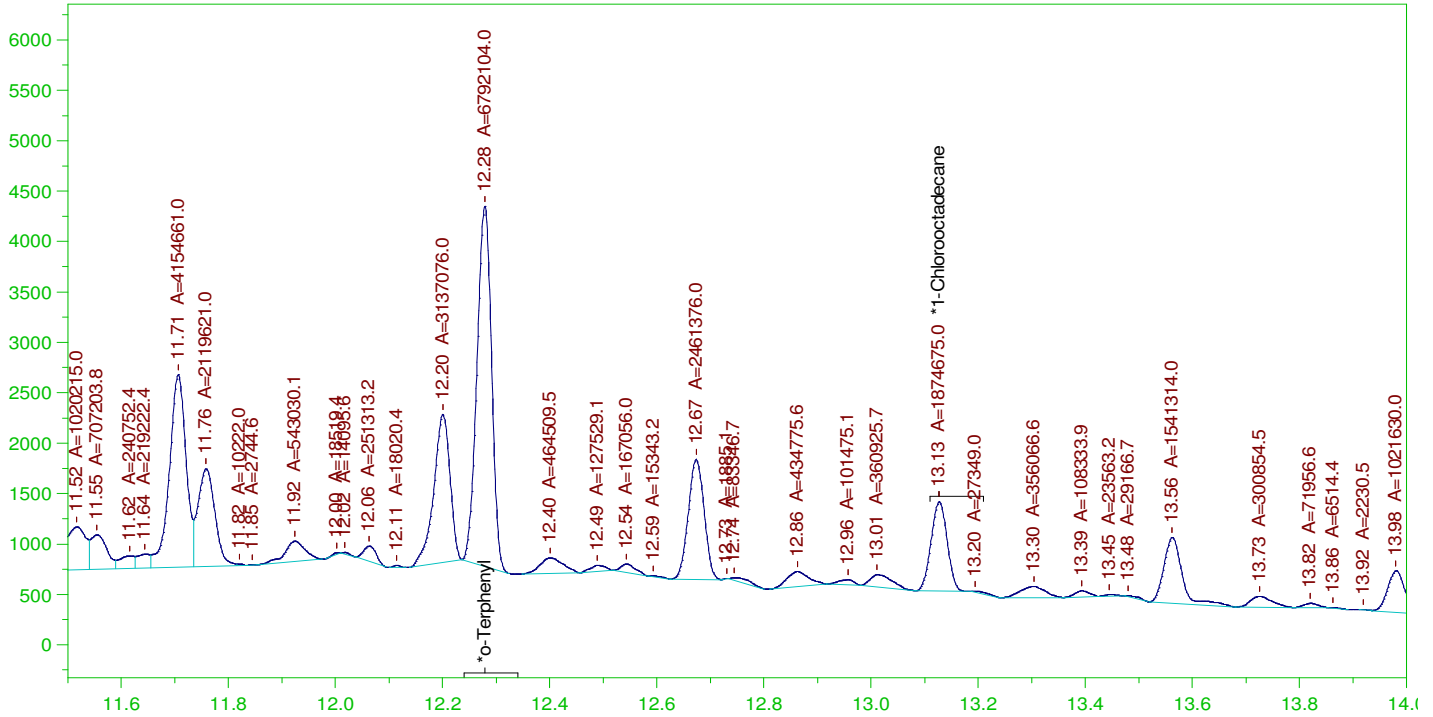
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.279	.2	.319	159.54	-
*1-Chlorooctadecane	13.127	.2	.181	90.61	-

DRO Area: 3.809033E+08 DRO Amount: 11.6572  
 TEH Area: 4.073616E+08 TEH Amount: 12.46694

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0006.RAW

LCS-163307 ;0128HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-163307 ;0128HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0006.RAW  
 Date & Time Acquired: 1/28/2022 2:27:34 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

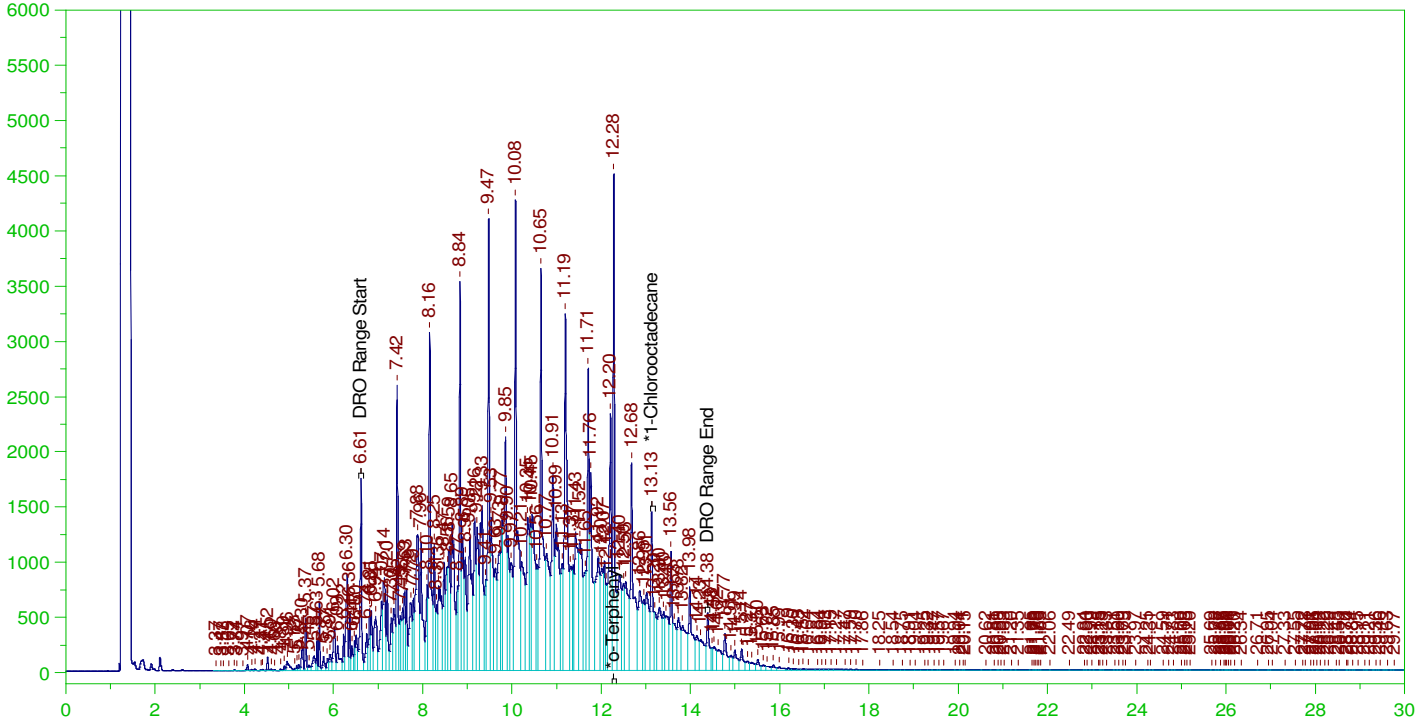
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.279	.2	.184	92.14
*1-Chlorooctadecane	13.127	.2	.051	25.43

DRO Area:1.805285E+08 DRO Amount: 5.524911  
 TEH Area:1.938026E+08 TEH Amount: 5.931155

Batch ID: 163307

LCSD-163307 ;0128HP5 ,

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0007.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCSD-163307 ;0128HP5 ,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0007.RAW  
Date & Time Acquired: 1/28/2022 3:10:04 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.281	.2	.326	163.21	-
*1-Chlorooctadecane	13.129	.2	.134	66.93	-

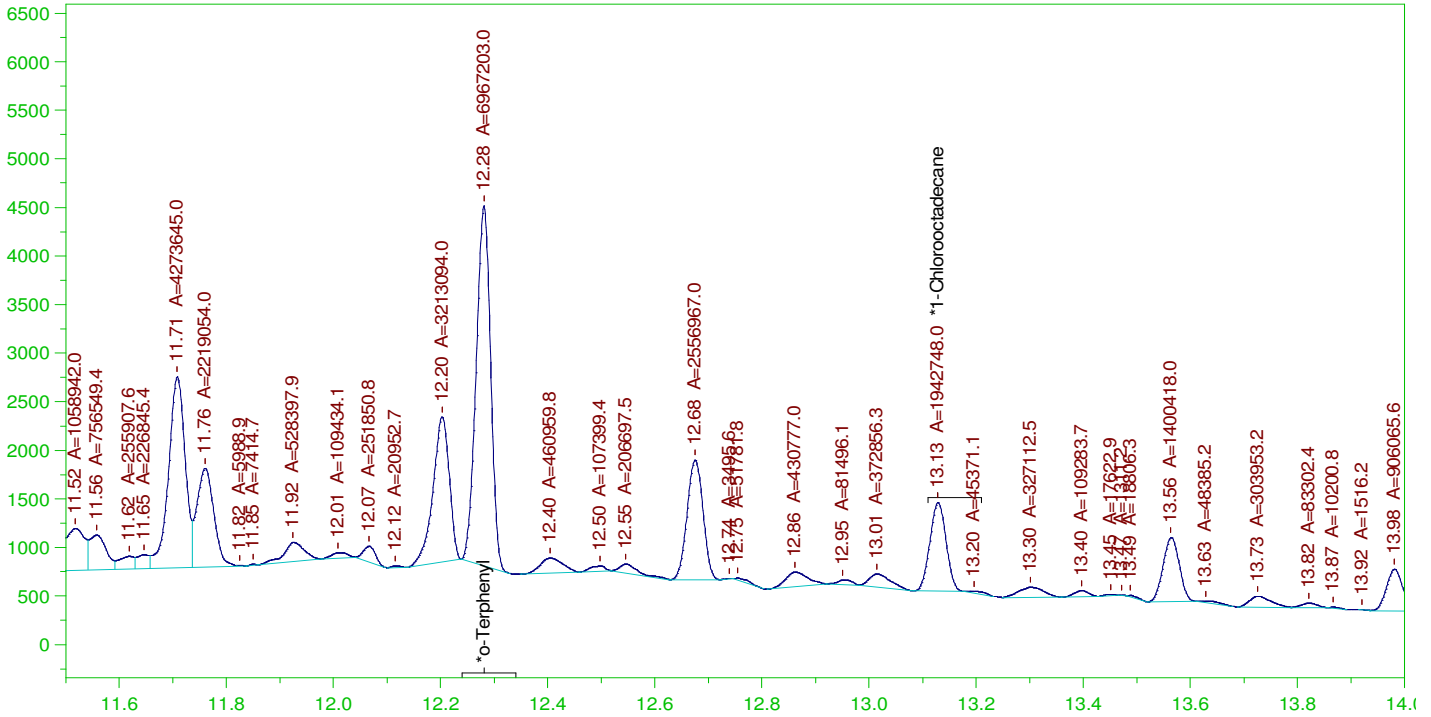
DRO Area: 3.95124E+08 DRO Amount: 12.09242  
TEH Area: 4.224926E+08 TEH Amount: 12.93001



Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0007.RAW

LCSD-163307 ;0128HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

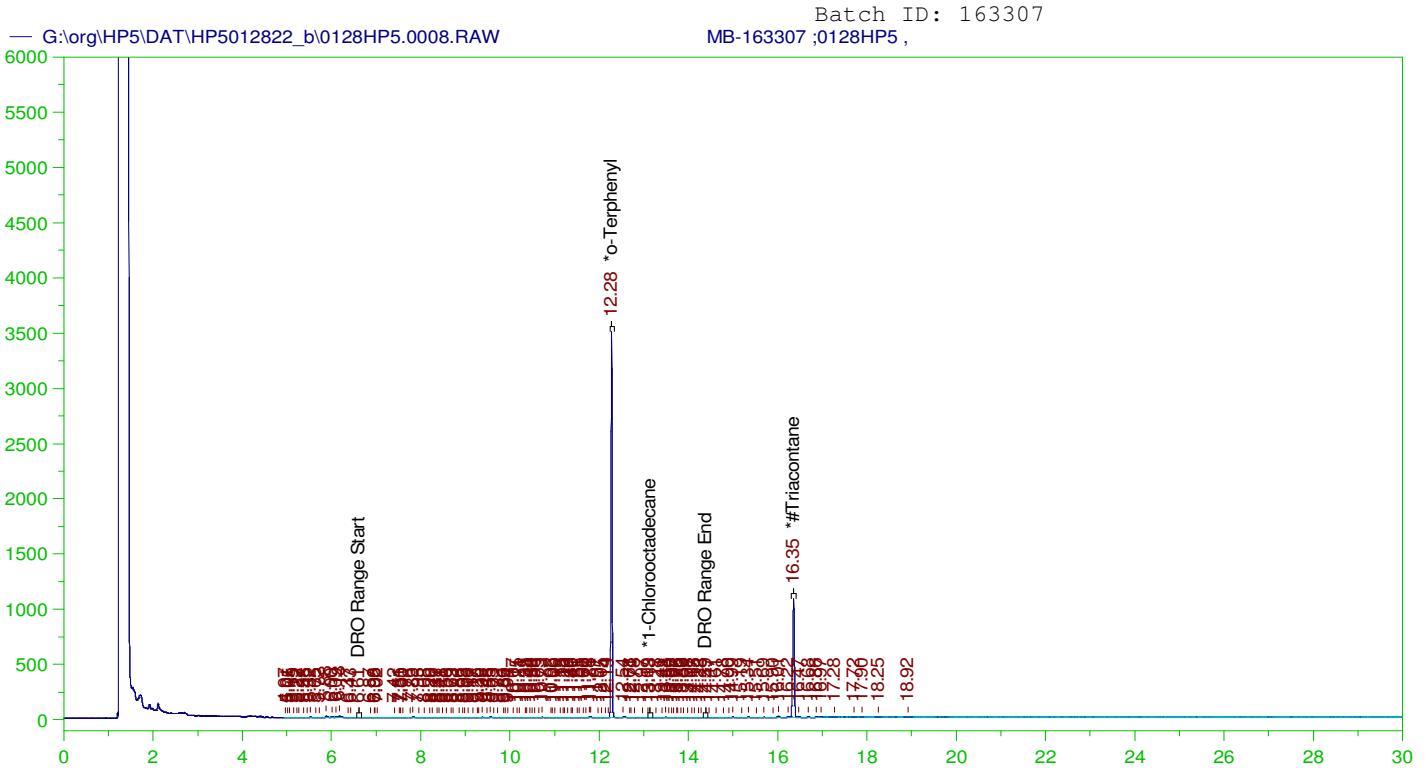
Sample Name: LCSD-163307 ;0128HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0007.RAW  
 Date & Time Acquired: 1/28/2022 3:10:04 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.281	.2	.189	94.51
*1-Chlorooctadecane	13.129	.2	.053	26.35

DRO Area: 1.857328E+08 DRO Amount: 5.684186  
 TEH Area: 1.996764E+08 TEH Amount: 6.110917



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-163307 ;0128HP5 ,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0008.RAW  
Date & Time Acquired: 1/28/2022 3:52:30 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

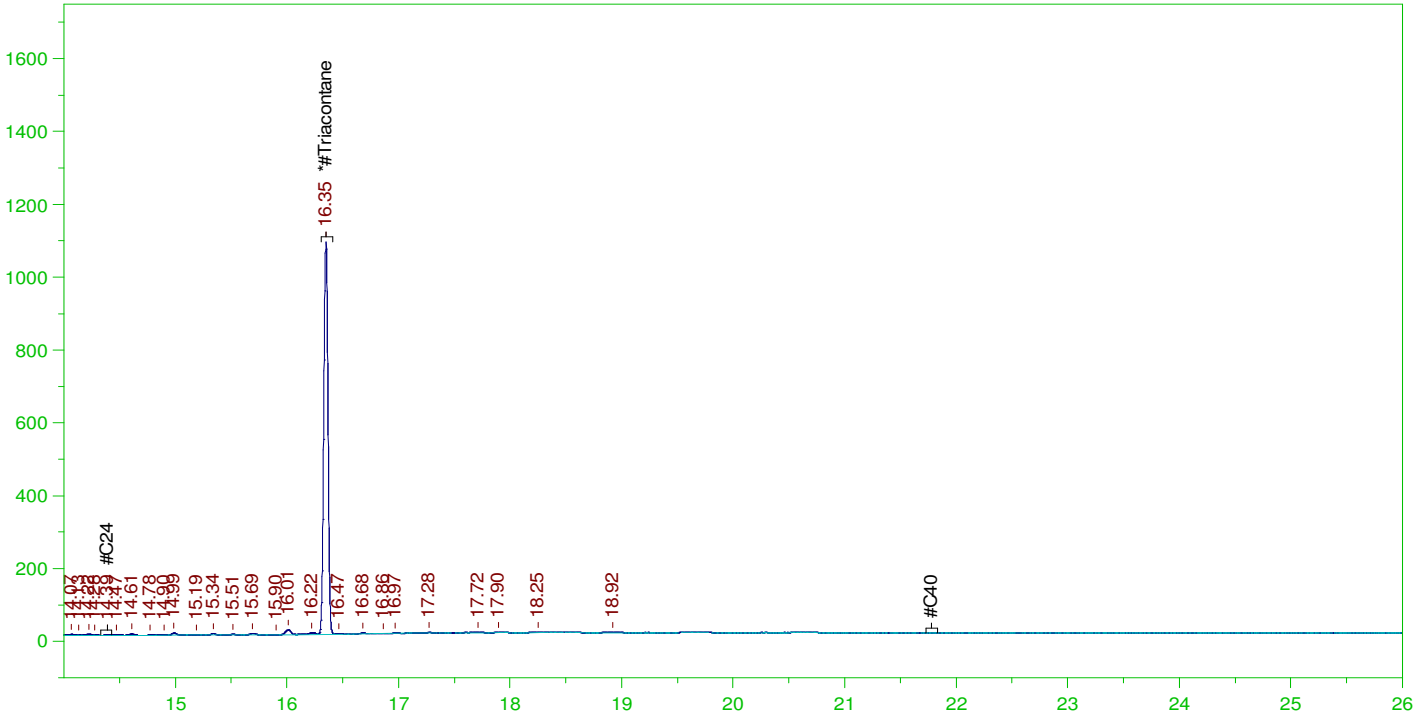
Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.2	.182	90.8	-
*1-Chlorooctadecane	13.135	.2	.	.06	-
*#Triacontane	16.349	.2	.095	47.5	-

DRO Area:450900.7 DRO Amount: 1.379941E-02  
TEH Area:897274.3 TEH Amount: 2.746027E-02

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0008.RAW

MB-163307 ;0128HP5 ,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: MB-163307 ;0128HP5 ,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0008.RAW  
Date & Time Acquired: 1/28/2022 3:52:30 PM  
Method File: G:\Org\HP5\Methods\DR\_OROS-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

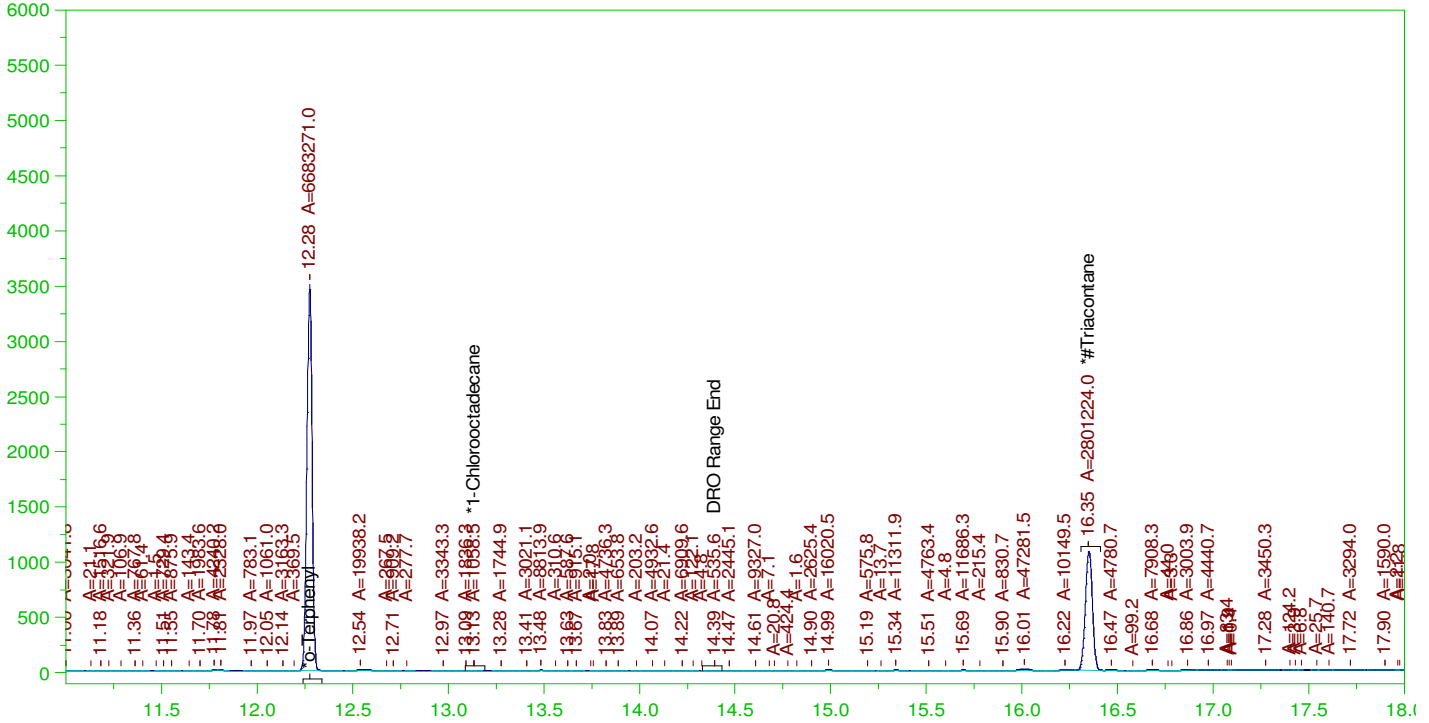
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.349	.5	.095	19. -

RRO Area:176347 RRO AMOUNT: 6.673605E-03

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0008.RAW

MB-163307 ;0128HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-163307 ;0128HP5 ,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0008.RAW  
Date & Time Acquired: 1/28/2022 3:52:30 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111Jd-C24-T.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.275	.2	.181	90.66
*1-Chlorooctadecane	13.135	.2	.01	-
*#Triacontane	16.349	.2	.095	47.26

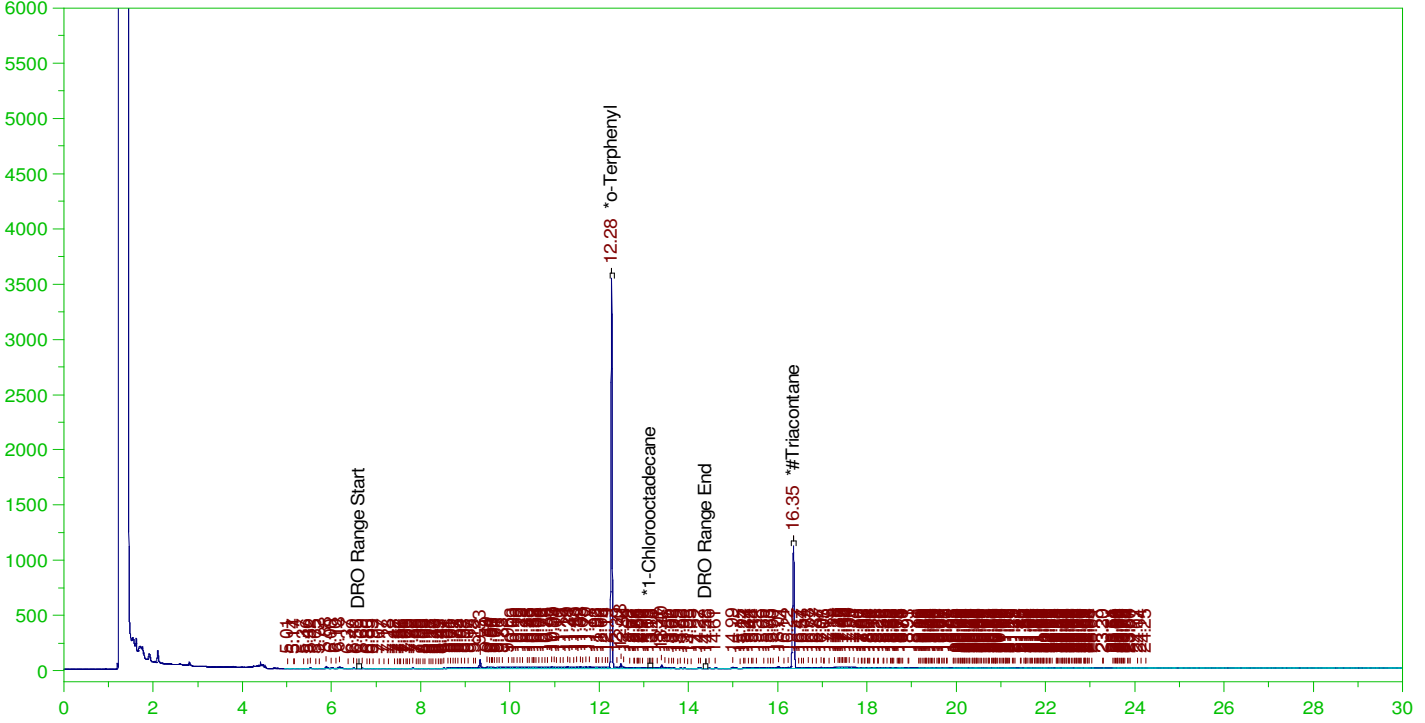
DRO Area:247812.2 DRO Amount: 7.58407E-03  
TEH Area:983901.8 TEH Amount: 3.011143E-02

ERH2490 (RHMW2254-01 LF)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0009.RAW

B22011592-001D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0009.RAW  
Date & Time Acquired: 1/28/2022 4:35:06 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-012809-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.2	.185	92.29	-
*1-Chlorooctadecane	13.129	.2	.	.15	-
*#Triacontane	16.347	.2	.098	49.12	-

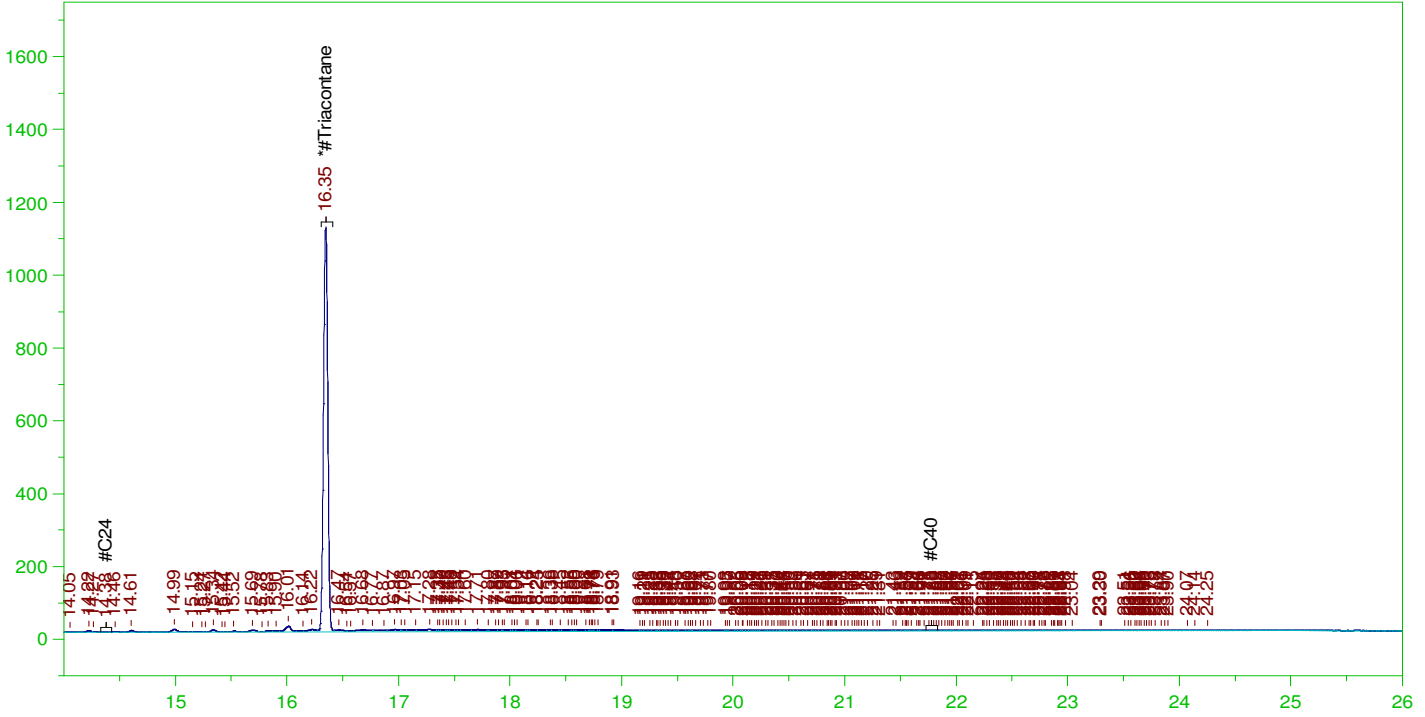
DRO Area:2976863 DRO Amount: 9.110422E-02  
TEH Area:4819733 TEH Amount: 0.1475036

ERH2490 (RHMW2254-01 LF)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0009.RAW

B22011592-001D ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0009.RAW  
Date & Time Acquired: 1/28/2022 4:35:06 PM  
Method File: G:\Org\HP5\Methods\DR\_OROS-012809-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.347	.5	.098	19.65 -

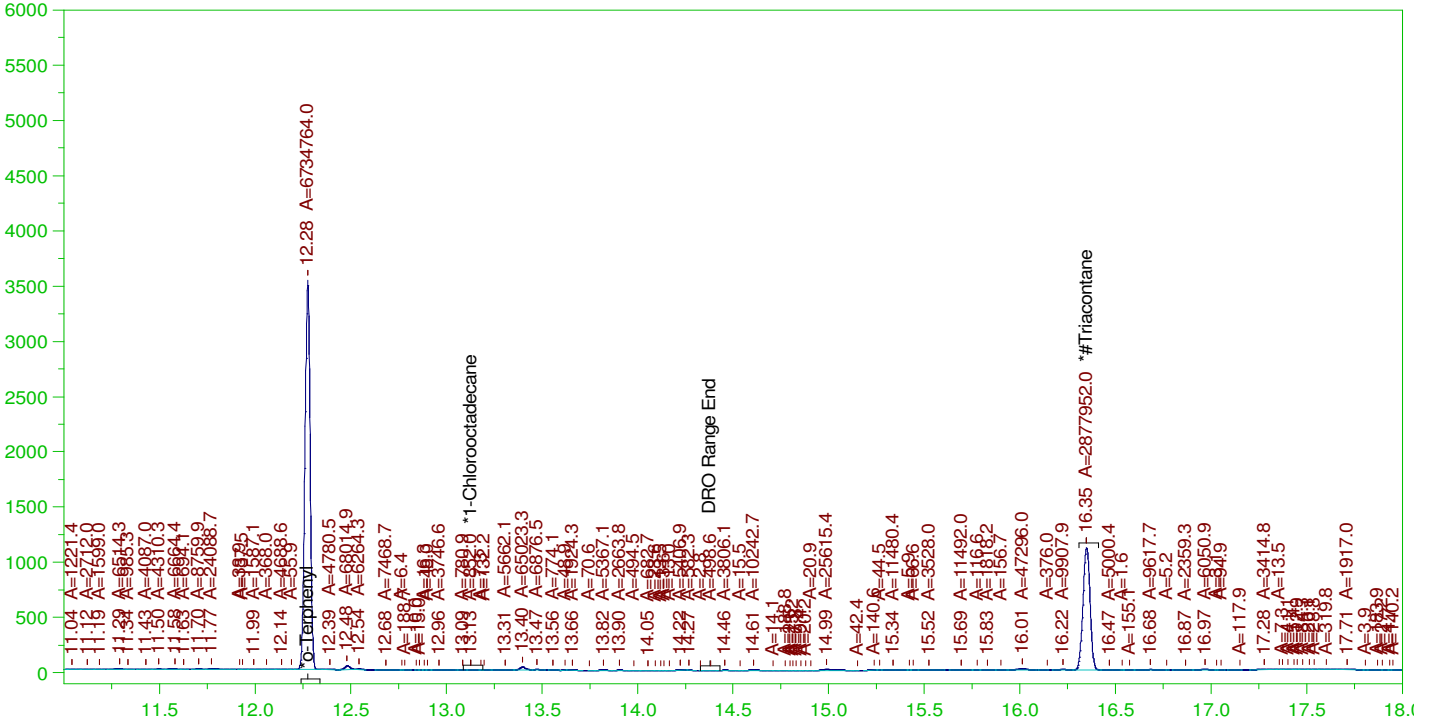
RRO Area:1402017 RRO AMOUNT: 5.305735E-02

ERH2490 (RHMW2254-01 LF)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0009.RAW

B22011592-001D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0009.RAW  
Date & Time Acquired: 1/28/2022 4:35:06 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

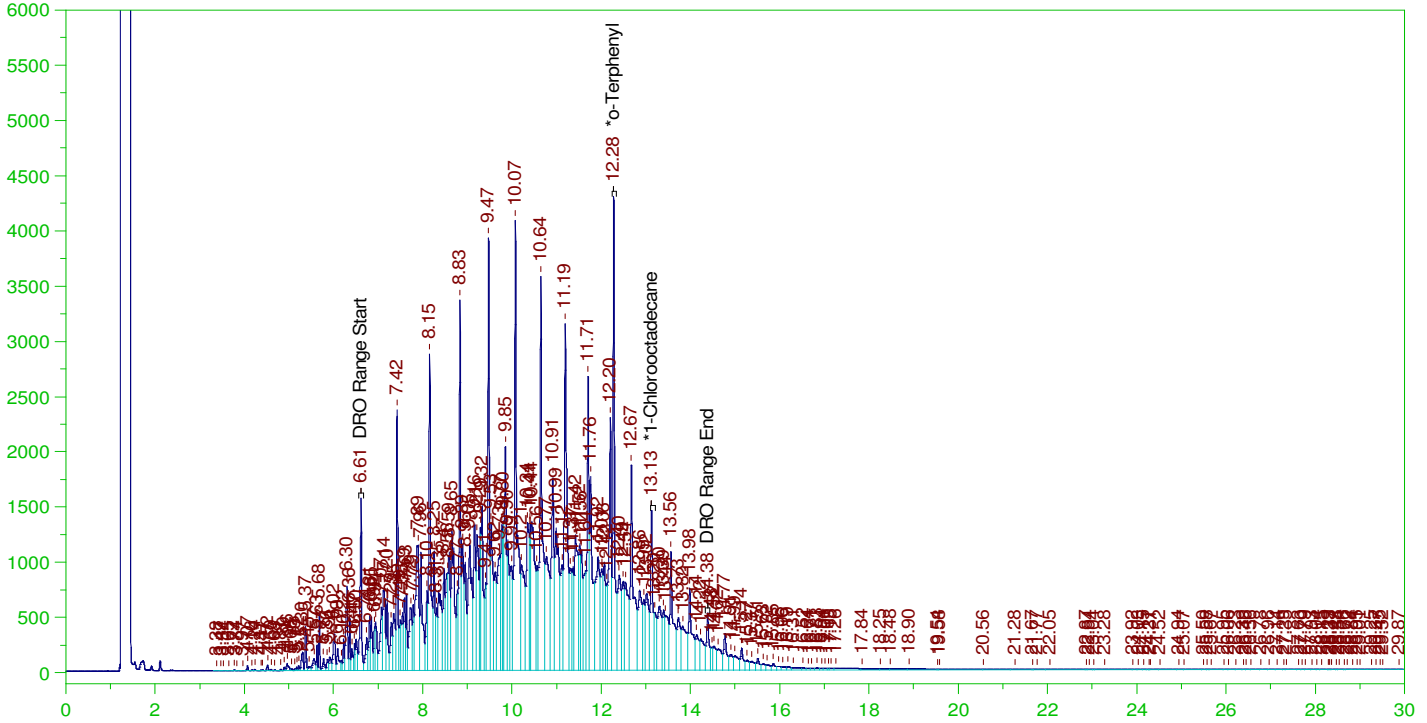
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.275	.2	.183	91.36
*1-Chlorooctadecane	13.129	.2	.01	-
*#Triacontane	16.347	.2	.097	48.55

DRO Area:774345.3 DRO Amount: 2.369814E-02  
TEH Area:1923294 TEH Amount: 0.0588607

Batch ID: 163307

B22011592-001DMS ;0128HP5 ,

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0010.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-001DMS ;0128HP5 ,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0010.RAW  
Date & Time Acquired: 1/28/2022 5:18:02 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.279	.189	.298	157.71	-
*1-Chlorooctadecane	13.126	.189	.129	68.59	-

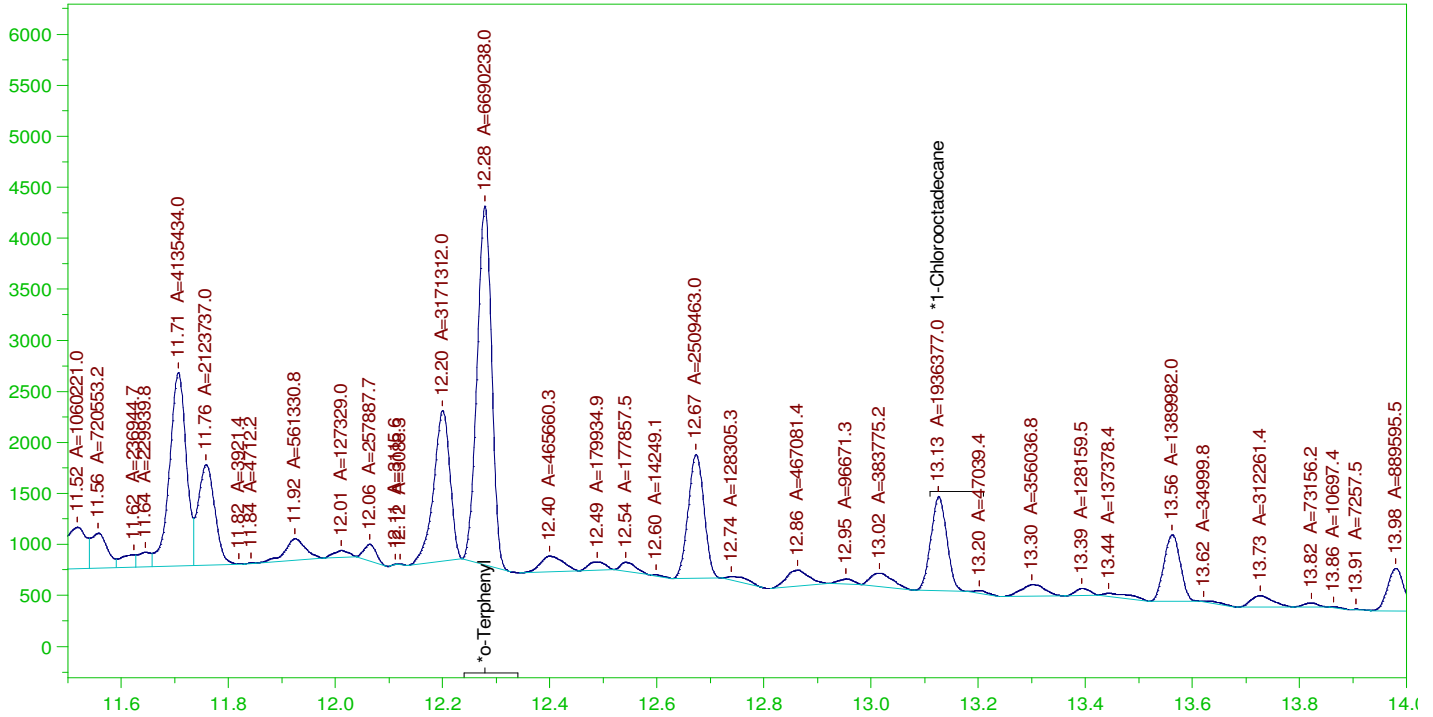
DRO Area:3.813186E+08 DRO Amount: 11.00935  
TEH Area:4.101079E+08 TEH Amount: 11.84055



Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0010.RAW

B22011592-001DMS ;0128HP5 ,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

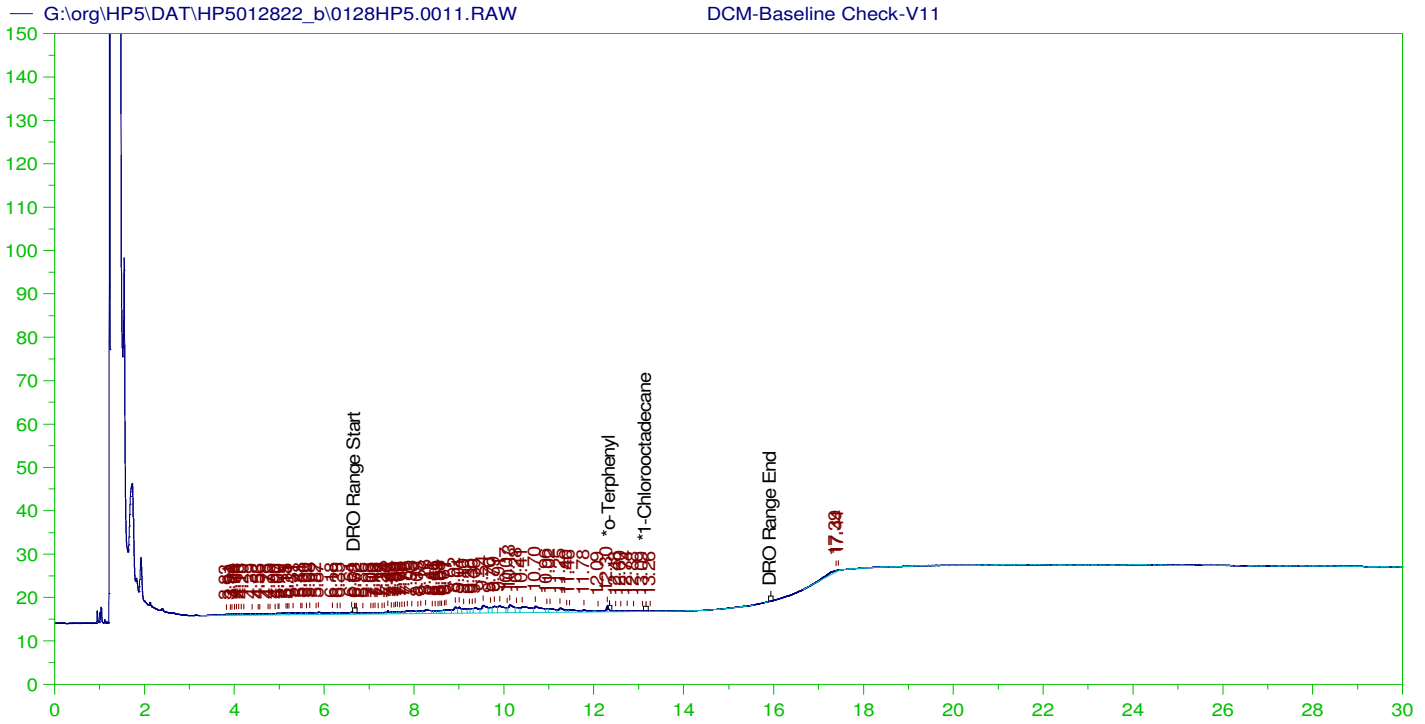
Sample Name: B22011592-001DMS ;0128HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0010.RAW  
 Date & Time Acquired: 1/28/2022 5:18:02 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.279	.189	.171	90.76	-
*1-Chlorooctadecane	13.126	.189	.05	26.27	-

DRO Area: 1.753159E+08 DRO Amount: 5.061685  
 TEH Area: 1.870493E+08 TEH Amount: 5.400449



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V11  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0011.RAW  
 Date & Time Acquired: 1/28/2022 6:00:54 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

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

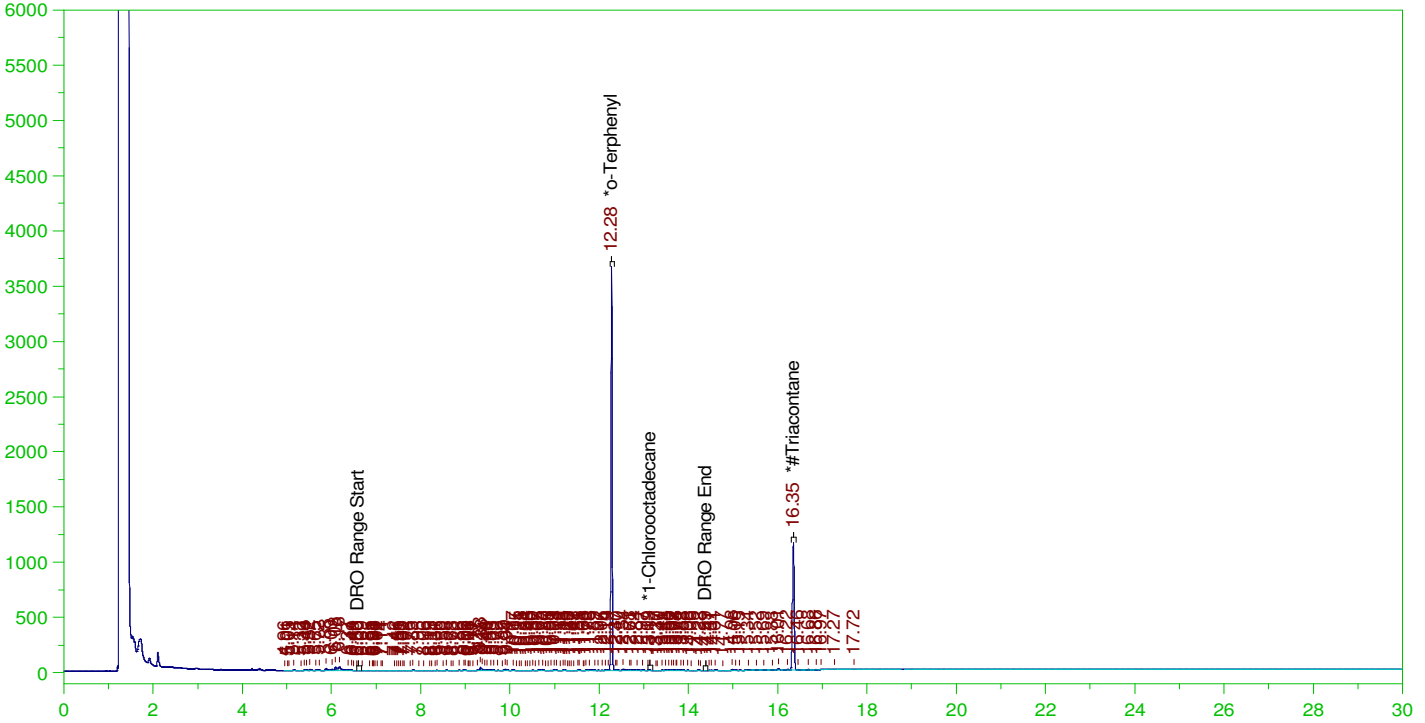
DRO Area:261211.6 DRO Amount: 7.994145  
 TEH Area:343629 TEH Amount: 10.51646

ERH2481 (OWDFMW07A)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0012.RAW

B22011592-012D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-012D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0012.RAW  
Date & Time Acquired: 1/28/2022 6:43:48 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.198	.188	94.96	-
*1-Chlorooctadecane	13.13	.198	.	.06	-
*#Triacontane	16.345	.198	.1	50.28	-

DRO Area:682618.9

DRO Amount: 0.0206841

TEH Area:1343181

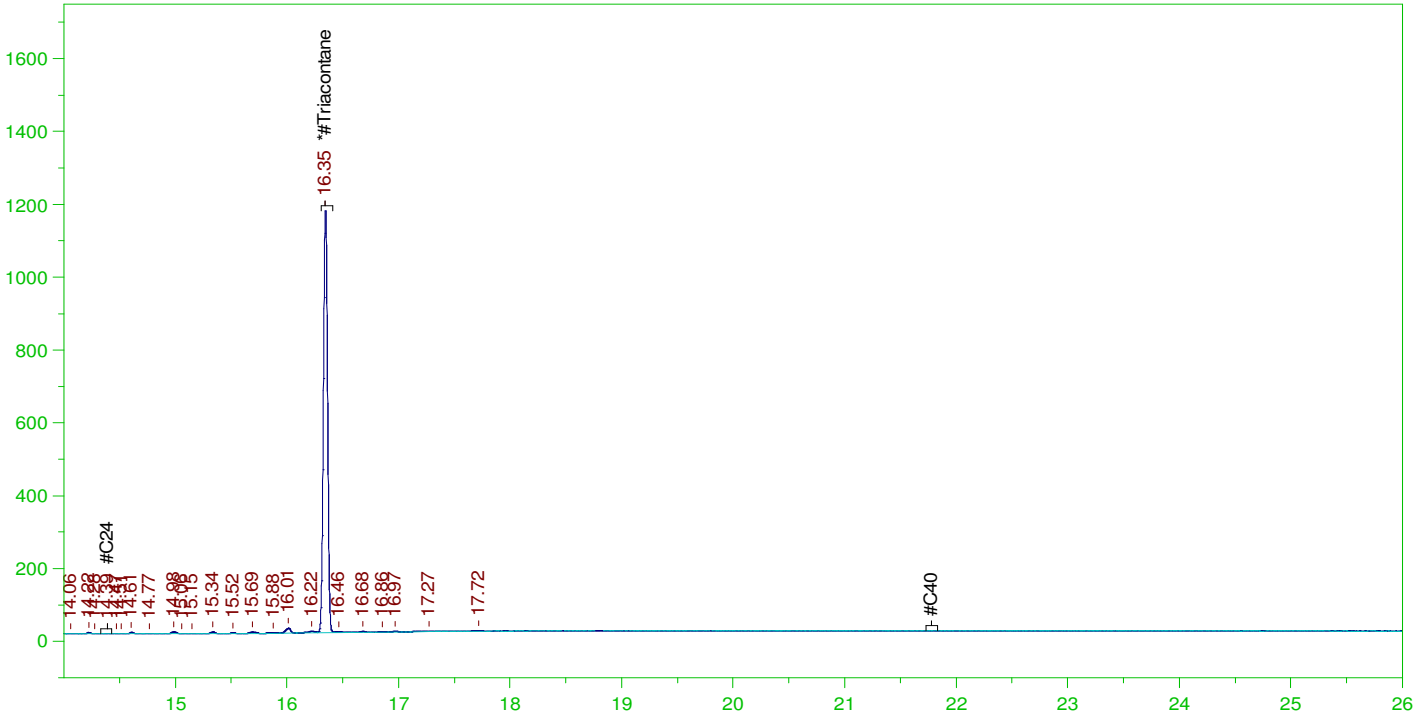
TEH Amount: 4.069985E-02

ERH2481 (OWDFMW07A)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0012.RAW

B22011592-012D ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-012D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0012.RAW  
Date & Time Acquired: 1/28/2022 6:43:48 PM  
Method File: G:\Org\HP5\Methods\DR\_OROS-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.345	.495	.1	20.11	-

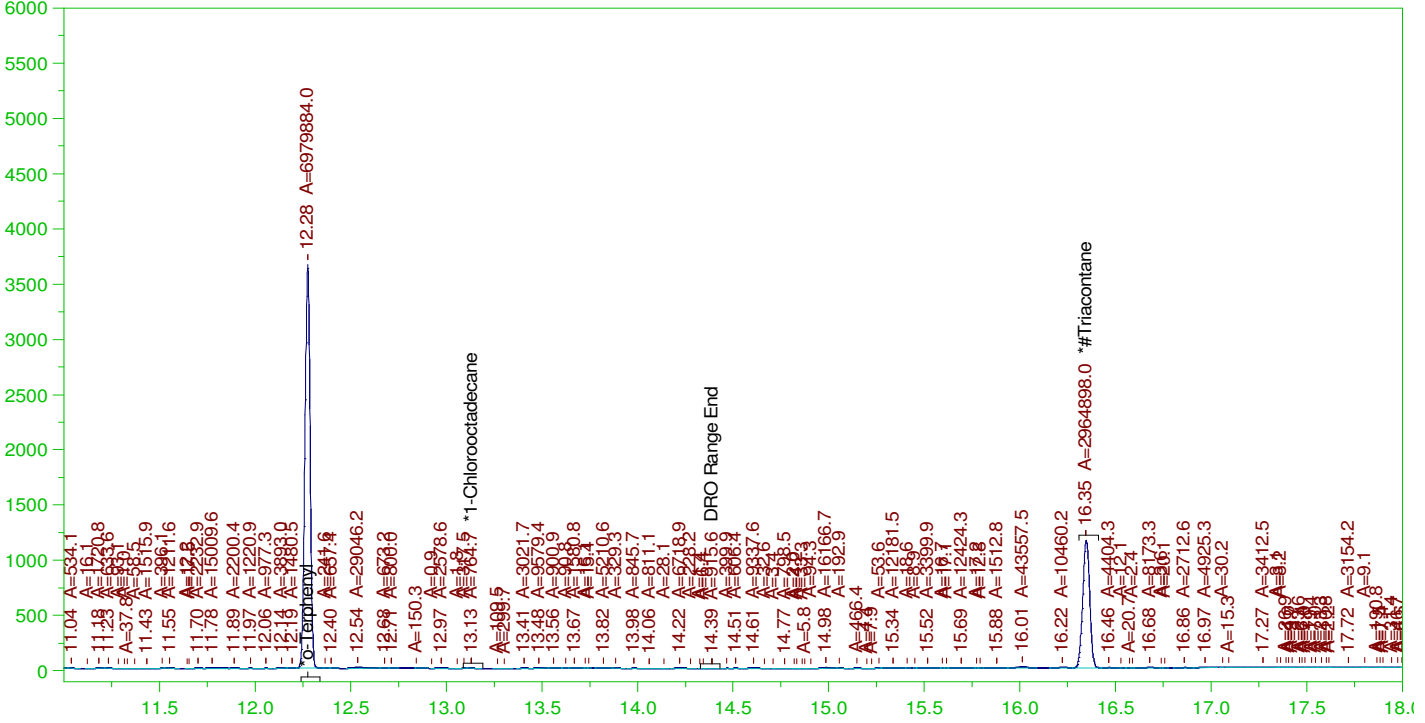
RRO Area:166861.6 RRO AMOUNT: 6.252122E-03

ERH2481 (OWDFMW07A)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0012.RAW

B22011592-012D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-012D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0012.RAW  
Date & Time Acquired: 1/28/2022 6:43:48 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.198	.187	94.69	-
*1-Chlorooctadecane	13.13	.198	.	.01	-
*#Triacontane	16.345	.198	.099	50.02	-

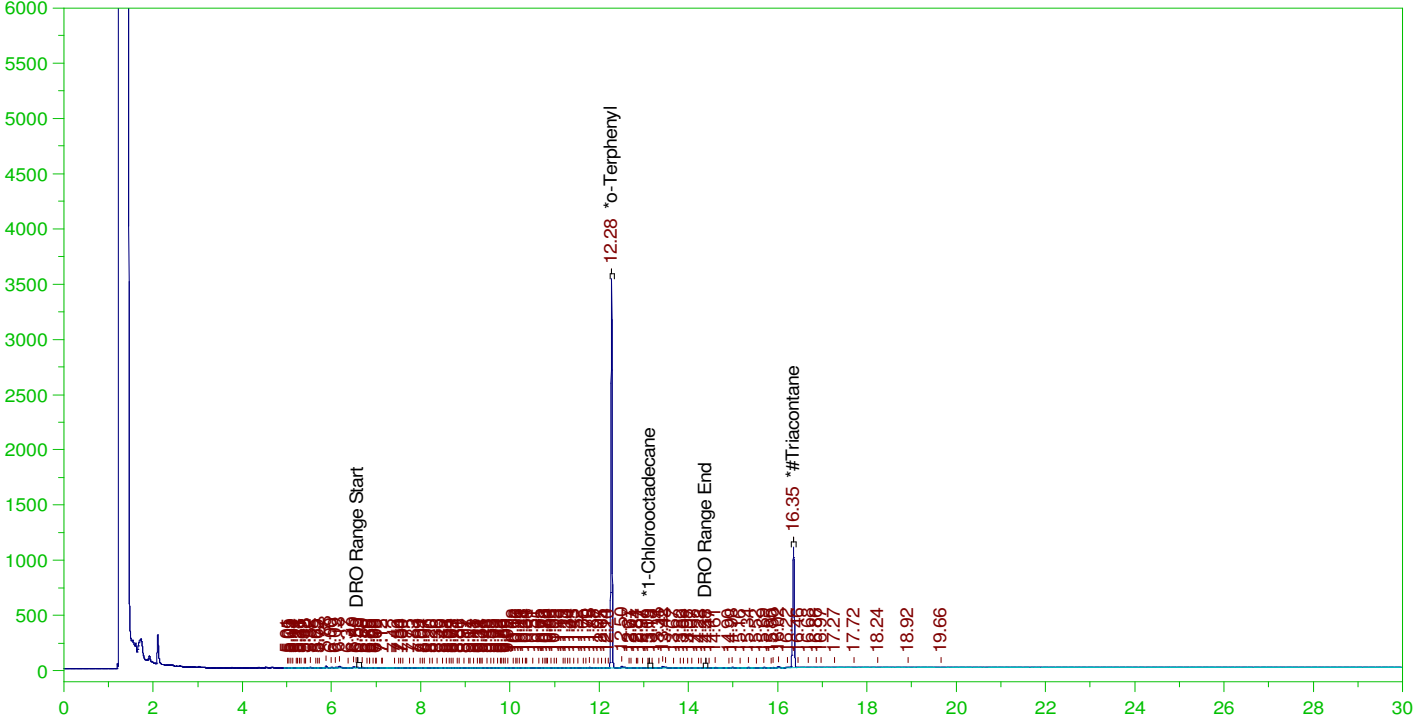
DRO Area:383796.4 DRO Amount: 1.162945E-02  
TEH Area:1270859 TEH Amount: 0.0385084

ERH2483 (OWDFMW08A)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0013.RAW

B22011592-022D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-022D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0013.RAW  
Date & Time Acquired: 1/28/2022 7:26:33 PM  
Method File: G:\Org\HP5\Methods\DR\_8015-C24T-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.196	.178	90.67	-
*1-Chlorooctadecane	13.128	.196	.	.01	-
*#Triacontane	16.349	.196	.092	47.1	-

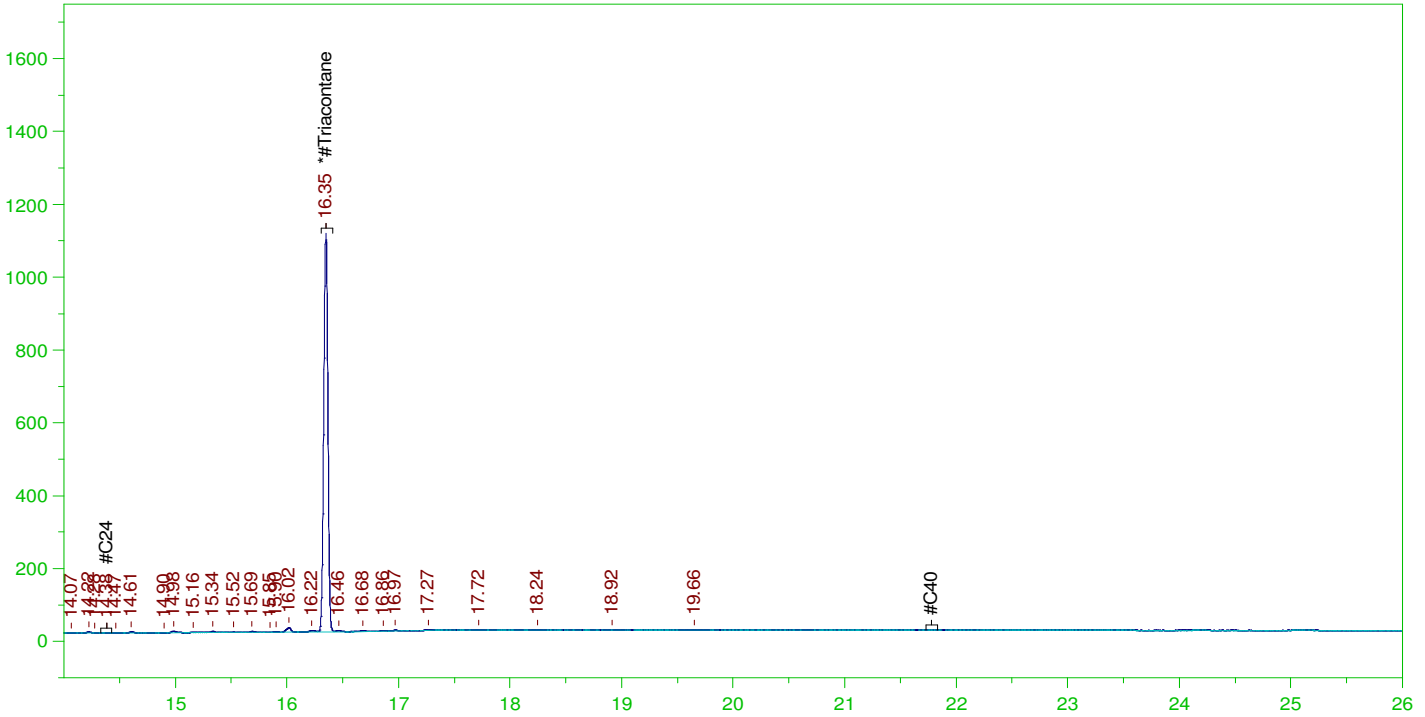
DRO Area:578127.2 DRO Amount: 1.734614E-02  
TEH Area:1129663 TEH Amount: 3.389443E-02

ERH2483 (OWDFMW08A)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0013.RAW

B22011592-022D ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-022D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0013.RAW  
Date & Time Acquired: 1/28/2022 7:26:33 PM  
Method File: G:\Org\HP5\Methods\DR\_OROS-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.349	.49	.092	18.84	-

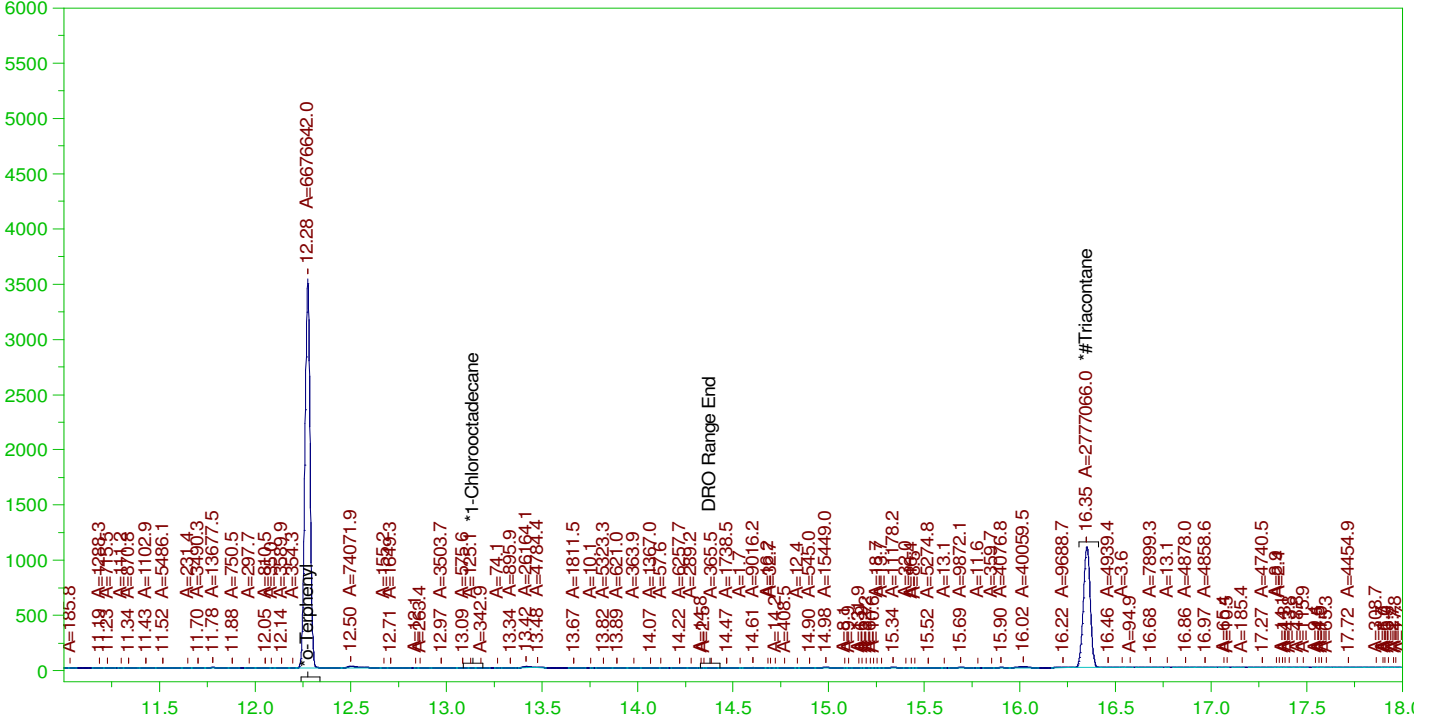
RRO Area:174230.3 RRO AMOUNT: 6.464217E-03

ERH2483 (OWDFMW08A)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0013.RAW

B22011592-022D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-022D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0013.RAW  
Date & Time Acquired: 1/28/2022 7:26:33 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.196	.178	90.57	-
*1-Chlorooctadecane	29.983	.196	.	-	-
*#Triacontane	16.349	.196	.092	46.85	-

DRO Area:380433.9 DRO Amount: 1.141455E-02  
TEH Area:1110982 TEH Amount: 3.333392E-02

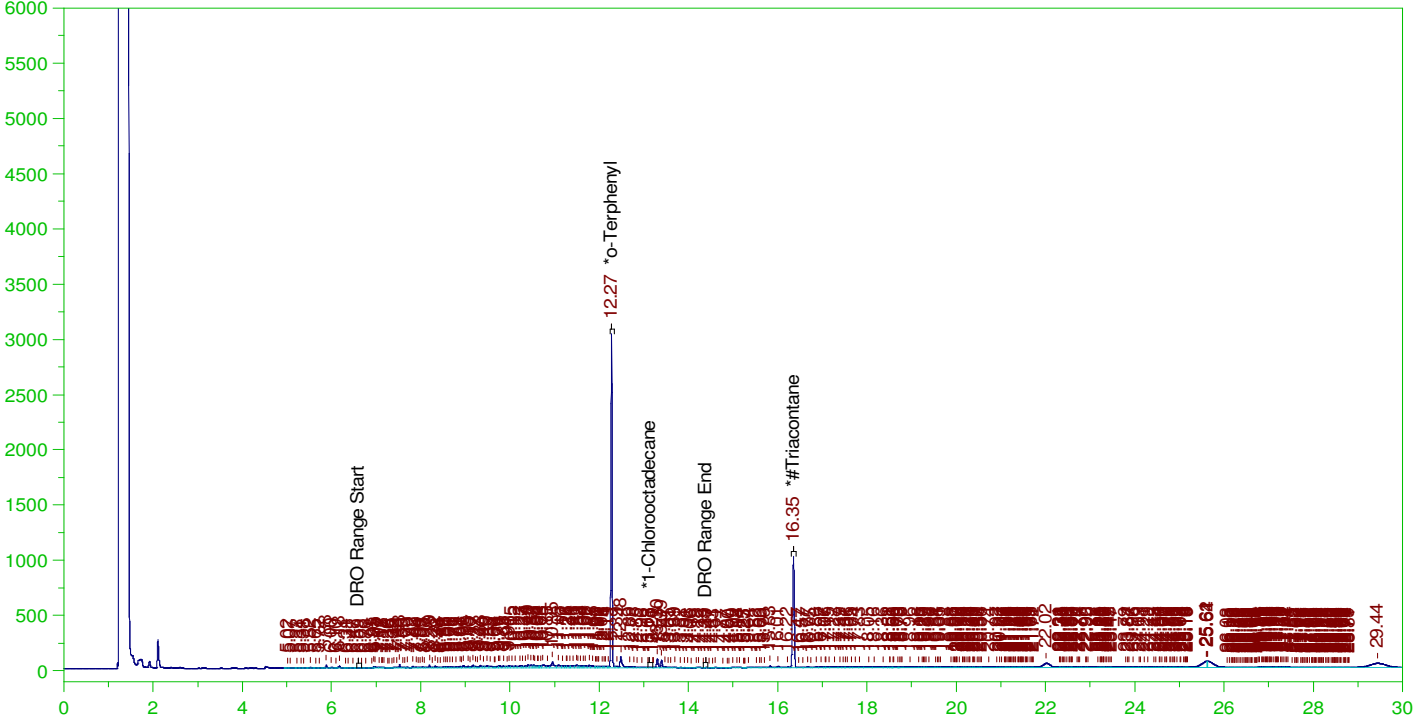


ERH2475 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0014.RAW

B22011592-007B ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-007B ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0014.RAW  
Date & Time Acquired: 1/28/2022 8:09:19 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.274	.198	.157	79.41	-
*1-Chlorooctadecane	13.128	.198	.001	.39	-
*#Triacontane	16.348	.198	.088	44.21	-

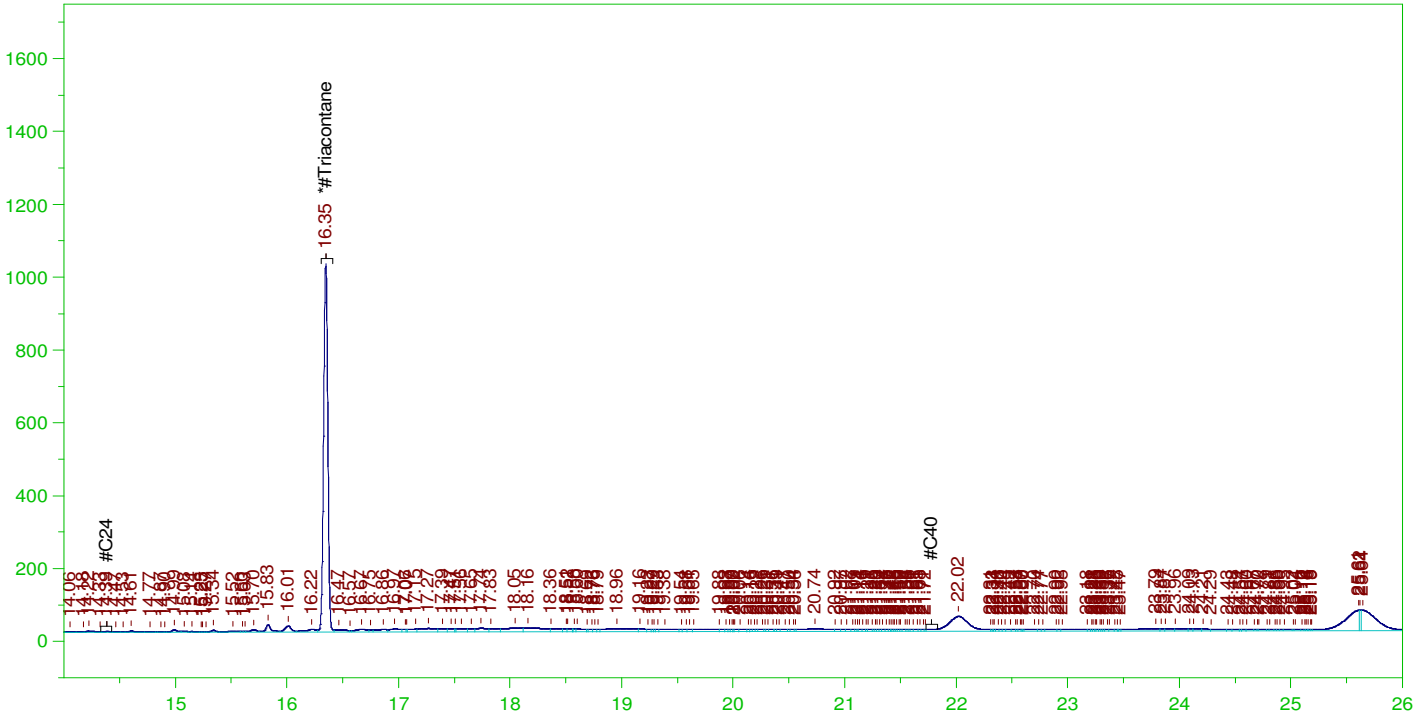
DRO Area:6303433 DRO Amount: 0.1910009  
TEH Area:1.293182E+07 TEH Amount: 0.3918483

ERH2475 (RHMW01R)

Batch ID: 163307

G:\Org\HP5\DAT\HP5012822\_b\0128HP5.0014.RAW

B22011592-007B ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-007B ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\Org\HP5\DAT\HP5012822\_b\0128HP5.0014.RAW  
Date & Time Acquired: 1/28/2022 8:09:19 PM  
Method File: G:\Org\HP5\Methods\D3\_OROS-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.348	.495	.088	17.68

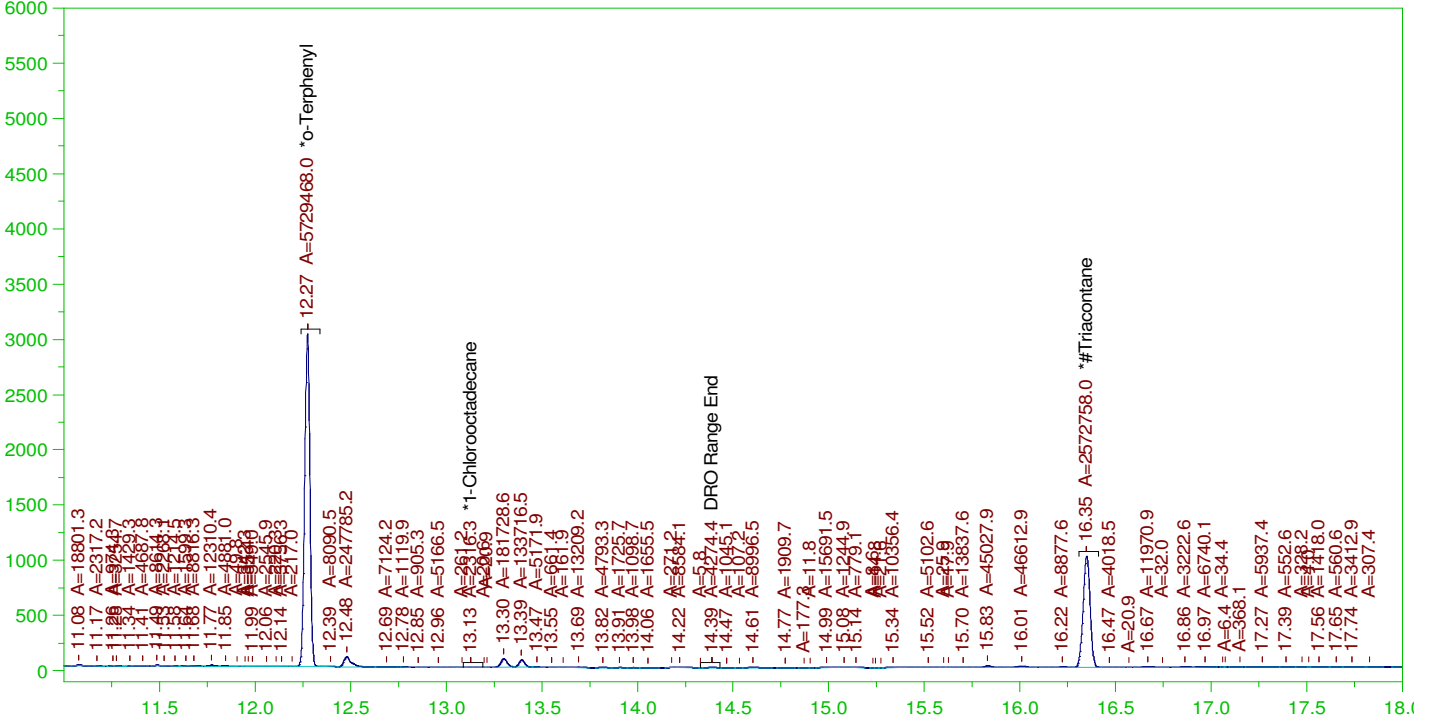
RRO Area:2580309 RRO AMOUNT: 9.668136E-02

ERH2475 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0014.RAW

B22011592-007B ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

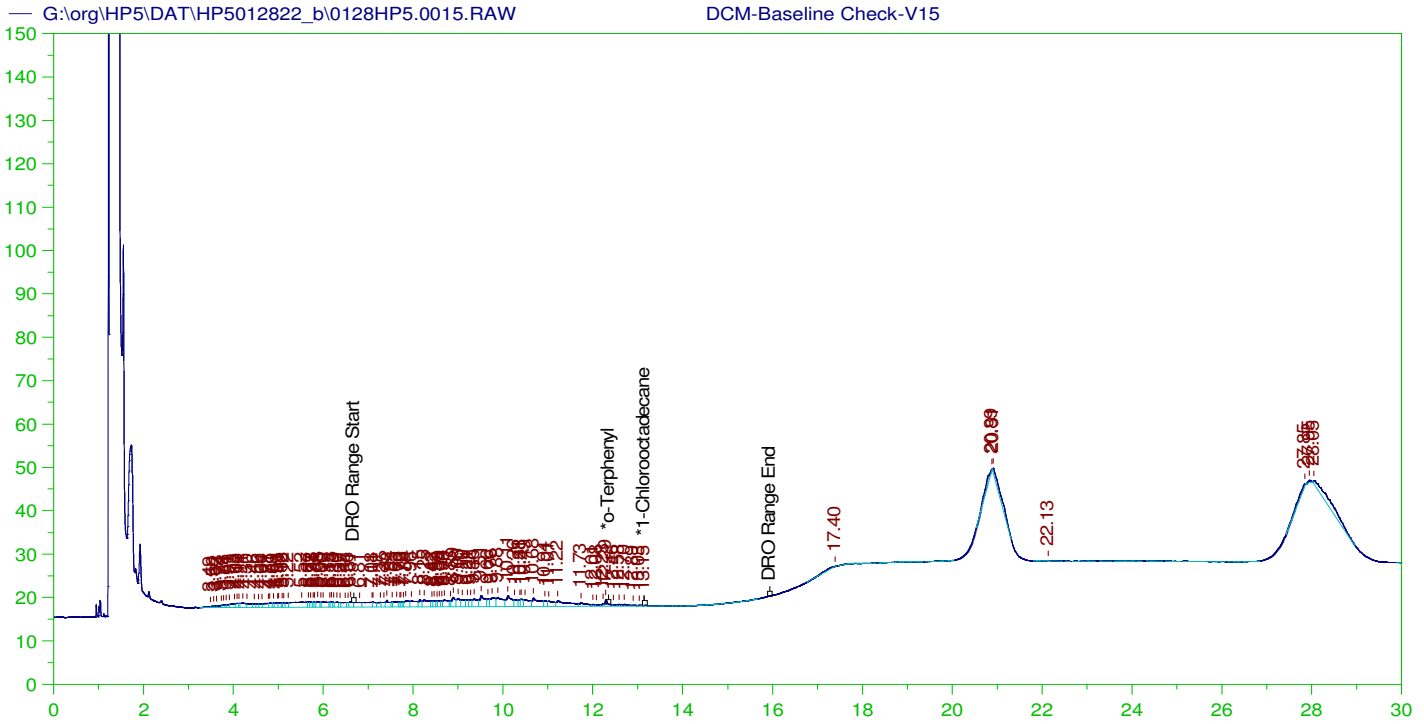
Sample Name: B22011592-007B ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0014.RAW  
Date & Time Acquired: 1/28/2022 8:09:19 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111Jd-C24-T.CAL  
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.274	.198	.154	77.72	-
*1-Chlorooctadecane	13.128	.198	.	.03	-
*#Triacontane	16.348	.198	.086	43.41	-

DRO Area:1974180 DRO Amount: 5.981981E-02  
TEH Area:4030870 TEH Amount: 0.1221398



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V15  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0015.RAW  
 Date & Time Acquired: 1/28/2022 8:52:04 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.94	200.	.	-
*1-Chlorooctadecane	13.147	200.	.074	.04

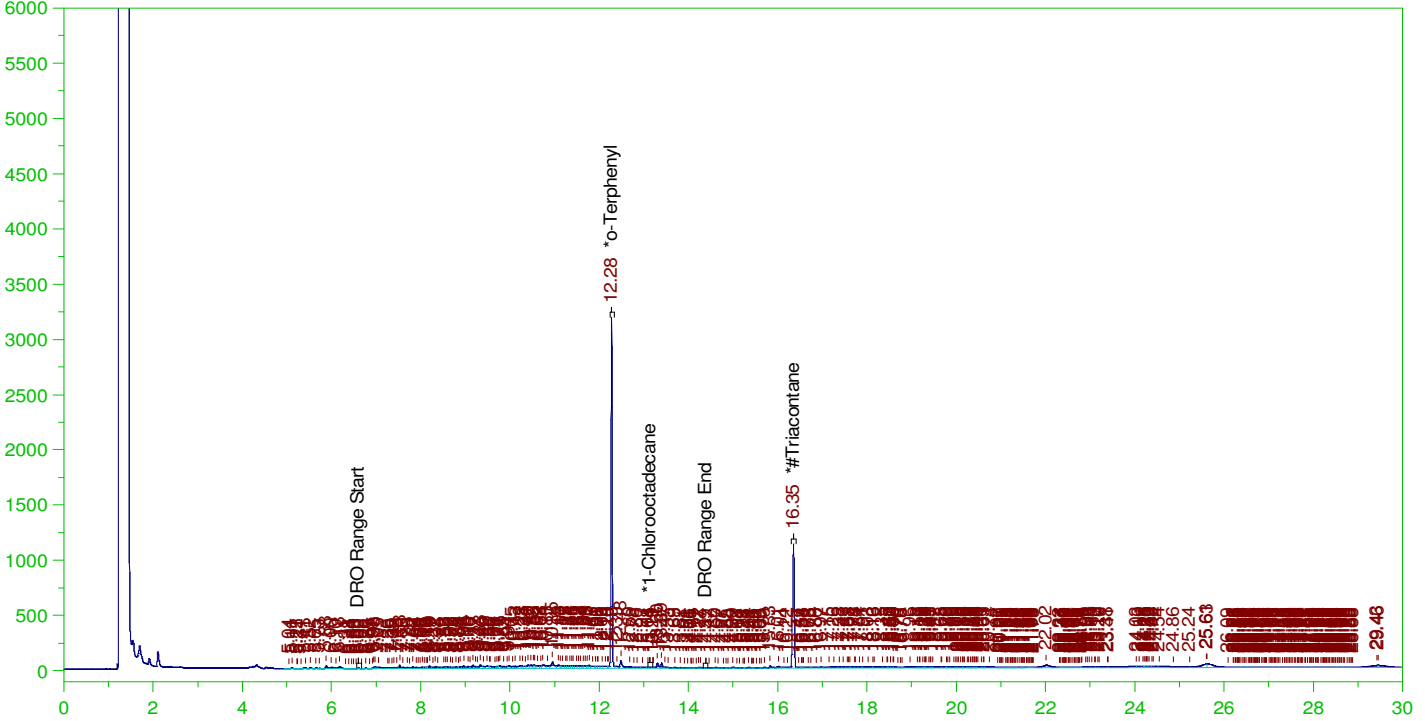
DRO Area: 445480.4 DRO Amount: 13.63353  
 TEH Area: 765422.8 TEH Amount: 23.42508

ERH2474 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0016.RAW

B22011592-006D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-006D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0016.RAW  
Date & Time Acquired: 1/28/2022 9:34:49 PM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.276	.198	.163	82.31	-
*1-Chlorooctadecane	13.142	.198	.001	.35	-
*#Triacontane	16.348	.198	.097	48.81	-

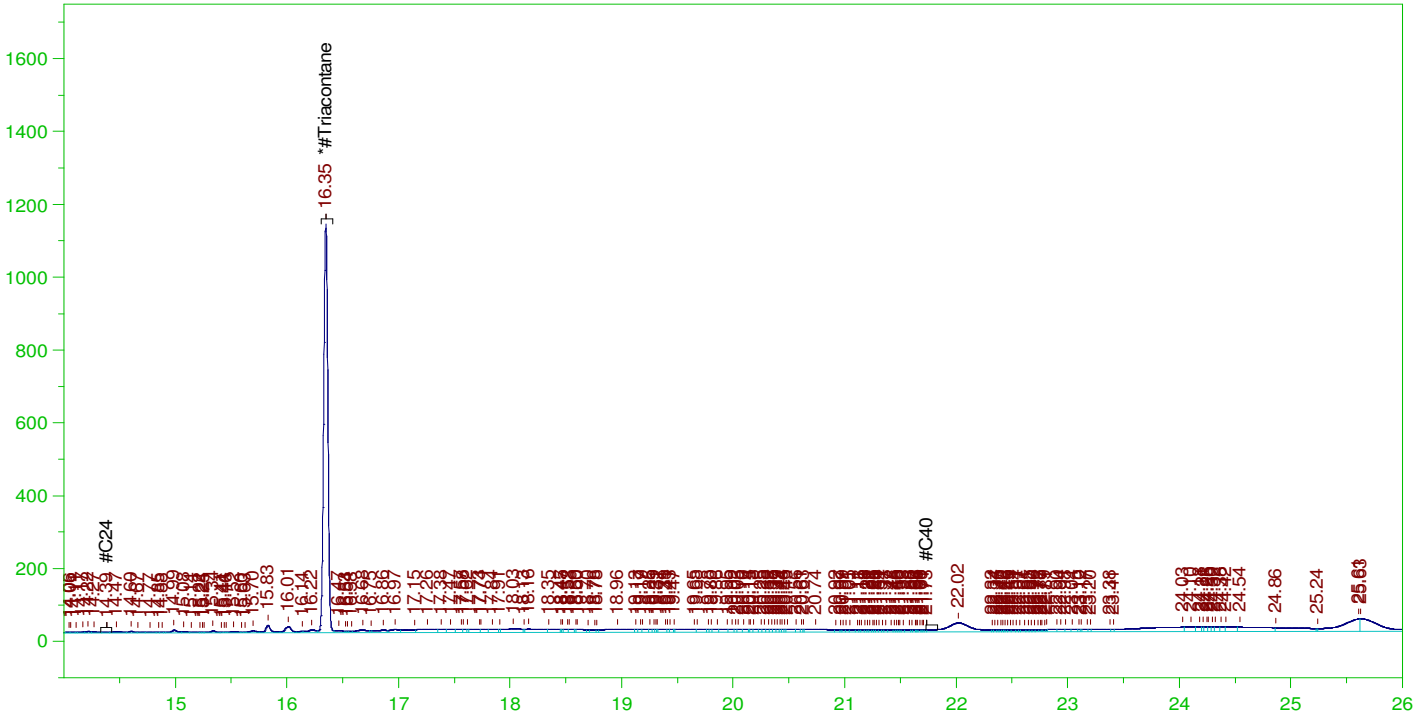
DRO Area:6390244 DRO Amount: 0.1936314  
TEH Area:1.257732E+07 TEH Amount: 0.3811066

ERH2474 (RHMW01R)

Batch ID: 163307

G:\Org\HP5\DAT\HP5012822\_b\0128HP5.0016.RAW

B22011592-006D ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-006D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\Org\HP5\DAT\HP5012822\_b\0128HP5.0016.RAW  
Date & Time Acquired: 1/28/2022 9:34:49 PM  
Method File: G:\Org\HP5\Methods\D3\_OROS-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.348	.495	.097	19.52

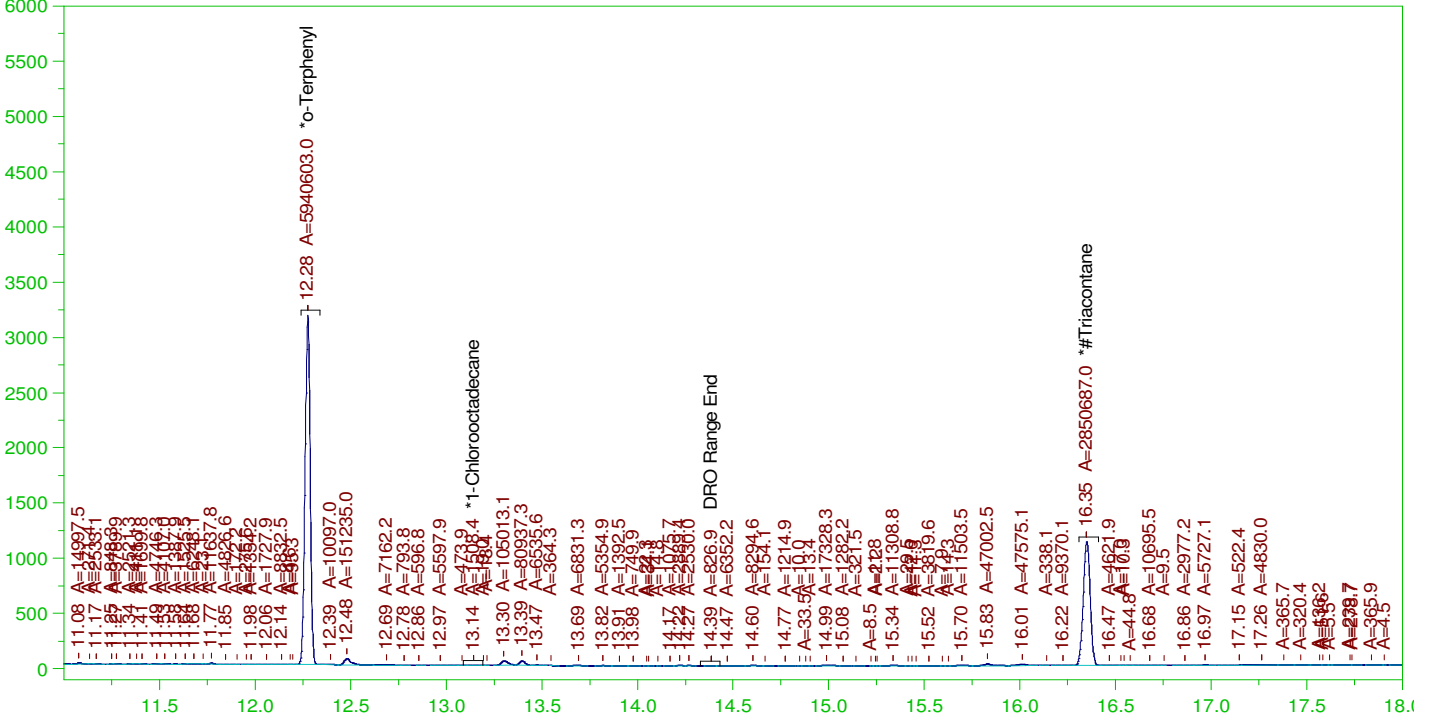
RRO Area:2585511 RRO AMOUNT: 9.687627E-02

ERH2474 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0016.RAW

B22011592-006D ;0128HP5 , \$HC-8015-DRO-W,



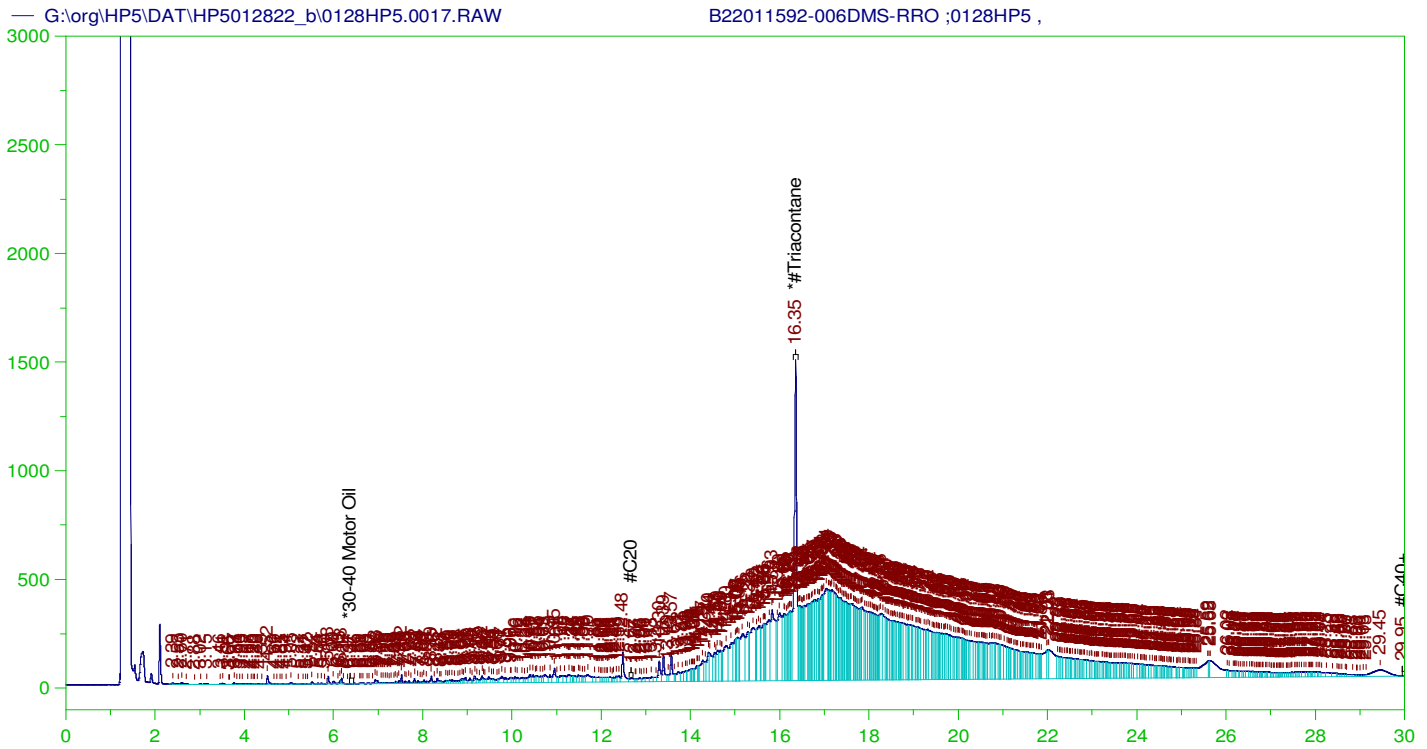
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-006D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0016.RAW  
Date & Time Acquired: 1/28/2022 9:34:49 PM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.276	.198	.16	80.59	-
*1-Chlorooctadecane	13.142	.198	.	.02	-
*#Triacontane	16.348	.198	.095	48.09	-

DRO Area:1768182 DRO Amount: 5.357784E-02  
TEH Area:3092701 TEH Amount: 9.371222E-02



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-006DMS-RRO ;0128HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0017.RAW  
 Date & Time Acquired: 1/28/2022 10:17:37 PM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

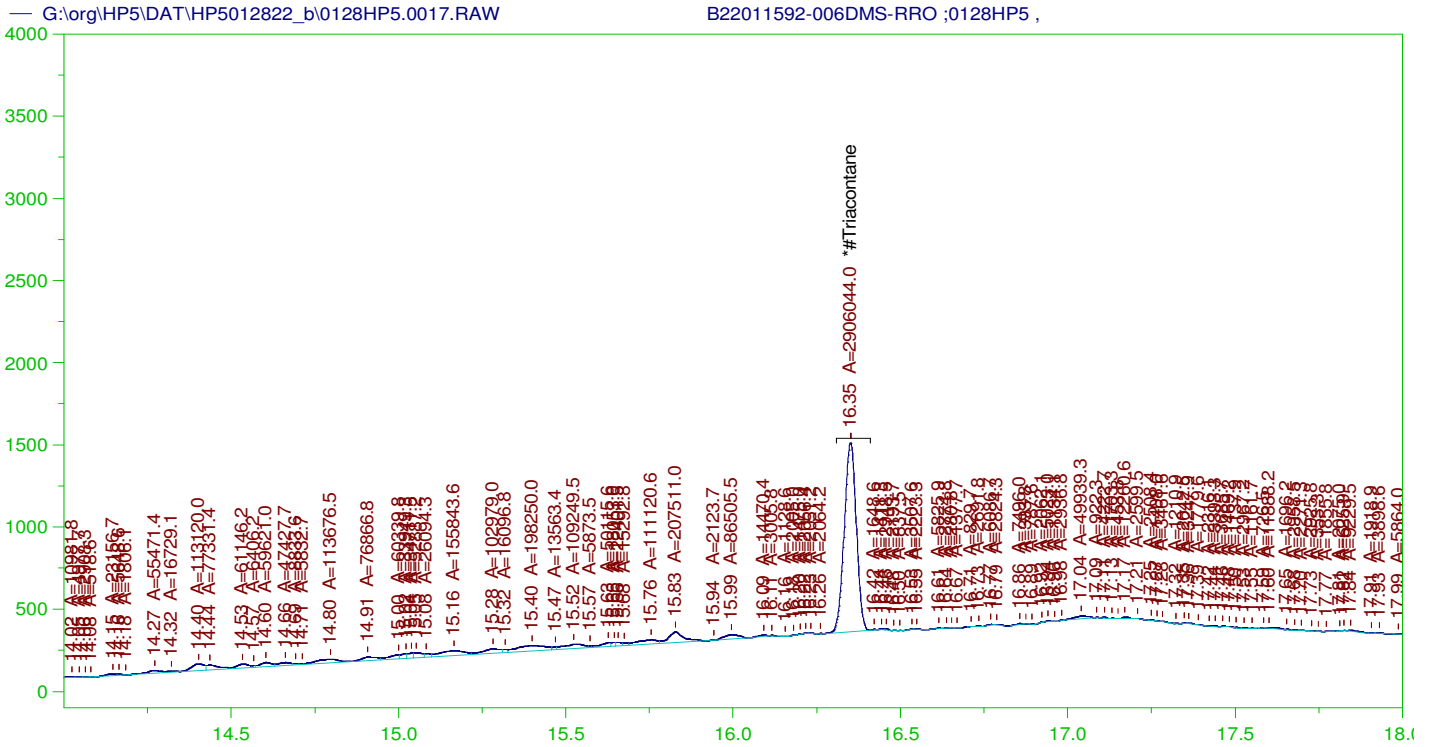
Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.35	.5	.19	38.03

~~RRO~~ TEH(Oil Range) Area:1.333028E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 5.044657

AMN 02/11/2022





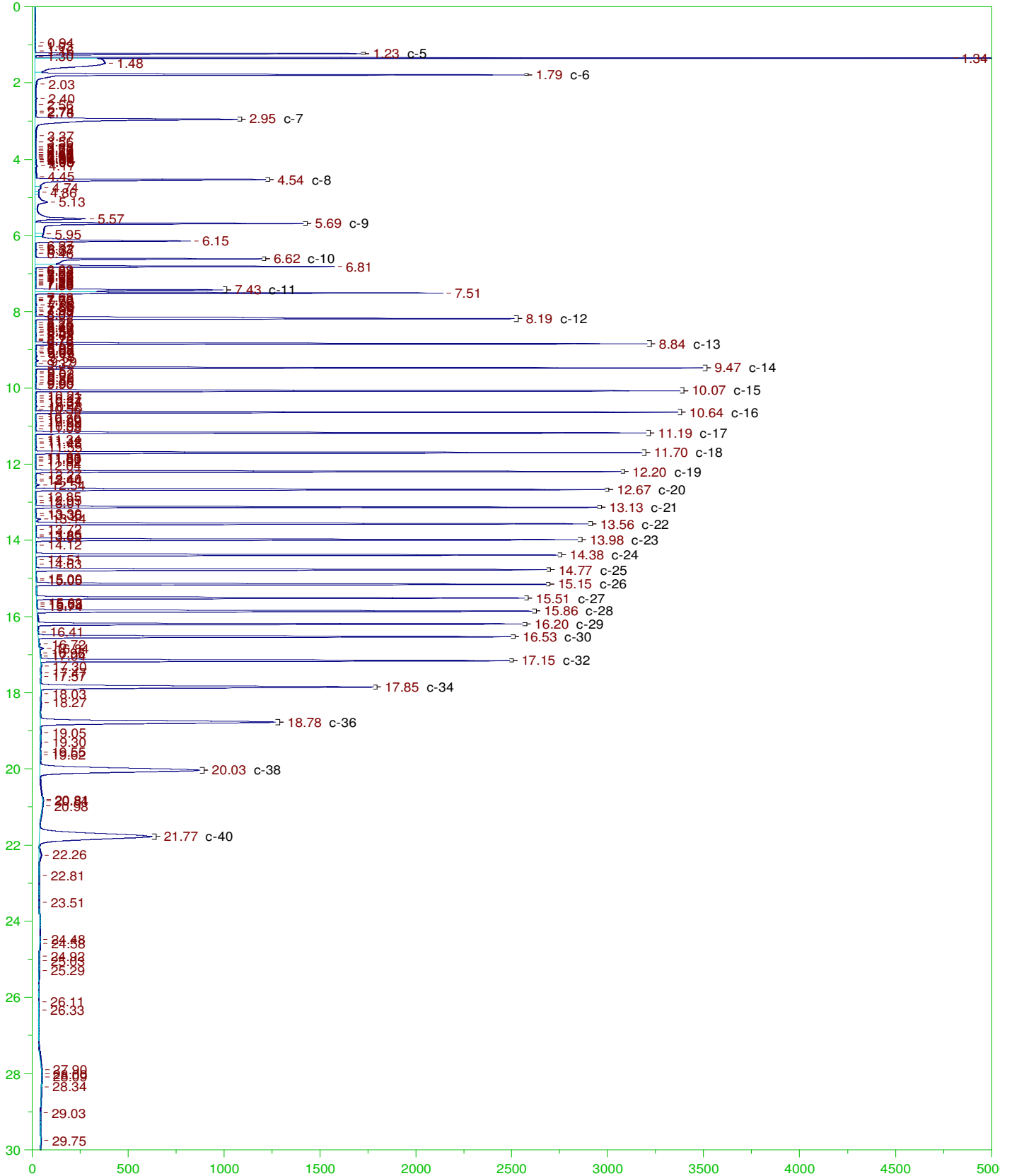
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

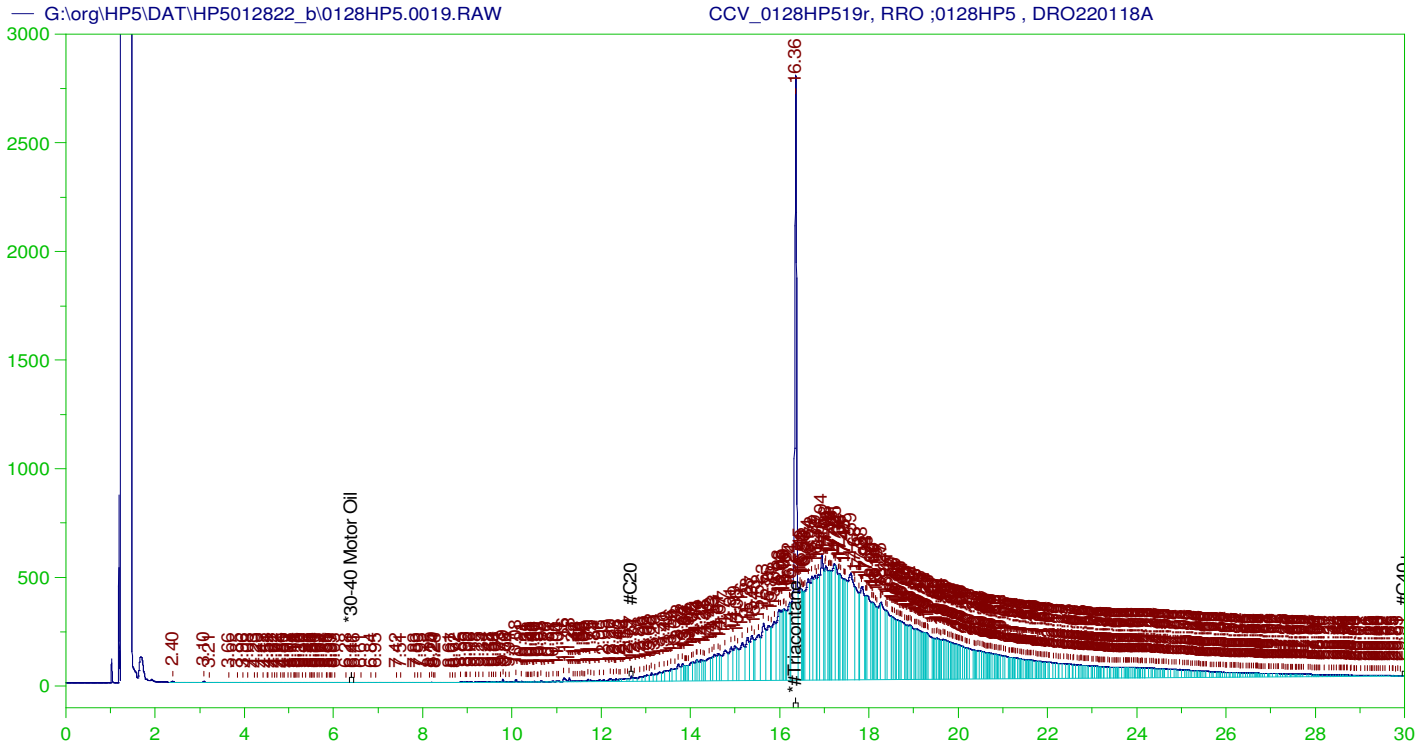
Sample Name: B22011592-006DMS-RRO ;0128HP5 ,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0017.RAW  
Date & Time Acquired: 1/28/2022 10:17:37 PM  
Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.35	.5	.098	19.61 -

RRO Area:3977044 RRO AMOUNT: 0.1505056





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0128HP519r, RRO ;0128HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0019.RAW  
 Date & Time Acquired: 1/28/2022 11:43:07 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111Bd.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.355	500.	338.281	67.66	-

RRO TEH(Oil Range) Area: 1.265534E+08 RRO TEH(Oil Range) AMOUNT: 4789.235

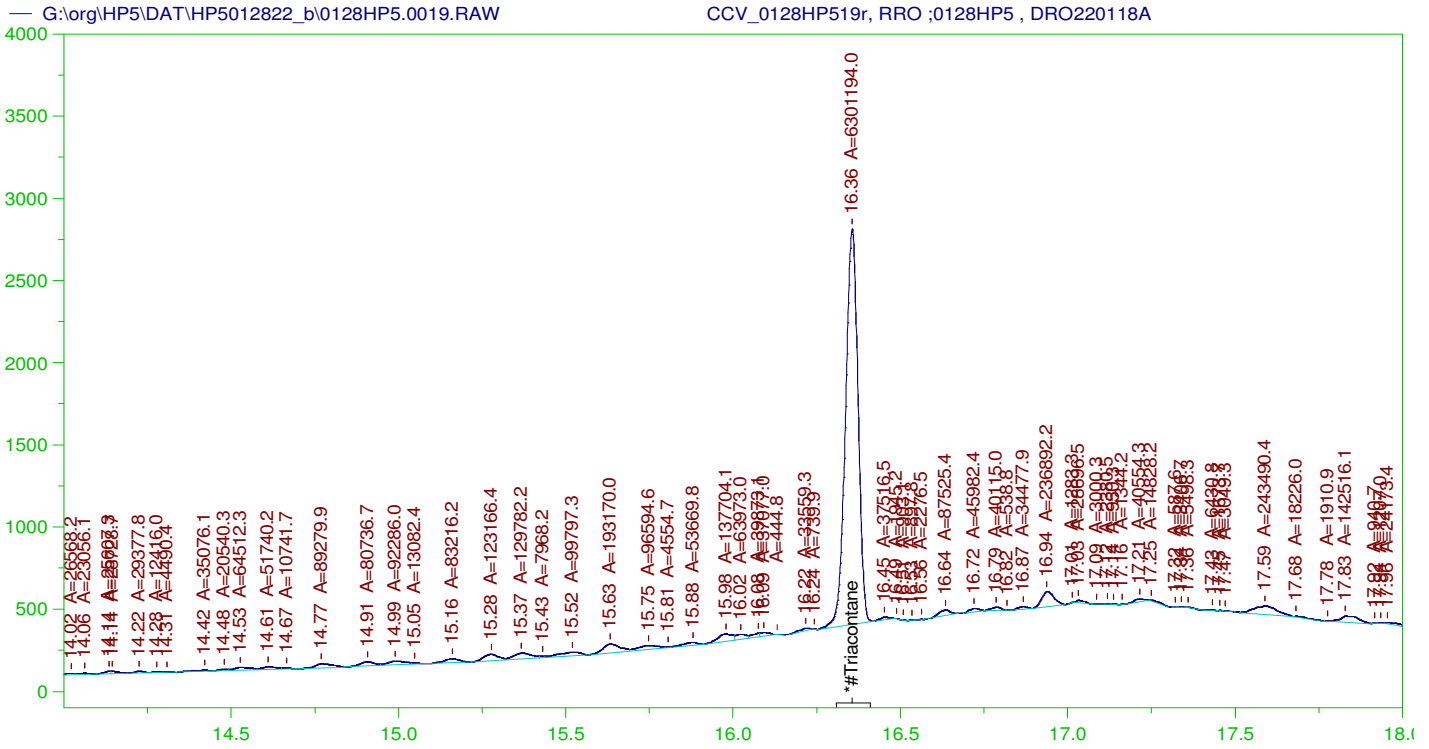
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0019.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.067	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.355	200.	338.281	169.14	75-125

amn 02/11/2022



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0128HP519r, RRO ;0128HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0019.RAW  
 Date & Time Acquired: 1/28/2022 11:43:07 PM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

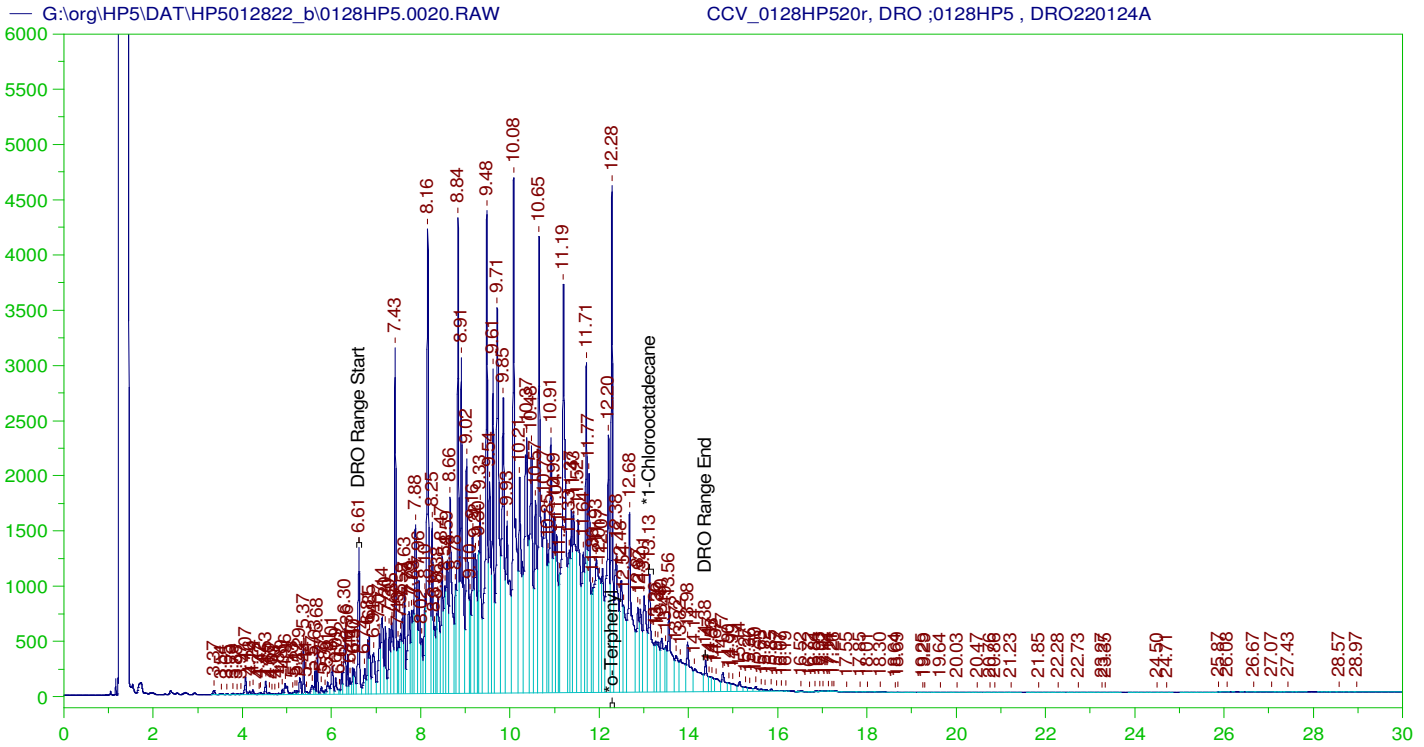
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.355	500.	212.619	42.52	-

RRO Area:3316736 RRO AMOUNT: 125.5172

**CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0019.RAW**

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.067	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.355	200.	212.619	106.31	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0128HP520r, DRO ;0128HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0020.RAW  
 Date & Time Acquired: 1/29/2022 12:25:55 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-C24-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.283	200.	310.963	155.48	-
*1-Chlorooctadecane	13.126	200.	147.274	73.64	-

DRO Area: 4.527669E+08 DRO Amount: 13856.52  
 TEH Area: 4.68774E+08 TEH Amount: 14346.41

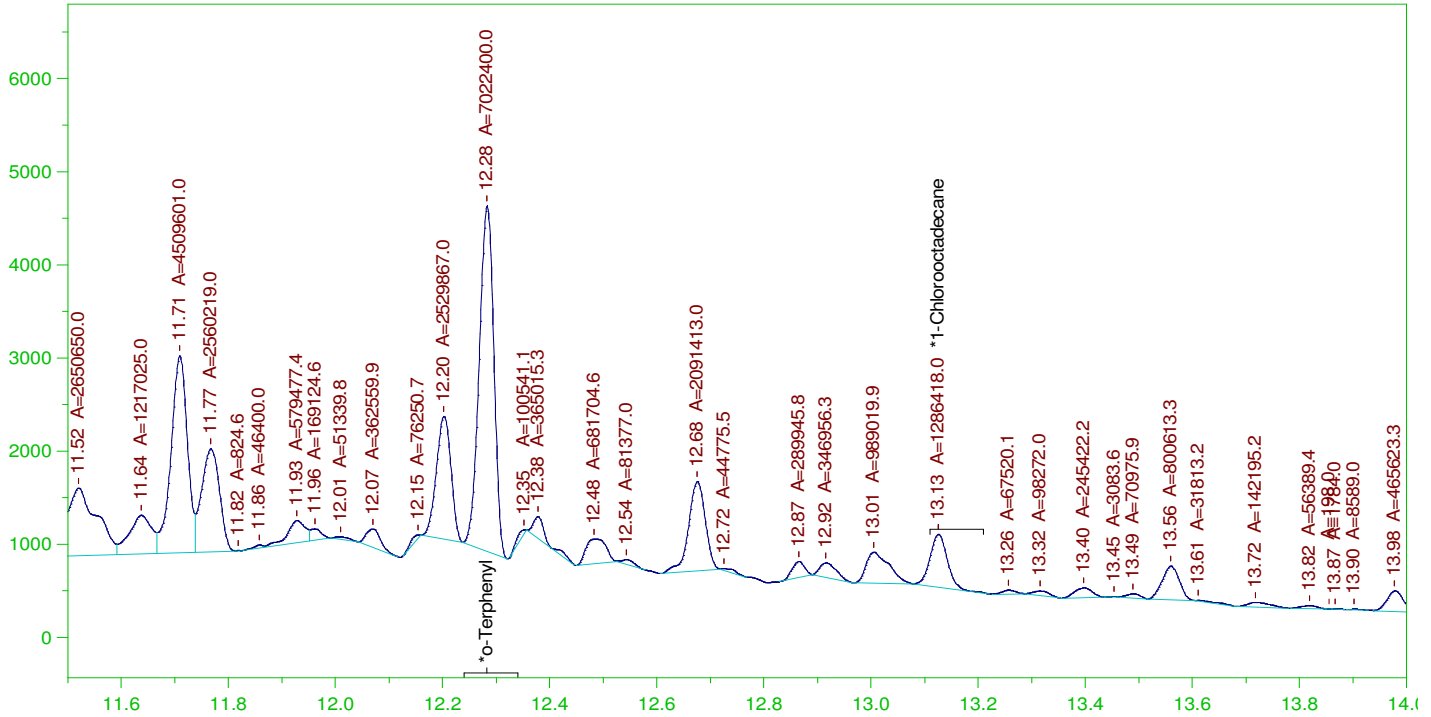
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14346.41	95.64	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.283	200.	310.963	155.48	85-115
*1-Chlorooctadecane	13.126	200.	147.274	73.64	85-115

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0020.RAW

CCV\_0128HP520r, DRO ;0128HP5 , DRO220124A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0128HP520r, DRO ;0128HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0020.RAW  
 Date & Time Acquired: 1/29/2022 12:25:55 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

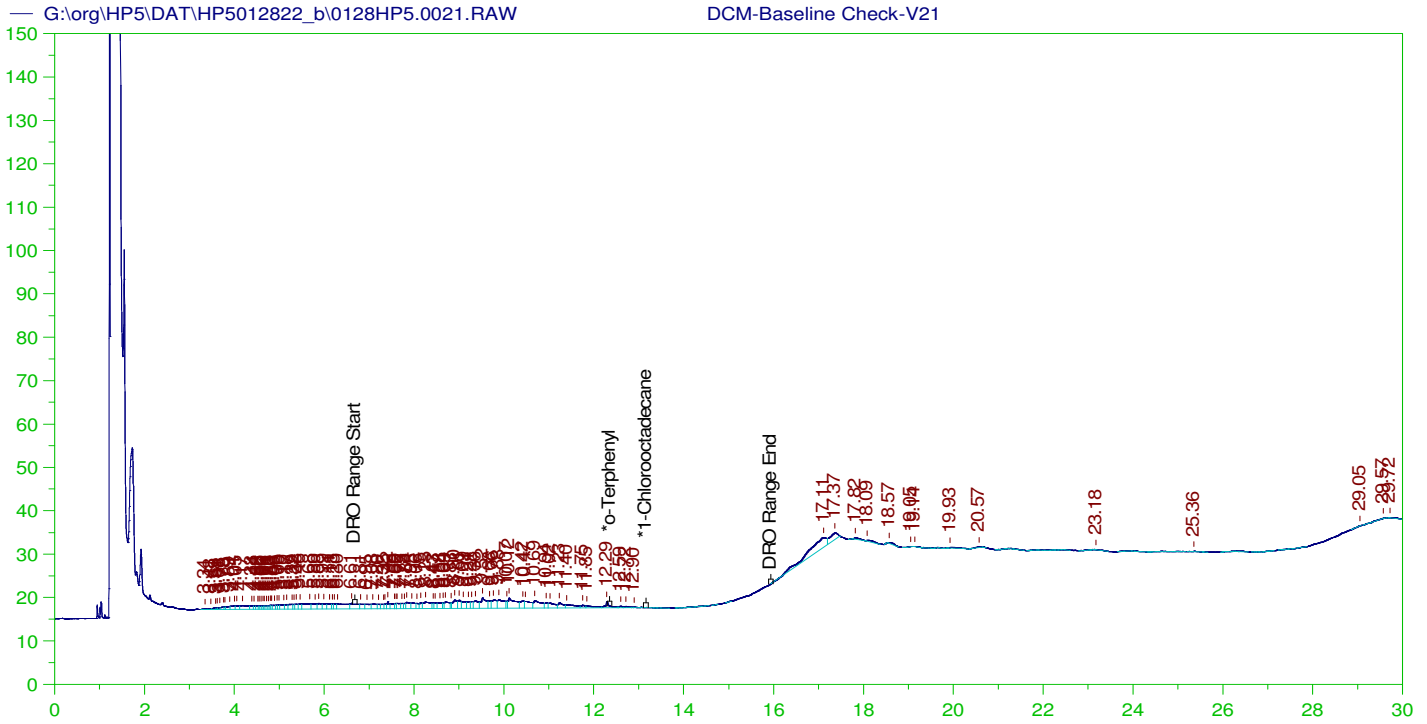
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.283	200.	190.527	95.26
*1-Chlorooctadecane	13.126	200.	34.902	17.45

DRO Area: 2.348319E+08 DRO Amount: 7186.82  
 TEH Area: 2.453418E+08 TEH Amount: 7508.465

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7508.47	50.06	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.283	200.	190.527	95.26	85-115
*1-Chlorooctadecane	13.126	200.	34.902	17.45	85-115



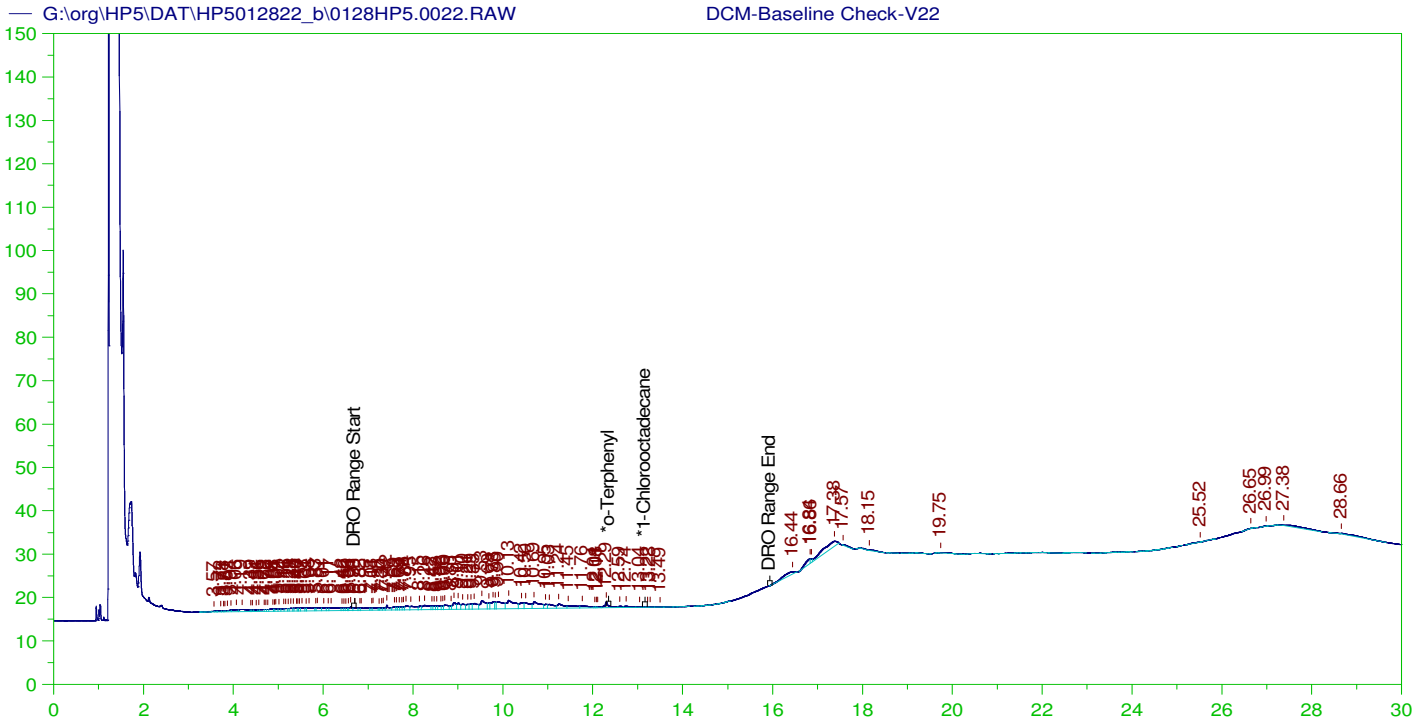
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V21  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0021.RAW  
 Date & Time Acquired: 1/29/2022 1:08:38 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.721	200.	.	-
*1-Chlorooctadecane	29.721	200.	.	-

DRO Area:411330.7 DRO Amount: 12.5884  
 TEH Area:717518.4 TEH Amount: 21.95901



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V22  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0022.RAW  
 Date & Time Acquired: 1/29/2022 1:51:25 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	28.665	200.	.	-
*1-Chlorooctadecane	28.665	200.	.	-

DRO Area:319885.8 DRO Amount: 9.789817  
 TEH Area:512712.5 TEH Amount: 15.6911

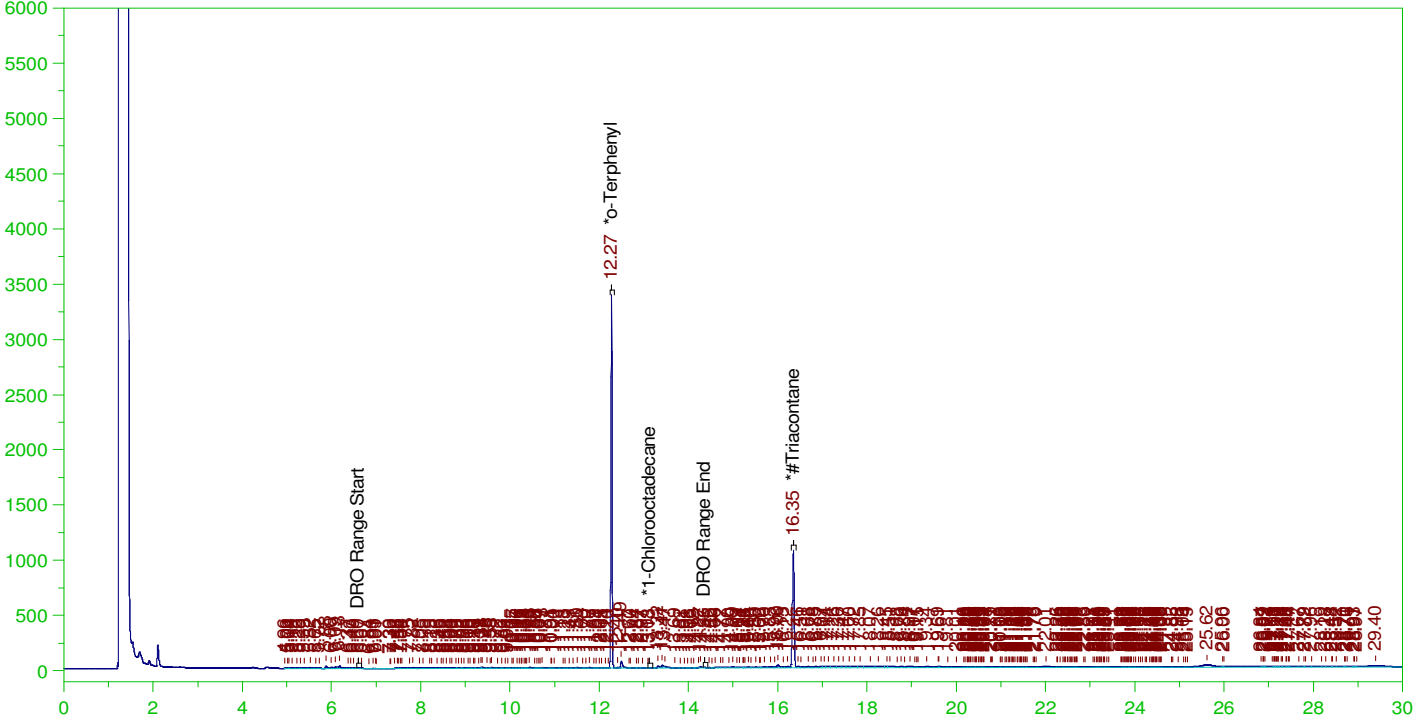


ERH2478 (RHMW19)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0023.RAW

B22011717-001D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011717-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0023.RAW  
Date & Time Acquired: 1/29/2022 2:34:13 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.274	.208	.181	86.79	-
*1-Chlorooctadecane	13.125	.208	.	.04	-
*#Triacontane	16.346	.208	.1	47.85	-

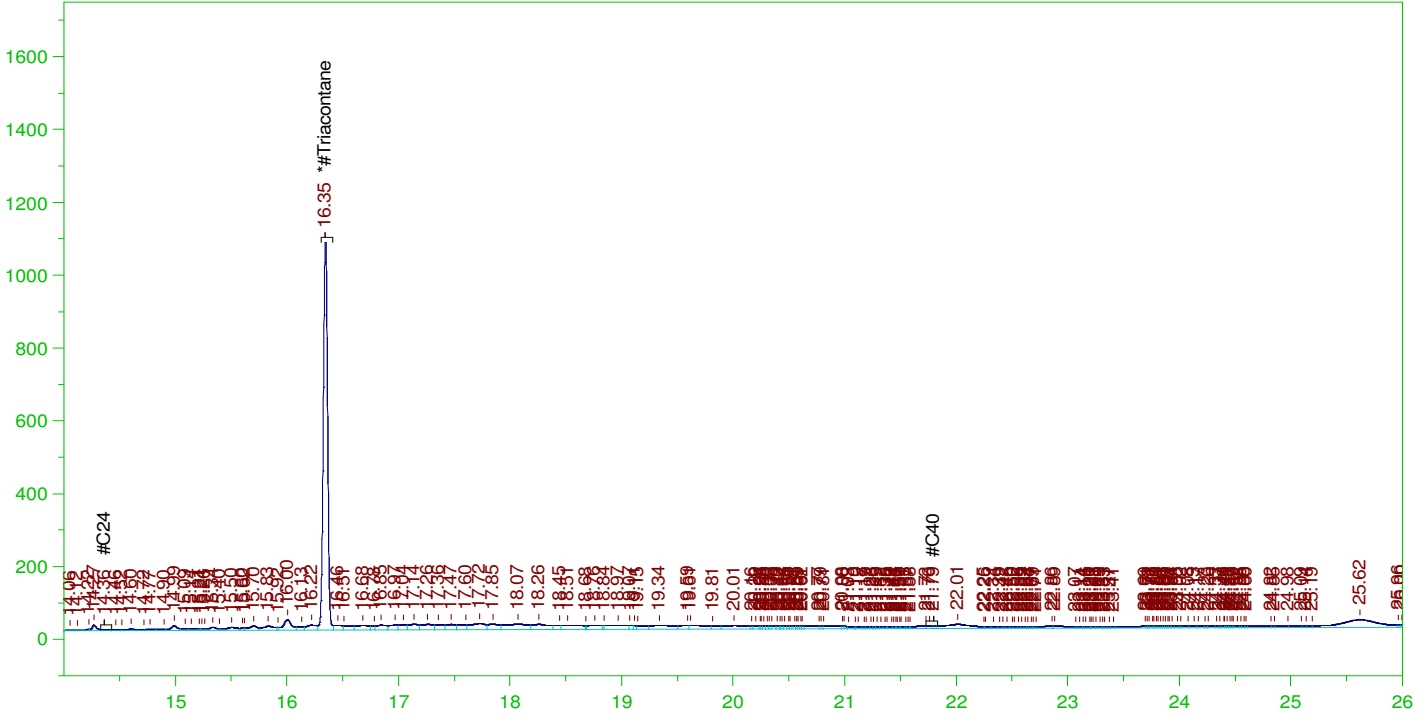
DRO Area:1337563 DRO Amount: 4.264052E-02  
TEH Area:9378989 TEH Amount: 0.2989953

ERH2478 (RHMW19)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0023.RAW

B22011717-001D ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011717-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0023.RAW  
Date & Time Acquired: 1/29/2022 2:34:13 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*Triacontane_____	16.346	.521	.1	19.14

RRO Area:4325242 RRO AMOUNT: 0.1705028

ERH2478 (RHMW19)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0023.RAW

B22011717-001D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

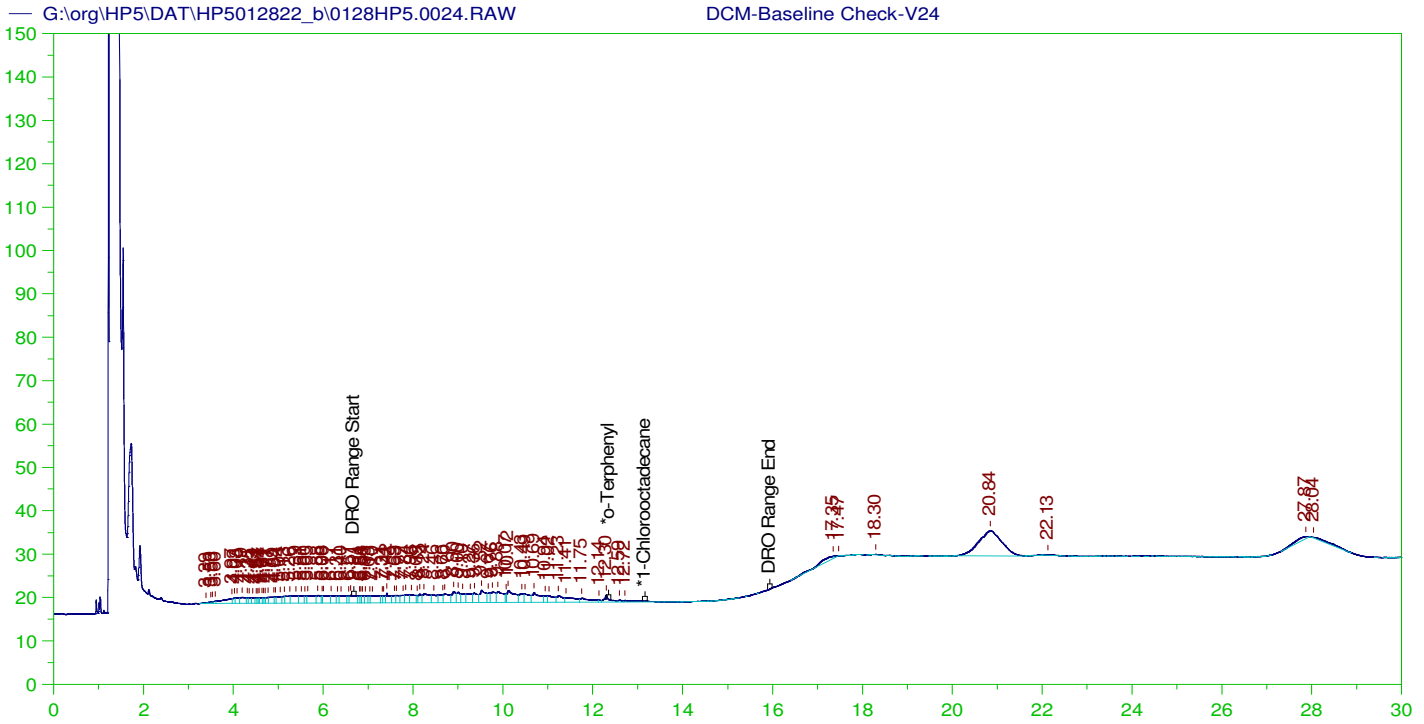
Sample Name: B22011717-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0023.RAW  
Date & Time Acquired: 1/29/2022 2:34:13 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.274	.208	.18	86.55	-
*1-Chlorooctadecane	13.125	.208	.	.02	-
*#Triacontane	16.346	.208	.096	46.07	-

DRO Area:721642.2 DRO Amount: 2.300543E-02  
TEH Area:2175699 TEH Amount: 6.935968E-02



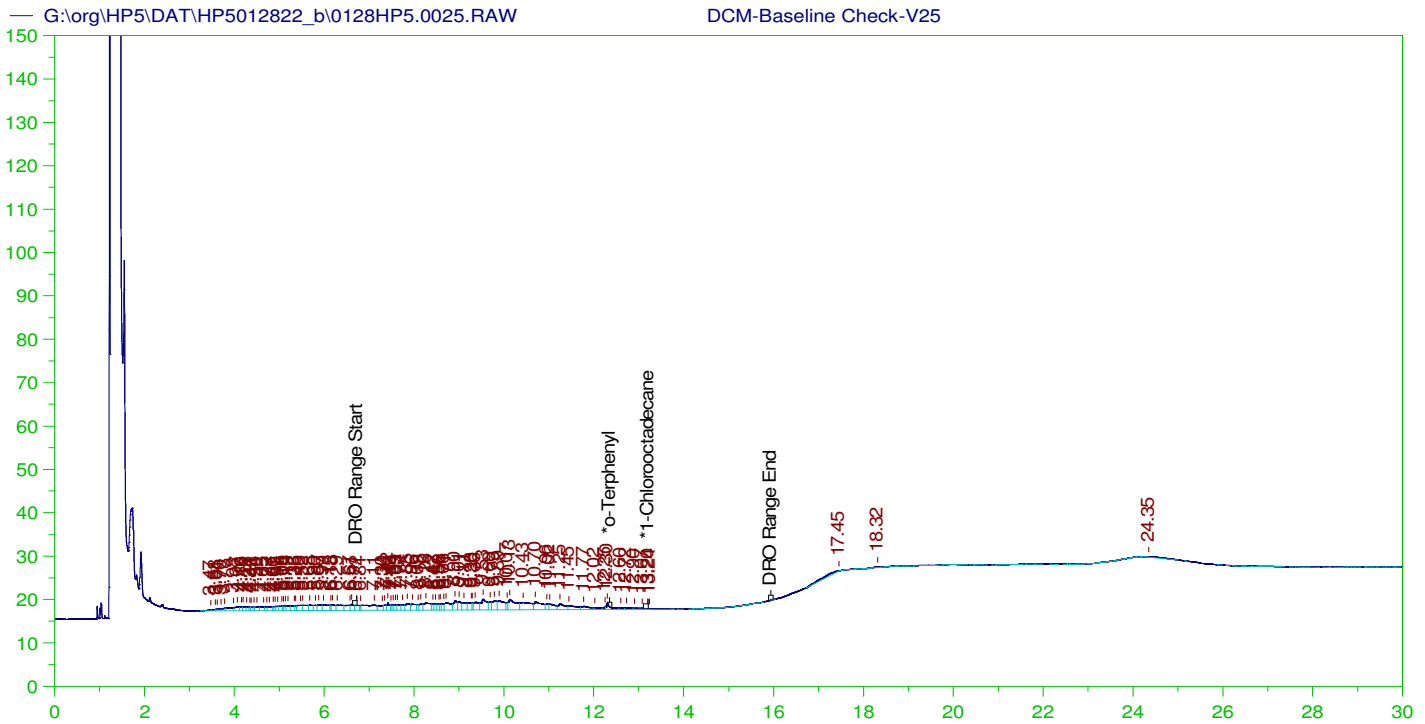
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V24  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0024.RAW  
 Date & Time Acquired: 1/29/2022 3:16:57 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

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

DRO Area: 573973.2 DRO Amount: 17.56593  
 TEH Area: 1116116 TEH Amount: 34.15773



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V25  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0025.RAW  
 Date & Time Acquired: 1/29/2022 3:59:40 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.91	200.	.	-
*1-Chlorooctadecane	13.205	200.	.023	.01

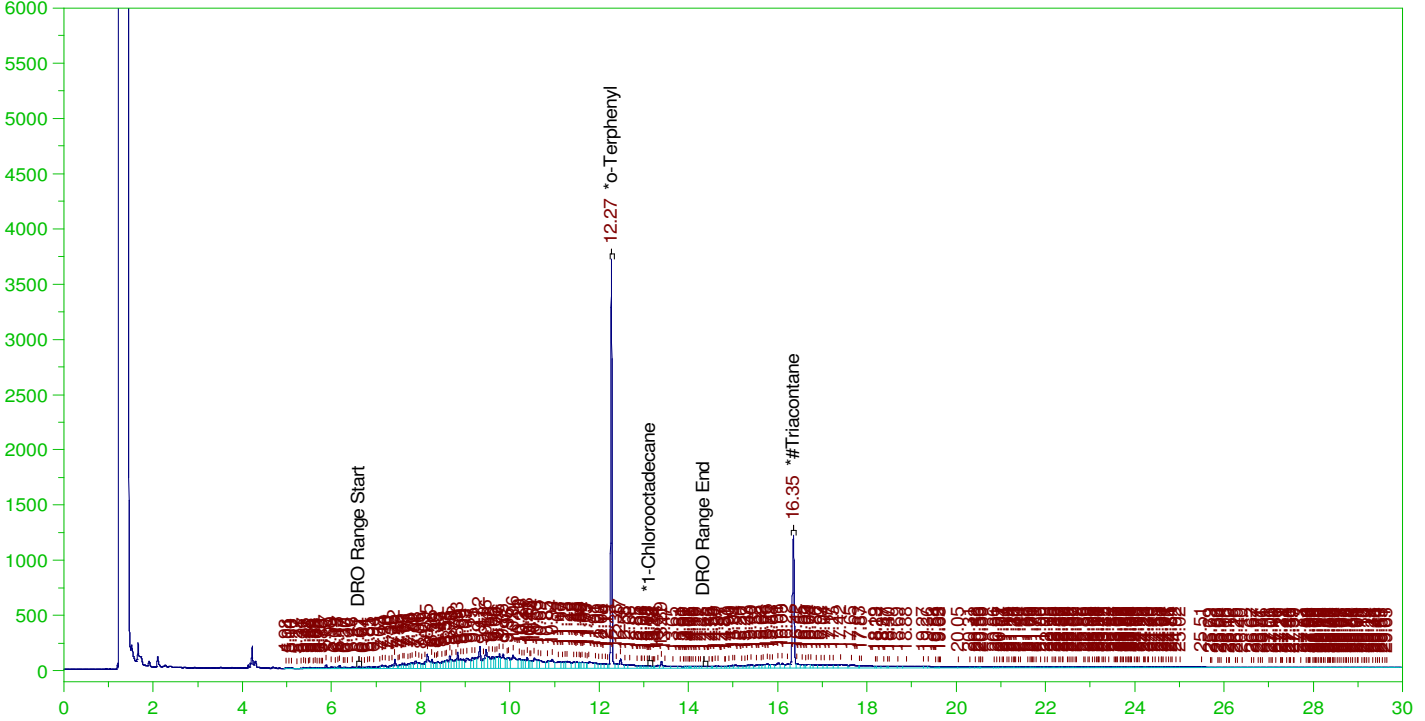
DRO Area:470091 DRO Amount: 14.38671  
 TEH Area:683648.4 TEH Amount: 20.92245

ERH2493 (Sump Adit3)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0026.RAW

B22011592-017D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-017D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0026.RAW  
Date & Time Acquired: 1/29/2022 4:42:27 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-012826-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.272	.19	.188	98.84	-
*1-Chlorooctadecane	13.125	.19	.003	1.31	-
*#Triacontane	16.345	.19	.106	55.42	-

DRO Area:2.309188E+07 DRO Amount: 0.6730536

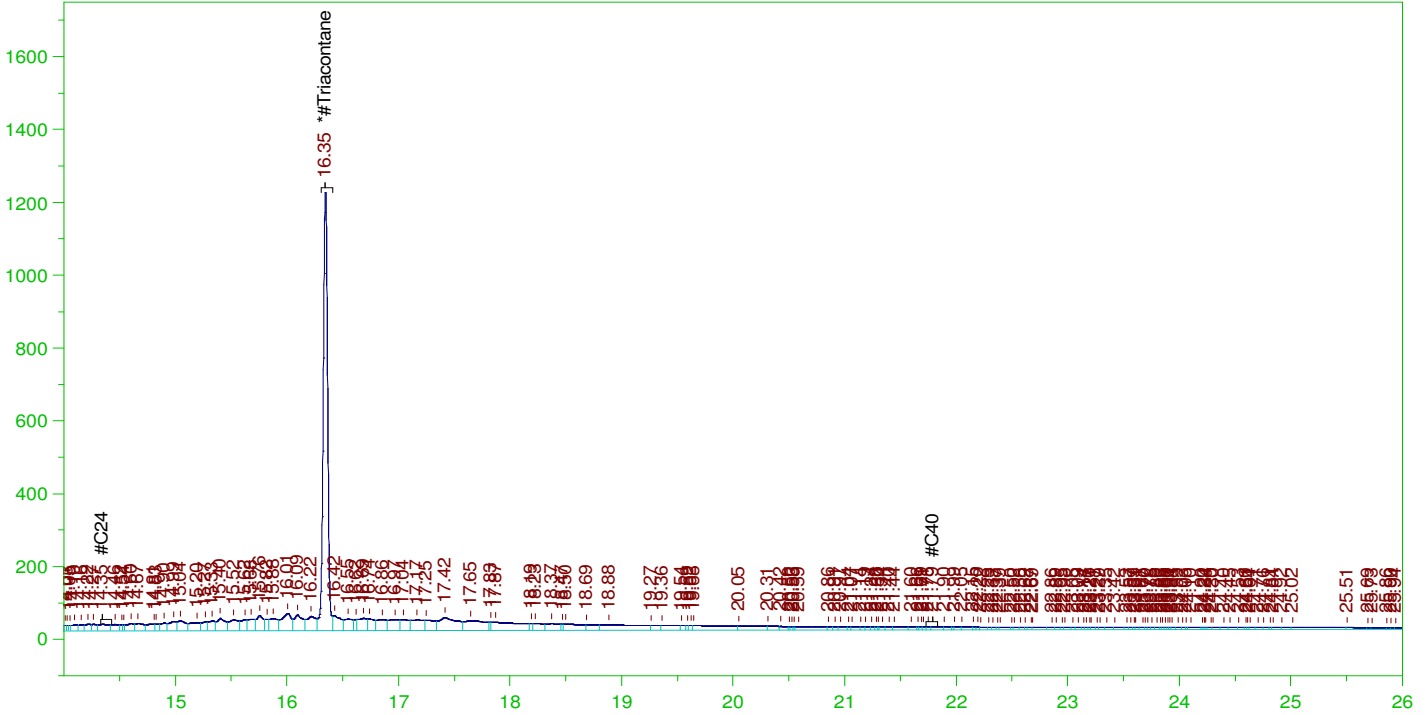
TEH Area:3.334713E+07 TEH Amount: 0.971961

ERH2493 (Sump Adit3)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0026.RAW

B22011592-017D ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-017D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0026.RAW  
Date & Time Acquired: 1/29/2022 4:42:27 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-012826-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.345	.476	.106	22.17

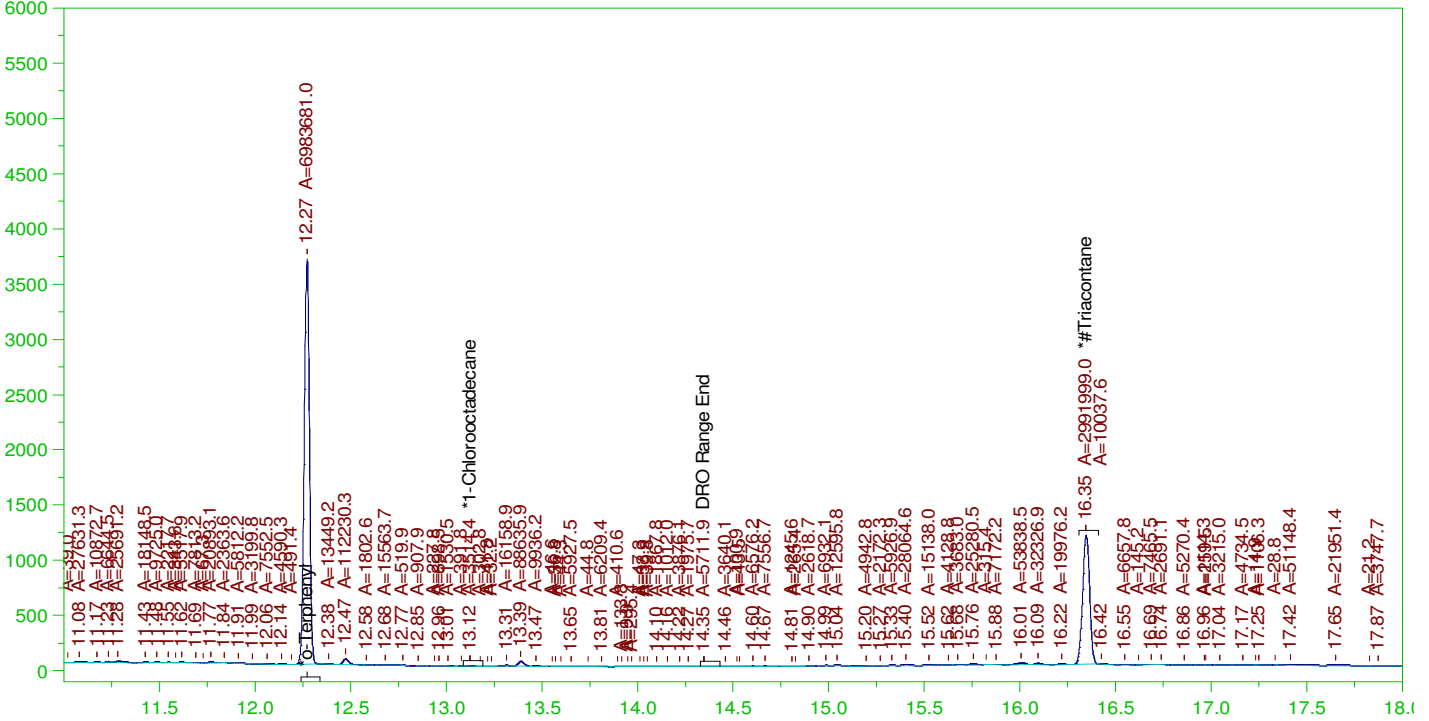
RRO Area:8192740 RRO AMOUNT: 0.2952788

ERH2493 (Sump Adit3)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0026.RAW

B22011592-017D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-017D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0026.RAW  
Date & Time Acquired: 1/29/2022 4:42:27 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.272	.19	.18	94.74
*1-Chlorooctadecane	13.125	.19	.	.05
*#Triacontane	16.345	.19	.096	50.48

DRO Area: 7607669 DRO Amount: 0.2217389  
TEH Area: 9206389 TEH Amount: 0.2683364

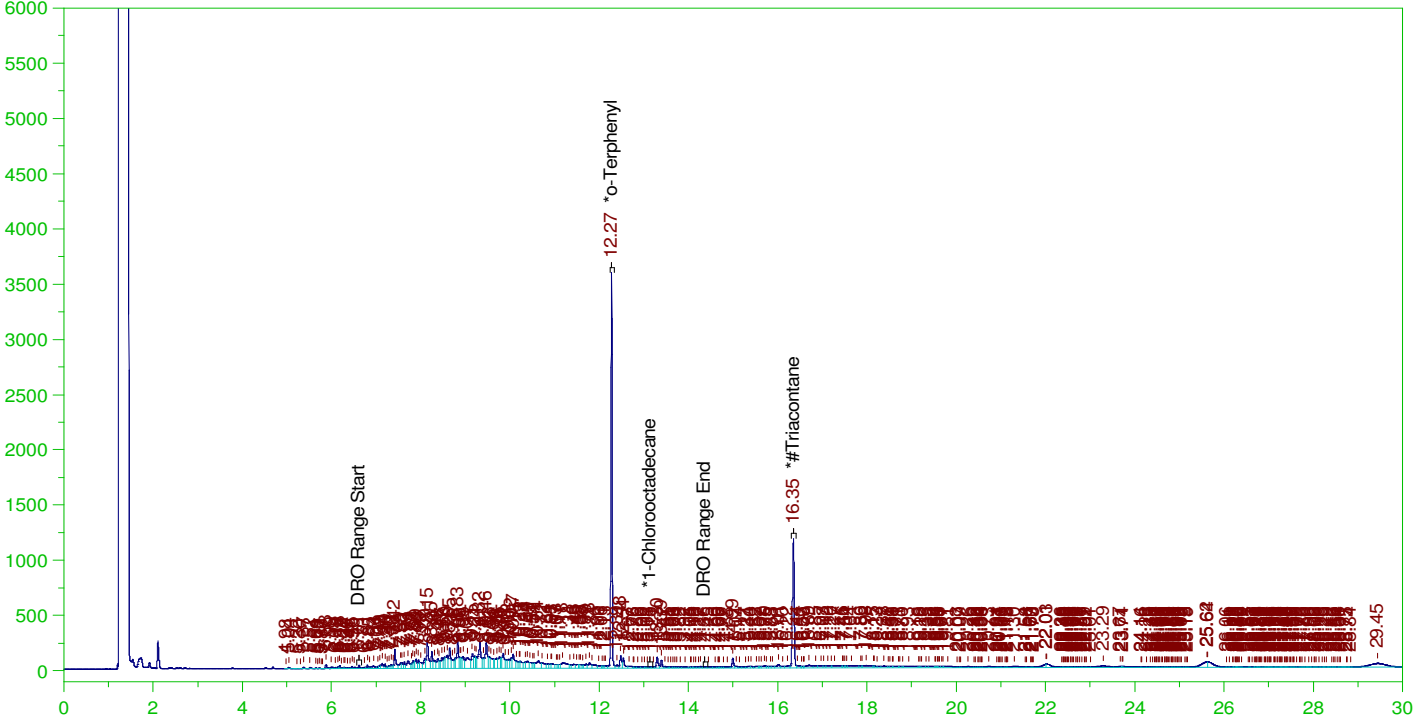


ERH2486 (RHMW254-01 Bailer)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0027.RAW

B22011592-027D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-027D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0027.RAW  
Date & Time Acquired: 1/29/2022 5:25:07 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.2	.191	95.51	-
*1-Chlorooctadecane	13.129	.2	.001	.63	-
*#Triacontane	16.346	.2	.105	52.29	-

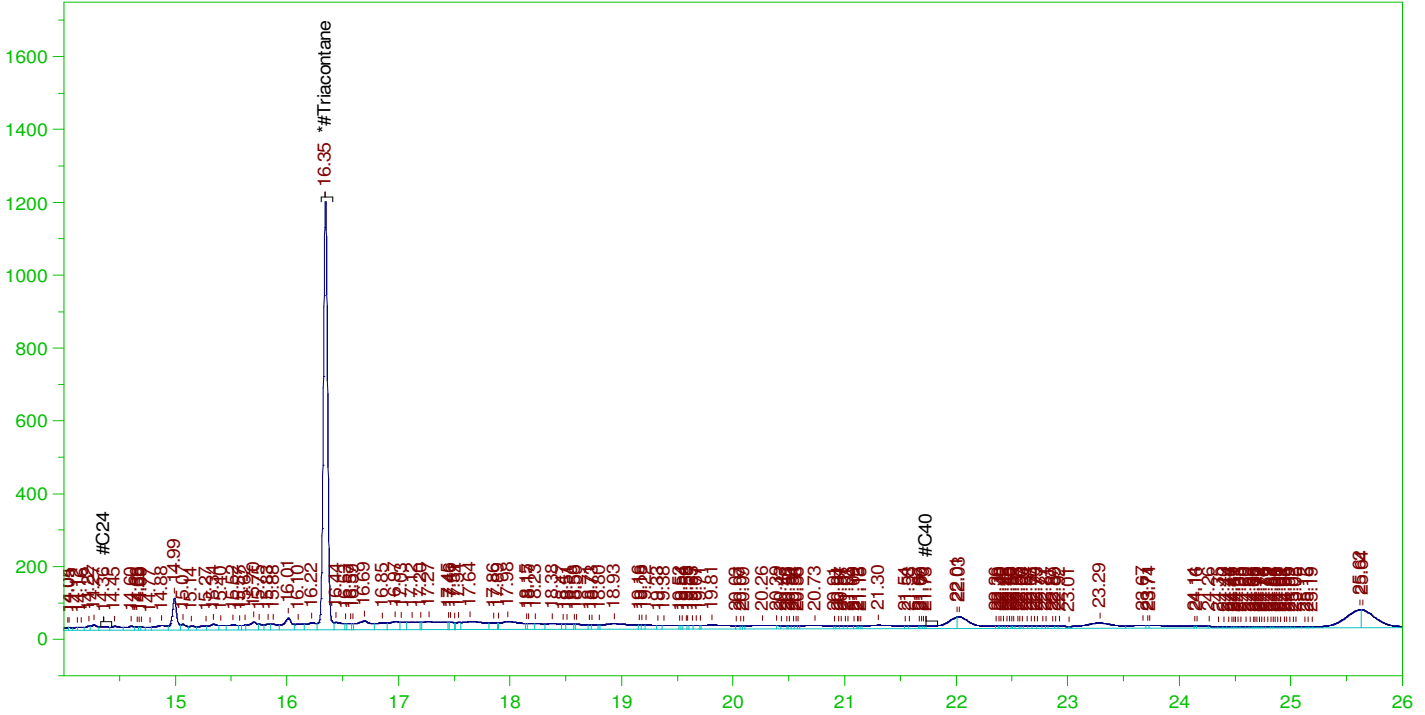
DRO Area:2.257064E+07 DRO Amount: 0.6907541  
TEH Area:3.216349E+07 TEH Amount: 0.9843346

ERH2486 (RHMW254-01 Bailer)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0027.RAW

B22011592-027D ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-027D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0027.RAW  
Date & Time Acquired: 1/29/2022 5:25:07 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.346	.5	.105	20.92

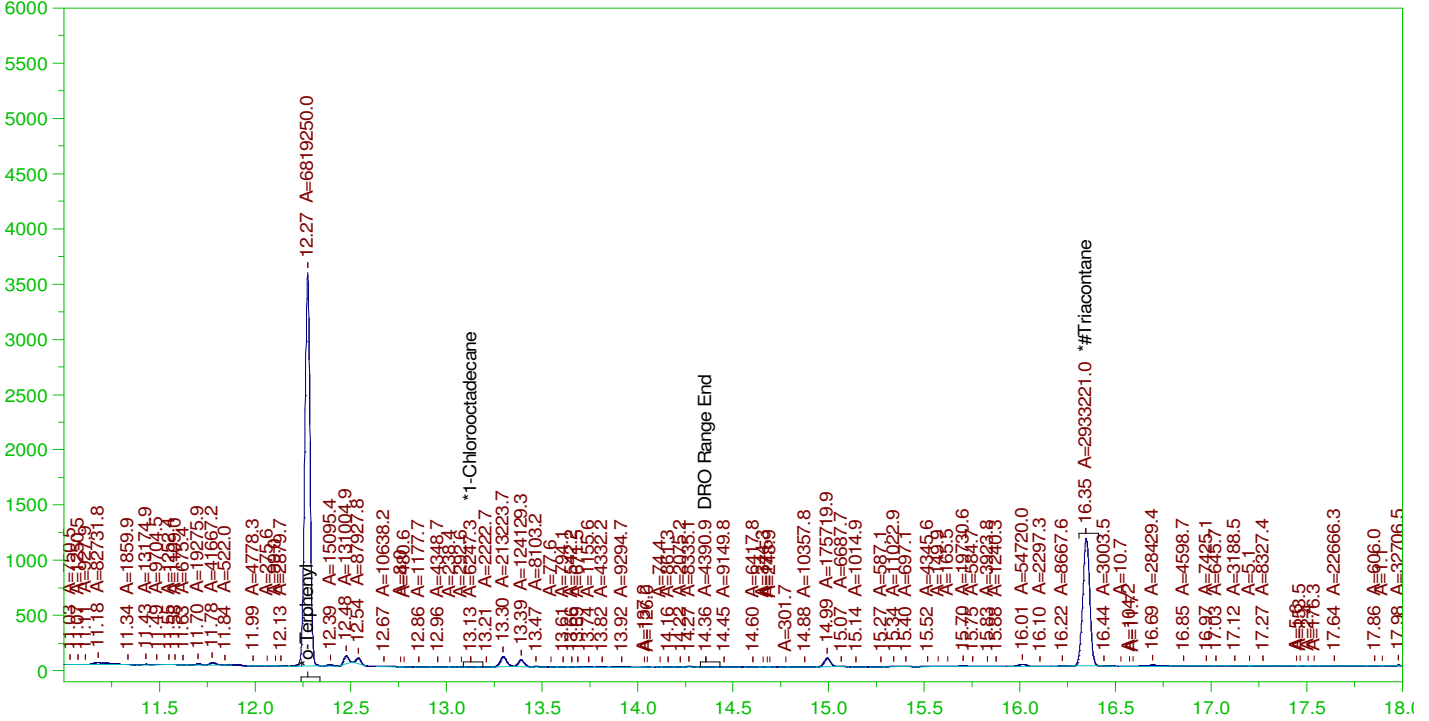
RRO Area:5821687 RRO AMOUNT: 0.2203135

ERH2486 (RHMW254-01 Bailer)

Batch ID: 163307

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0027.RAW

B22011592-027D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

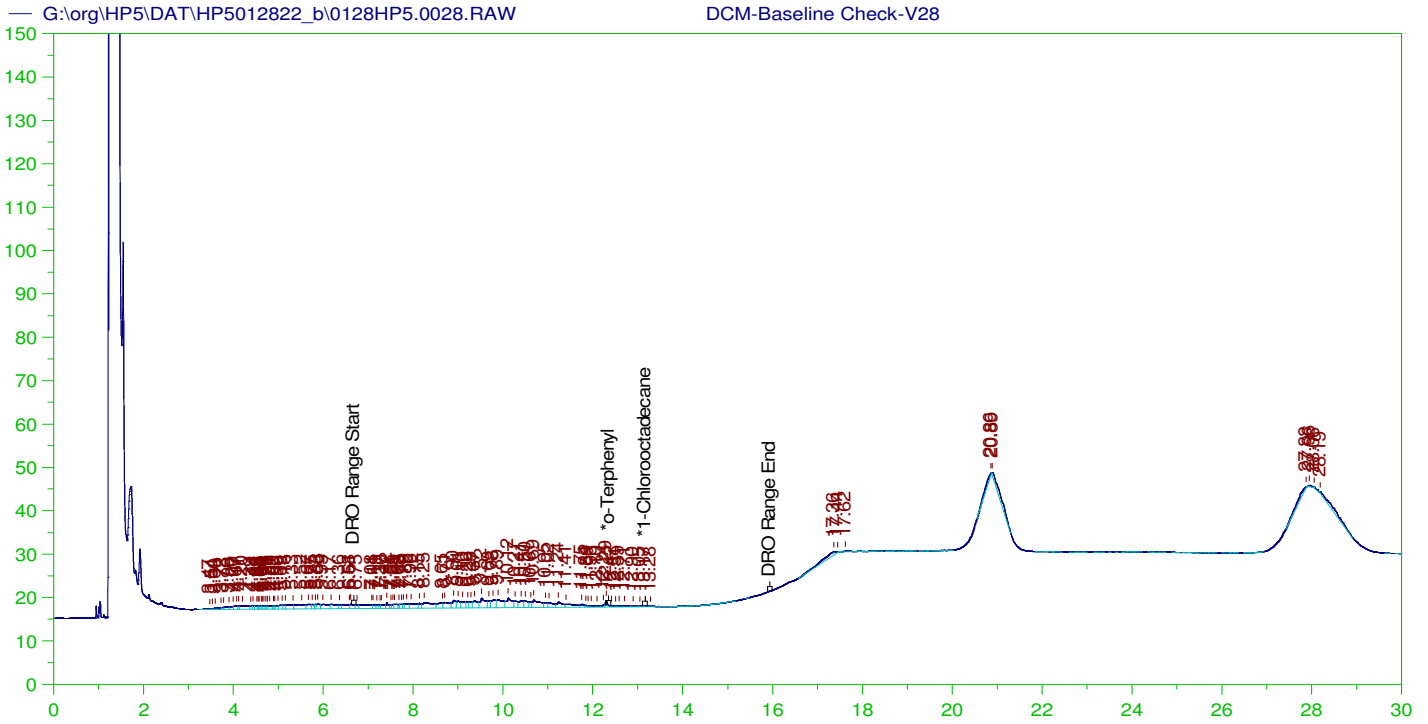
Sample Name: B22011592-027D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0027.RAW  
Date & Time Acquired: 1/29/2022 5:25:07 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111Jd-C24-T.CAL  
Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.275	.2	.185	92.51
*1-Chlorooctadecane	13.129	.2	.08	-
*#Triacontane	16.346	.2	.099	49.49

DRO Area:1.256774E+07 DRO Amount: 0.3846242  
TEH Area:1.462733E+07 TEH Amount: 0.4476562



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V28  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0028.RAW  
 Date & Time Acquired: 1/29/2022 6:07:53 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.969	200.	.	-
*1-Chlorooctadecane	13.165	200.	.022	.01

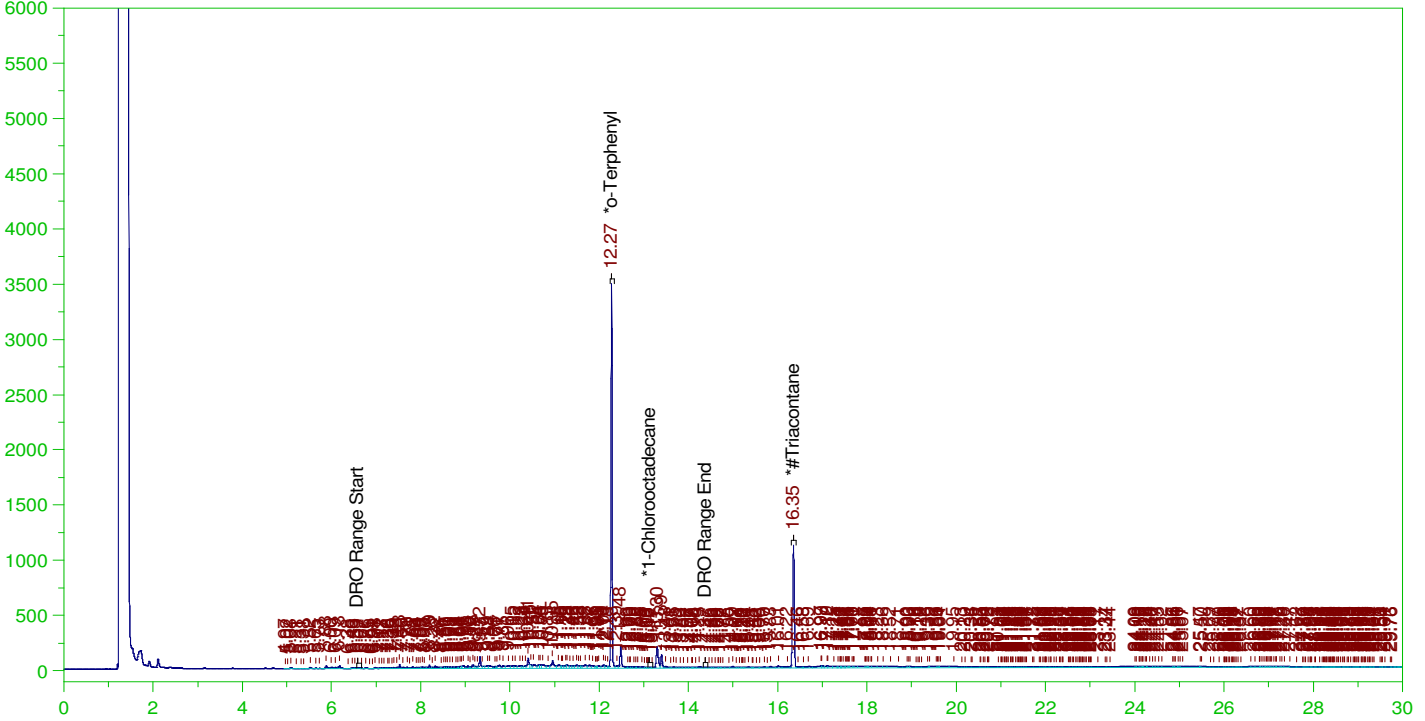
DRO Area:380973.7 DRO Amount: 11.65936  
 TEH Area:646956.8 TEH Amount: 19.79953

ERH2234 (RHMW01R)

Batch ID: 162502

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0029.RAW

B21121961-001D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121961-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0029.RAW  
Date & Time Acquired: 1/29/2022 6:50:36 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.196	.178	90.89	-
*1-Chlorooctadecane	13.12	.196	.001	.36	-
*#Triacontane	16.348	.196	.097	49.28	-

DRO Area:8177649 DRO Amount: 0.2453623

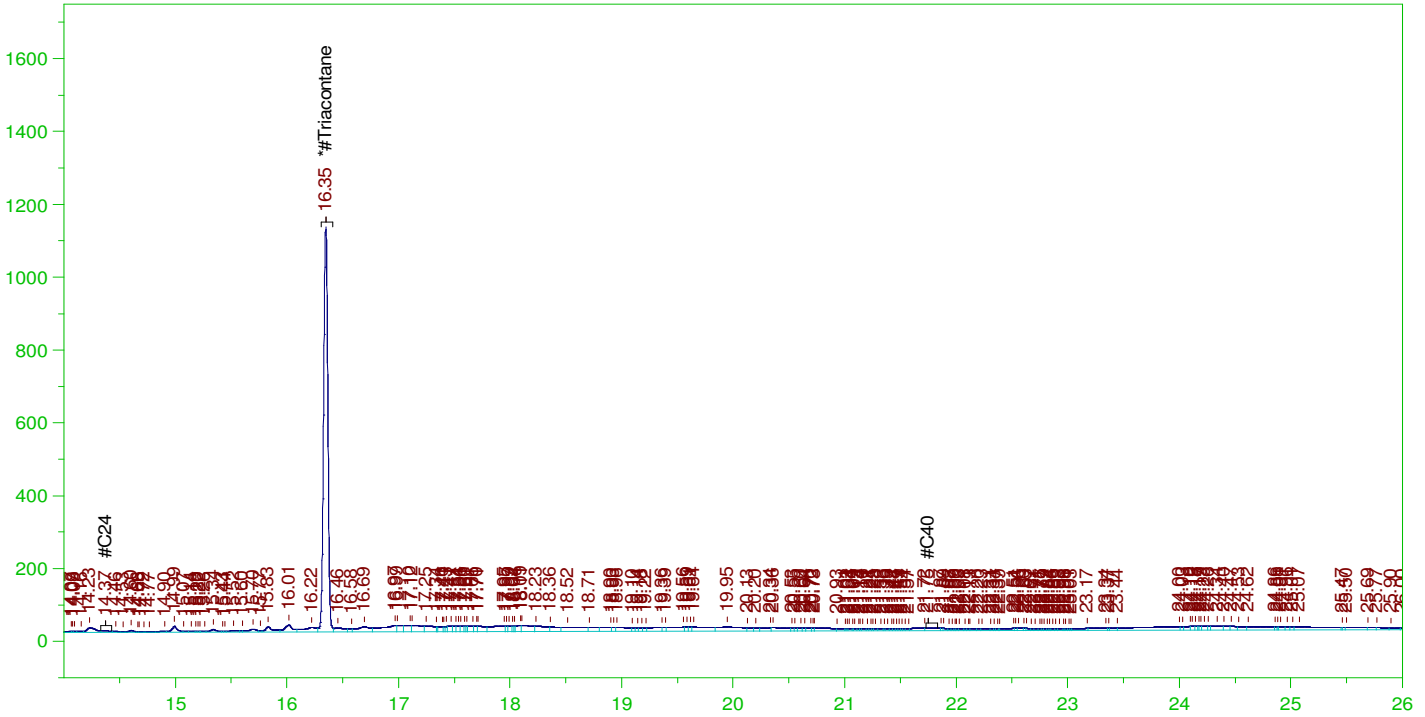
TEH Area:1.511738E+07 TEH Amount: 0.453582

ERH2234 (RHMW01R)

Batch ID: 162502

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0029.RAW

B21121961-001D ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121961-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0029.RAW  
Date & Time Acquired: 1/29/2022 6:50:36 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.348	.49	.097	19.71

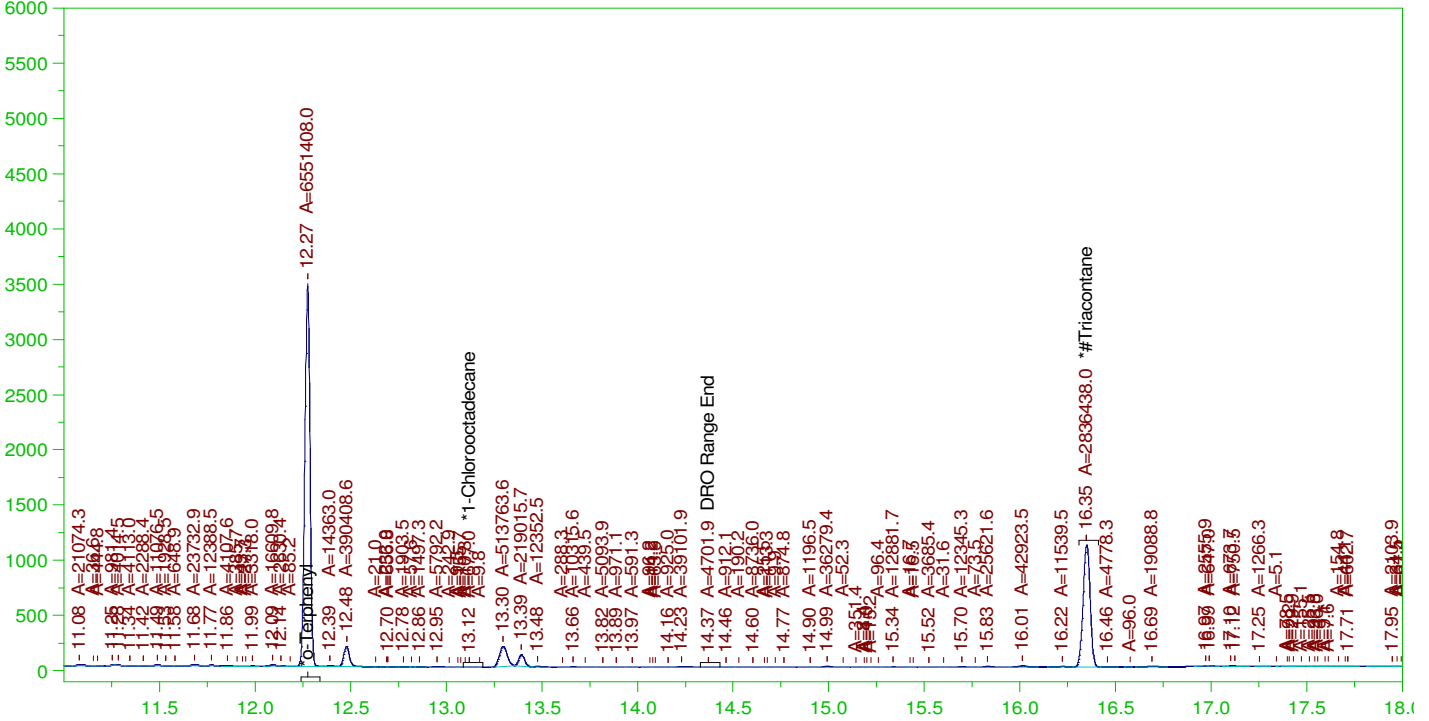
RRO Area:4082230 RRO AMOUNT: 0.1514571

ERH2234 (RHMW01R)

Batch ID: 162502

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0029.RAW

B21121961-001D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121961-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0029.RAW  
Date & Time Acquired: 1/29/2022 6:50:36 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111Jd-C24-T.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.275	.196	.174	88.87	-
*1-Chlorooctadecane	13.12	.196	.	.01	-
*#Triacontane	16.348	.196	.094	47.85	-

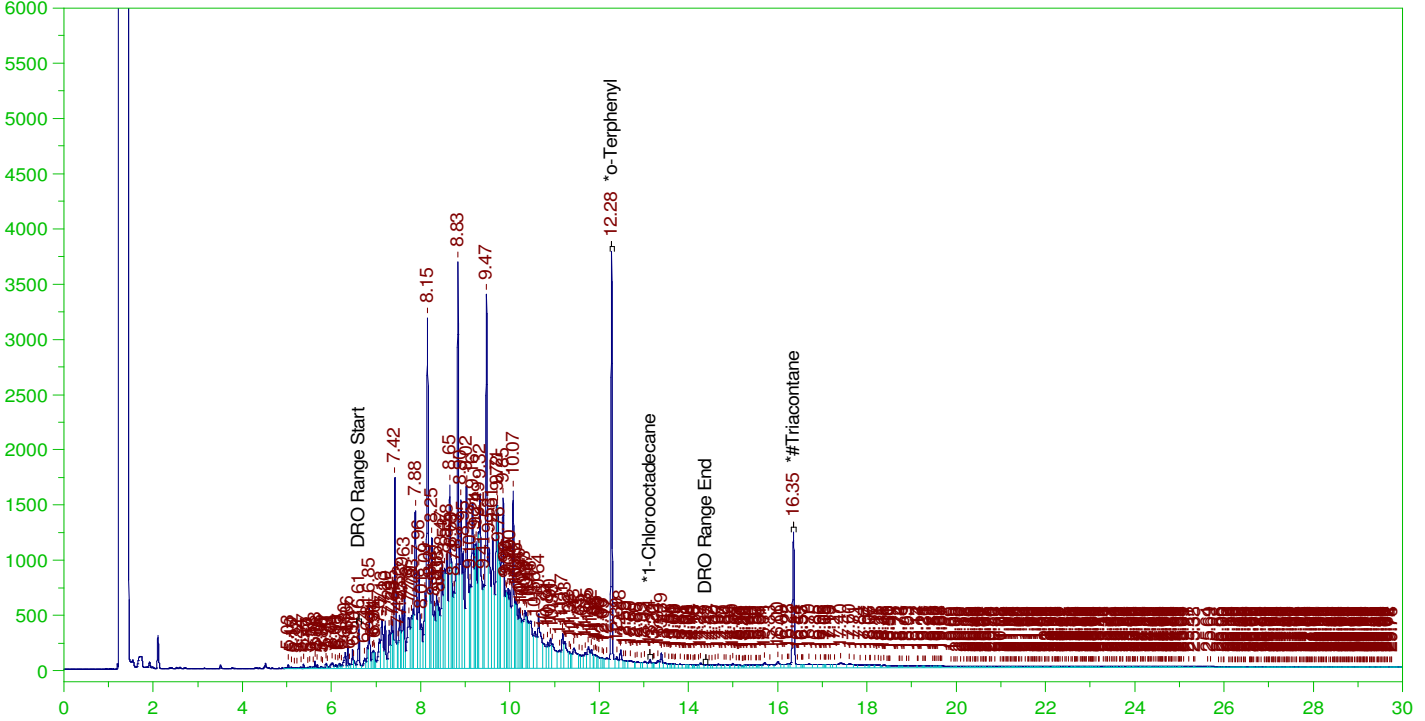
DRO Area:2949595 DRO Amount: 0.0884997  
TEH Area:3609555 TEH Amount: 0.1083012

ERH2269 (Sump Adit3 Loc-1)

Batch ID: 162502

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0030.RAW

B21121967-001D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121967-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0030.RAW  
Date & Time Acquired: 1/29/2022 7:33:05 AM  
Method File: G:\Org\HP5\Methods\D3\_8015-C24T-JD-L%.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.276	.196	.202	103.04	-
*1-Chlorooctadecane	13.139	.196	.01	4.93	-
*#Triacontane	16.348	.196	.11	56.26	-

DRO Area:1.84513E+08 DRO Amount: 5.536131  
TEH Area:1.985812E+08 TEH Amount: 5.958234

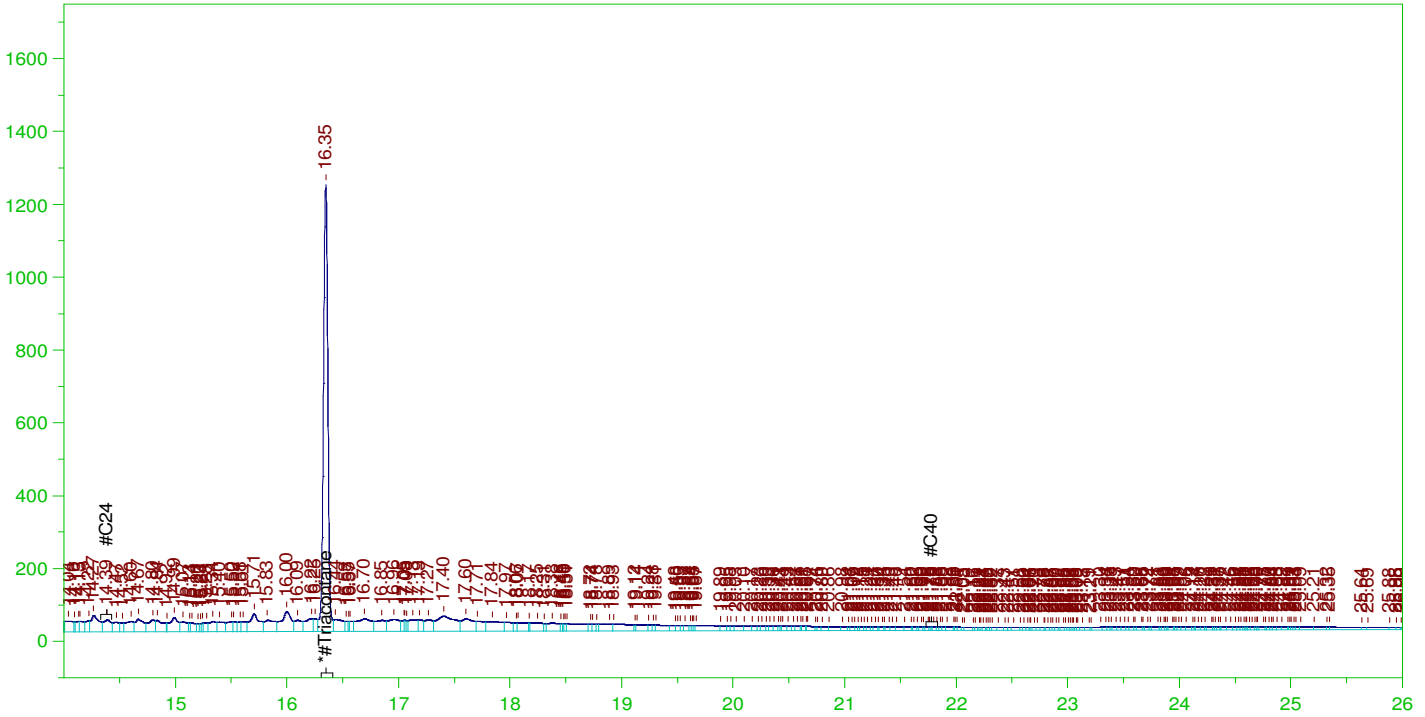


ERH2269 (Sump Adit3 Loc-1)

Batch ID: 162502

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0030.RAW

B21121967-001D ;0128HP5 , \$HC-8015-DRO-W,



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121967-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0030.RAW  
Date & Time Acquired: 1/29/2022 7:33:05 AM  
Method File: G:\Org\HP5\Methods\D3\_OROS-BD-L%.MET  
Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD\_SAMP.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
Rt range for Residual Range Organics: 14.33 to 21.83

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.348	.49	.11	22.5 -

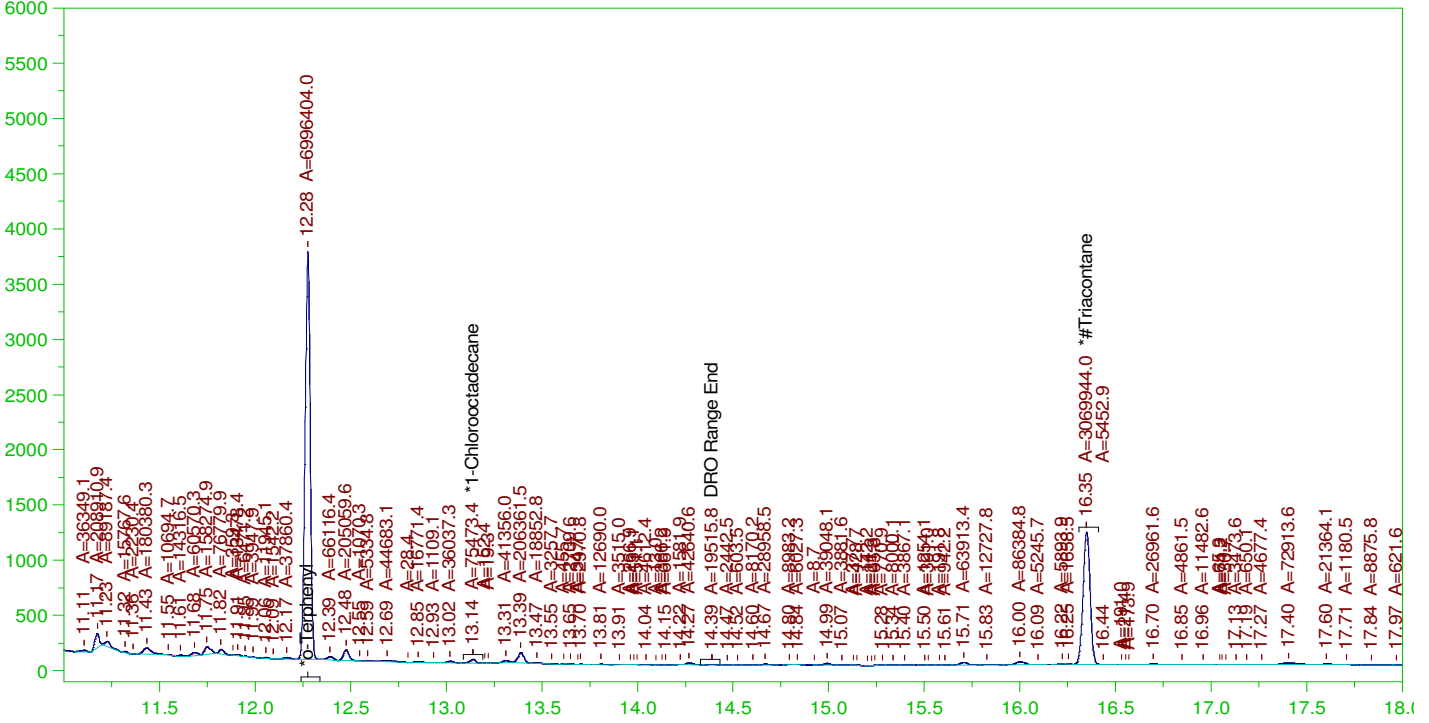
RRO Area:9348668 RRO AMOUNT: 0.3468502

ERH2269 (Sump Adit3 Loc-1)

Batch ID: 162502

G:\org\HP5\DAT\HP5012822\_b\0128HP5.0030.RAW

B21121967-001D ;0128HP5 , \$HC-8015-DRO-W,



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121967-001D ;0128HP5 , \$HC-8015-DRO-W,  
Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0030.RAW  
Date & Time Acquired: 1/29/2022 7:33:05 AM  
Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111Jd-C24-T.CAL  
Sample Weight: 1020 Dilution: 1 S.A.: 1

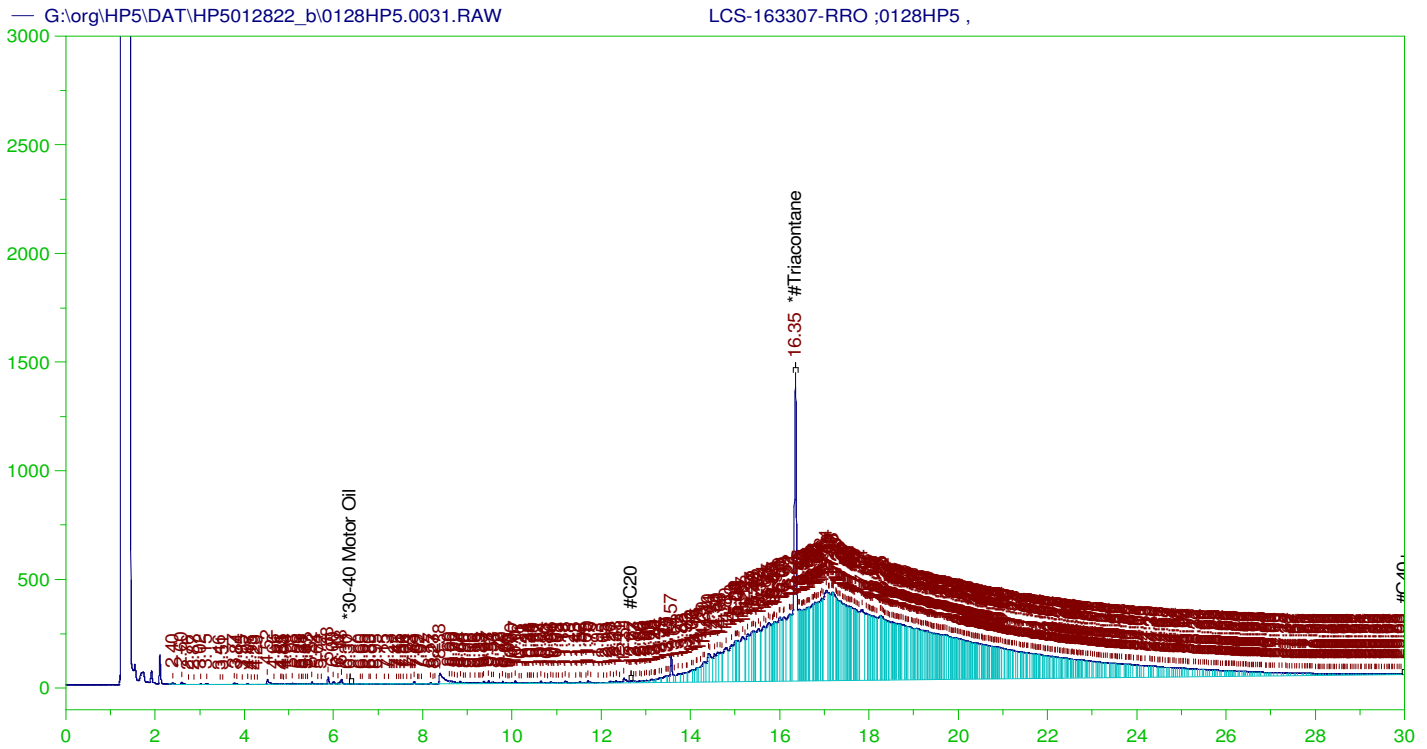
Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.276	.196	.186	94.91	-
*1-Chlorooctadecane	13.139	.196	.002	1.02	-
*#Triacontane	16.348	.196	.102	51.79	-

DRO Area:1.377121E+08 DRO Amount: 4.131917

TEH Area:1.405836E+08 TEH Amount: 4.218074



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

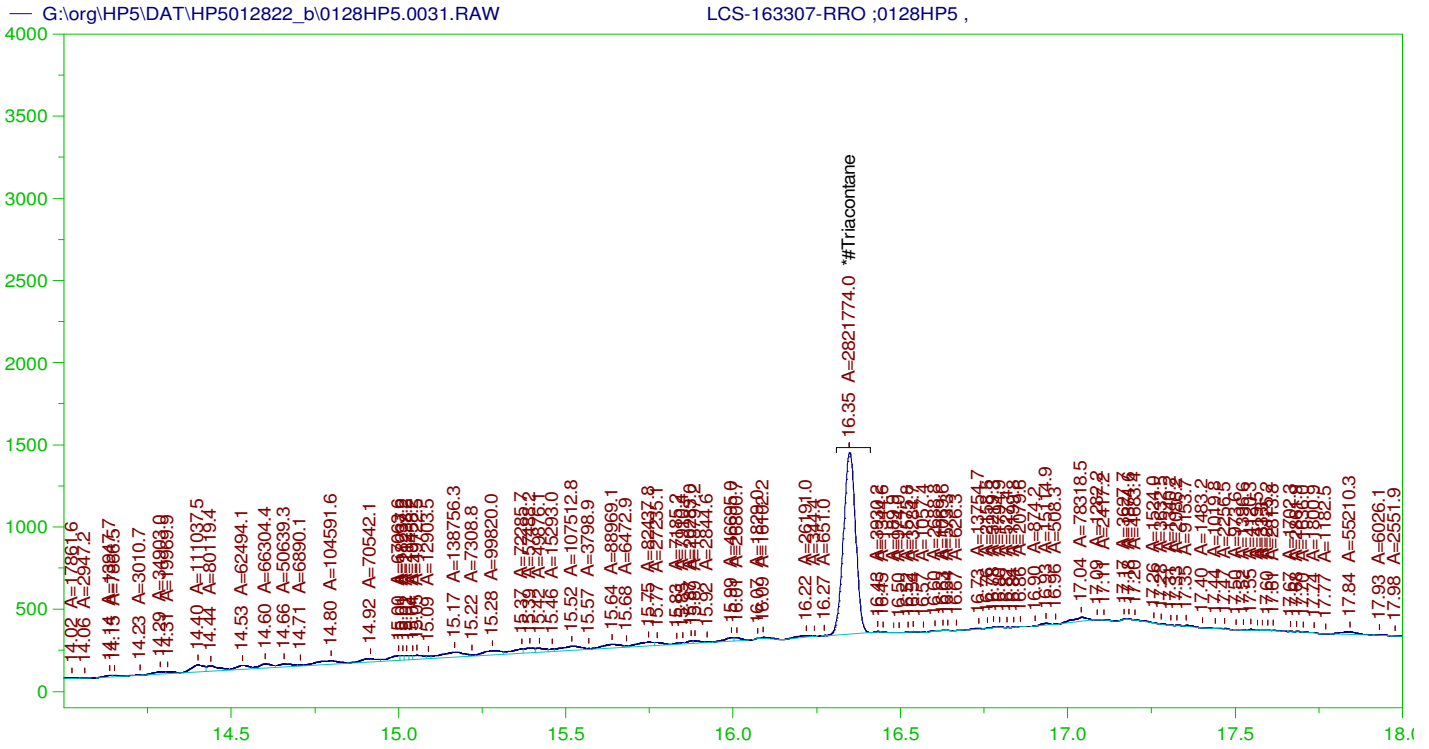
Sample Name: LCS-163307-RRO ;0128HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0031.RAW  
 Date & Time Acquired: 1/29/2022 8:15:39 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.348	.5	.178	35.59

RRO TEH(Oil Range) Area:1.220093E+08 RRO TEH(Oil Range) AMOUNT: 4.617272

amn 02/11/2022



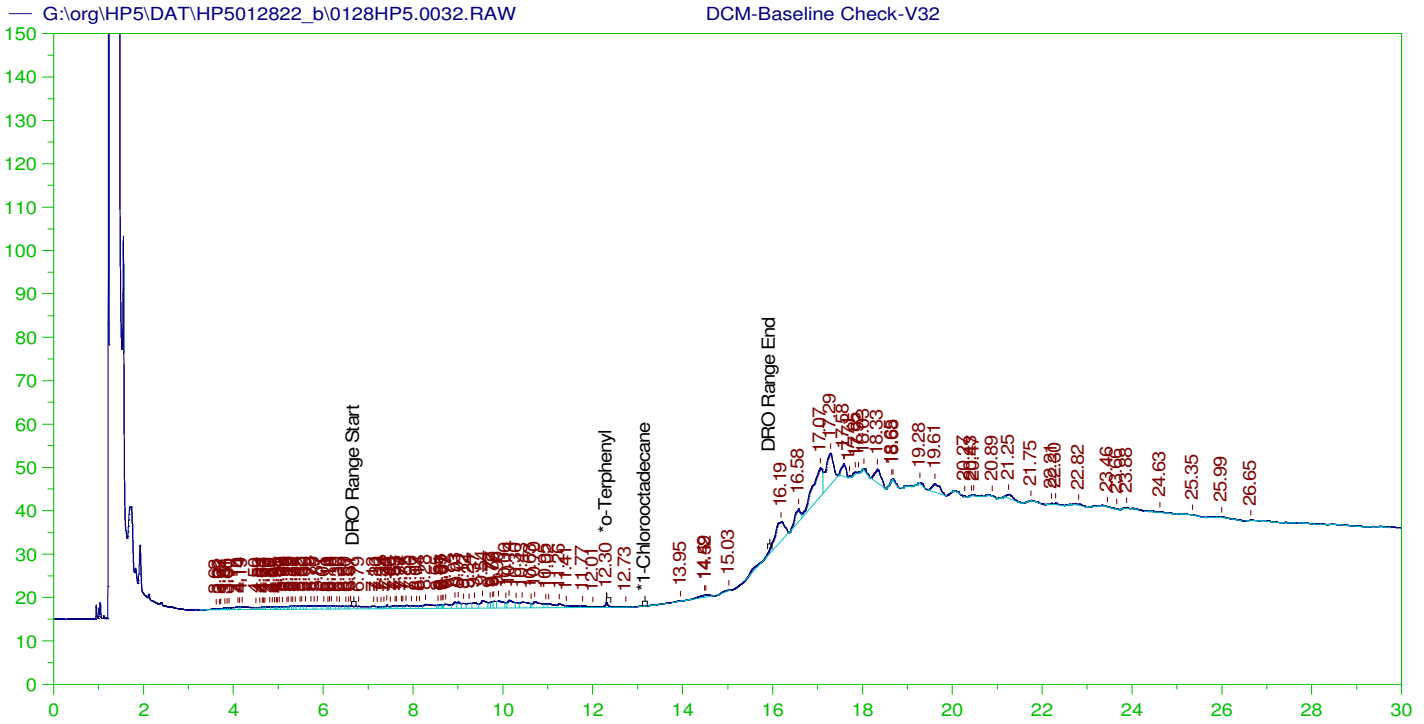
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-163307-RRO ;0128HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0031.RAW  
 Date & Time Acquired: 1/29/2022 8:15:39 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.348	.5	.095	19.04

RRO Area:2729499 RRO AMOUNT: 0.1032941



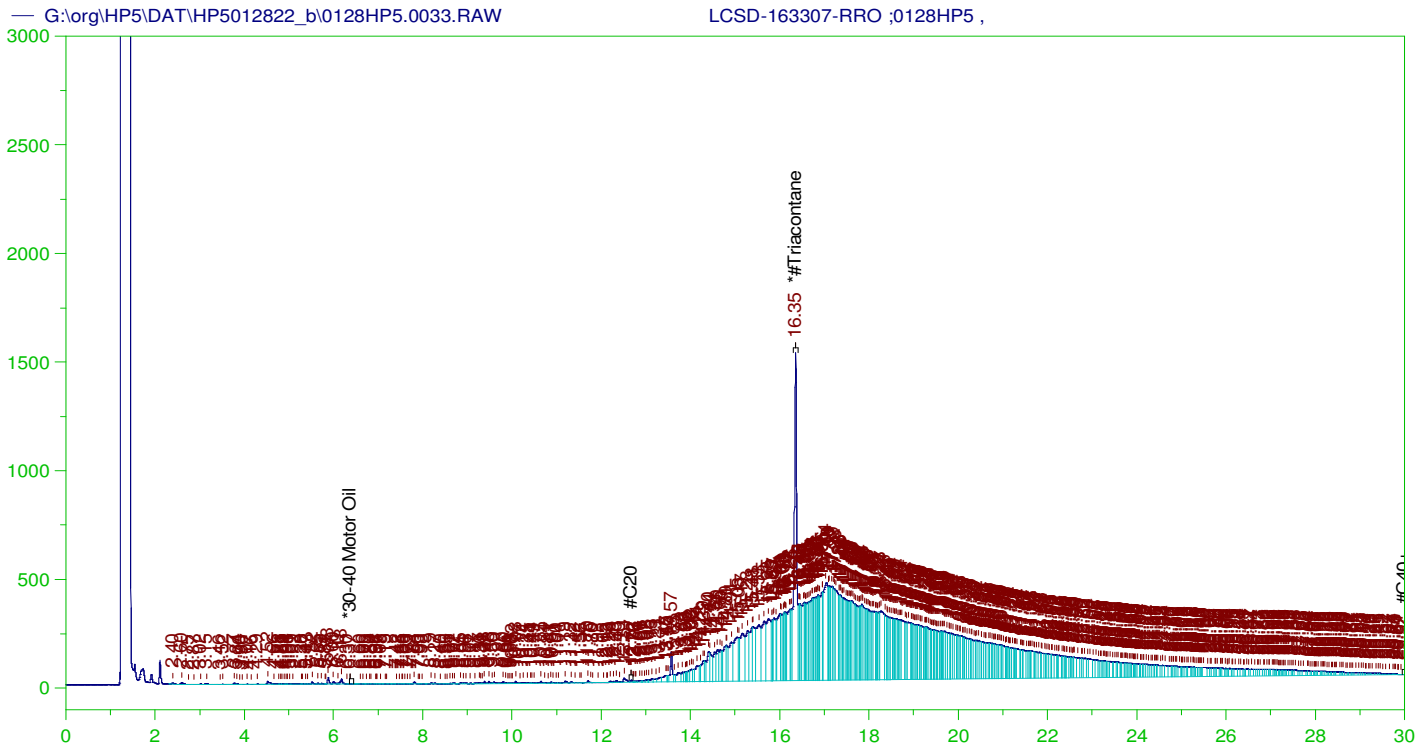
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V32  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0032.RAW  
 Date & Time Acquired: 1/29/2022 8:58:17 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.302	200.	.145	.07
*1-Chlorooctadecane	29.638	200.	.	.

DRO Area: 277548.6 DRO Amount: 8.494125  
 TEH Area: 834198.8 TEH Amount: 25.5299



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

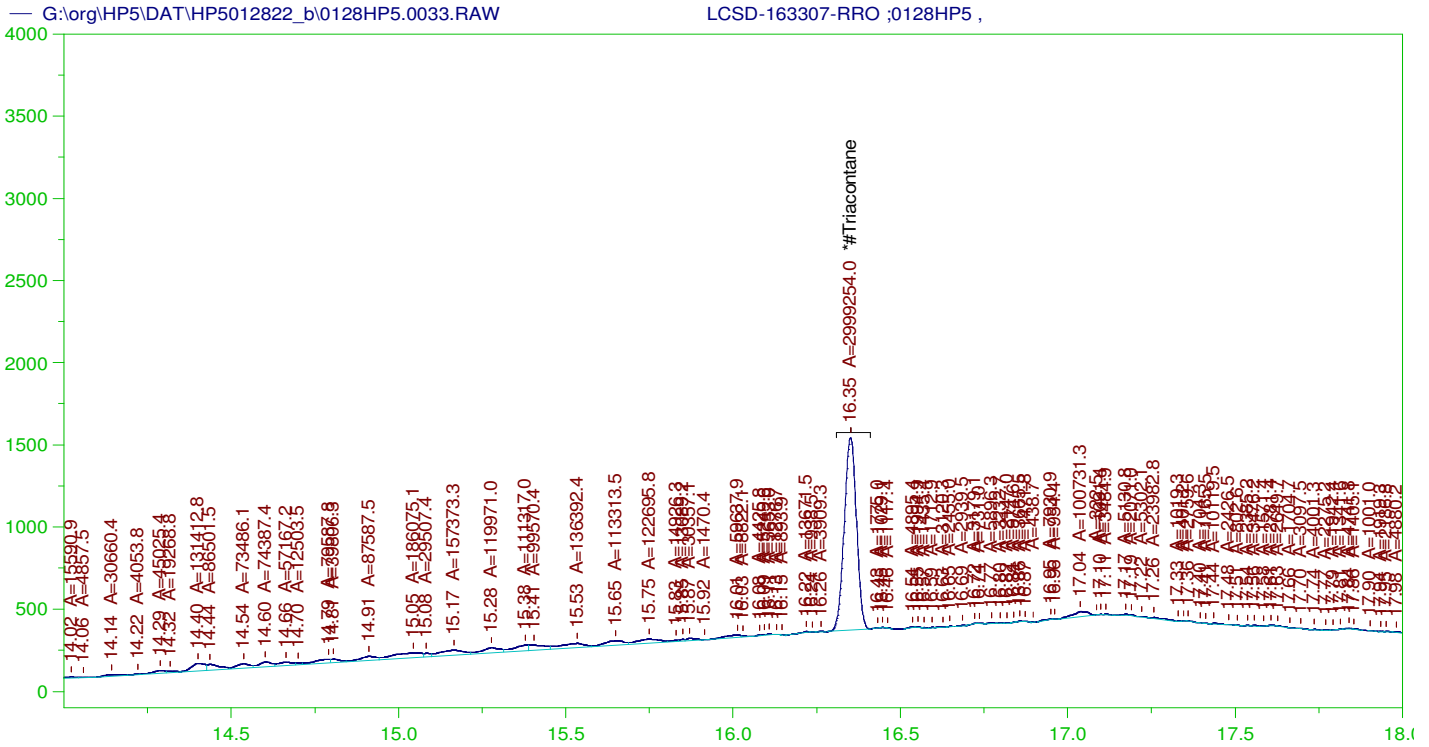
Sample Name: LCSD-163307-RRO ;0128HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0033.RAW  
 Date & Time Acquired: 1/29/2022 9:40:45 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.35	.5	.192	38.34

~~RRO~~ TEH(Oil Range) Area:1.341595E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 5.077078

AMN 02/11/2022



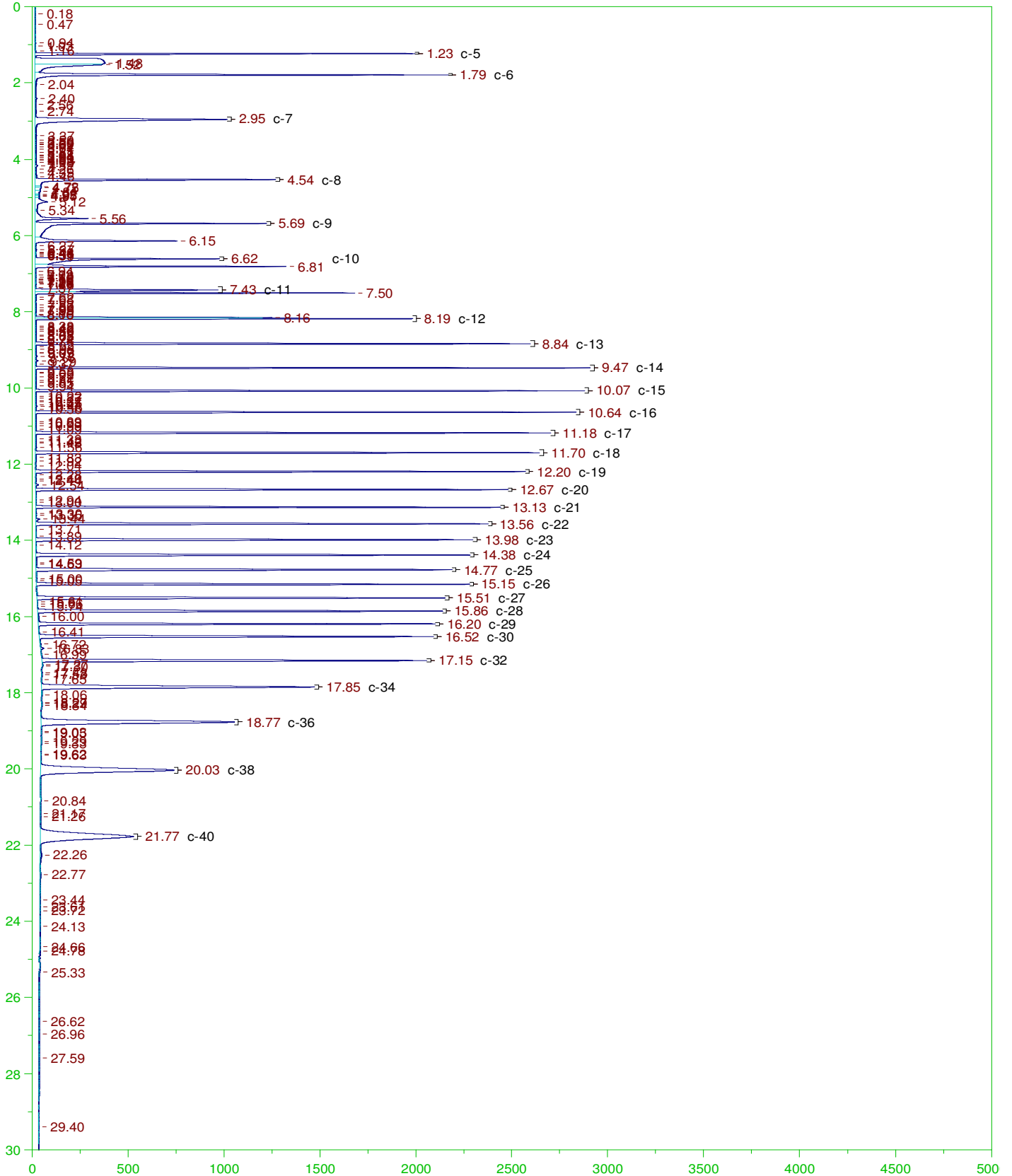
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCSD-163307-RRO ;0128HP5 ,  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0033.RAW  
 Date & Time Acquired: 1/29/2022 9:40:45 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

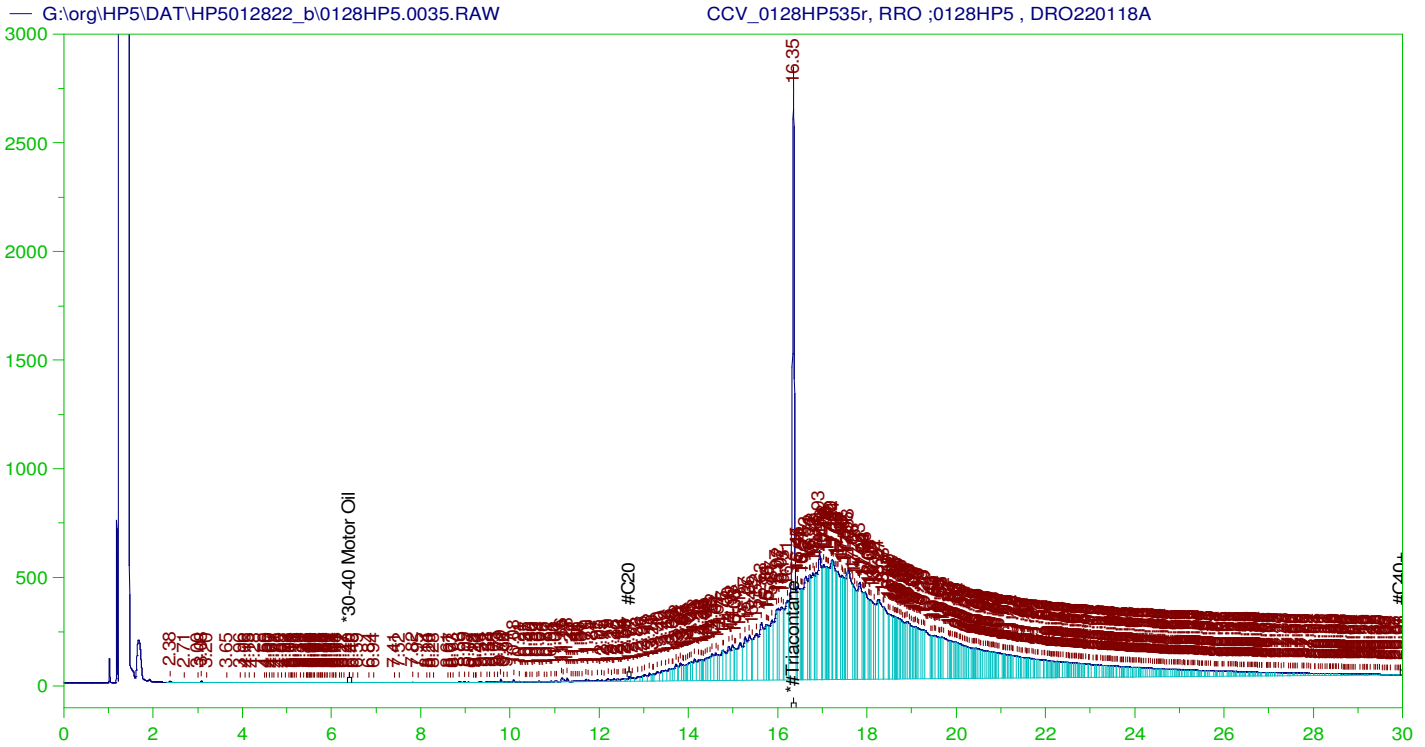
Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.35	.5	.101	20.24

RRO Area:3048530 RRO AMOUNT: 0.1153673







**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0128HP535r, RRO ;0128HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0035.RAW  
 Date & Time Acquired: 1/29/2022 11:52:28 AM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111Bd.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.349	500.	339.239	67.85	-

RRO TEH(Oil Range) Area:1.305772E+08 RRO TEH(Oil Range) AMOUNT: 4941.509

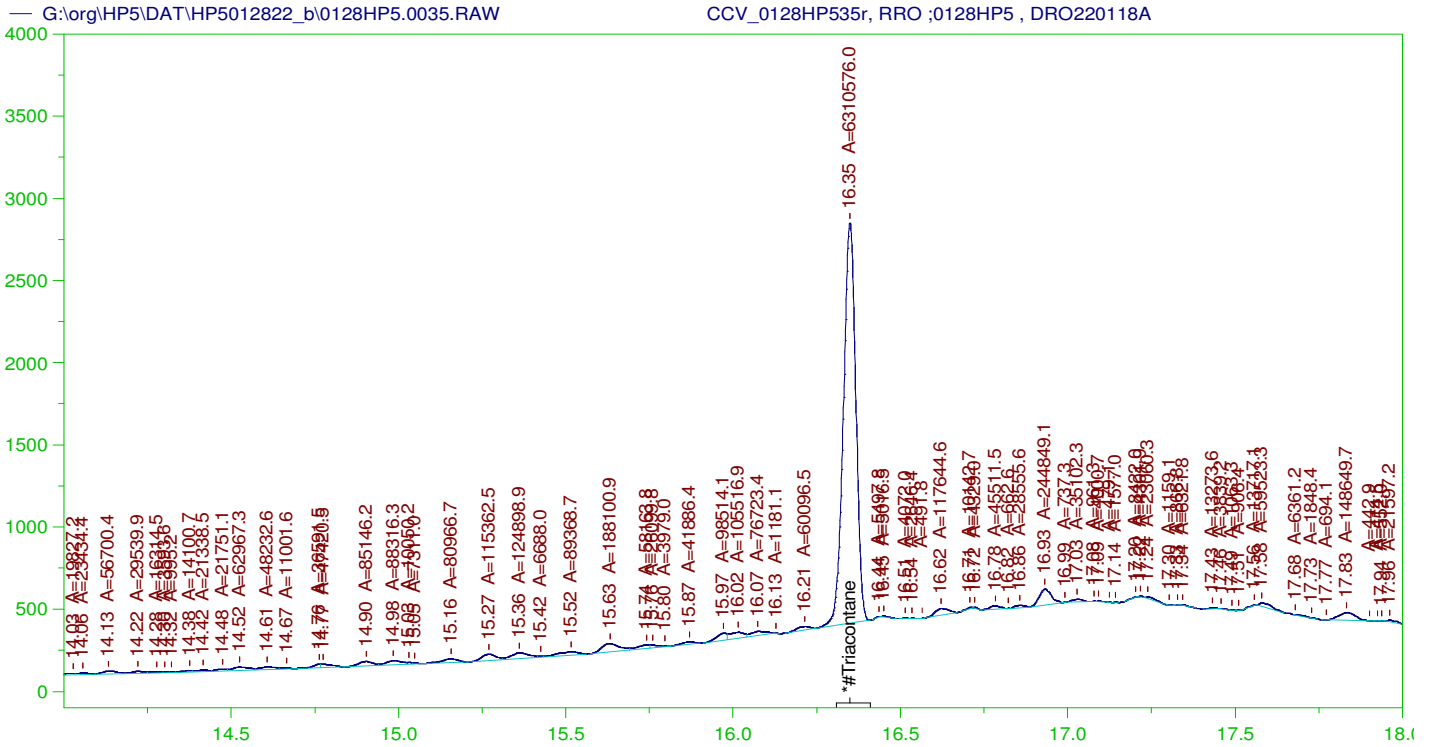
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0035.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.056	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.349	200.	339.239	169.62	75-125

AMN 02/11/2022



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0128HP535r, RRO ;0128HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0035.RAW  
 Date & Time Acquired: 1/29/2022 11:52:28 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

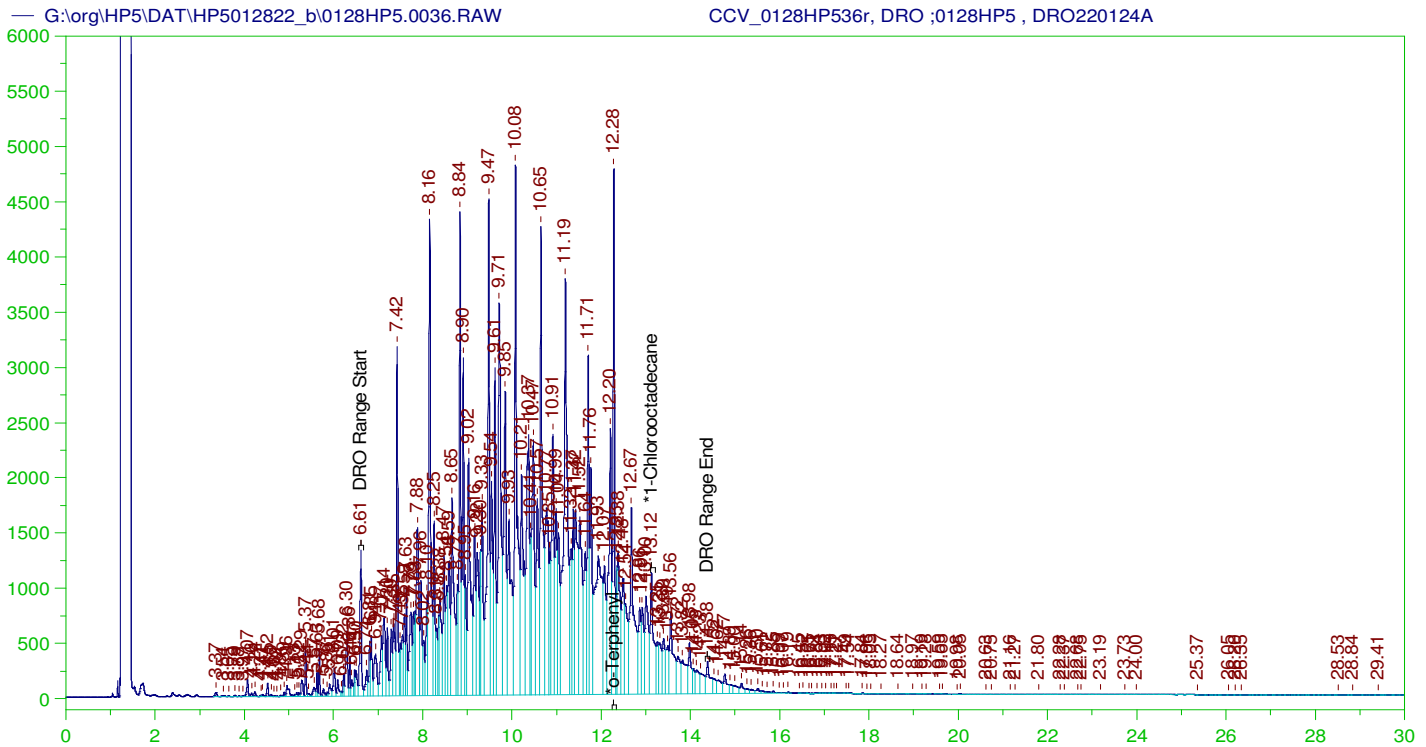
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.349	500.	212.935	42.59	-

RRO Area:3094764 RRO AMOUNT: 117.117

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0035.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.056	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.349	200.	212.935	106.47	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0128HP536r, DRO ;0128HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0036.RAW  
 Date & Time Acquired: 1/29/2022 12:34:51 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-C24-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

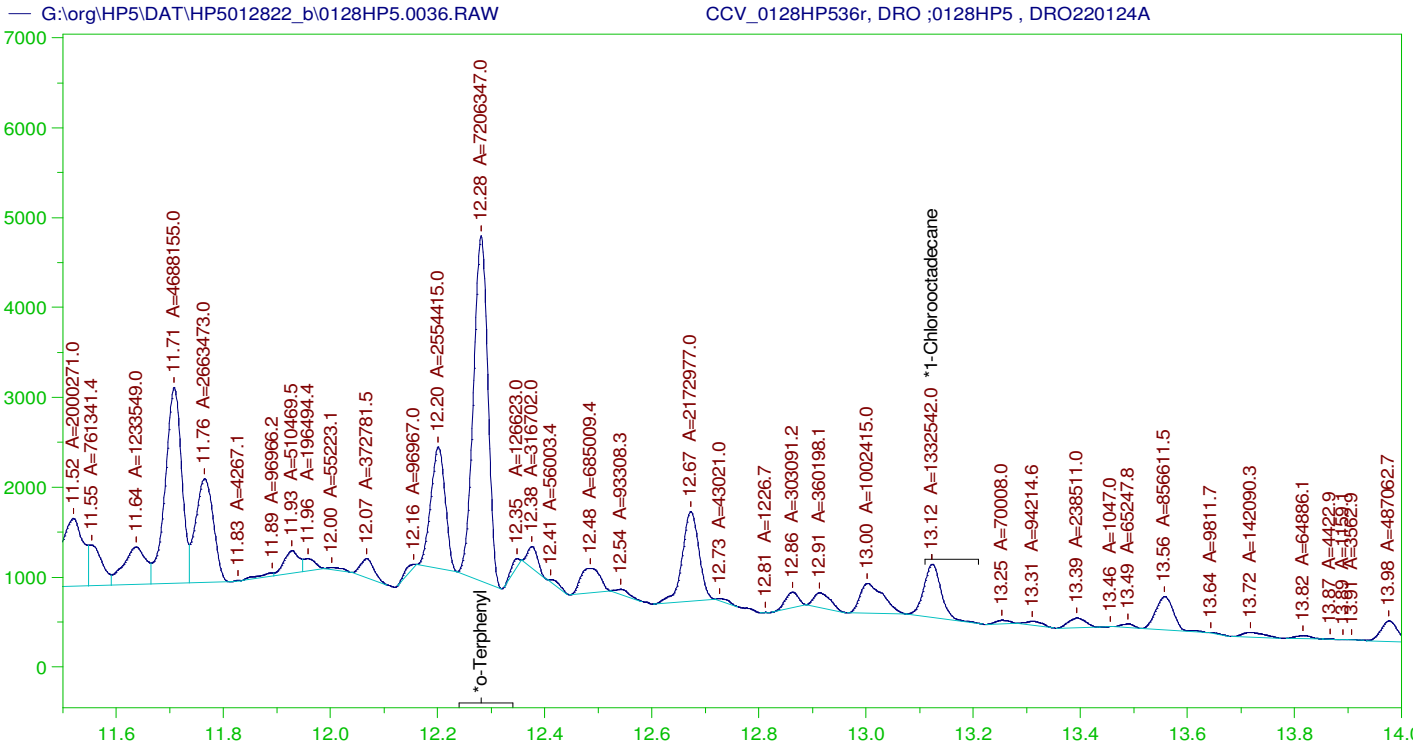
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.281	200.	320.627	160.31
*1-Chlorooctadecane	13.124	200.	152.576	76.29

DRO Area: 4.634754E+08 DRO Amount: 14184.25  
 TEH Area: 4.791867E+08 TEH Amount: 14665.08

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0036.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14665.08	97.77	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.281	200.	320.627	160.31	85-115
*1-Chlorooctadecane	13.124	200.	152.576	76.29	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0128HP536r, DRO ;0128HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0036.RAW  
 Date & Time Acquired: 1/29/2022 12:34:51 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

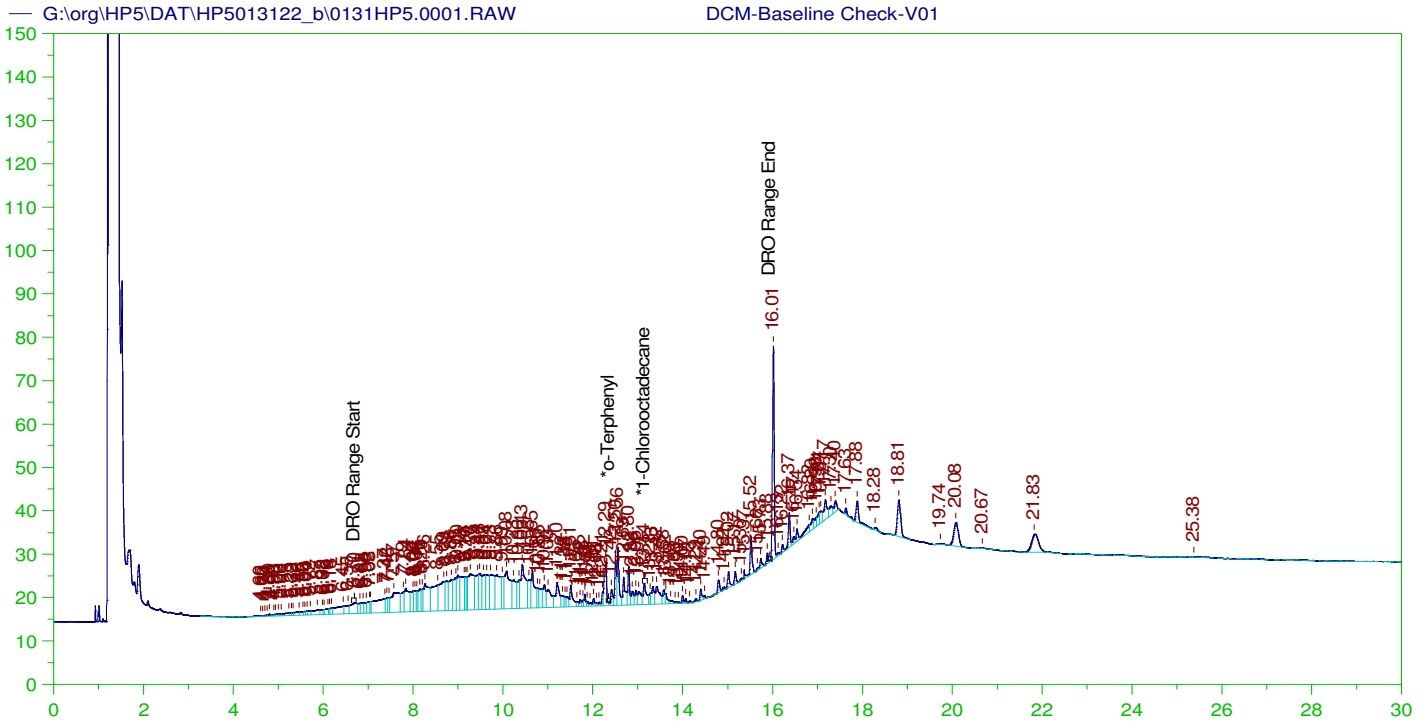
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.281	200.	195.517	97.76
*1-Chlorooctadecane	13.124	200.	36.154	18.08

DRO Area: 2.396858E+08 DRO Amount: 7335.367  
 TEH Area: 2.502414E+08 TEH Amount: 7658.412

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822\_b\0128HP5.0036.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7658.41	51.06	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.281	200.	195.517	97.76	85-115
*1-Chlorooctadecane	13.124	200.	36.154	18.08	85-115



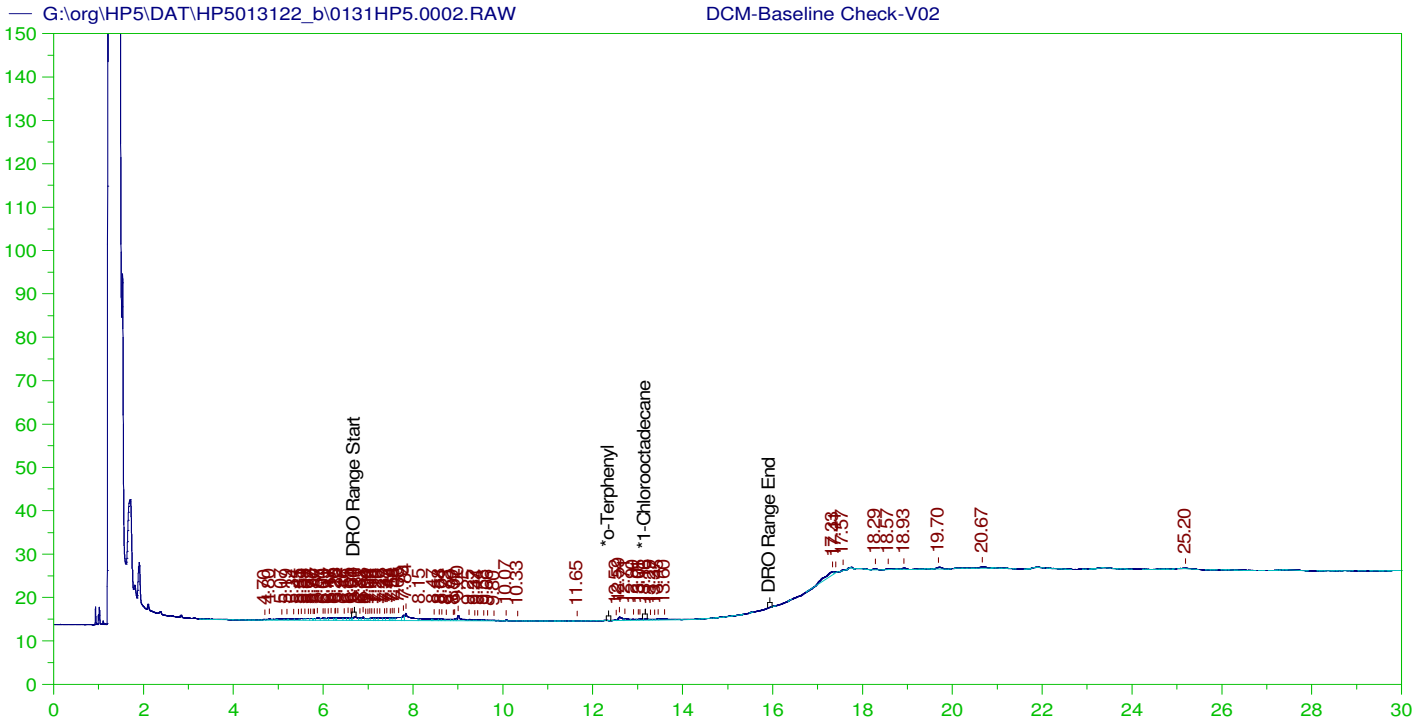
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V01  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0001.RAW  
 Date & Time Acquired: 1/31/2022 10:49:41 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.957	200.	.	-
*1-Chlorooctadecane	13.143	200.	.656	.33

DRO Area:2003766 DRO Amount: 61.32346  
 TEH Area:2557149 TEH Amount: 78.25925



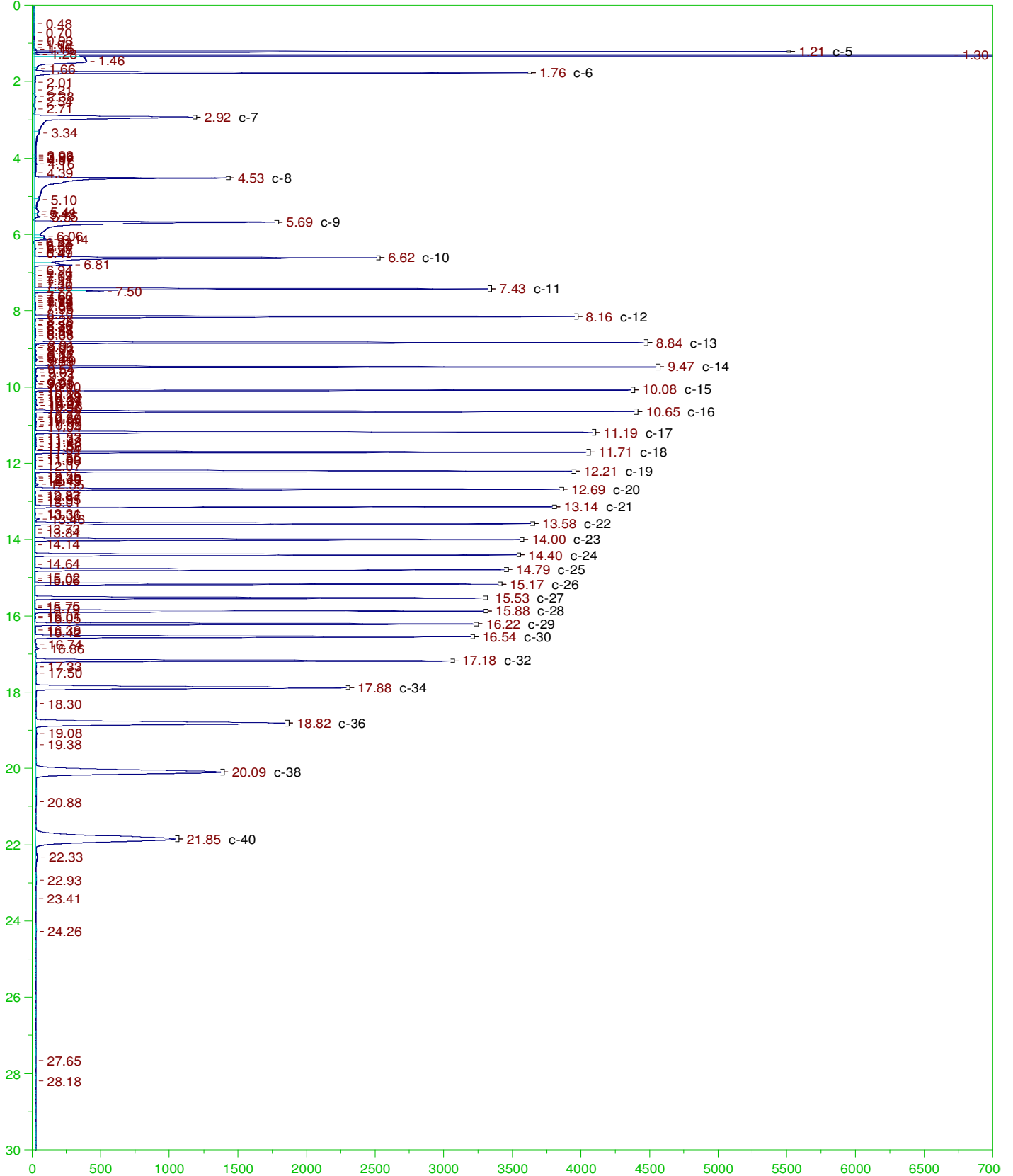
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

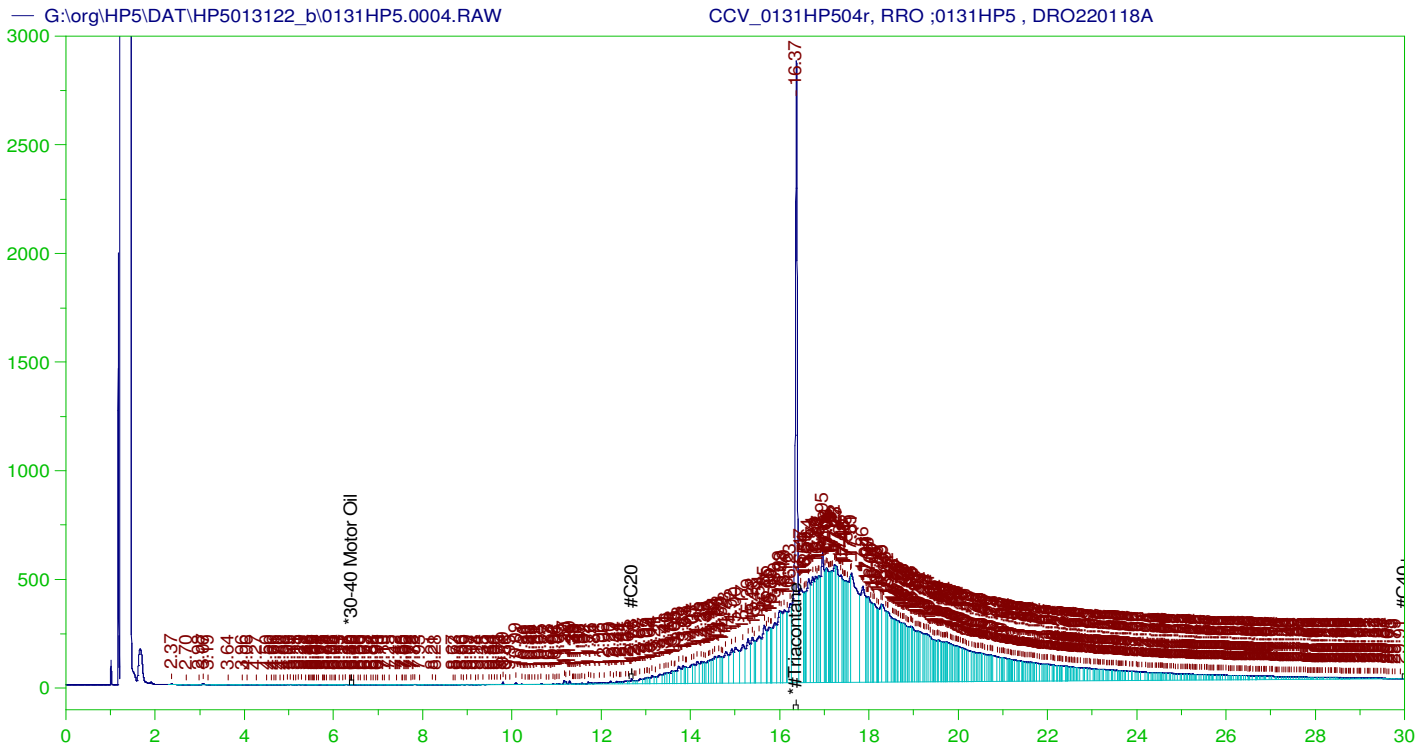
Sample Name: DCM-Baseline Check-V02  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0002.RAW  
 Date & Time Acquired: 1/31/2022 11:32:16 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.971	200.	.	-
*1-Chlorooctadecane	13.164	200.	.042	.02

DRO Area:115841.5 DRO Amount: 3.545225  
 TEH Area:198726.5 TEH Amount: 6.081847





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0131HP504r, RRO ;0131HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0004.RAW  
 Date & Time Acquired: 1/31/2022 12:58:02 PM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111Bd.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.37	500.	350.287	70.06	-

~~RRO~~ TEH(Oil Range) Area:1.284778E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4862.063

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0004.RAW

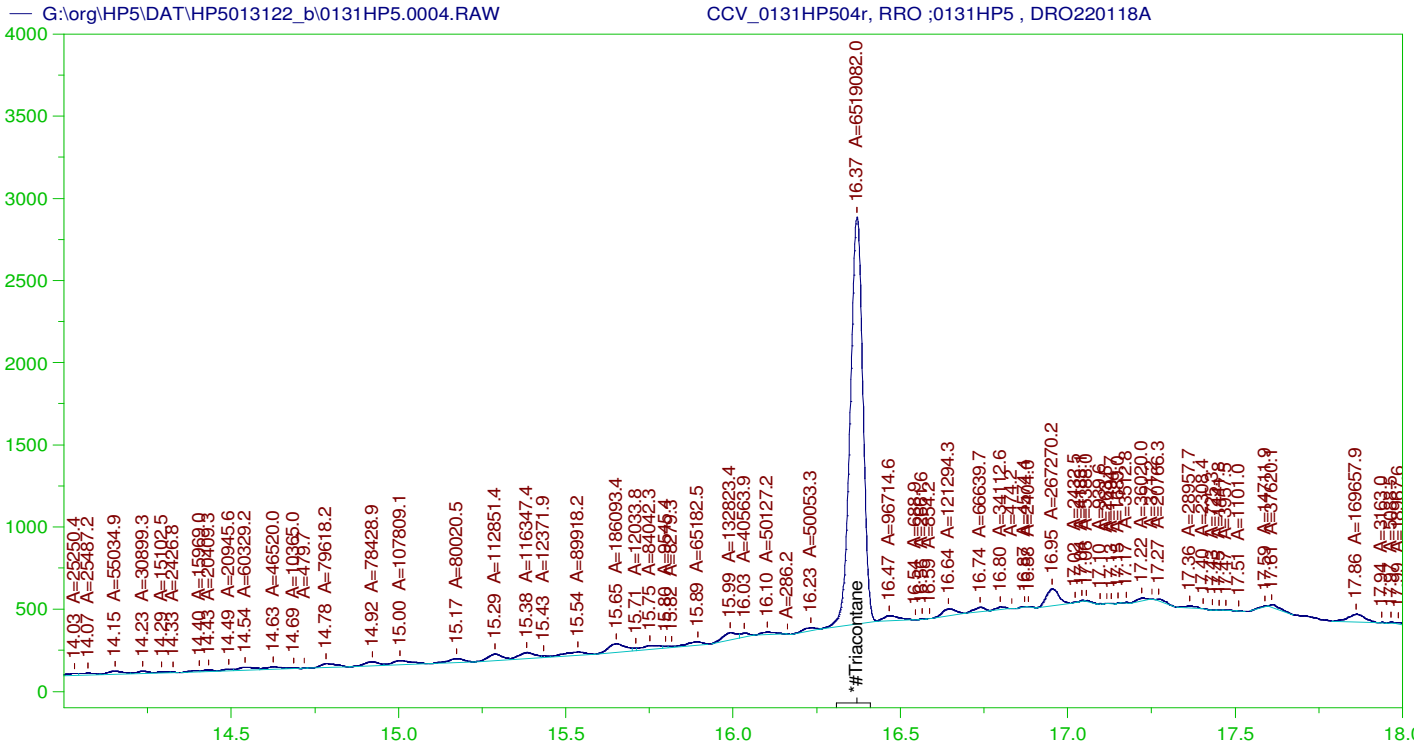
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.039	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.37	200.	350.287	175.14	75-125

AMN 02/11/2022





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0131HP504r, RRO ;0131HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0004.RAW  
 Date & Time Acquired: 1/31/2022 12:58:02 PM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

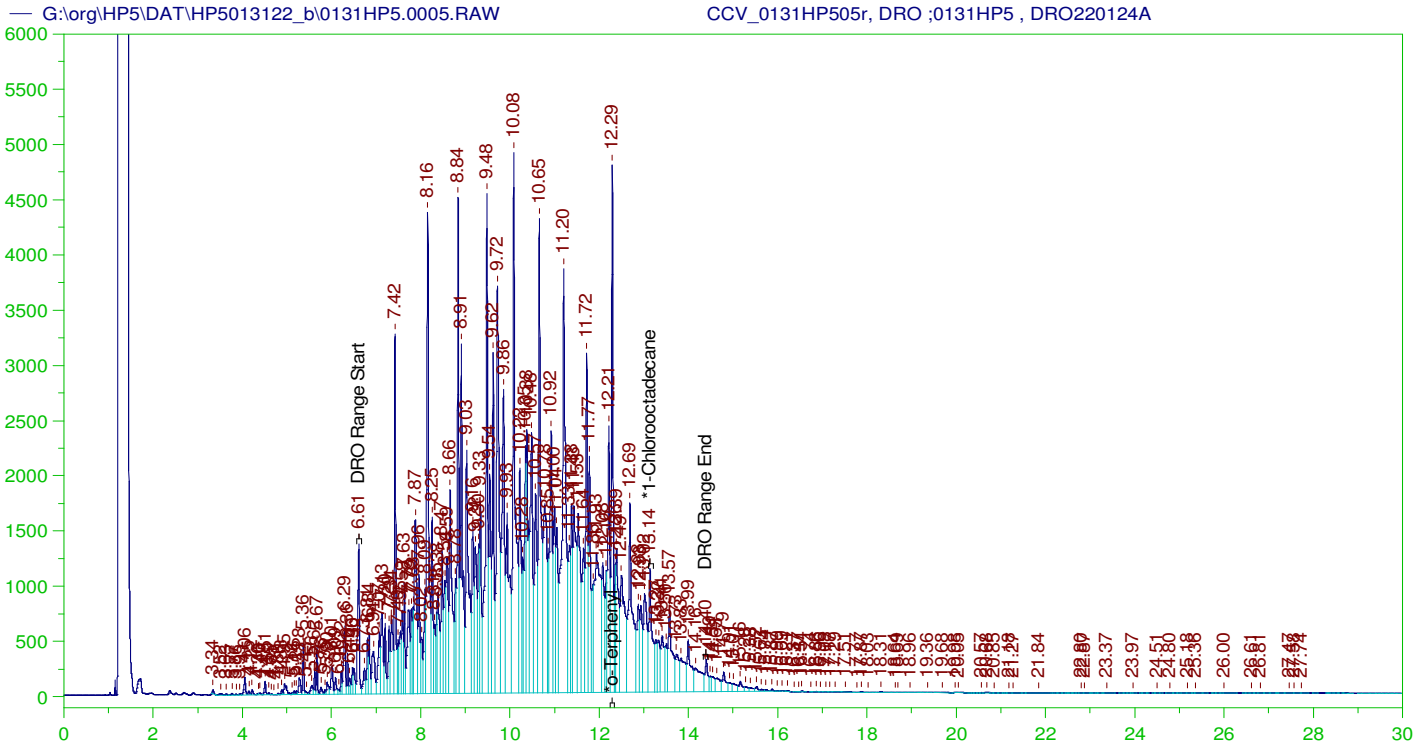
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.37	500.	219.971	43.99

RRO Area:3217542 RRO AMOUNT: 121.7634

**CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0004.RAW**

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

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.37	200.	219.971	109.99	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0131HP505r, DRO ;0131HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0005.RAW  
 Date & Time Acquired: 1/31/2022 1:40:46 PM  
 Method File: G:\Org\HP5\Methods\DC\_8015-C24-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.57 to 14.43

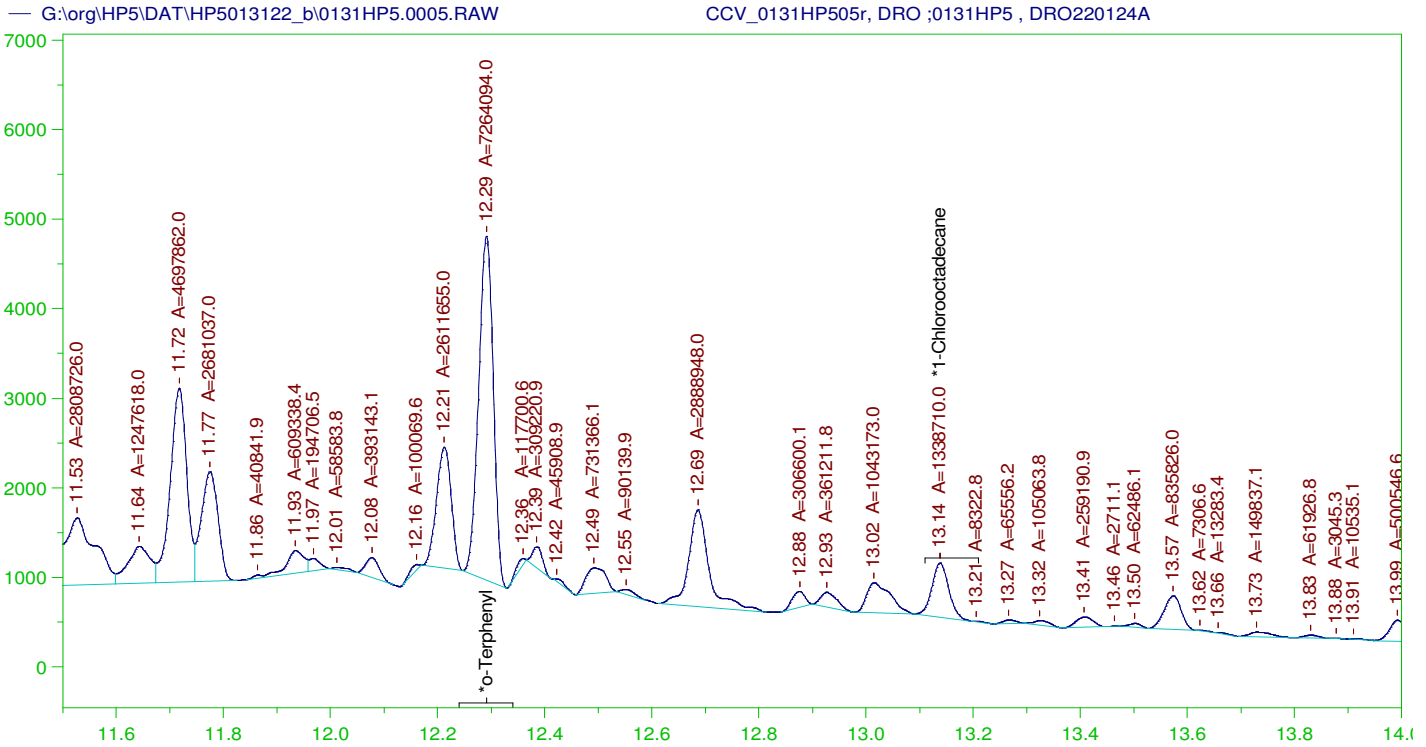
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.291	200.	322.727	161.36
*1-Chlorooctadecane	13.138	200.	153.796	76.9

DRO Area: 4.715434E+08 DRO Amount: 14431.16  
 TEH Area: 4.882224E+08 TEH Amount: 14941.61

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0005.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14941.61	99.61	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.291	200.	322.727	161.36	85-115
*1-Chlorooctadecane	13.138	200.	153.796	76.9	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0131HP505r, DRO ;0131HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0005.RAW  
 Date & Time Acquired: 1/31/2022 1:40:46 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.57 to 14.43

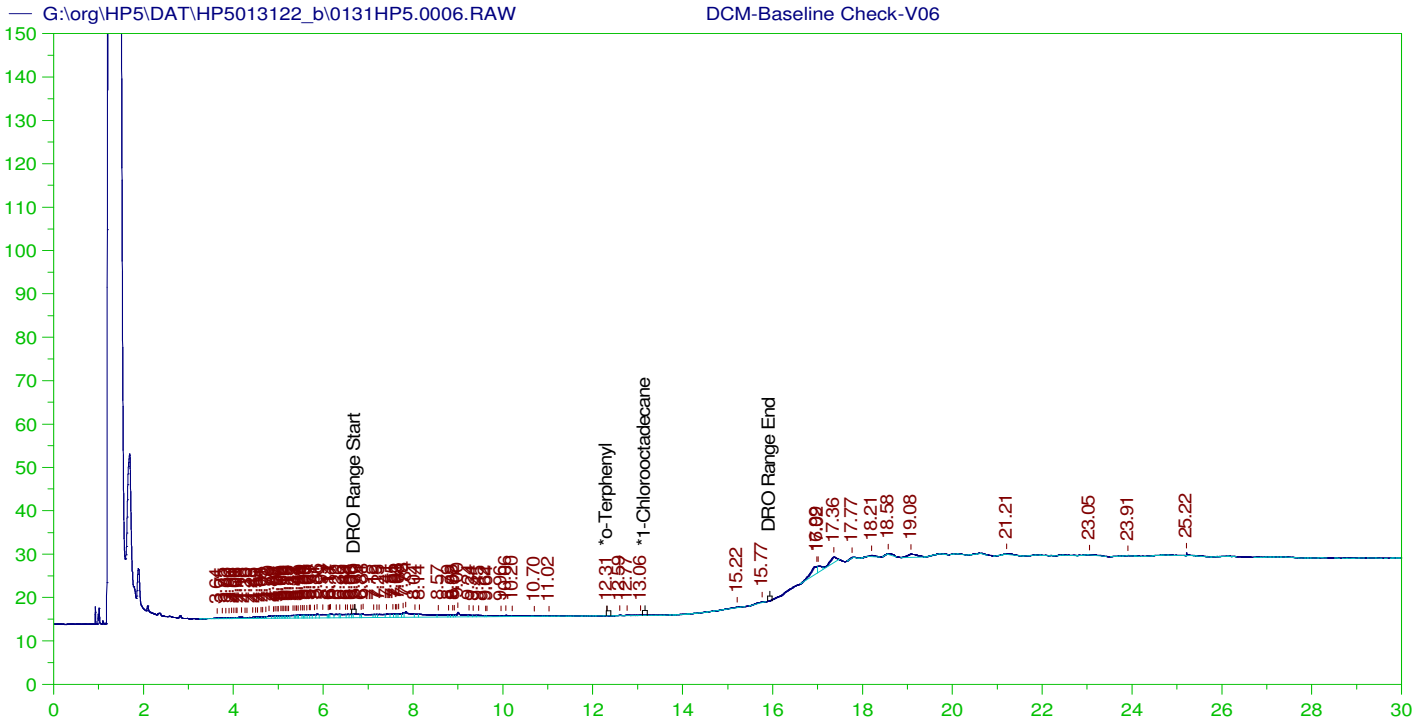
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.291	200.	197.084	98.54
*1-Chlorooctadecane	13.138	200.	36.321	18.16

DRO Area: 2.447314E+08 DRO Amount: 7489.785  
 TEH Area: 2.55684E+08 TEH Amount: 7824.978

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0005.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	7824.98	52.17	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.291	200.	197.084	98.54	85-115
*1-Chlorooctadecane	13.138	200.	36.321	18.16	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V06  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0006.RAW  
 Date & Time Acquired: 1/31/2022 2:23:43 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.63 to 15.99

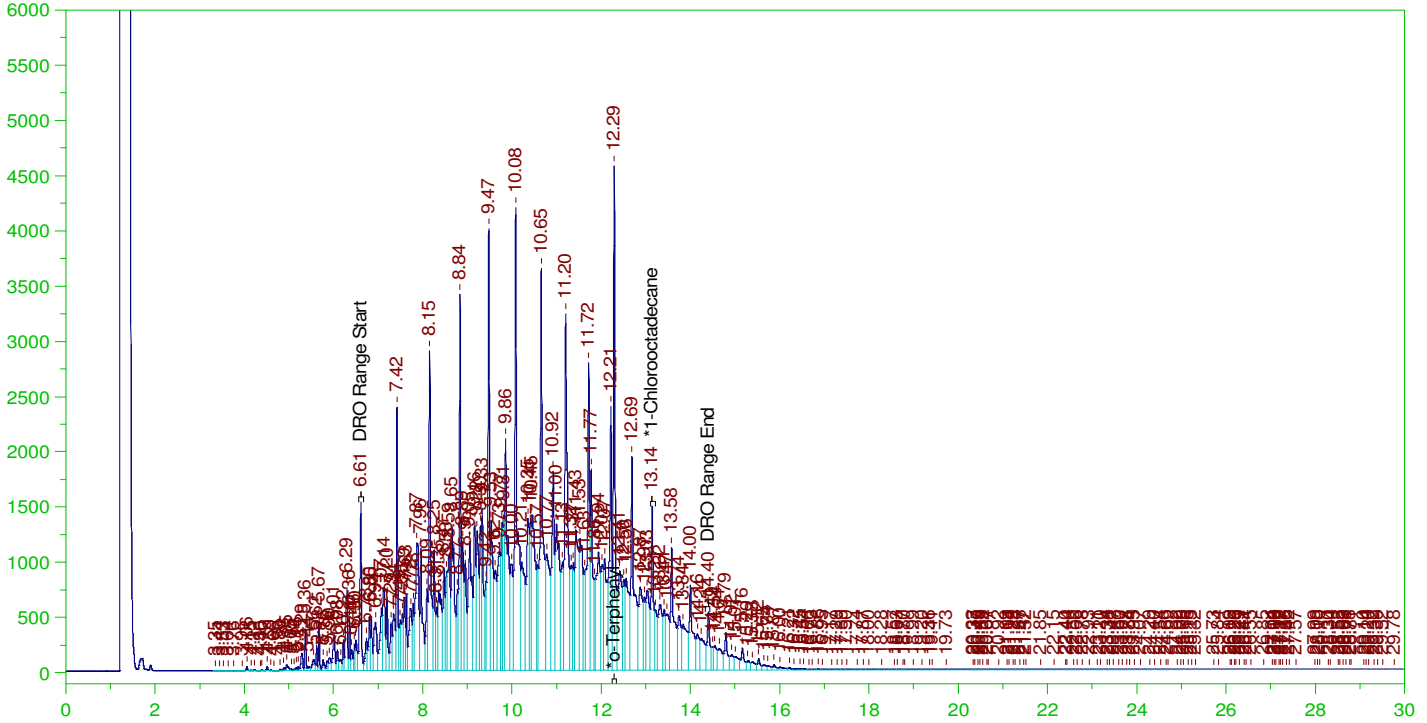
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.314	200.	.019	.01 -
*1-Chlorooctadecane	29.966	200.	.	. -

DRO Area:149622.5 DRO Amount: 4.579062  
 TEH Area:324850.4 TEH Amount: 9.941754

Batch ID: 163307

LCS-163307 ;0131HP5 , SGT

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0007.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-163307 ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0007.RAW  
 Date & Time Acquired: 1/31/2022 3:06:30 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-C24-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

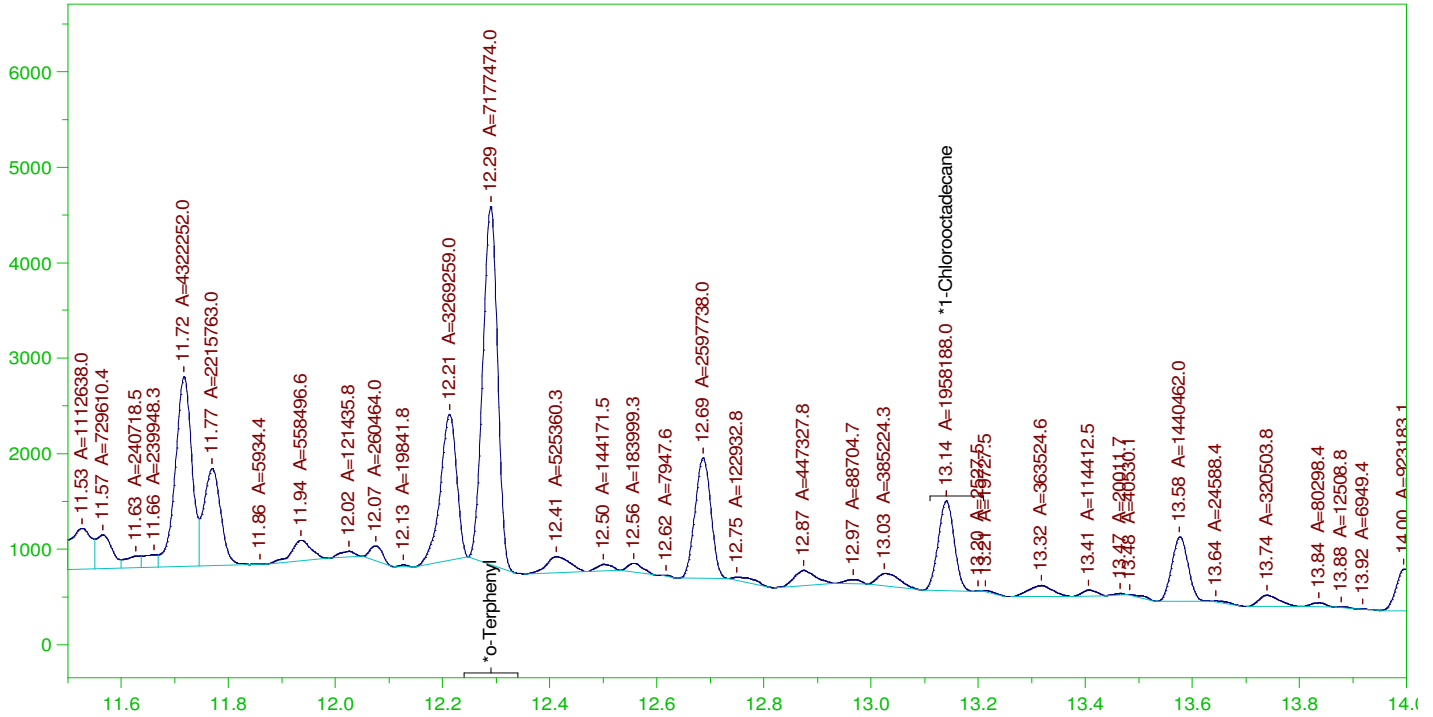
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.29	.2	.332	165.87	-
*1-Chlorooctadecane	13.141	.2	.136	68.02	-

DRO Area: 3.922852E+08 DRO Amount: 12.00554  
 TEH Area: 4.177853E+08 TEH Amount: 12.78594

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0007.RAW

LCS-163307 ;0131HP5 , SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCS-163307 ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0007.RAW  
 Date & Time Acquired: 1/31/2022 3:06:30 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

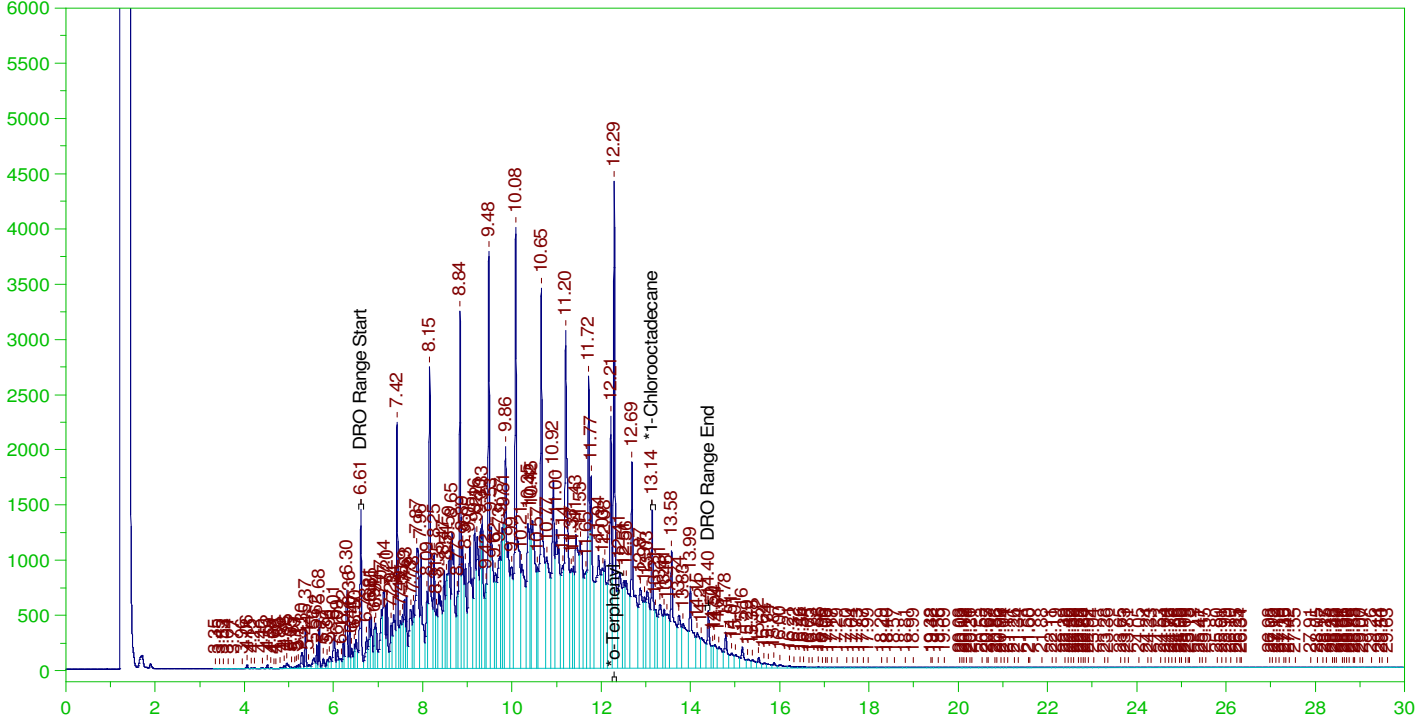
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.29	.2	.195	97.37
*1-Chlorooctadecane	13.141	.2	.053	26.56

DRO Area: 1.794161E+08 DRO Amount: 5.490869  
 TEH Area: 1.908028E+08 TEH Amount: 5.839349

Batch ID: 163307

LCSD-163307 ;0131HP5 , SGT

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0008.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCSD-163307 ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0008.RAW  
 Date & Time Acquired: 1/31/2022 3:49:15 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-C24-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

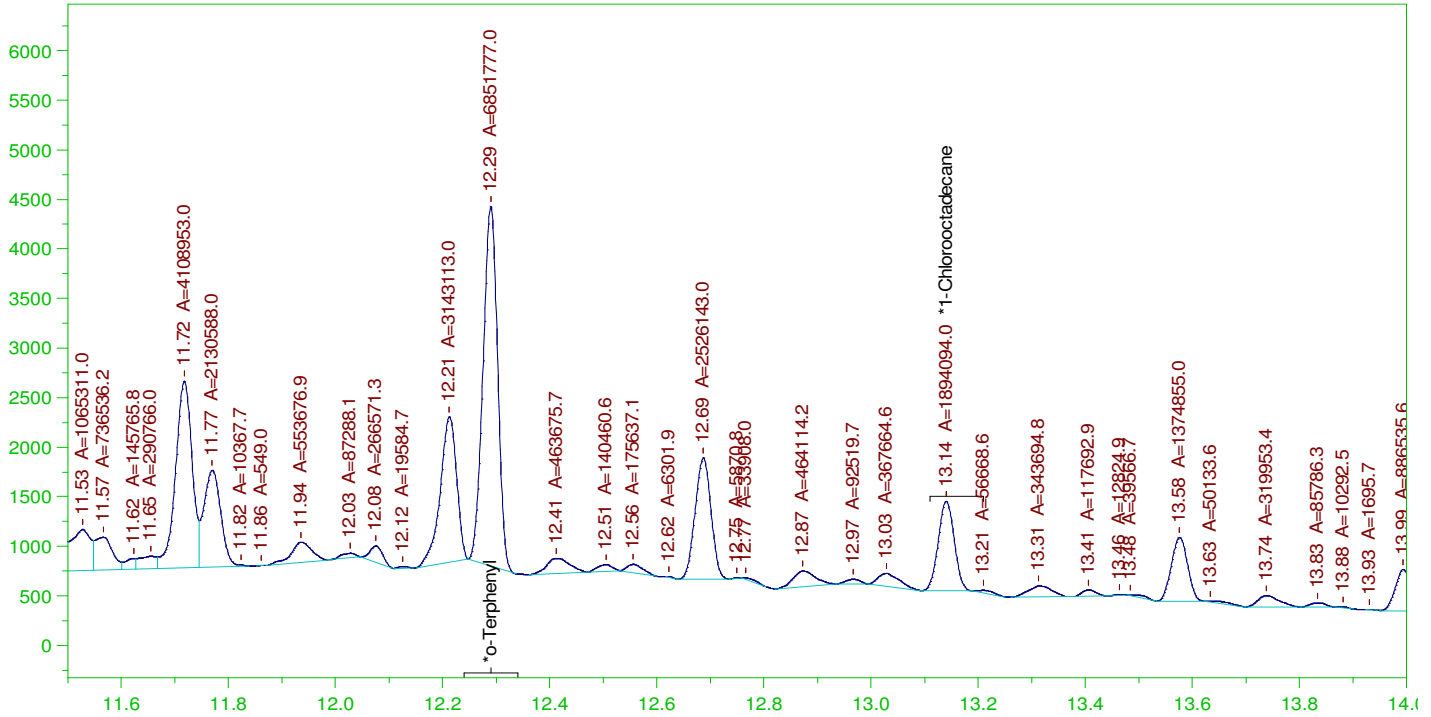
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.29	.2	.324	161.92	-
*1-Chlorooctadecane	13.14	.2	.132	66.14	-

DRO Area: 3.728488E+08 DRO Amount: 11.4107  
 TEH Area: 3.972388E+08 TEH Amount: 12.15714

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0008.RAW

LCSD-163307 ;0131HP5 , SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: LCSD-163307 ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0008.RAW  
 Date & Time Acquired: 1/31/2022 3:49:15 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

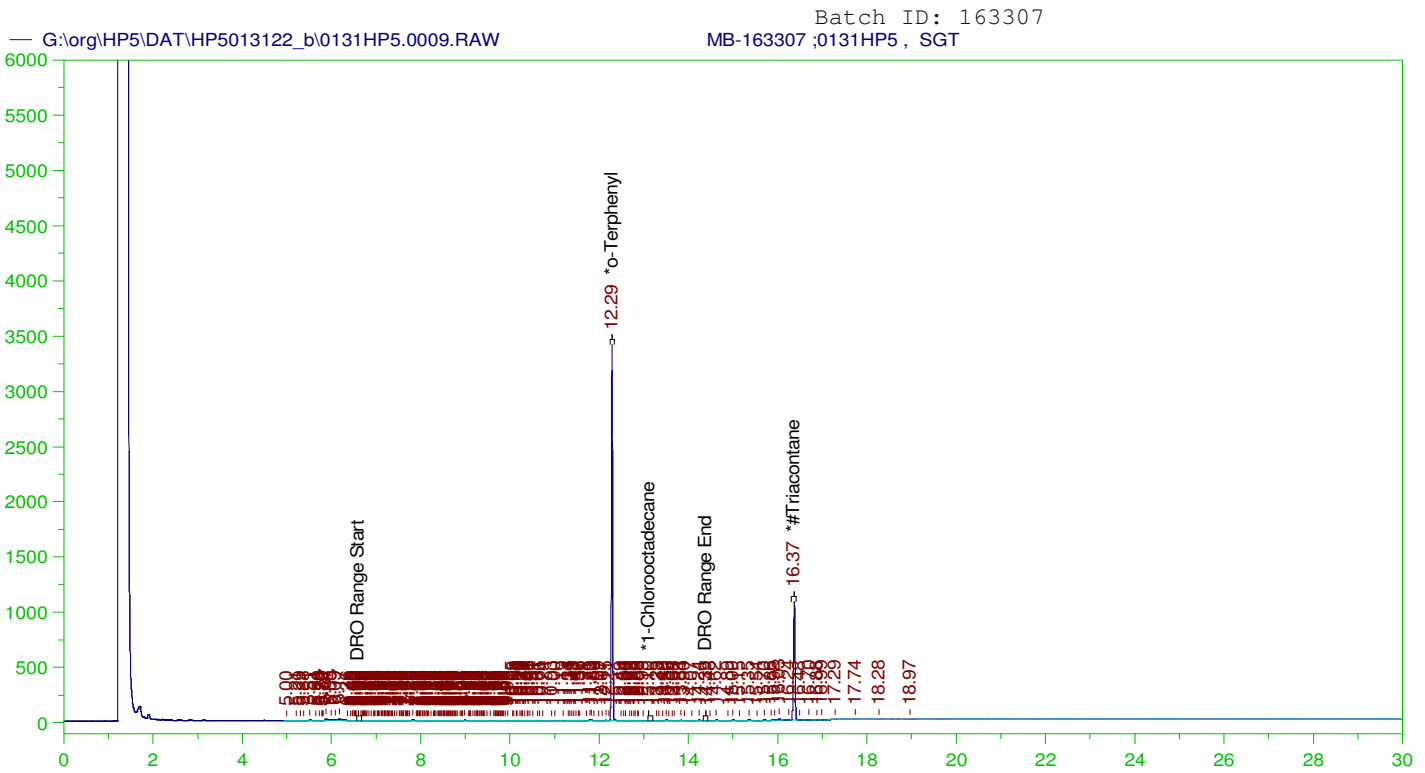
Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.29	.2	.186	92.95	-
*1-Chlorooctadecane	13.14	.2	.051	25.69	-

DRO Area:1.699396E+08 DRO Amount: 5.200849  
 TEH Area:1.806264E+08 TEH Amount: 5.527909





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-163307 ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0009.RAW  
 Date & Time Acquired: 1/31/2022 4:32:01 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

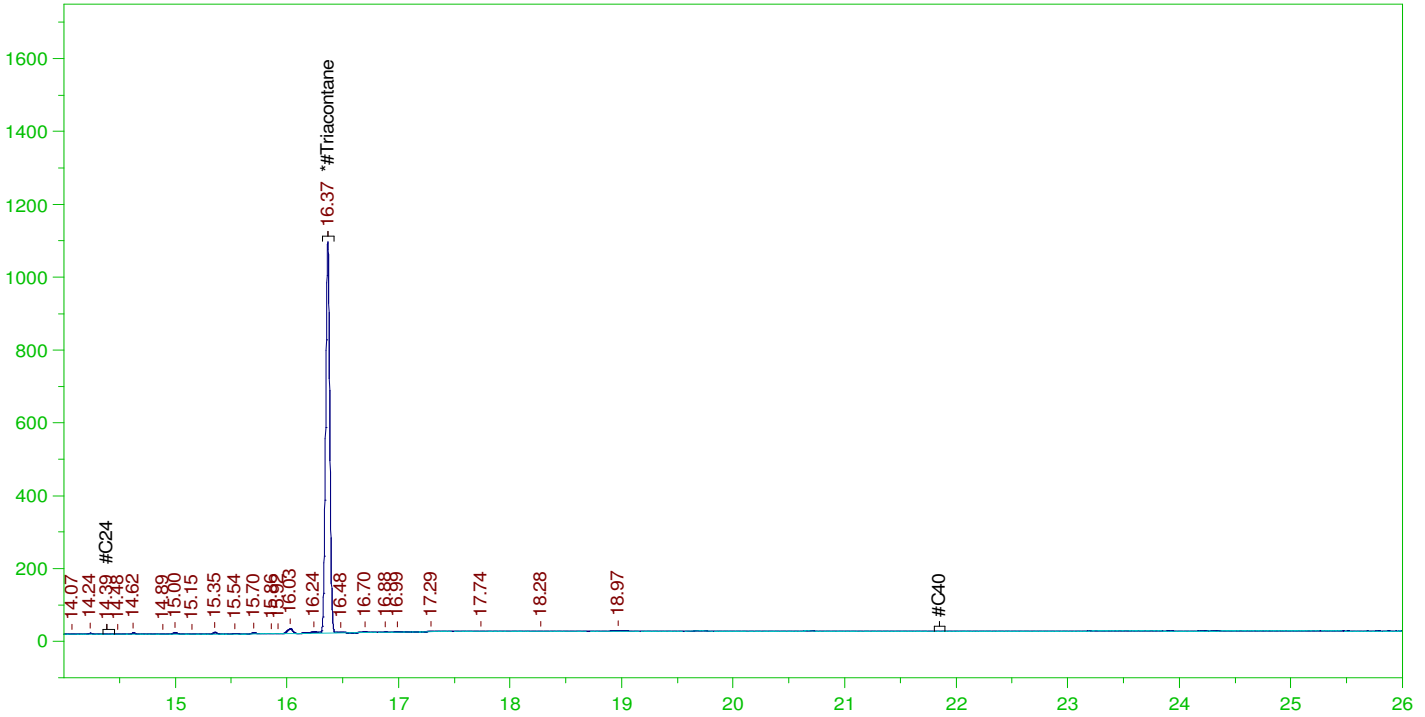
Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.286	.2	.178	88.77	-
*1-Chlorooctadecane	13.105	.2	.	.09	-
*#Triacontane	16.365	.2	.094	47.12	-

DRO Area:416812.6 DRO Amount: 1.275618E-02  
 TEH Area:838158.9 TEH Amount: 0.0256511

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0009.RAW

MB-163307 ;0131HP5 , SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: MB-163307 ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0009.RAW  
 Date & Time Acquired: 1/31/2022 4:32:01 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-BDa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BDa\_SAMP.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 14.35 to 21.9

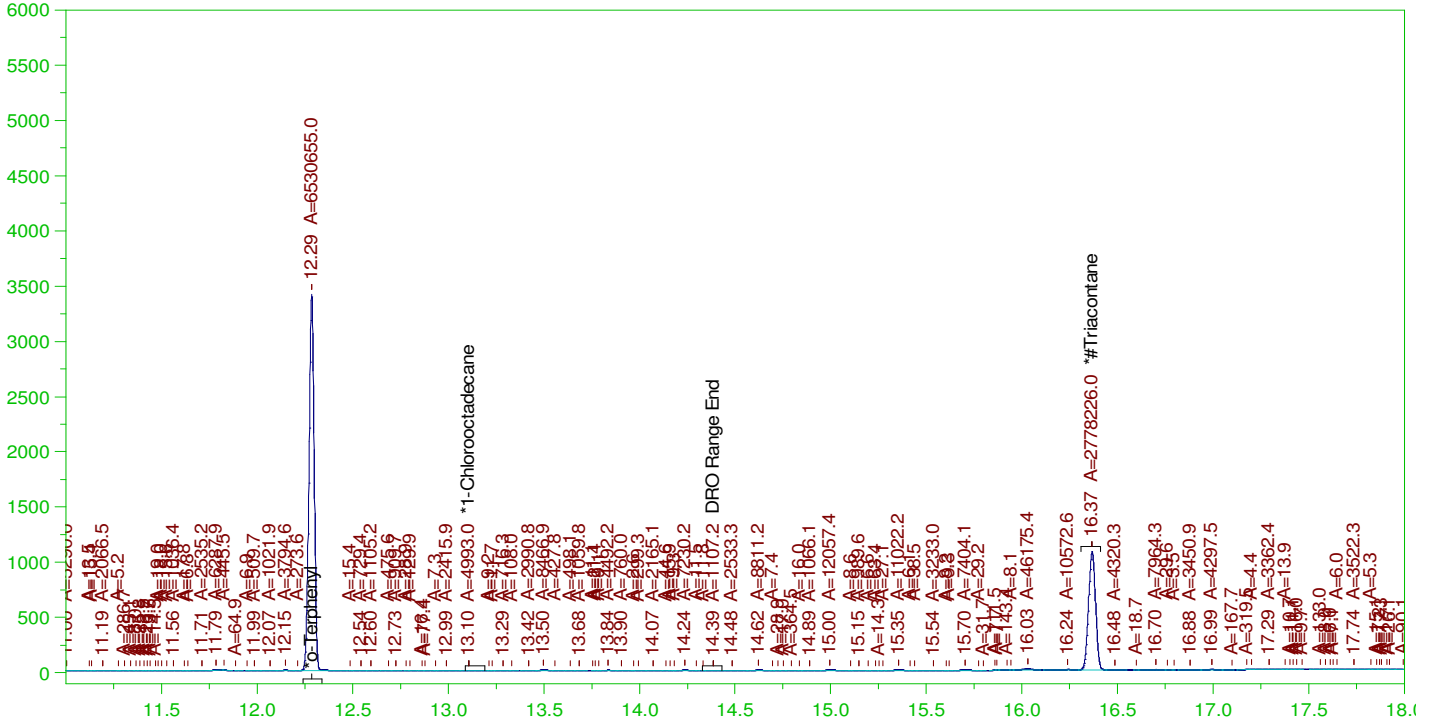
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.365	.5	.094	18.85

RRO Area:171730.1 RRO AMOUNT: 6.498885E-03

Batch ID: 163307

MB-163307 ;0131HP5 , SGT

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0009.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: MB-163307 ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0009.RAW  
 Date & Time Acquired: 1/31/2022 4:32:01 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111Jd-C24-T.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.286	.2	.177	88.59 -
*1-Chlorooctadecane	13.105	.2	.07	-
*#Triacontane	16.365	.2	.094	46.87 -

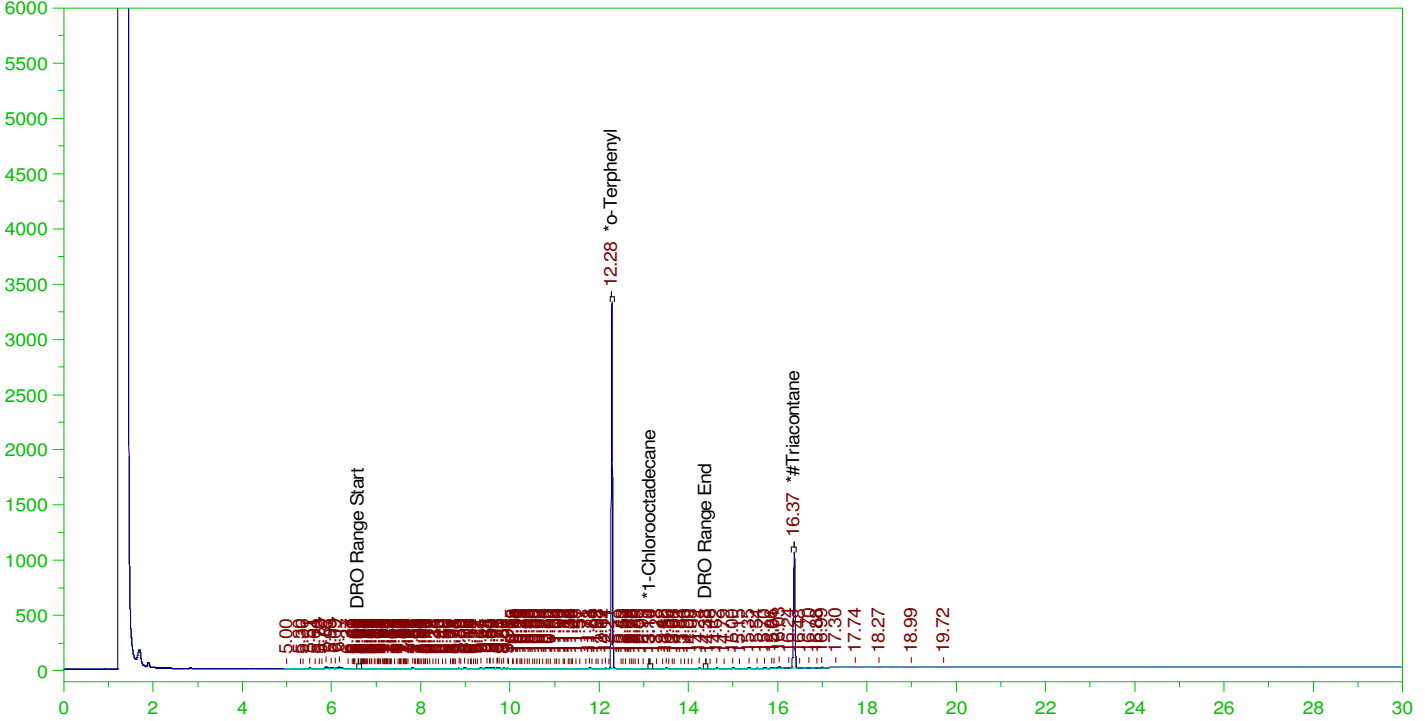
DRO Area:342195 DRO Amount: 1.047257E-02  
 TEH Area:841856.2 TEH Amount: 2.576425E-02

ERH2490 (RHMW2254-01 LF)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0010.RAW

B22011592-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0010.RAW  
 Date & Time Acquired: 1/31/2022 5:15:04 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.282	.2	.172	86.	-
*1-Chlorooctadecane	13.14	.2	.	.02	-
*#Triacontane	16.366	.2	.092	45.95	-

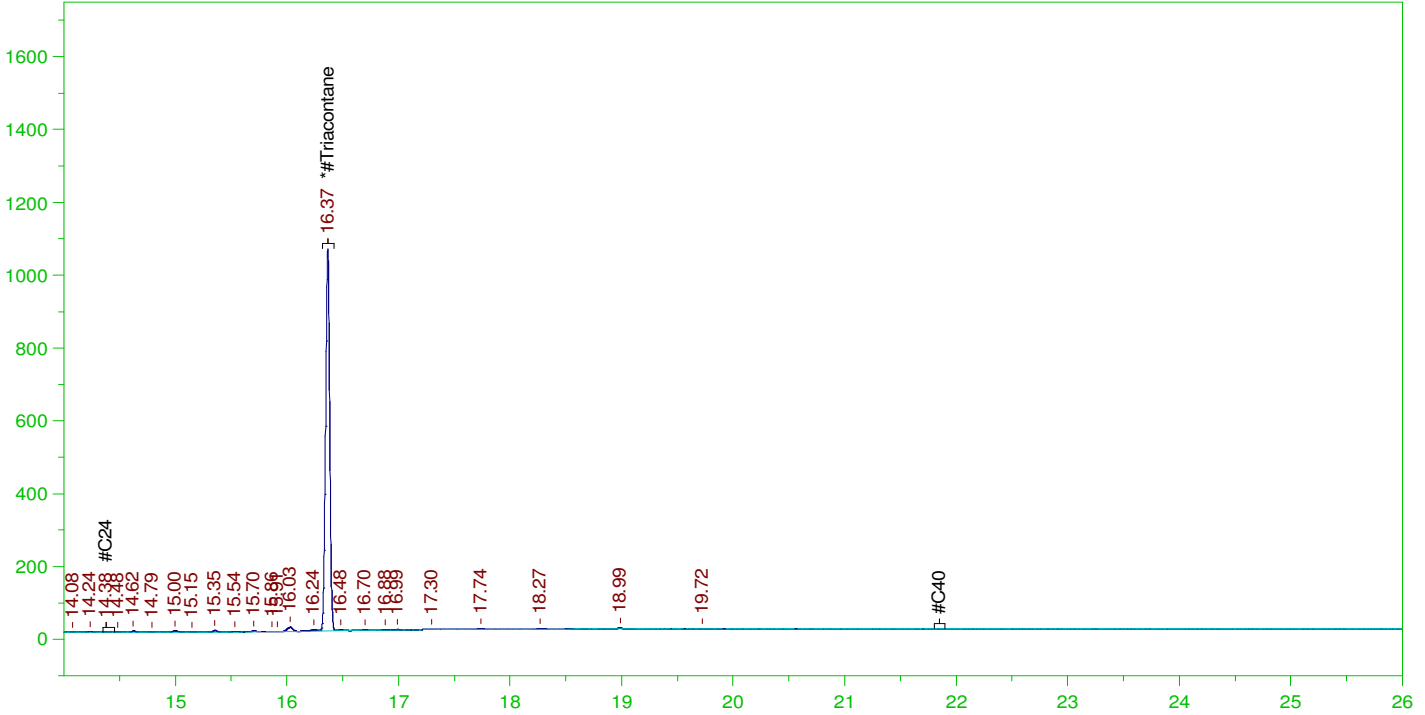
DRO Area:608125.6 DRO Amount: 1.861114E-02  
 TEH Area:1006431 TEH Amount: 3.080092E-02

ERH2490 (RHMW2254-01 LF)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0010.RAW

B22011592-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0010.RAW  
 Date & Time Acquired: 1/31/2022 5:15:04 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-BDa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BDa\_SAMP.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 14.35 to 21.9

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.366	.5	.092	18.38

RRO Area:164694.7 RRO AMOUNT: 6.232637E-03

ERH2490 (RHMW2254-01 LF)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0010.RAW

B22011592-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0010.RAW  
 Date & Time Acquired: 1/31/2022 5:15:04 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

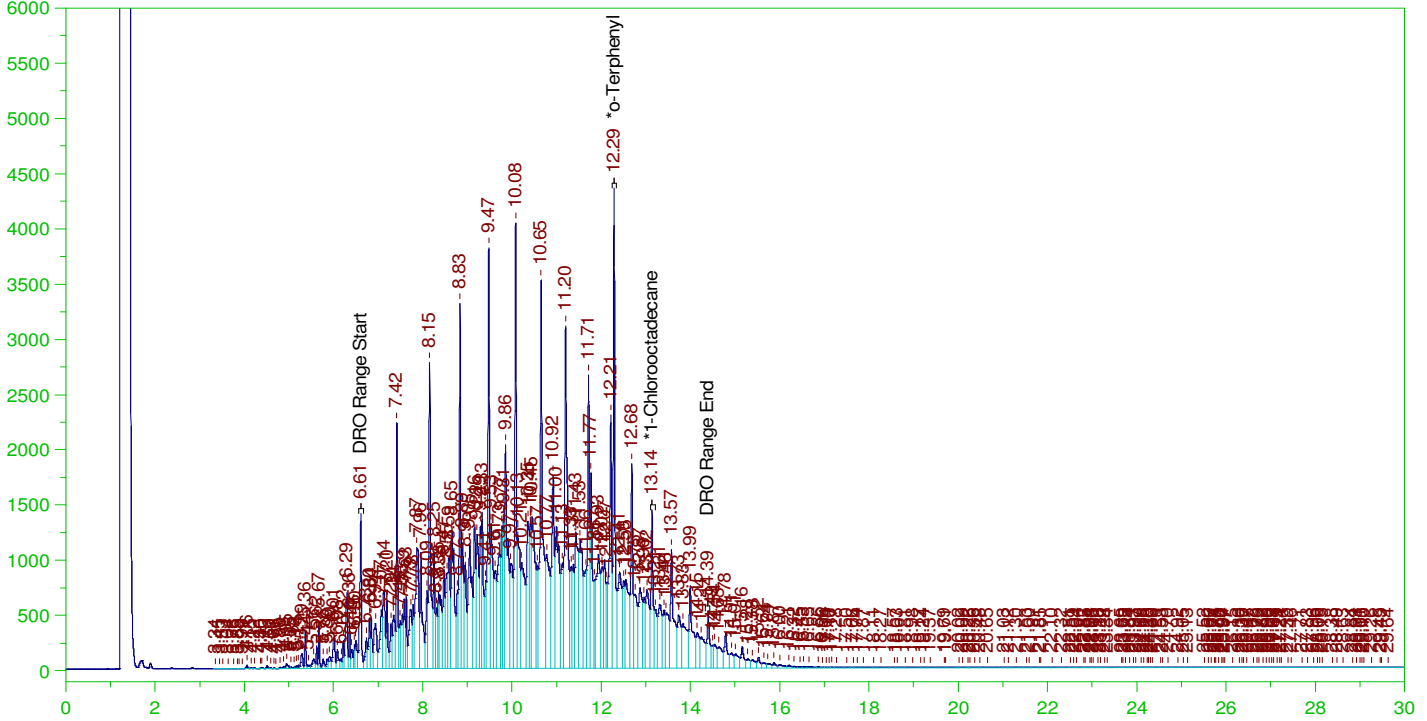
Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.282	.2	.172	85.85
*1-Chlorooctadecane	13.103	.2	.01	-
*#Triacontane	16.366	.2	.091	45.7

DRO Area:384883.4 DRO Amount: 1.177901E-02  
 TEH Area:823529.9 TEH Amount: 2.520339E-02

Batch ID: 163307  
B22011592-001DMS ;0131HP5 , SGT

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0011.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-001DMS ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0011.RAW  
 Date & Time Acquired: 1/31/2022 5:58:15 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-C24-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1060 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

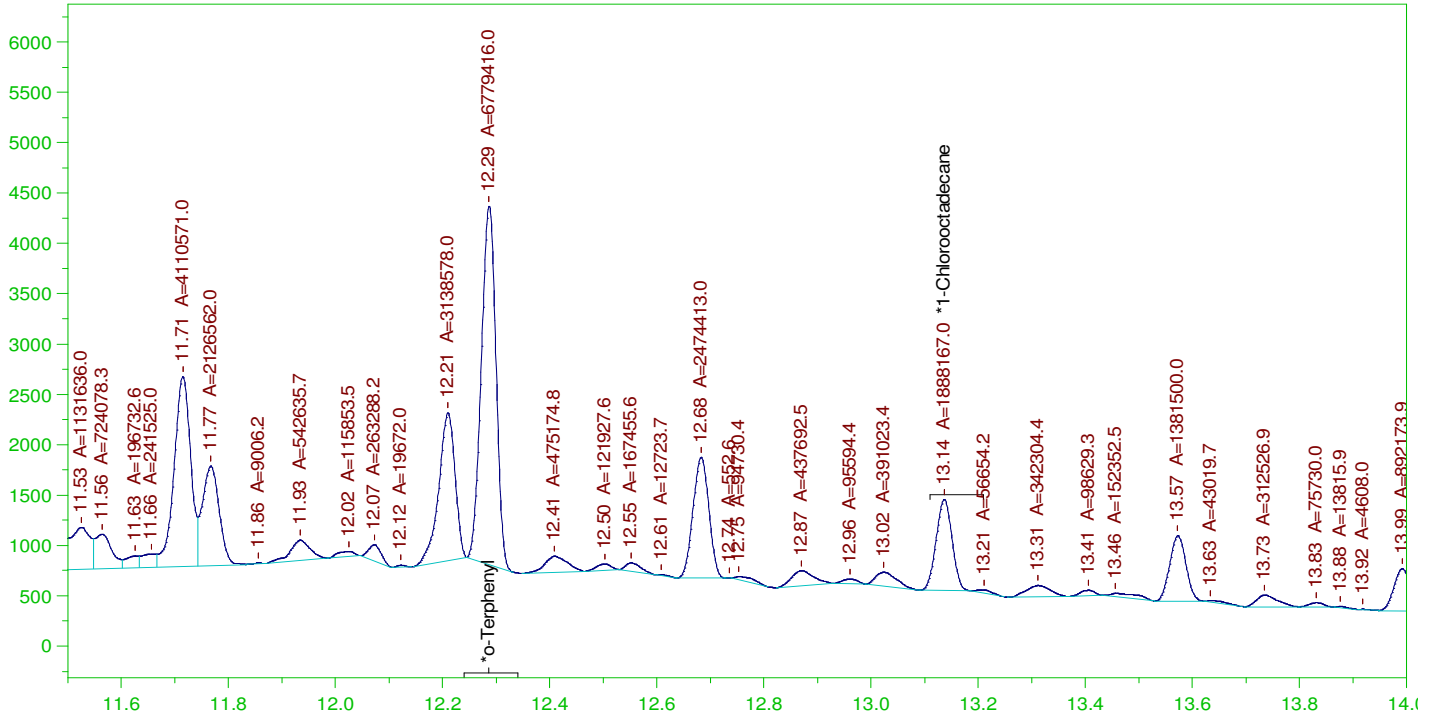
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.287	.189	.294	155.94	-
*1-Chlorooctadecane	13.137	.189	.125	66.45	-

DRO Area: 3.777573E+08 DRO Amount: 10.90653  
 TEH Area: 4.015951E+08 TEH Amount: 11.59477

Batch ID: 163307

B22011592-001DMS ;0131HP5 , SGT

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0011.RAW



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-001DMS ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0011.RAW  
 Date & Time Acquired: 1/31/2022 5:58:15 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1060 Dilution: 1 S.A.: 1

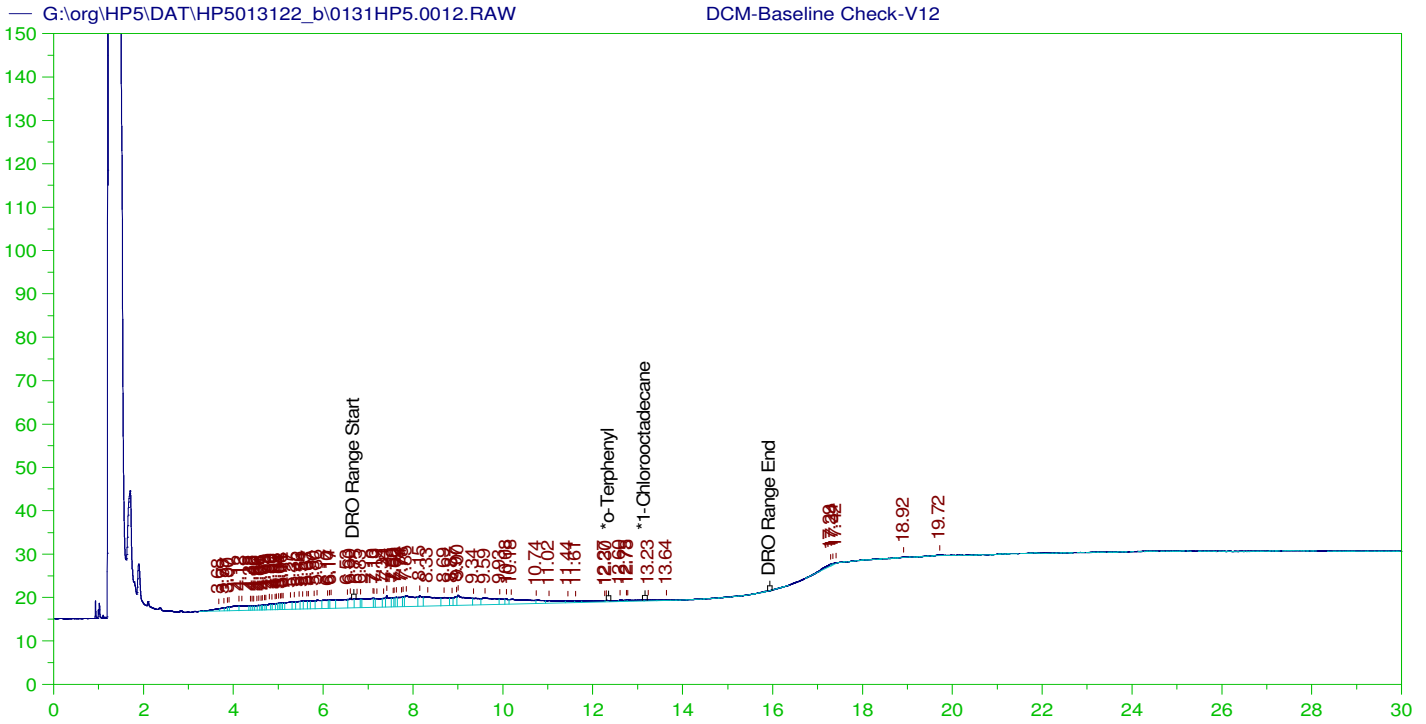
Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.287	.189	.174	91.97
*1-Chlorooctadecane	13.137	.189	.048	25.61

DRO Area: 1.725396E+08 DRO Amount: 4.981529  
 TEH Area: 1.827077E+08 TEH Amount: 5.275099





**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V12  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0012.RAW  
 Date & Time Acquired: 1/31/2022 6:41:23 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

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

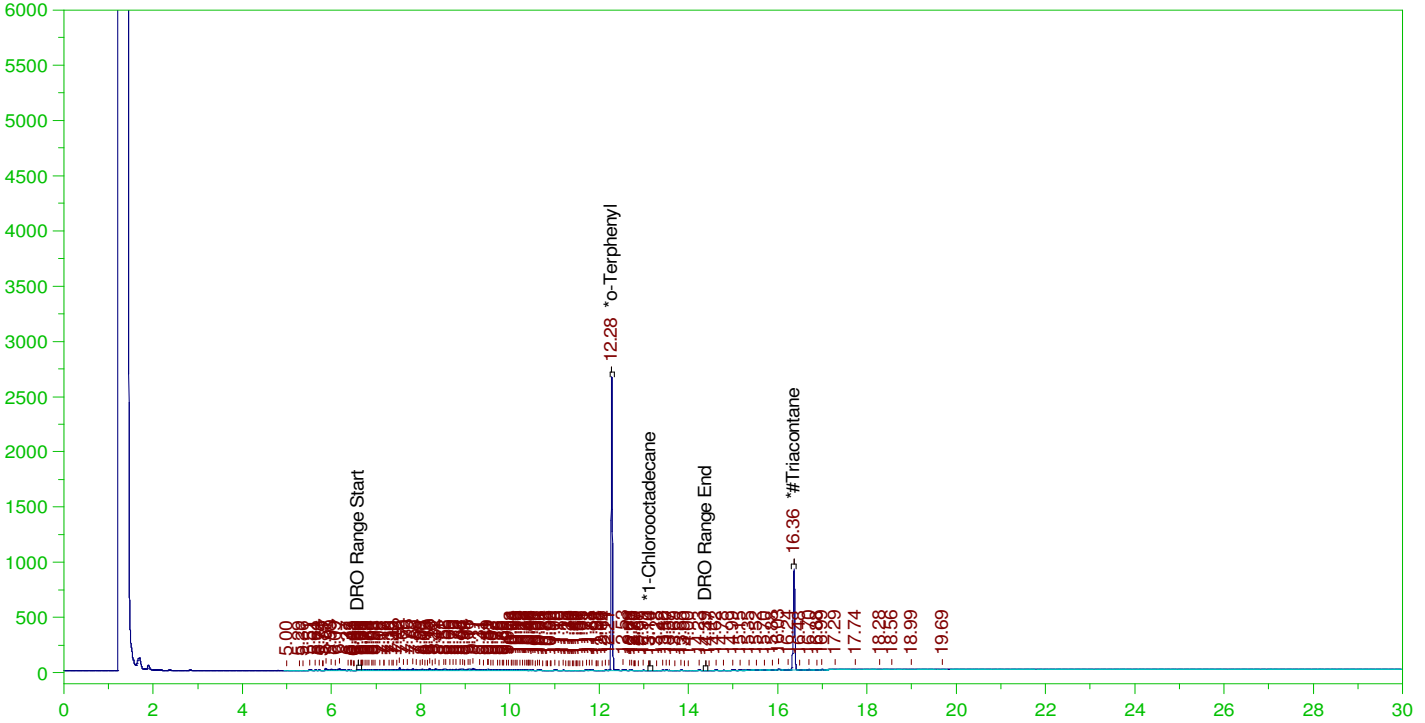
DRO Area:470225 DRO Amount: 14.39081  
 TEH Area:765908.7 TEH Amount: 23.43995

ERH2474 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0013.RAW

B22011592-006D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-006D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0013.RAW  
 Date & Time Acquired: 1/31/2022 7:24:24 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.28	.198	.137	68.96	-
*1-Chlorooctadecane	13.142	.198	.	.02	-
*#Triacontane	16.36	.198	.08	40.35	-

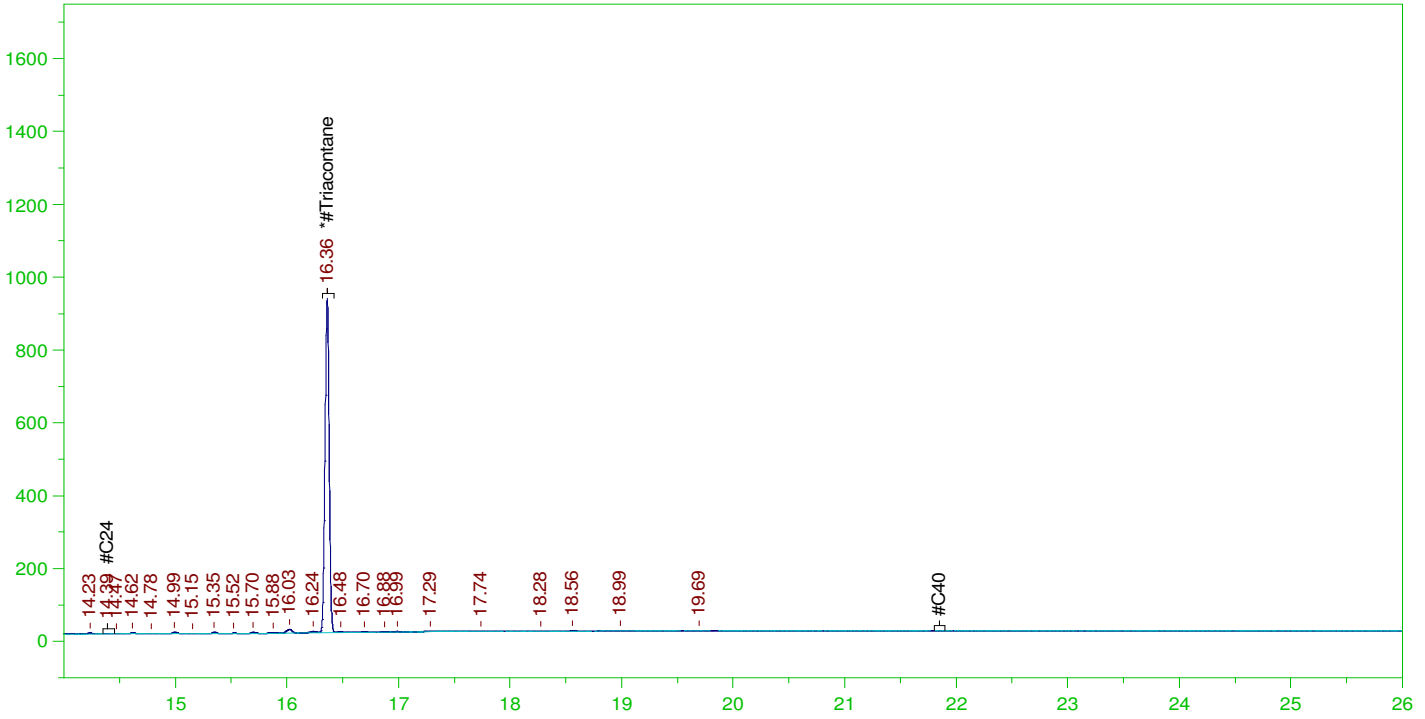
DRO Area:1345256 DRO Amount: 4.076273E-02  
 TEH Area:1742234 TEH Amount: 5.279158E-02

ERH2474 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0013.RAW

B22011592-006D ;0131HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-006D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0013.RAW  
 Date & Time Acquired: 1/31/2022 7:24:24 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-BDa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BDa\_SAMP.CAL  
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 14.35 to 21.9

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.36	.495	.08	16.14	-

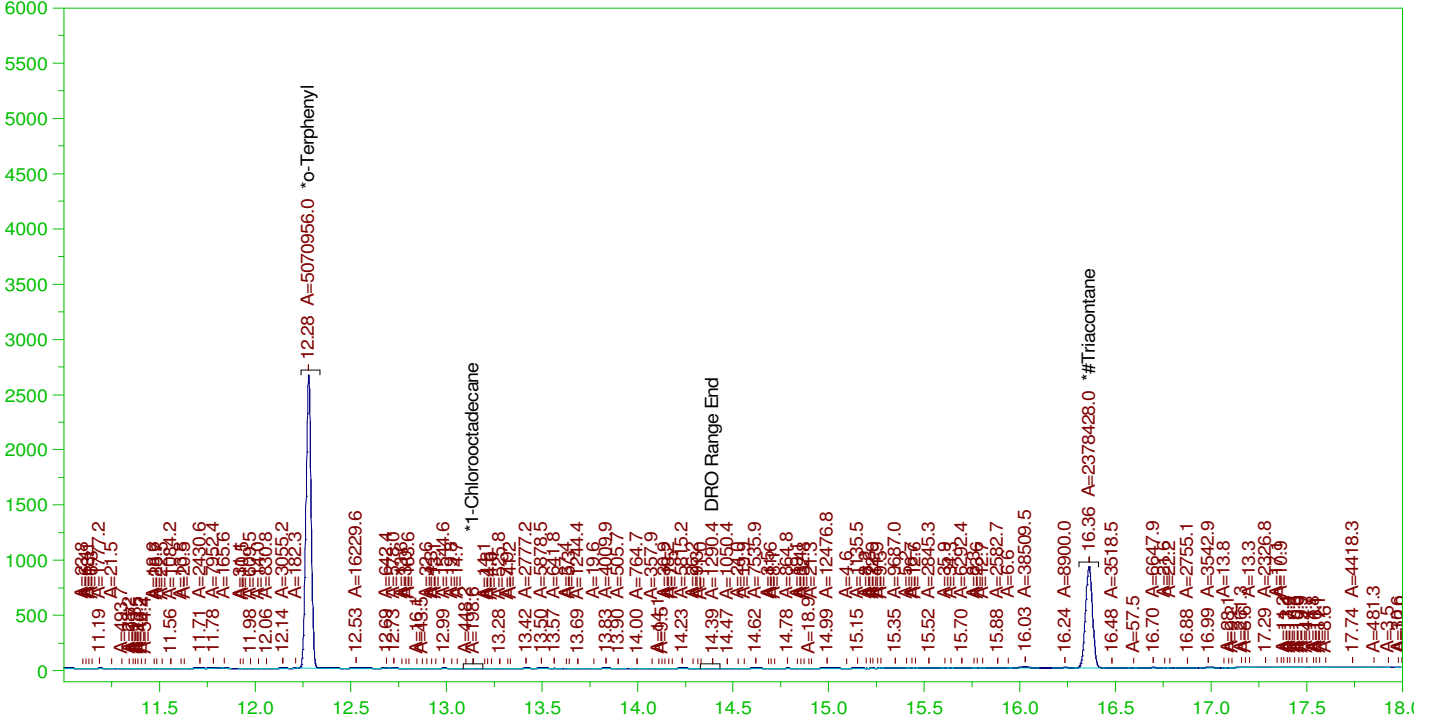
RRO Area:151069.2 RRO AMOUNT: 5.660398E-03

ERH2474 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0013.RAW

B22011592-006D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-006D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0013.RAW  
 Date & Time Acquired: 1/31/2022 7:24:24 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111Jd-C24-T.CAL  
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.28	.198	.136	68.79	-
*1-Chlorooctadecane	29.994	.198	.		-
*#Triacontane	16.36	.198	.079	40.13	-

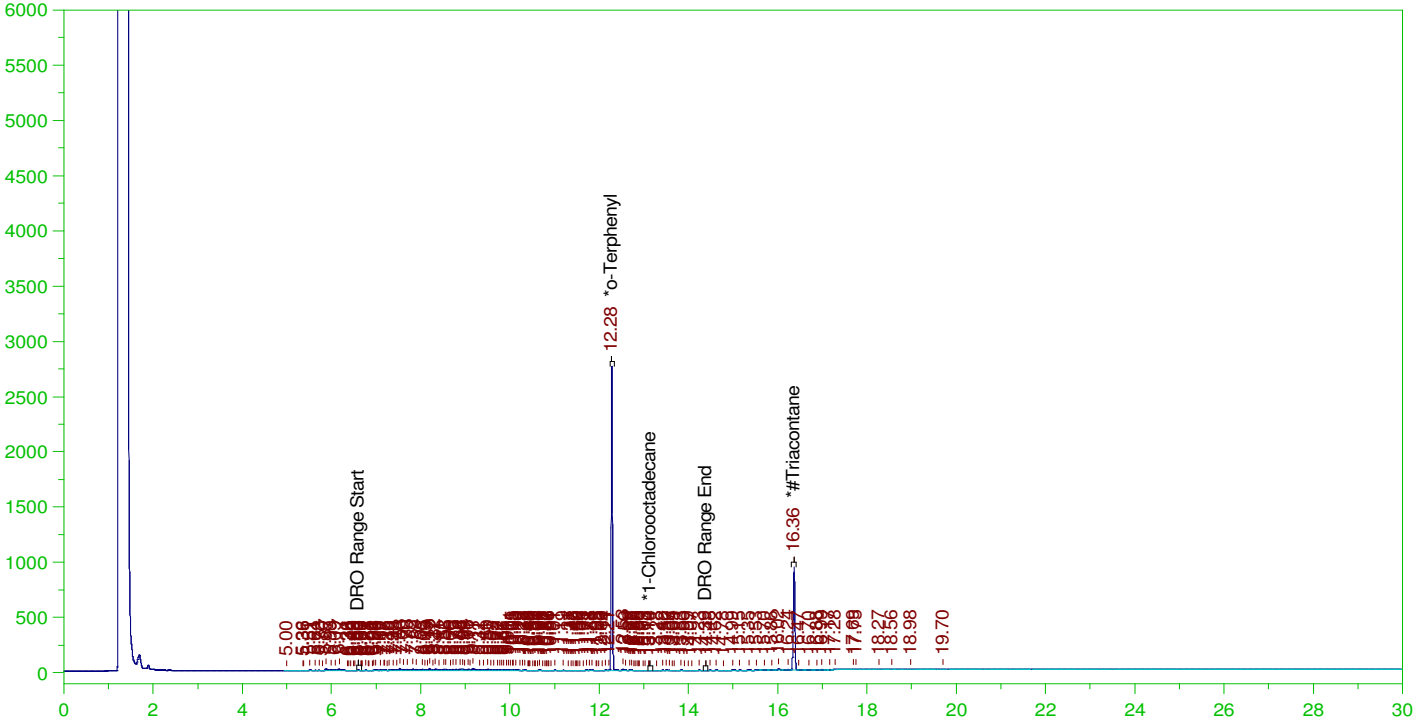
DRO Area:1249729 DRO Amount: 3.786815E-02  
 TEH Area:1769513 TEH Amount: 5.361818E-02

ERH2475 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0014.RAW

B22011592-007B ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-007B ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0014.RAW  
 Date & Time Acquired: 1/31/2022 8:07:24 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.281	.198	.141	71.31	-
*1-Chlorooctadecane	13.142	.198	.	.04	-
*#Triacontane	16.362	.198	.081	40.83	-

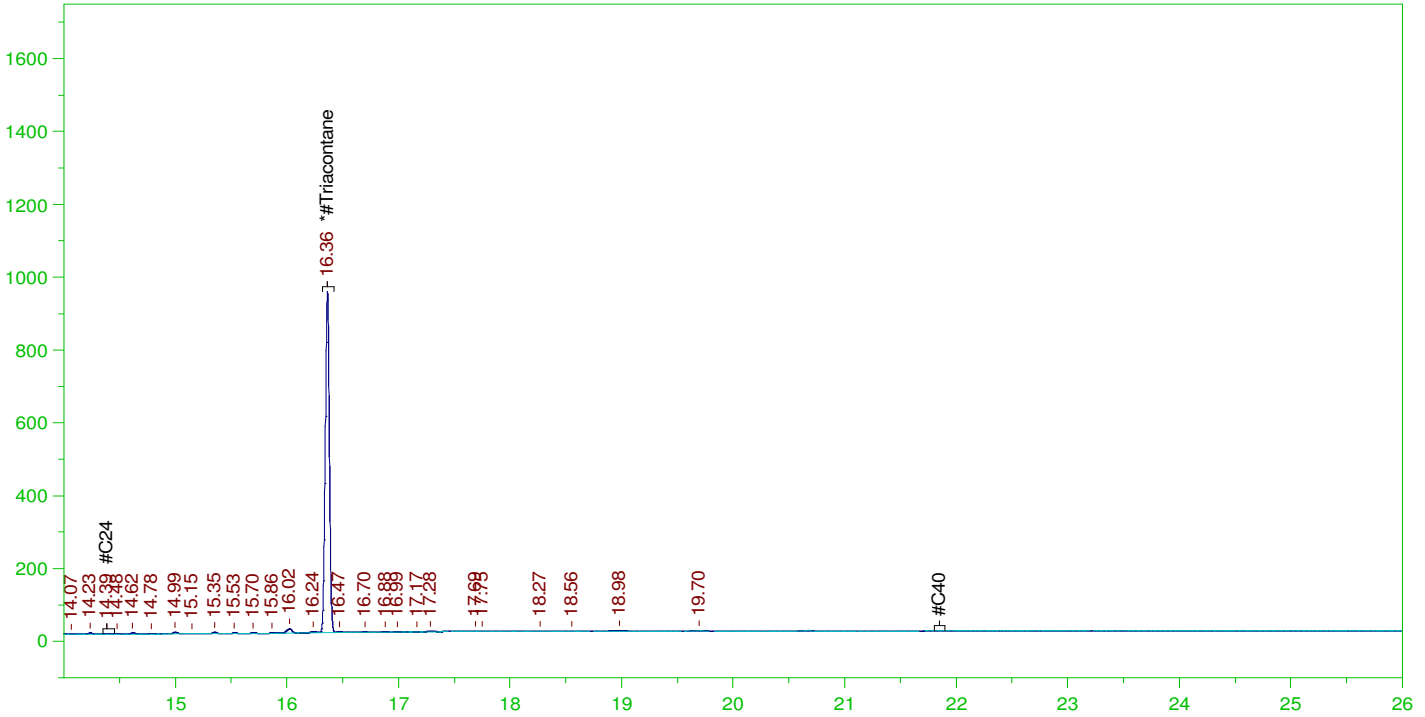
DRO Area:1382601 DRO Amount: 4.189432E-02  
 TEH Area:1781709 TEH Amount: 5.398772E-02

ERH2475 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0014.RAW

B22011592-007B ;0131HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-007B ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0014.RAW  
 Date & Time Acquired: 1/31/2022 8:07:24 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-BDa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BDa\_SAMP.CAL  
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 14.35 to 21.9

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.362	.495	.081	16.33

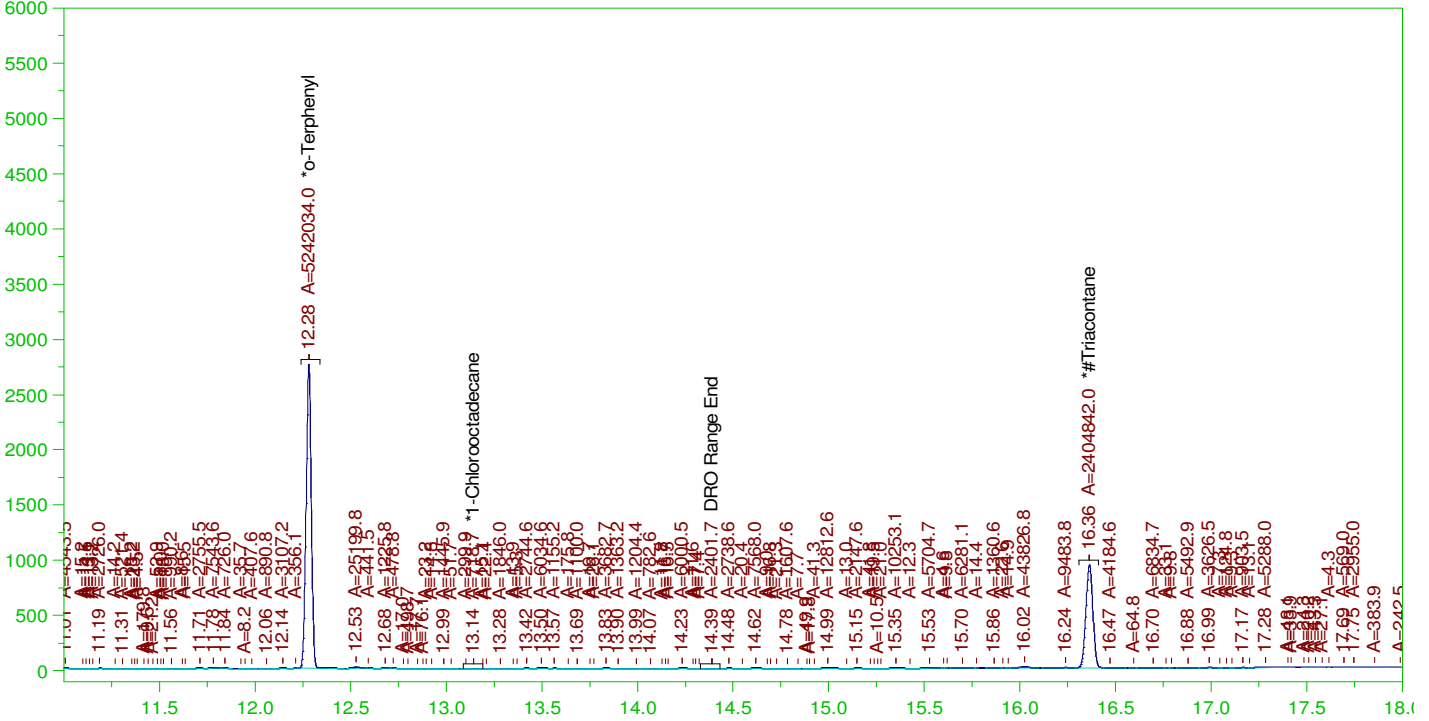
RRO Area:179764.2 RRO AMOUNT: 6.735567E-03

ERH2475 (RHMW01R)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0014.RAW

B22011592-007B ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

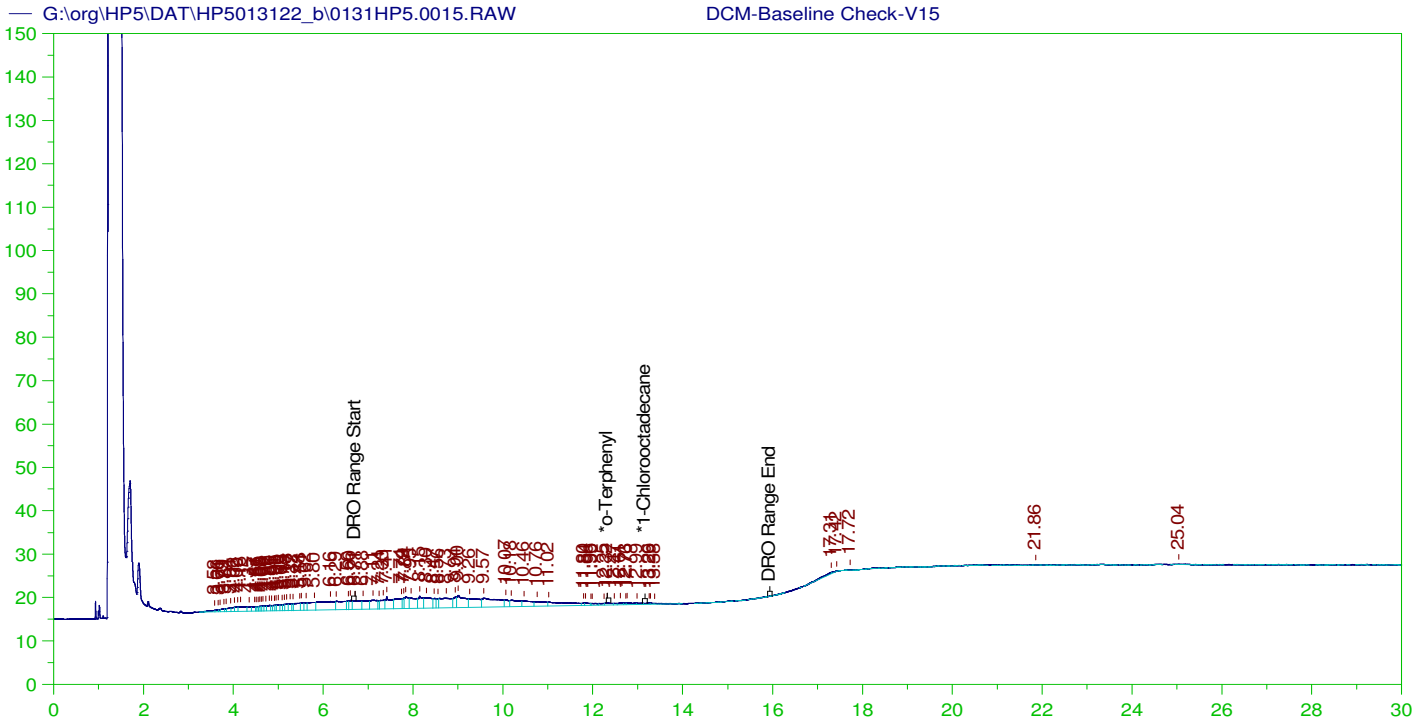
Sample Name: B22011592-007B ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0014.RAW  
 Date & Time Acquired: 1/31/2022 8:07:24 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
 Sample Weight: 1010 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.281	.198	.141	71.11	-
*1-Chlorooctadecane	13.142	.198	.	.01	-
*#Triacontane	16.362	.198	.08	40.57	-

DRO Area:1260919 DRO Amount: 3.820721E-02  
 TEH Area:1782659 TEH Amount: 5.401651E-02



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V15  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0015.RAW  
 Date & Time Acquired: 1/31/2022 8:50:25 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.321	200.	.123	.06
*1-Chlorooctadecane	29.954	200.	.	.

DRO Area:557092.2 DRO Amount: 17.0493  
 TEH Area:839643.2 TEH Amount: 25.69653

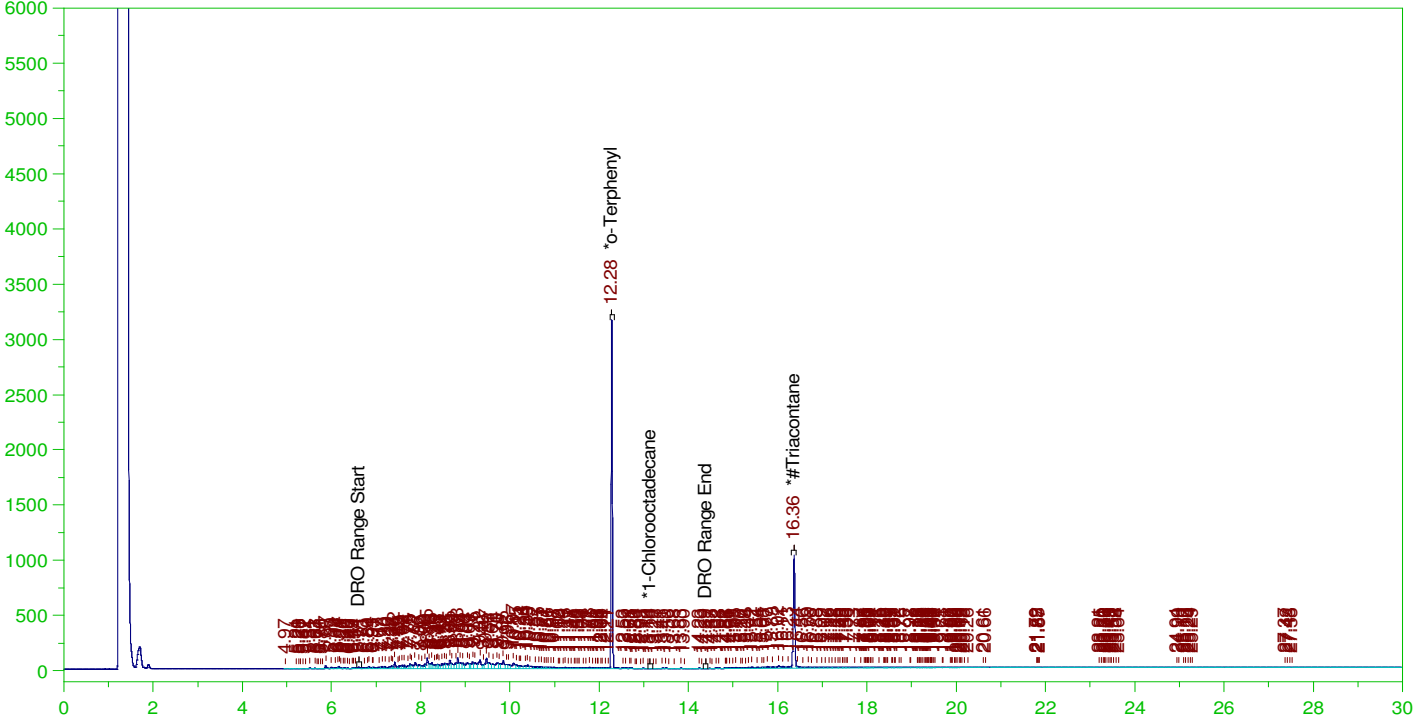


ERH2493 (Sump Adit3)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0016.RAW

B22011592-017D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-017D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0016.RAW  
 Date & Time Acquired: 1/31/2022 9:33:28 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-013116-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.28	.19	.158	82.76	-
*1-Chlorooctadecane	13.14	.19	.	.08	-
*#Triacontane	16.361	.19	.088	46.03	-

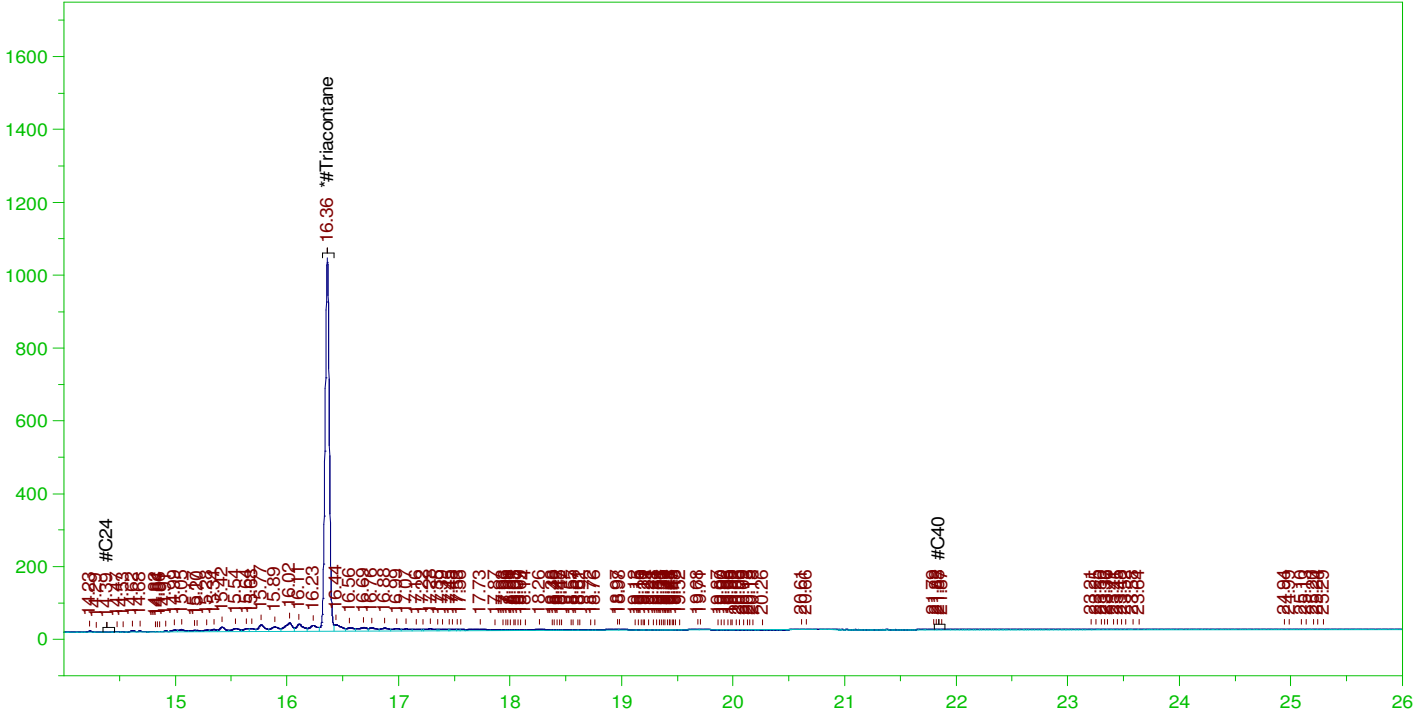
DRO Area:8783842 DRO Amount: 0.2560206  
 TEH Area:1.06453E+07 TEH Amount: 0.3102759

ERH2493 (Sump Adit3)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0016.RAW

B22011592-017D ;0131HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-017D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0016.RAW  
 Date & Time Acquired: 1/31/2022 9:33:28 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-013116-BDa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BDa\_SAMP.CAL  
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 14.35 to 21.9

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.361	.476	.088	18.41

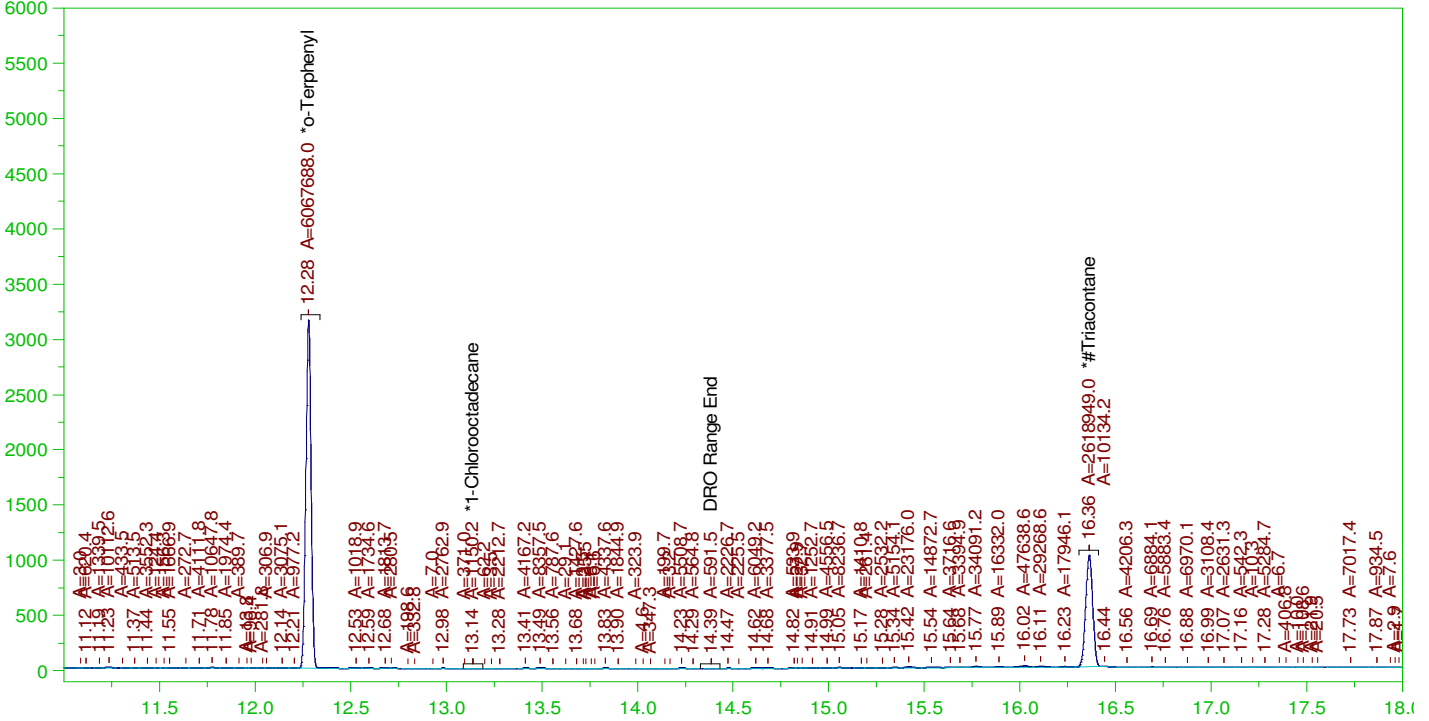
RRO Area:1475748 RRO AMOUNT: 5.318819E-02

ERH2493 (Sump Adit3)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0016.RAW

B22011592-017D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-017D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0016.RAW  
 Date & Time Acquired: 1/31/2022 9:33:28 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
 Sample Weight: 1050 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.28	.19	.157	82.31
*1-Chlorooctadecane	13.14	.19	.02	-
*#Triacontane	16.361	.19	.084	44.19

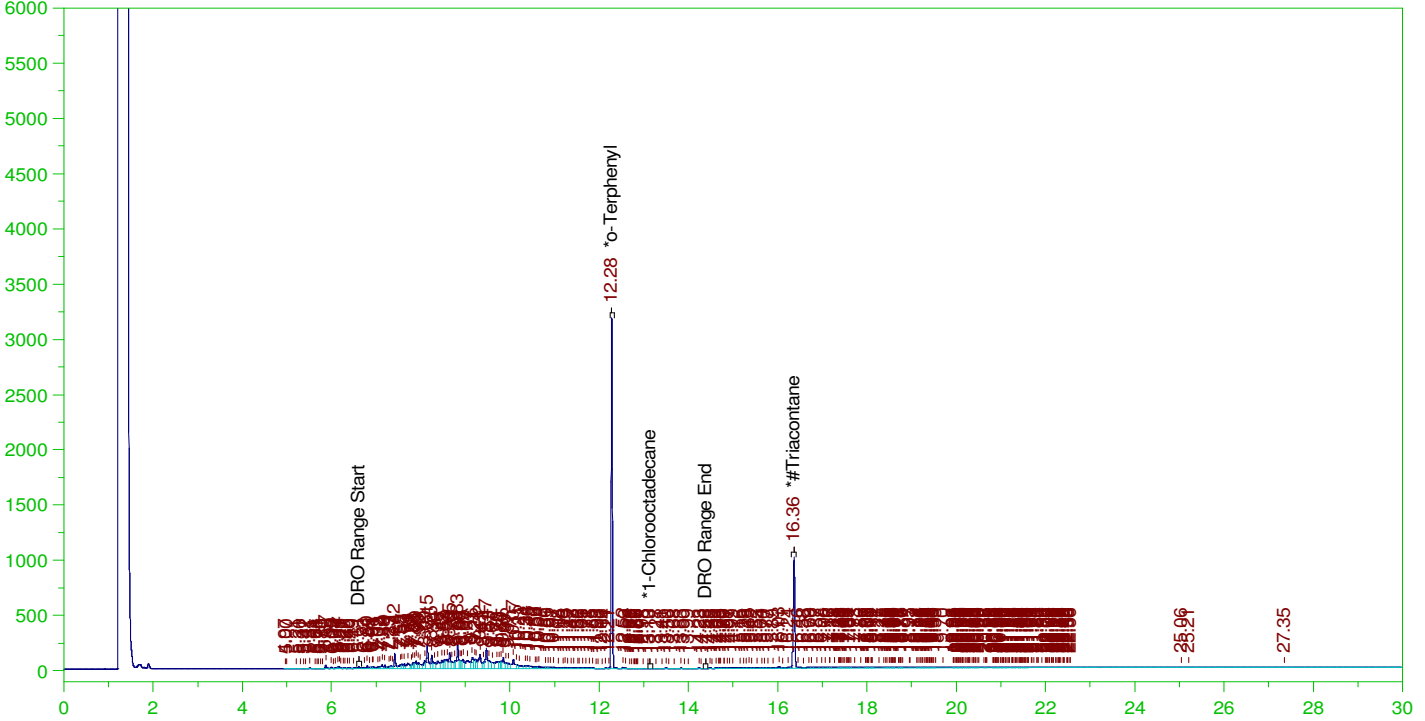
DRO Area: 6753404 DRO Amount: 0.1968399  
 TEH Area: 7329465 TEH Amount: 0.2136302

ERH2486 (RHMW254-01 Bailer)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0017.RAW

B22011592-027D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-027D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0017.RAW  
 Date & Time Acquired: 1/31/2022 10:16:23 PM  
 Method File: G:\Org\HP5\Methods\DR\_8015-013117-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.28	.2	.165	82.65 -
*1-Chlorooctadecane	13.135	.2	.02	-
*#Triacontane	16.361	.2	.089	44.37 -

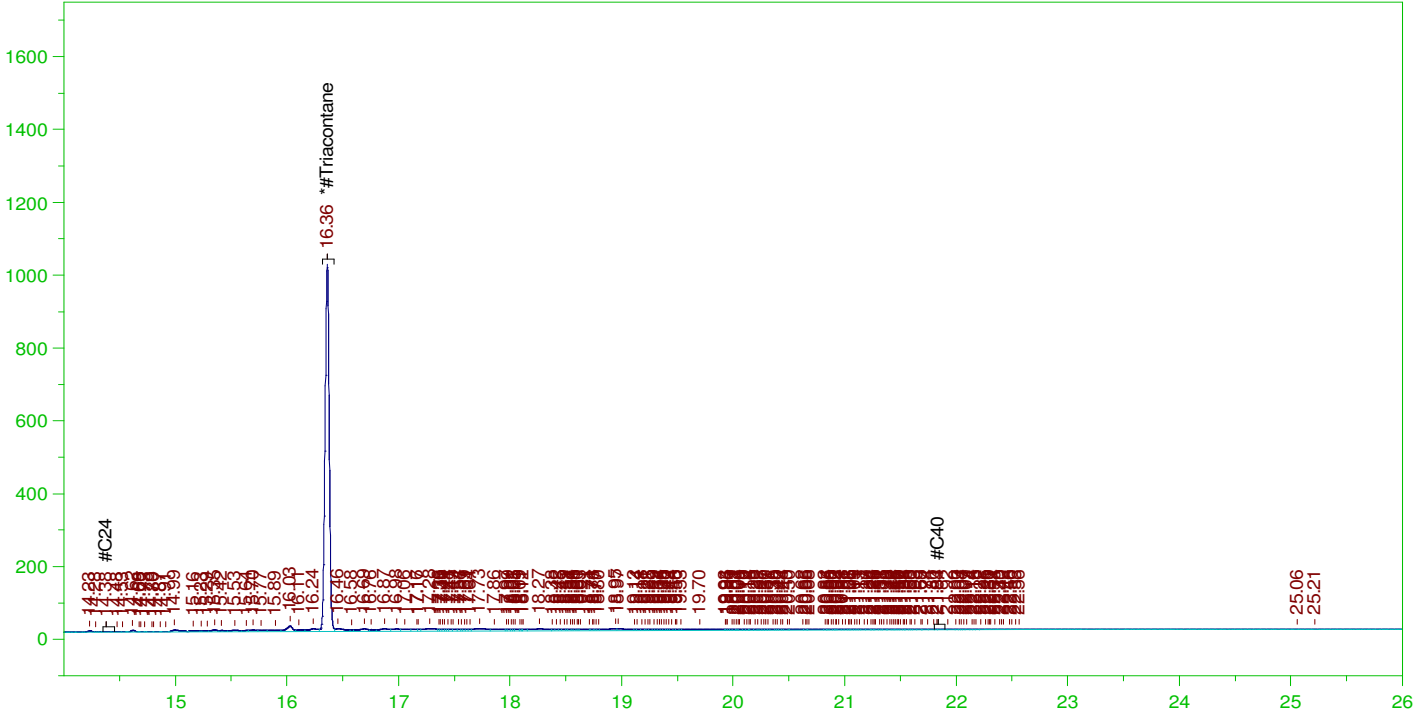
DRO Area:1.259029E+07 DRO Amount: 0.3853146  
 TEH Area:1.45153E+07 TEH Amount: 0.4442278

ERH2486 (RHMW254-01 Bailer)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0017.RAW

B22011592-027D ;0131HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-027D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0017.RAW  
 Date & Time Acquired: 1/31/2022 10:16:23 PM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-013117-BDa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BDa\_SAMP.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 14.35 to 21.9

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.361	.5	.089	17.75

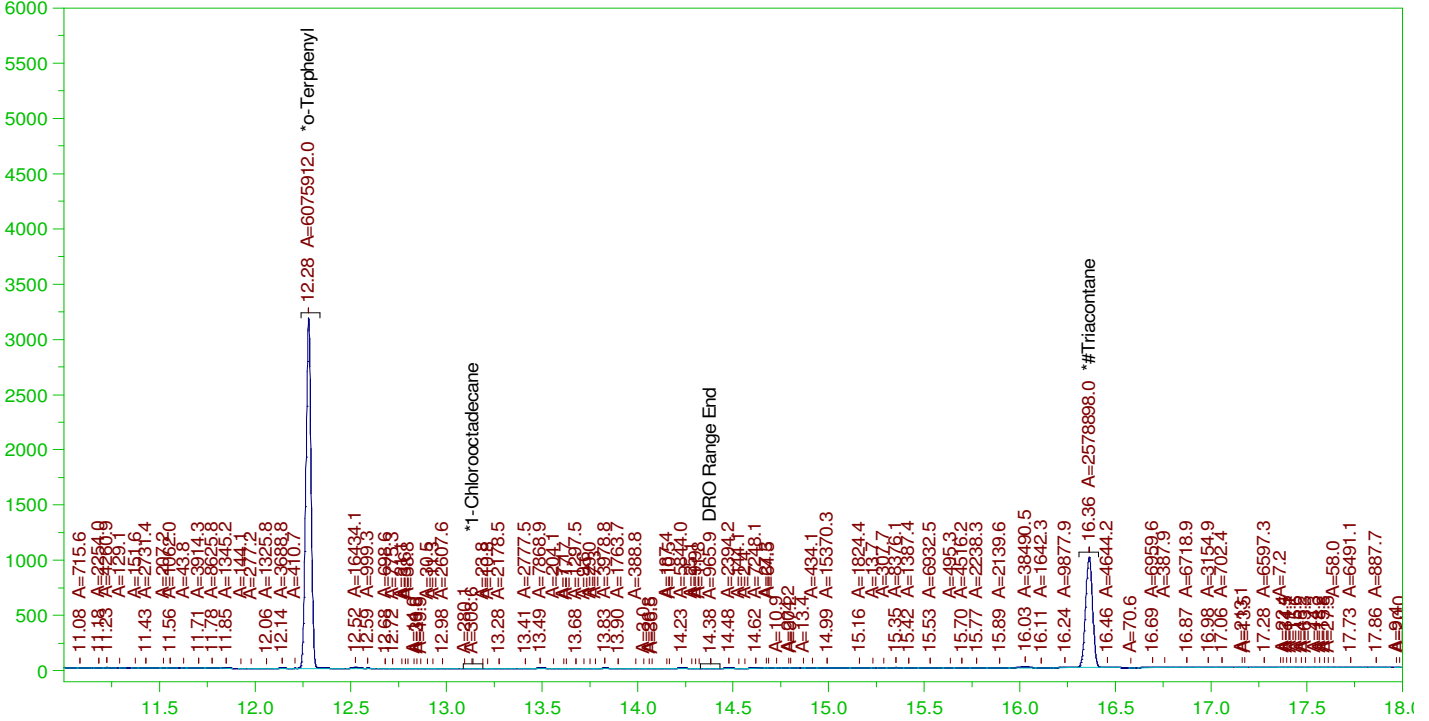
RRO Area:1532114 RRO AMOUNT: 0.0579807

ERH2486 (RHMW254-01 Bailer)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0017.RAW

B22011592-027D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011592-027D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0017.RAW  
 Date & Time Acquired: 1/31/2022 10:16:23 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.28	.2	.165	82.42
*1-Chlorooctadecane	29.989	.2	.	-
*#Triacontane	16.361	.2	.087	43.51

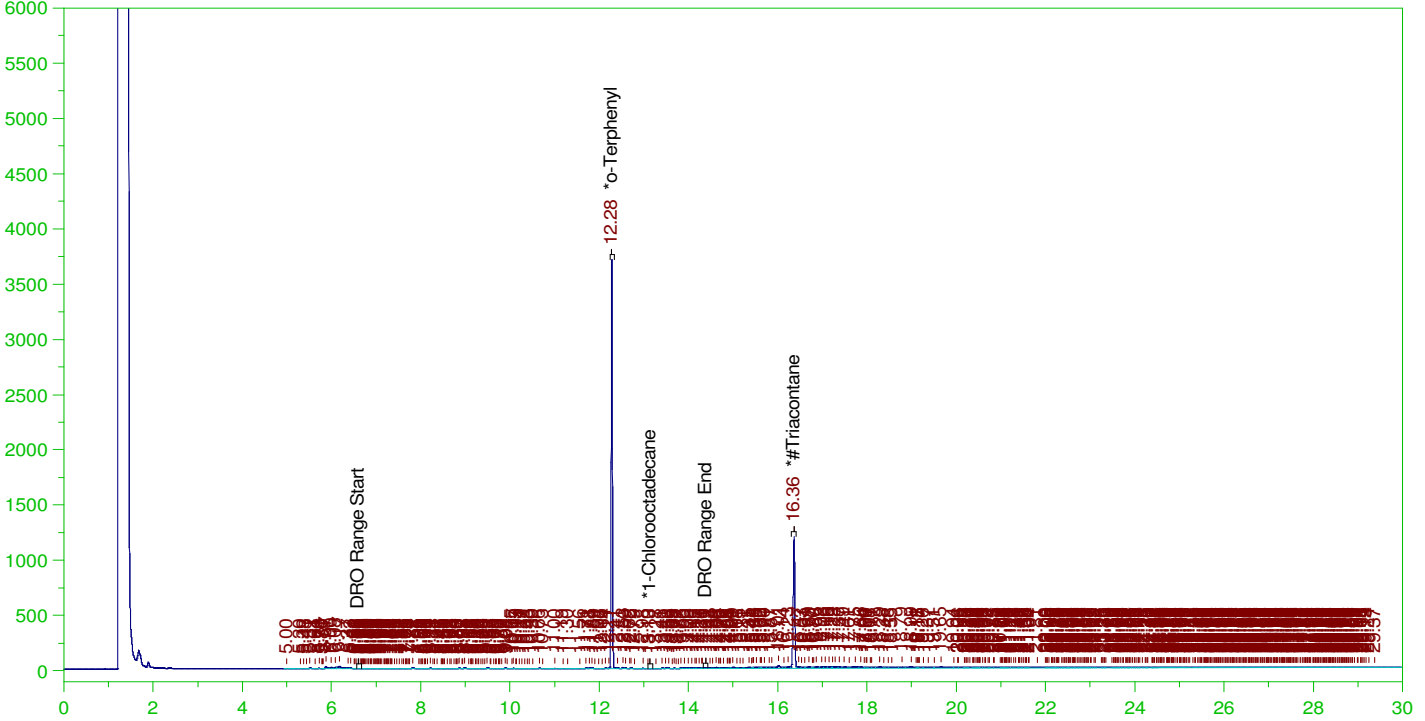
DRO Area:1.013594E+07 DRO Amount: 0.3102012  
 TEH Area:1.059168E+07 TEH Amount: 0.3241489

ERH2478 (RHMW19)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0018.RAW

B22011717-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B22011717-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0018.RAW  
 Date & Time Acquired: 1/31/2022 10:59:21 PM  
 Method File: G:\Org\HP5\Methods\D3\_8015-C24T-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
 Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.281	.208	.2	96.04	-
*1-Chlorooctadecane	13.133	.208	.	.02	-
*#Triacontane	16.36	.208	.11	52.67	-

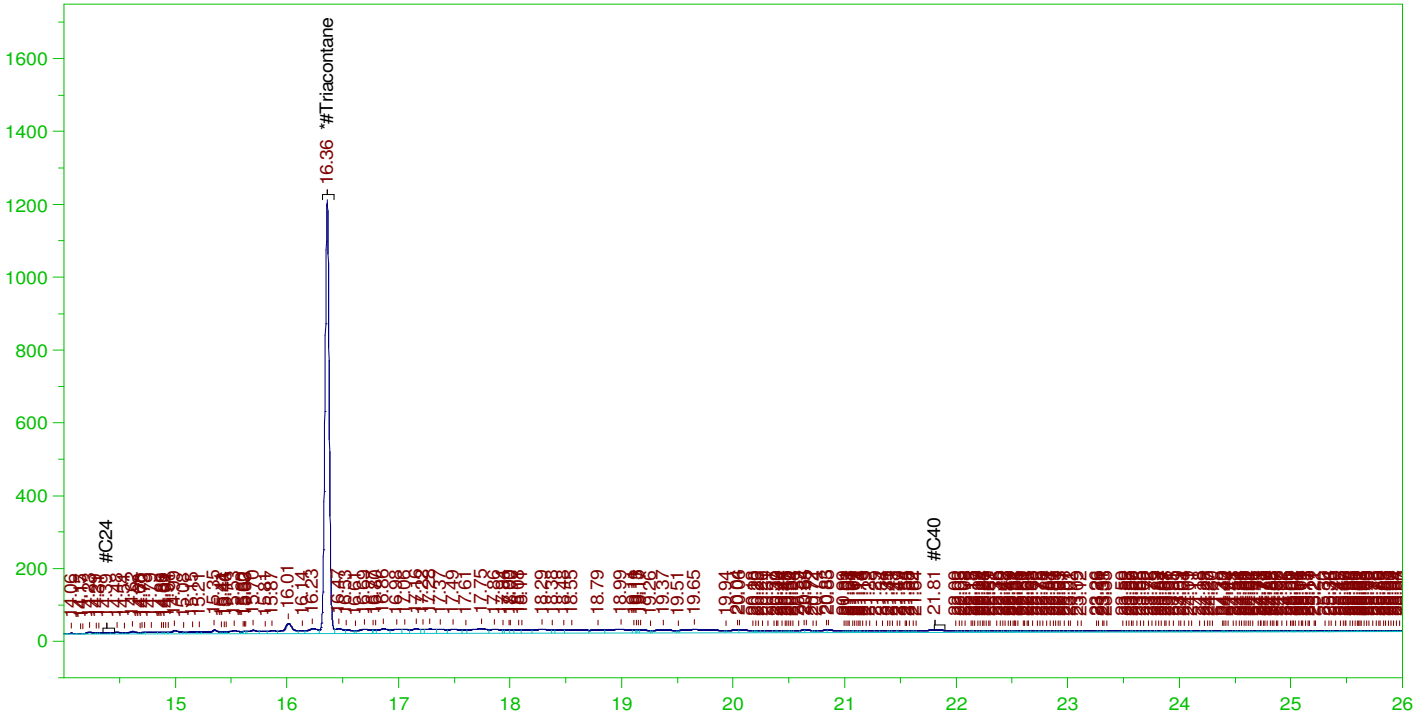
DRO Area:471383.7 DRO Amount: 1.502737E-02  
 TEH Area:5256116 TEH Amount: 0.1675611

ERH2478 (RHMW19)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0018.RAW

B22011717-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011717-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0018.RAW  
 Date & Time Acquired: 1/31/2022 10:59:21 PM  
 Method File: G:\Org\HP5\Methods\D3\_OROS-BDa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BDa\_SAMP.CAL  
 Sample Weight: 960 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 14.35 to 21.9

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.36	.521	.11	21.07

RRO Area:3336877 RRO AMOUNT: 0.1315411

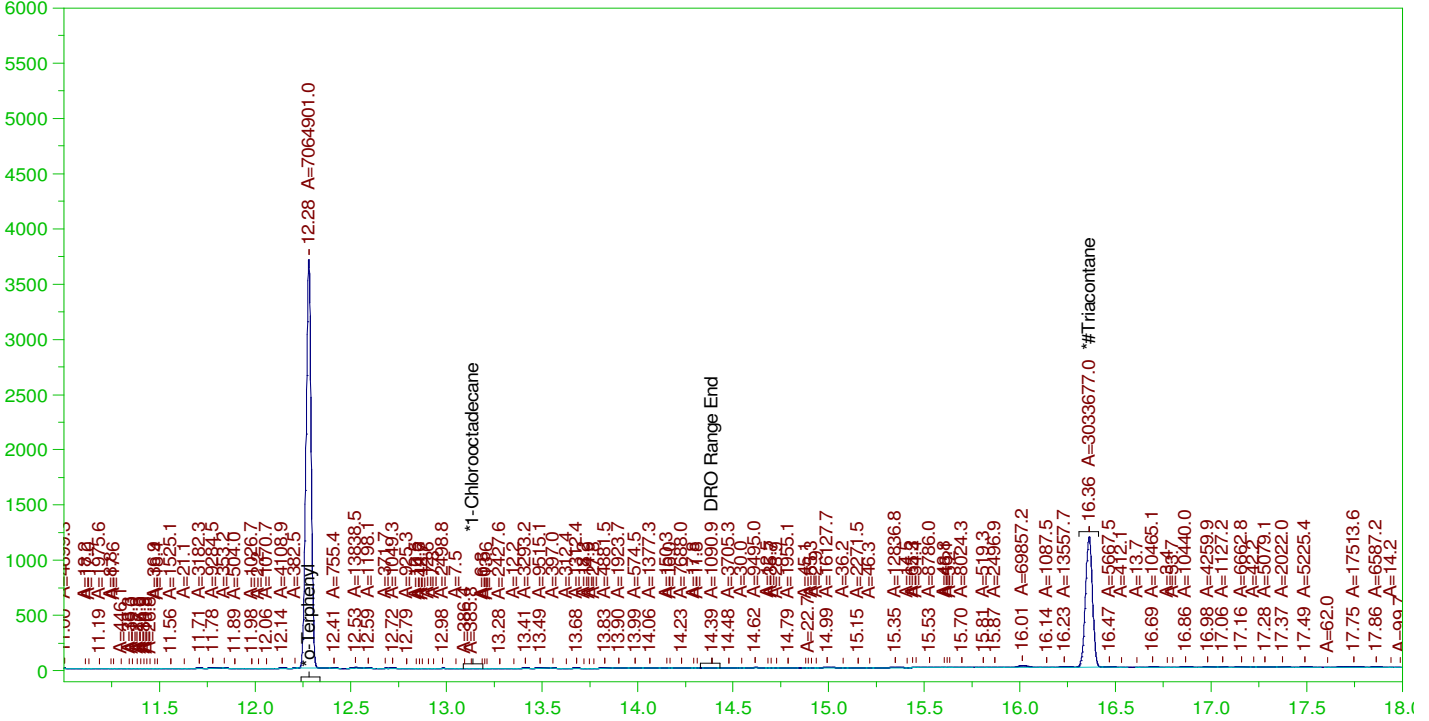


ERH2478 (RHMW19)

Batch ID: 163307

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0018.RAW

B22011717-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

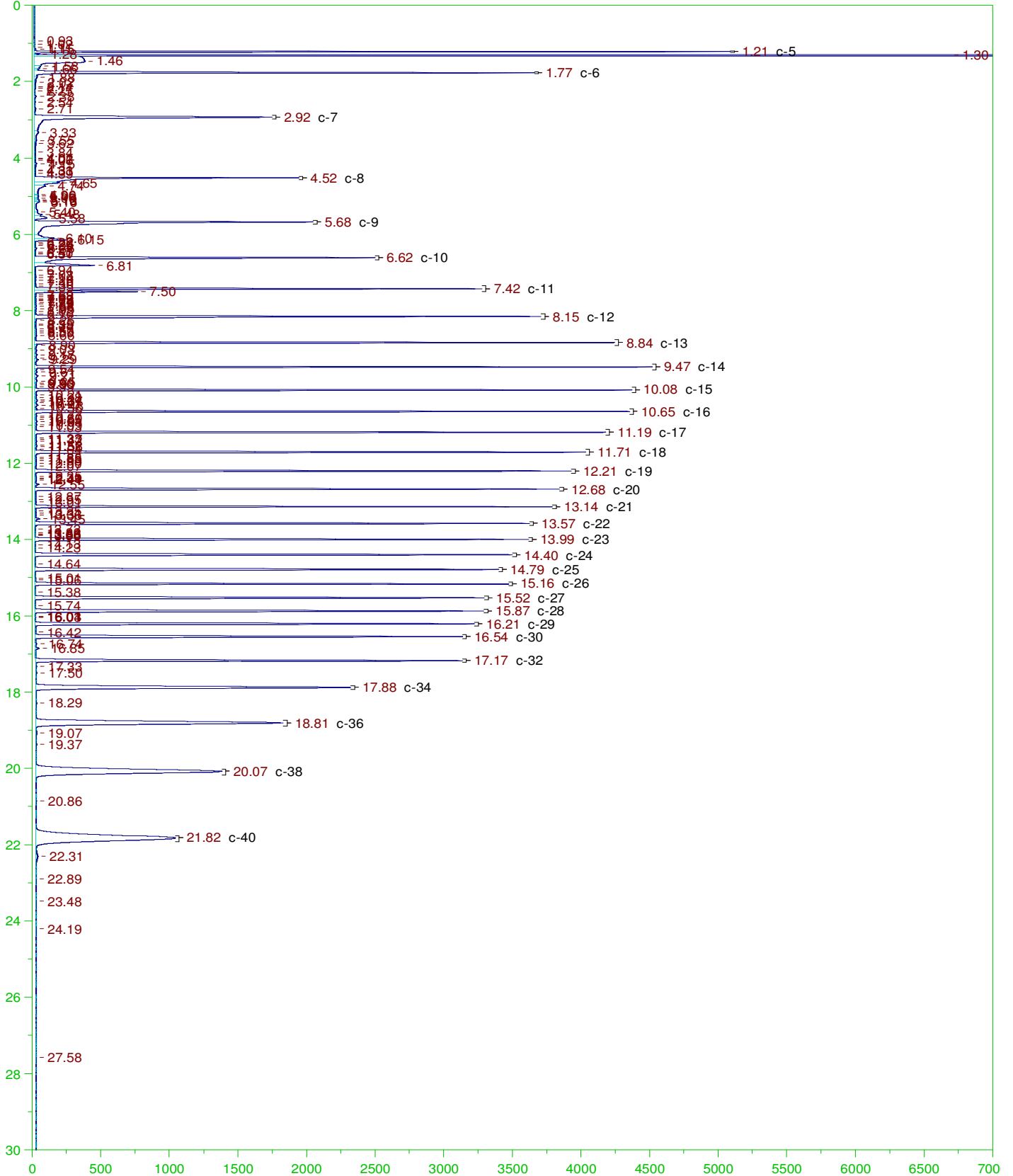
Sample Name: B22011717-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0018.RAW  
 Date & Time Acquired: 1/31/2022 10:59:21 PM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO2201111Jd-C24-T.CAL  
 Sample Weight: 960 Dilution: 1 S.A.: 1

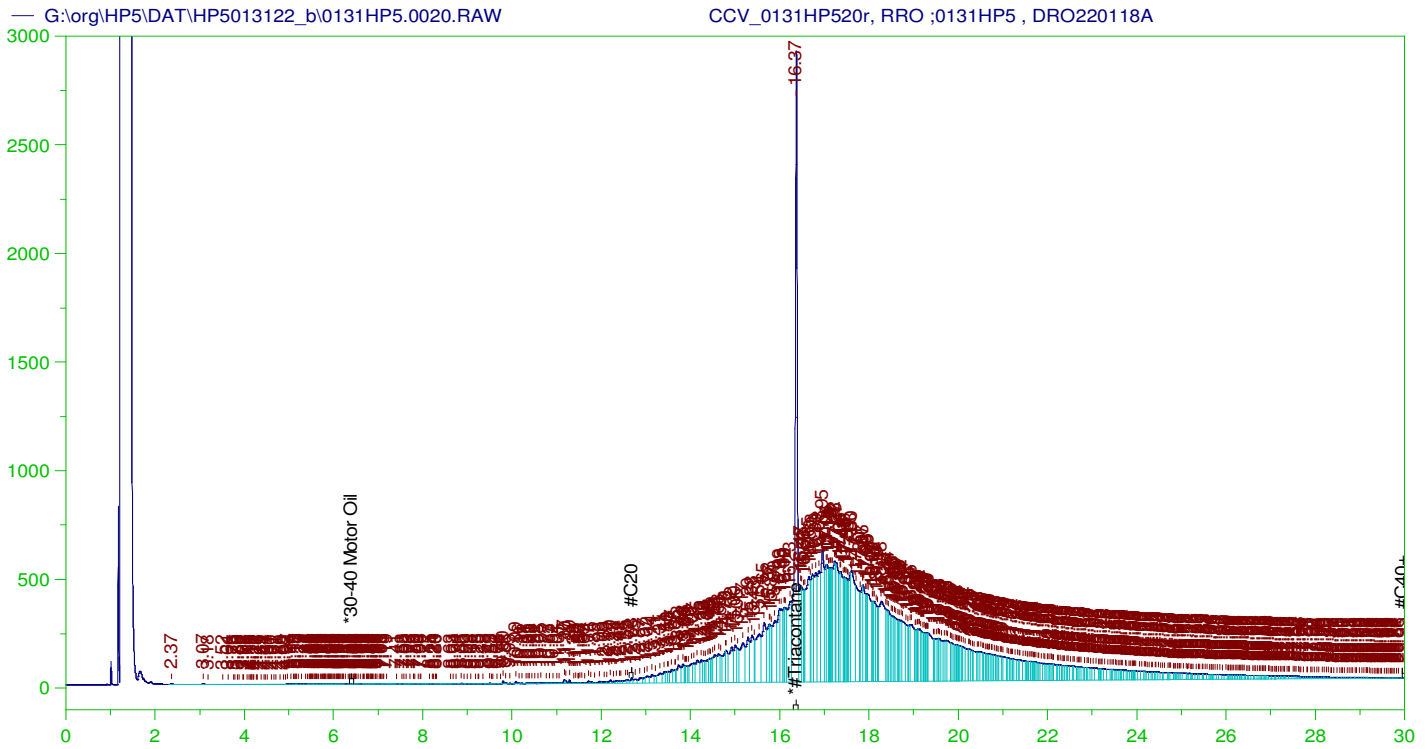
Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.281	.208	.2	95.84
*1-Chlorooctadecane	29.978	.208	.	-
*#Triacontane	16.36	.208	.107	51.18

DRO Area:385882.3 DRO Amount: 1.230165E-02  
 TEH Area:1110188 TEH Amount: 3.539197E-02





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0131HP520r, RRO ;0131HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0020.RAW  
 Date & Time Acquired: 2/1/2022 12:25:07 AM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111Bd.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.37	500.	352.325	70.46	-

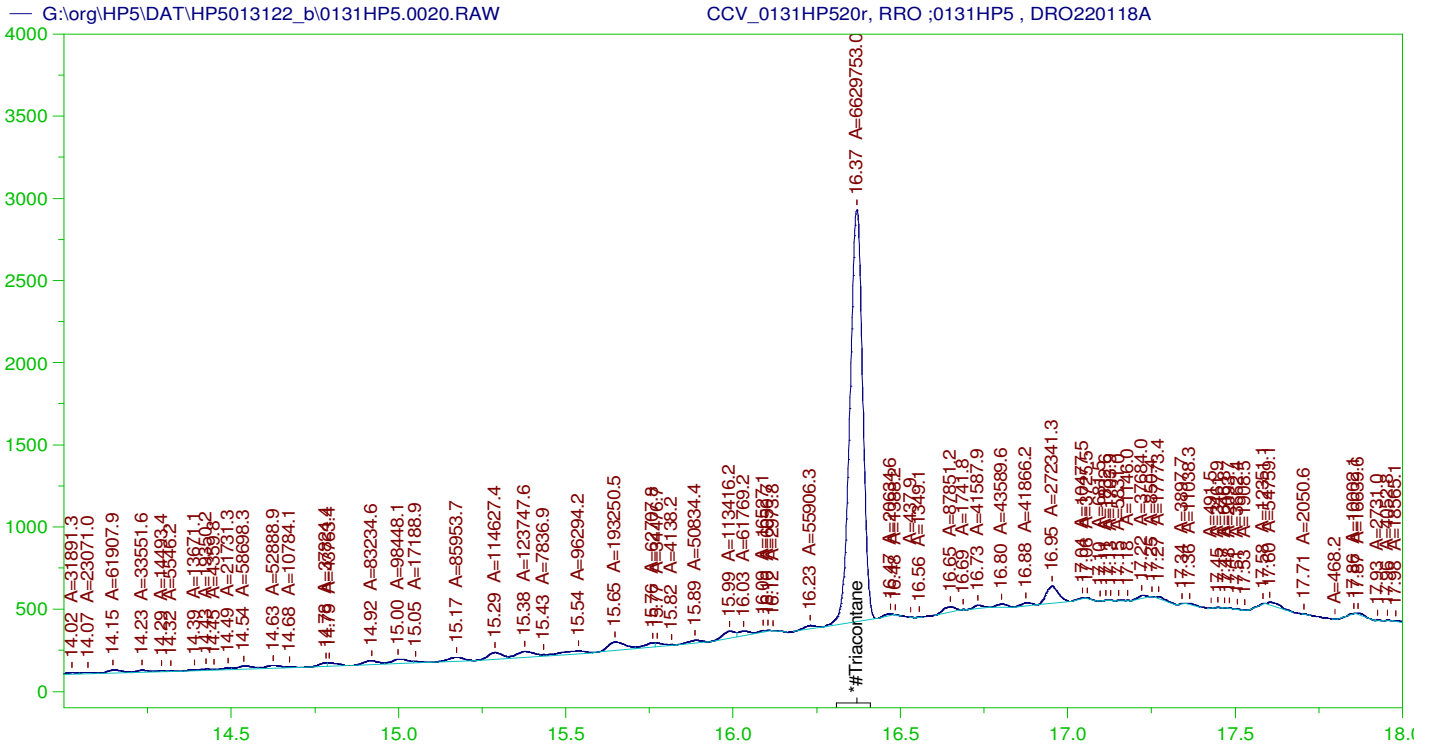
~~RRO~~ TEH(Oil Range) Area:1.309255E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4954.691

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.047	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.37	200.	352.325	176.16	75-125

AMN 02/11/2022



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0131HP520r, RRO ;0131HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0020.RAW  
 Date & Time Acquired: 2/1/2022 12:25:07 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

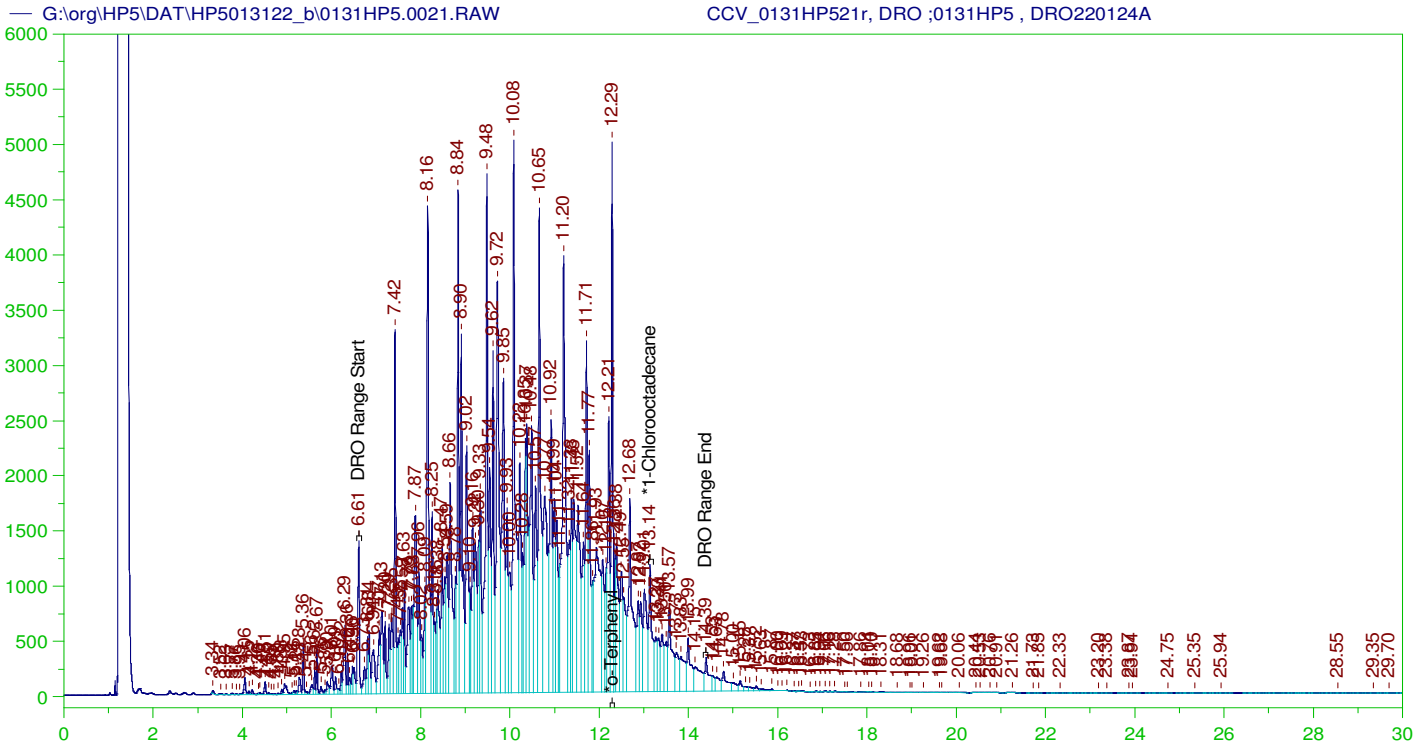
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.37	500.	223.705	44.74

RRO Area:3188589 RRO AMOUNT: 120.6677

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0020.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.047	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.37	200.	223.705	111.85	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0131HP521r, DRO ;0131HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0021.RAW  
 Date & Time Acquired: 2/1/2022 1:08:00 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-C24-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.288	200.	334.158	167.08
*1-Chlorooctadecane	13.135	200.	159.434	79.72

DRO Area: 4.879485E+08 DRO Amount: 14933.23  
 TEH Area: 5.045693E+08 TEH Amount: 15441.89

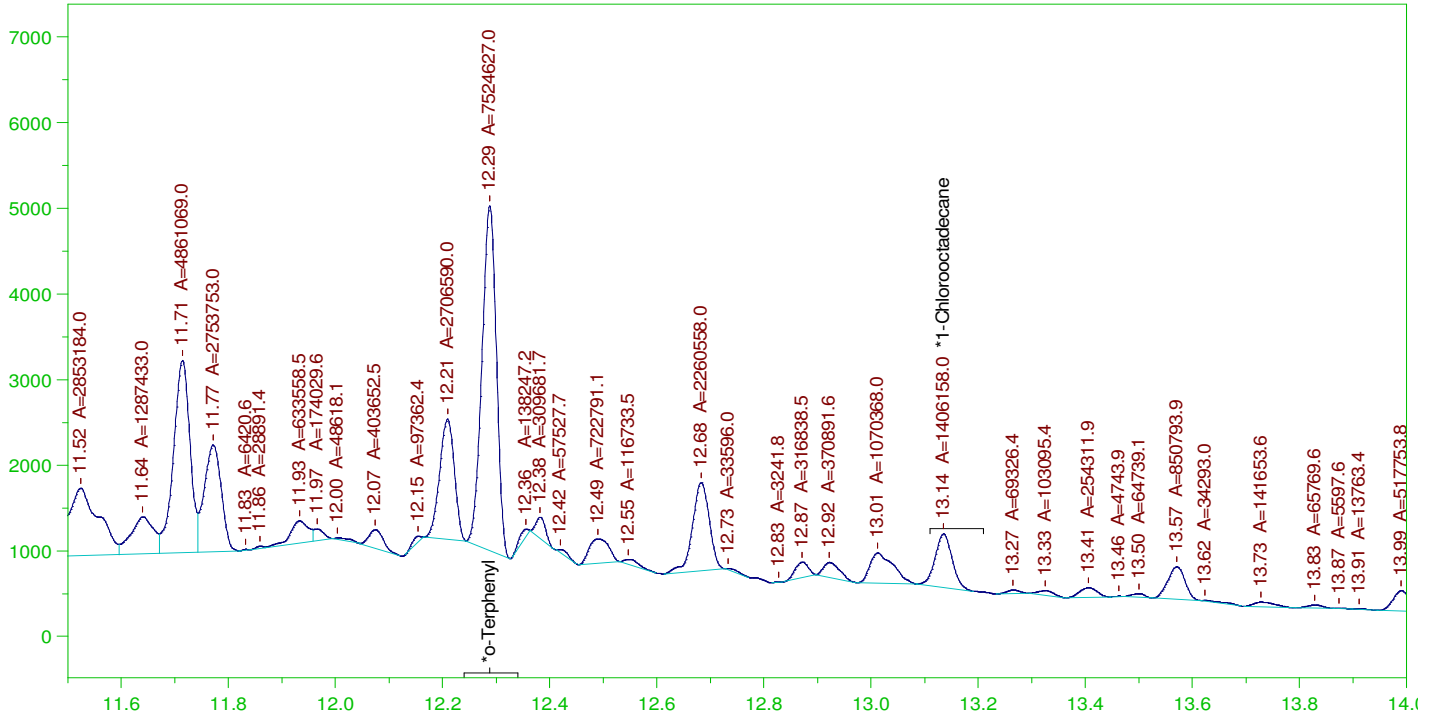
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0021.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15441.89	102.95	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.288	200.	334.158	167.08	85-115
*1-Chlorooctadecane	13.135	200.	159.434	79.72	85-115

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0021.RAW

CCV\_0131HP521r, DRO ;0131HP5 , DRO220124A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0131HP521r, DRO ;0131HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0021.RAW  
 Date & Time Acquired: 2/1/2022 1:08:00 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

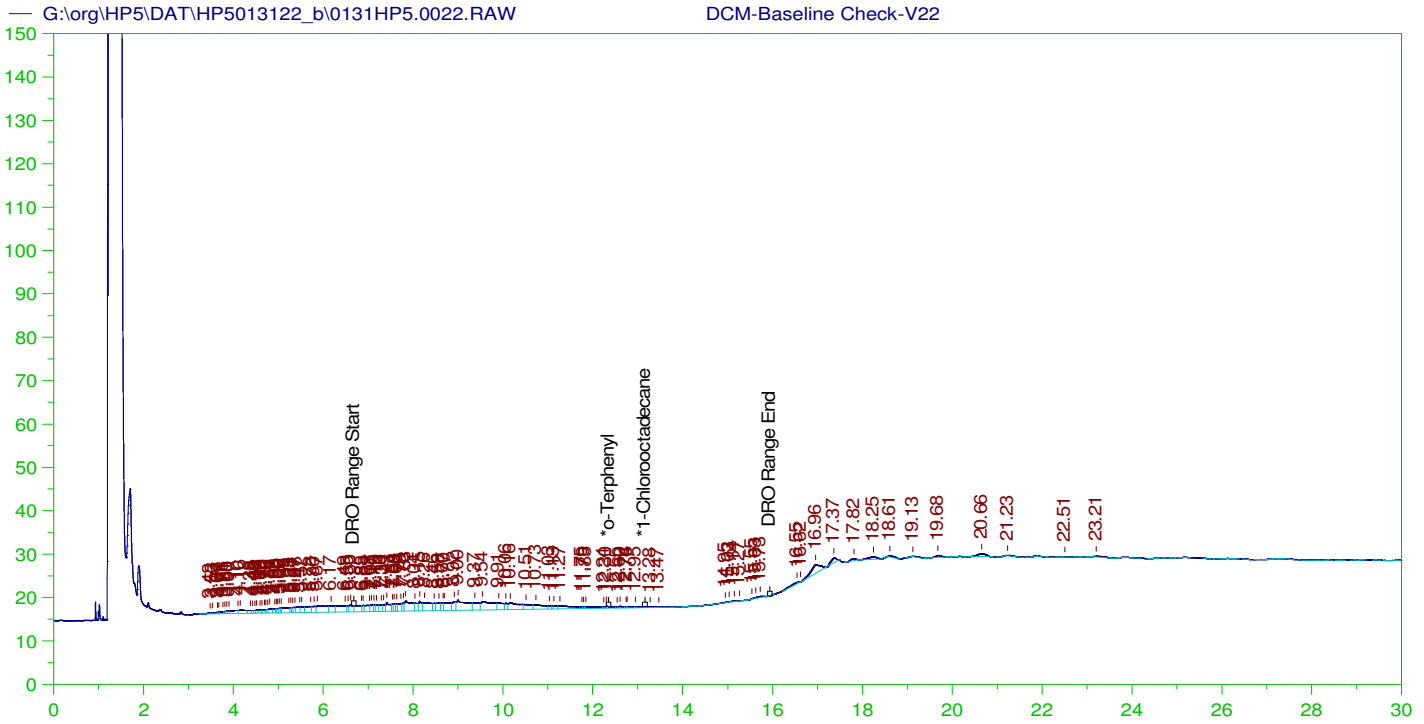
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.288	200.	204.153	102.08
*1-Chlorooctadecane	13.135	200.	38.151	19.08

DRO Area: 2.517541E+08 DRO Amount: 7704.708  
 TEH Area: 2.627956E+08 TEH Amount: 8042.625

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0021.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8042.63	53.62	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.288	200.	204.153	102.08	85-115
*1-Chlorooctadecane	13.135	200.	38.151	19.08	85-115



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

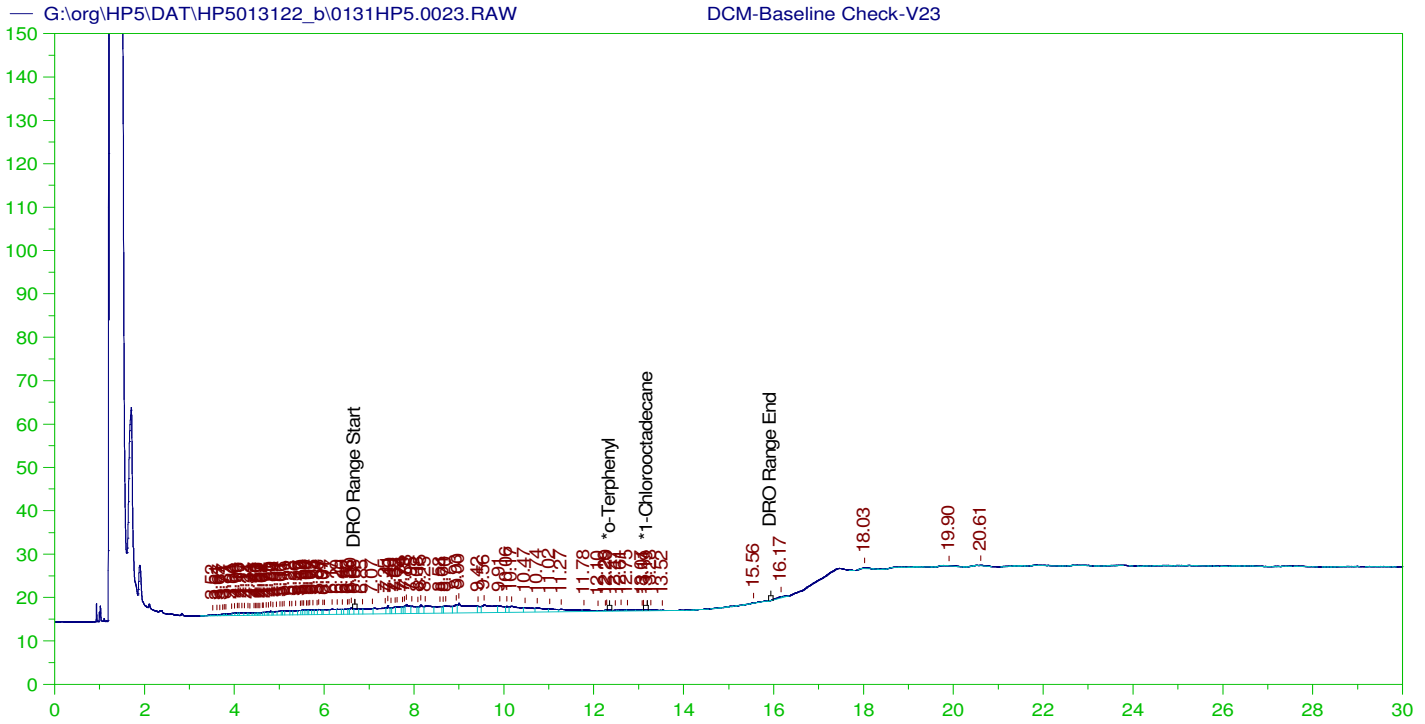
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 Date & Time Acquired: 2/1/2022 1:50:56 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.934	200.	.	-
*1-Chlorooctadecane	29.934	200.	.	-

DRO Area: 468738.2 DRO Amount: 14.34531  
 TEH Area: 751169.7 TEH Amount: 22.98887



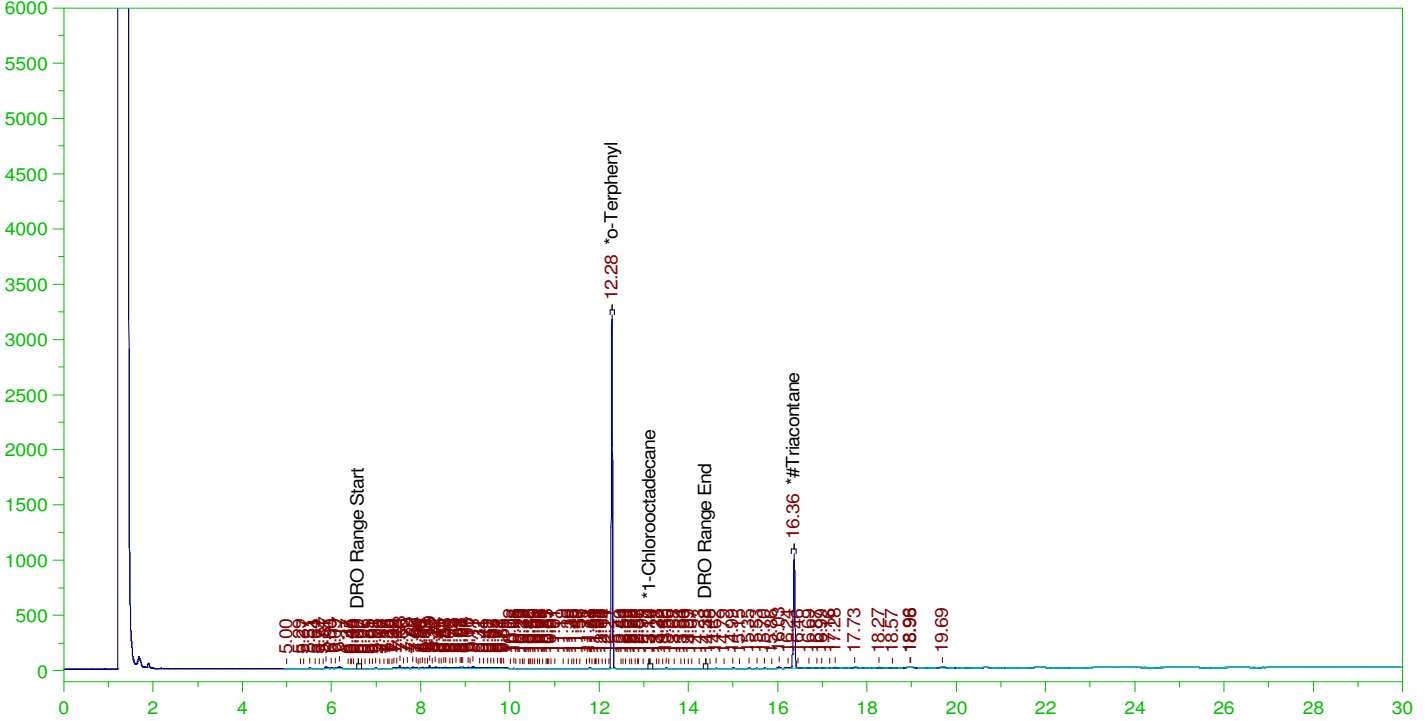


ERH2234 (RHMW01R)

Batch ID: 162502

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0024.RAW

B21121961-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121961-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0024.RAW  
 Date & Time Acquired: 2/1/2022 3:16:34 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-C24T-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.283	.196	.164	83.89	-
*1-Chlorooctadecane	13.138	.196	.	.04	-
*#Triacontane	16.362	.196	.089	45.27	-

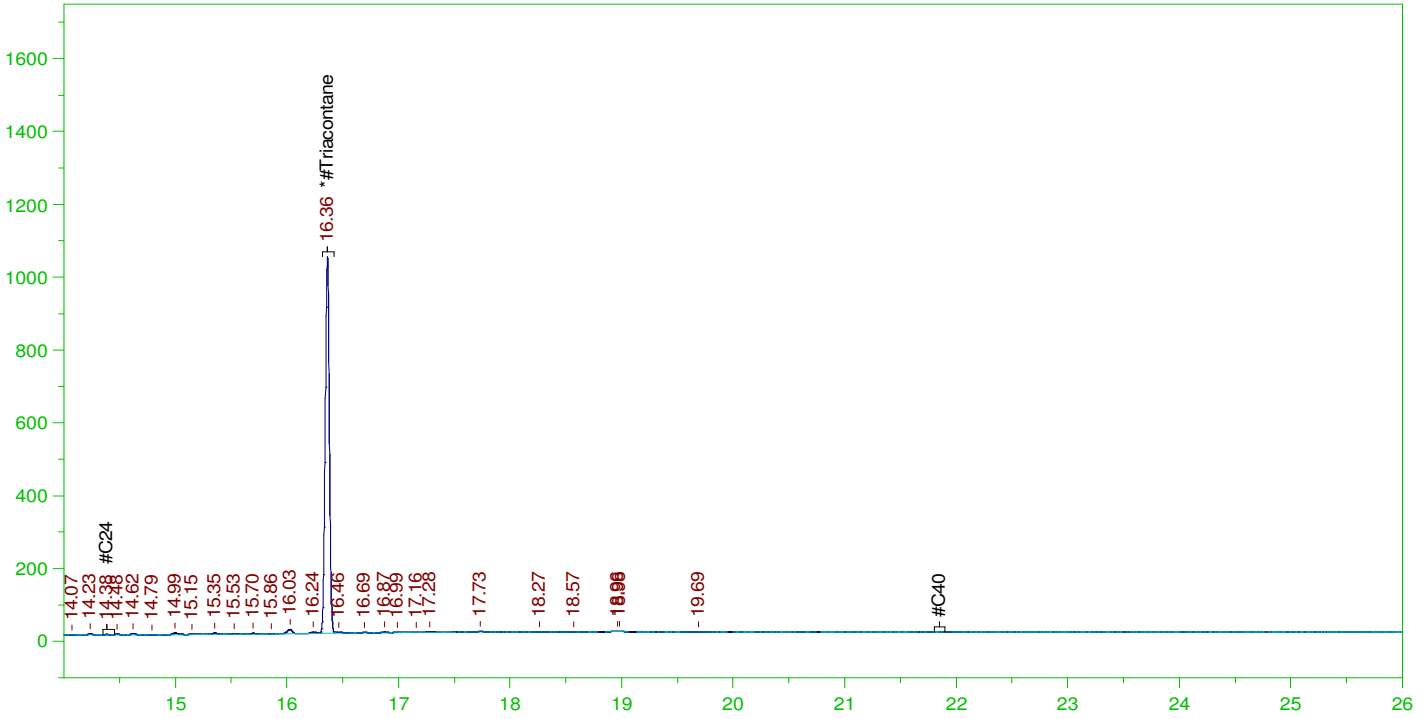
DRO Area:1559217 DRO Amount: 4.678278E-02  
 TEH Area:2016203 TEH Amount: 6.049421E-02

ERH2234 (RHMW01R)

Batch ID: 162502

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0024.RAW

B21121961-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121961-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0024.RAW  
 Date & Time Acquired: 2/1/2022 3:16:34 AM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-BDa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BDa\_SAMP.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 14.35 to 21.9

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.362	.49	.089	18.11	-

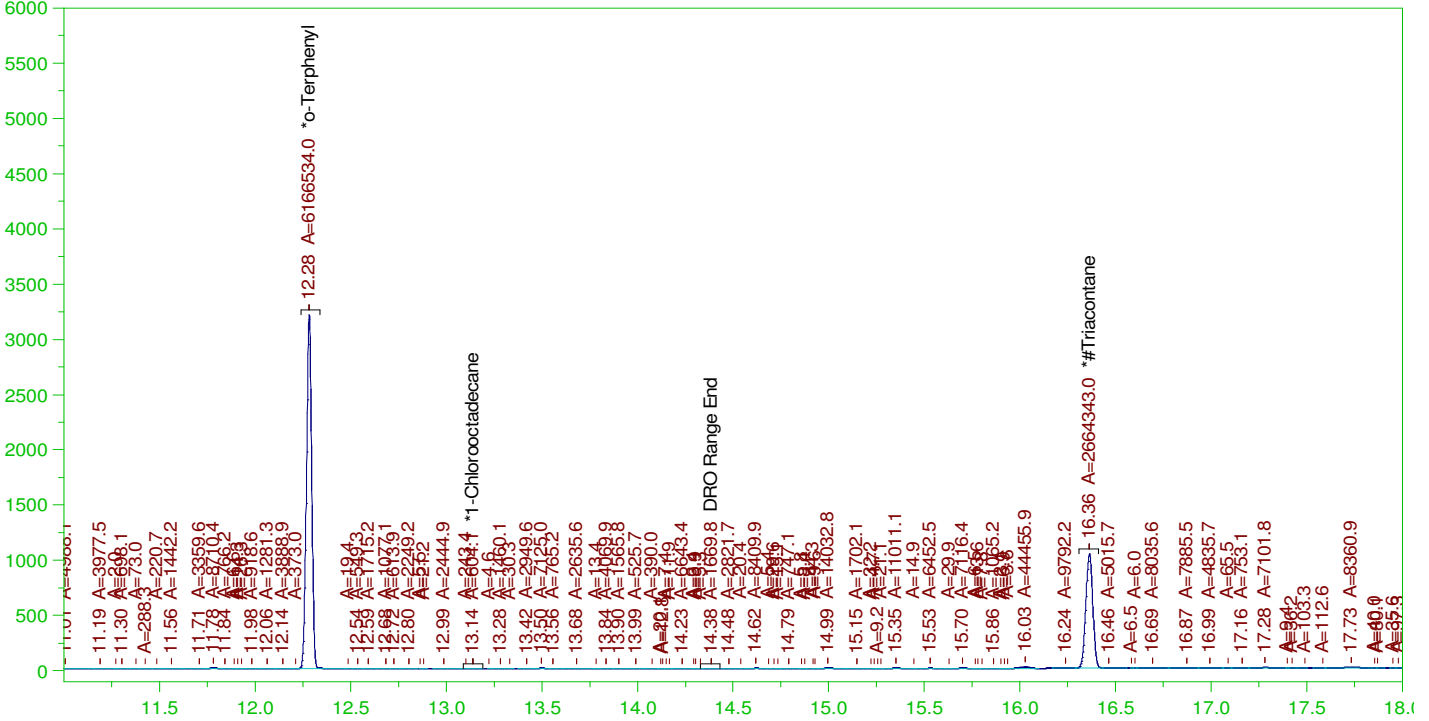
RRO Area:192161.6 RRO AMOUNT: 7.129495E-03

ERH2234 (RHMW01R)

Batch ID: 162502

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0024.RAW

B21121961-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121961-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0024.RAW  
 Date & Time Acquired: 2/1/2022 3:16:34 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111Jd-C24-T.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.283	.196	.164	83.65	-
*1-Chlorooctadecane	13.138	.196	.	.01	-
*#Triacontane	16.362	.196	.088	44.95	-

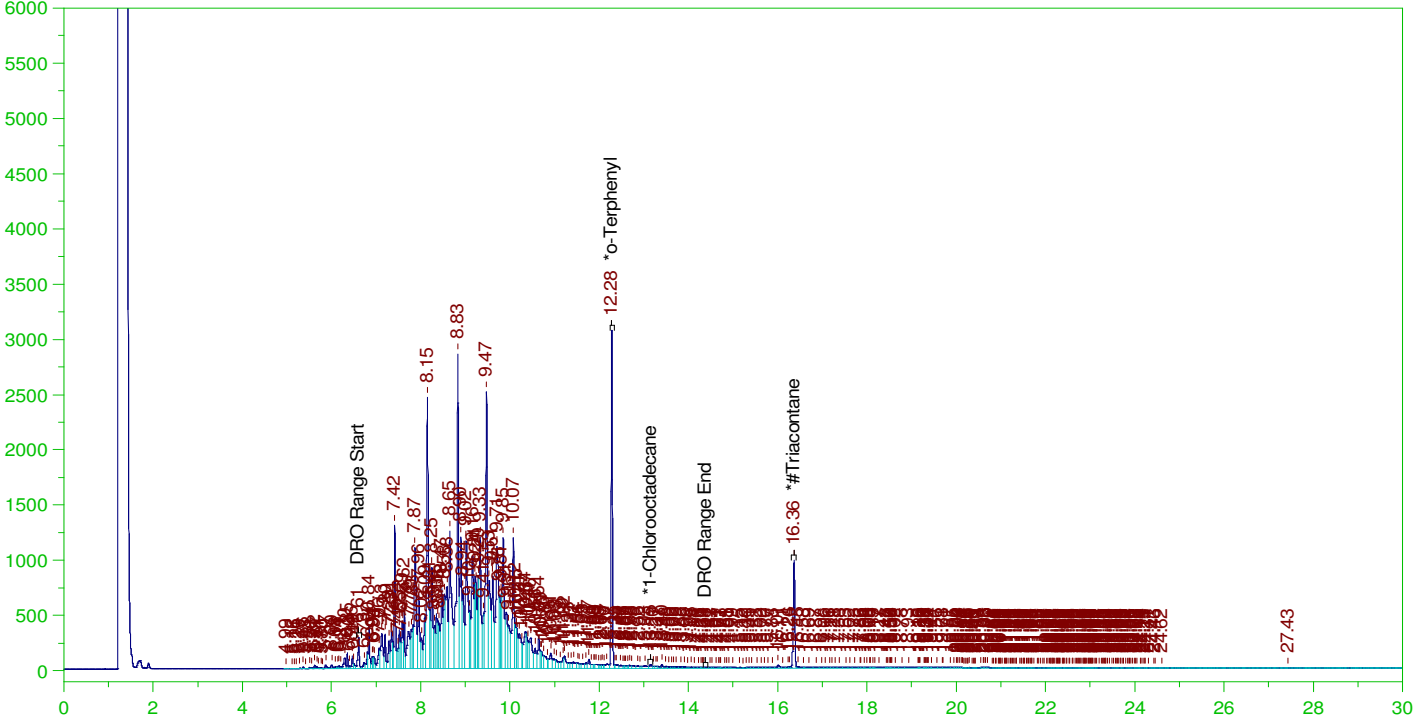
DRO Area:1298889 DRO Amount: 3.897189E-02  
 TEH Area:1772207 TEH Amount: 5.317334E-02

ERH2269 (Sump Adit3 Loc-1)

Batch ID: 162502

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0025.RAW

B21121967-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: B21121967-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0025.RAW  
 Date & Time Acquired: 2/1/2022 3:59:23 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-013125-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24-T.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.28	.196	.159	81.31	-
*1-Chlorooctadecane	13.148	.196	.004	2.09	-
*#Triacontane	16.36	.196	.085	43.42	-

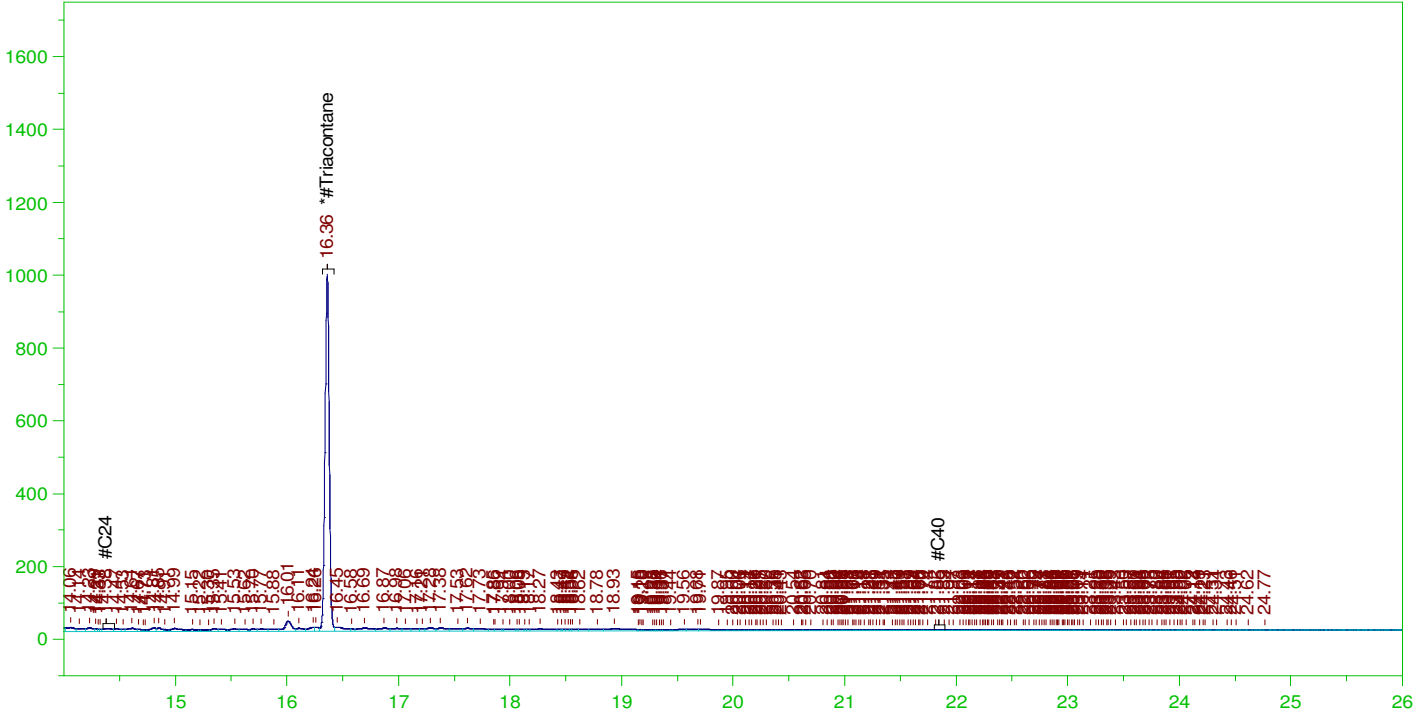
DRO Area: 1.23944E+08 DRO Amount: 3.71882  
 TEH Area: 1.279049E+08 TEH Amount: 3.837663

ERH2269 (Sump Adit3 Loc-1)

Batch ID: 162502

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0025.RAW

B21121967-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B21121967-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0025.RAW  
 Date & Time Acquired: 2/1/2022 3:59:23 AM  
 Method File: G:\Org\HP5\Methods\DR\_OROS-013125-BDa-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BDa\_SAMP.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 14.35 to 21.9

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.36	.49	.085	17.37

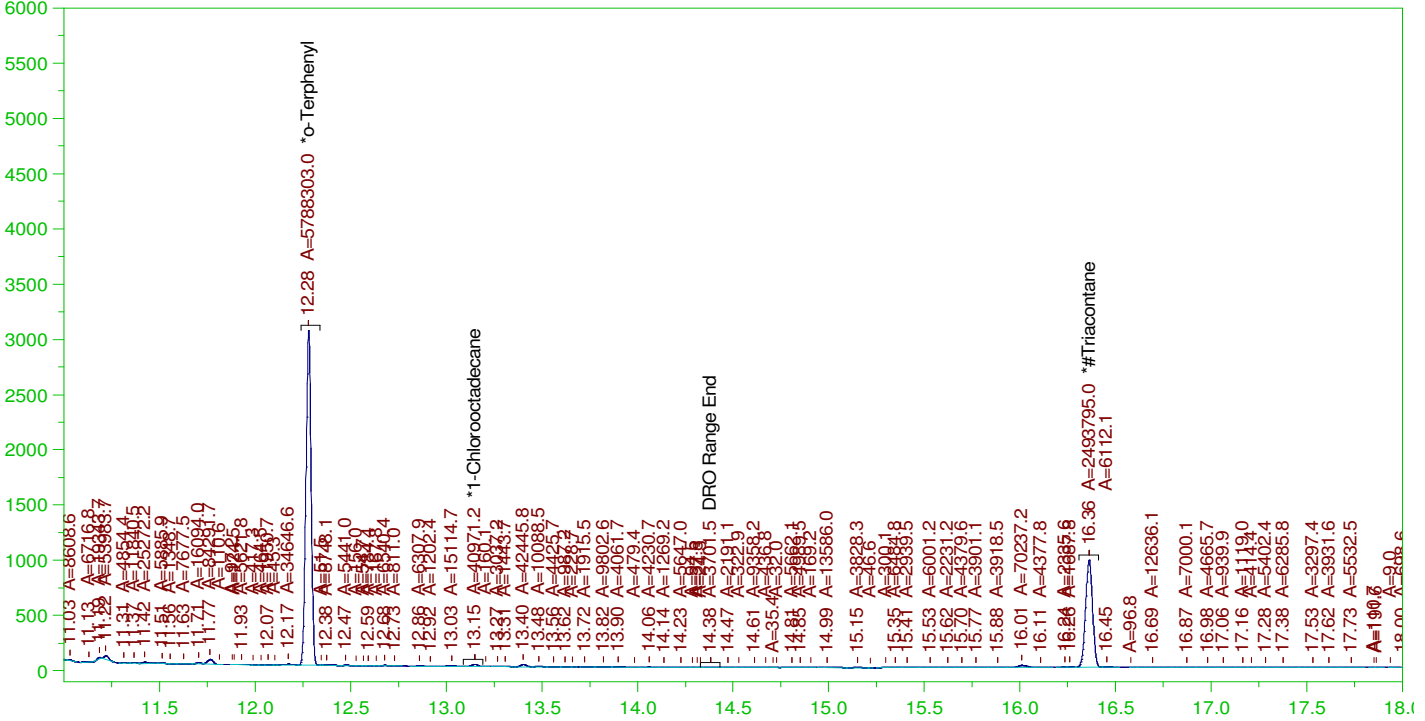
RRO Area:2288955 RRO AMOUNT: 8.492379E-02

ERH2269 (Sump Adit3 Loc-1)

Batch ID: 162502

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0025.RAW

B21121967-001D ;0131HP5 , \$HC-8015-DRO-W, SGT



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

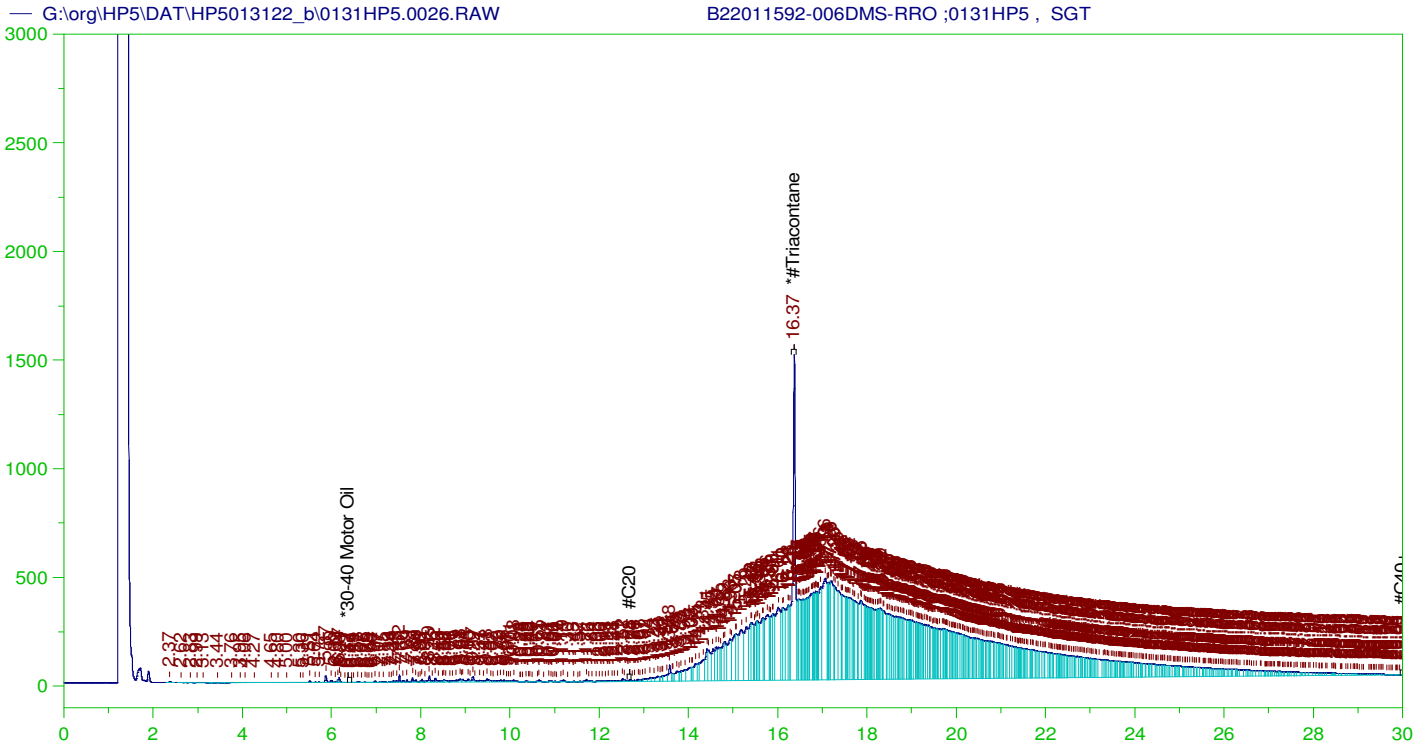
Sample Name: B21121967-001D ;0131HP5 , \$HC-8015-DRO-W, SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0025.RAW  
 Date & Time Acquired: 2/1/2022 3:59:23 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24T-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111Jd-C24-T.CAL  
 Sample Weight: 1020 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.28	.196	.154	78.52	-
*1-Chlorooctadecane	13.148	.196	.001	.56	-
*#Triacontane	16.36	.196	.082	42.07	-

DRO Area:1.014244E+08 DRO Amount: 3.043139  
 TEH Area:1.029419E+08 TEH Amount: 3.088671



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: B22011592-006DMS-RRO ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0026.RAW  
 Date & Time Acquired: 2/1/2022 4:42:15 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

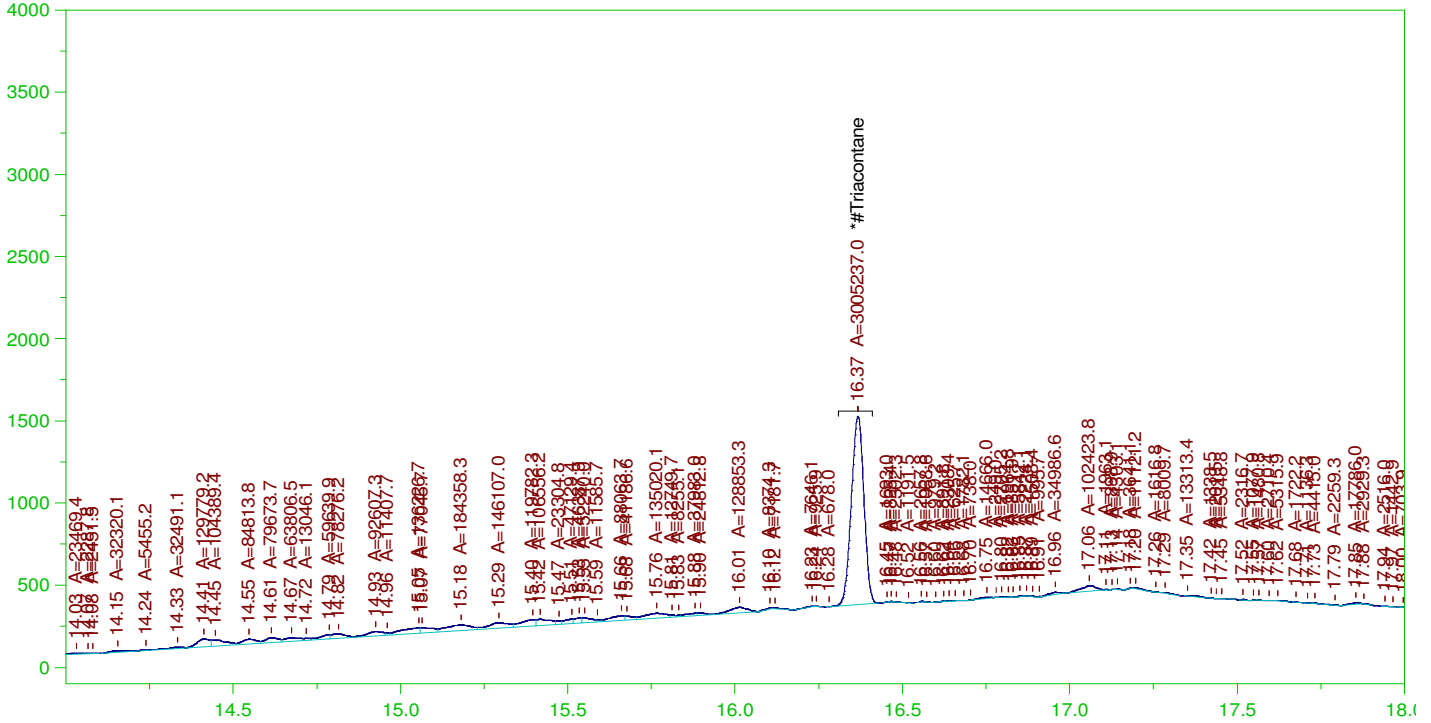
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.367	.5	.204	40.71	-

~~RRO~~ TEH(Oil Range) Area:1.389249E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 5.257416

AMN 02/11/2022

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0026.RAW

B22011592-006DMS-RRO ;0131HP5 , SGT



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

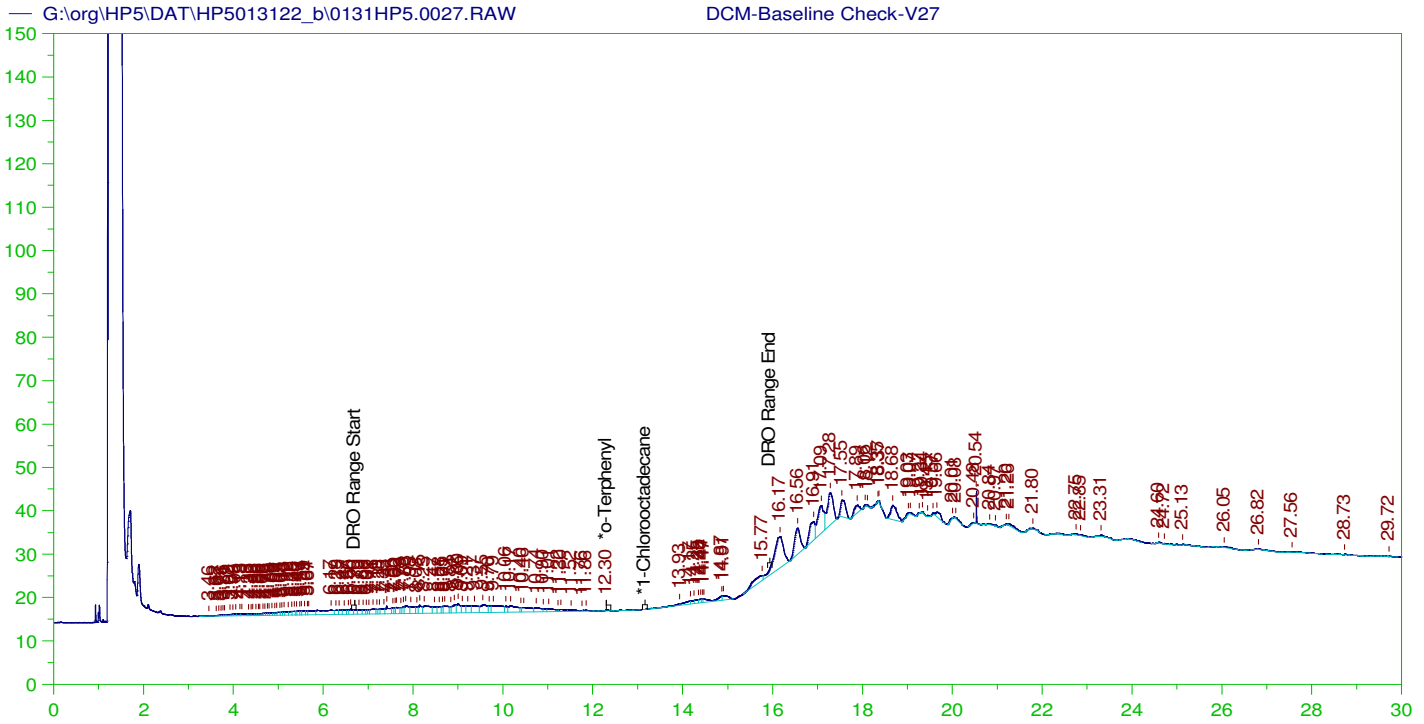
Sample Name: B22011592-006DMS-RRO ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0026.RAW  
 Date & Time Acquired: 2/1/2022 4:42:15 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.367	.5	.101	20.28

RRO Area:3125356 RRO AMOUNT: 0.1182747





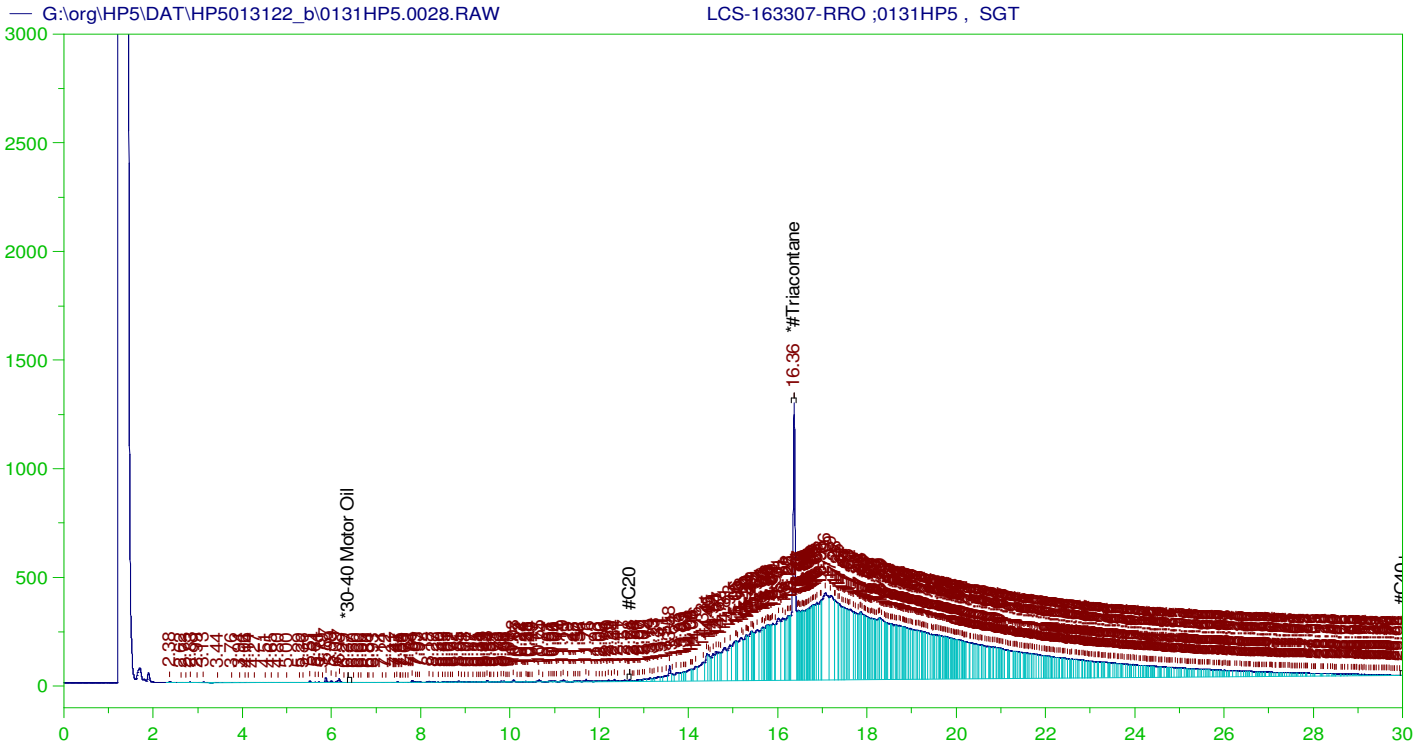
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V27  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0027.RAW  
 Date & Time Acquired: 2/1/2022 5:25:07 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.301	200.	.029	.01
*1-Chlorooctadecane	29.722	200.	.	.

DRO Area:431701 DRO Amount: 13.21182  
 TEH Area:1047859 TEH Amount: 32.06879



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-163307-RRO ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0028.RAW  
 Date & Time Acquired: 2/1/2022 6:07:49 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

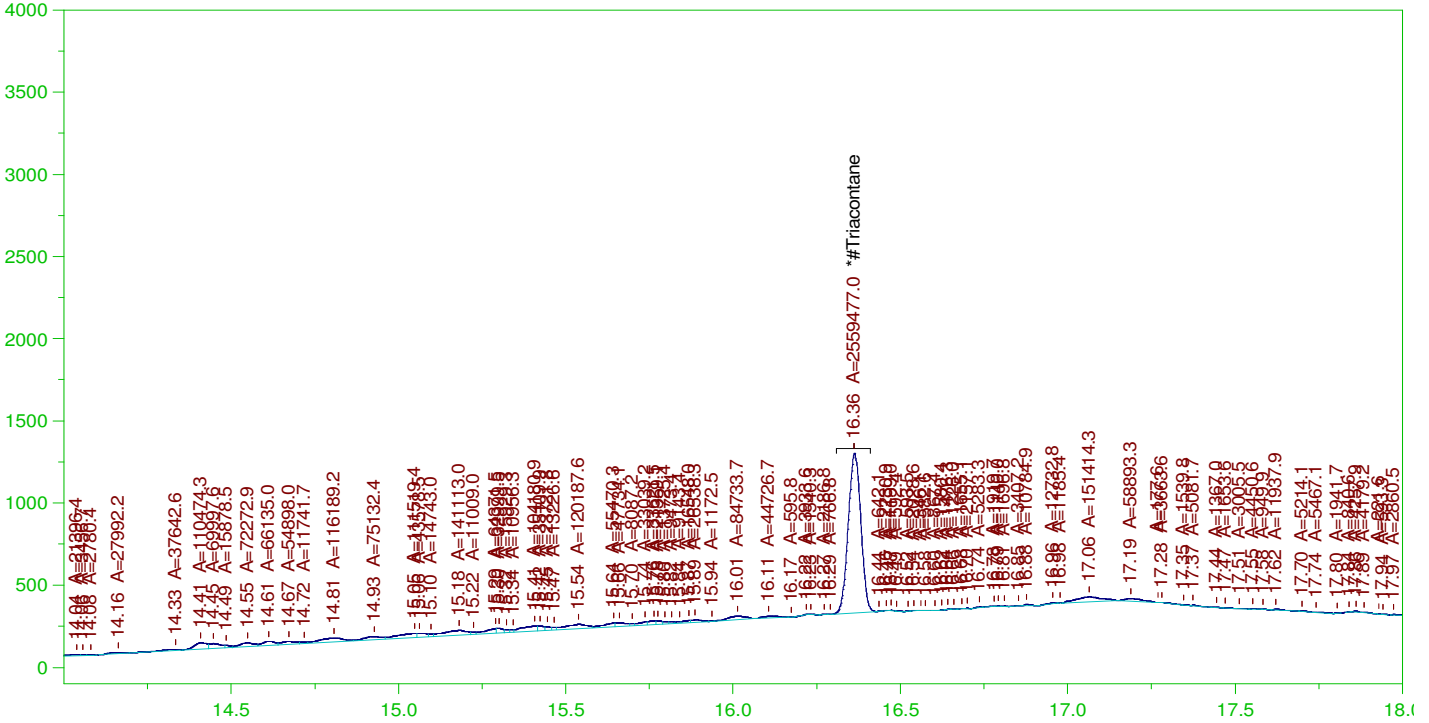
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.362	.5	.166	33.26	-

~~RRO~~ TEH(Oil Range) Area:1.199131E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4.537943

AMN 02/11/2022

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0028.RAW

LCS-163307-RRO ;0131HP5 , SGT



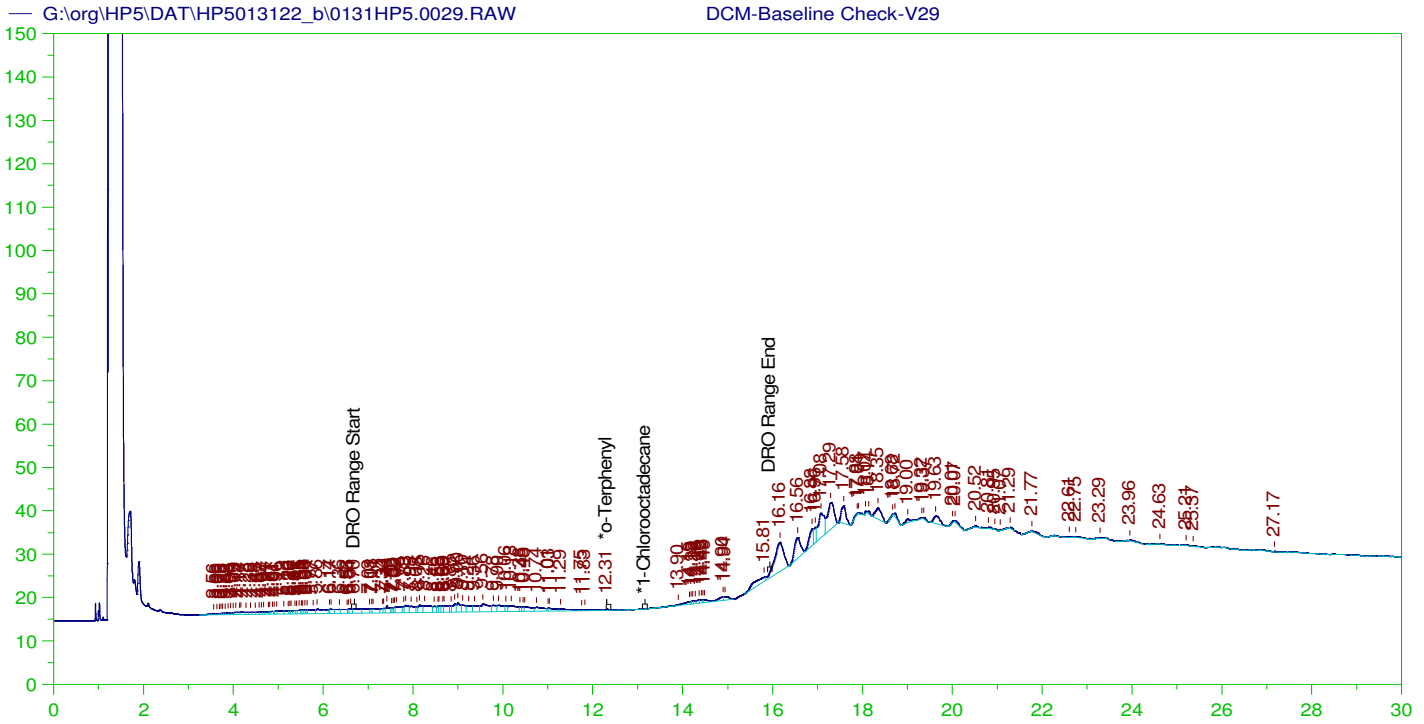
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCS-163307-RRO ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0028.RAW  
 Date & Time Acquired: 2/1/2022 6:07:49 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.362	.5	.086	17.27 -

RRO Area:2685957 RRO AMOUNT: 0.1016463



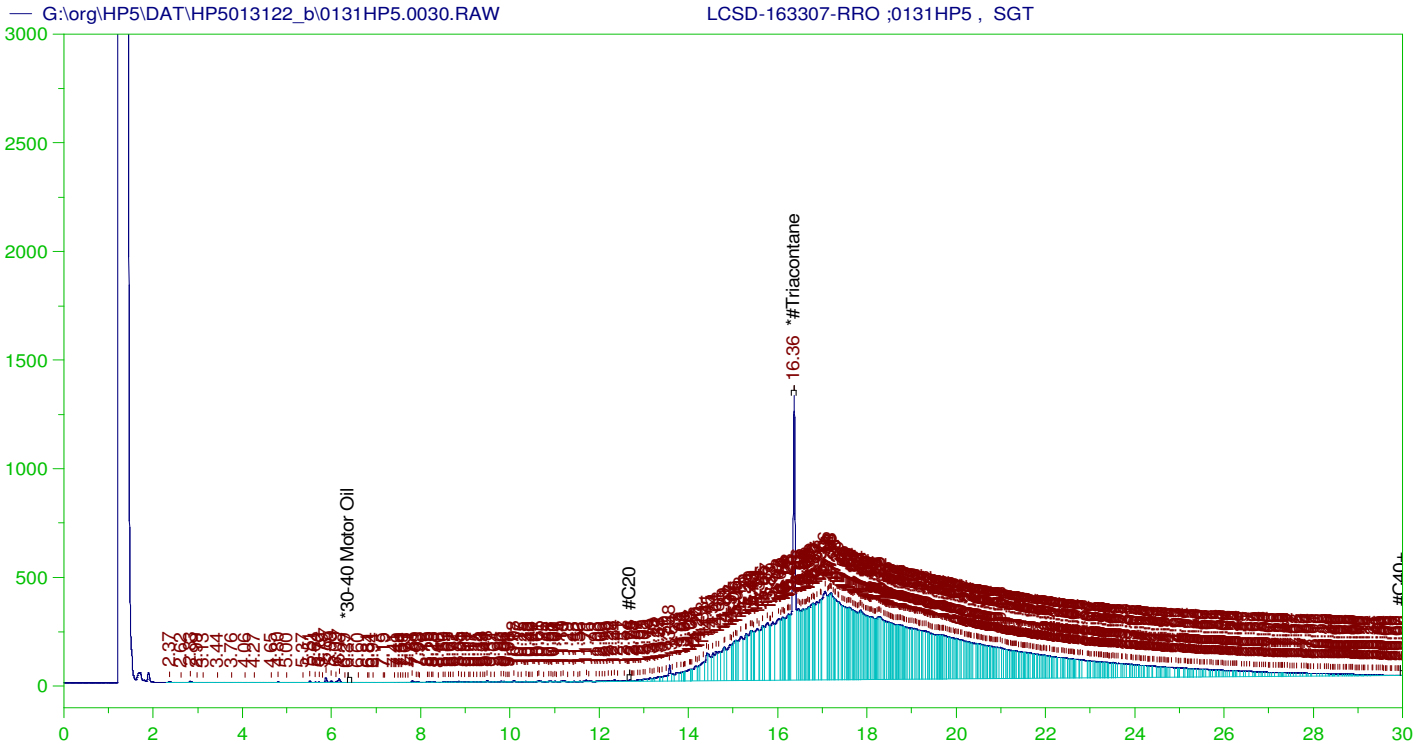
**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: DCM-Baseline Check-V29  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0029.RAW  
 Date & Time Acquired: 2/1/2022 6:50:36 AM  
 Method File: G:\Org\HP5\Methods\DR\_8015-JA-LEXP.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JA.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.63 to 15.99

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.307	200.	.038	.02
*1-Chlorooctadecane	29.952	200.	.	.

DRO Area:394573 DRO Amount: 12.07555  
 TEH Area:951544.1 TEH Amount: 29.12115



**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: LCSD-163307-RRO ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0030.RAW  
 Date & Time Acquired: 2/1/2022 7:33:28 AM  
 Method File: G:\Org\HP5\Methods\D3\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

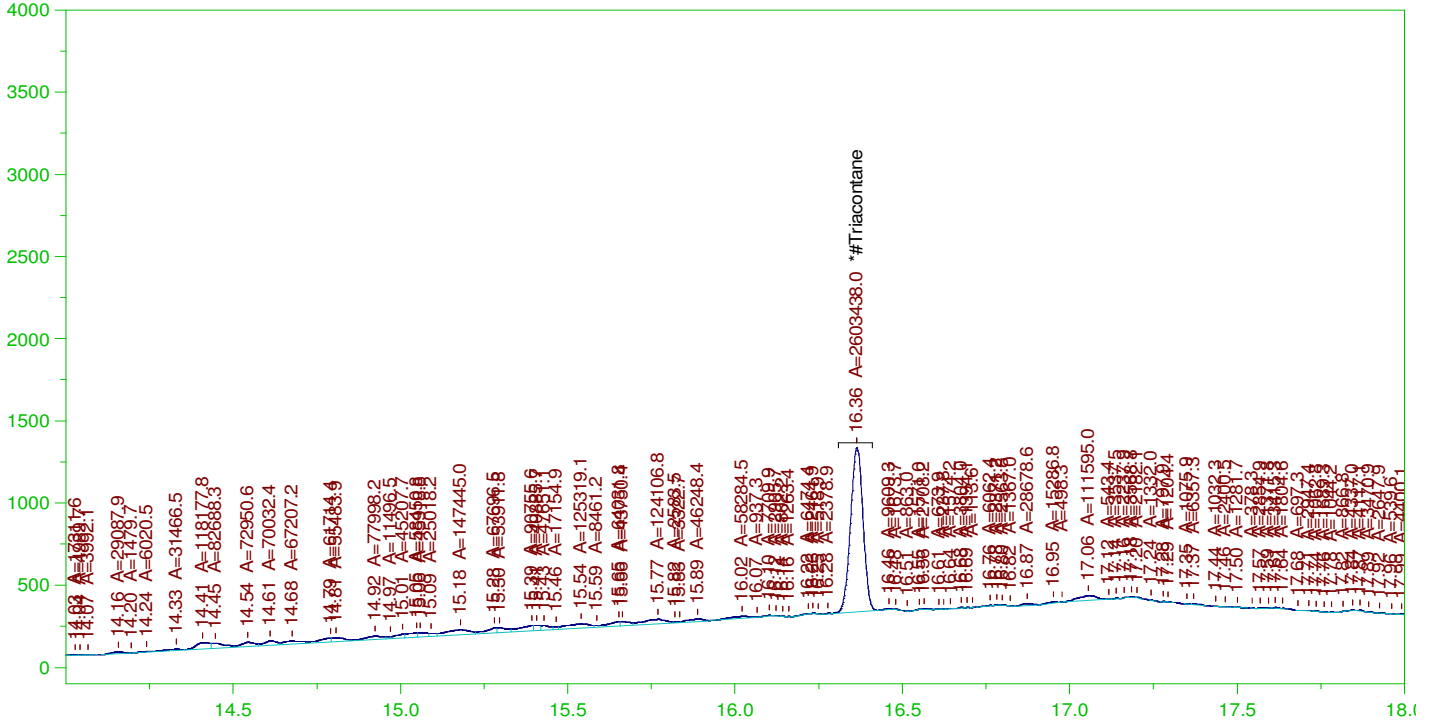
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.364	.5	.173	34.61

~~RRO~~ TEH(Oil Range) Area:1.221829E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4.623839

AMN 02/11/2022

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0030.RAW

LCSD-163307-RRO ;0131HP5 , SGT



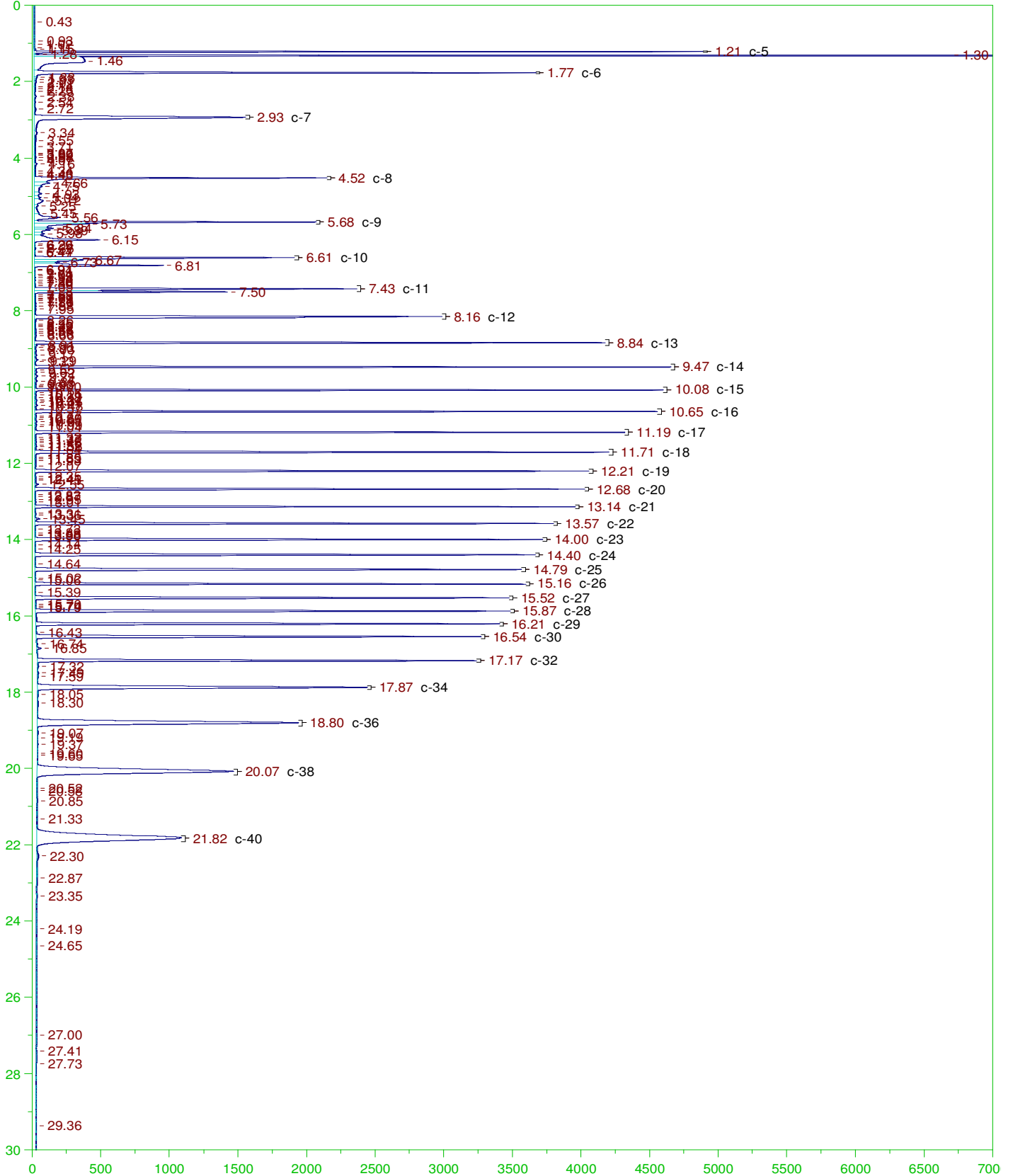
**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

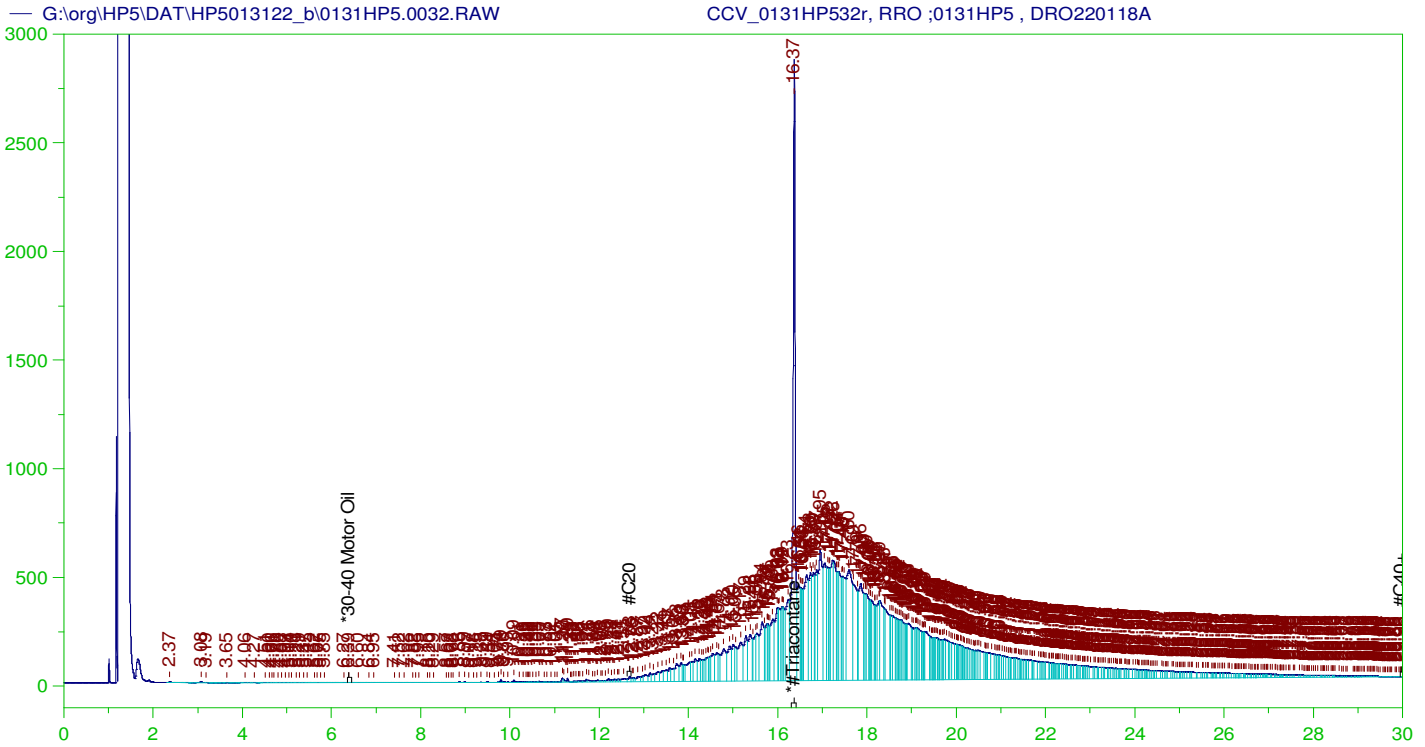
Sample Name: LCSD-163307-RRO ;0131HP5 , SGT  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0030.RAW  
 Date & Time Acquired: 2/1/2022 7:33:28 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1000 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.364	.5	.088	17.57 -

RRO Area:2675458 RRO AMOUNT: 0.1012489





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0131HP532r, RRO ;0131HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0032.RAW  
 Date & Time Acquired: 2/1/2022 8:59:02 AM  
 Method File: G:\Org\HP5\Methods\DC\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111Bd.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for ~~Residual~~ TEH(Oil Range) Organics Calculations: 26424.55  
 Rt range for ~~Residual~~ TEH(Oil Range) Organics: 12.62 to 30.05

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.366	500.	352.787	70.56	-

RRO TEH(Oil Range) Area:1.302758E+08 RRO TEH(Oil Range) AMOUNT: 4930.103

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0032.RAW

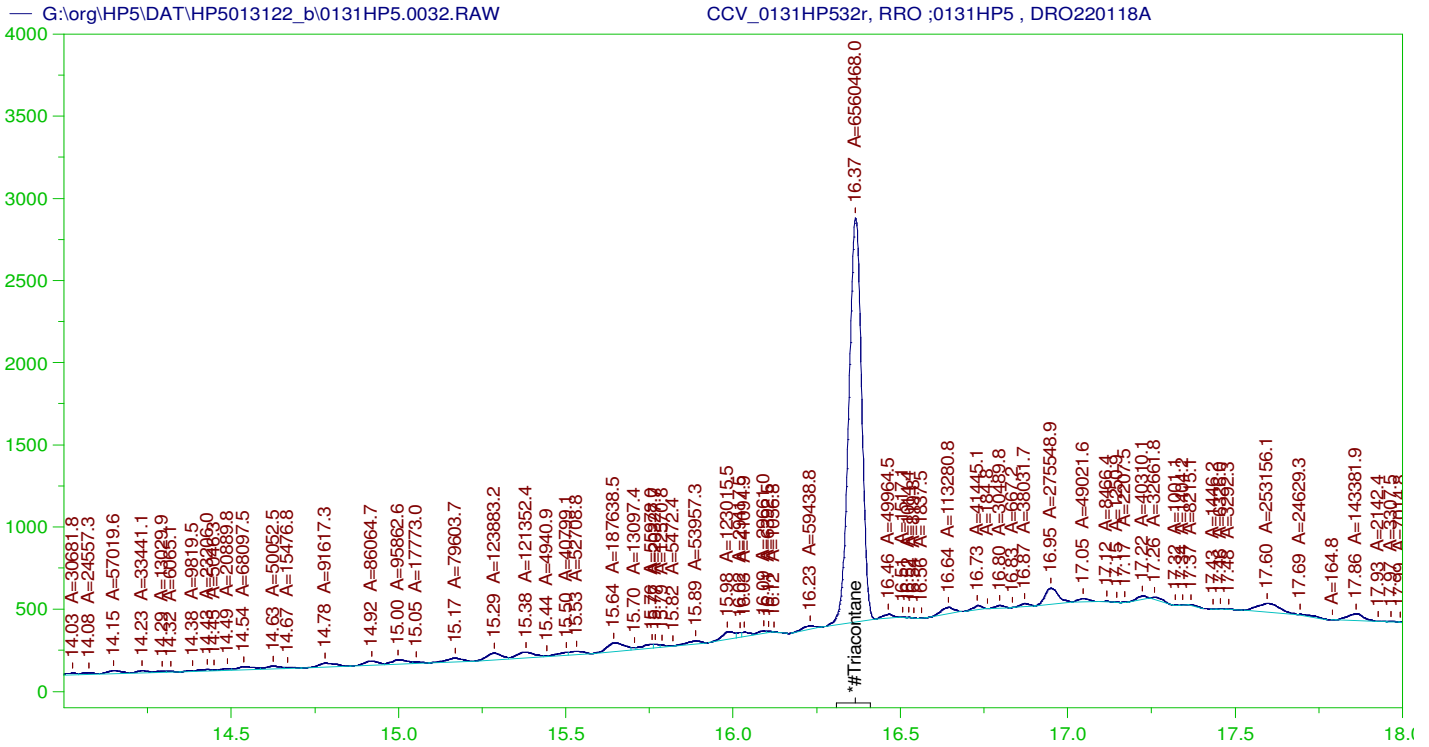
COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.019	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.366	200.	352.787	176.39	75-125

AMN 02/11/2022





**RESIDUAL RANGE ORGANICS CHROMATOGRAM**

Sample Name: CCV\_0131HP532r, RRO ;0131HP5 , DRO220118A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0032.RAW  
 Date & Time Acquired: 2/1/2022 8:59:02 AM  
 Method File: G:\Org\HP5\Methods\DS\_ORO-BD-L%.MET  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_ORO220111BD.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for for Residual Range Organics Calculations: 26424.55  
 Rt range for Residual Range Organics: 12.62 to 30.05

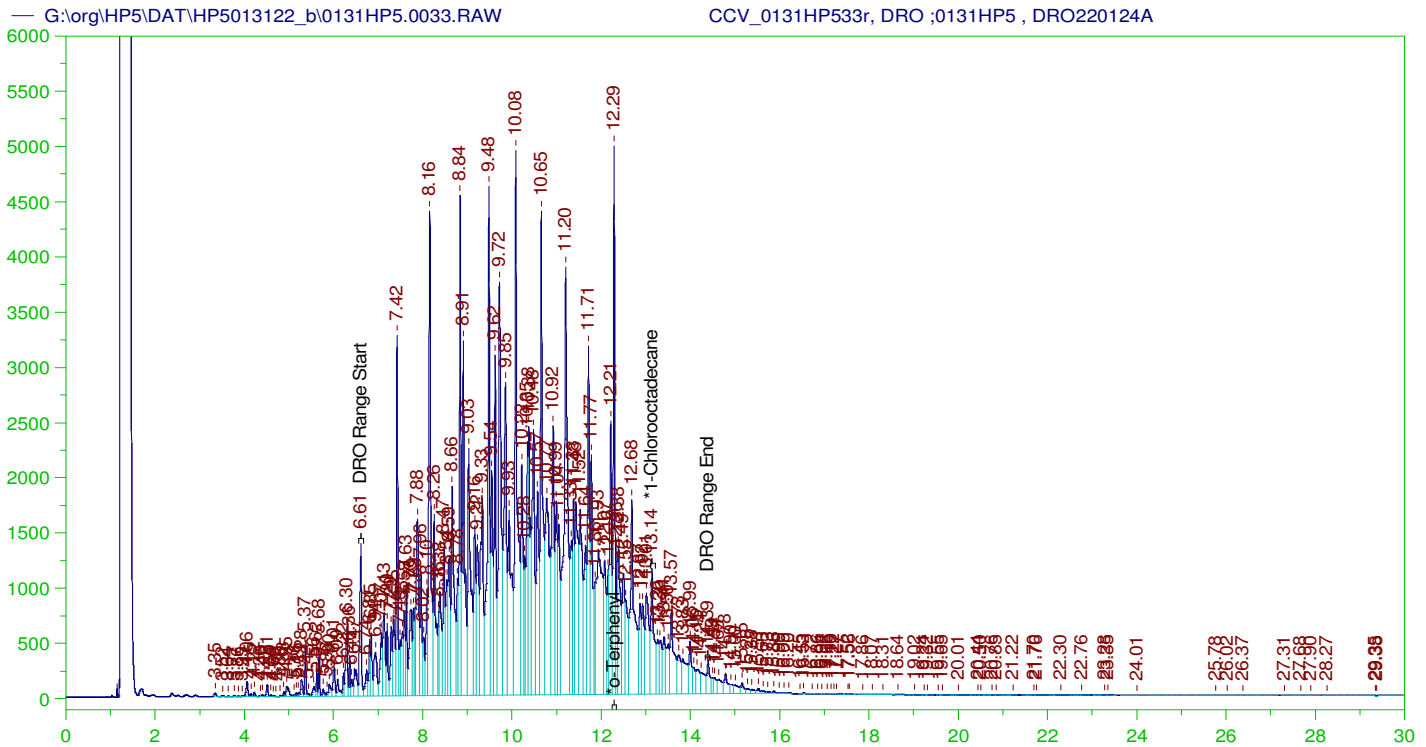
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.366	500.	221.367	44.27	-

RRO Area:3497473 RRO AMOUNT: 132.3569

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0032.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
*30-40 Motor Oil	5000.	.019	.	75-125

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*#Triacontane	16.366	200.	221.367	110.68	75-125



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0131HP533r, DRO ;0131HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0033.RAW  
 Date & Time Acquired: 2/1/2022 9:41:52 AM  
 Method File: G:\Org\HP5\Methods\DC\_8015-C24-JD-L%.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36  
 Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.288	200.	333.391	166.7	-
*1-Chlorooctadecane	13.135	200.	156.962	78.48	-

DRO Area: 4.866012E+08 DRO Amount: 14891.99  
 TEH Area: 5.03618E+08 TEH Amount: 15412.78

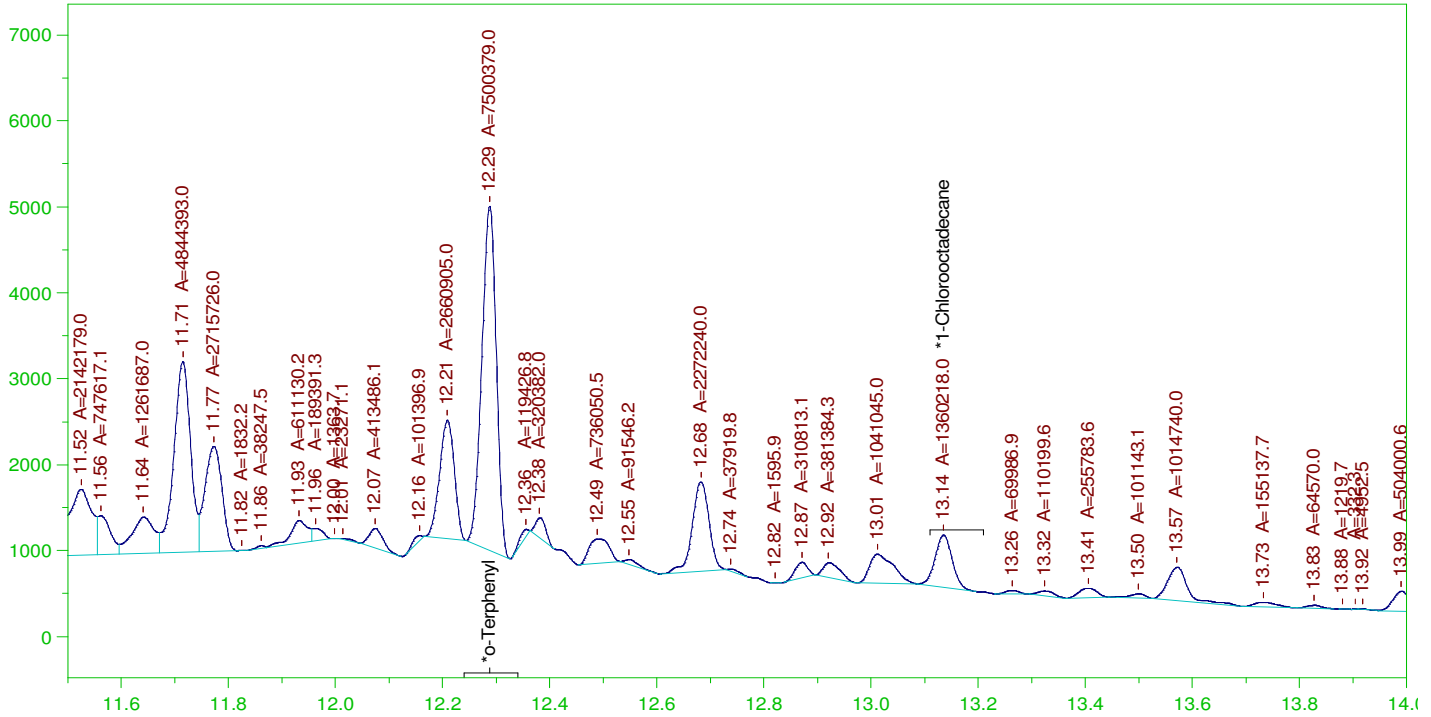
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0033.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	15412.78	102.75	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.288	200.	333.391	166.7	85-115
*1-Chlorooctadecane	13.135	200.	156.962	78.48	85-115

G:\org\HP5\DAT\HP5013122\_b\0131HP5.0033.RAW

CCV\_0131HP533r, DRO ;0131HP5 , DRO220124A



**DIESEL RANGE ORGANICS CHROMATOGRAM REPORT**

Sample Name: CCV\_0131HP533r, DRO ;0131HP5 , DRO220124A  
 Raw File: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0033.RAW  
 Date & Time Acquired: 2/1/2022 9:41:52 AM  
 Method File: G:\Org\HP5\Methods\DS\_8015-C24-JD-L#.met  
 Calibration File: G:\Org\HP5\Cals\SW8015C\_DRO220111JD-C24.CAL  
 Sample Weight: 1 Dilution: 1 S.A.: 1

Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.288	200.	203.495	101.75
*1-Chlorooctadecane	13.135	200.	36.904	18.45

DRO Area: 2.509208E+08 DRO Amount: 7679.206  
 TEH Area: 2.619389E+08 TEH Amount: 8016.406

CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122\_b\0131HP5.0033.RAW

COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	8016.41	53.44	85-115

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	LIMITS
*o-Terphenyl	12.288	200.	203.495	101.75	85-115
*1-Chlorooctadecane	13.135	200.	36.904	18.45	85-115



G:\org\HP5\DAT\HP5012822_b\0128HP5.24r	DCM-Baseline Check-V24	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5012822_b\0128HP5.25r	DCM-Baseline Check-V25	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5012822_b\0128HP5.26r	B22011592-017D_0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-012826-JD-L%.met G:\Org\HP5\Methods\D3_OROS-012826-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-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 with peak width adjusted. 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\HP5012822_b\0128HP5.27r	B22011592-027D_0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-C24T-JD-L%.met G:\Org\HP5\Methods\D3_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-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. 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\HP5012822_b\0128HP5.28r	DCM-Baseline Check-V28	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5012822_b\0128HP5.29r	B21121961-001D_0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-C24T-JD-L%.met G:\Org\HP5\Methods\D3_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-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. 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\HP5012822_b\0128HP5.30r	B21121967-001D_0128HP5 , \$HC-8015-DRO-W,	G:\Org\HP5\Methods\D3_8015-C24T-JD-L%.met G:\Org\HP5\Methods\D3_OROS-BD-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-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. 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\HP5012822_b\0128HP5.31r	LCS-163307-RRO_0128HP5 ,	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-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 All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5012822_b\0128HP5.32r	DCM-Baseline Check-V32	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5012822_b\0128HP5.33r	LCS-163307-RRO_0128HP5 ,	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-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 All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5012822_b\0128HP5.34r	MARKER_0128HP534r, DRO_0128HP5_DRO220111A	G:\Org\HP5\Methods\CS220127.met	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5012822_b\0128HP5.35r	CCV_0128HP535r, RRO_0128HP5 , DRO220118A	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-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 All Valleys on placed at 16.14 minutes and X-axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5012822_b\0128HP5.36r	CCV_0128HP536r, DRO_0128HP5 , DRO220124A	G:\Org\HP5\Methods\DC_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-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 16.35 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 12.01 minutes and X-axis scaling showing surrogate peak from 11.5-14 minutes.

*Ann Nebel*

Digitally signed by  
Ann Nebel  
Date: 2022.02.11 14:20:20 -07:00



G:\org\HP5\DAT\HP5013122_b\0131HP5.25r	B21121967-001D_0131HP5 , \$HC-8015-DRO-W, SGT	G:\Org\HP5\Methods\DR_8015-013125-JD-L%.met G:\Org\HP5\Methods\DR_OROS-013125-BDa-L%.MET G:\Org\HP5\Methods\DS_8015-C24T-JD-L%.met	1020	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24), C24-C40, and Total Extractable Hydrocarbons (TEH) is the hydrocarbon response with reference to the baseline. Assigned Set Baseline Now at 25.29 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\HP5013122_b\0131HP5.26r	B22011592-006DMS-RRO_0131HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-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 All Valleys on placed at 16.14 minutes and X axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5013122_b\0131HP5.27r	DCM-Baseline Check-V27	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5013122_b\0131HP5.28r	LCS-163307-RRO_0131HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-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 All Valleys on placed at 16.14 minutes and X axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5013122_b\0131HP5.29r	DCM-Baseline Check-V29	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5013122_b\0131HP5.30r	LCS-163307-RRO_0131HP5 , SGT	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-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 All Valleys on placed at 16.14 minutes and X axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5013122_b\0131HP5.31r	MARKER_0131HP531r, DRO_0131HP5 , DRO220111A	G:\org\HP5\Methods\CS220201.met	1	1	1	1	1	0	No integrations
G:\org\HP5\DAT\HP5013122_b\0131HP5.32r	CCV_0131HP532r, RRO_0131HP5 , DRO220118A	G:\Org\HP5\Methods\D3_ORO-BD-L%.MET G:\Org\HP5\Methods\DS_ORO-BD-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 All Valleys on placed at 16.14 minutes and X axis scaling showing surrogate peak from 14-18 minutes.
G:\org\HP5\DAT\HP5013122_b\0131HP5.33r	CCV_0131HP533r, DRO_0131HP5 , DRO220124A	G:\Org\HP5\Methods\DC_8015-C24-JD-L%.met G:\Org\HP5\Methods\DS_8015-C24-JD-L%.met	1	1	1	1	1	0	The integration of Diesel Range Organics (C10-C24) and Total Extractable Hydrocarbons is the hydrocarbon response with reference to the baseline. Assigned Set Baseline All Valley on at 16.35 minutes. Surrogates are integrated using a valley to valley integration using Set Baseline All Valleys on placed at 12.01 minutes and X axis scaling showing surrogate peak from 11.5-14 minutes.

*Ann Nebel*

Digitally signed by  
Ann Nebel  
Date: 2022.02.11 14:22:21 -07:00



# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO180126C

**Standard Name:** 2-Fluorobiphenyl

**Prep Date:** 1/26/2018

**Exp Date:** 10/31/2024

**Department:** dropr

**Vendor:** Chemservice

**Lot Number:** 5599700

**Balance ID:**

**Comments:**

**Type:** Neat

**Prep By:** Todd C Cooper

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
2-Fluorobiphenyl	<a href="#">10069</a>		mL	10/31/2024
Stock Source	Base Units	Amount Added		





# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO180823A

**Standard Name:** 2-Bromonaphthalene

**Prep Date:** 8/22/2016

**Exp Date:** 5/31/2022

**Department:** dropr

**Vendor:** Chemservice

**Lot Number:** 3150700

**Balance ID:**

**Comments:**

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
2-Bromonaphthalene	<a href="#">10701</a>		mL	5/31/2022
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO181105A

**Standard Name:** #2 Diesel (NEAT)

**Prep Date:** 11/5/2018

**Exp Date:** 11/5/2023

**Department:** dropr

**Vendor:** conoco

**Lot Number:**

**Balance ID:**

**Comments:** -18 Cloud peak. (Conoco Gas Sation 1240 S. 27th Billings, MT) 2nd Source

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** 250 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
				11/5/2023
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

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

**Type:** Neat  
**Prep By:** Ann Nebel  
**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
o-Terphenyl	<a href="#">12650</a>	500	mg	9/30/2024
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO201014C

**Standard Name:** 1-Chlorooctadecane

**Prep Date:** 10/14/2019

**Exp Date:** 12/31/2024

**Department:** dropr

**Vendor:** CSI1

**Lot Number:** 10809500

**Balance ID:**

**Comments:** Date Certified: 12/9/16 ; N-10042-1G; 99.5% purity

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** Open

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
1-Chlorooctadecane	<a href="#">13192</a>	1	g	12/31/2024

Stock Source	Base Units	Amount Added
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# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO201014D

**Standard Name:** n-Pentacosane

**Prep Date:** 10/14/2020

**Exp Date:** 2/28/2025

**Department:** dropr

**Vendor:** Chem Service

**Lot Number:** 9642200

**Balance ID:**

**Comments:** C-25; Used in AKDRO Marker

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
n-Pentacosane	<a href="#">13193</a>	100	mg	2/28/2025
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO211012B

**Standard Name:** #2 Diesel in Acetone 150,000 ug/mL

**Prep Date:** 10/12/2021

**Exp Date:** 11/5/2023

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** #2 Diesel in Acetone 150,000 ug/mL.

**Type:** Secondary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone EA662	<a href="#">14050</a>	25	mL	11/5/2023

Stock Source	Base Units	Amount Added
DRO181105A	ug/mL	3.7507 g



# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO211025B

**Standard Name:** Ali Hydro Std 1000ug/mL

**Prep Date:** 10/25/2021

**Exp Date:** 11/30/2024

**Department:** dropr

**Vendor:** Agilent

**Lot Number:** 0006643302

**Balance ID:**

**Comments:** Ali Hydro Std 1000ug/mL For CCVs.

**Type:** Primary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Aliphatic Hydrocarbon Standard	<a href="#">14434</a>	1	mL	11/30/2024
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Spike ID:** DRO211101A

**Spike Name:** OTP-4000 ug/mL DCM

**Prep Date:** 11/1/2021

**Exp Date:** 9/30/2024

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** Used to Prep DRO-8015 ICAL and CCV Solutions

**Type:** Secondary

**Prep By:** Ann Nebel

**Status:** Open

**Final Volume:** 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC328	<a href="#">14408</a>	25	mL	9/30/2024

Stock Source	Base Units	Amount Added
DRO200430B	ug/mL	0.1012 g





# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO211214C

**Standard Name:** Diesel Fuel #2 50,000 ug/mL in DCM

**Prep Date:** 12/14/2021

**Exp Date:** 4/30/2023

**Department:** dropr

**Vendor:** Sigma-Aldrich

**Lot Number:** LRAC6316

**Balance ID:**

**Comments:** Diesel Fuel #2 For CCVs.

**Type:** Primary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Diesel Fuel No. 2	<a href="#">14623</a>	1	mL	4/30/2023
Stock Source	Base Units	Amount Added		
DRO211214C	ug/mL			



# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO211222B

**Standard Name:** EPH (4) SURR-1000 ug/mL ea. in Hexane

**Prep Date:** 12/22/2021

**Exp Date:** 5/31/2022

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** EPH (4) SURR-1000 ug/mL ea. in Hexane

**Type:** Secondary

**Prep By:** Jillian L Bostwick

**Status:** Open

**Final Volume:** 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Hexane EB754	<a href="#">14543</a>	50	mL	5/31/2022

Stock Source	Base Units	Amount Added
DRO180823A	ug/mL	0.0507 g
DRO200430B	ug/mL	0.0504 g
DRO180126C	ug/mL	0.0496 g
DRO201014C	ug/mL	0.0504 g



# Analytical RunID GCFID-HP5-B\_220111A Standards Traceability Report

**Standard ID:** DRO220102D

**Standard Name:** ALASKA MARKER-200ug/mL

**Prep Date:** 1/2/2022

**Exp Date:** 5/31/2022

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:**

**Comments:** ALASKA MARKER w/ C-10, C-25, and OTP/COD. Optimal C-25 is 0.0012g.

**Type:** Secondary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** 5.5 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Hexane EB754	<a href="#">14543</a>	3.3	mL	5/31/2022

Stock Source	Base Units	Amount Added
DRO201014D	ug/mL	0.0016 g
DRO211222B	ug/mL	1.1 mL
DRO211025B	ug/mL	1.1 mL

# 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 #: 14623

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

Diesel Fuel No. 2

Expires: 4/30/2023

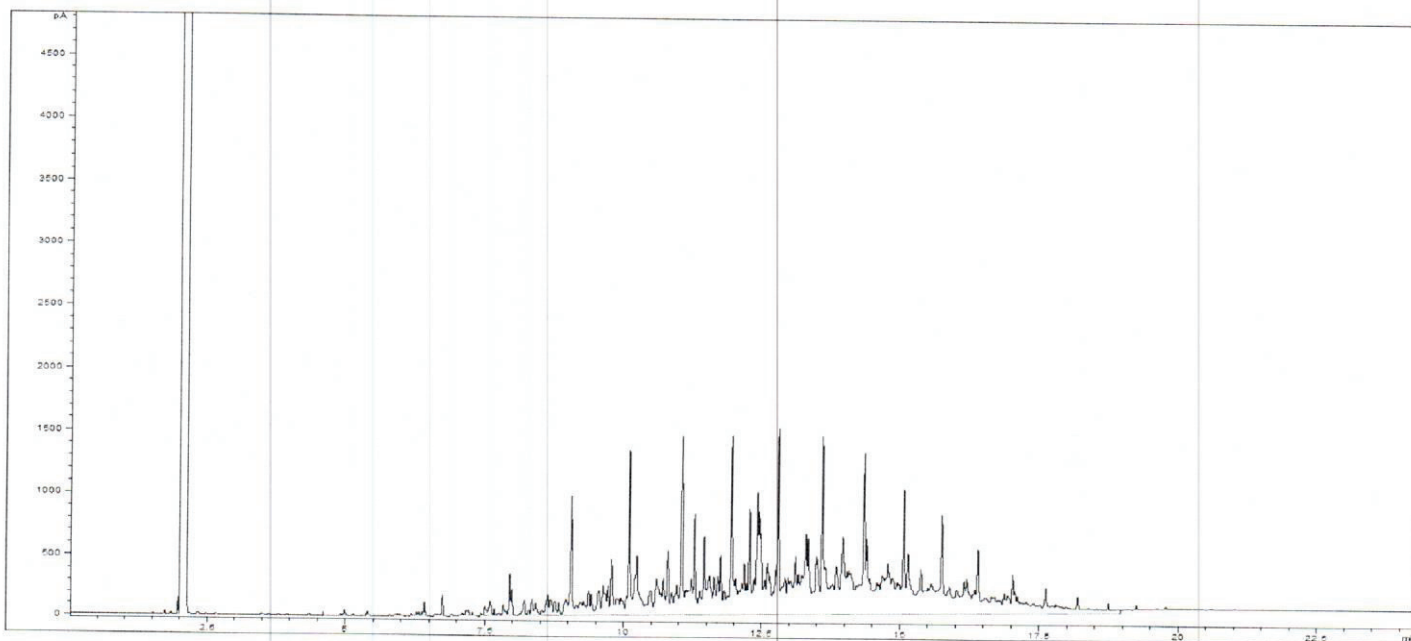
Rec'd: 12/14/2021

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

## Certified Values

Analyte	Certified Value <sup>1,4</sup>	Units	Raw Material Purity, %	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

## Informational Values



## Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H<sub>2</sub>, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



**SIGMA-ALDRICH**

2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA  
800-325-5832  
TechService@milliporesigma.com www.sigma-aldrich.com

# Description

Lot **LRAC6316**  
Expiration Date April 2023  
Manufacturing Date April 2020  
Storage Conditions Room Temperature  
Solvent/Matrix DICHLOROMETHANE

**1 Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.  
**4 Ucrm - Uncertainty values** in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

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

**k:** Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

**6 Analytical Value-** For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

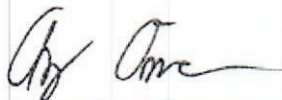
**Traceability:** The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual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

**Homogeneity:** Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

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

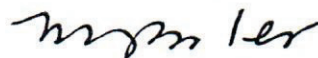
MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

**THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).**



Andy Ommen - QC Manager

Certification Date April 30, 2020  
Version 0-4302020



Mark Pooler - QA Supervisor



Anna

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

## CERTIFICATE OF ANALYSIS

### o-Terphenyl

CATALOG NUMBER N-12693-500MG  
LOT NUMBER 9972100  
DATE CERTIFIED 09/23/19  
EXPIRATION DATE 09/30/24  
CAS NUMBER 84-15-1  
MOLECULAR FORMULA C18H14  
MOLECULAR WEIGHT 230.32  
STORAGE Store in a cool dry place.  
HANDLING See Safety Data Sheet  
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

*Mary Beth O'Donnell*

Mary Beth O'Donnell  
CSM/TC

ID #: 12650

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

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

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

COA Form  
Revision 3 (3/2015)

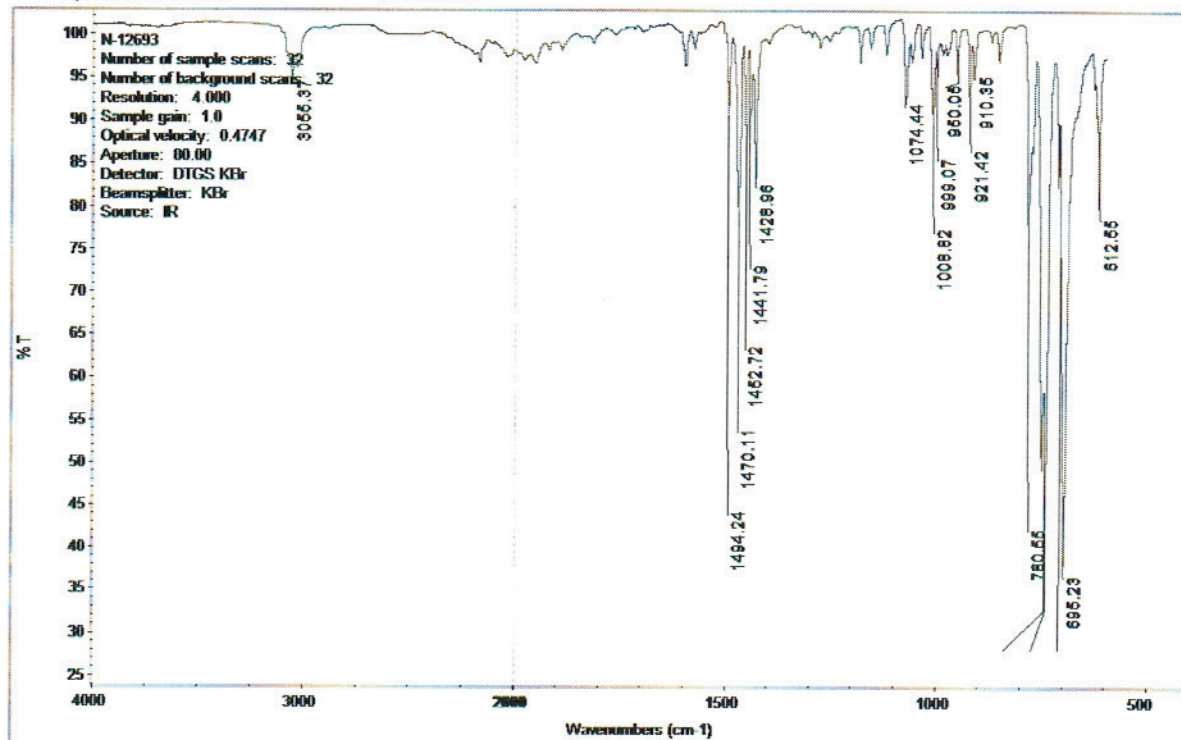
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



## 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



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

## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

Chem Service Inc      Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D  
Acq On : 23 Sep 2019 10:40  
Operator :  
Sample : n-12693  
Misc :  
ALS Vial : 95

Integration Parameters: autoint1.e  
Integrator: ChemStation

DataAcq Meth: SCREEN.M  
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

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

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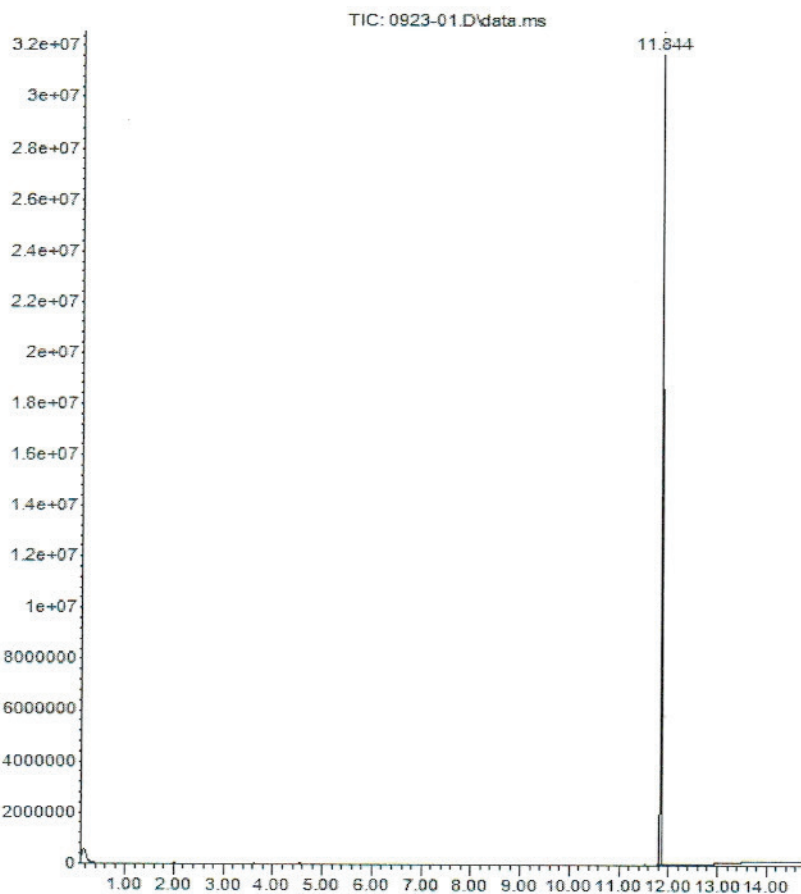
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

Abundance



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



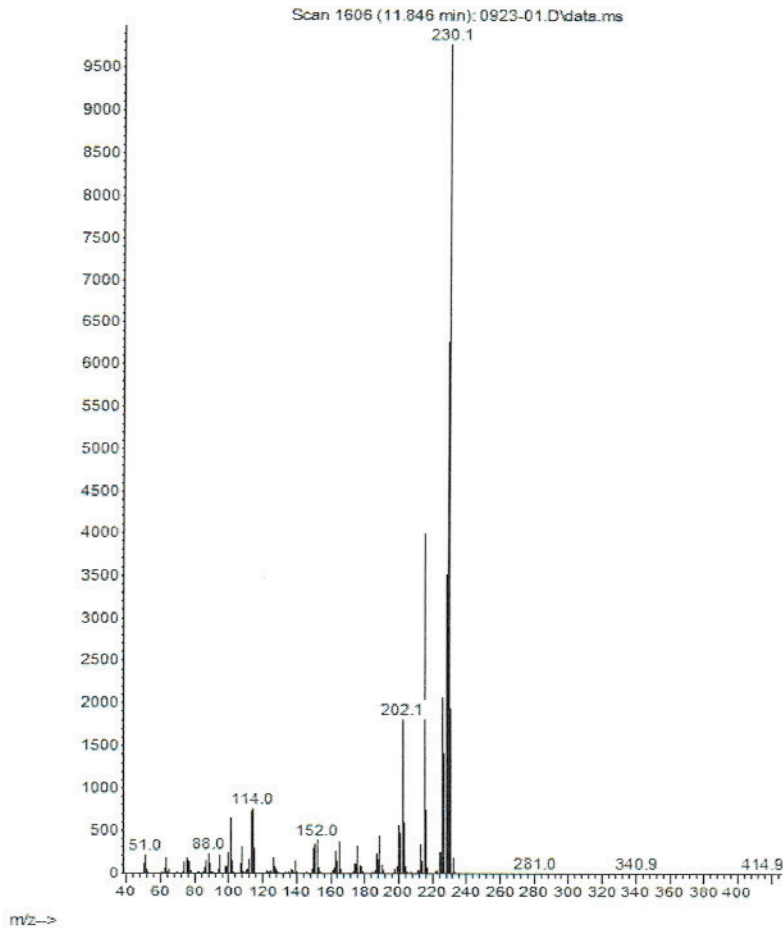
660 Tower Lane • P. O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
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## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

Abundance



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

## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

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



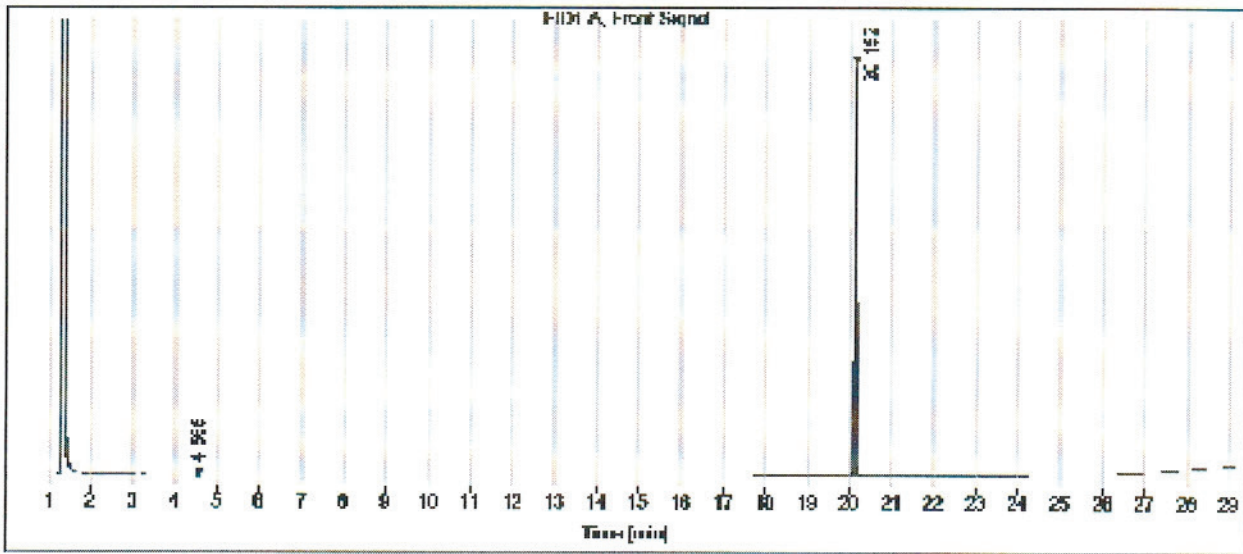
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

Gas

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

## CERTIFICATE OF ANALYSIS

Location: Vial 141  
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

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





# Analytical RunID GCFID-HP5-B\_220111c Standards Traceability Report

**Standard ID:** DRO210406A

**Standard Name:** Triacontane-d62 Surr For AK103 RRO

**Prep Date:** 4/6/2021

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:** Sigma-Aldrich

**Lot Number:** MBBC4347

**Balance ID:**

**Comments:** Alaska surr [for AK103 RRO]

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Triacontane-d62-98 atom % D	<a href="#">13736</a>		mL	4/6/2026
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220111c Standards Traceability Report

**Standard ID:** DRO210901A

**Standard Name:** 30W Motor Oil-Valvoline

**Prep Date:** 9/1/2021

**Exp Date:** 9/1/2026

**Department:** dropr

**Vendor:**

**Lot Number:** F1620C1

**Balance ID:**

**Comments:** Used to make 2nd Source Standard for AK103 method.

**Type:** Primary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Valvoline SAE 30 Motor Oil	<a href="#">14232</a>		mL	9/1/2026
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220111c Standards Traceability Report

**Standard ID:** DRO210901B

**Standard Name:** 40W Motor Oil-Valvoline

**Prep Date:** 9/1/2021

**Exp Date:** 9/1/2026

**Department:** dropr

**Vendor:**

**Lot Number:** L0717H2

**Balance ID:**

**Comments:** Used to Make 2nd Source Standards For Alaska AK103 RRO Method and Oil

**Type:** Primary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Valvoline SAE 40 Motor Oil	<a href="#">14231</a>		mL	9/1/2026
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220111c Standards Traceability Report

**Standard ID:** DRO210902A

**Standard Name:** 50,000 ug/mL Oil Std for RRO-In DCM

**Prep Date:** 9/2/2021

**Exp Date:** 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

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EB867	<a href="#">14196</a>	25	mL	9/1/2026

Stock Source	Base Units	Amount Added
DRO210901A	ug/mL	0.6254 g
DRO210901B	ug/mL	0.6261 g





# Analytical RunID GCFID-HP5-B\_220111c Standards Traceability Report

**Standard ID:** DRO211006A

**Standard Name:** Triacontane SURR 2000 ug/mL

**Prep Date:** 10/6/2021

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** Triacontane SURR 2000 ug/mL

**Type:** Secondary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	<a href="#">13553</a>	50	mL	4/6/2026
Stock Source	Base Units	Amount Added		
DRO210406A	ug/mL	0.1001 g		



# Analytical RunID GCFID-HP5-B\_220111c Standards Traceability Report

**Standard ID:** DRO211118A

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

**Prep Date:** 11/18/2021

**Exp Date:** 10/31/2028

**Department:** dropr

**Vendor:** Restek

**Lot Number:** A0176667

**Balance ID:** Sartorius 4 place balance

**Comments:**

**Type:** Primary

**Prep By:** Ann Nebel

**Status:** Open

**Final Volume:** 1 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Residual Range Calibration Standard	<a href="#">14531</a>	1	mL	10/31/2028

Stock Source	Base Units	Amount Added
DRO211118A	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.:** A0176667

**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 :** October 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 Purity ----%	50,102.0 µg/mL	+/- 293.3582	µg/mL	Gravimetric
	(Lot A0126386)		+/- 1,492.1008	µg/mL	Unstressed
			+/- 1,591.3244	µg/mL	Stressed

**Solvent:** Methylene chloride  
CAS # 75-09-2  
Purity 99%

**ID #: 14531**  
Opened: \_\_\_\_\_  
Residual Range Calibration Standard  
**Expires: 10/31/2028**  
Rec'd: 11/18/2021  
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:**

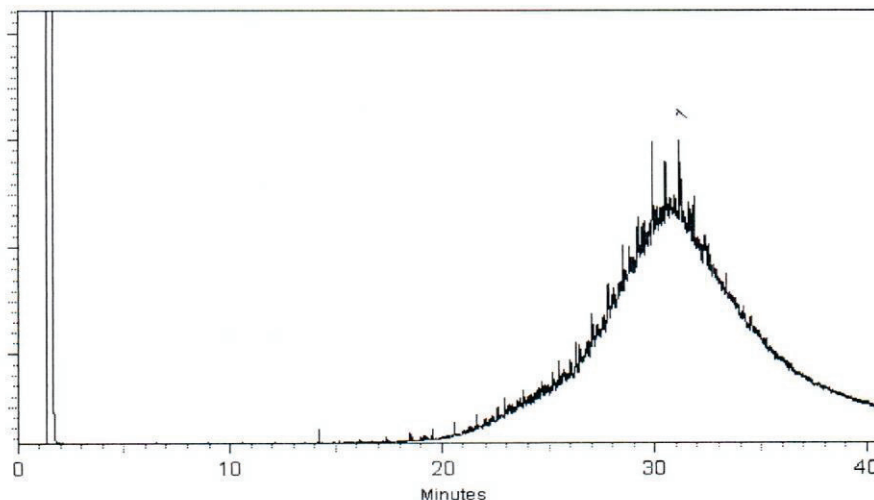
250°C

**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.

*Sam Moodler*

Sam Moodler - Operations Tech I

Date Mixed: 22-Sep-2021

Balance: 1128360905

*Alexis Shelow*

Alexis Shelow - Operations Tech I

Date Passed: 23-Sep-2021

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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: \_\_\_\_\_

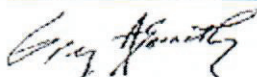
Triacontane-d62-98 atom % D

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.



# Analytical RunID GCFID-HP5-B\_220128a Standards Traceability Report

**Standard ID:** DRO200430B

**Standard Name:** O-Terphenyl

**Prep Date:** 4/30/2020

**Exp Date:** 9/30/2024

**Department:** dropr

**Vendor:** Chemservice

**Lot Number:** 9972100

**Balance ID:**

**Comments:** ID#: 6271

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
o-Terphenyl	<a href="#">12650</a>	500	mg	9/30/2024
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220128a Standards Traceability Report

**Standard ID:** DRO210406A

**Standard Name:** Triacontane-d62 Surr For AK103 RRO

**Prep Date:** 4/6/2021

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:** Sigma-Aldrich

**Lot Number:** MBBC4347

**Balance ID:**

**Comments:** Alaska surr [for AK103 RRO]

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Triacontane-d62-98 atom % D	<a href="#">13736</a>	500	mg	4/6/2026
Stock Source	Base Units	Amount Added		





# Analytical RunID GCFID-HP5-B\_220128a Standards Traceability Report

**Standard ID:** DRO211006A

**Standard Name:** Triacontane SURR 2000 ug/mL

**Prep Date:** 10/6/2021

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** Triacontane SURR 2000 ug/mL

**Type:** Primary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	<a href="#">13553</a>	50	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO210406A	ug/mL	0.1001 g



# Analytical RunID GCFID-HP5-B\_220128a Standards Traceability Report

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

**Type:** Secondary  
**Prep By:** Ann Nebel  
**Status:** Open

**Final Volume:** 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC328	<a href="#">14408</a>	25	mL	9/30/2024

Stock Source	Base Units	Amount Added
DRO200430B	ug/mL	0.1012 g



# Analytical RunID GCFID-HP5-B\_220128a Standards Traceability Report

**Standard ID:** DRO211118A

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

**Prep Date:** 11/18/2021

**Exp Date:** 10/31/2028

**Department:** dropr

**Vendor:** Restek

**Lot Number:** A0176667

**Balance ID:** Sartorius 4 place balance

**Comments:**

**Type:** Primary

**Prep By:** Ann Nebel

**Status:** Open

**Final Volume:** 1 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Residual Range Calibration Standard	<a href="#">14531</a>	1	mL	10/31/2028
Stock Source	Base Units	Amount Added		
DRO211118A	ug/mL			



# Analytical RunID GCFID-HP5-B\_220128a Standards Traceability Report

**Standard ID:** DRO211214C

**Standard Name:** Diesel Fuel #2 50,000 ug/mL in DCM

**Prep Date:** 12/14/2021

**Exp Date:** 4/30/2023

**Department:** dropr

**Vendor:** Sigma-Aldrich

**Lot Number:** LRAC6316

**Balance ID:**

**Comments:** Diesel Fuel #2 For CCVs.

**Type:** Primary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Diesel Fuel No. 2	<a href="#">14623</a>	1	mL	4/30/2023
Stock Source	Base Units	Amount Added		
DRO211214C	ug/mL			



# Analytical RunID GCFID-HP5-B\_220128a Standards Traceability Report

**Standard ID:** DRO220106B

**Standard Name:** Triacontane SURR 1000 ug/mL

**Prep Date:** 1/6/2022

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** 2X dilution of Triacontane SURR 2000 ug/mL

**Type:** Secondary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 10 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	<a href="#">14647</a>	5	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO211006A	ug/mL	5 mL



# Analytical RunID GCFID-HP5-B\_220128a Standards Traceability Report

**Standard ID:** DRO220118A

**Standard Name:** 5,000 ug/mL RRO CCV 200 ug/mL Triacontane

**Prep Date:** 1/18/2022

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:**

**Comments:** CCV for AK102 and 8015C RRO.

**Type:** Secondary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** 4 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC849	<a href="#">14747</a>	2.8	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO220106B	ug/mL	800 µL
DRO211118A	ug/mL	400 µL



# Analytical RunID GCFID-HP5-B\_220128a Standards Traceability Report

**Standard ID:** DRO220124A

**Standard Name:** 8015 CCV-15,000ug/mL + 200 OTP

**Prep Date:** 1/24/2022

**Exp Date:** 4/30/2023

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:**

**Comments:** 8015DRO CCV MIX-15,000ug/mL +200 OTP #2 Diesel

**Type:** Secondary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 4 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC849	<a href="#">14747</a>	2.6	mL	4/30/2023

Stock Source	Base Units	Amount Added
DRO211214C	ug/mL	1.2 mL
DRO211101A	ug/mL	0.2 mL

# 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 #: 14623

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

Diesel Fuel No. 2

Expires: 4/30/2023

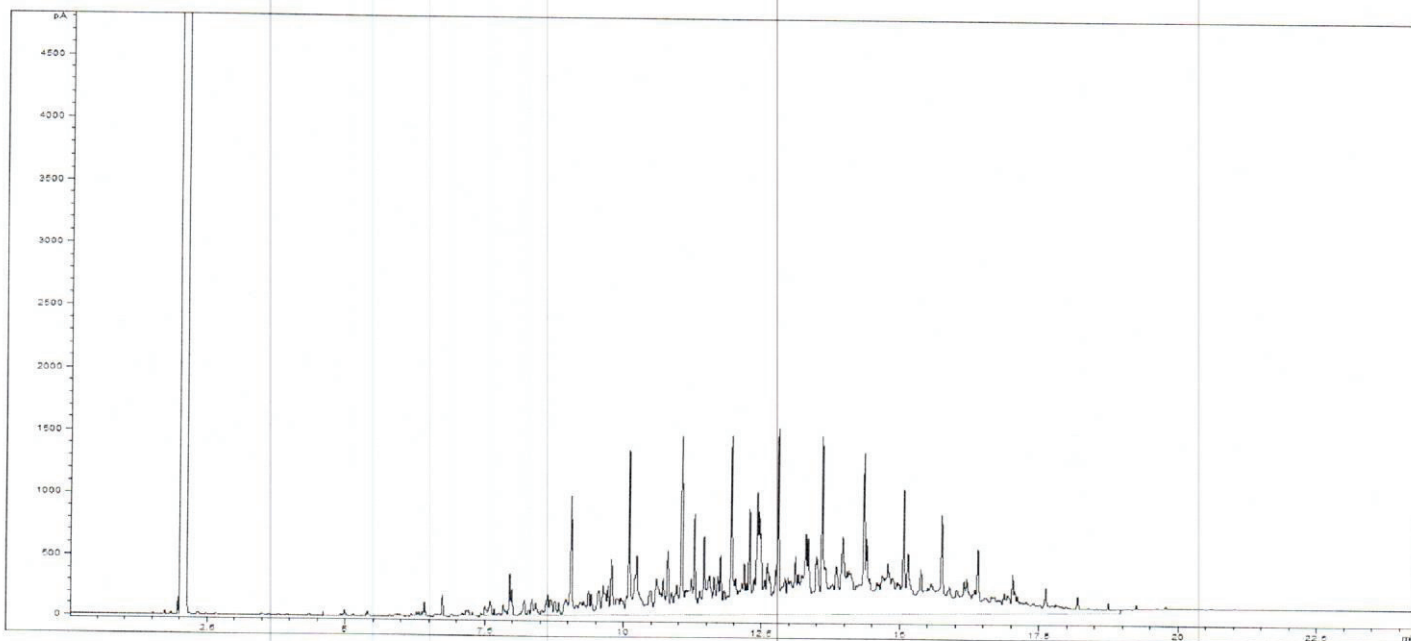
Rec'd: 12/14/2021

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

## Certified Values

Analyte	Certified Value <sup>1,4</sup>	Units	Raw Material Purity, %	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

## Informational Values



## Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H<sub>2</sub>, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



**SIGMA-ALDRICH®**

2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA  
800-325-5832  
TechService@milliporesigma.com www.sigma-aldrich.com



# Description

Lot **LRAC6316**  
Expiration Date April 2023  
Manufacturing Date April 2020  
Storage Conditions Room Temperature  
Solvent/Matrix DICHLOROMETHANE

**1 Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.  
**4 Ucrm - Uncertainty values** in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

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

**k:** Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

**6 Analytical Value-** For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

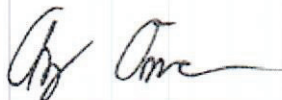
**Traceability:** The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual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

**Homogeneity:** Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

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

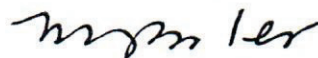
MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

**THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).**



Andy Ommen - QC Manager

Certification Date April 30, 2020  
Version 0-4302020



Mark Pooler - QA Supervisor





# 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.:** A0176667

**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 :** October 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 Purity ----%	50,102.0 µg/mL	+/- 293.3582	µg/mL	Gravimetric
	(Lot A0126386)		+/- 1,492.1008	µg/mL	Unstressed
			+/- 1,591.3244	µg/mL	Stressed

**Solvent:** Methylene chloride  
CAS # 75-09-2  
Purity 99%

**ID #: 14531**

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

Residual Range Calibration Standard

**Expires: 10/31/2028**

Rec'd: 11/18/2021

Energv 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:**

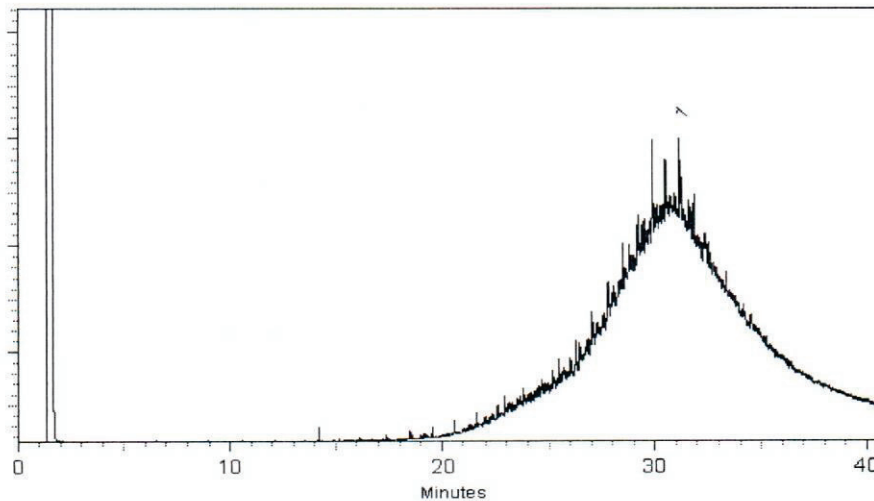
250°C

**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.

*Sam Moodler*

Sam Moodler - Operations Tech I

Date Mixed: 22-Sep-2021

Balance: 1128360905

*Alexis Shelow*

Alexis Shelow - Operations Tech I

Date Passed: 23-Sep-2021

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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

## CERTIFICATE OF ANALYSIS

### o-Terphenyl

CATALOG NUMBER N-12693-500MG  
LOT NUMBER 9972100  
DATE CERTIFIED 09/23/19  
EXPIRATION DATE 09/30/24  
CAS NUMBER 84-15-1  
MOLECULAR FORMULA C18H14  
MOLECULAR WEIGHT 230.32  
STORAGE Store in a cool dry place.  
HANDLING See Safety Data Sheet  
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

*Mary Beth O'Donnell*

Mary Beth O'Donnell  
CSM/TC

ID #: 12650

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

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

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

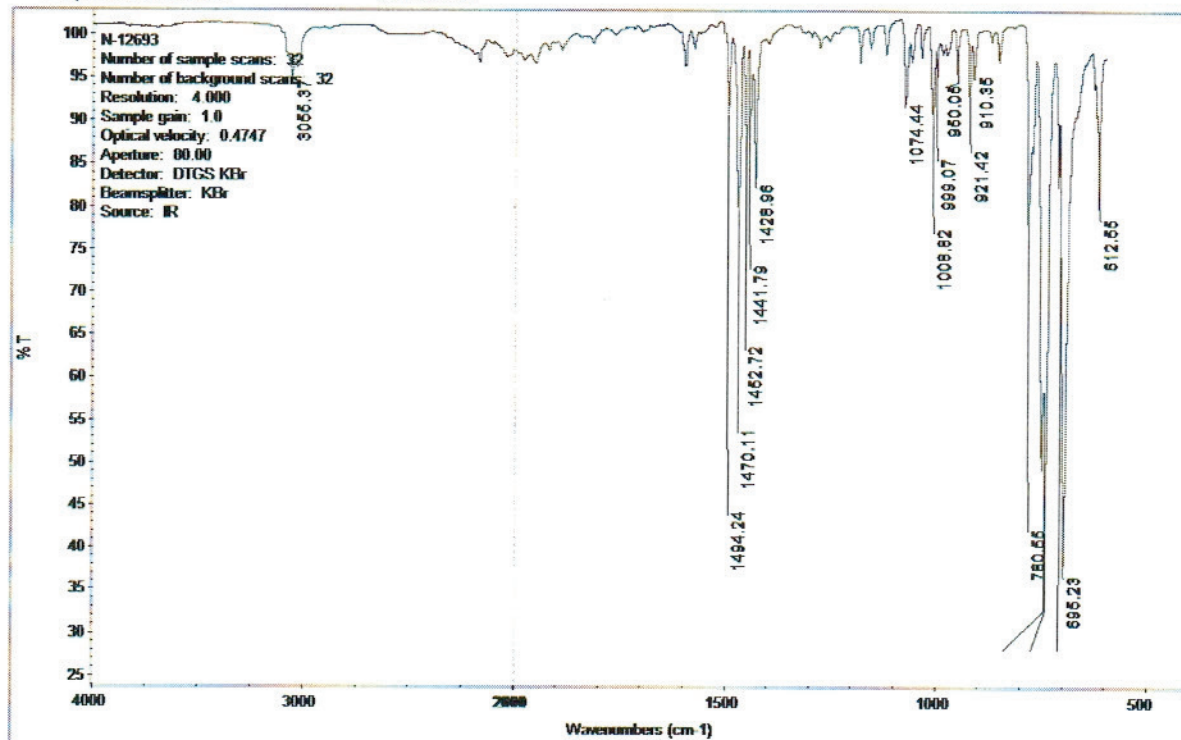
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



## CERTIFICATE OF ANALYSIS

### Analysis Method:

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



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



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

## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

Chem Service Inc      Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D  
Acq On : 23 Sep 2019 10:40  
Operator :  
Sample : n-12693  
Misc :  
ALS Vial : 95

Integration Parameters: autoint1.e  
Integrator: ChemStation

DataAcq Meth: SCREEN.M  
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

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

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

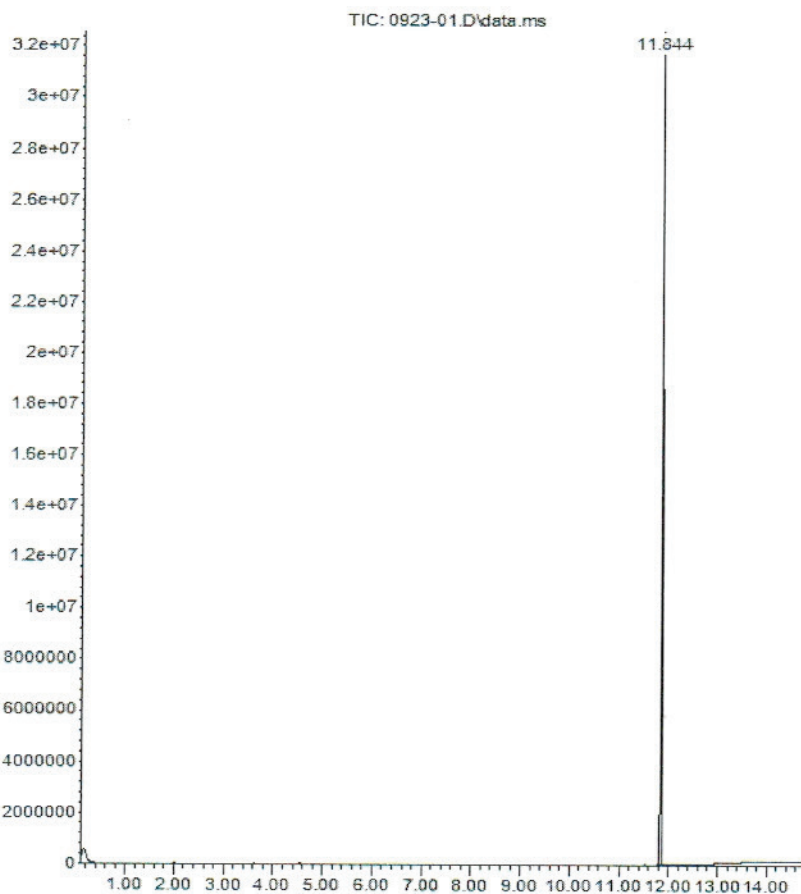


## CERTIFICATE OF ANALYSIS

### Analysis Method:

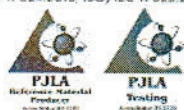
Catalog Number: N-12693-500MG  
Description: o-Terphenyl  
Lot Number: 9972100  
Expiration Date: 09/30/24

Abundance



Time-->

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





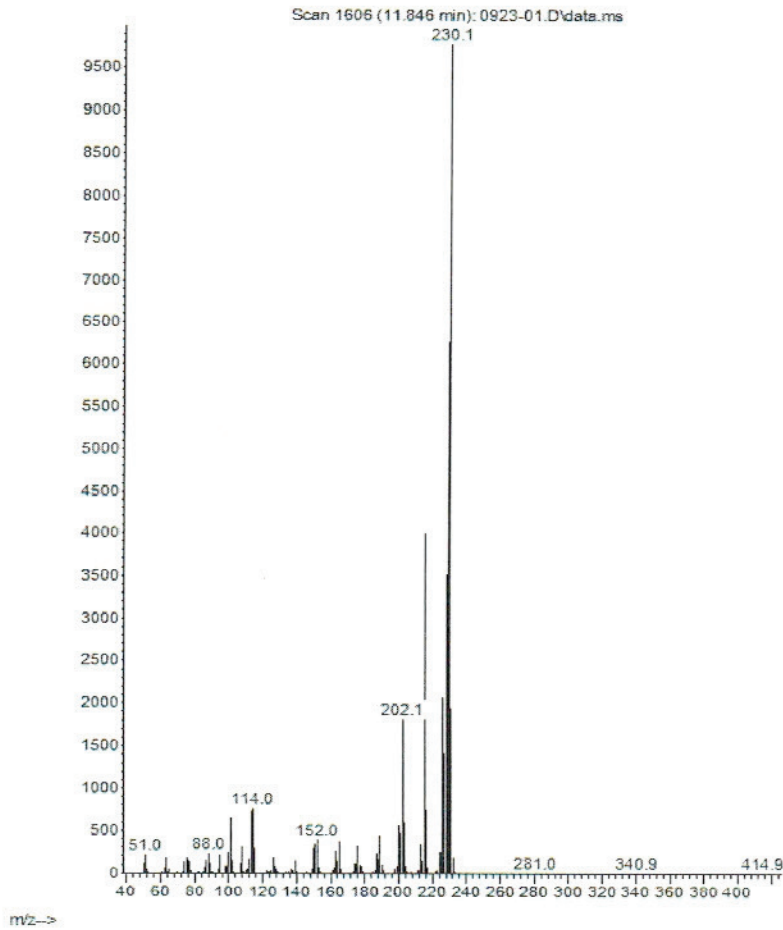
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1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

Abundance



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## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

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



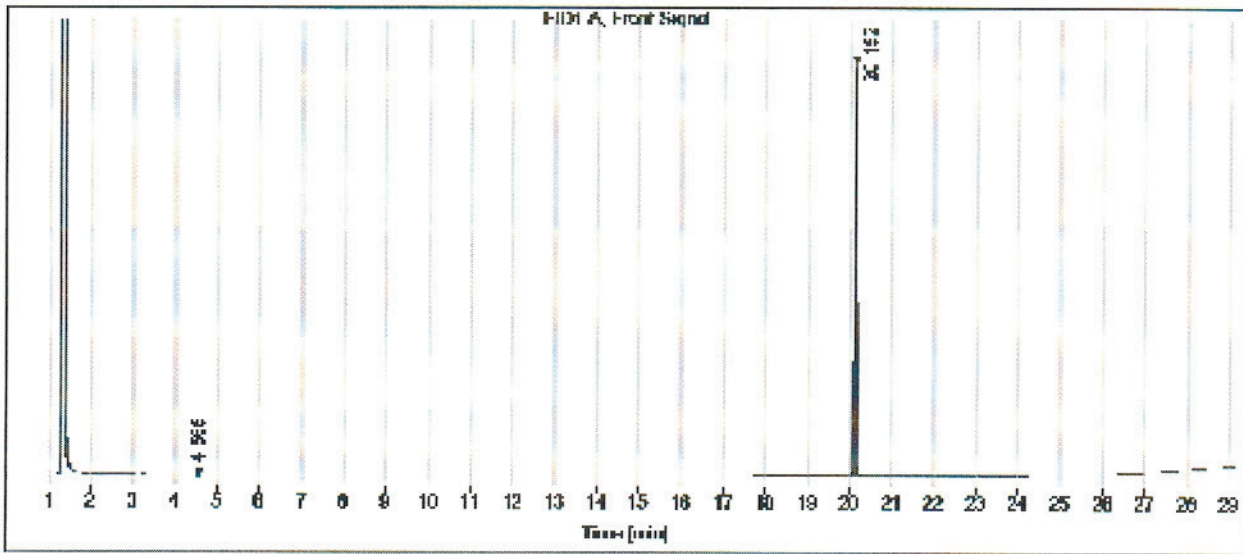
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[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

Gas

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

## CERTIFICATE OF ANALYSIS

Location: Vial 141  
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

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



3050 Spruce Street, Saint Louis, MO 63103, USA

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

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

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

## Certificate of Analysis

Product Name:  
Triacontane-d62 - 98 atom % D

Product Number: 451789  
 Batch Number: MBBC4347  
 Brand: ALDRICH  
 CAS Number: 93952-07-9  
 MDL Number: MFCD00209794  
 Formula: C30D62  
 Formula Weight: 485.20 g/mol  
 Quality Release Date: 27 APR 2018



ID #: 13736

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

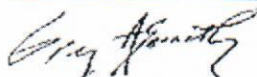
Triacontane-d62-98 atom % D

**Expires: 4/6/2026**

Rec'd: 4/6/2021

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

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C



Greg Abernathy, Supervisor  
 Quality Control  
 Miamisburg, Ohio US

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



# Analytical RunID GCFID-HP5-B\_220131a Standards Traceability Report

**Standard ID:** DRO200430B

**Standard Name:** O-Terphenyl

**Prep Date:** 4/30/2020

**Exp Date:** 9/30/2024

**Department:** dropr

**Vendor:** Chemservice

**Lot Number:** 9972100

**Balance ID:**

**Comments:** ID#: 6271

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
o-Terphenyl	<a href="#">12650</a>	500	mg	9/30/2024
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220131a Standards Traceability Report

**Standard ID:** DRO210406A

**Standard Name:** Triacontane-d62 Surr For AK103 RRO

**Prep Date:** 4/6/2021

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:** Sigma-Aldrich

**Lot Number:** MBBC4347

**Balance ID:**

**Comments:** Alaska surr [for AK103 RRO]

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Triacontane-d62-98 atom % D	<a href="#">13736</a>	500	mg	4/6/2026
Stock Source	Base Units	Amount Added		



# Analytical RunID GCFID-HP5-B\_220131a Standards Traceability Report

**Standard ID:** DRO211006A

**Standard Name:** Triacontane SURR 2000 ug/mL

**Prep Date:** 10/6/2021

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** Triacontane SURR 2000 ug/mL

**Type:** Primary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	<a href="#">13553</a>	50	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO210406A	ug/mL	0.1001 g



# Analytical RunID GCFID-HP5-B\_220131a Standards Traceability Report

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

**Type:** Secondary  
**Prep By:** Ann Nebel  
**Status:** Open

**Final Volume:** 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC328	<a href="#">14408</a>	25	mL	9/30/2024

Stock Source	Base Units	Amount Added
DRO200430B	ug/mL	0.1012 g





# Analytical RunID GCFID-HP5-B\_220131a Standards Traceability Report

**Standard ID:** DRO211118A

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

**Prep Date:** 11/18/2021

**Exp Date:** 10/31/2028

**Department:** dropr

**Vendor:** Restek

**Lot Number:** A0176667

**Balance ID:** Sartorius 4 place balance

**Comments:**

**Type:** Primary

**Prep By:** Ann Nebel

**Status:** Open

**Final Volume:** 1 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Residual Range Calibration Standard	<a href="#">14531</a>	1	mL	10/31/2028

Stock Source	Base Units	Amount Added
DRO211118A	ug/mL	



# Analytical RunID GCFID-HP5-B\_220131a Standards Traceability Report

**Standard ID:** DRO211214C

**Standard Name:** Diesel Fuel #2 50,000 ug/mL in DCM

**Prep Date:** 12/14/2021

**Exp Date:** 4/30/2023

**Department:** dropr

**Vendor:** Sigma-Aldrich

**Lot Number:** LRAC6316

**Balance ID:**

**Comments:** Diesel Fuel #2 For CCVs.

**Type:** Primary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Diesel Fuel No. 2	<a href="#">14623</a>	1	mL	4/30/2023
Stock Source	Base Units	Amount Added		
DRO211214C	ug/mL			



# Analytical RunID GCFID-HP5-B\_220131a Standards Traceability Report

**Standard ID:** DRO220106B

**Standard Name:** Triacontane SURR 1000 ug/mL

**Prep Date:** 1/6/2022

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** 2X dilution of Triacontane SURR 2000 ug/mL

**Type:** Secondary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 10 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	<a href="#">14647</a>	5	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO211006A	ug/mL	5 mL



# Analytical RunID GCFID-HP5-B\_220131a Standards Traceability Report

**Standard ID:** DRO220118A

**Standard Name:** 5,000 ug/mL RRO CCV 200 ug/mL Triacontane

**Prep Date:** 1/18/2022

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:**

**Comments:** CCV for AK102 and 8015C RRO.

**Type:** Secondary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** 4 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC849	<a href="#">14747</a>	2.8	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO220106B	ug/mL	800 µL
DRO211118A	ug/mL	400 µL



# Analytical RunID GCFID-HP5-B\_220131a Standards Traceability Report

**Standard ID:** DRO220124A

**Standard Name:** 8015 CCV-15,000ug/mL + 200 OTP

**Prep Date:** 1/24/2022

**Exp Date:** 4/30/2023

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:**

**Comments:** 8015DRO CCV MIX-15,000ug/mL +200 OTP #2 Diesel

**Type:** Secondary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 4 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC849	<a href="#">14747</a>	2.6	mL	4/30/2023

Stock Source	Base Units	Amount Added
DRO211214C	ug/mL	1.2 mL
DRO211101A	ug/mL	0.2 mL

# 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 #: 14623

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

Diesel Fuel No. 2

Expires: 4/30/2023

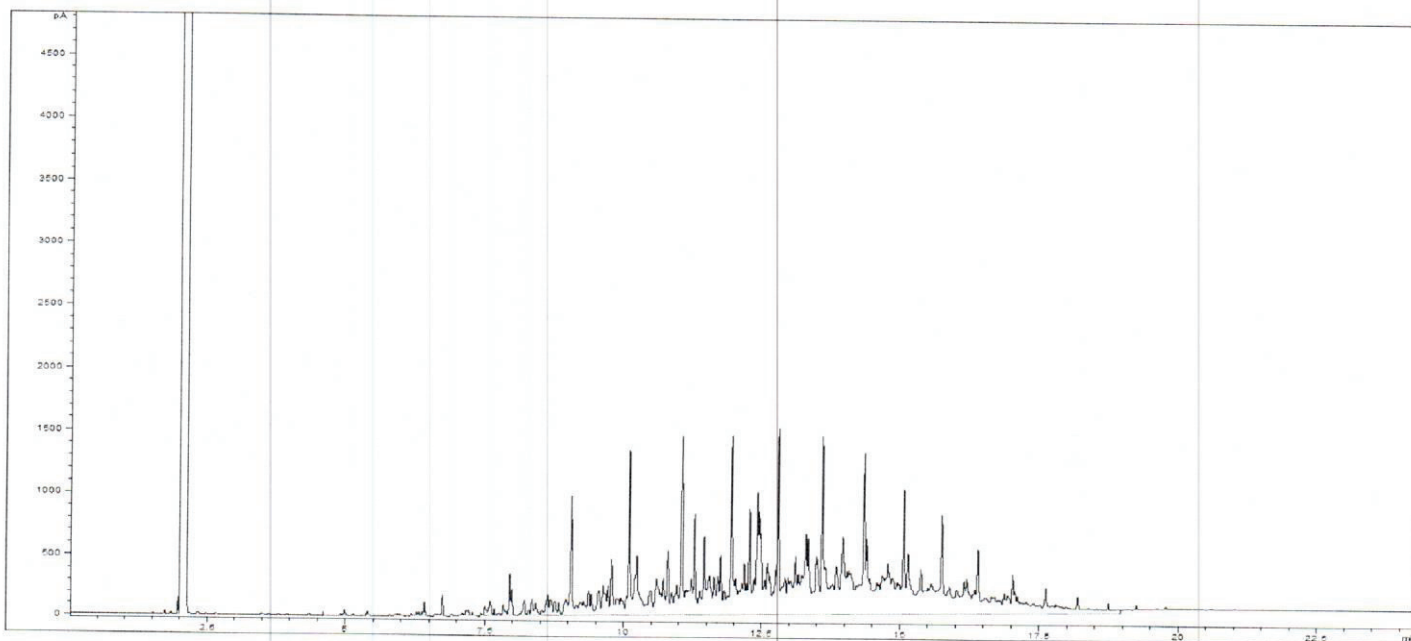
Rec'd: 12/14/2021

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

## Certified Values

Analyte	Certified Value <sup>1,4</sup>	Units	Raw Material Purity, %	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

## Informational Values



## Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H<sub>2</sub>, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



**SIGMA-ALDRICH®**

2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA  
800-325-5832  
TechService@milliporesigma.com www.sigma-aldrich.com

# Description

Lot **LRAC6316**  
Expiration Date April 2023  
Manufacturing Date April 2020  
Storage Conditions Room Temperature  
Solvent/Matrix DICHLOROMETHANE

**1 Metrological traceability:** Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.  
**4 Ucrm - Uncertainty values** in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

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

**k:** Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

**6 Analytical Value-** For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

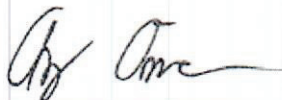
**Traceability:** The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual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

**Homogeneity:** Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

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

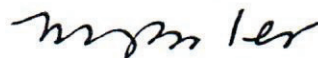
MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

**THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).**



Andy Ommen - QC Manager

Certification Date April 30, 2020  
Version 0-4302020



Mark Pooler - QA Supervisor





# CERTIFIED REFERENCE MATERIAL

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

www.restek.com

## Certificate of Analysis



ISO 17034 Accredited  
Reference Material Producer  
Certificate #3222.01



ISO/IEC 17025 Accredited  
Testing Laboratory  
Certificate #3222.02

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

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

Catalog No. : 31817

Lot No.: A0176667

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 : October 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 Purity ----%	50,102.0 µg/mL	+/- 293.3582	µg/mL	Gravimetric
	(Lot A0126386)		+/- 1,492.1008	µg/mL	Unstressed
			+/- 1,591.3244	µg/mL	Stressed

Solvent: Methylene chloride  
CAS # 75-09-2  
Purity 99%

ID #: 14531

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

Residual Range Calibration Standard

Expires: 10/31/2028

Rec'd: 11/18/2021

Energ 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:**

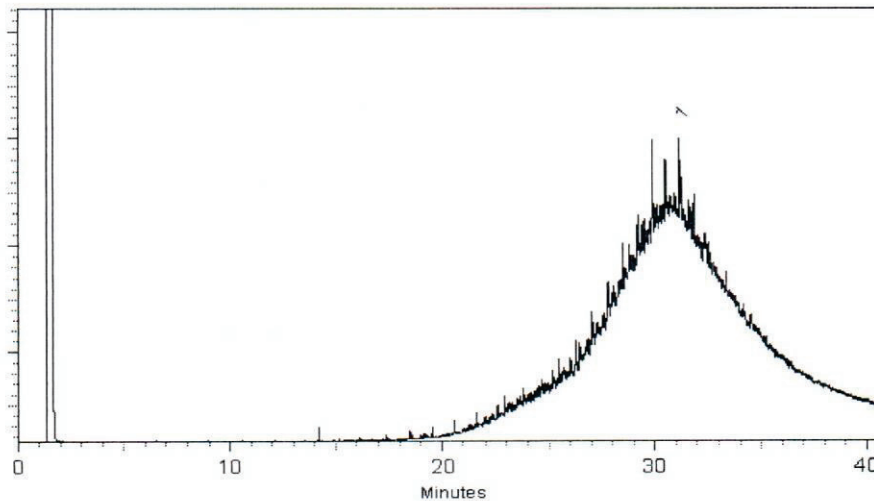
250°C

**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.

*Sam Moodler*

Sam Moodler - Operations Tech I

Date Mixed: 22-Sep-2021

Balance: 1128360905

*Alexis Shelow*

Alexis Shelow - Operations Tech I

Date Passed: 23-Sep-2021

Manufactured under Restek's ISO 9001:2015  
Registered Quality System  
Certificate #FM 80397

## General Certified Reference Material Notes

### Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

### Purity Notes:

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

### Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us) for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at [www.restek.com/Contact-Us](http://www.restek.com/Contact-Us).
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

### Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

### Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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

## CERTIFICATE OF ANALYSIS

### o-Terphenyl

CATALOG NUMBER N-12693-500MG  
LOT NUMBER 9972100  
DATE CERTIFIED 09/23/19  
EXPIRATION DATE 09/30/24  
CAS NUMBER 84-15-1  
MOLECULAR FORMULA C18H14  
MOLECULAR WEIGHT 230.32  
STORAGE Store in a cool dry place.  
HANDLING See Safety Data Sheet  
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

*Mary Beth O'Donnell*

Mary Beth O'Donnell  
CSM/TC

ID #: 12650

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

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

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

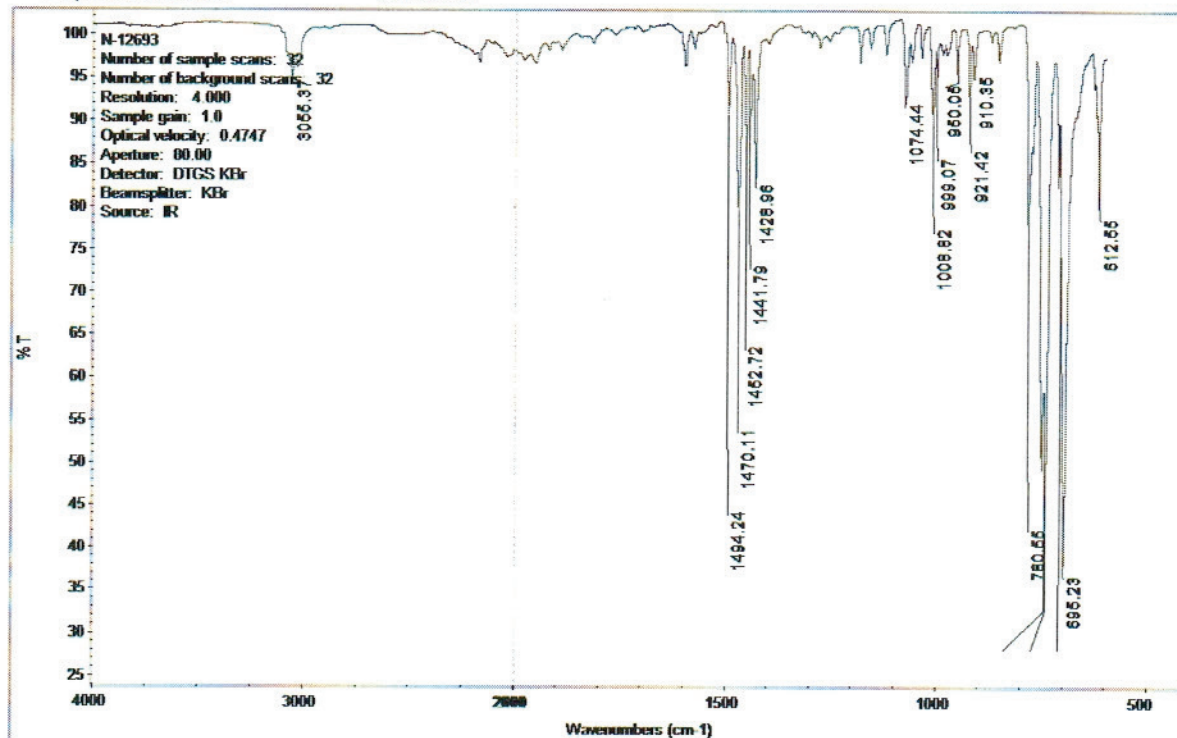
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



## CERTIFICATE OF ANALYSIS

### Analysis Method:

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



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



## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

Chem Service Inc      Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D  
Acq On : 23 Sep 2019 10:40  
Operator :  
Sample : n-12693  
Misc :  
ALS Vial : 95

Integration Parameters: autoint1.e  
Integrator: ChemStation

DataAcq Meth: SCREEN.M  
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

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

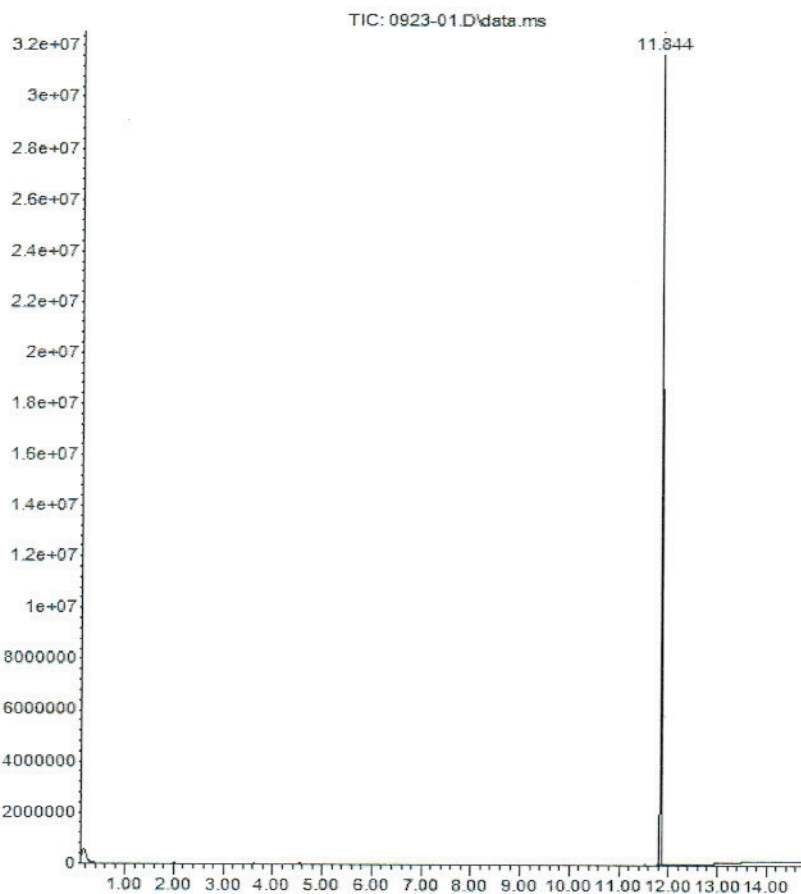
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1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

Abundance



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

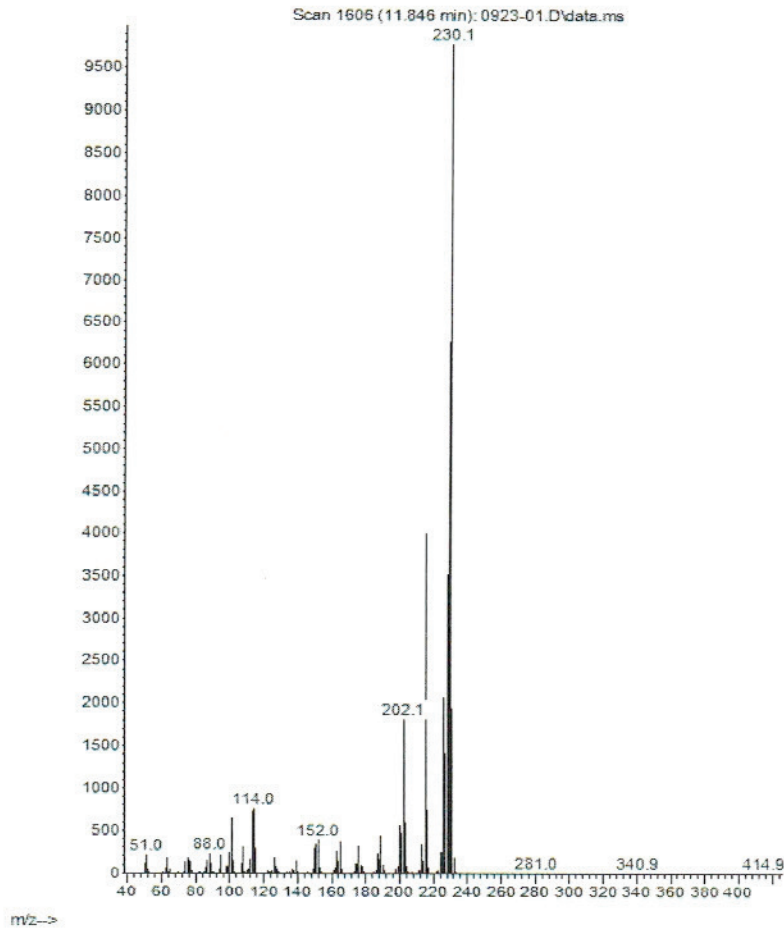


## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

Abundance



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



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

## CERTIFICATE OF ANALYSIS

### Analysis Method:

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

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





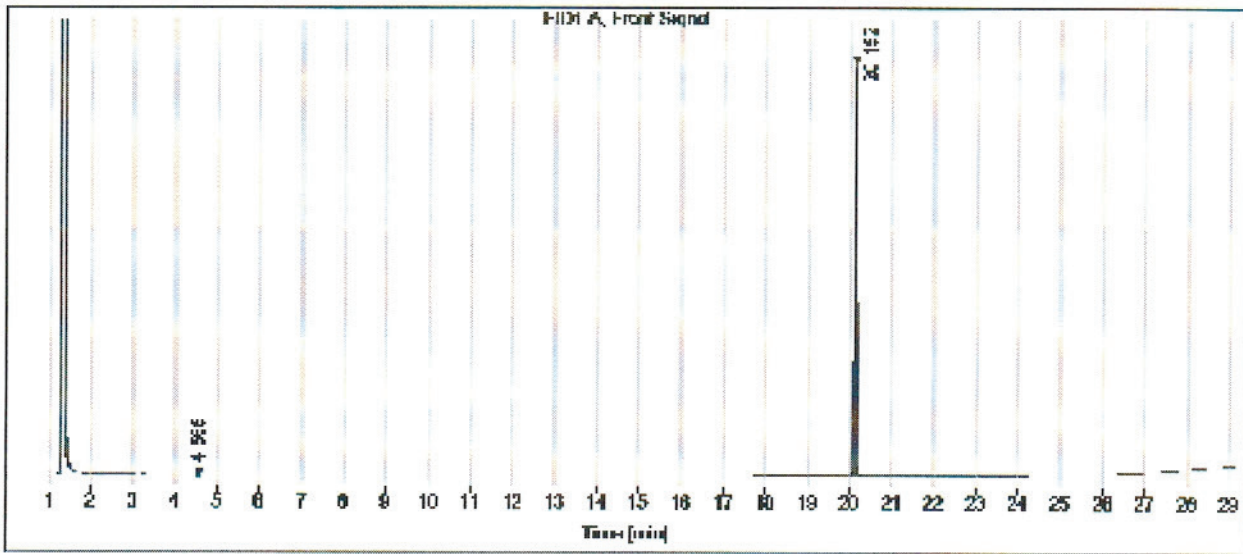
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 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

Gas

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

## CERTIFICATE OF ANALYSIS

Location: Vial 141  
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
	Sum		1173.1963		

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

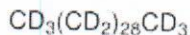


3050 Spruce Street, Saint Louis, MO 63103, USA  
 Website: www.sigmaaldrich.com  
 Email USA: techserv@sial.com  
 Outside USA: eurtechserv@sial.com

## Certificate of Analysis

Product Name:  
 Triacontane-d62 - 98 atom % D

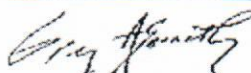
Product Number: 451789  
 Batch Number: MBBC4347  
 Brand: ALDRICH  
 CAS Number: 93952-07-9  
 MDL Number: MFCD00209794  
 Formula: C30D62  
 Formula Weight: 485.20 g/mol  
 Quality Release Date: 27 APR 2018



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.



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO181105A

**Spike Name:** #2 Diesel (NEAT)

**Prep Date:** 11/5/2018

**Exp Date:** 11/5/2023

**Department:** dropr

**Vendor:** conoco

**Lot Number:**

**Balance ID:**

**Comments:** -18 Cloud peak. (Conoco Gas Sation 1240 S. 27th Billings, MT) 2nd Source

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** 250 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
				11/5/2023
Stock Source	Base Units	Amount Added		



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO200430B

**Spike Name:** O-Terphenyl

**Prep Date:** 4/30/2020

**Exp Date:** 9/30/2024

**Department:** dropr

**Vendor:** Chemservice

**Lot Number:** 9972100

**Balance ID:**

**Comments:** ID#: 6271

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
o-Terphenyl	<a href="#">12650</a>	500	mg	9/30/2024
Stock Source	Base Units	Amount Added		



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO210406A

**Spike Name:** Triacontane-d62 Surr For AK103 RRO

**Prep Date:** 4/6/2021

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:** Sigma-Aldrich

**Lot Number:** MBBC4347

**Balance ID:**

**Comments:** Alaska surr [for AK103 RRO]

**Type:** Neat

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Triacontane-d62-98 atom % D	<a href="#">13736</a>	500	mg	4/6/2026

Stock Source	Base Units	Amount Added
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## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO210901A

**Spike Name:** 30W Motor Oil-Valvoline

**Prep Date:** 9/1/2021

**Exp Date:** 9/1/2026

**Department:** dropr

**Vendor:**

**Lot Number:** F1620C1

**Balance ID:**

**Comments:** Used to make 2nd Source Standard for AK103 method.

**Type:** Primary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Valvoline SAE 30 Motor Oil	<a href="#">14232</a>		mL	9/1/2026
Stock Source	Base Units	Amount Added		



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO210901B

**Spike Name:** 40W Motor Oil-Valvoline

**Prep Date:** 9/1/2021

**Exp Date:** 9/1/2026

**Department:** dropr

**Vendor:**

**Lot Number:** L0717H2

**Balance ID:**

**Comments:** Used to Make 2nd Source Standards For Alaska AK103 RRO Method and Oil

**Type:** Primary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Valvoline SAE 40 Motor Oil	<a href="#">14231</a>		mL	9/1/2026

Stock Source	Base Units	Amount Added
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## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO211006A

**Spike Name:** Triacontane SURR 2000 ug/mL

**Prep Date:** 10/6/2021

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** Triacontane SURR 2000 ug/mL

**Type:** Primary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 50 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	<a href="#">13553</a>	50	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO210406A	ug/mL	0.1001 g





## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO211012B

**Spike Name:** #2 Diesel in Acetone 150,000 ug/mL

**Prep Date:** 10/12/2021

**Exp Date:** 11/5/2023

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** #2 Diesel in Acetone 150,000 ug/mL.

**Type:** Secondary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone EA662	<a href="#">14050</a>	25	mL	11/5/2023

Stock Source	Base Units	Amount Added
DRO181105A	ug/mL	3.7507 g



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO211121C

**Spike Name:** MDL Diesel SPK 3000 ug/mL in Acetone

**Type:** Secondary

**Prep Date:** 11/21/2021

**Prep By:** Ann Nebel

**Exp Date:** 11/5/2023

**Status:** New

**Department:** dropr

**Vendor:**

**Final Volume:** 5 mL

**Lot Number:**

**Balance ID:**

**Comments:** use 100 uL DRO MDLs-mdw)

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DY299	<a href="#">13297</a>	4.9	mL	11/5/2023

Stock Source	Base Units	Amount Added
DRO211012B	ug/mL	0.1 mL



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO211213A

**Spike Name:** OTP only SURR 2000 ug/mL

**Prep Date:** 12/13/2021

**Exp Date:** 9/30/2024

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** OTP SURR 2000 ug/mL

**Type:** Primary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 100 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	<a href="#">13553</a>	100	mL	9/30/2024

Stock Source	Base Units	Amount Added
DRO200430B	ug/mL	0.2015 g



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO220106C

**Spike Name:** #2 Diesel in Acetone 150,000 ug/mL

**Prep Date:** 1/6/2022

**Exp Date:** 11/5/2023

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:**

**Type:** Secondary

**Prep By:** Ann Nebel

**Status:** New

**Final Volume:** 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone DZ509	<a href="#">13553</a>	25	mL	11/5/2023

Stock Source	Base Units	Amount Added
DRO181105A	ug/mL	3.7506 g



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO220112A

**Spike Name:** 50,000 ug/mL Oil Std for RRO-In DCM

**Prep Date:** 1/12/2022

**Exp Date:** 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

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 25 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC832	<a href="#">14647</a>	25	mL	9/1/2026

Stock Source	Base Units	Amount Added
DRO210901A	ug/mL	0.6225 g
DRO210901B	ug/mL	0.6273 g



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO220117A

**Spike Name:** OTPonly SURR 20 ug/mL

**Prep Date:** 1/17/2022

**Exp Date:** 9/30/2024

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** 100X dilution of OTPonly SURR 2000 ug/mL

**Type:** Secondary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 4 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Acetone EA776	<a href="#">13927</a>	3.96	mL	9/30/2024

Stock Source	Base Units	Amount Added
DRO211213A	ug/mL	40 uL



## Prep Batch 163307 Standards Traceability Report

**Spike ID:** DRO220119A

**Spike Name:** Triacontane SURR 1000 ug/mL

**Prep Date:** 1/19/2022

**Exp Date:** 4/6/2026

**Department:** dropr

**Vendor:**

**Lot Number:**

**Balance ID:** BAL-DRO

**Comments:** 2X dilution of Triacontane SURR 2000 ug/mL

**Type:** Secondary

**Prep By:** Jillian L Bostwick

**Status:** New

**Final Volume:** 10 mL

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC849	<a href="#">14747</a>	5	mL	4/6/2026
Stock Source	Base Units	Amount Added		
DRO211006A	ug/mL	5 mL		

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
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[info@chemservice.com](mailto:info@chemservice.com) • [www.chemservice.com](http://www.chemservice.com)

## CERTIFICATE OF ANALYSIS

### o-Terphenyl

CATALOG NUMBER N-12693-500MG  
LOT NUMBER 9972100  
DATE CERTIFIED 09/23/19  
EXPIRATION DATE 09/30/24  
CAS NUMBER 84-15-1  
MOLECULAR FORMULA C18H14  
MOLECULAR WEIGHT 230.32  
STORAGE Store in a cool dry place.  
HANDLING See Safety Data Sheet  
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

*Mary Beth O'Donnell*

Mary Beth O'Donnell  
CSM/TC

ID #: 12650

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

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

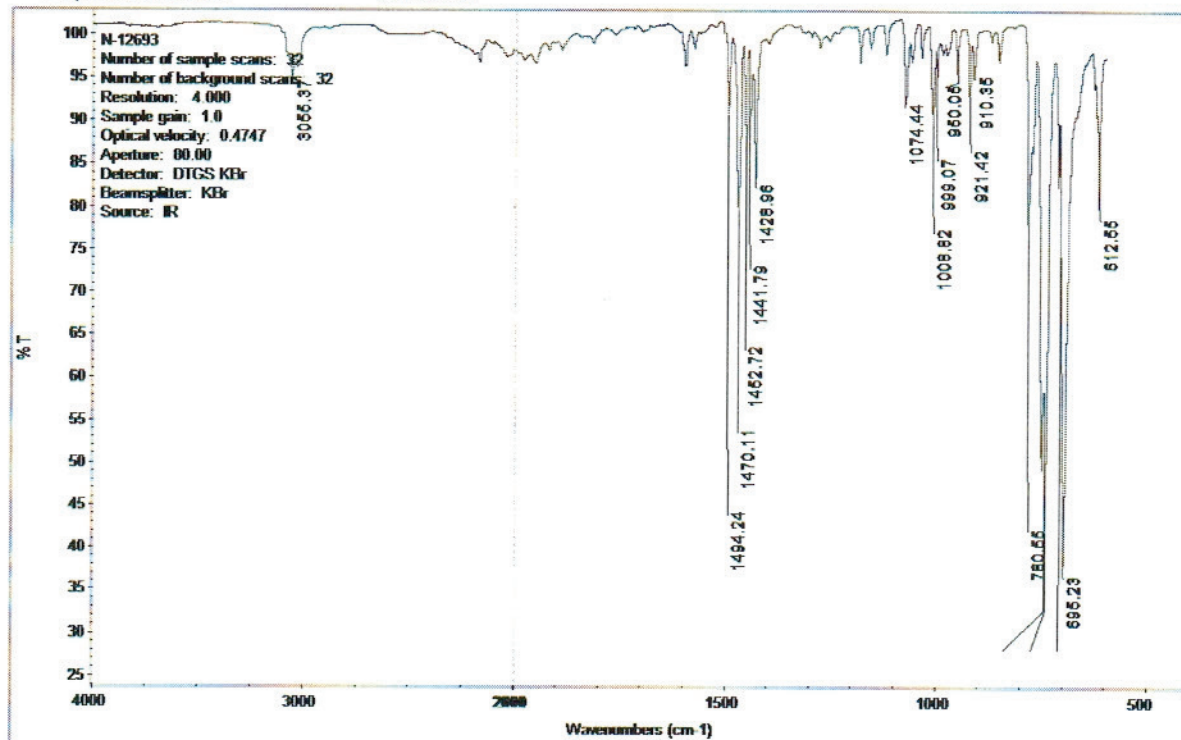
Energx Laboratories Inc 1120 So. 27th Street  
Billings MT 59107



## CERTIFICATE OF ANALYSIS

### Analysis Method:

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



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



660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599  
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729  
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Chem Service Inc      Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D  
Acq On : 23 Sep 2019 10:40  
Operator :  
Sample : n-12693  
Misc :  
ALS Vial : 95

Integration Parameters: autoint1.e  
Integrator: ChemStation

DataAcq Meth: SCREEN.M  
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

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

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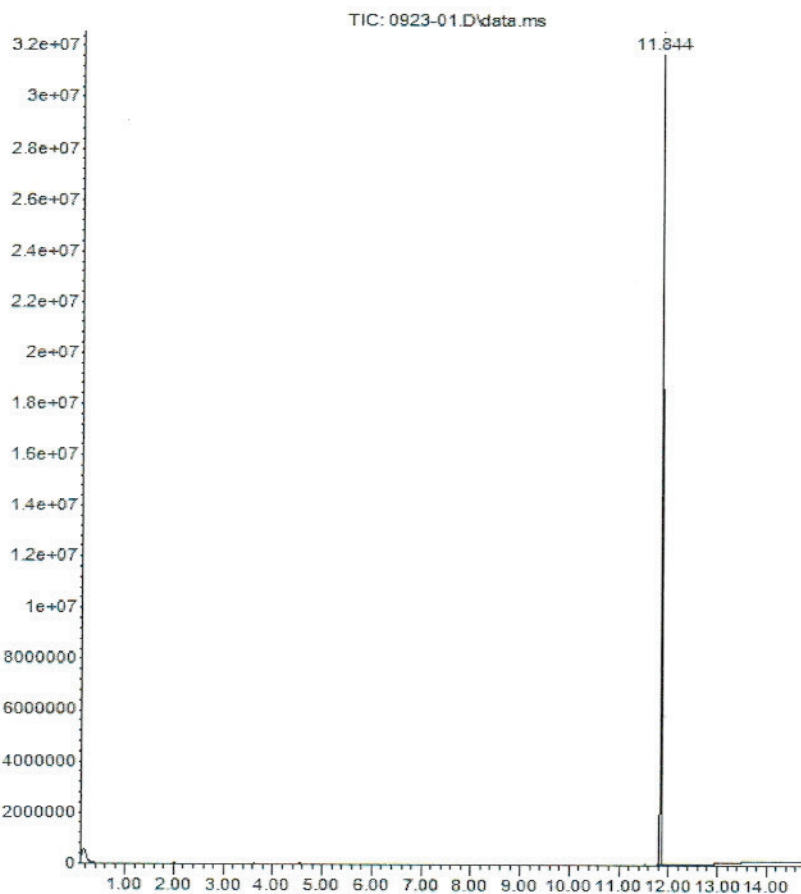
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Abundance



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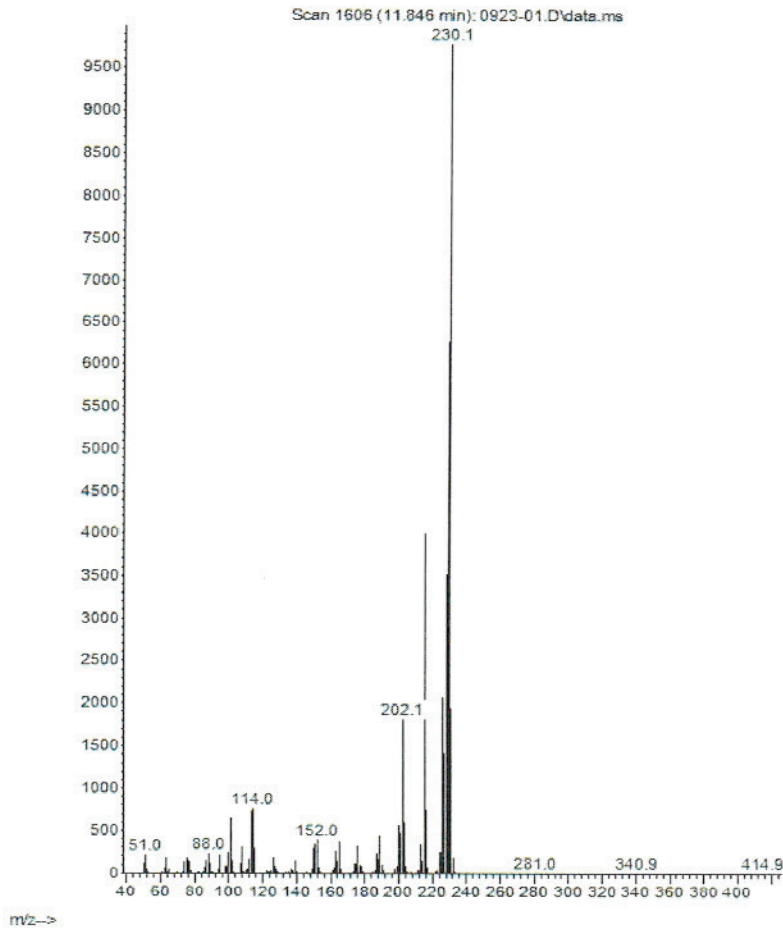
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Description:	o-Terphenyl
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Expiration Date:	09/30/24

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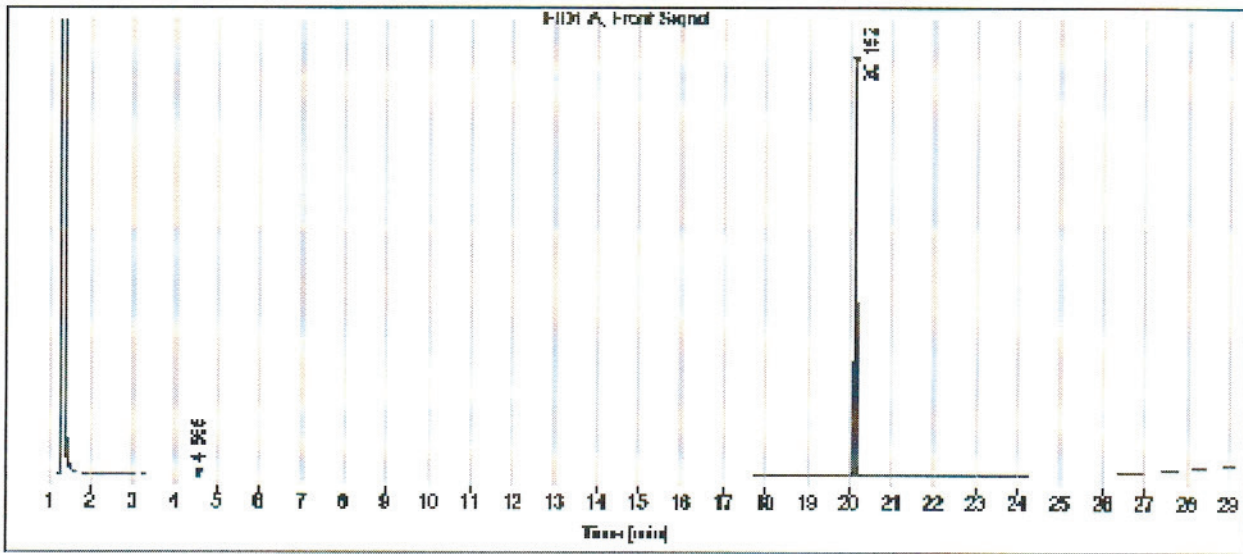
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Gas

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		

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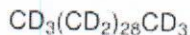


3050 Spruce Street, Saint Louis, MO 63103, USA  
 Website: [www.sigmaaldrich.com](http://www.sigmaaldrich.com)  
 Email USA: [techserv@sial.com](mailto:techserv@sial.com)  
 Outside USA: [eurtechserv@sial.com](mailto:eurtechserv@sial.com)

## Certificate of Analysis

Product Name:  
 Triacontane-d62 - 98 atom % D

Product Number: 451789  
 Batch Number: MBBC4347  
 Brand: ALDRICH  
 CAS Number: 93952-07-9  
 MDL Number: MFCD00209794  
 Formula: C30D62  
 Formula Weight: 485.20 g/mol  
 Quality Release Date: 27 APR 2018



ID #: 13736

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

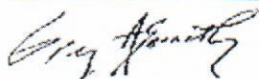
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

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

Test	Specification	Result
Purity (HPLC)	≥ 99.0 %	99.0 %
Proton NMR Spectrum	Conforms to Structure	Conforms
D Enrichment	≥ 98.0 %	99.0 %
Initial Melting Point		60.0 °C
Final Melting Point		62.0 °C

  
 Greg Abernathy, Supervisor  
 Quality Control  
 Miamisburg, Ohio US

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