

Energy Laboratories Inc

ANALYTICAL RUN Summary

13-Jan-22

Run ID GCFID-HP5-B_220111A

Run Start Date:	1/11/2022
Analyst:	Ann Nebel
Ical:	
Column ID:	
Comments:	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							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
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							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
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							
Analyte		T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
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

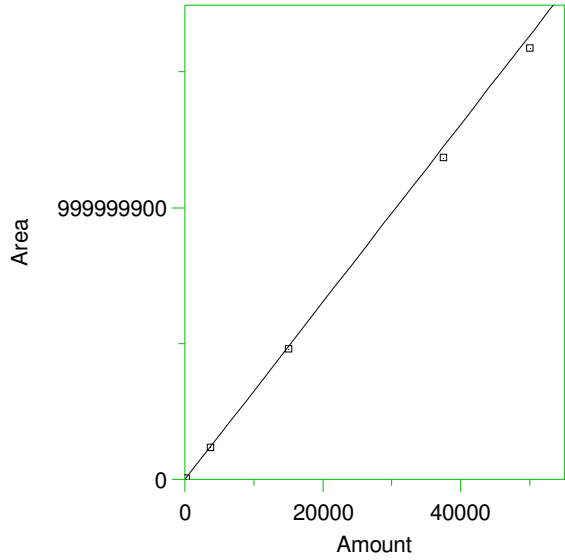
No default component

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

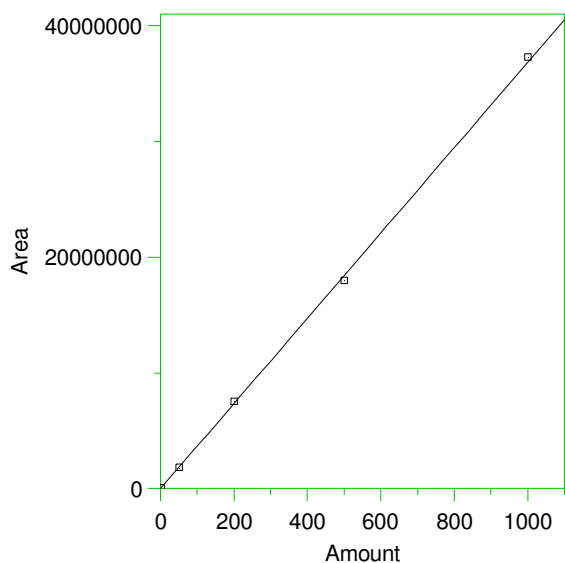
Single peak quantification by area

$Y = 32675.36 X + 0$

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

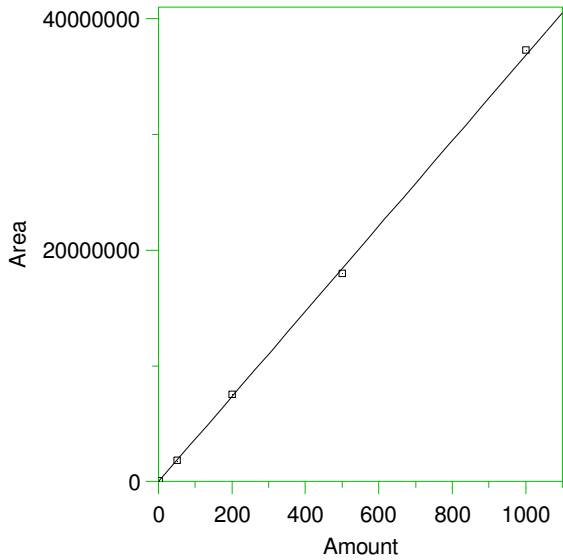
Single peak quantification by area

$Y = 36857.86 X + 0$

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

Run Start Date: 1/11/2022
Analyst: Ann Nebel
Ical:
Column ID:
Comments: 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						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
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						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
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						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
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

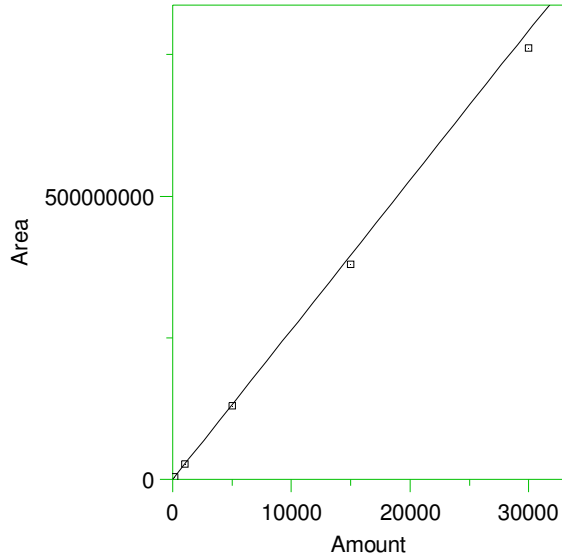
No default component

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

No calibration update report

All levels are normal data points.

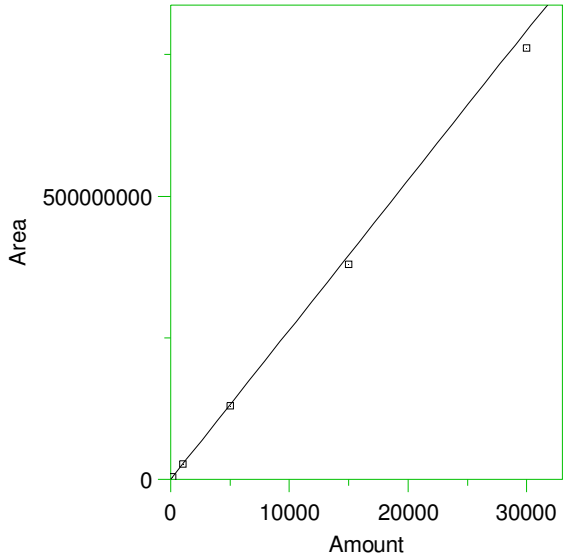
1 *30-40 Motor Oil



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

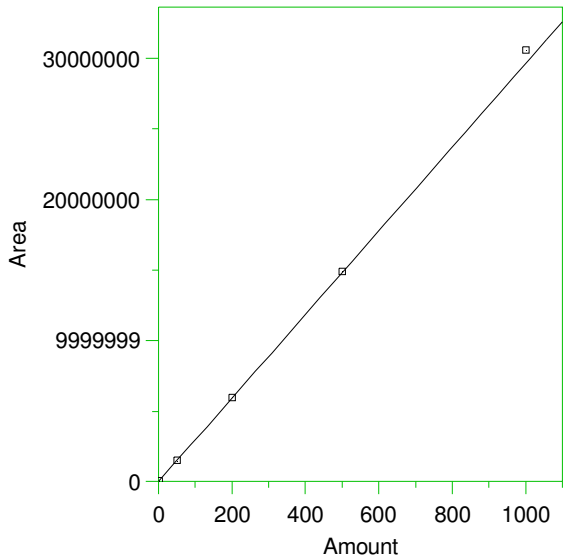
2 #C20



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%

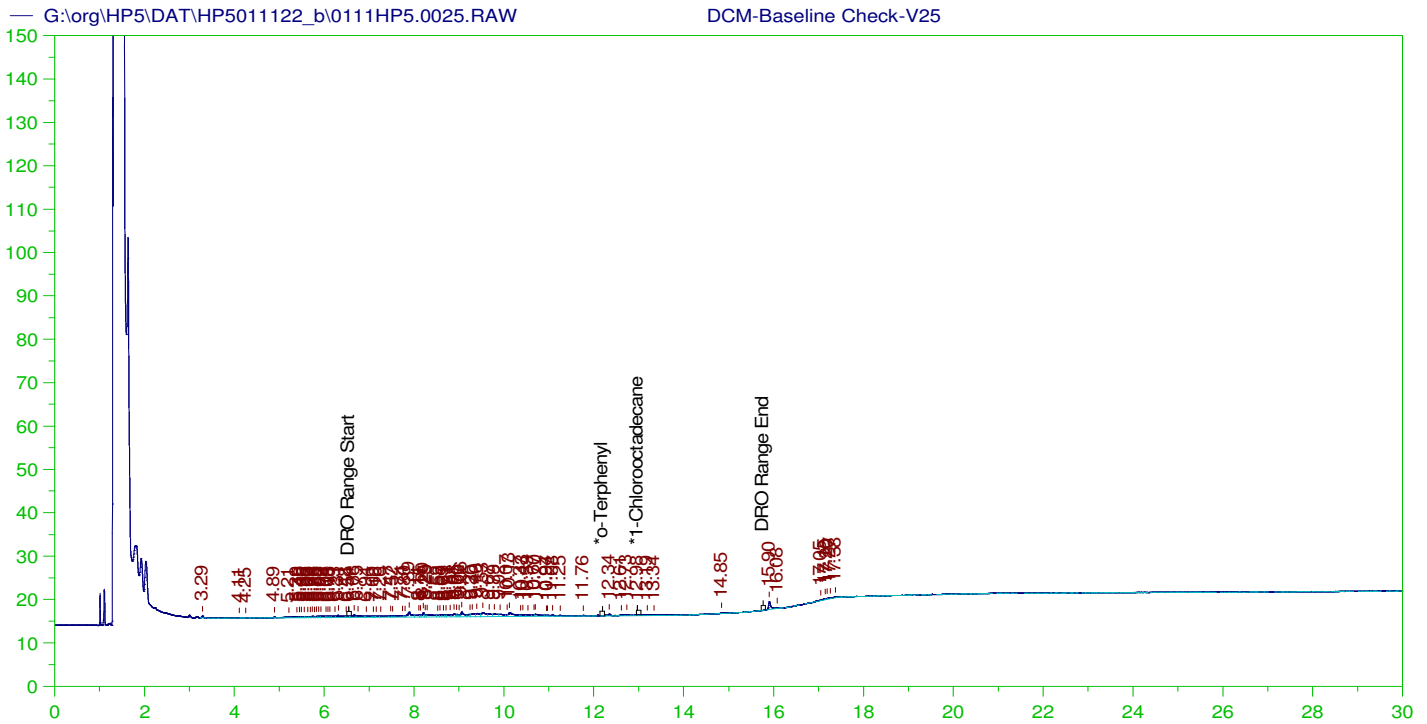
Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	150	4177025	27846.83	5.382	Manual	1/14/2022 8:06:03 AM
2	1000	2.73111E+07	27311.1	3.355	Manual	1/14/2022 8:06:05 AM
3	5000	1.313247E+08	26264.94	-0.604	Manual	1/14/2022 8:06:06 AM
4	15000	3.796282E+08	25308.55	-4.223	Manual	1/14/2022 8:06:11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



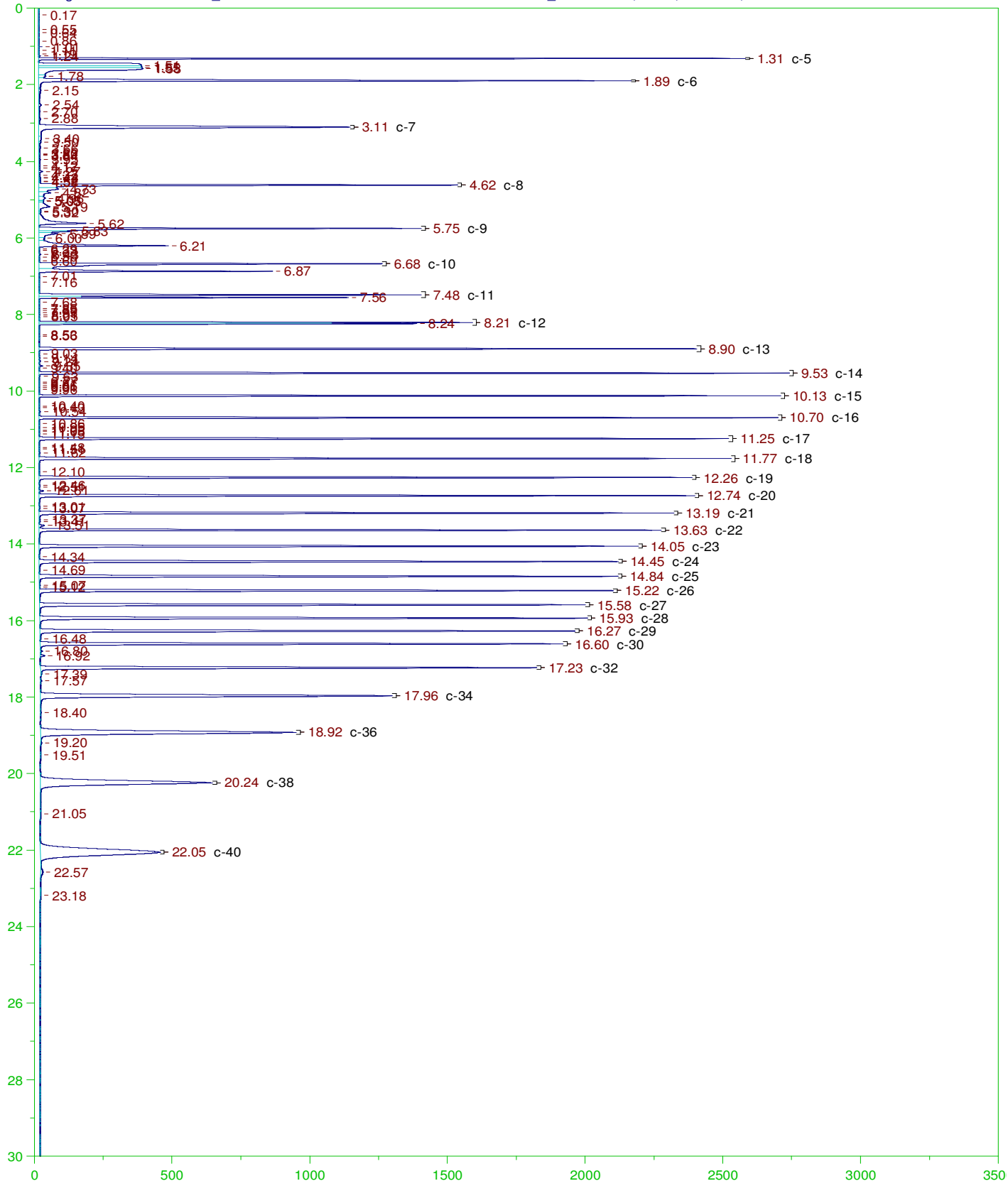
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

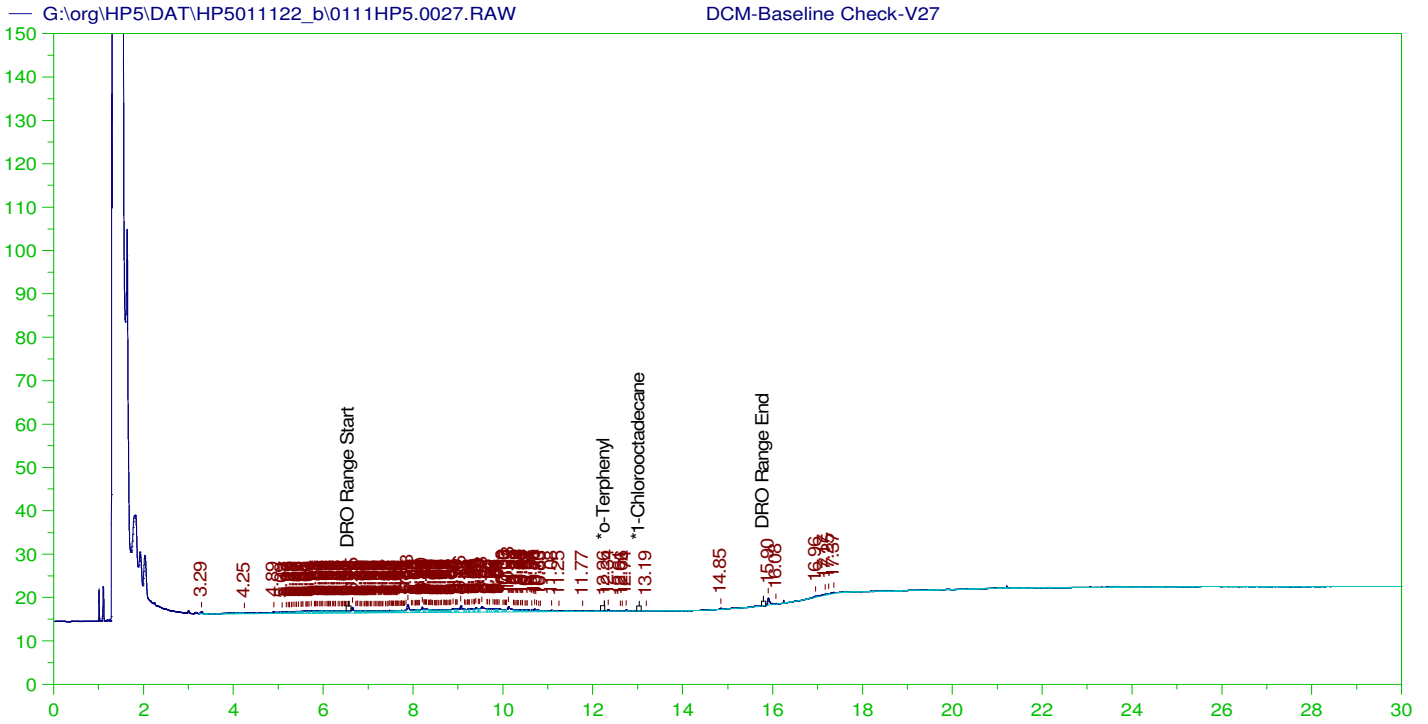
Sample Name: DCM-Baseline Check-V25
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0025.RAW
 Date & Time Acquired: 1/12/2022 1:29:46 AM
 Method File: G:\Org\HP5\Methods\DR_8015-IC-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IC.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

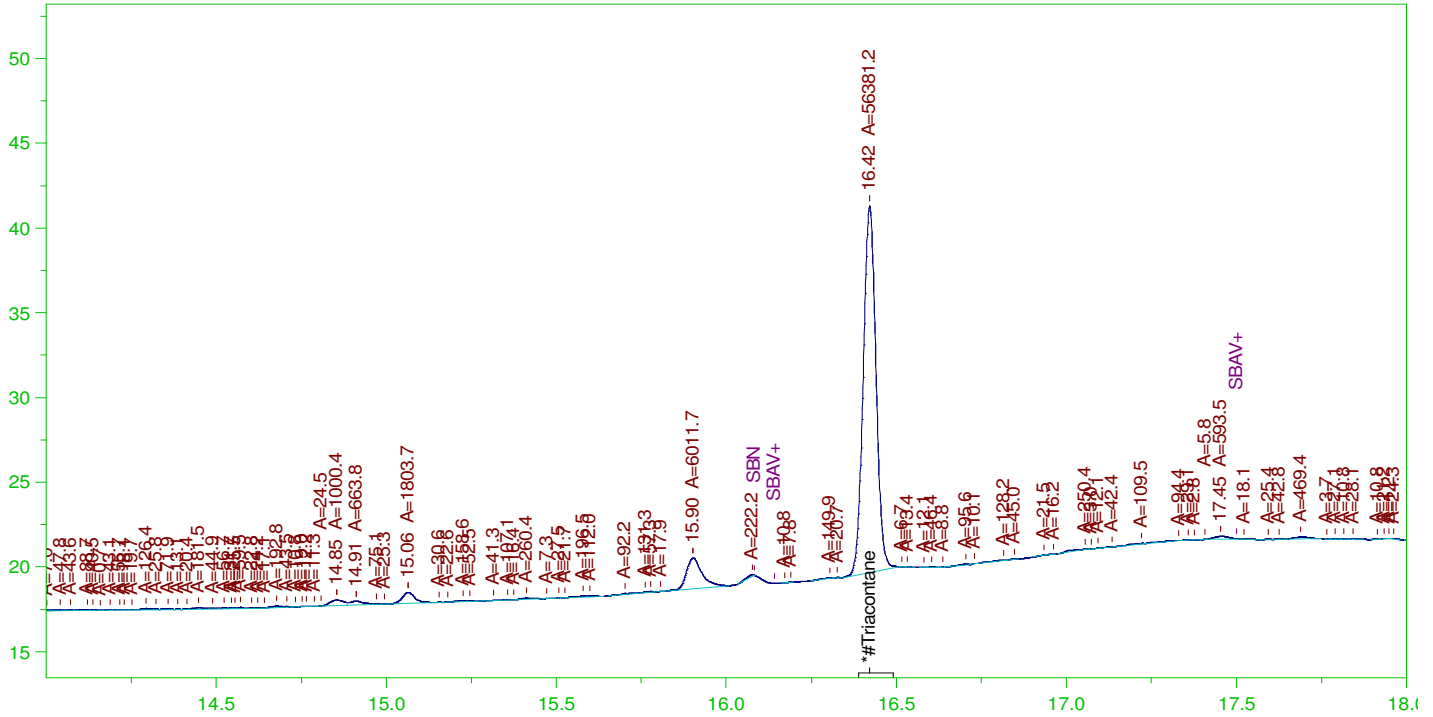
Mean RF for TEH: 29457.33
 Rt range for Diesel Range Organics: 6.51 to 15.85

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

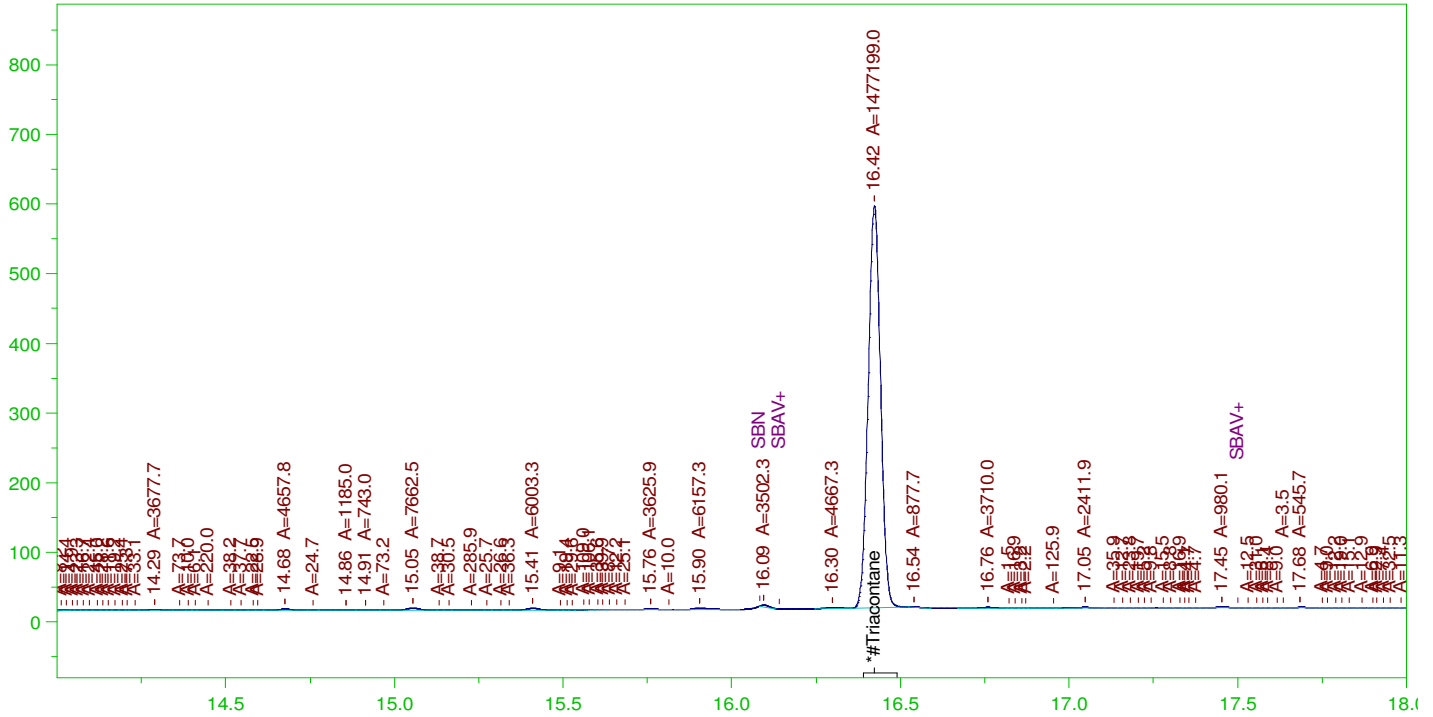
CONTINUING CALIBRATION REPORT: G:\Org\HP5\DAT\HP5011122_b\0111HP5.0028.RAW

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

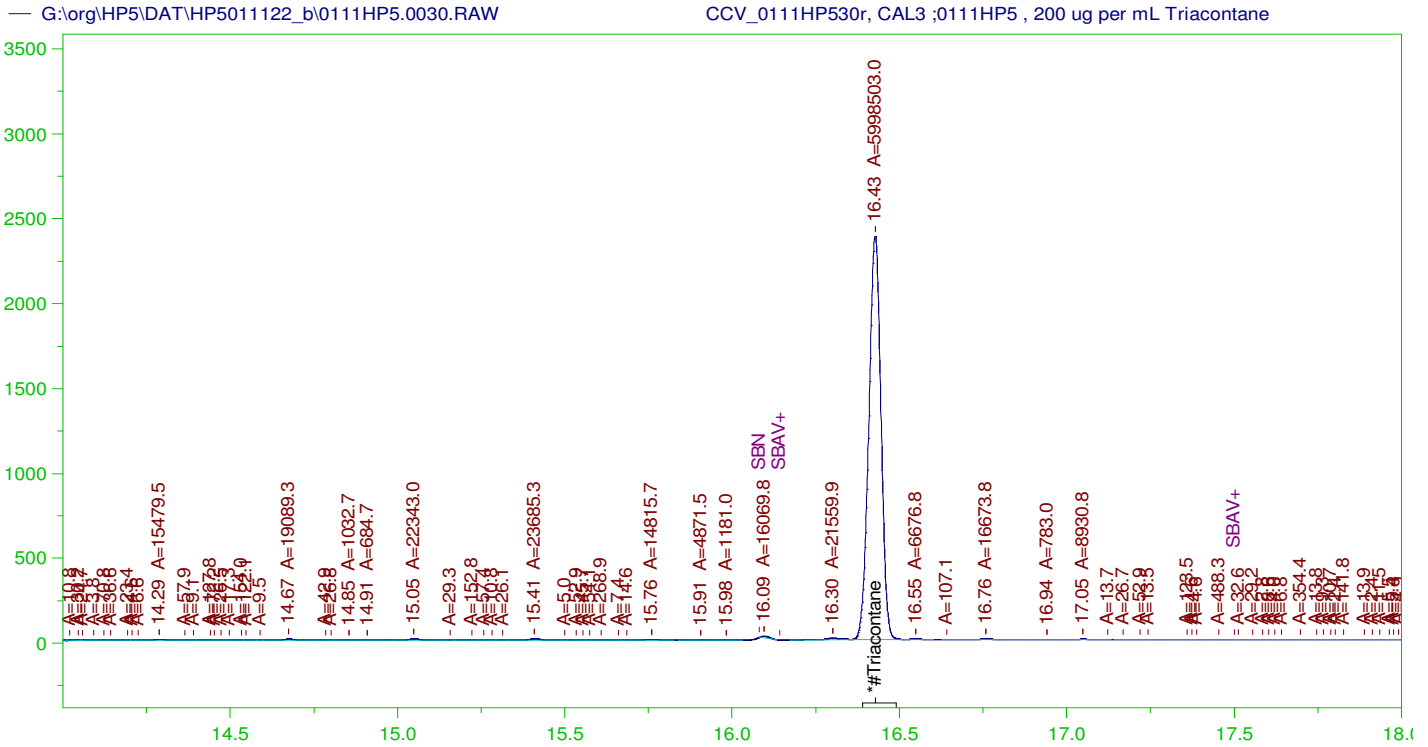
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.423	500.	49.845	9.97	-

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

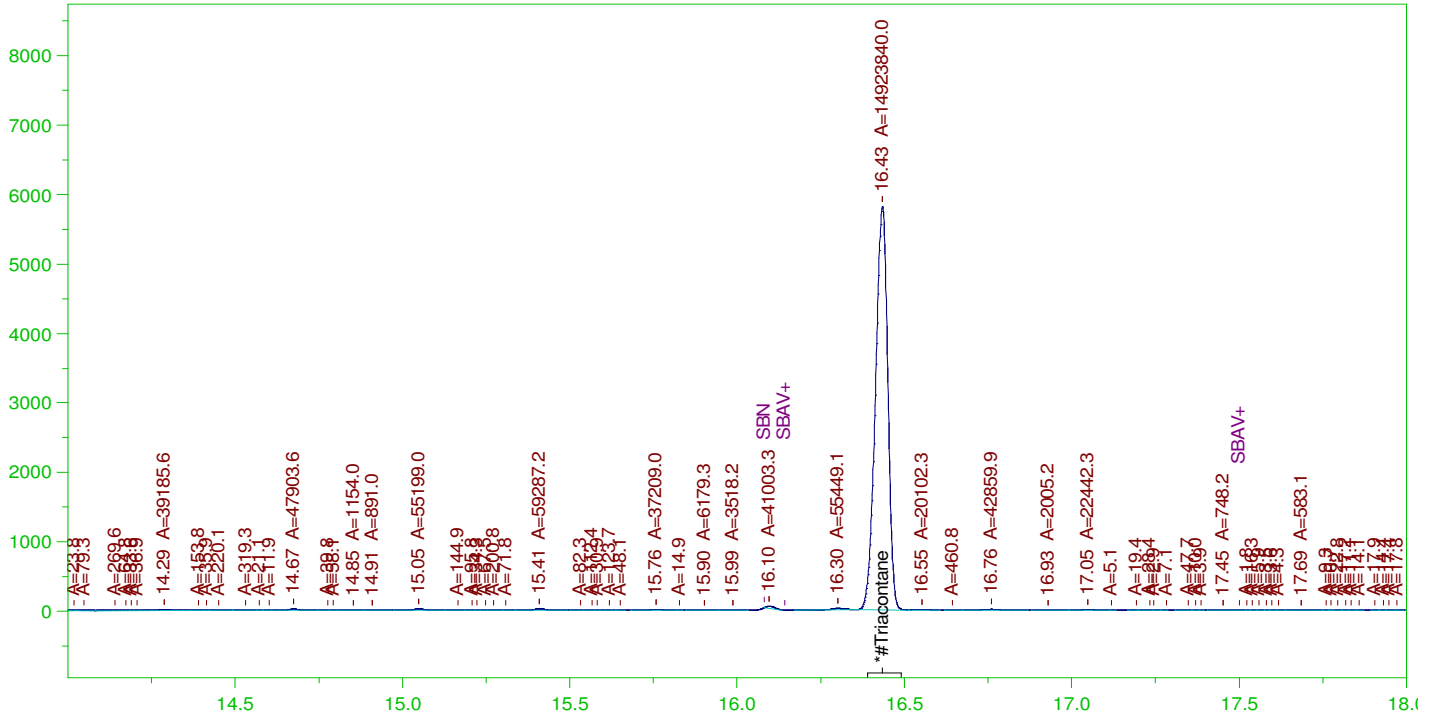
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5011122_b\0111HP5.0030.RAW

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

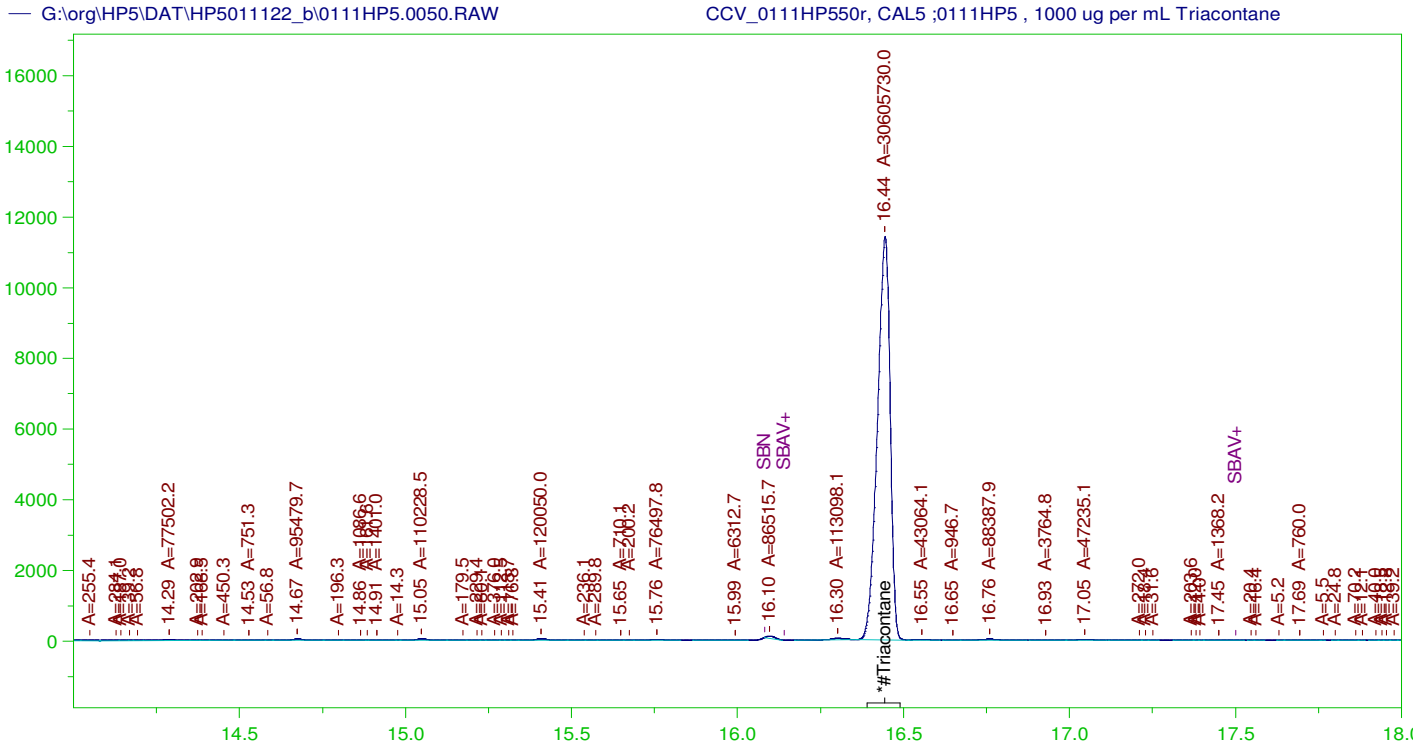
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.434	500.	503.57	100.71	-

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



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

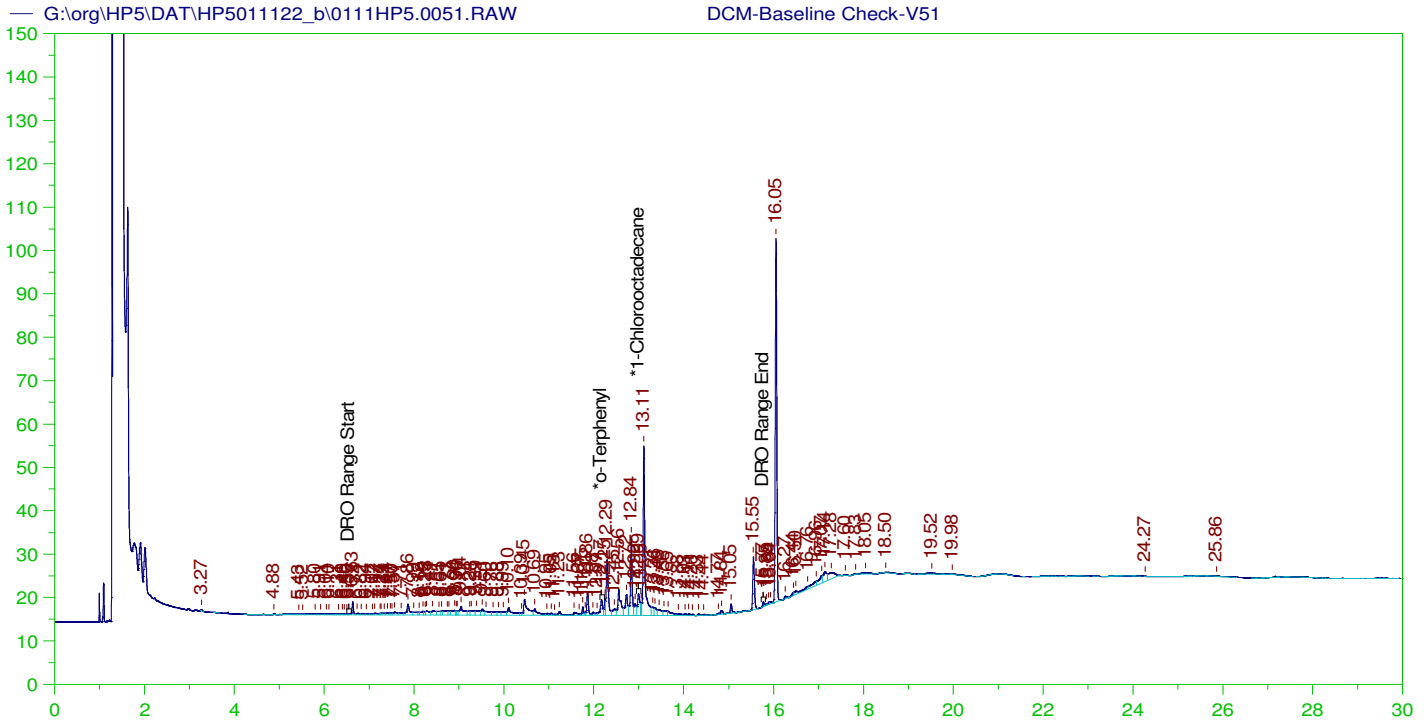
Mean RF for for Residual Range Organics Calculations: 28542.41
 Rt range for Residual Range Organics: 12.51 to 30.05

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



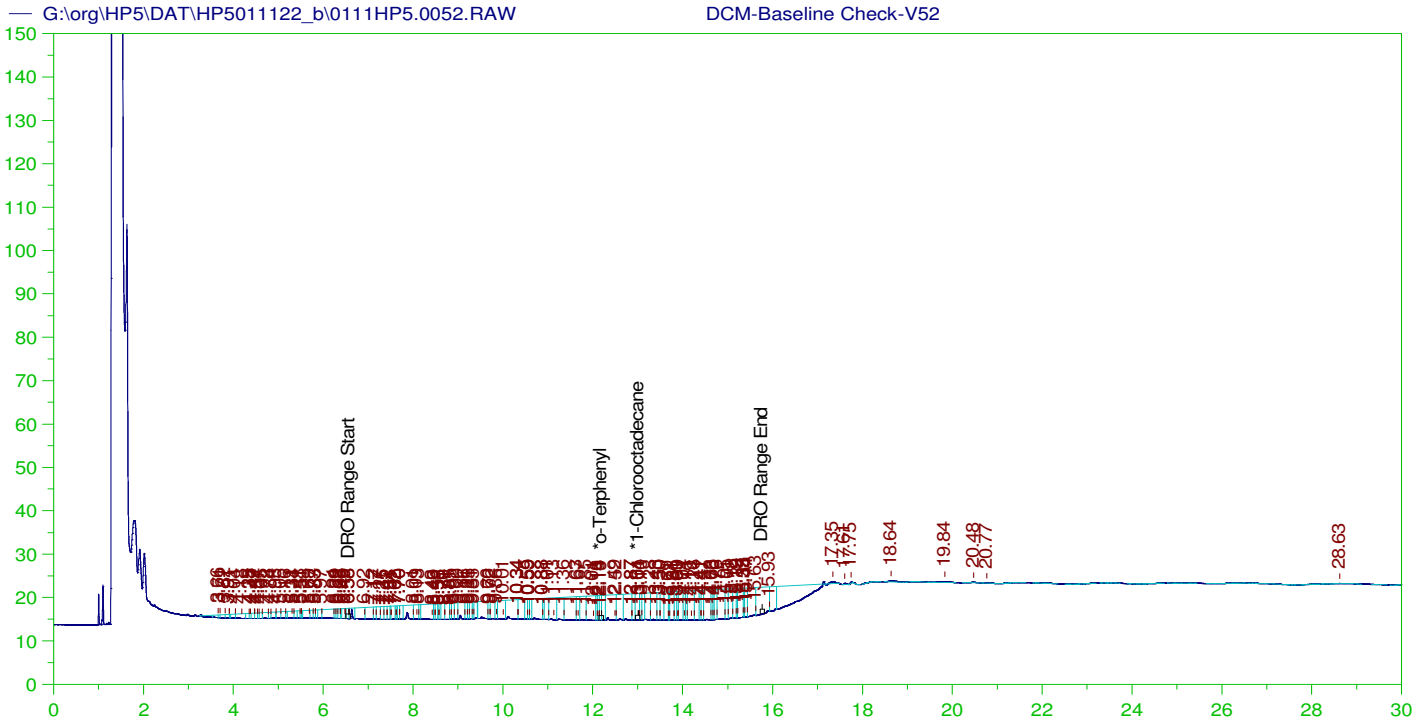
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V51
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0051.RAW
 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



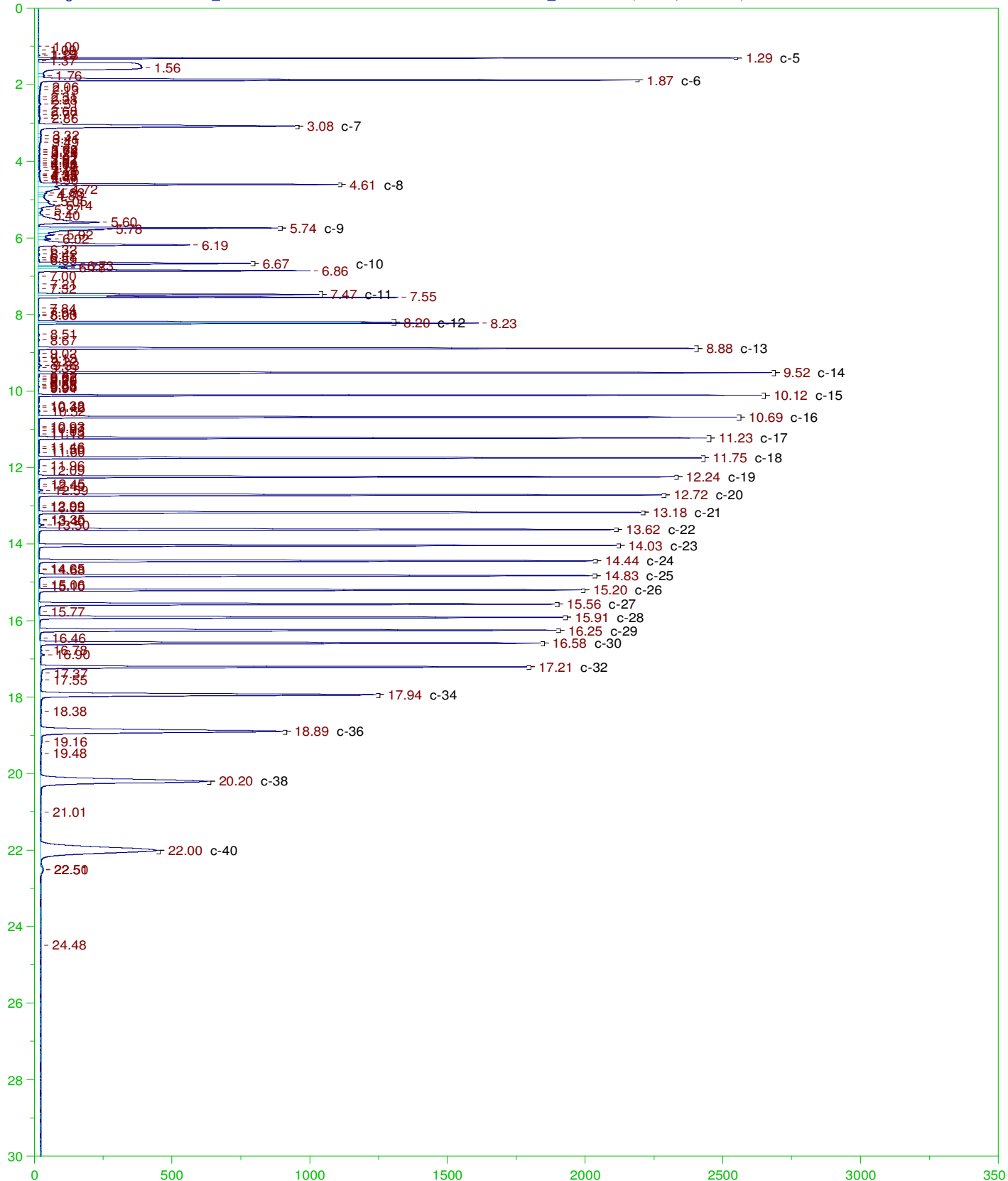
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

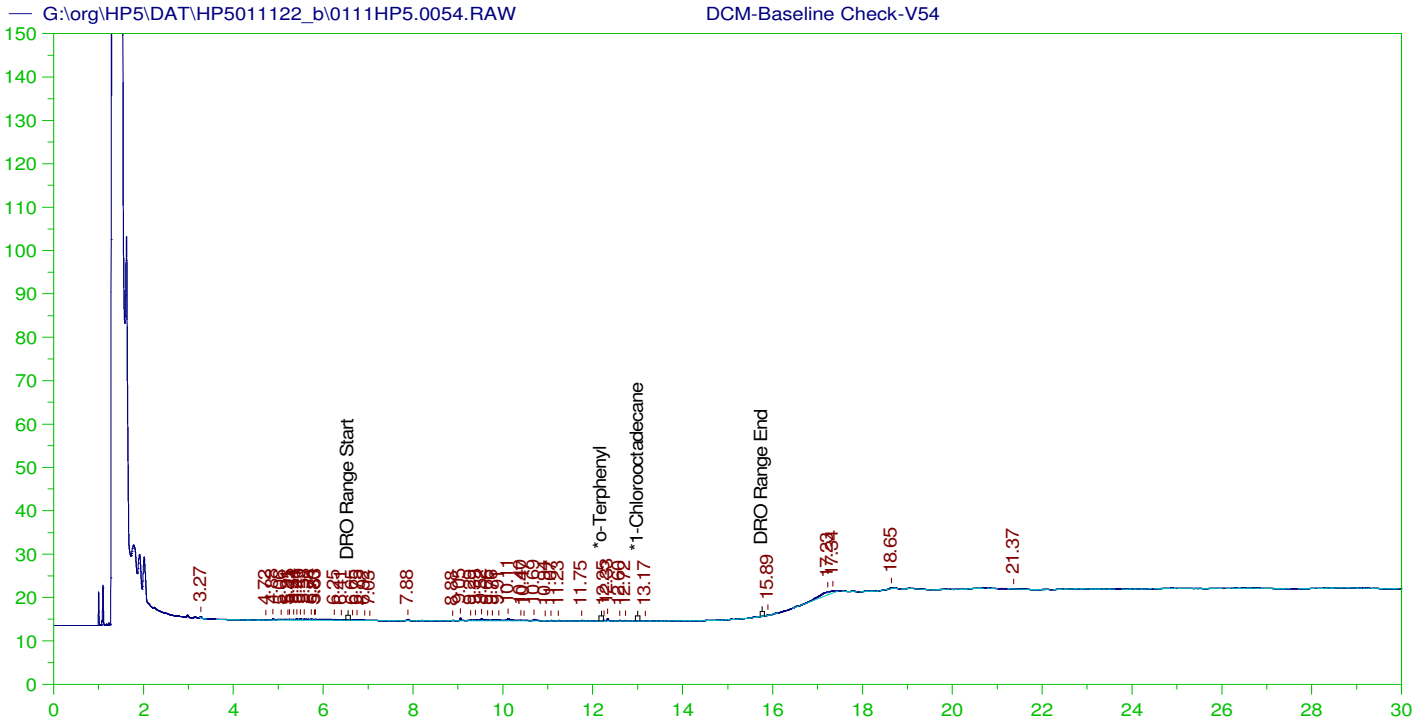
Sample Name: DCM-Baseline Check-V52
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0052.RAW
 Date & Time Acquired: 1/13/2022 12:58:31 PM
 Method File: G:\Org\HP5\Methods\DR_8015-IC-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO211102IC.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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





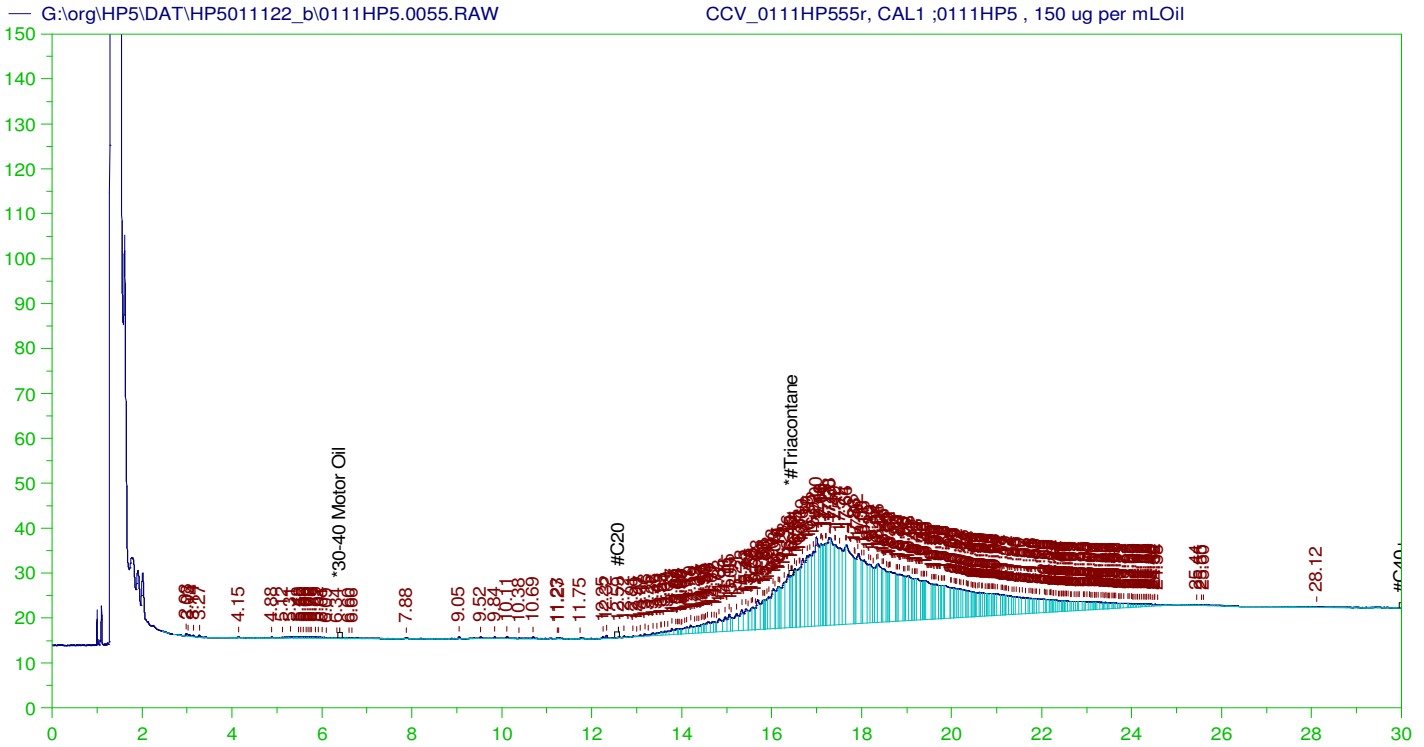
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

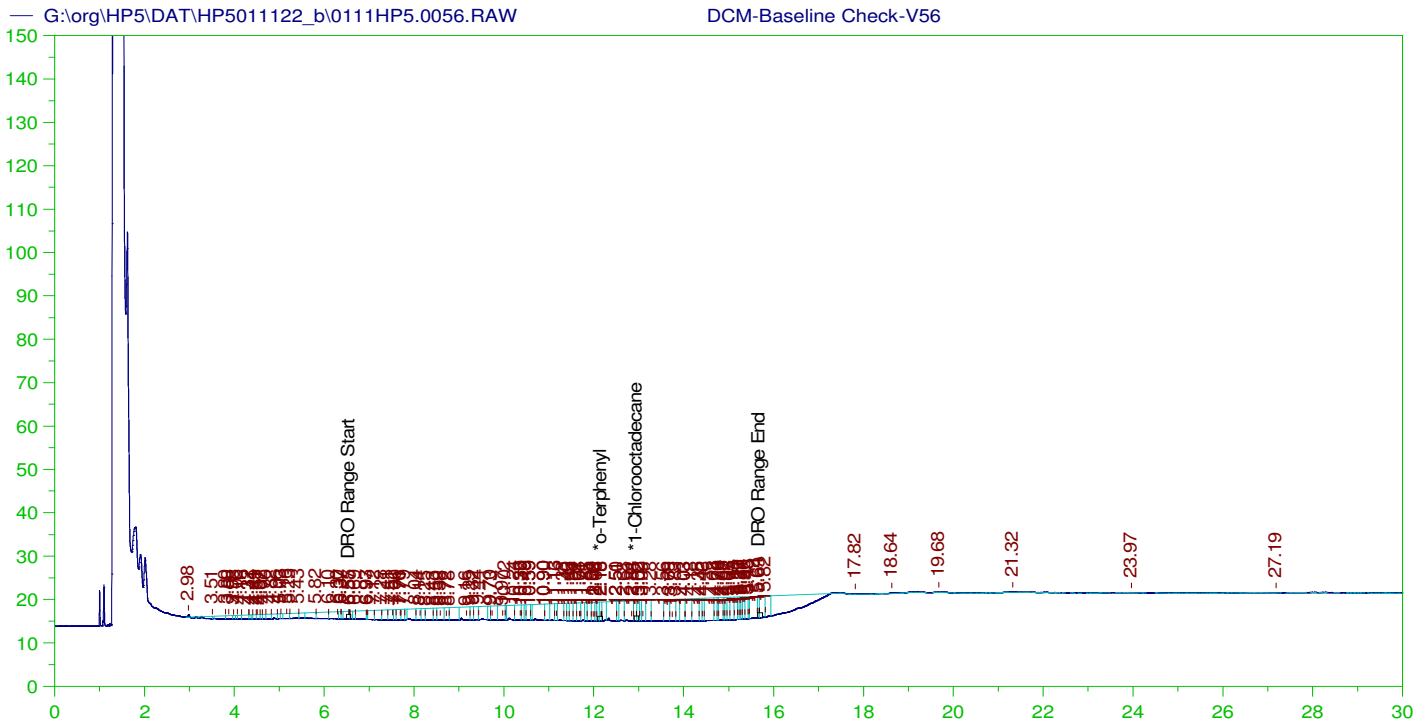
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.447	500.	.47	.09	-

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



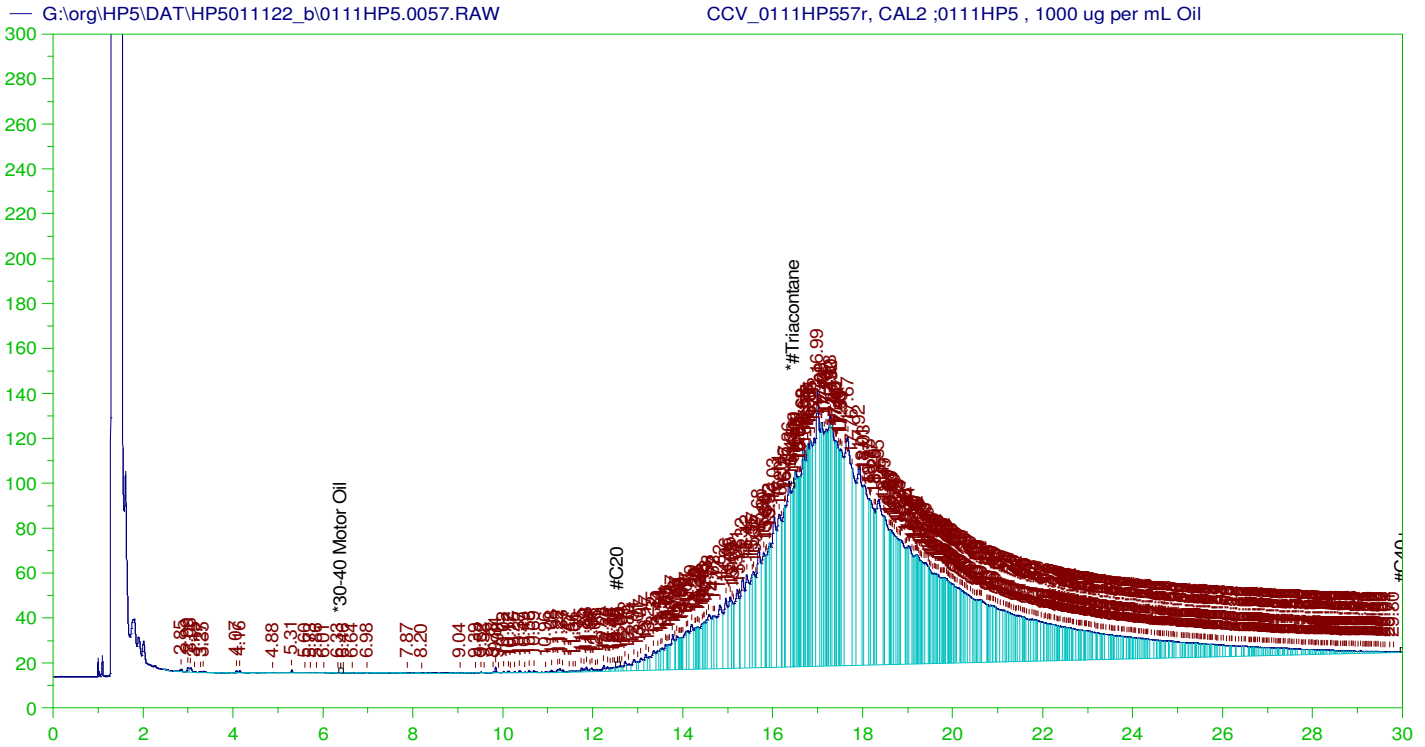
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

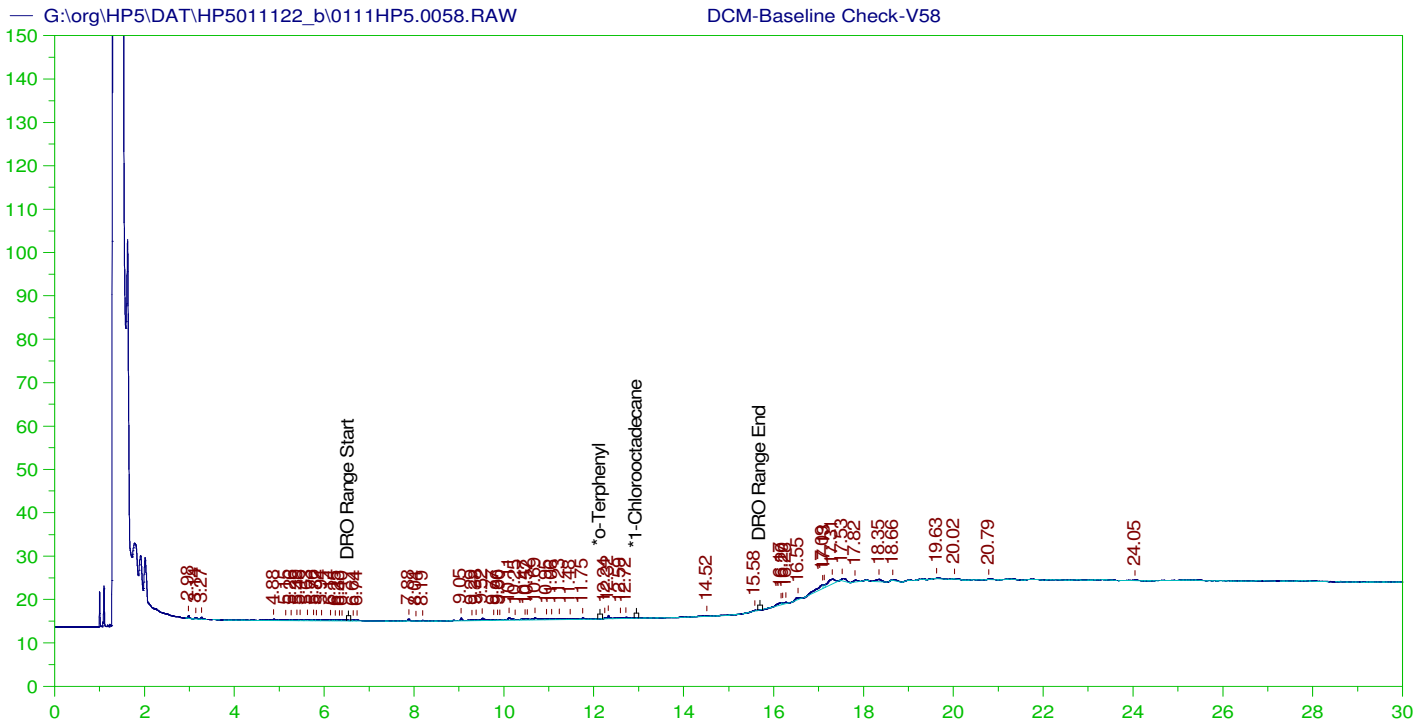
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.454	500.	3.058	.61

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

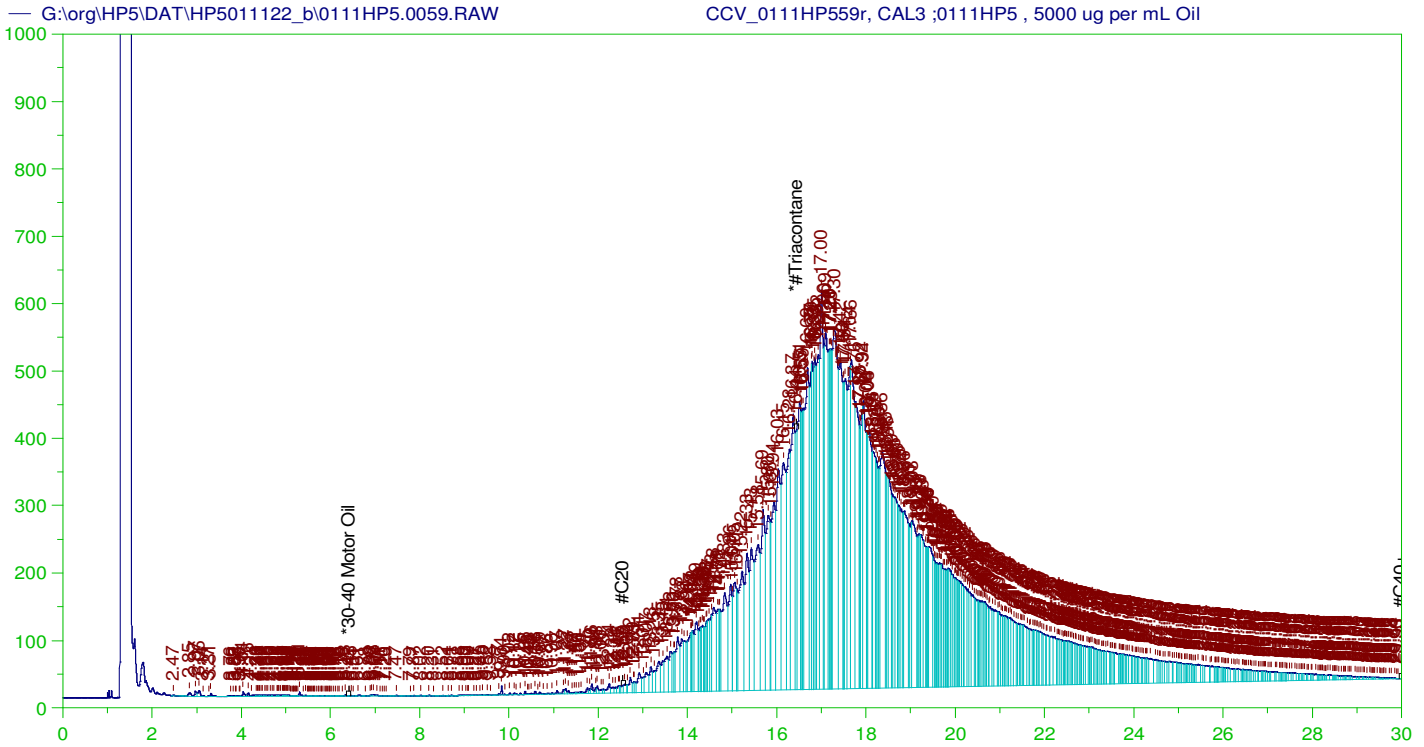
Sample Name: DCM-Baseline Check-V58
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0058.RAW
 Date & Time Acquired: 1/13/2022 5:14:45 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

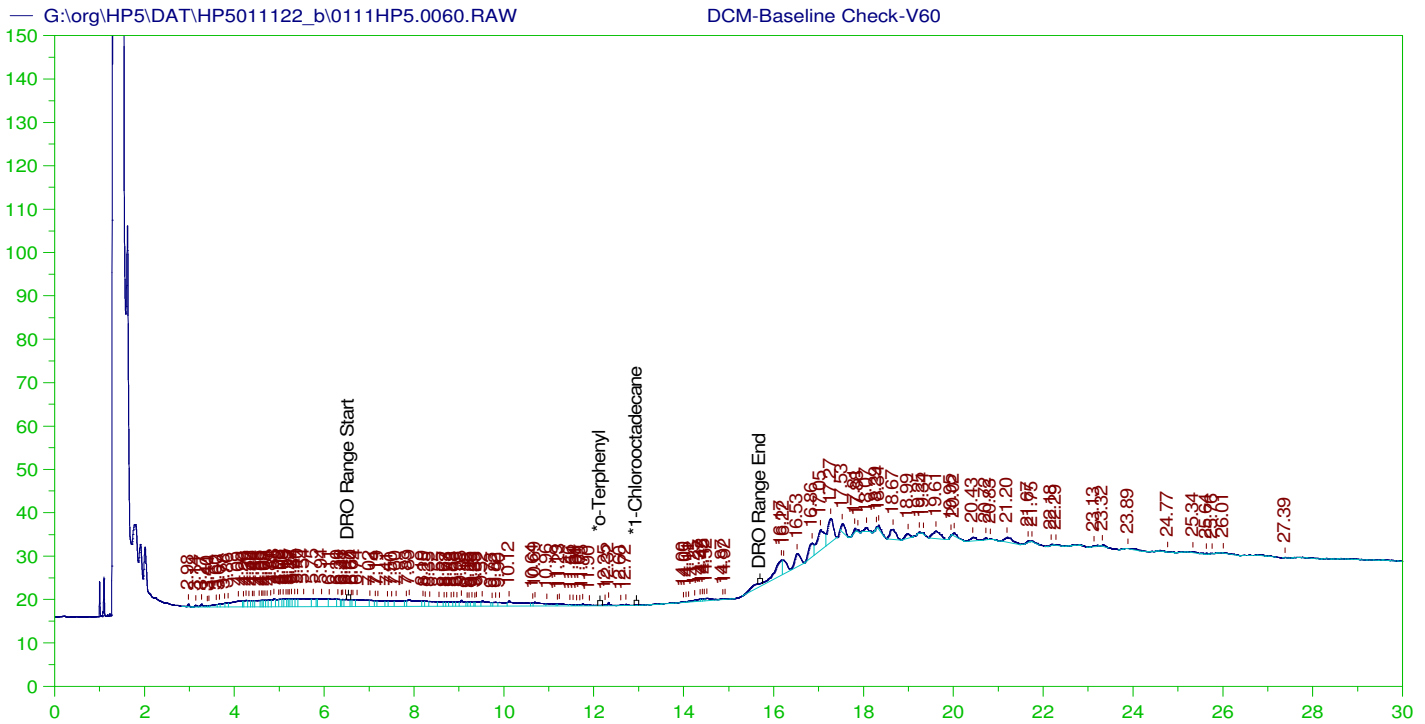
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.442	500.	33.09	6.62	-

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

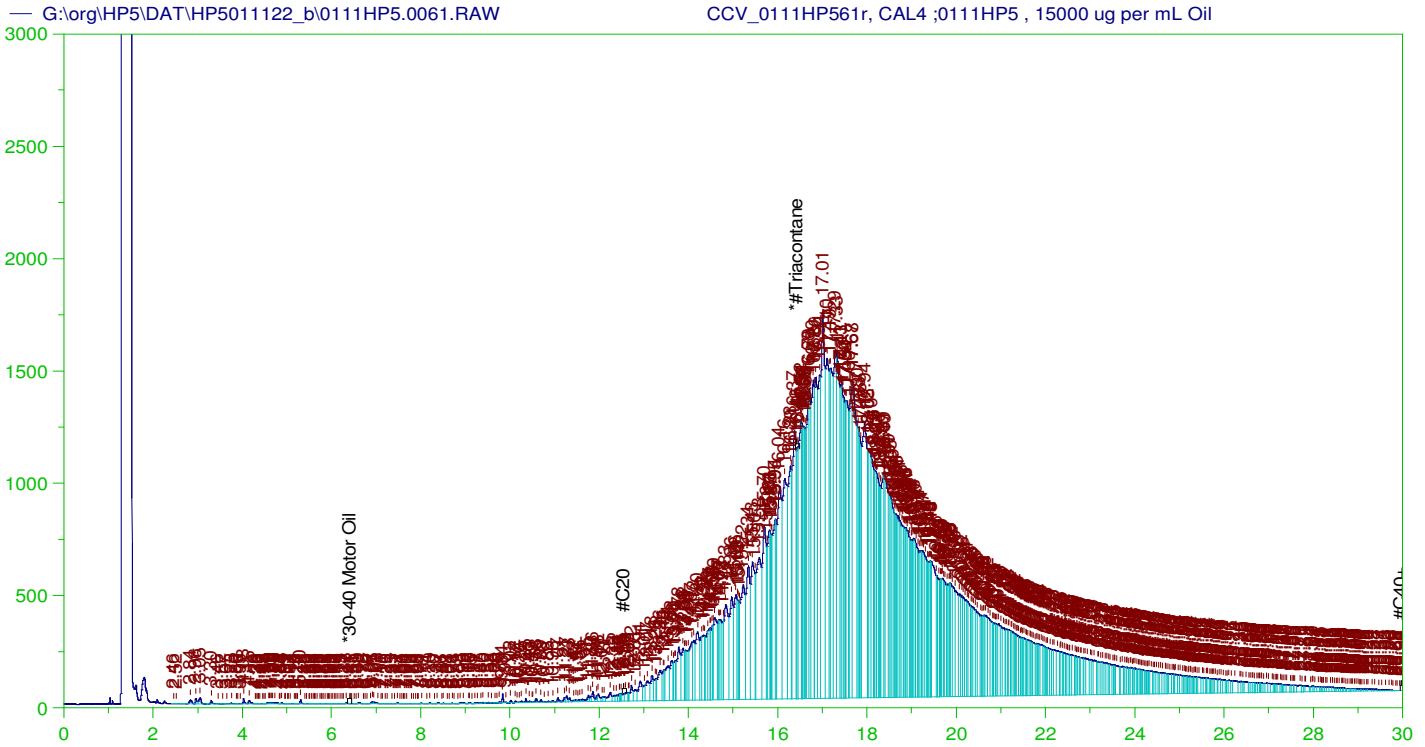
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 Date & Time Acquired: 1/13/2022 6:41:03 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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	29.911	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

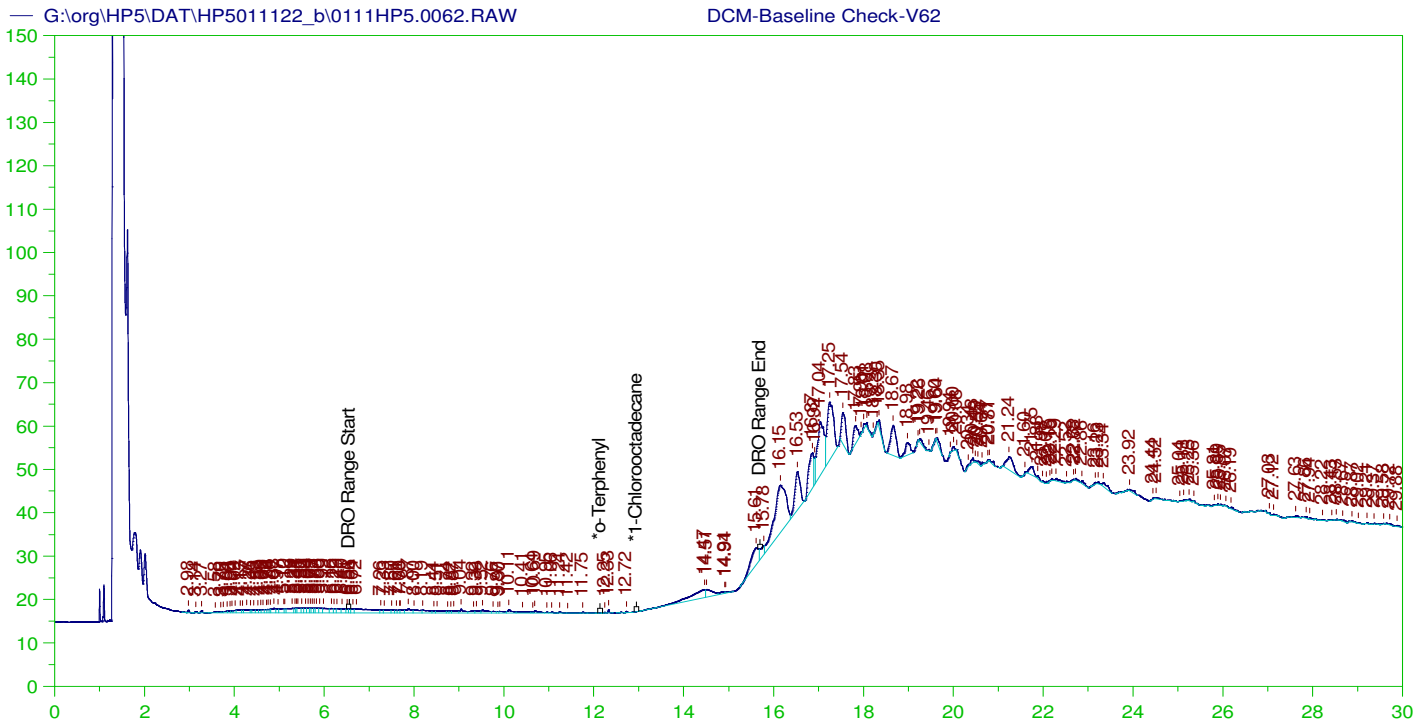
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.429	500.	33.728	6.75	-

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



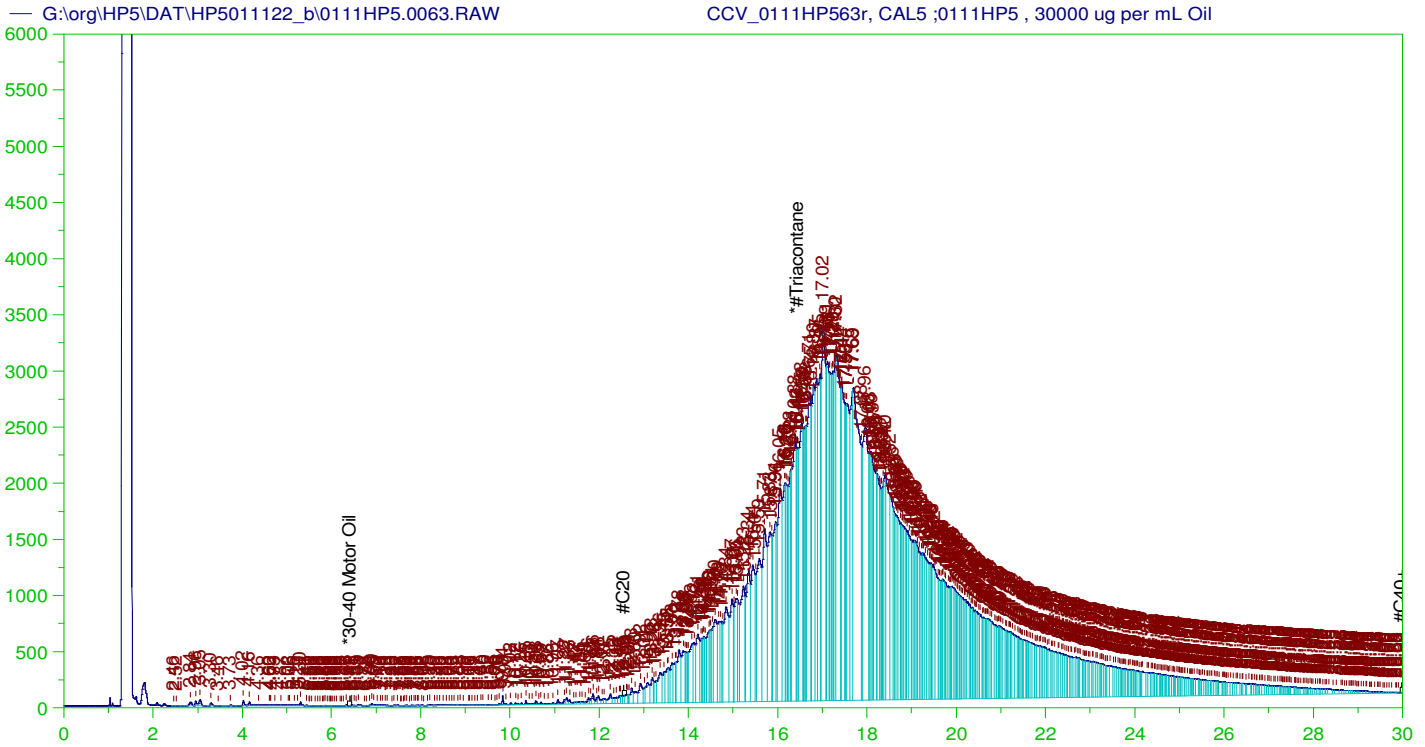
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V62
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0062.RAW
 Date & Time Acquired: 1/13/2022 8:07:28 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	29.883	200.	.	-
*1-Chlorooctadecane	29.883	200.	.	-

DRO Area:289041.4 DRO Amount: 9.812207
 TEH Area:1408450 TEH Amount: 47.81323



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

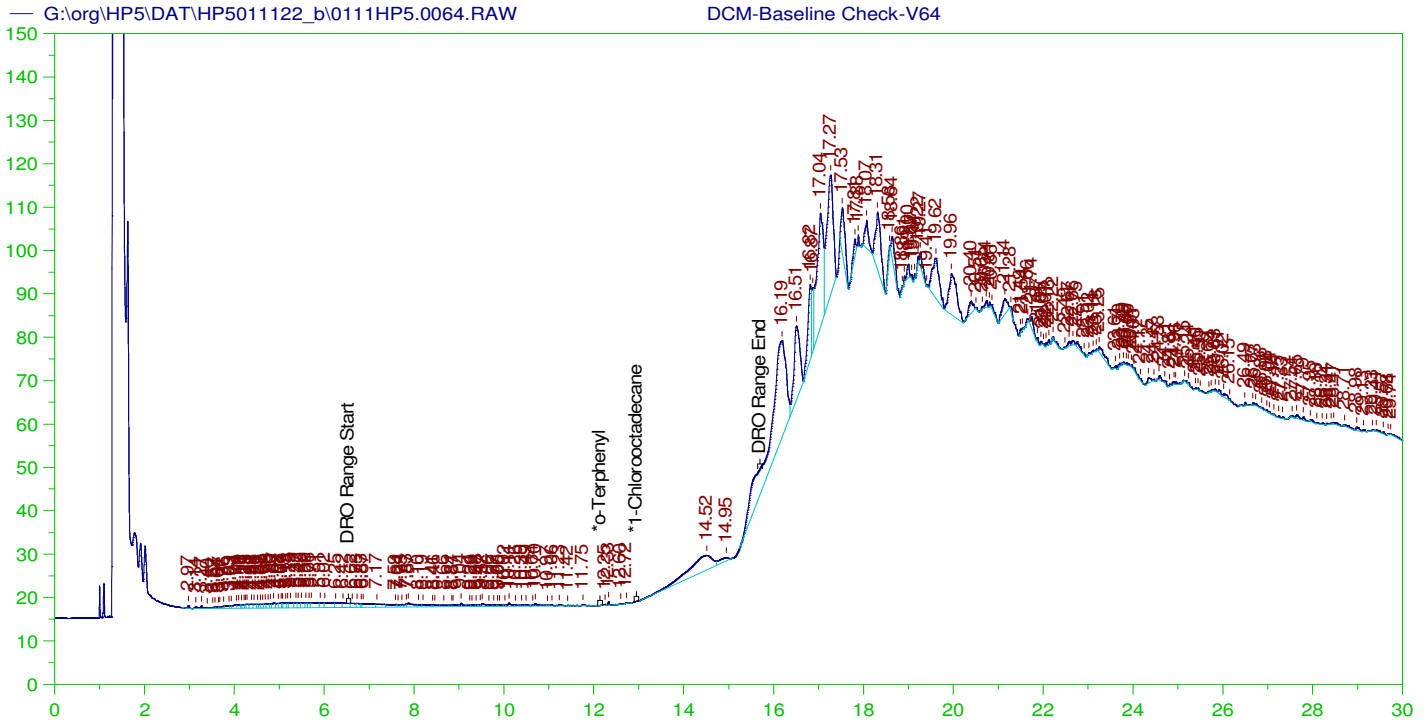
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.44	500.	102.625	20.52	-

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



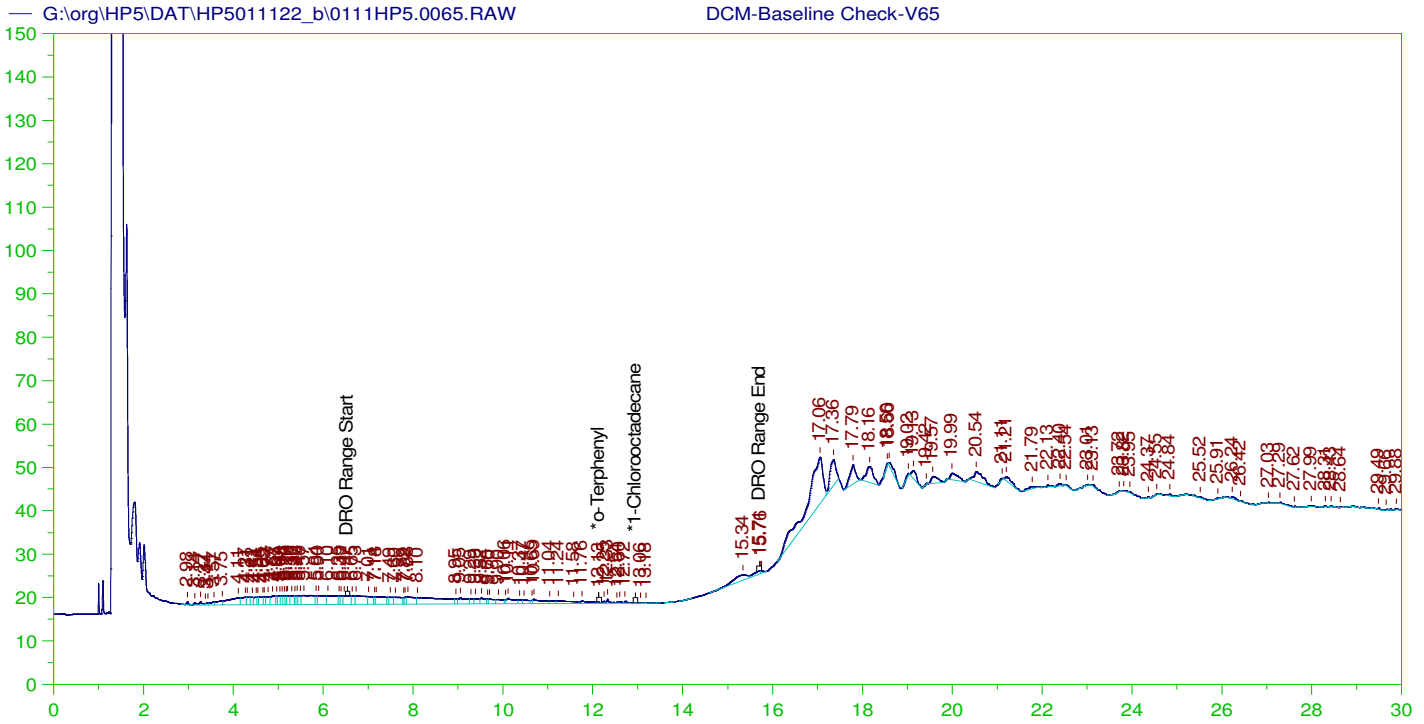
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V64
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0064.RAW
 Date & Time Acquired: 1/13/2022 9:33:32 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	29.741	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

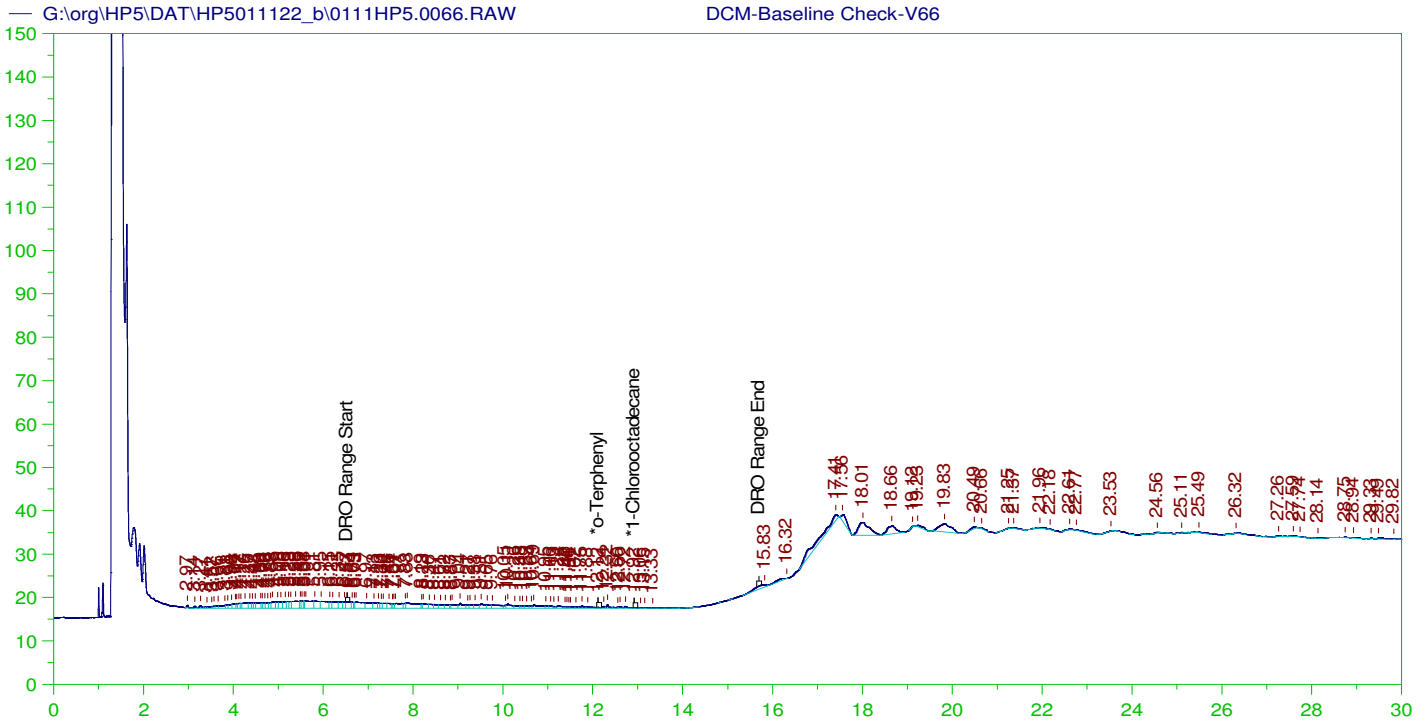
Sample Name: DCM-Baseline Check-V65
 Raw File: G:\org\HP5\DAT\HP5011122_b\0111HP5.0065.RAW
 Date & Time Acquired: 1/13/2022 10:16:33 PM
 Method File: G:\Org\HP5\Methods\DR_8015-HE-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO210108HE.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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



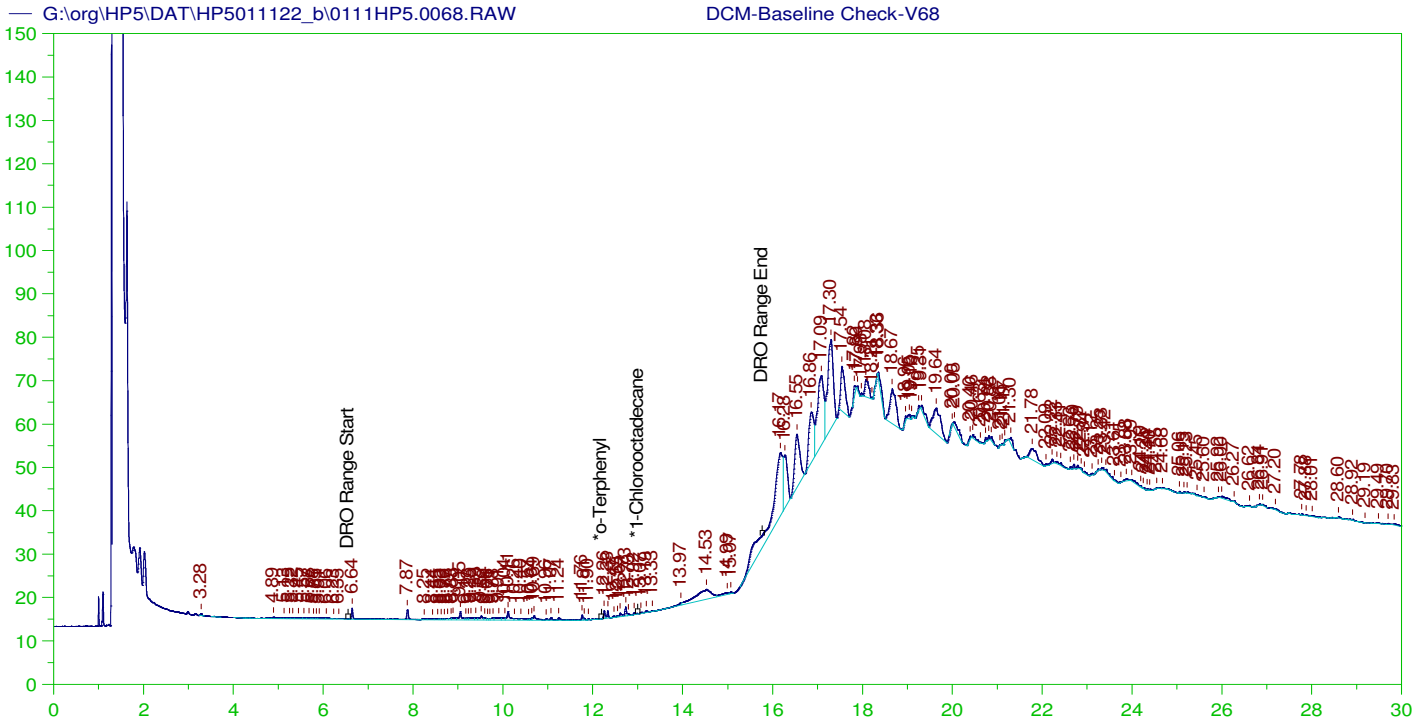
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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



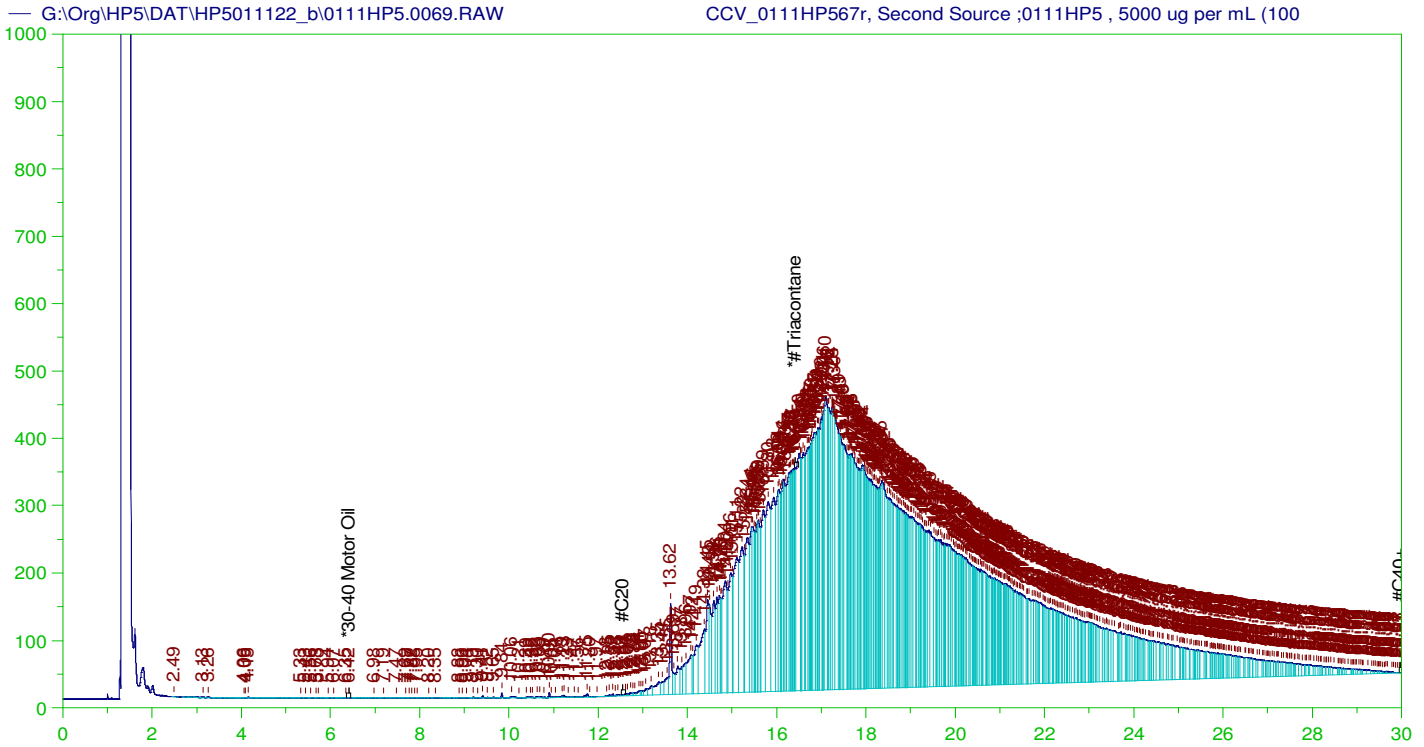
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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	OTOnly 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

Run Start Date: 1/28/2022
Analyst: Ann Nebel
Ical:
Column ID:
Comments: 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						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
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						
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		14.01279		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						
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					
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

Run Start Date: 1/31/2022
Analyst: Ann Nebel
Ical:
Column ID:
Comments: 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%	

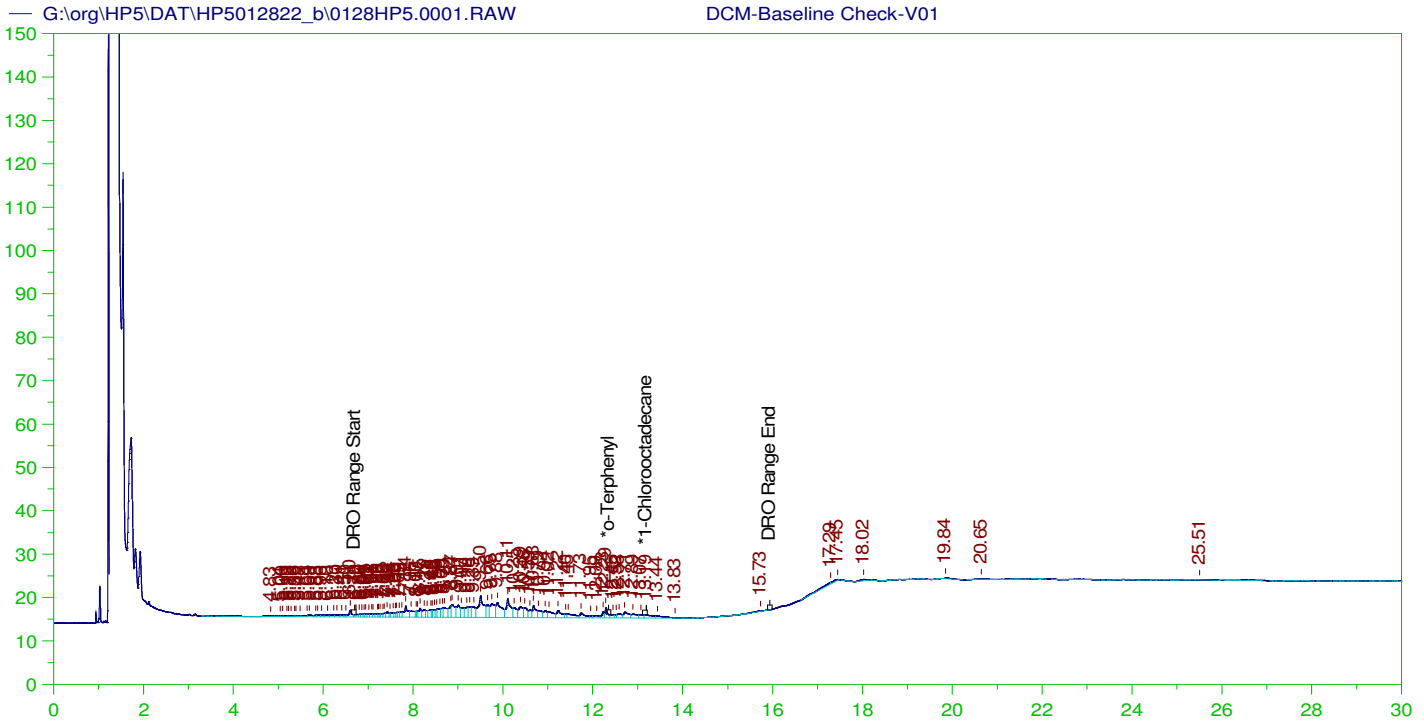
Seq No	Lab ID	Test Code	Sample Typ	File ID	Analysis Date	DF	Batch ID	Prep Date	SPKref	RPDref	pmoist					
15009754	B22011592-027	HC-8015-DRO-	SAMP		1/31/2022 10:16:	1	163307	1/27/2022 1	0	0						
Analyte	T	Units	RAW	Final	Text	Spike	SPKref	RPDref	MDL	PQL	UQL	%REC	LOW	HIGH	%RPD	Q
Diesel Range Organics (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\0128HP5.01r	DCM-Baseline Check-V01	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.02r	MARKER_0128HP502r, DRO ;0128HP5 , DRO220111A	G:\org\HP5\Methods\CSC220127.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.03r	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\0128HP5.04r	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\0128HP5.05r	DCM-Baseline Check-V05	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.06r	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\0128HP5.07r	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\0128HP5.08r	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\0128HP5.09r	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\0128HP5.10r	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\0128HP5.11r	DCM-Baseline Check-V11	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.12r	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\0128HP5.13r	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\0128HP5.14r	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\0128HP5.15r	DCM-Baseline Check-V15	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.16r	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\0128HP5.17r	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\0128HP5.18r	MARKER_0128HP518r, DRO ;0128HP5 , DRO220111A	G:\org\HP5\Methods\CSC220127.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.19r	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\0128HP5.20r	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\0128HP5.21r	DCM-Baseline Check-V21	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.22r	DCM-Baseline Check-V22	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.23r	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\0128HP5.24r	DCM-Baseline Check-V24	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.25r	DCM-Baseline Check-V25	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.26r	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\0128HP5.27r	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\0128HP5.28r	DCM-Baseline Check-V28	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.29r	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\0128HP5.30r	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\0128HP5.31r	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\0128HP5.32r	DCM-Baseline Check-V32	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.33r	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\0128HP5.34r	MARKER_0128HP534r, DRO ;0128HP5 , DRO220111A	G:\org\HP5\Methods\CSC220127.met	1	1	1	1	0
	G:\org\HP5\DAT\HP5012822_b\0128HP5.35r	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\0128HP5.36r	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

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
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	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
	G:\org\HP5\DAT\HP5013122_b\0131HP5.19f	MARKER_0131HP519r_DRO_0131HP5 , DRO220111A	g:\org\HP5\Methods\CSC220201.met	1	1	1	1	0
	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
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	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
	G:\org\HP5\DAT\HP5013122_b\0131HP5.23f	DCM-Baseline Check-V23	G:\Org\HP5\Methods\DR_8015-JA-LEXP.met	1	1	1	1	0
	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
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	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
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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



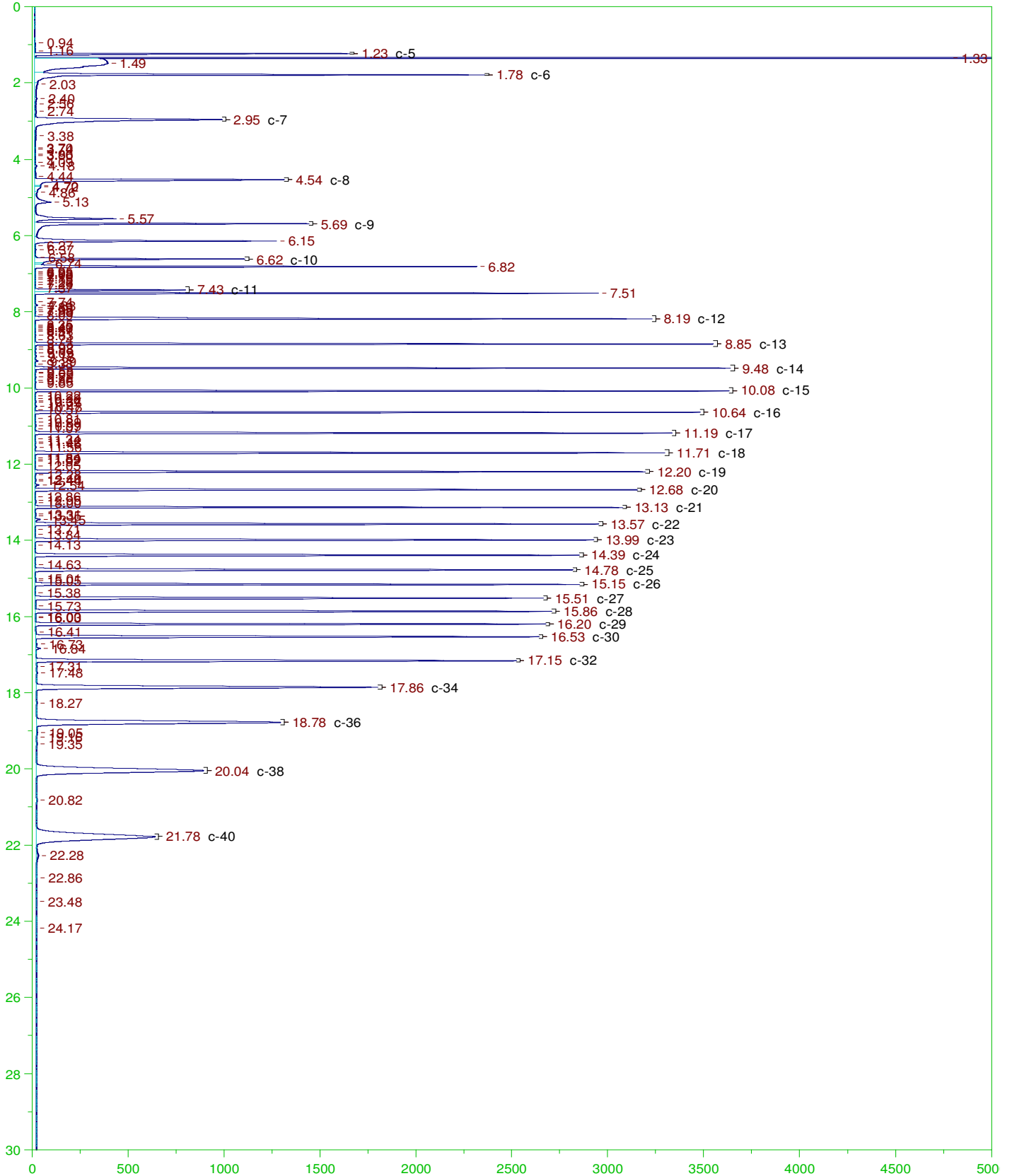
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

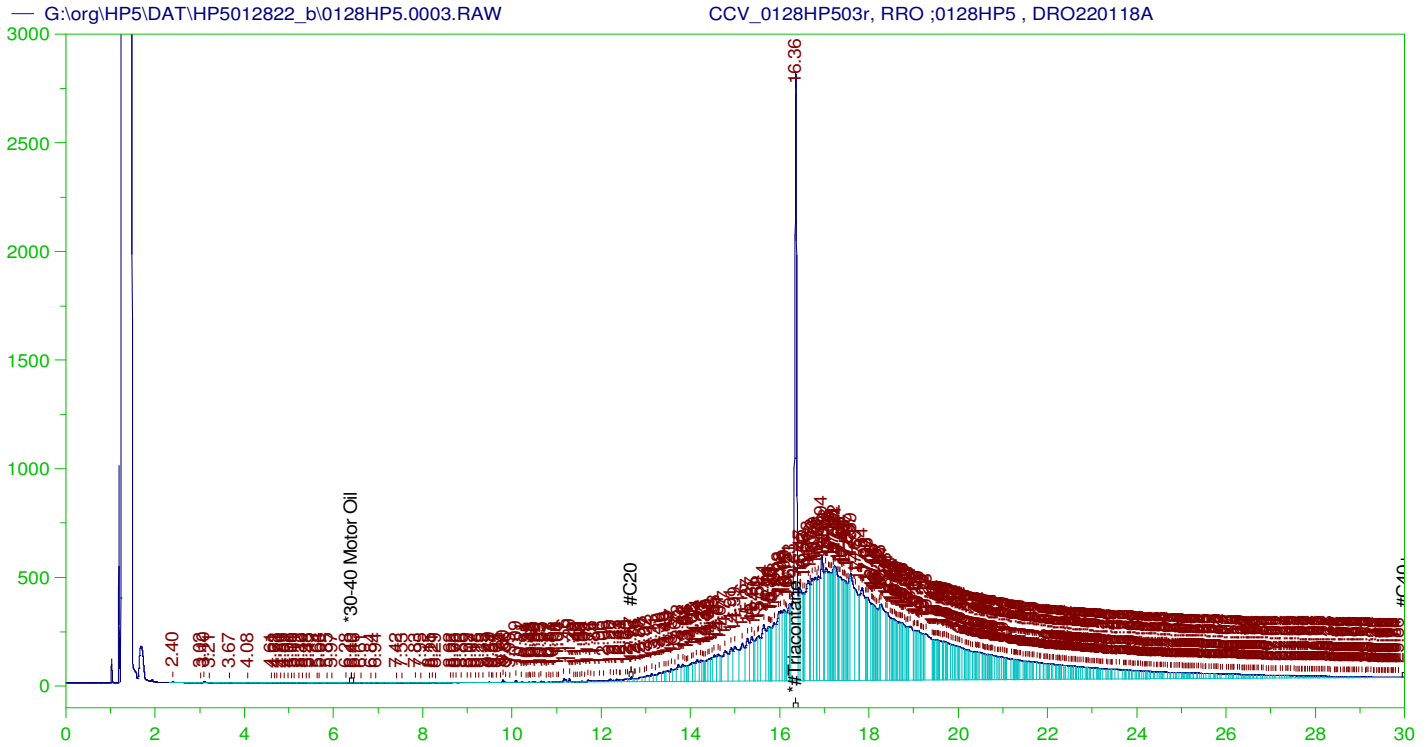
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 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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
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 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	-

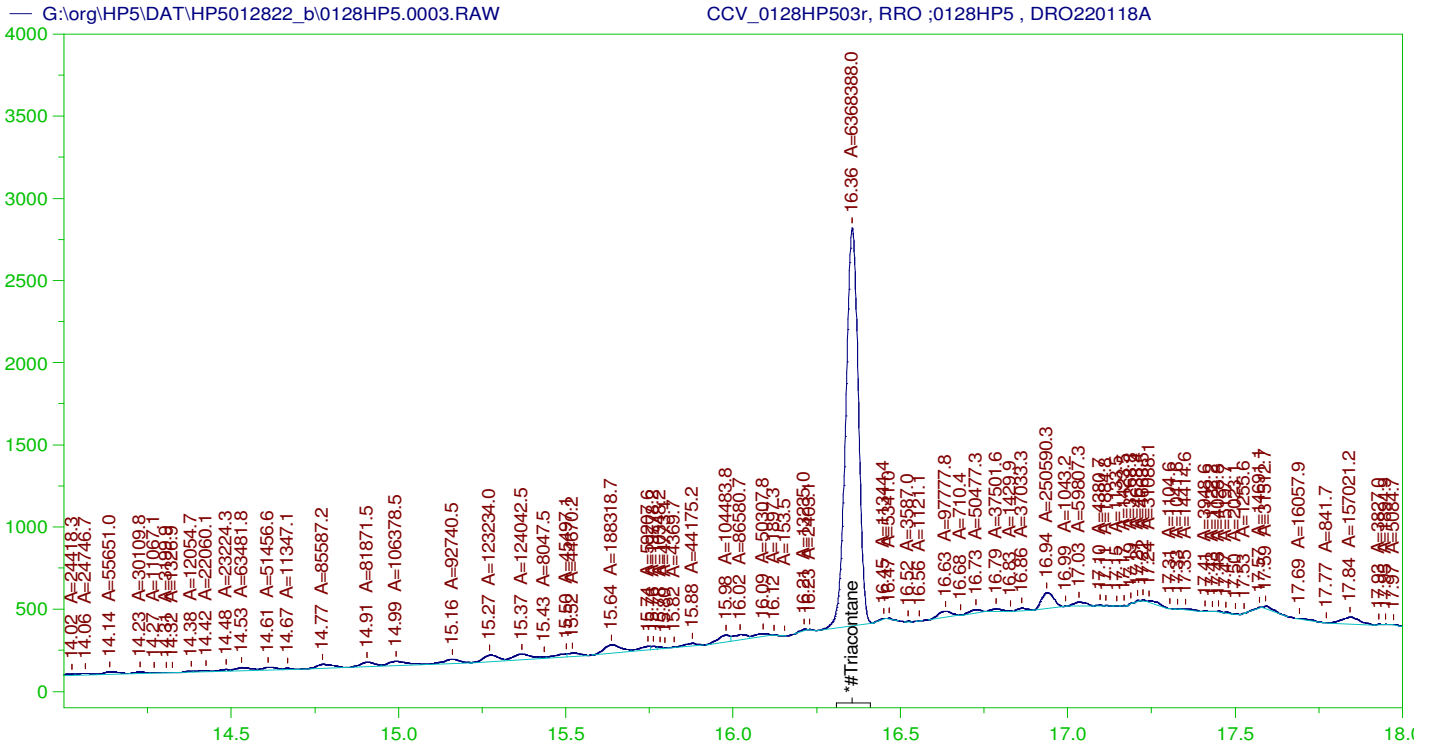
RRO TEH(Oil Range) Area:1.241588E+08 RRO TEH(Oil Range) AMOUNT: 4698.616

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.	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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 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

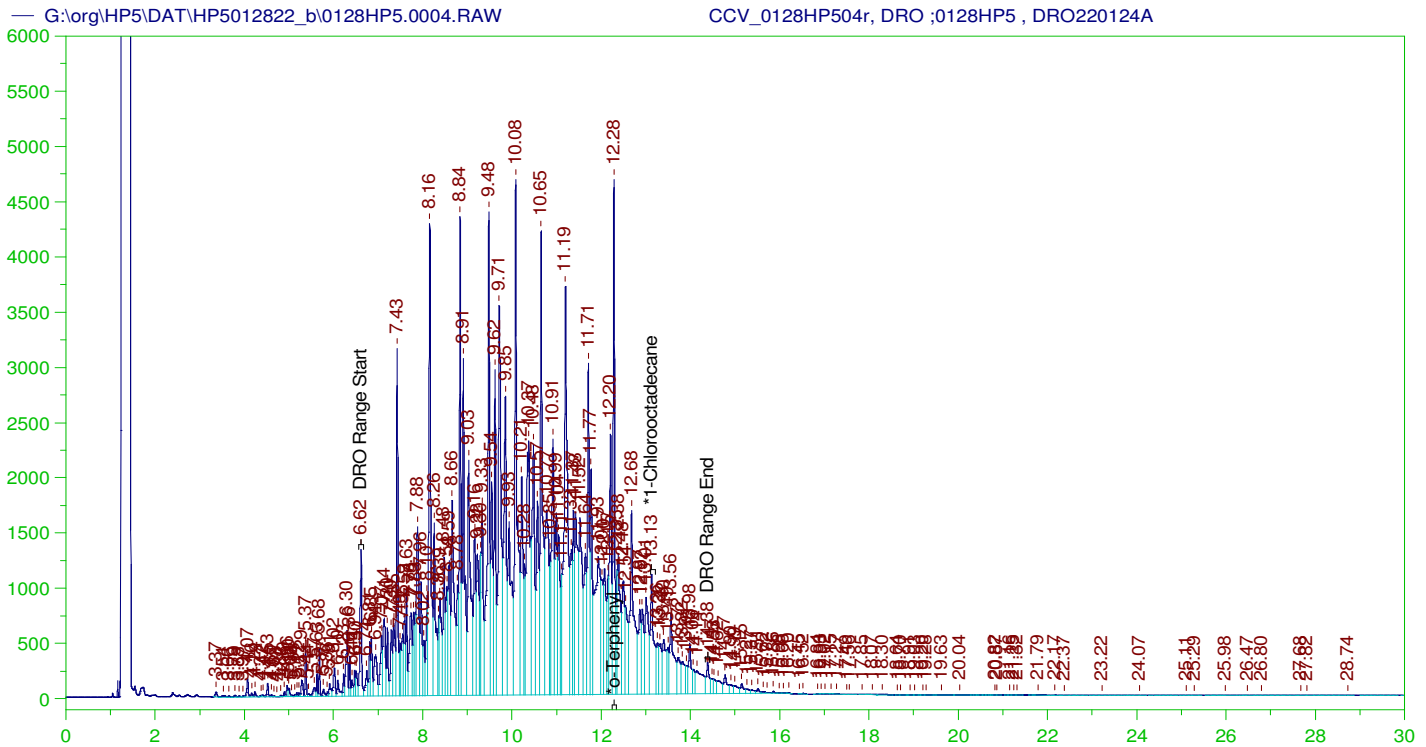
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.355	500.	214.886	42.98	-

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
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 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

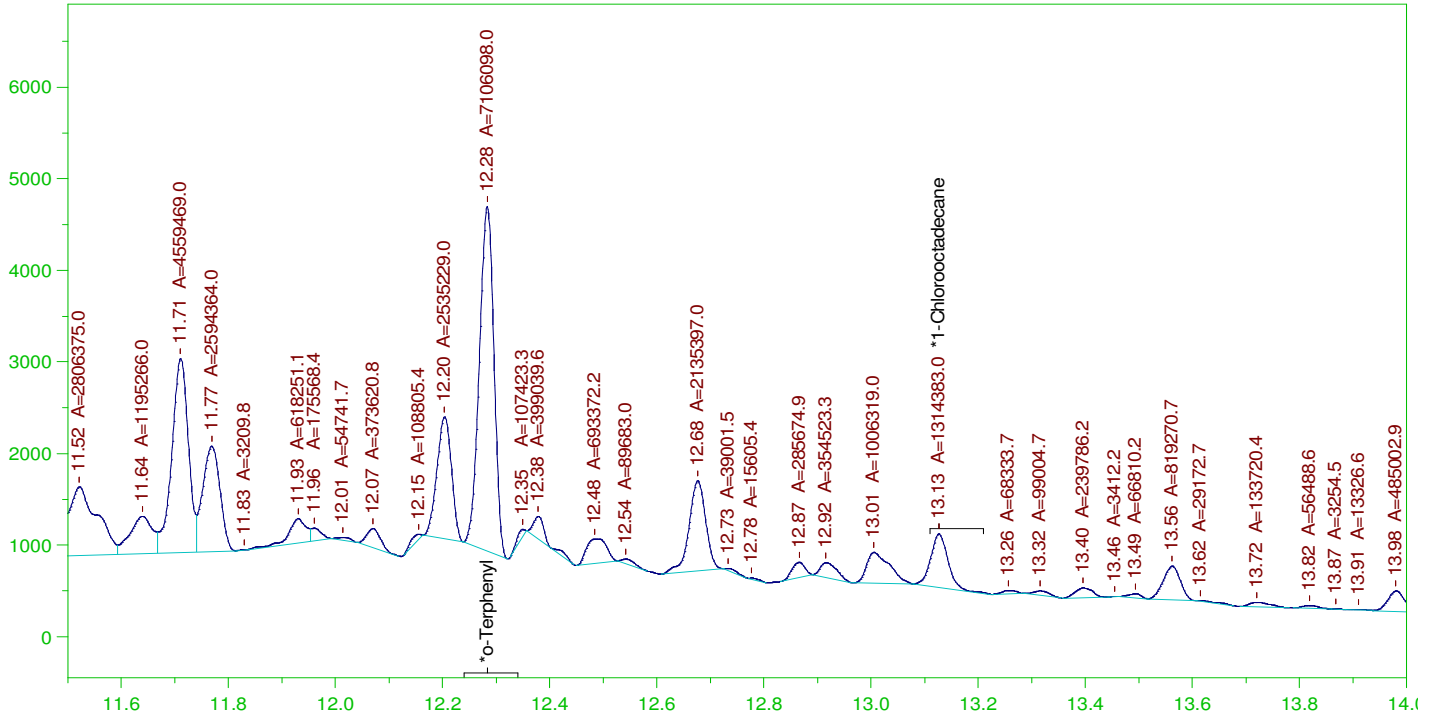
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COMPOUND	ACTUAL (NG)	MEASURED (NG)	%RECOVERY	LIMITS
TOTAL DRO	15000.	14510.1	96.73	85-115

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
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 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

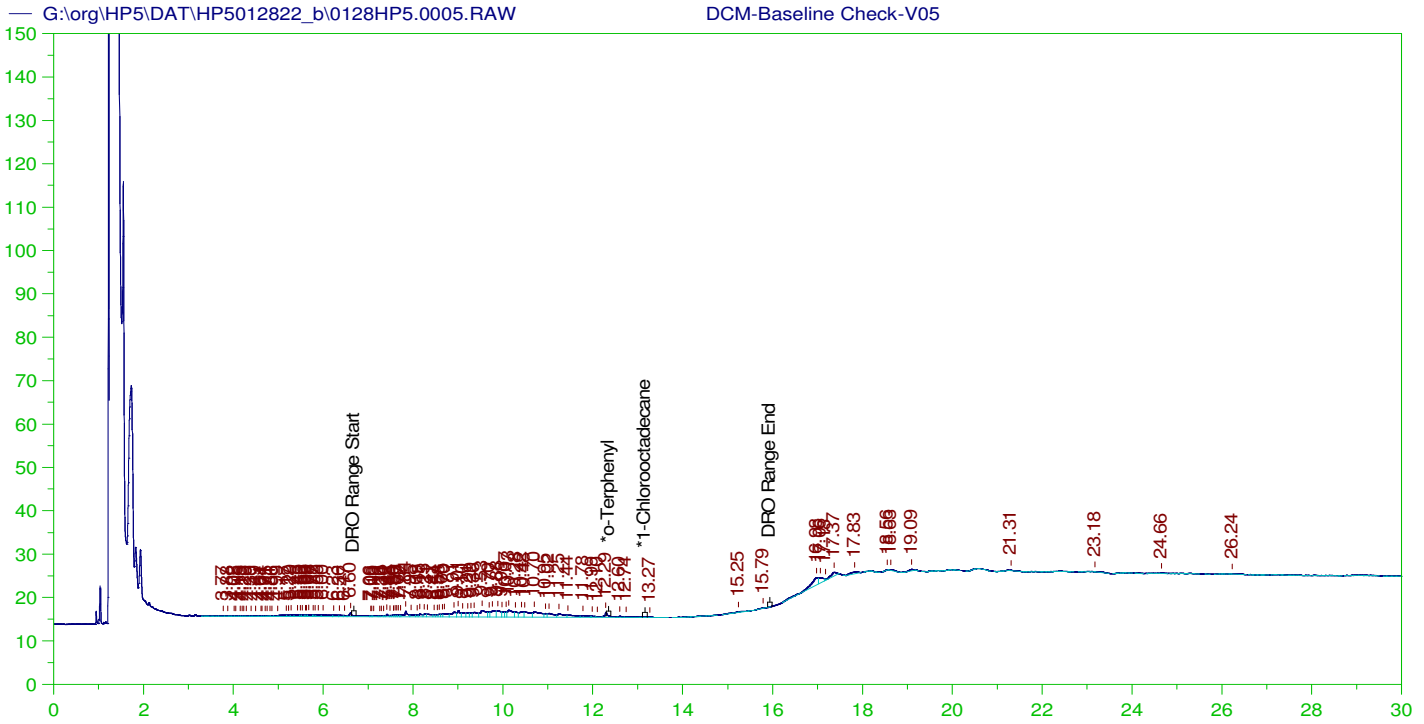
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.283	200.	192.797	96.4
*1-Chlorooctadecane	13.126	200.	35.661	17.83

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
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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

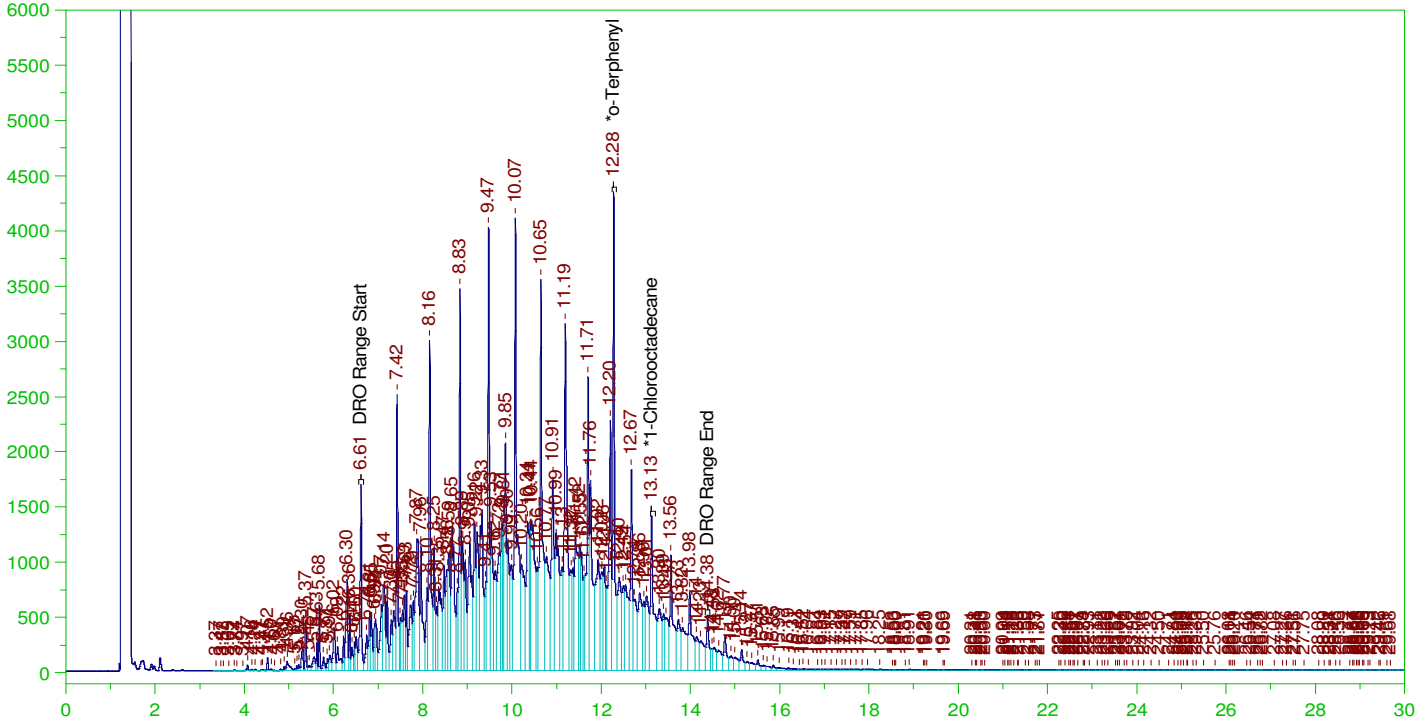
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	29.898	200.	.	-
*1-Chlorooctadecane	29.898	200.	.	-

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

Batch ID: 163307

LCS-163307 ;0128HP5 ,

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DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: LCS-163307 ;0128HP5 ,
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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

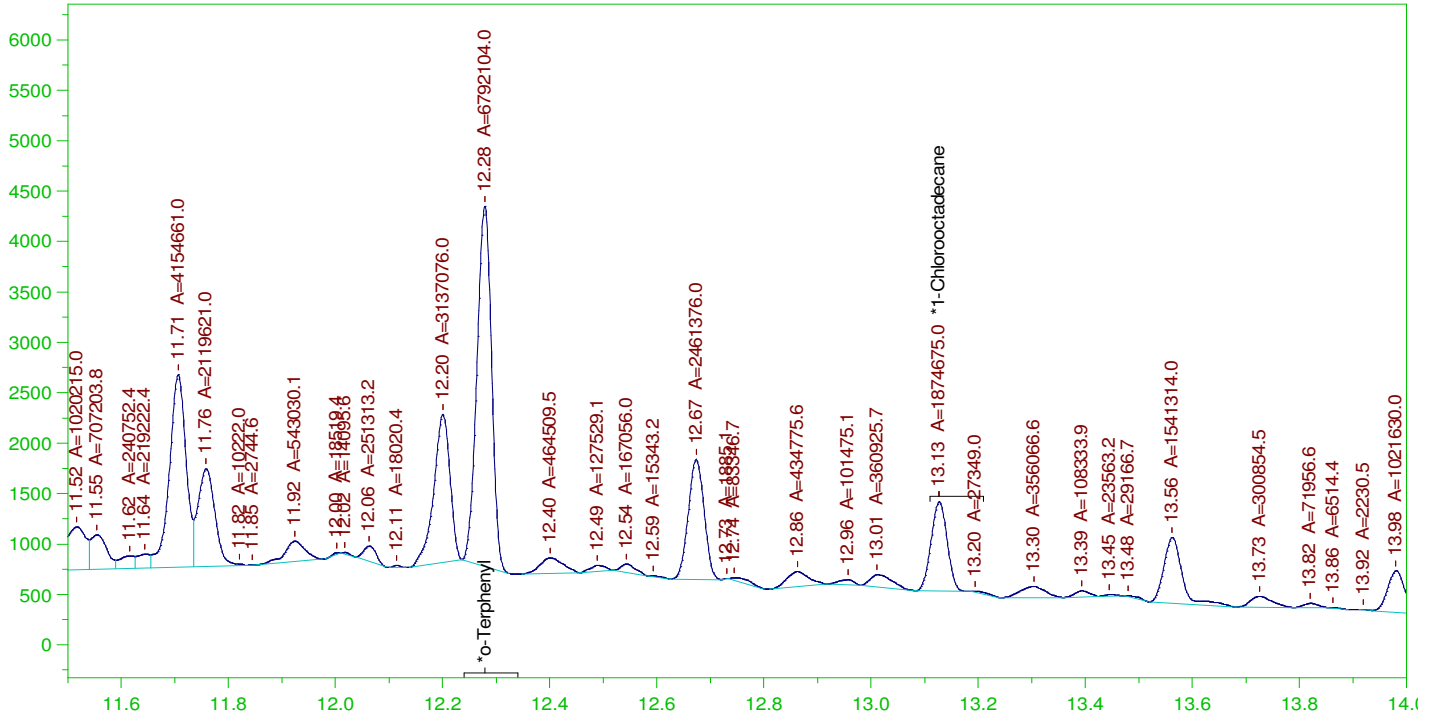
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.279	.2	.319	159.54	-
*1-Chlorooctadecane	13.127	.2	.181	90.61	-

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

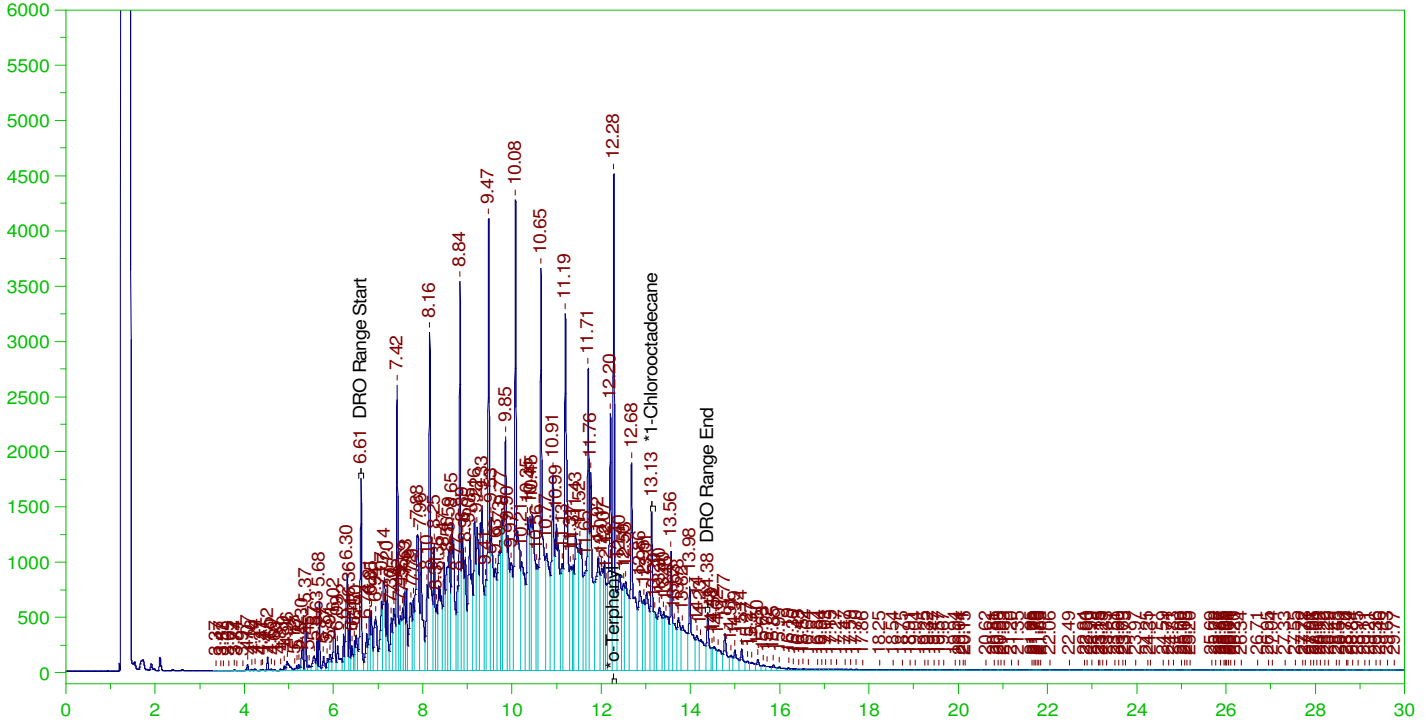
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.279	.2	.184	92.14
*1-Chlorooctadecane	13.127	.2	.051	25.43

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

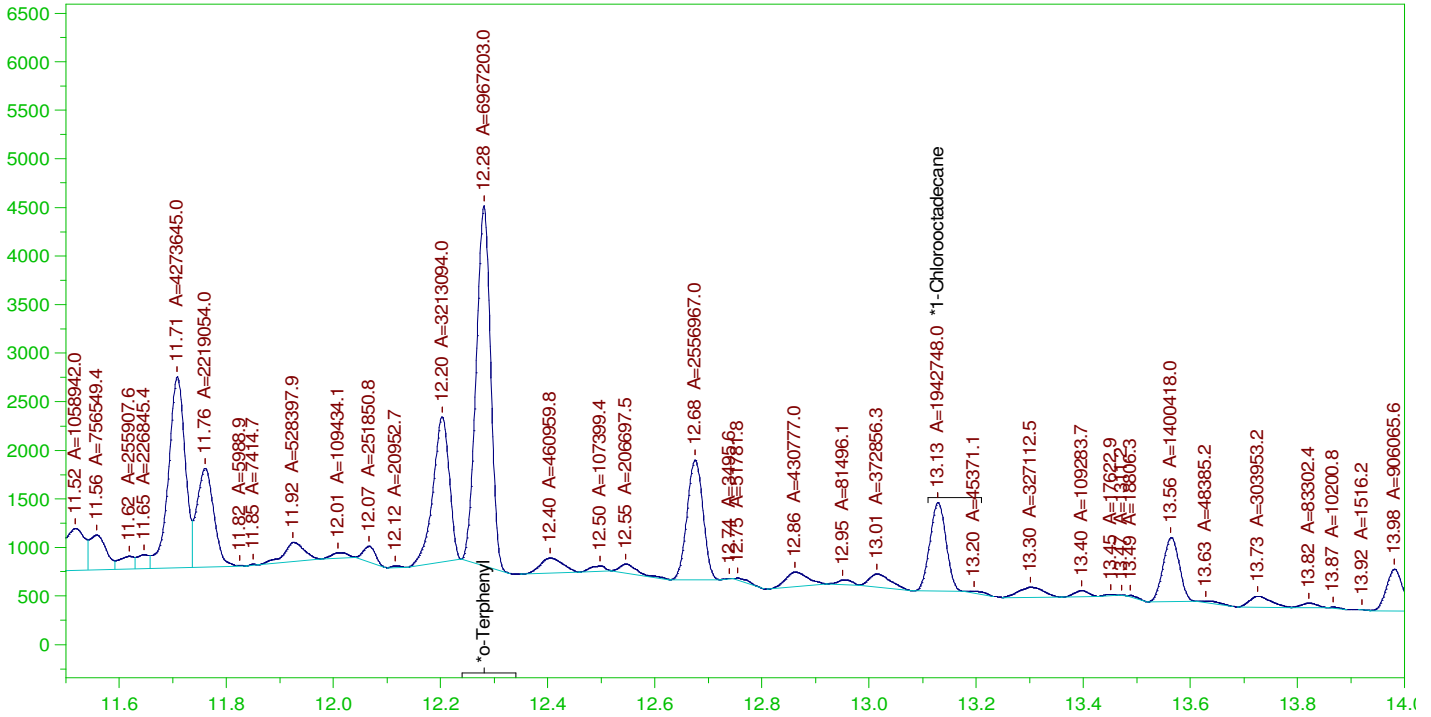
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.281	.2	.326	163.21	-
*1-Chlorooctadecane	13.129	.2	.134	66.93	-

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

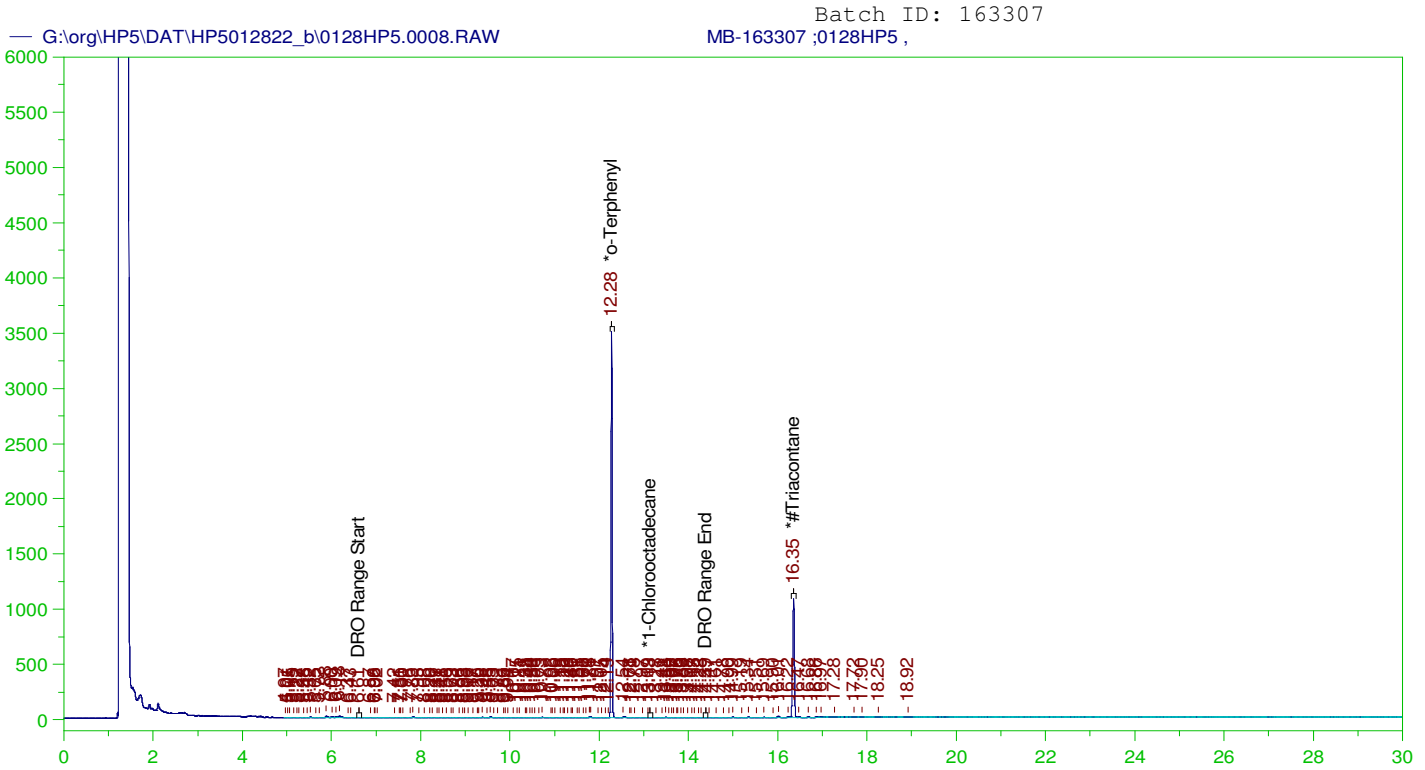
Sample Name: LCSD-163307 ;0128HP5 ,
 Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0007.RAW
 Date & Time Acquired: 1/28/2022 3:10:04 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JD-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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

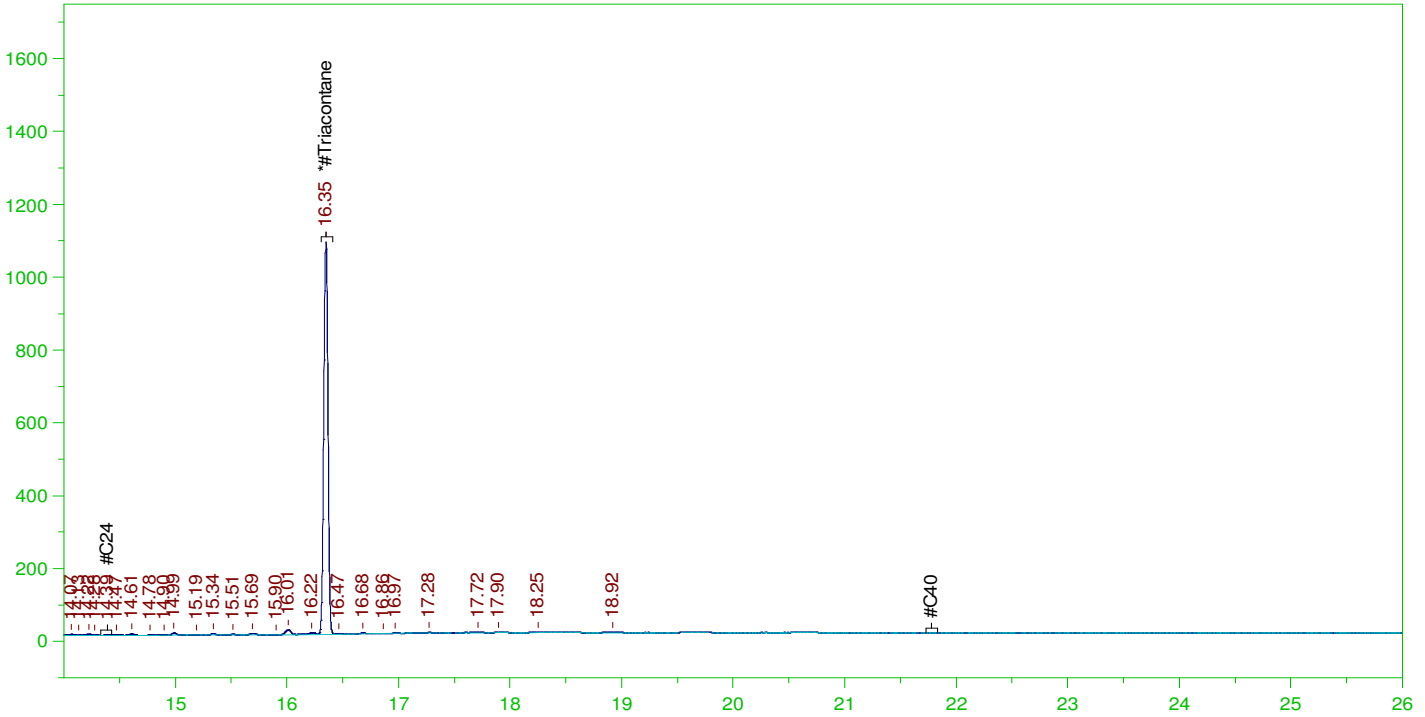
Mean RF for TEH: 32675.36
Rt range for Diesel Range Organics: 6.57 to 14.43

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

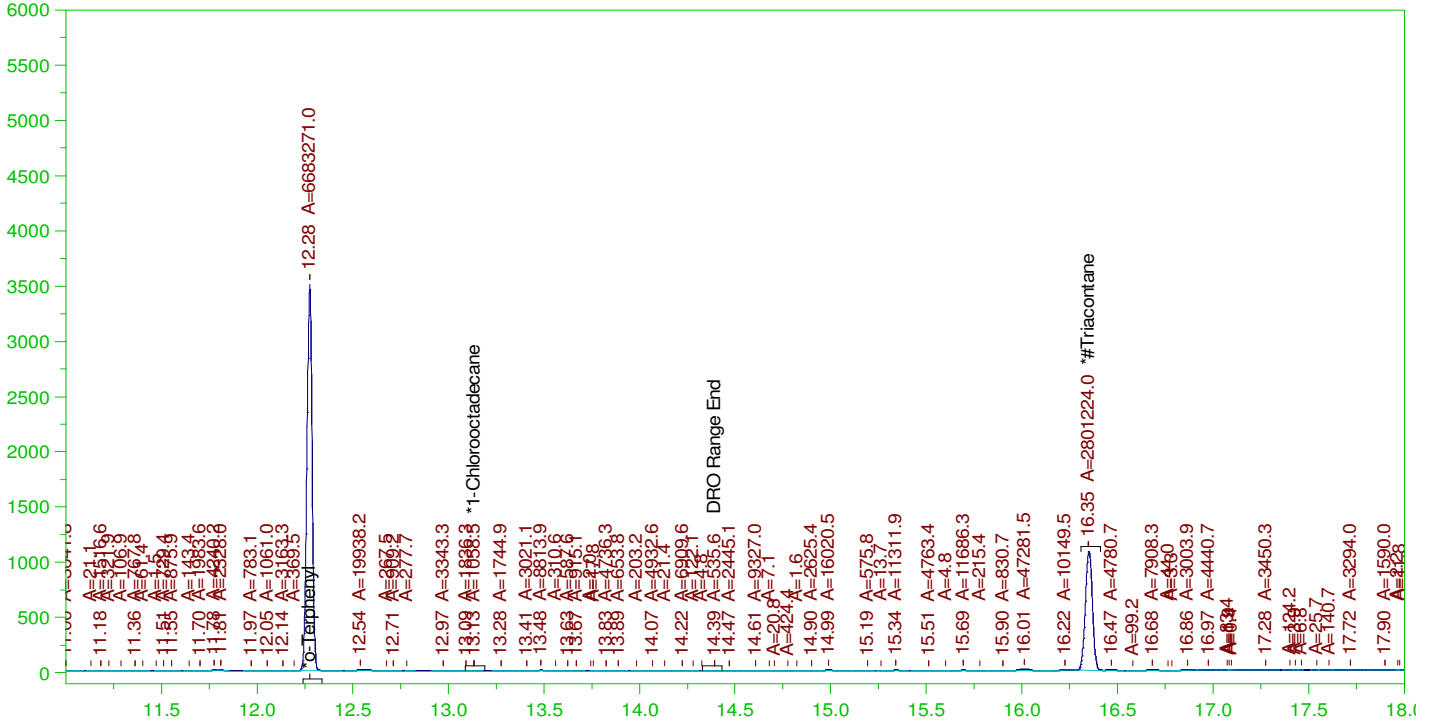
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane_____	16.349	.5	.095	19. -

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

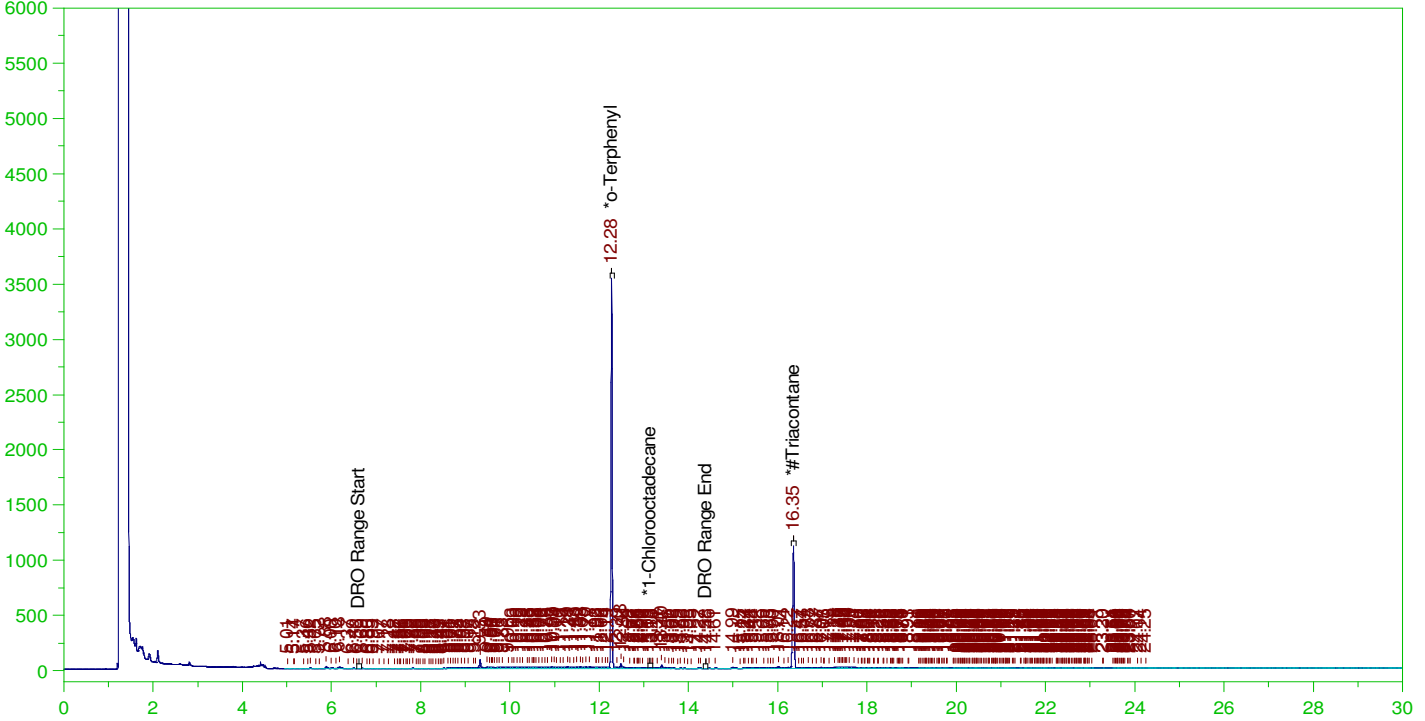
DRO Area:247812.2 DRO Amount: 7.58407E-03
TEH Area:983901.8 TEH Amount: 3.011143E-02

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	-

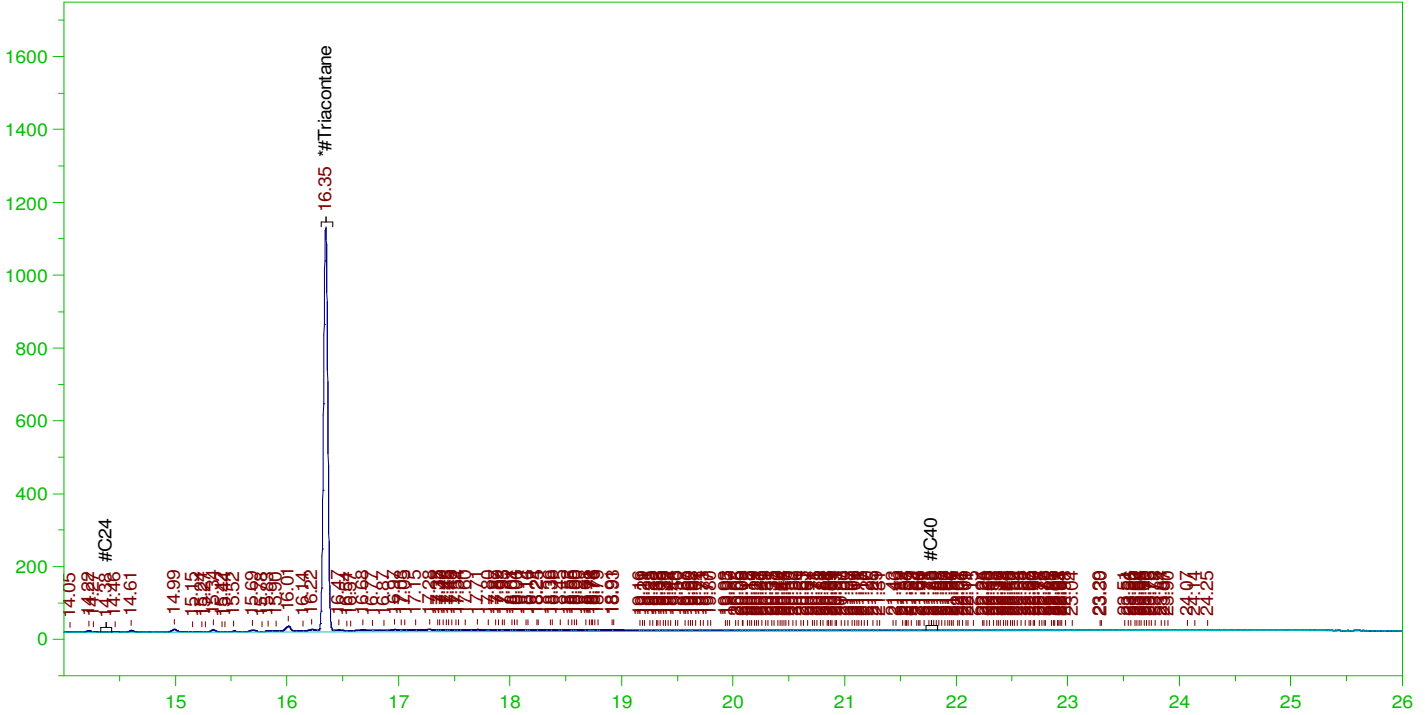
DRO Area:2976863 DRO Amount: 9.110422E-02
TEH Area:4819733 TEH Amount: 0.1475036

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

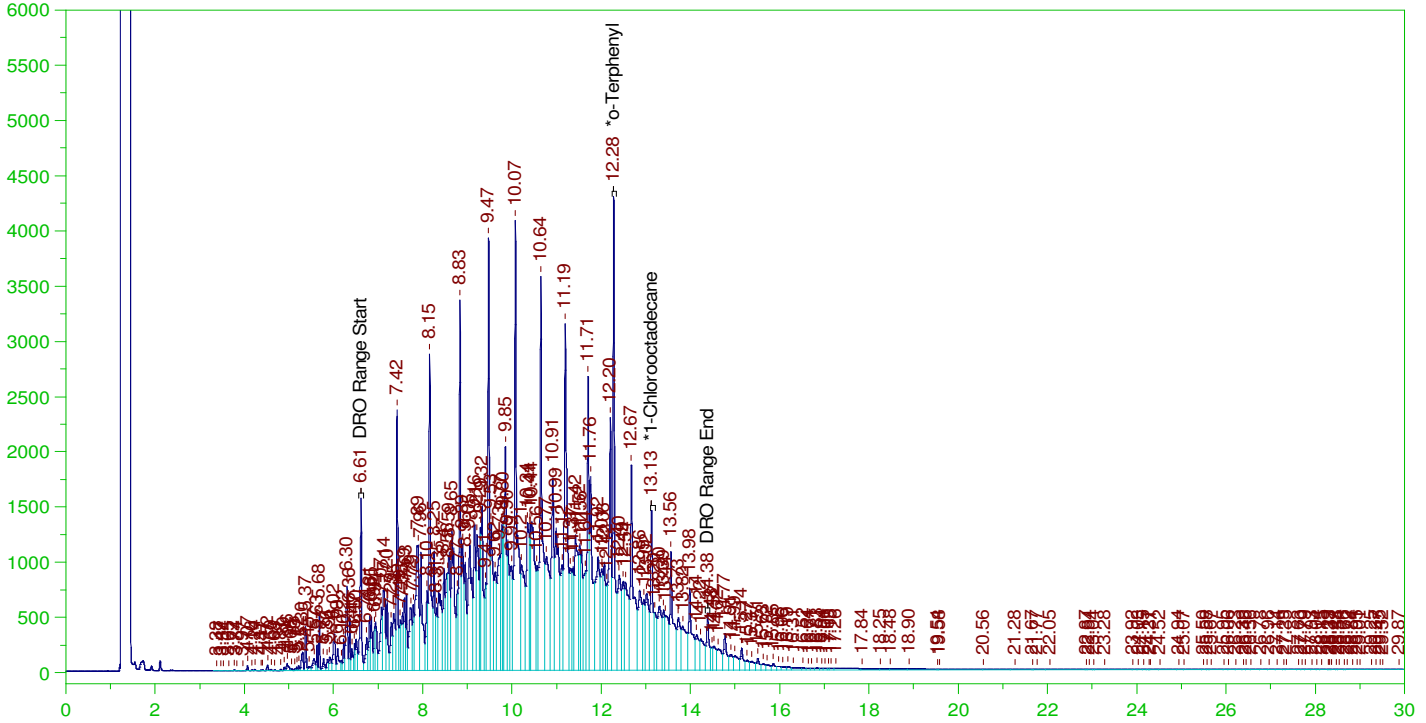
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.275	.2	.183	91.36
*1-Chlorooctadecane	13.129	.2	.01	-
*#Triacontane	16.347	.2	.097	48.55

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

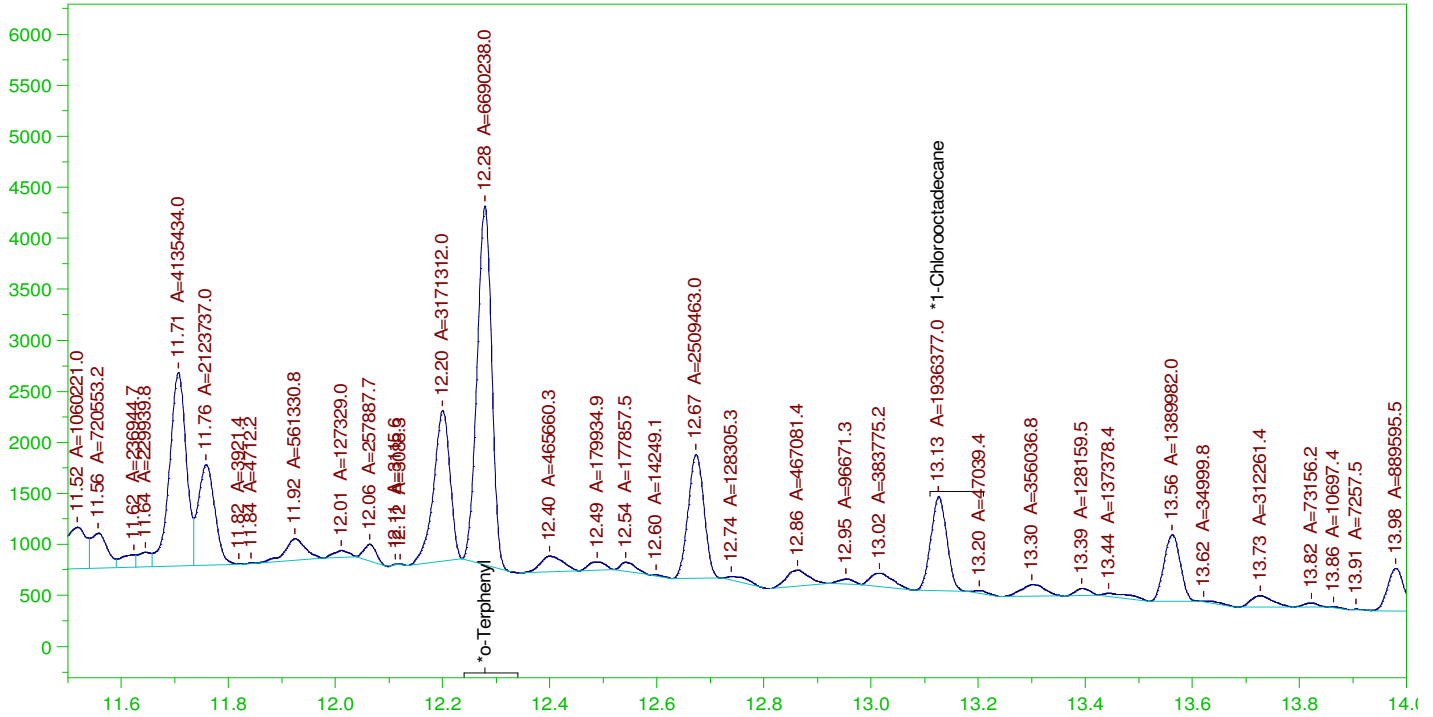
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.279	.189	.298	157.71	-
*1-Chlorooctadecane	13.126	.189	.129	68.59	-

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

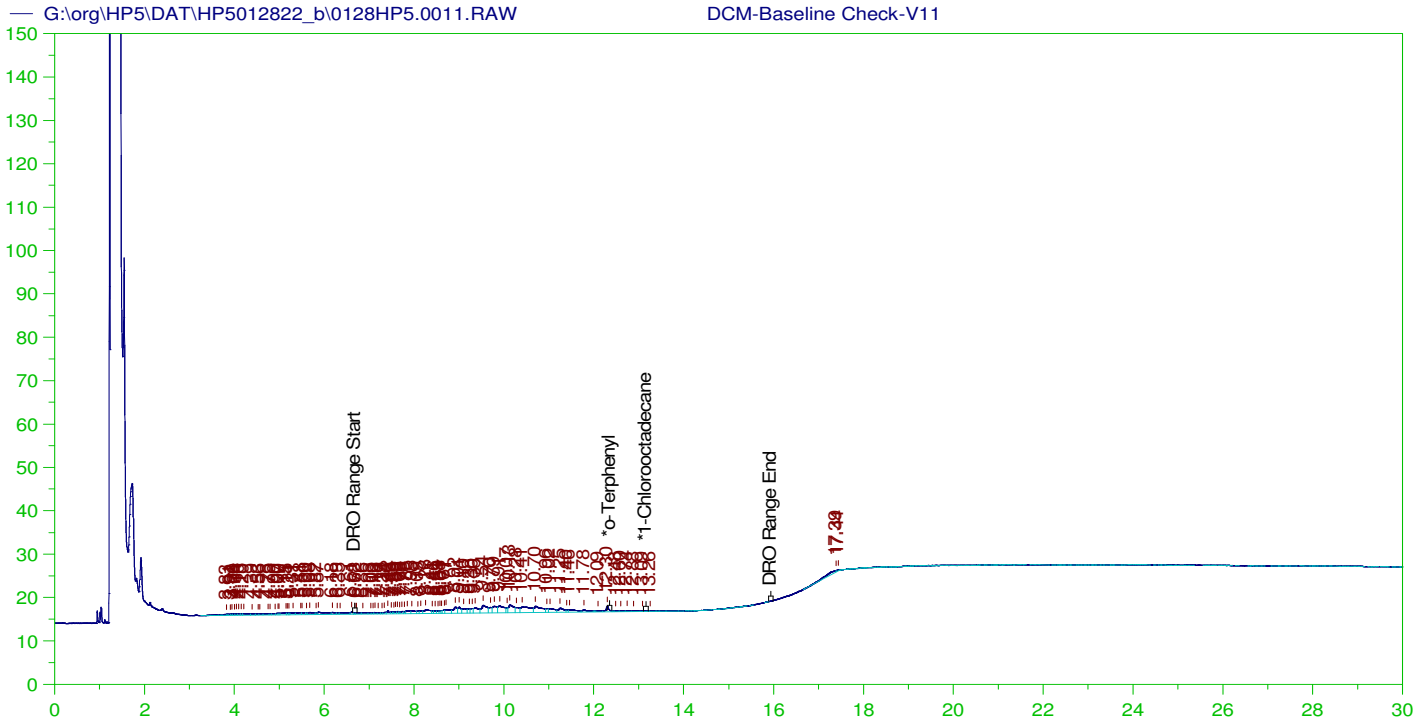
Sample Name: B22011592-001DMS ;0128HP5 ,
 Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0010.RAW
 Date & Time Acquired: 1/28/2022 5:18:02 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JD-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24.CAL
 Sample Weight: 1060 Dilution: 1 S.A.: 1

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.	.	-

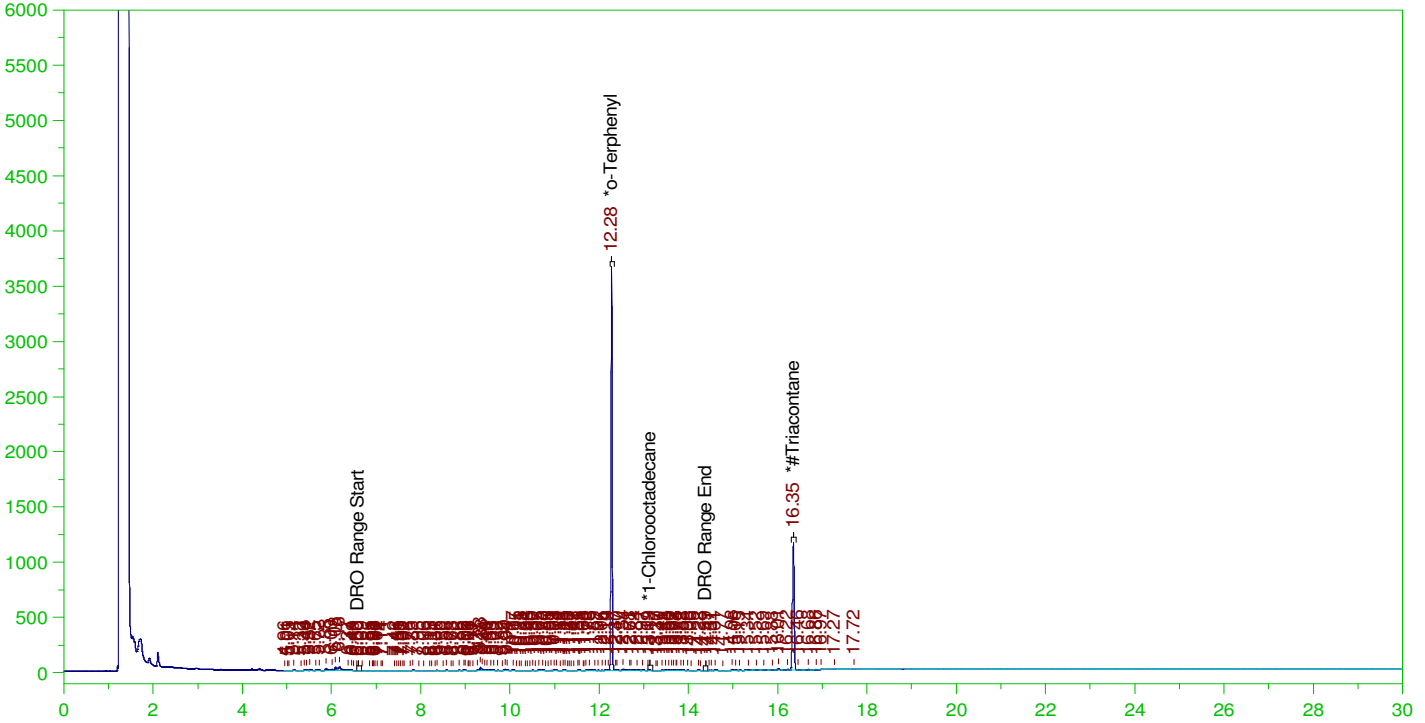
DRO Area:261211.6 DRO Amount: 7.994145
 TEH Area:343629 TEH Amount: 10.51646

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

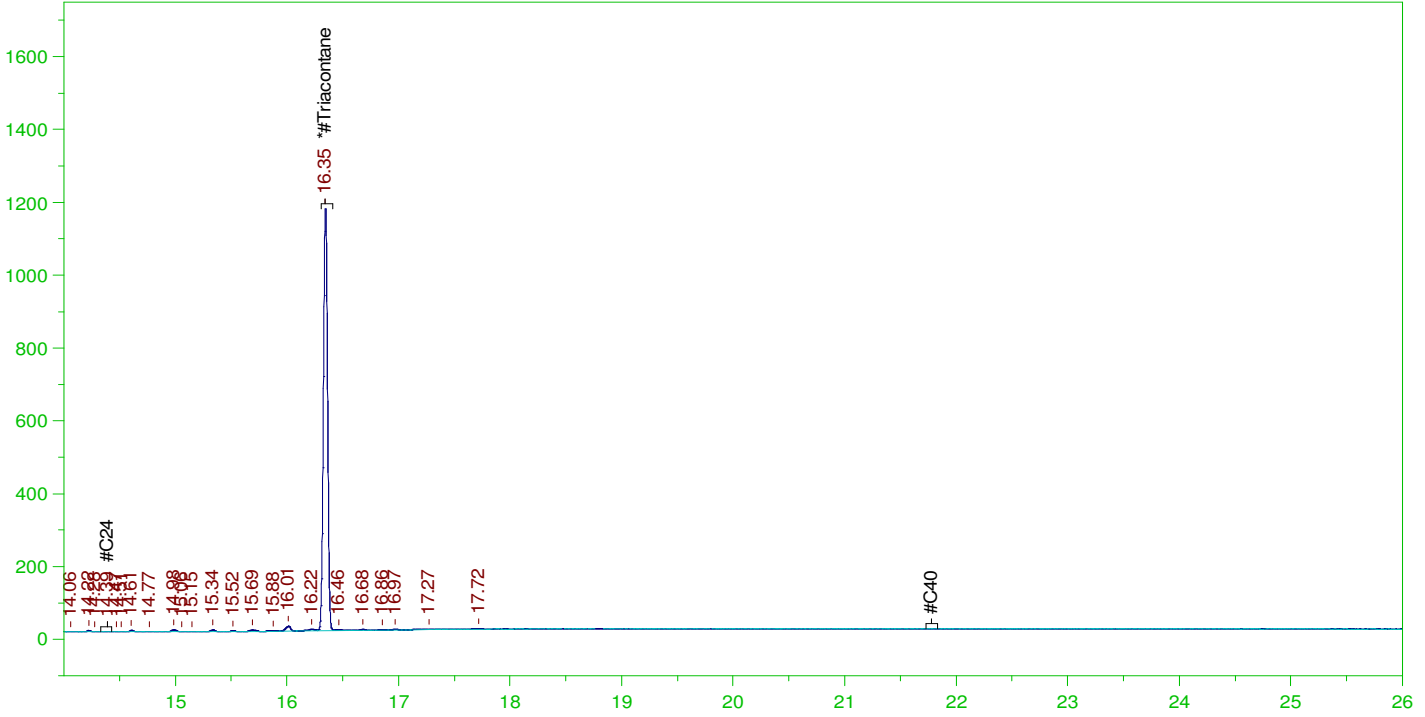
TEH Amount: 4.069985E-02

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	-

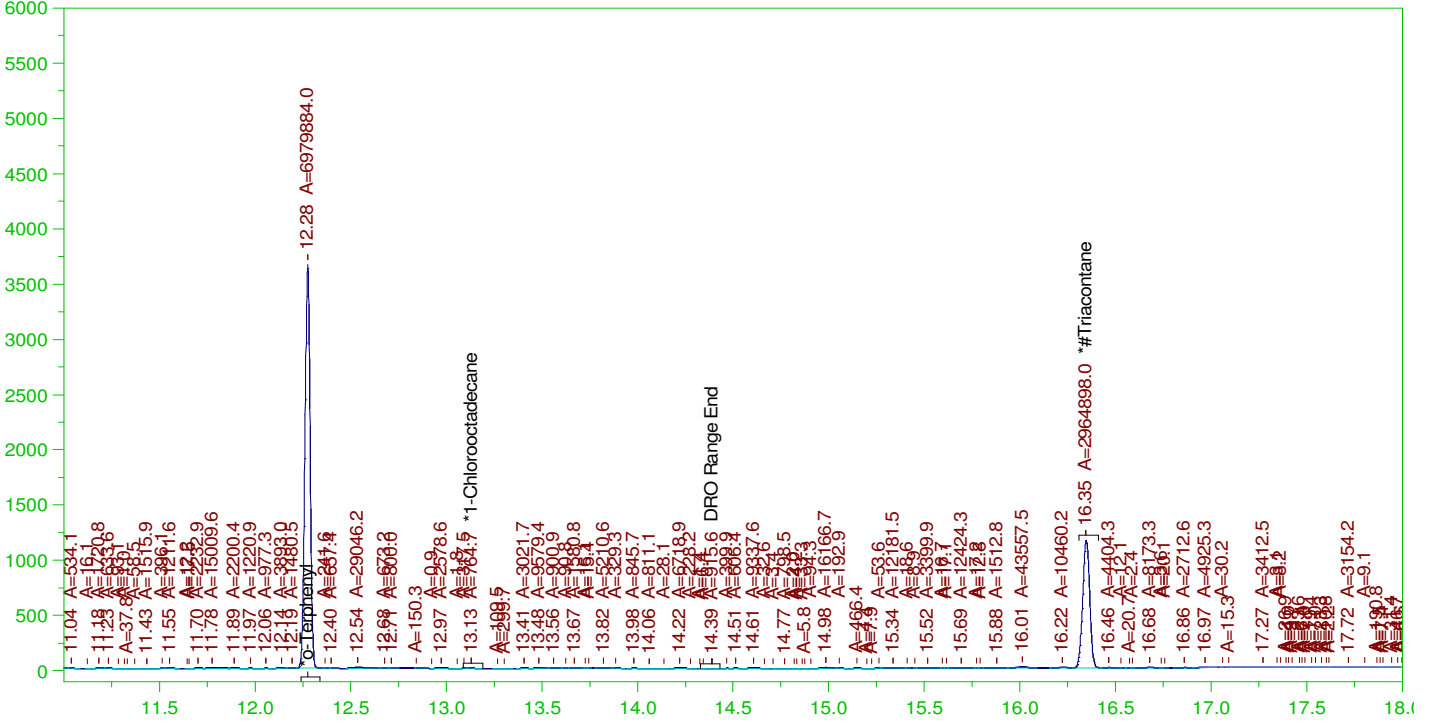
RRO Area:166861.6 RRO AMOUNT: 6.252122E-03

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	-

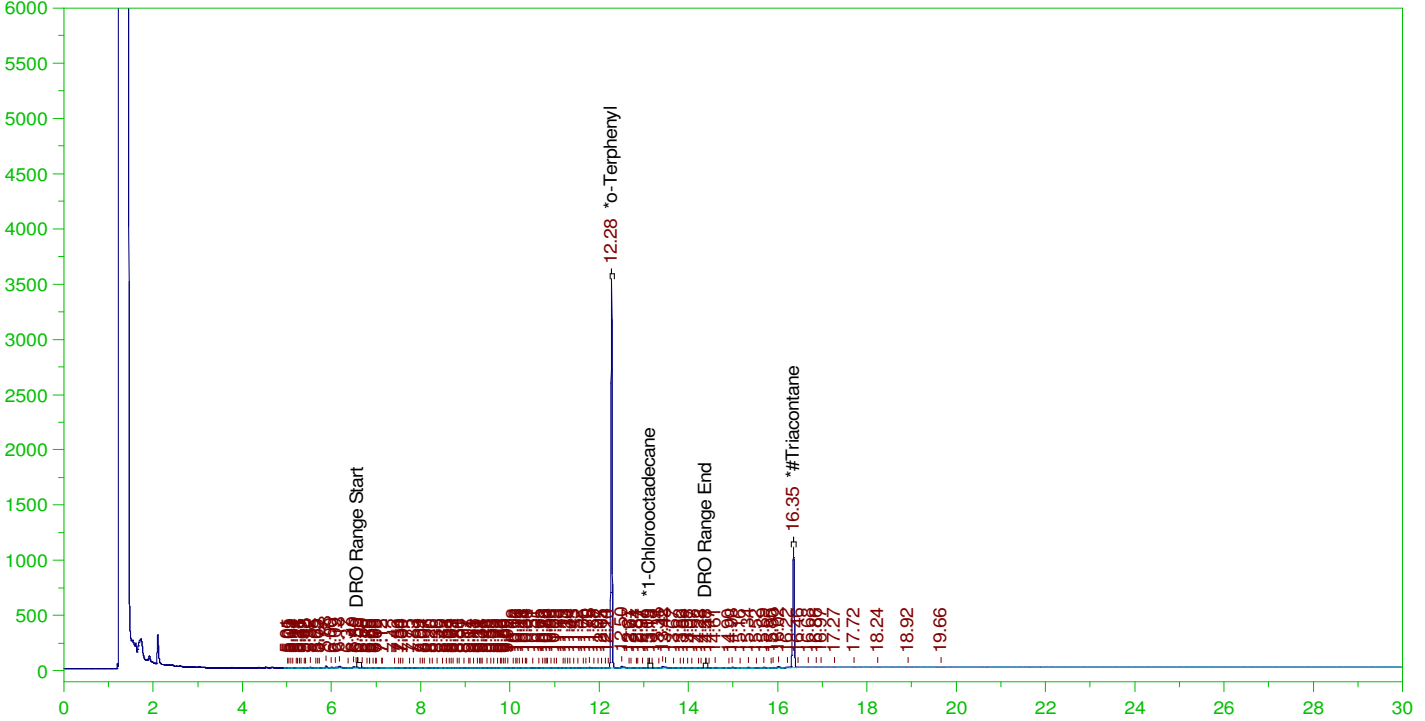
DRO Area:383796.4 DRO Amount: 1.162945E-02
TEH Area:1270859 TEH Amount: 0.0385084

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	-

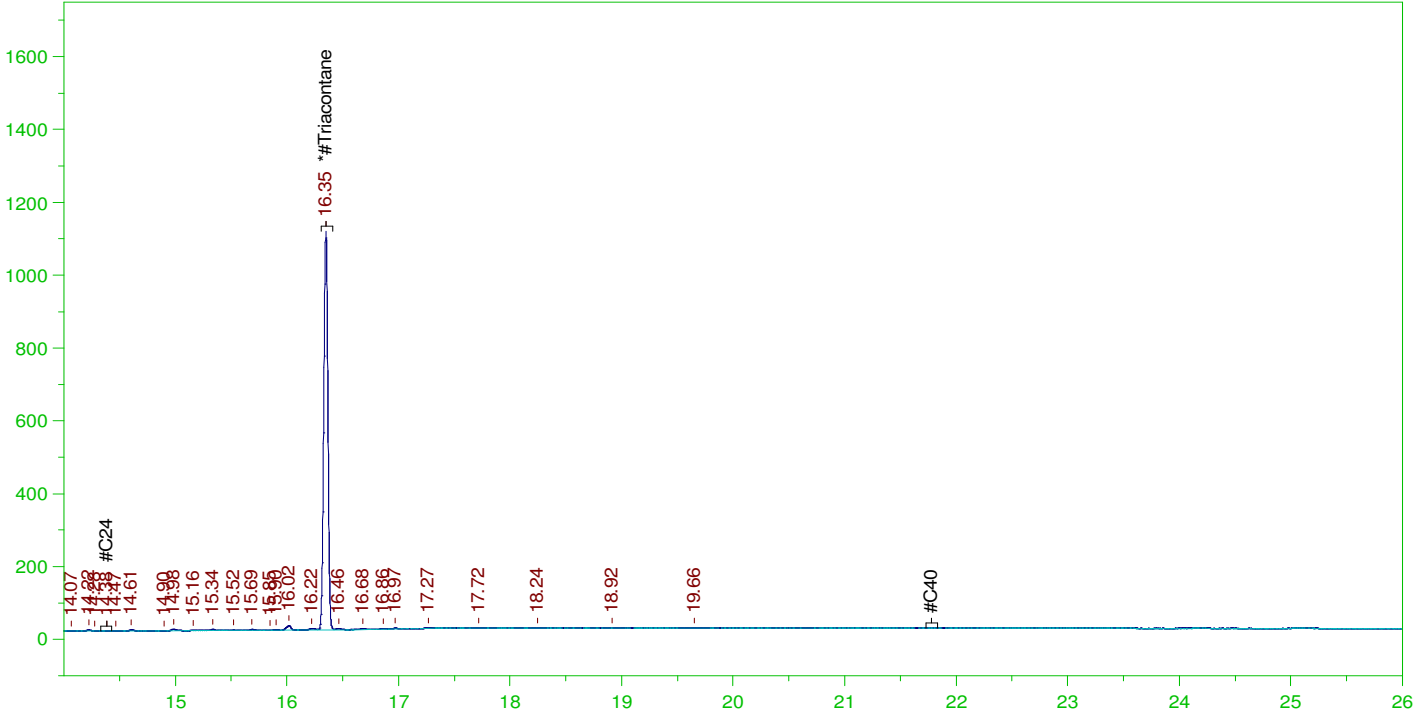
DRO Area:578127.2 DRO Amount: 1.734614E-02
TEH Area:1129663 TEH Amount: 3.389443E-02

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

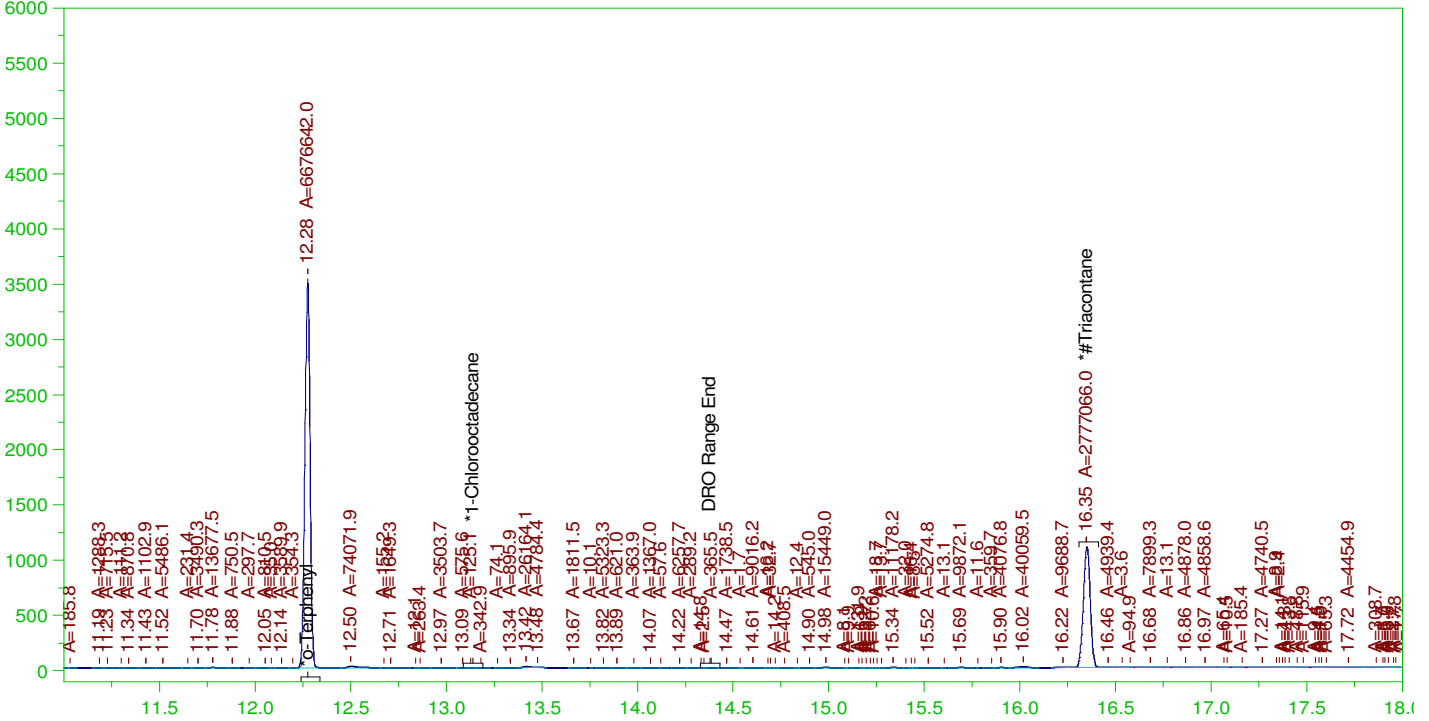
RRO Area:174230.3 RRO AMOUNT: 6.464217E-03

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

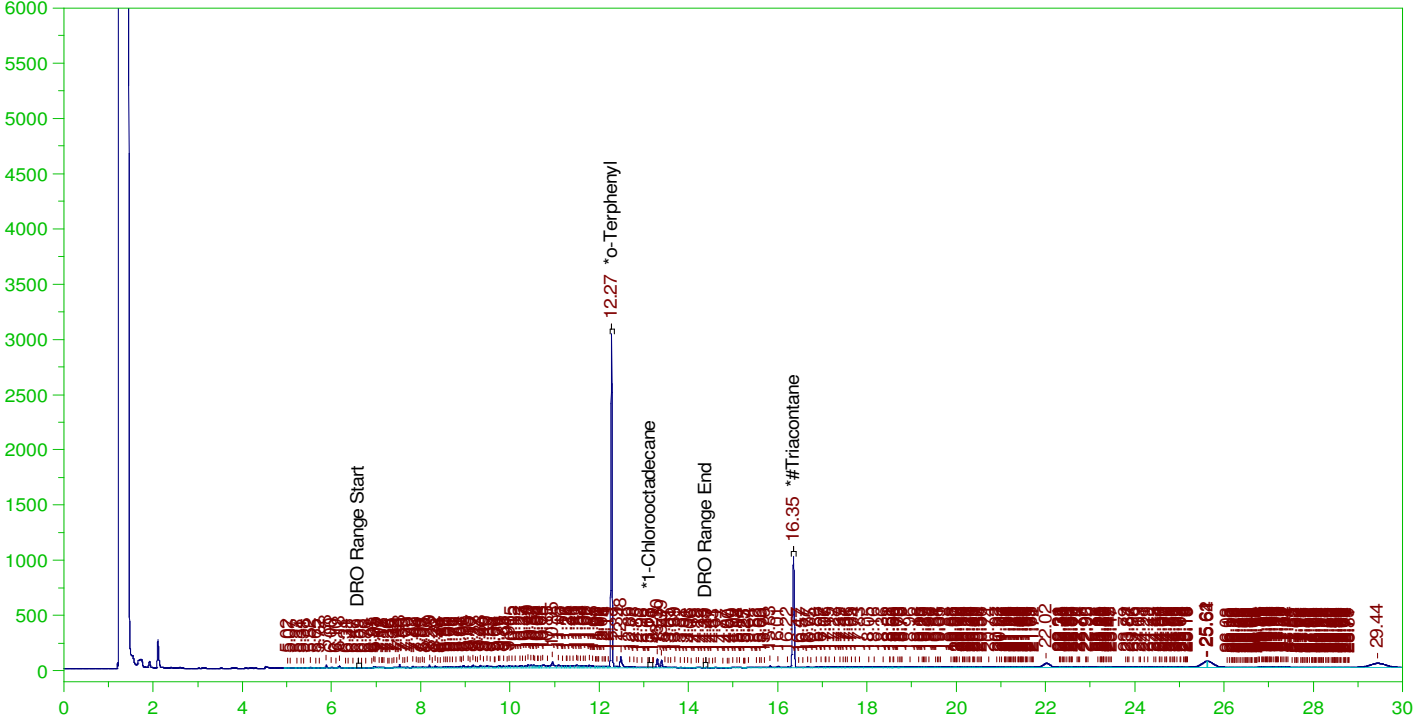
DRO Area:380433.9 DRO Amount: 1.141455E-02
TEH Area:1110982 TEH Amount: 3.333392E-02

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	-

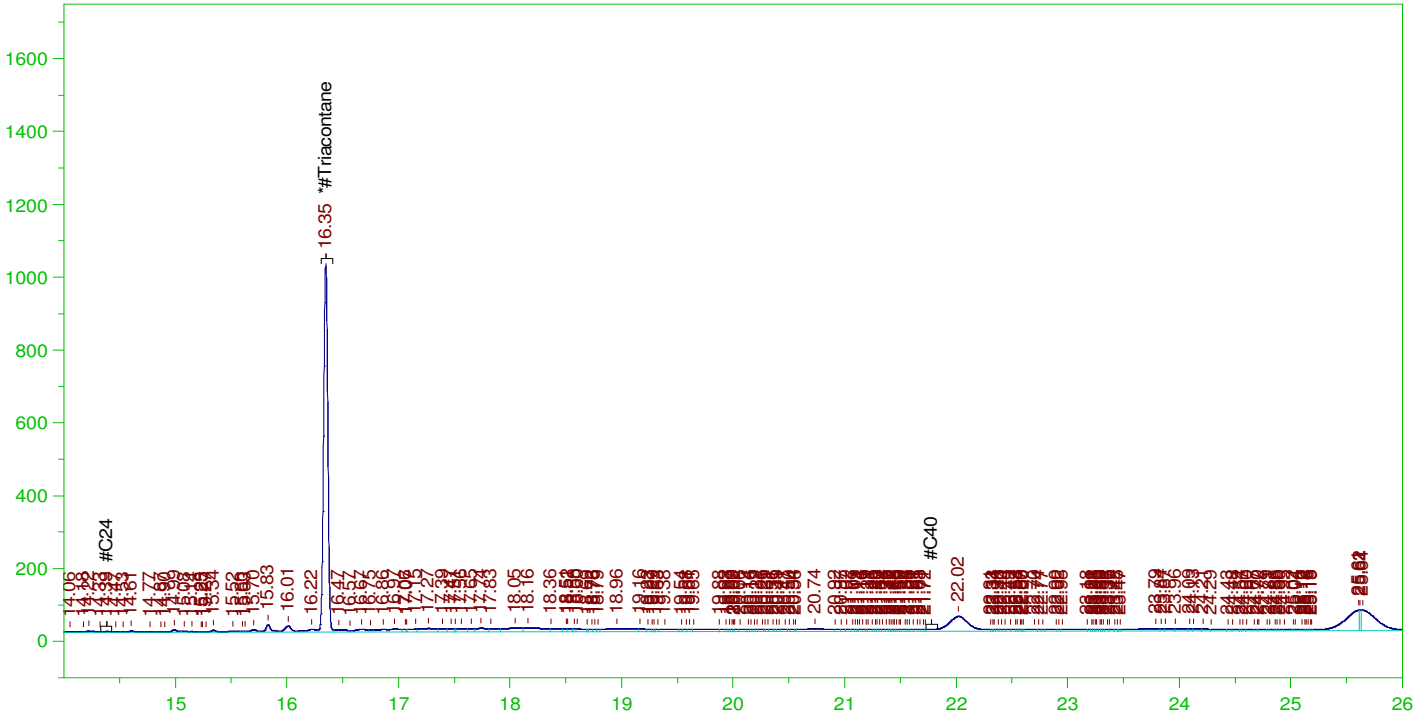
DRO Area:6303433 DRO Amount: 0.1910009
TEH Area:1.293182E+07 TEH Amount: 0.3918483

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

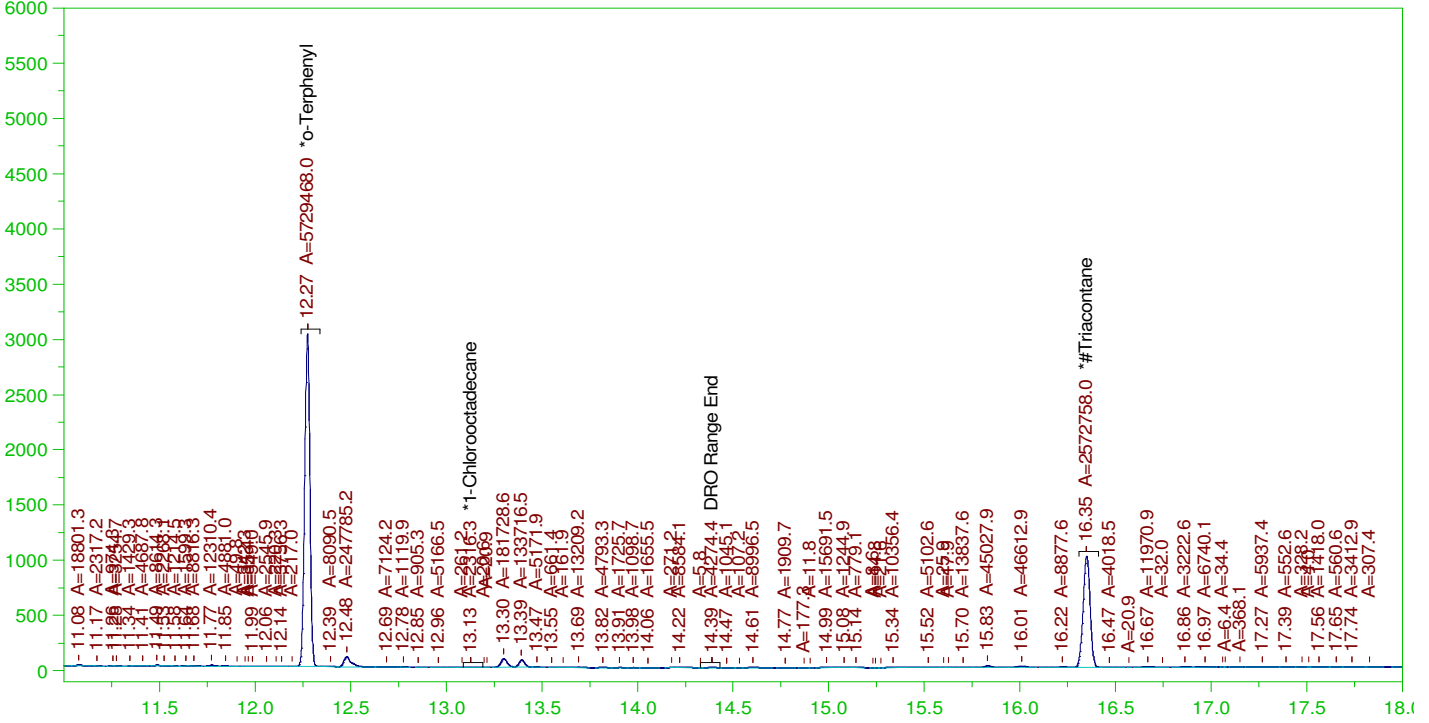
RRO Area:2580309 RRO AMOUNT: 9.668136E-02

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

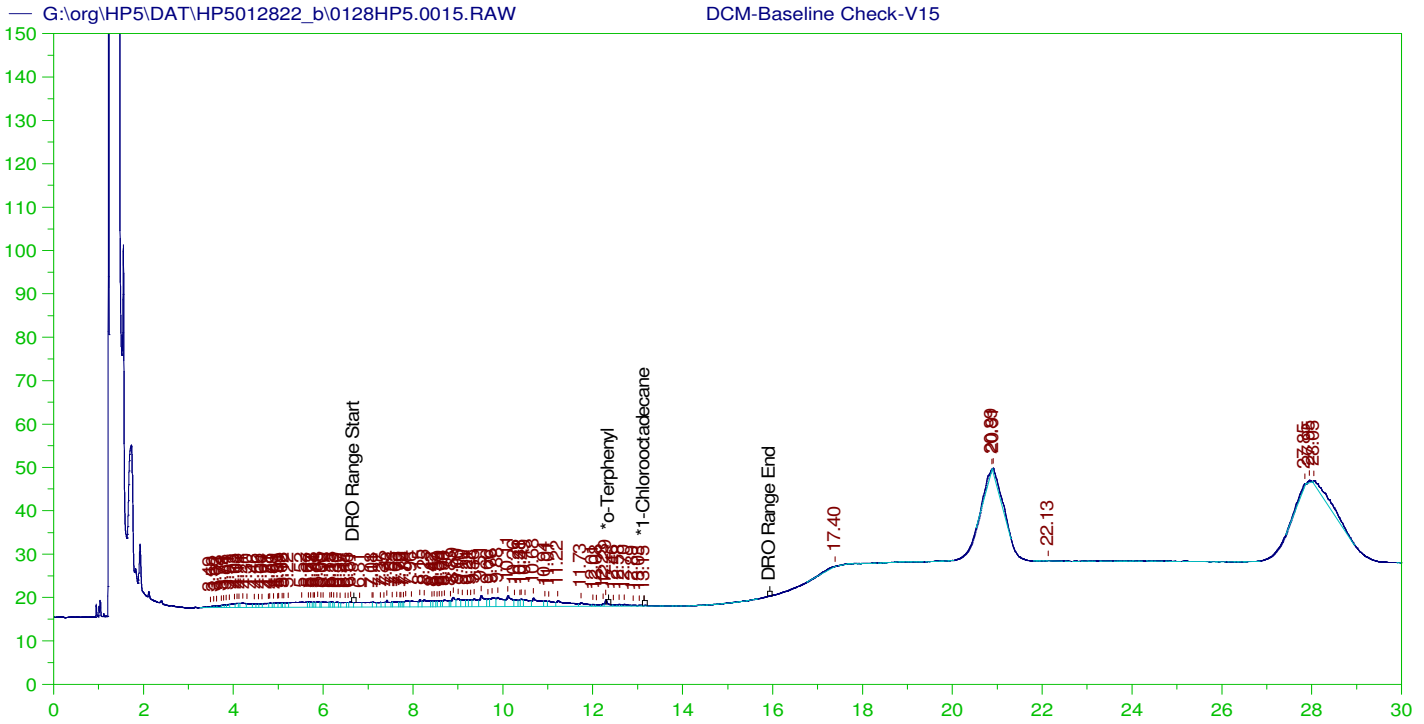
Sample Name: B22011592-007B ;0128HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0014.RAW
Date & Time Acquired: 1/28/2022 8:09:19 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-JD-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111Jd-C24-T.CAL
Sample Weight: 1010 Dilution: 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

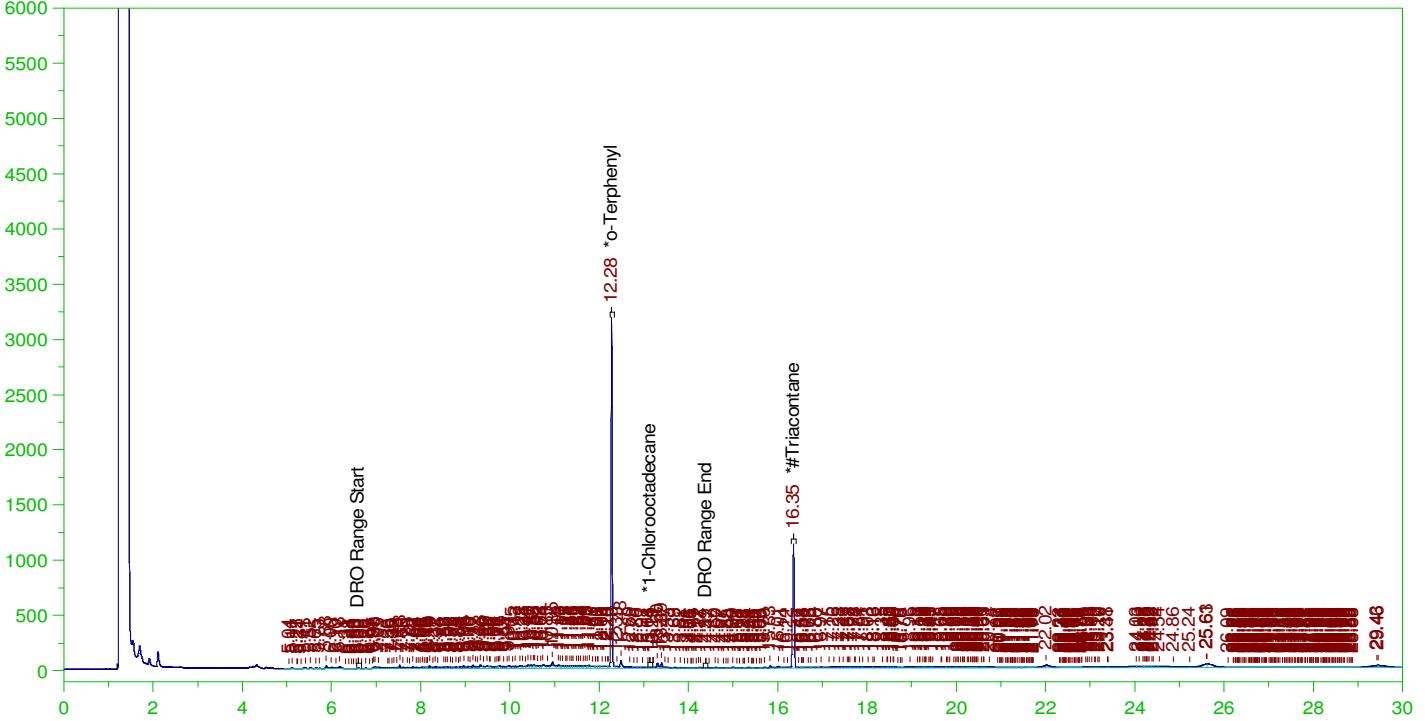
DRO Area: 445480.4 DRO Amount: 13.63353
 TEH Area: 765422.8 TEH Amount: 23.42508

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	-

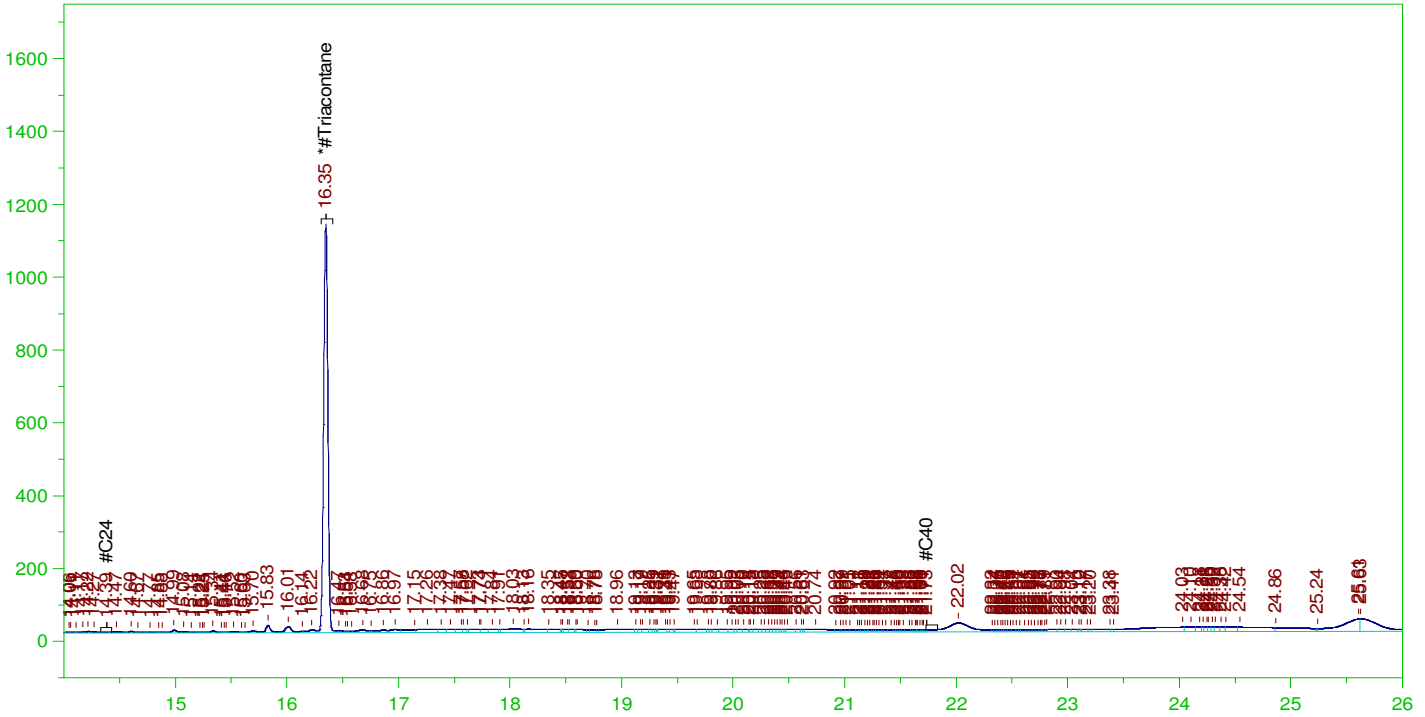
DRO Area:6390244 DRO Amount: 0.1936314
TEH Area:1.257732E+07 TEH Amount: 0.3811066

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

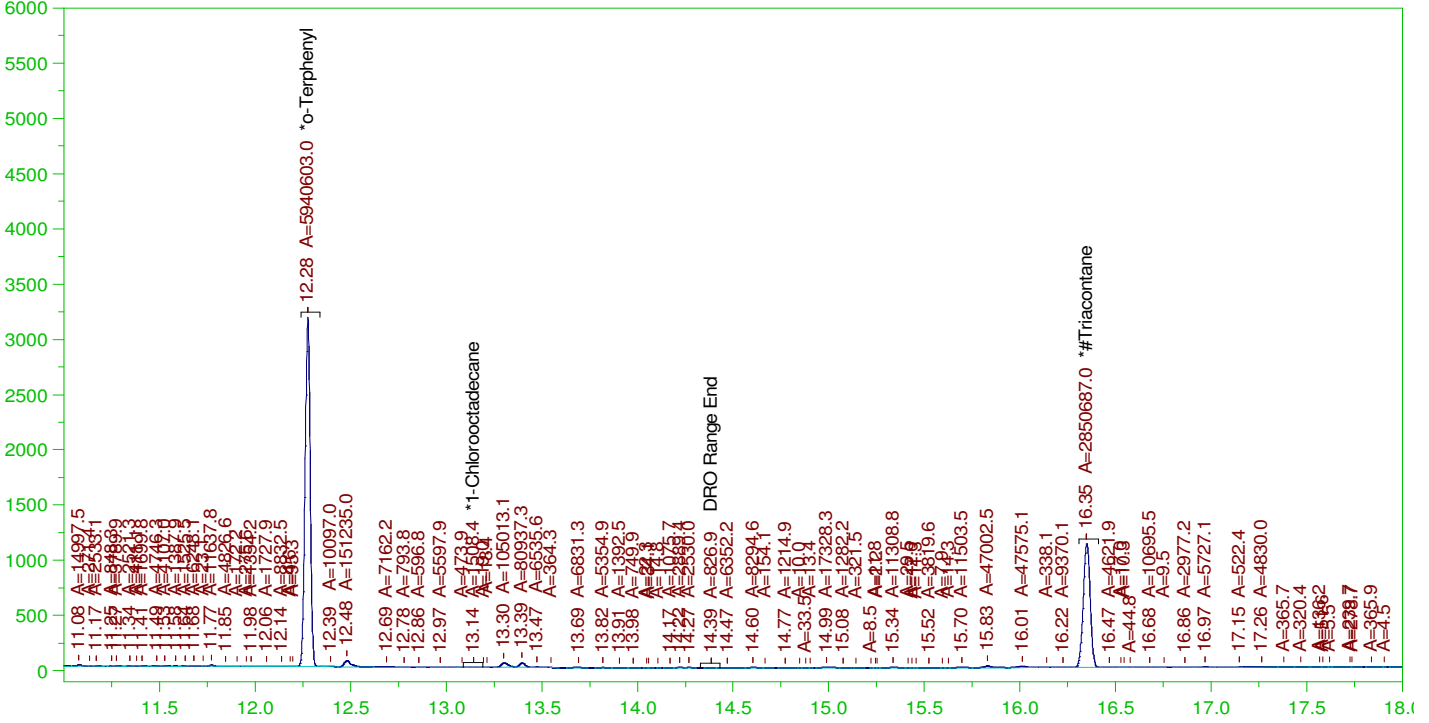
RRO Area:2585511 RRO AMOUNT: 9.687627E-02

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

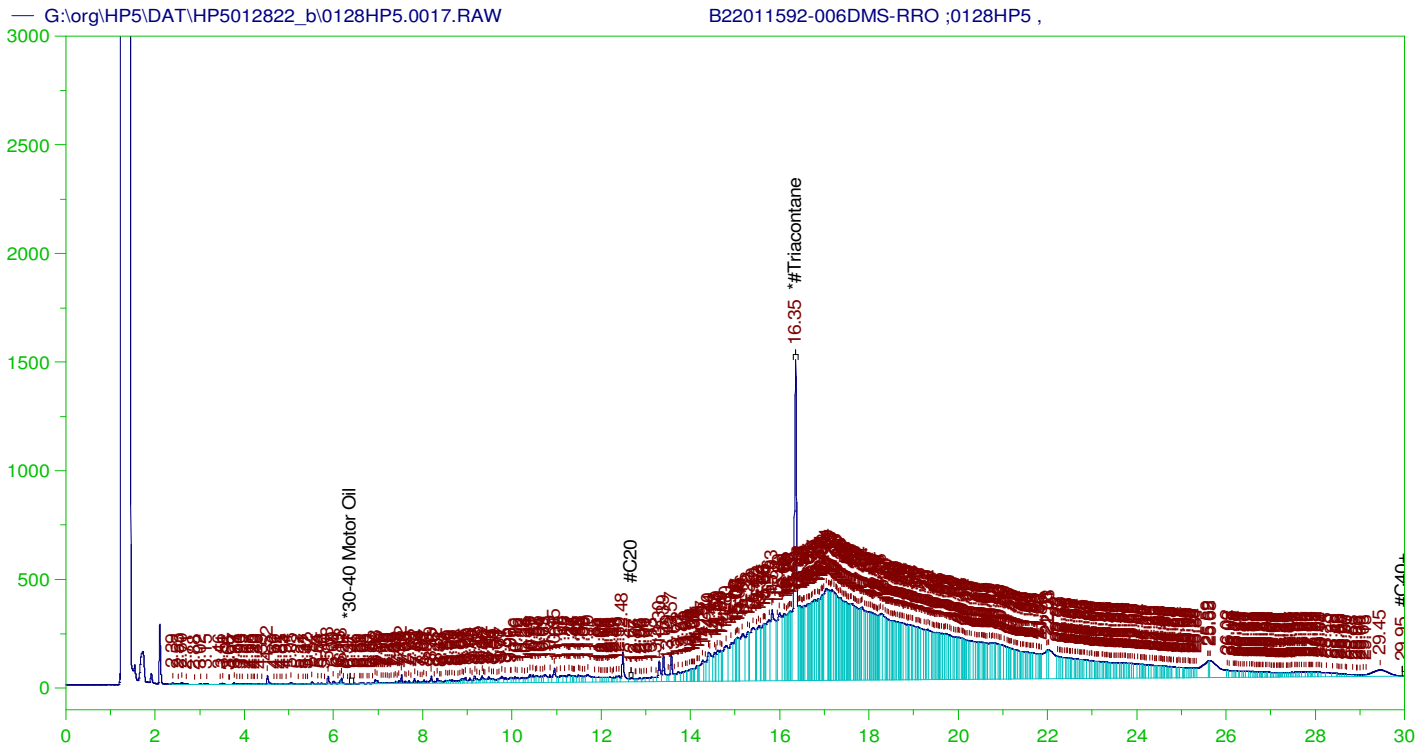
Sample Name: B22011592-006D ;0128HP5 , \$HC-8015-DRO-W,
Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0016.RAW
Date & Time Acquired: 1/28/2022 9:34:49 PM
Method File: G:\Org\HP5\Methods\DS_8015-C24T-JD-L#.met
Calibration File: G:\Org\HP5\Cals\SW8015C_DRO2201111Jd-C24-T.CAL
Sample Weight: 1010 Dilution: 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

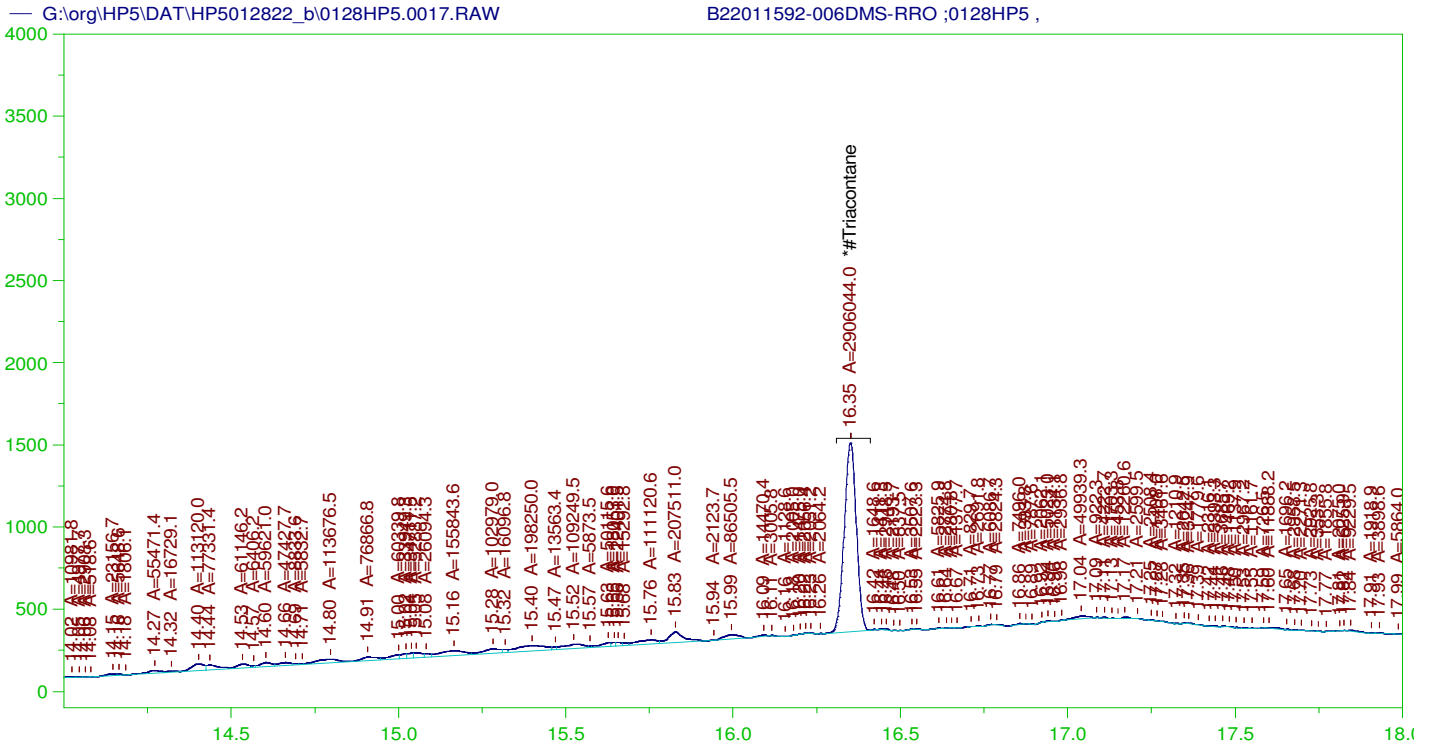
Sample Name: B22011592-006DMS-RRO ;0128HP5 ,
 Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0017.RAW
 Date & Time Acquired: 1/28/2022 10:17:37 PM
 Method File: G:\Org\HP5\Methods\D3_ORO-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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



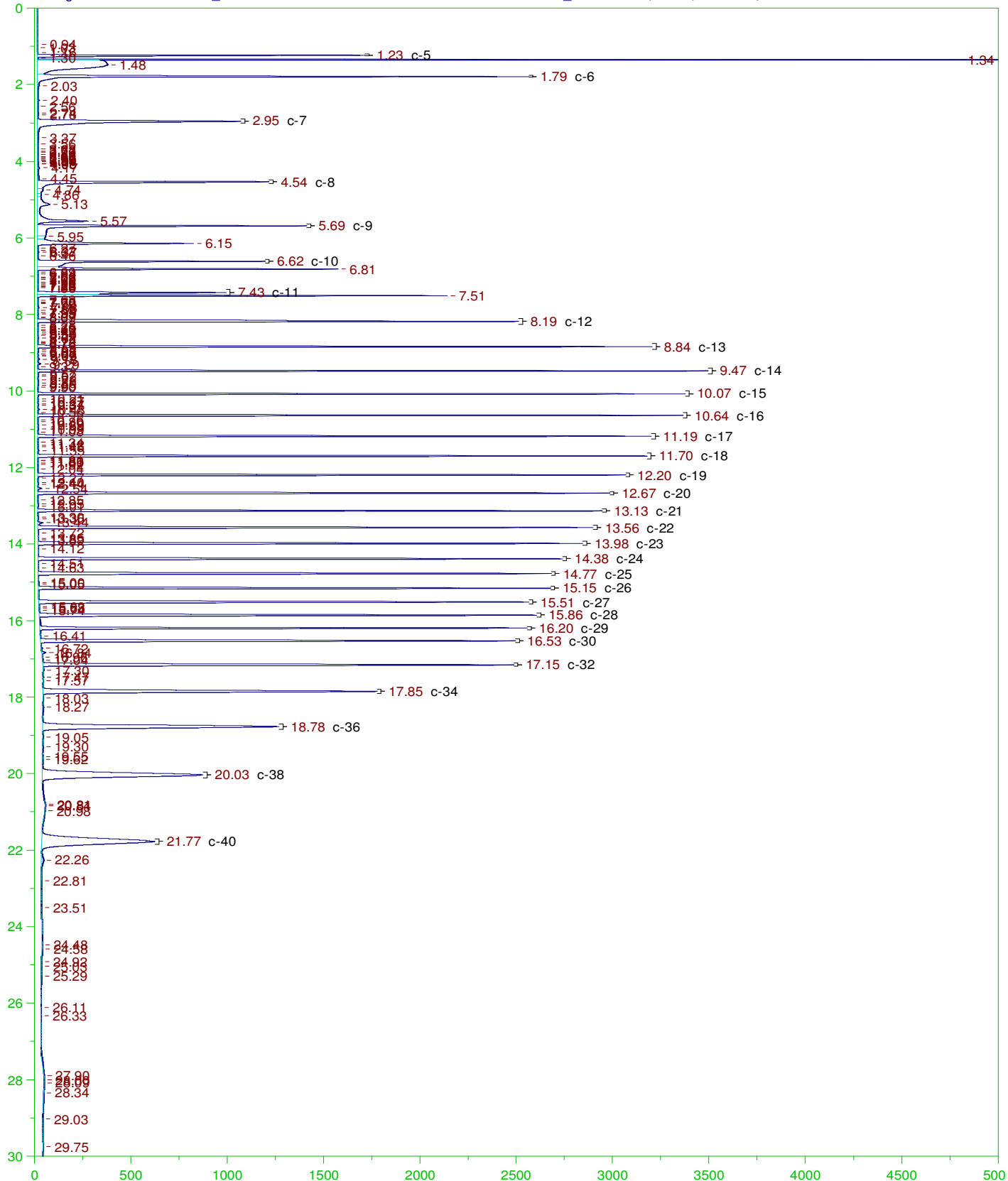
RESIDUAL RANGE ORGANICS CHROMATOGRAM

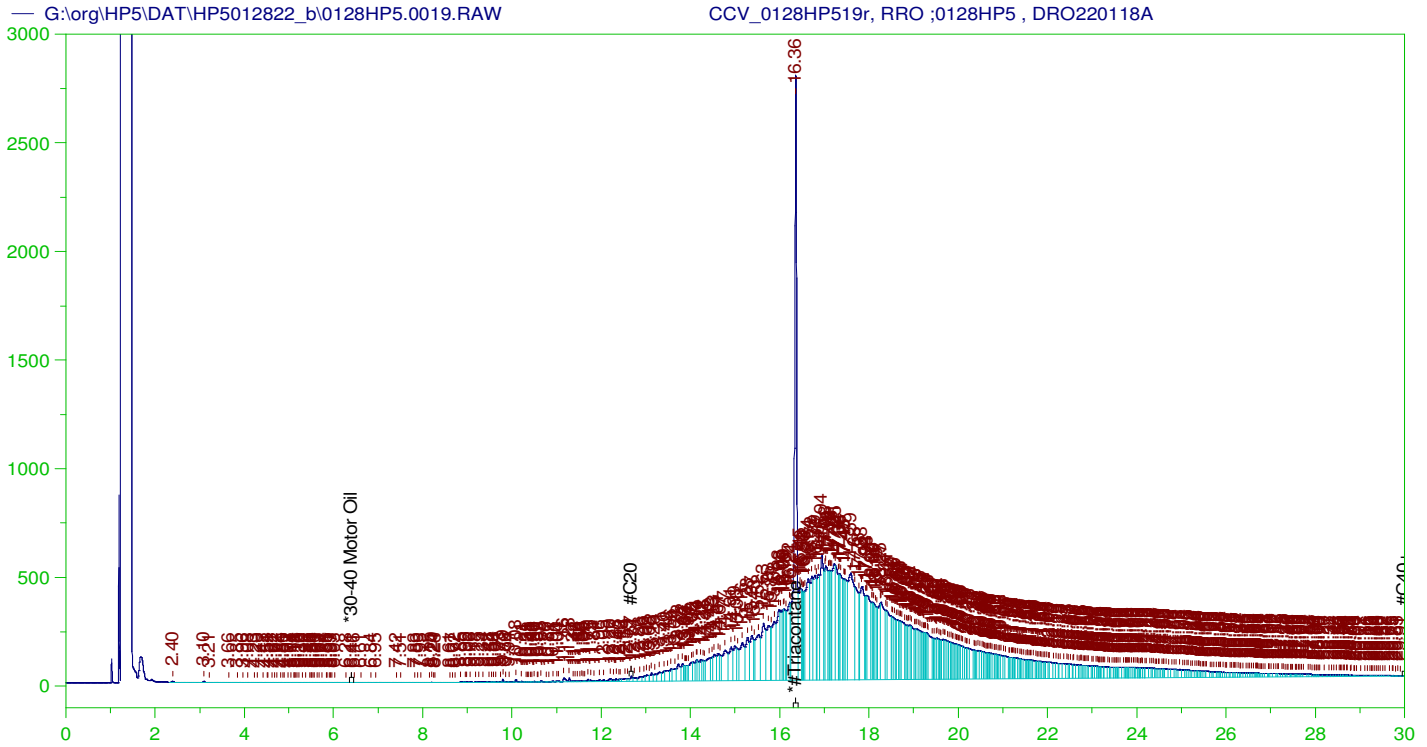
Sample Name: B22011592-006DMS-RRO ;0128HP5 ,
Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0017.RAW
Date & Time Acquired: 1/28/2022 10:17:37 PM
Method File: G:\Org\HP5\Methods\DS_ORO-BD-L%.MET
Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

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	-

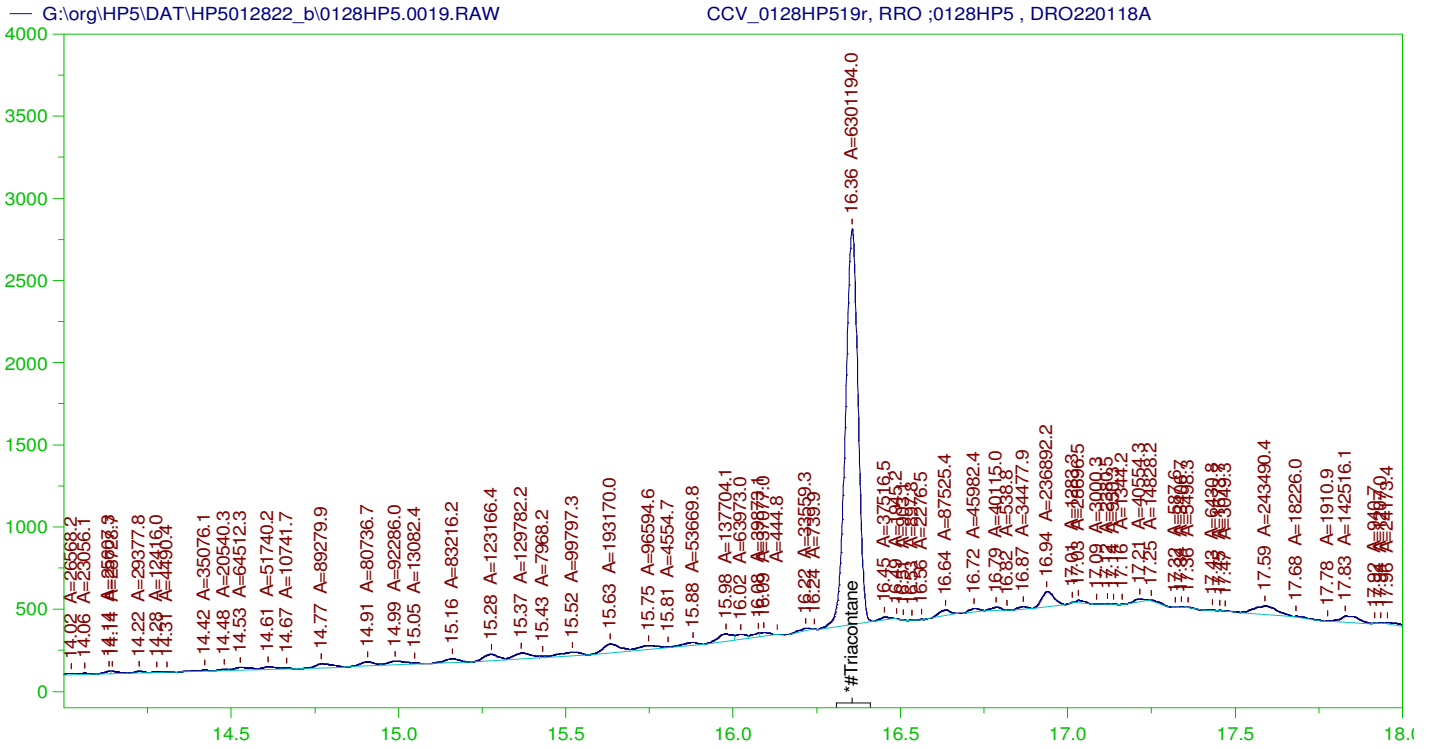
RRO TEH(Oil Range) Area:1.265534E+08 RRO TEH(Oil Range) AMOUNT: 4789.235

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

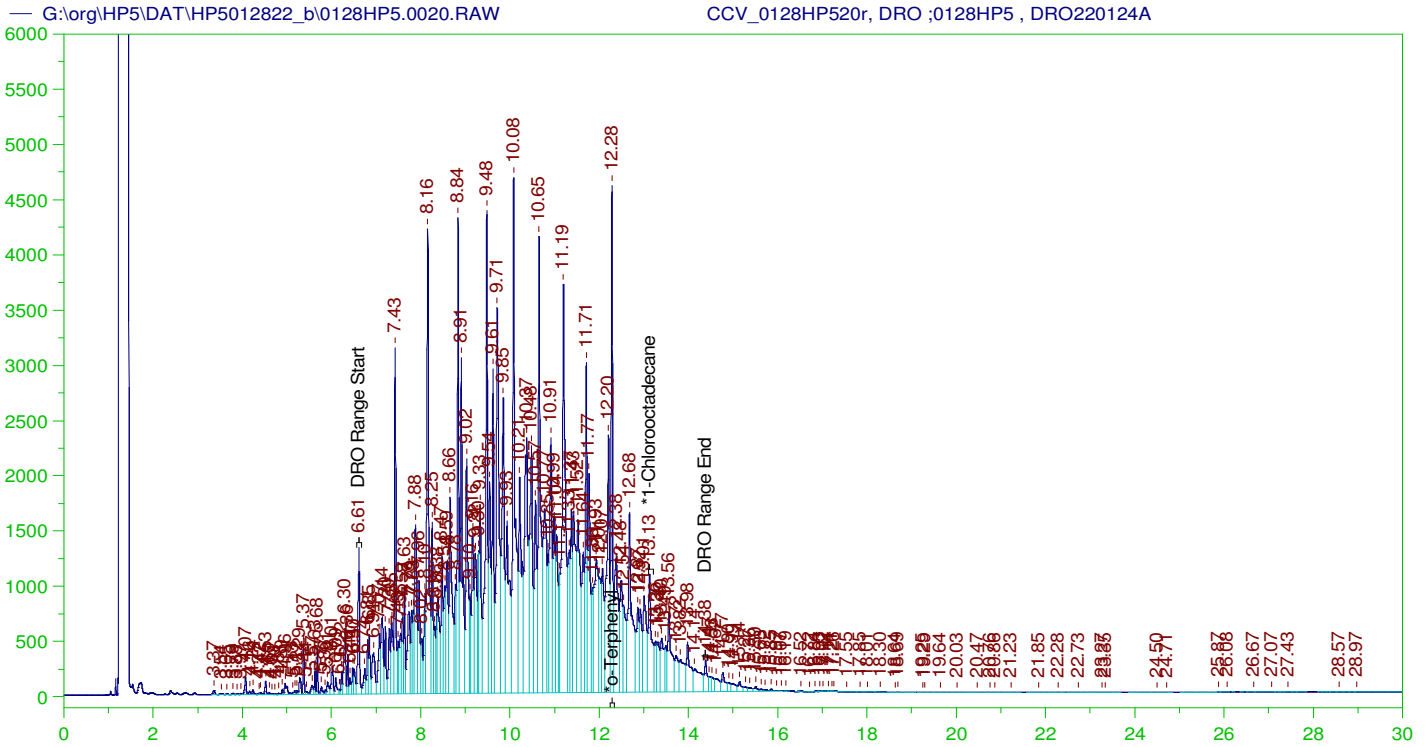
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.355	500.	212.619	42.52	-

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

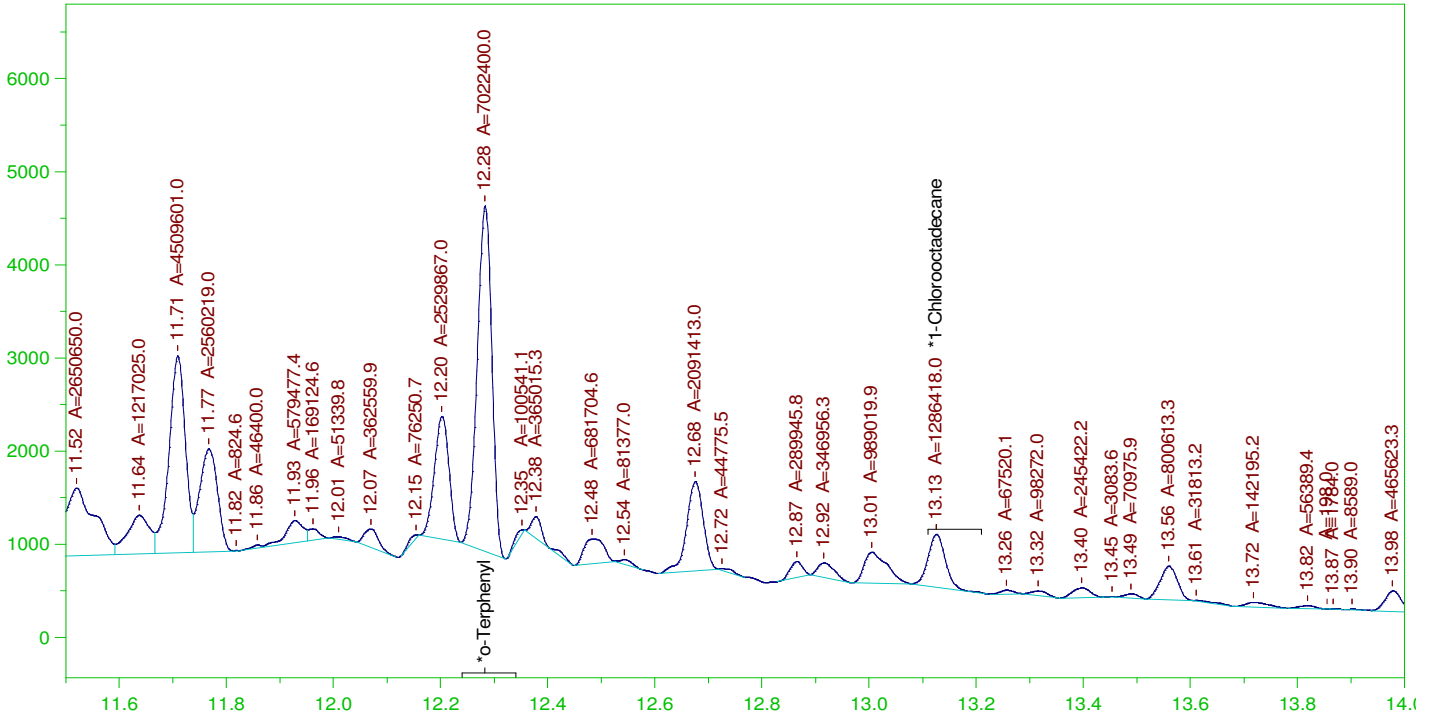
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5012822_b\0128HP5.0020.RAW

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

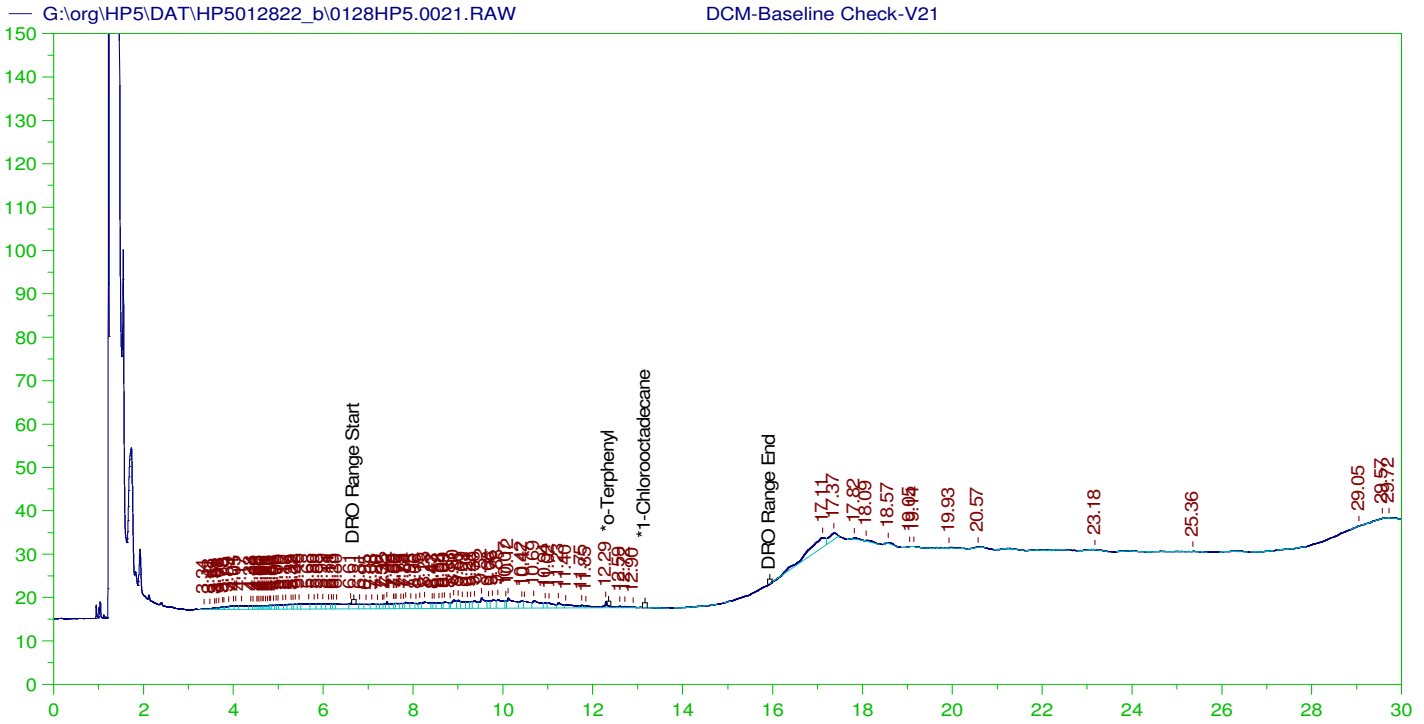
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.283	200.	190.527	95.26
*1-Chlorooctadecane	13.126	200.	34.902	17.45

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

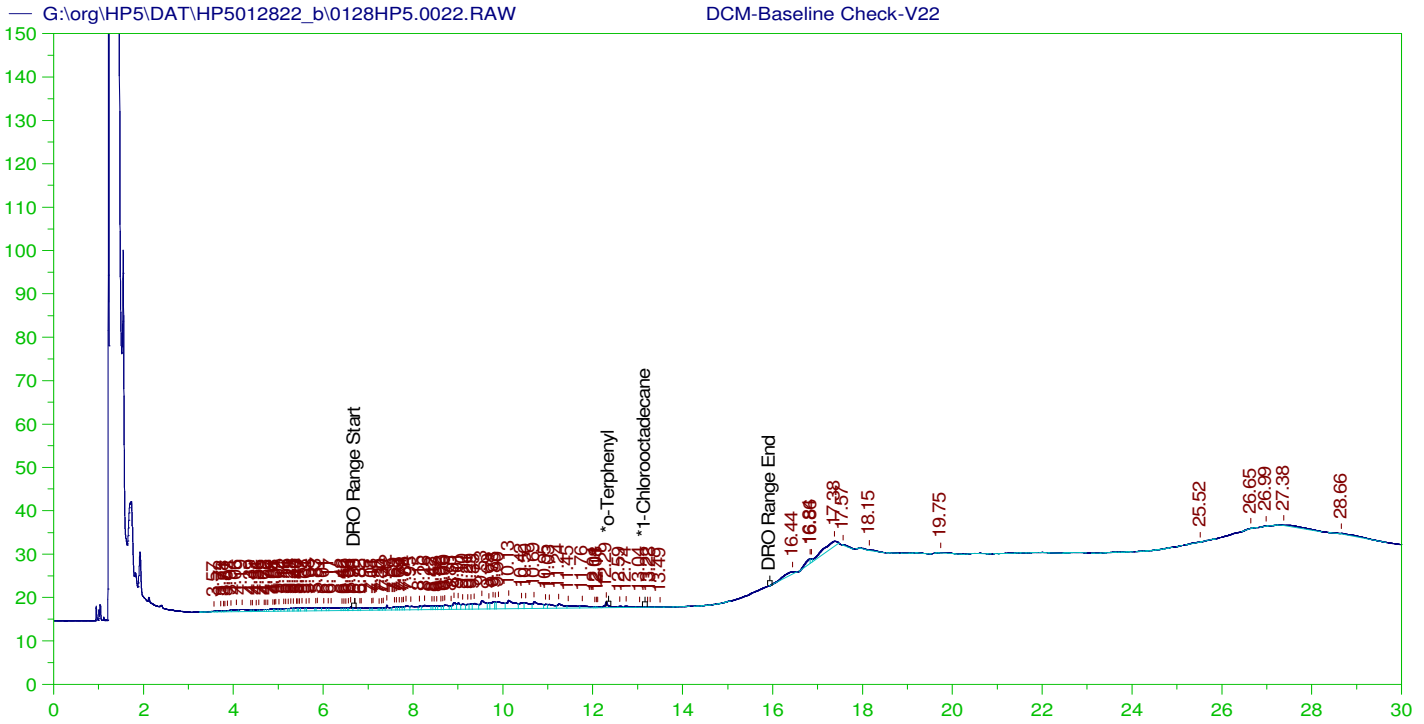
Sample Name: DCM-Baseline Check-V21
 Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0021.RAW
 Date & Time Acquired: 1/29/2022 1:08:38 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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.	.	-

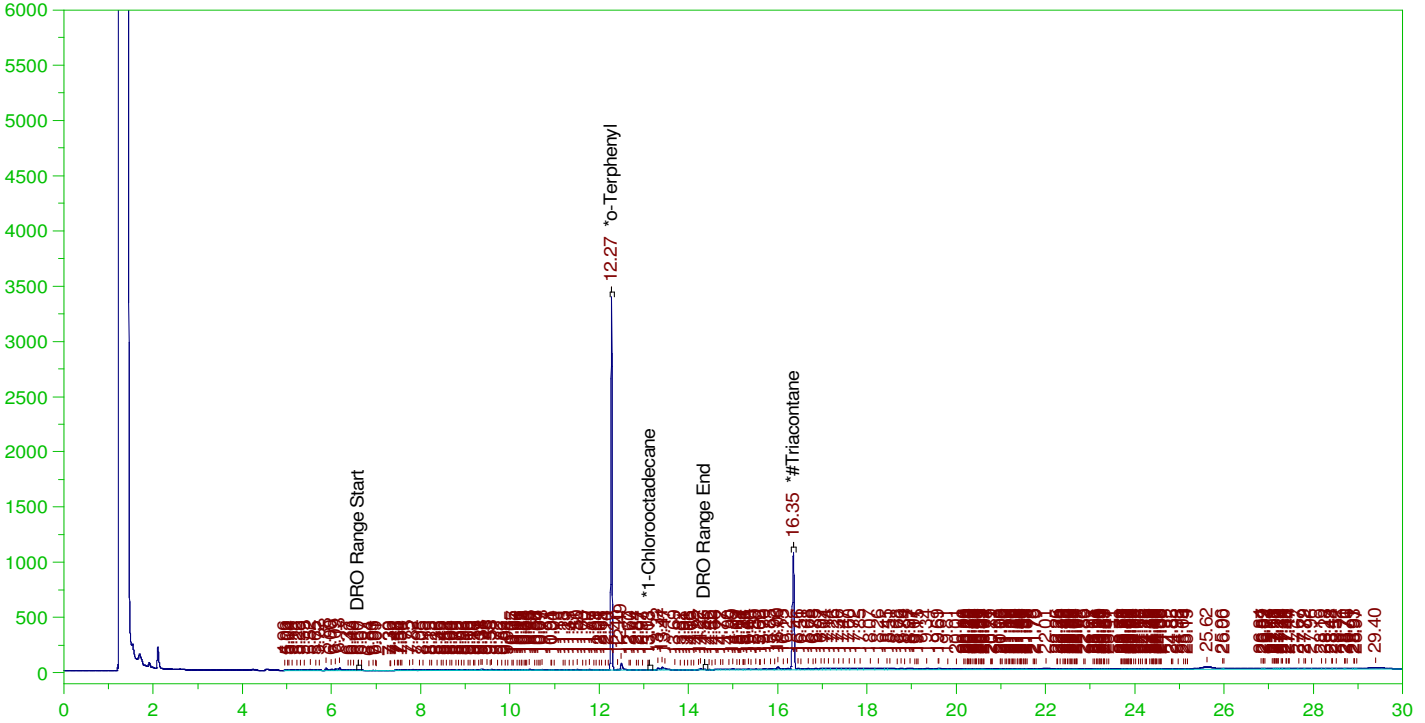
DRO Area:319885.8 DRO Amount: 9.789817
 TEH Area:512712.5 TEH Amount: 15.6911

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	-

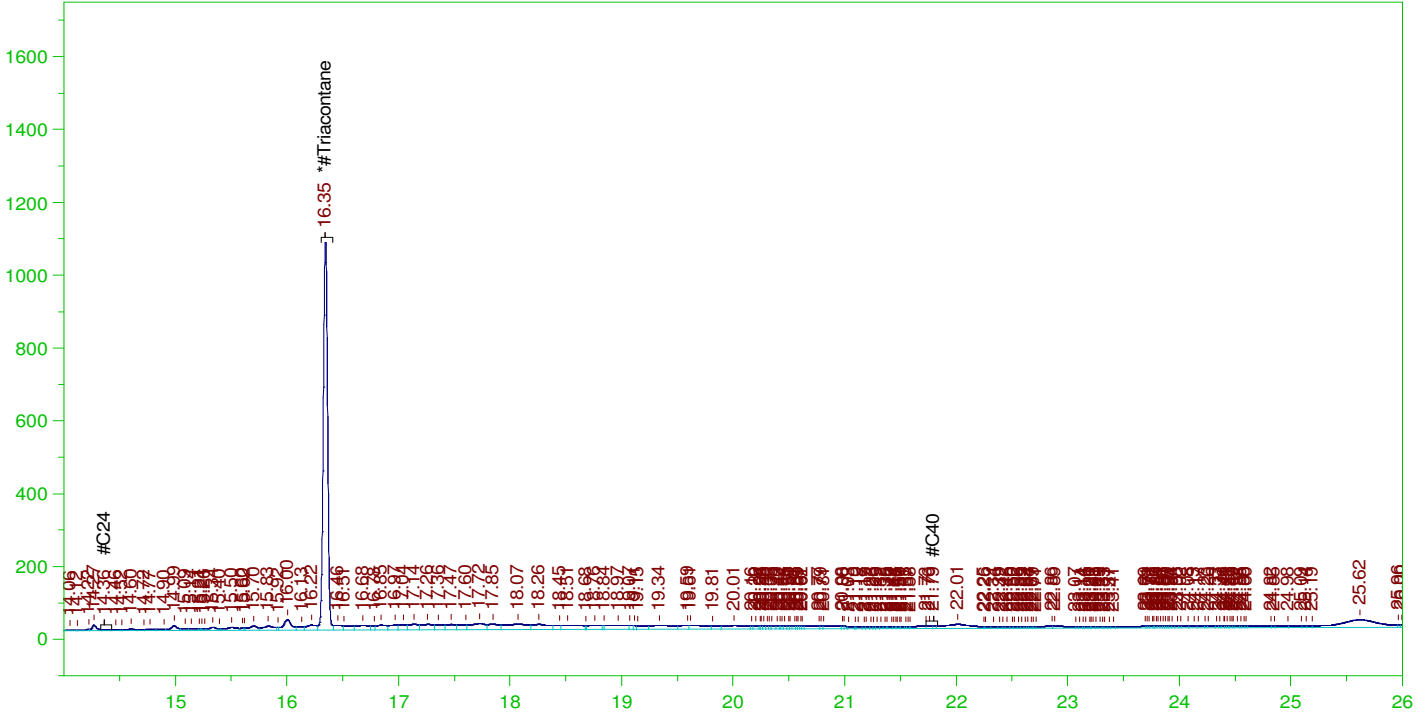
DRO Area:1337563 DRO Amount: 4.264052E-02
TEH Area:9378989 TEH Amount: 0.2989953

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

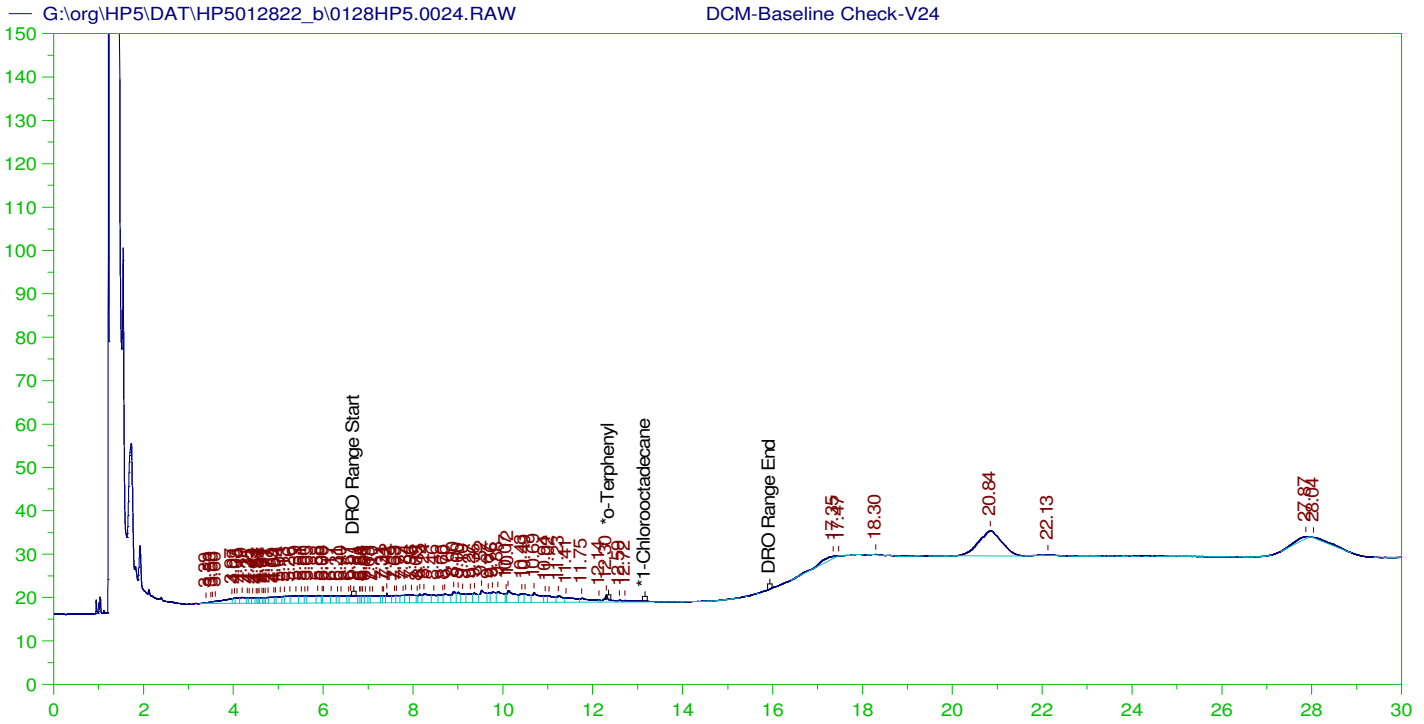
Sample Name: B22011717-001D ;0128HP5 , \$HC-8015-DRO-W,
 Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0023.RAW
 Date & Time Acquired: 1/29/2022 2:34:13 AM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-JD-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO2201111Jd-C24-T.CAL
 Sample Weight: 960 Dilution: 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



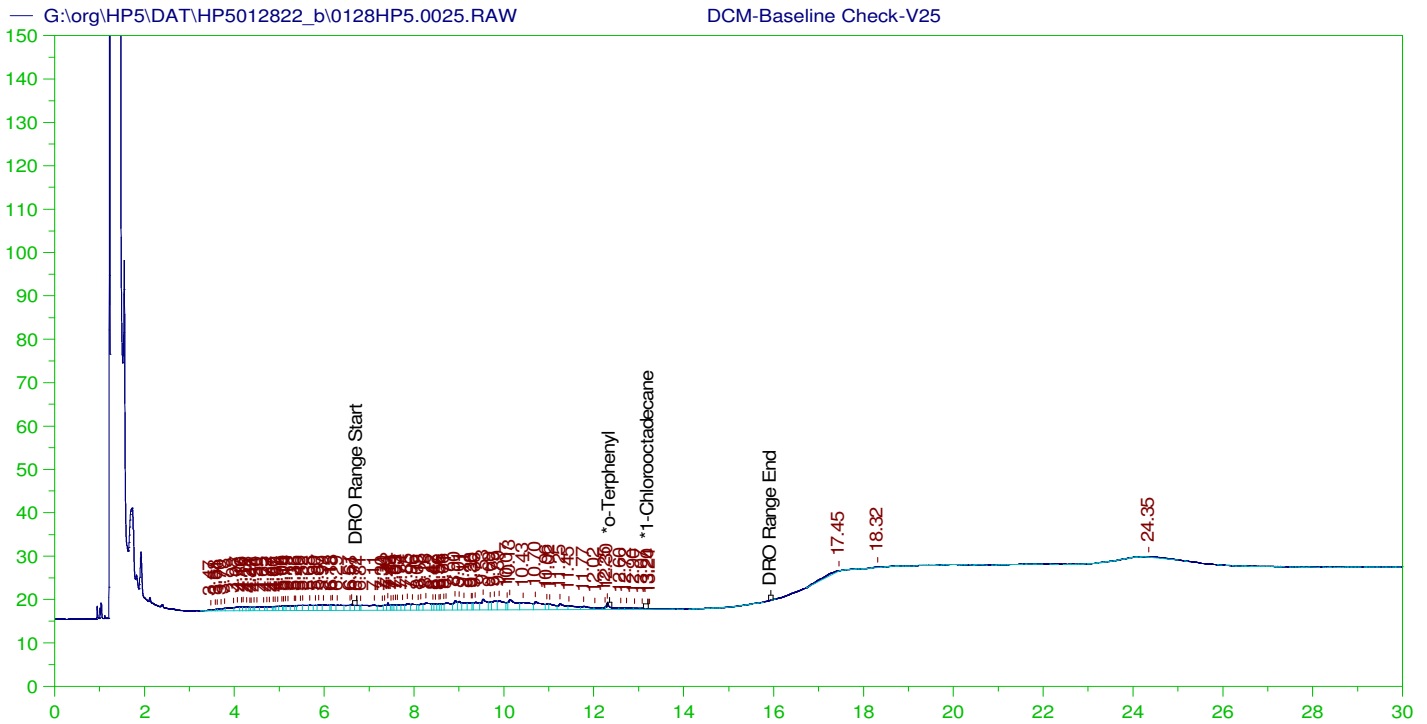
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

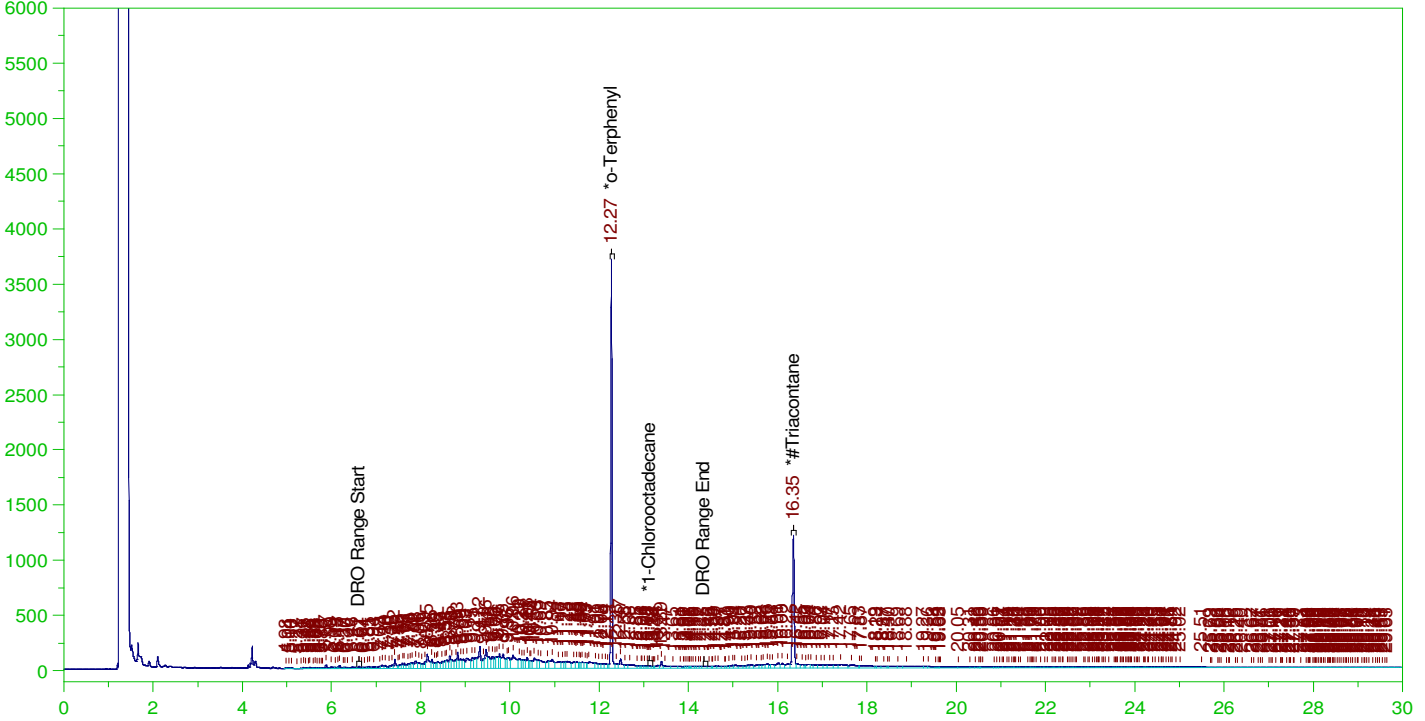
DRO Area:470091 DRO Amount: 14.38671
 TEH Area:683648.4 TEH Amount: 20.92245

ERH2493 (Sump Adit3)

G:\org\HP5\DAT\HP5012822_b\0128HP5.0026.RAW

Batch ID: 163307

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

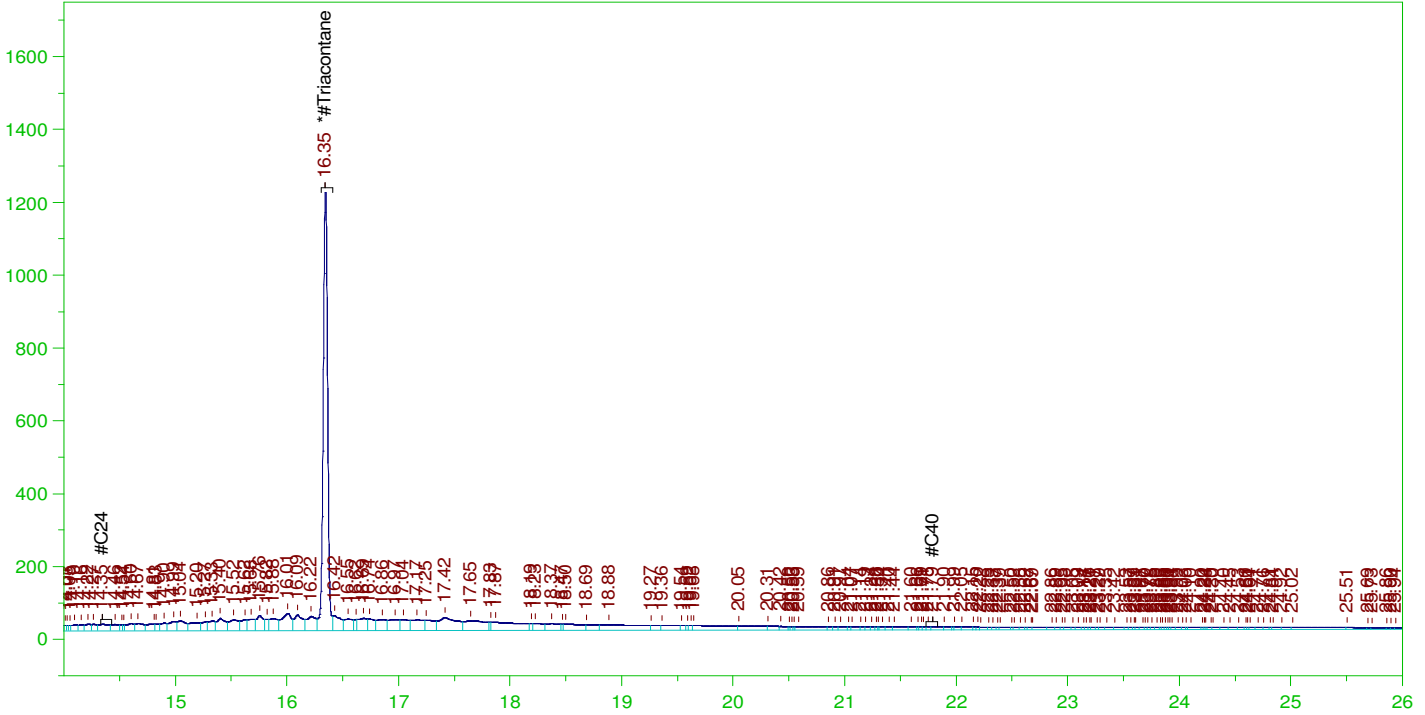
TEH Area:3.334713E+07 TEH Amount: 0.971961

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

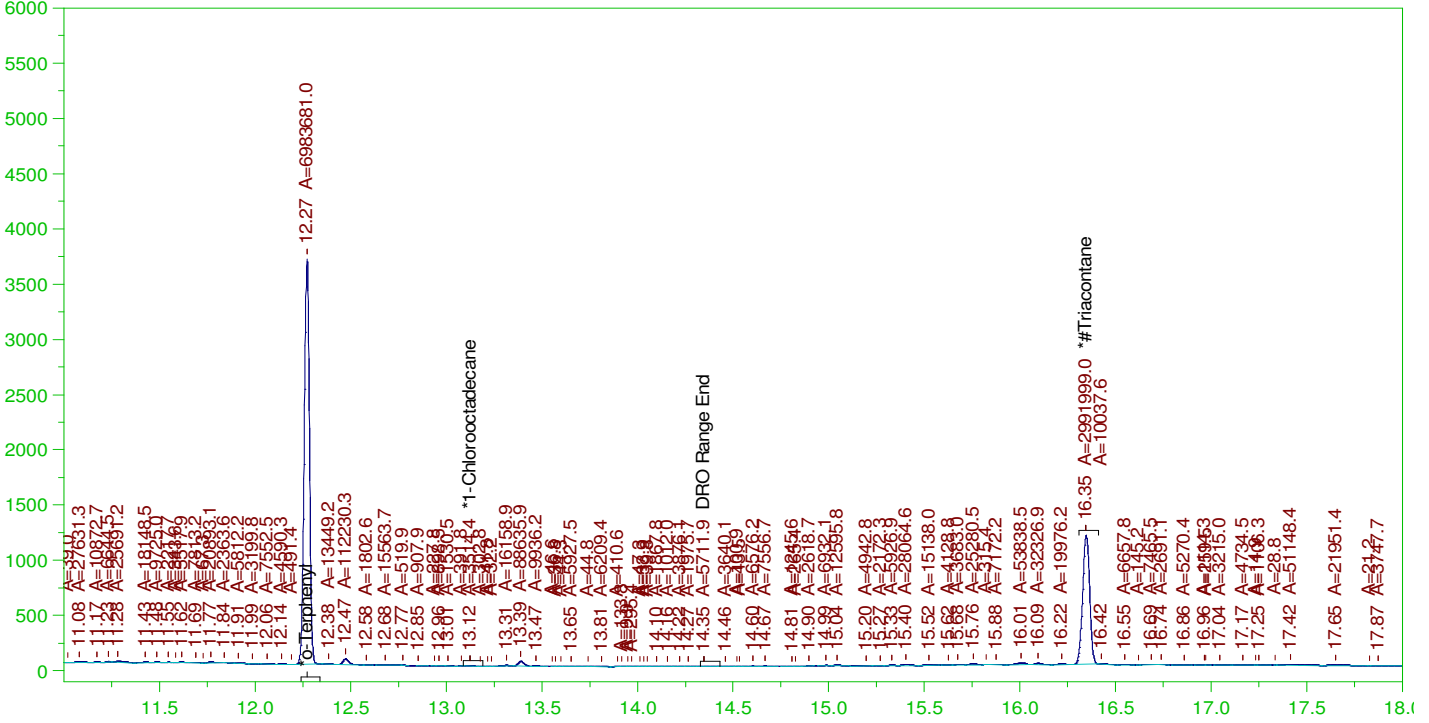
RRO Area:8192740 RRO AMOUNT: 0.2952788

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

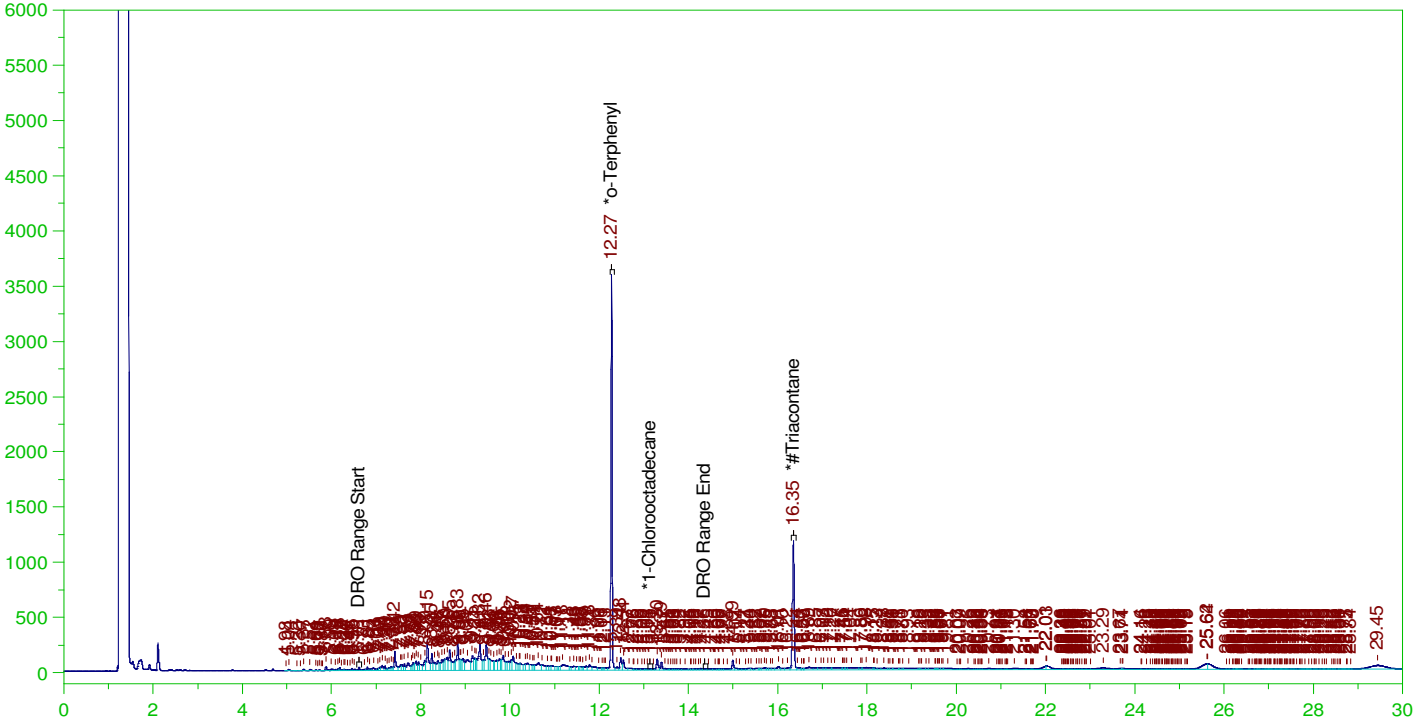
DRO Area:7607669 DRO Amount: 0.2217389
TEH Area:9206389 TEH Amount: 0.2683364

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	-

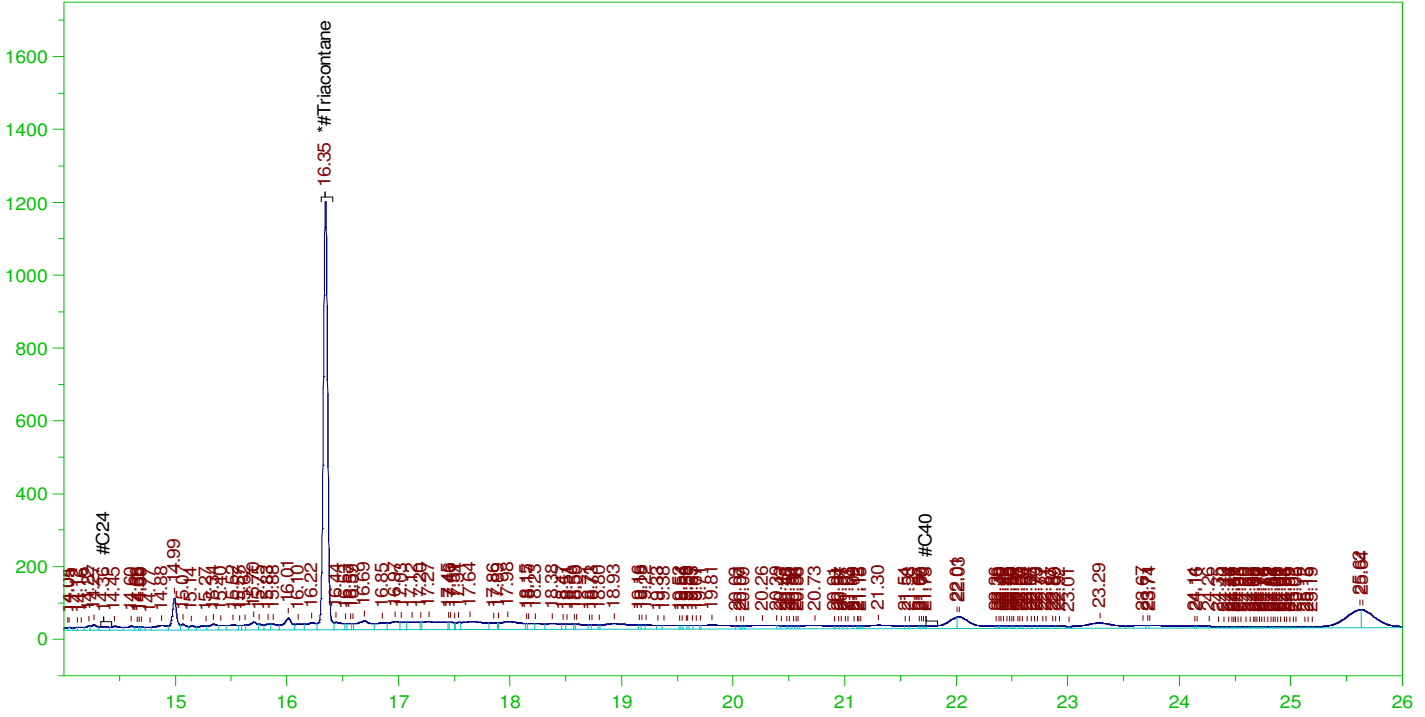
DRO Area:2.257064E+07 DRO Amount: 0.6907541
TEH Area:3.216349E+07 TEH Amount: 0.9843346

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

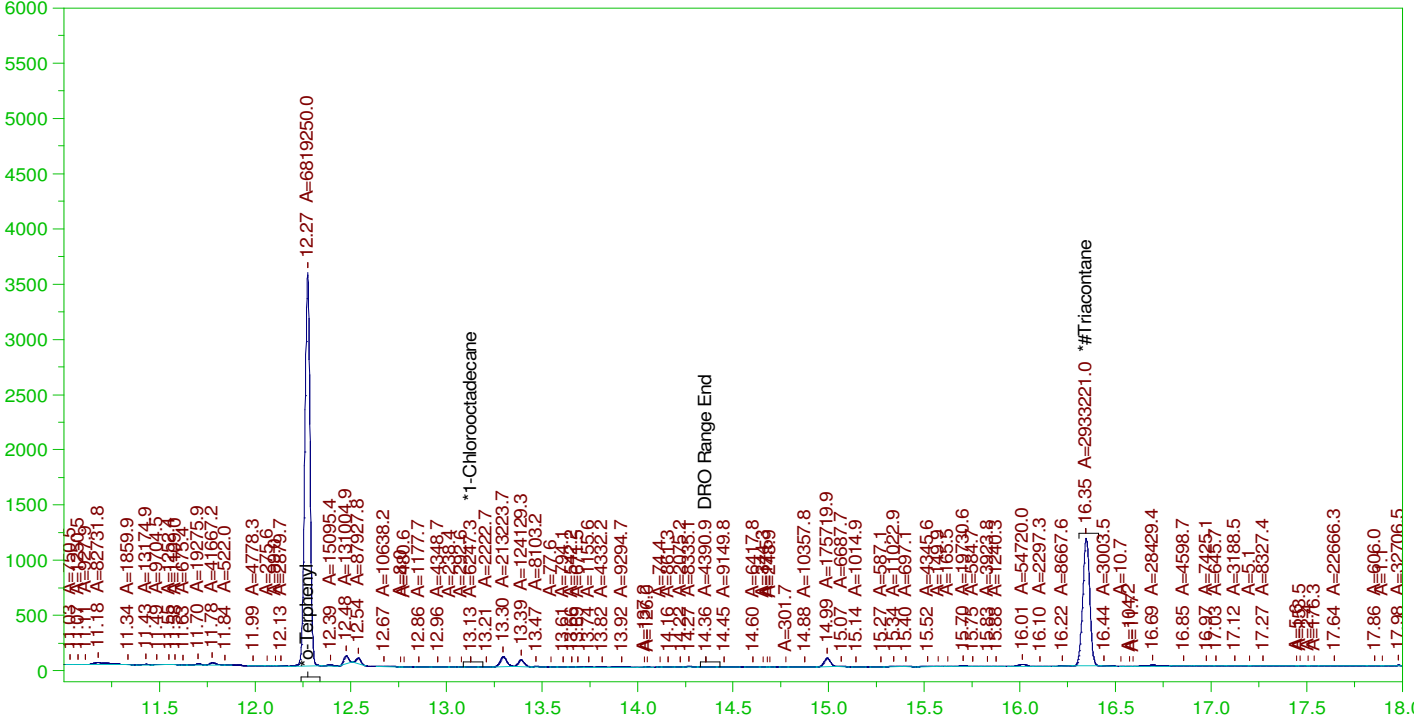
RRO Area:5821687 RRO AMOUNT: 0.2203135

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_DRO2201111Jd-C24-T.CAL
Sample Weight: 1000 Dilution: 1 S.A.: 1

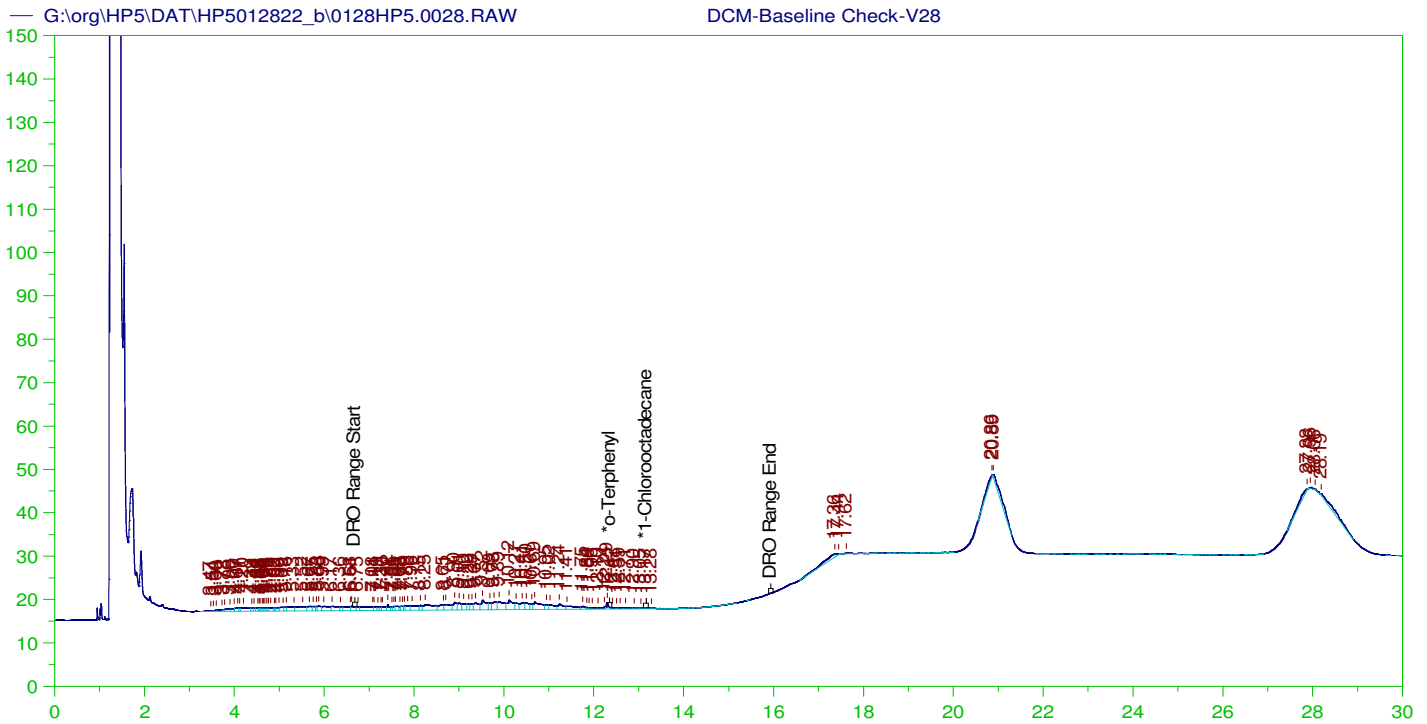
Mean RF for TEH: 32675.36

Rt range for Diesel Range Organics: 6.57 to 14.43

SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.275	.2	.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

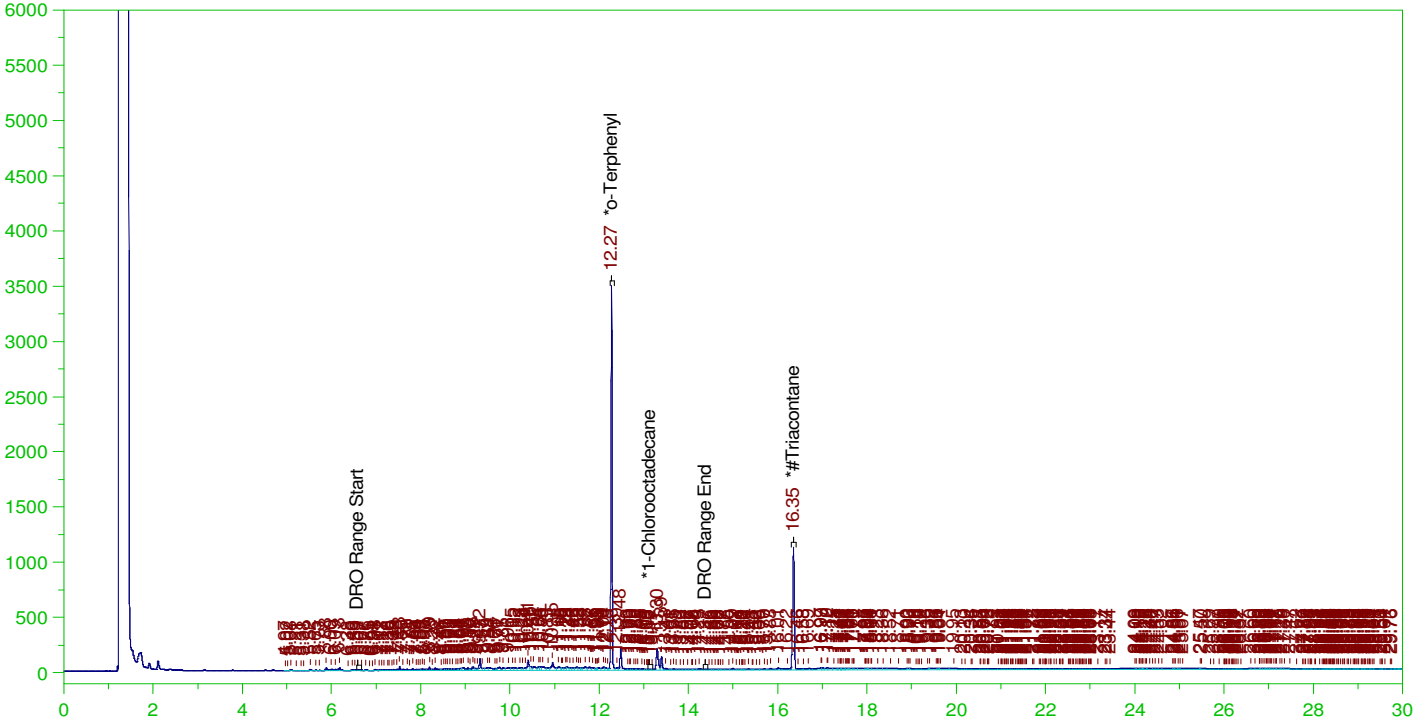
DRO Area:380973.7 DRO Amount: 11.65936
 TEH Area:646956.8 TEH Amount: 19.79953

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

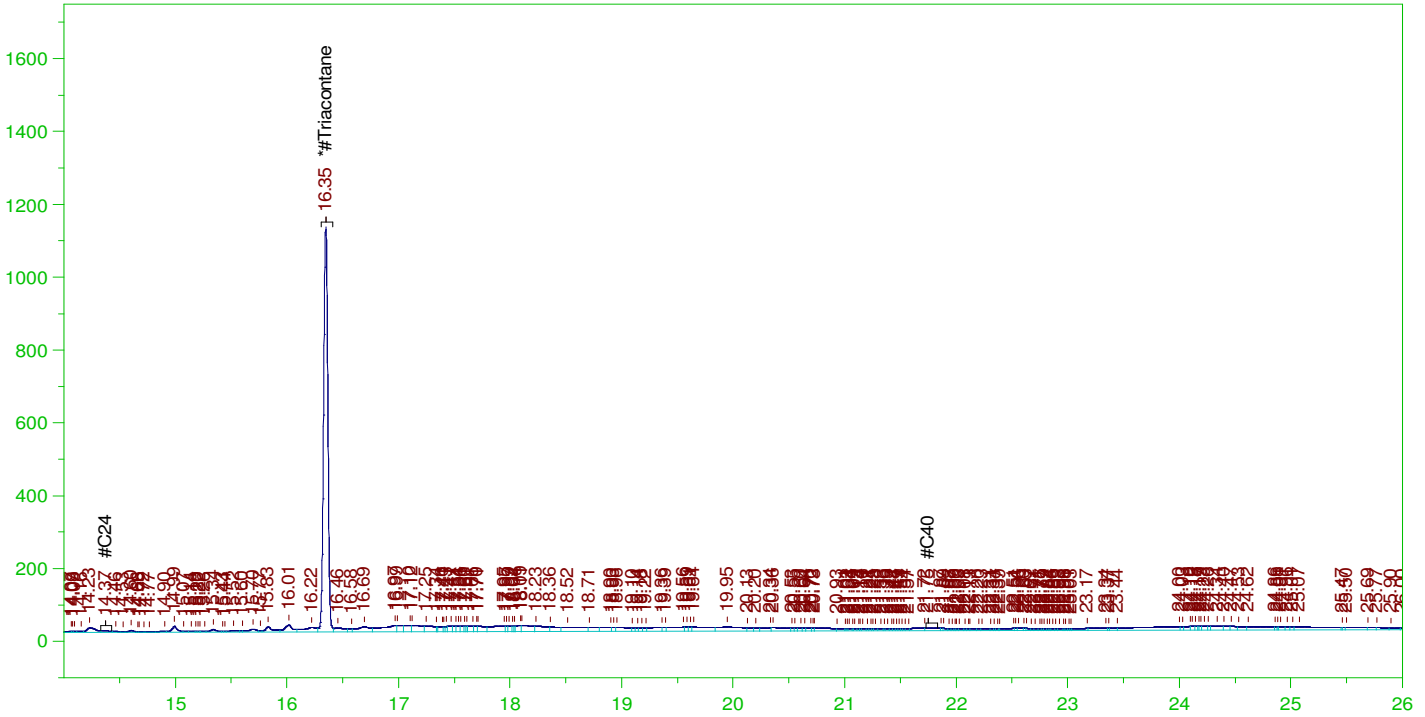
TEH Area:1.511738E+07 TEH Amount: 0.453582

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

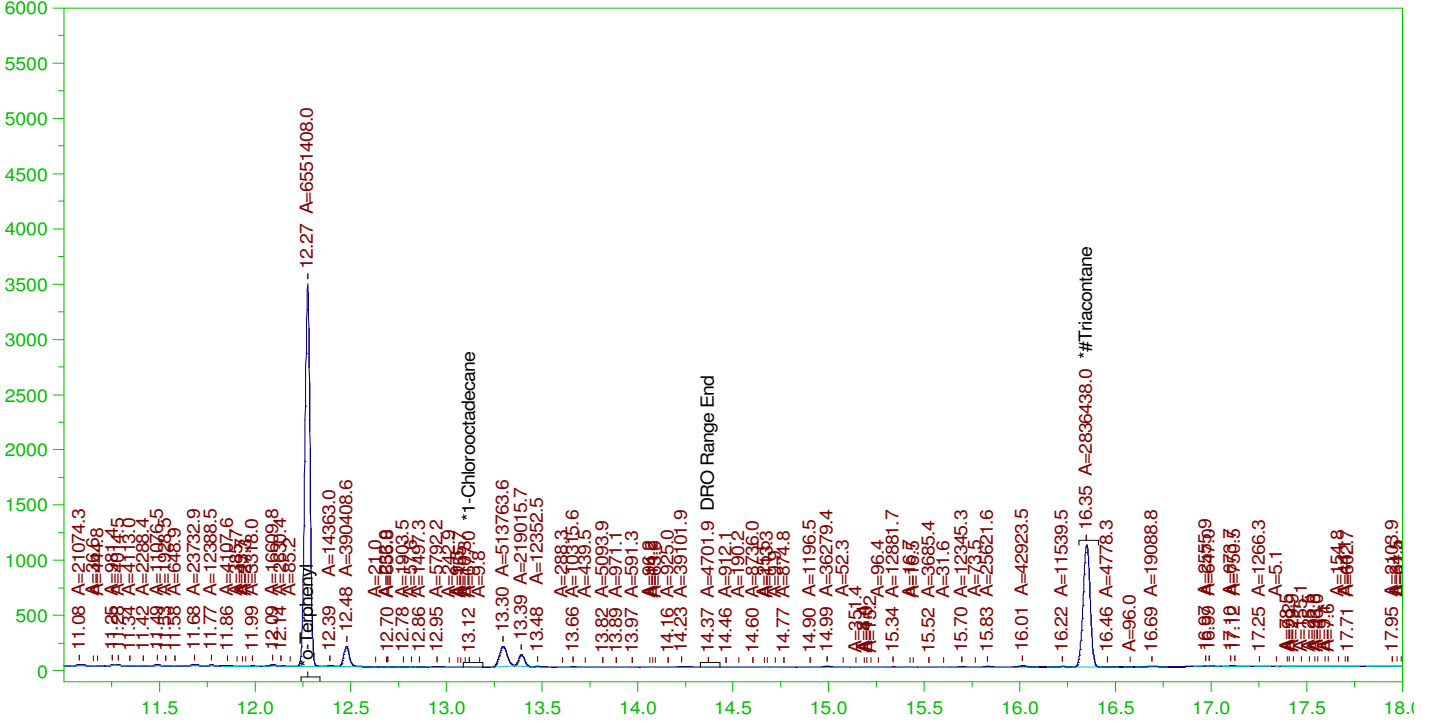
RRO Area:4082230 RRO AMOUNT: 0.1514571

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	-

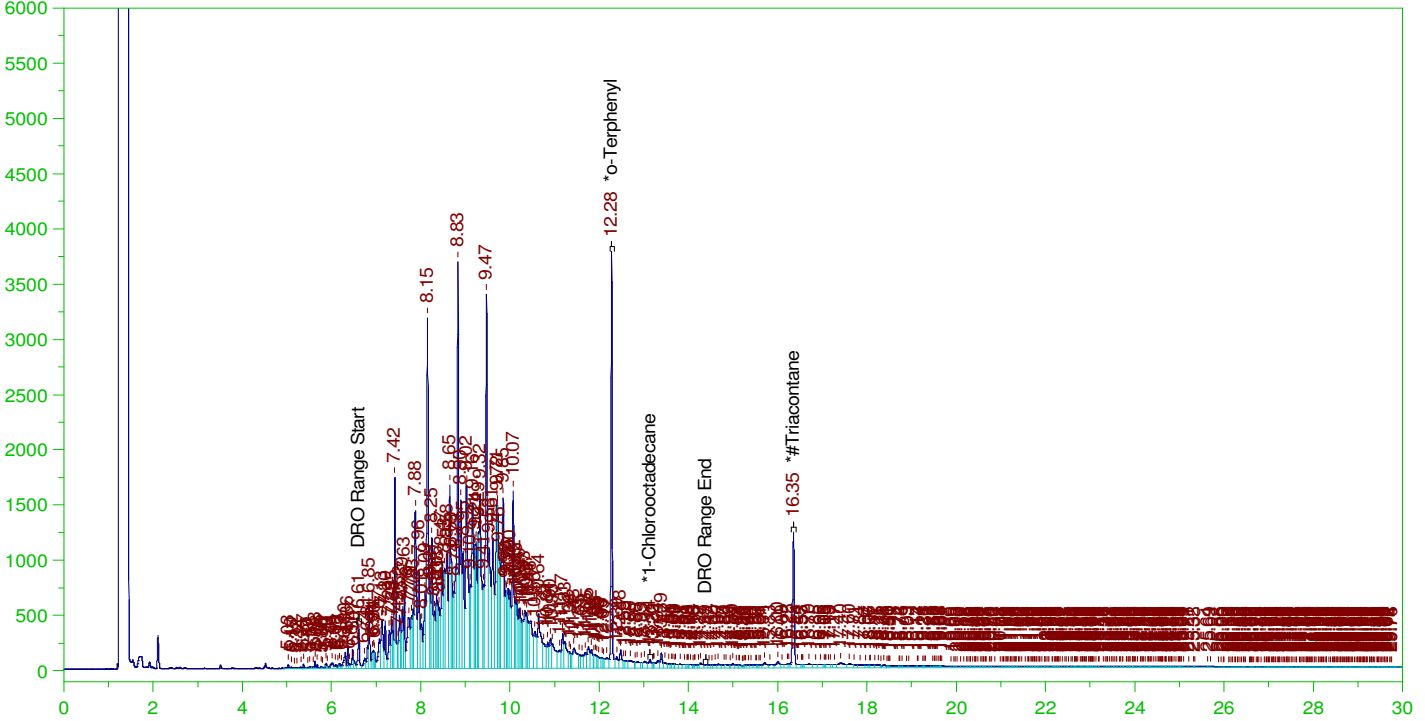
DRO Area:2949595 DRO Amount: 0.0884997
TEH Area:3609555 TEH Amount: 0.1083012

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	-

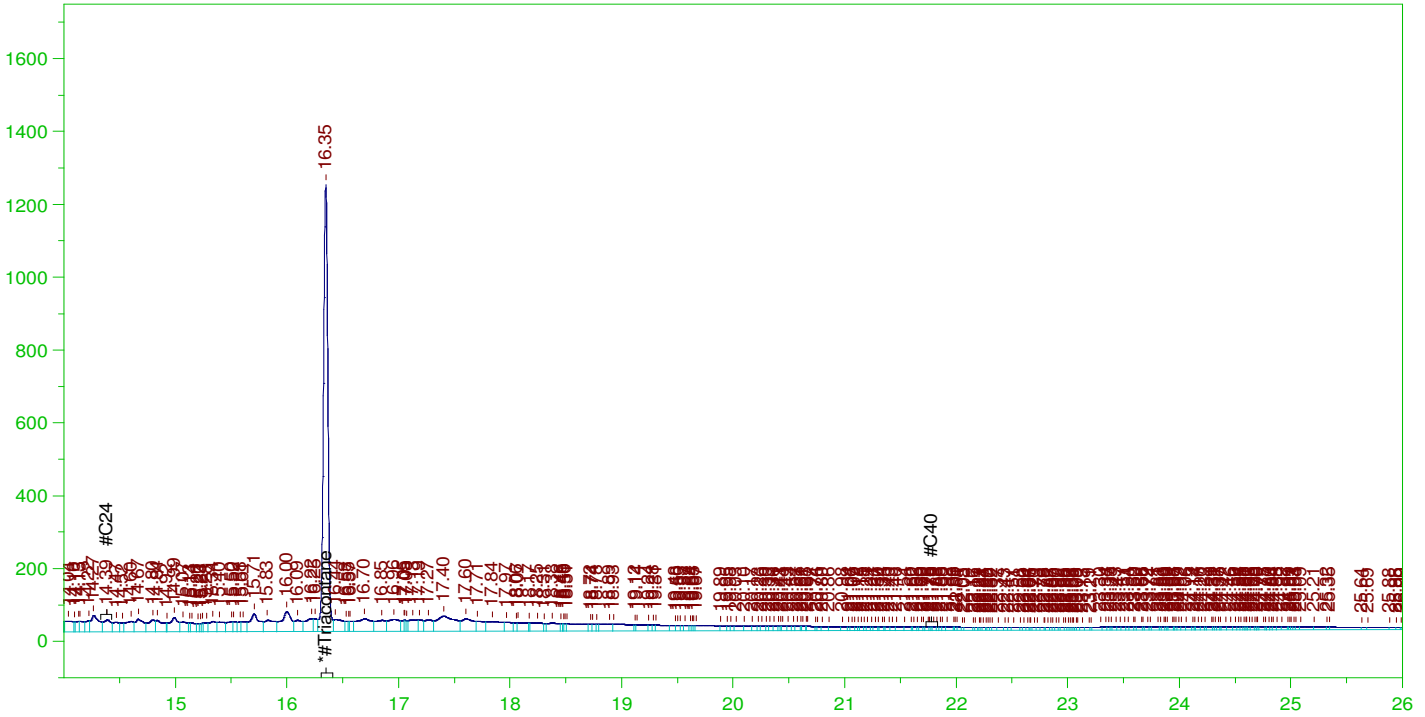
DRO Area:1.84513E+08 DRO Amount: 5.536131
TEH Area:1.985812E+08 TEH Amount: 5.958234

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 -

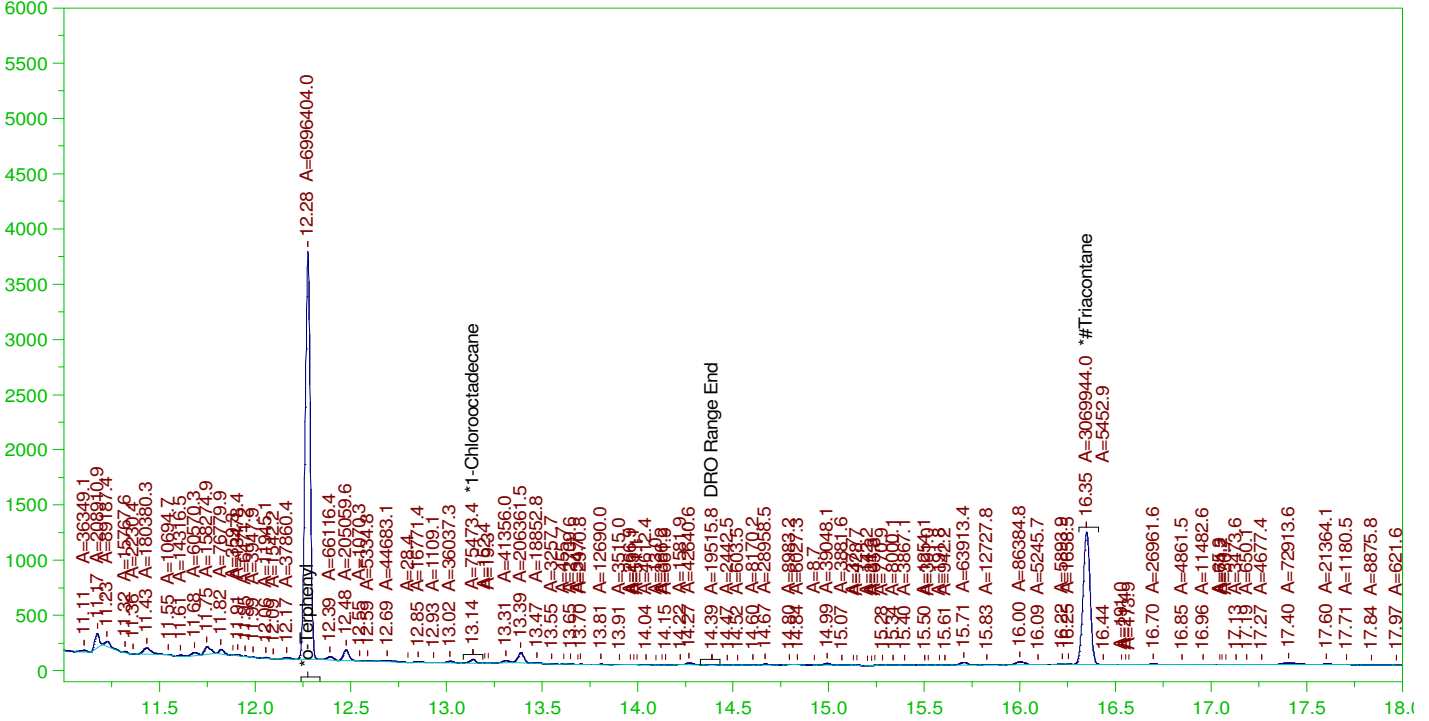
RRO Area:9348668 RRO AMOUNT: 0.3468502

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

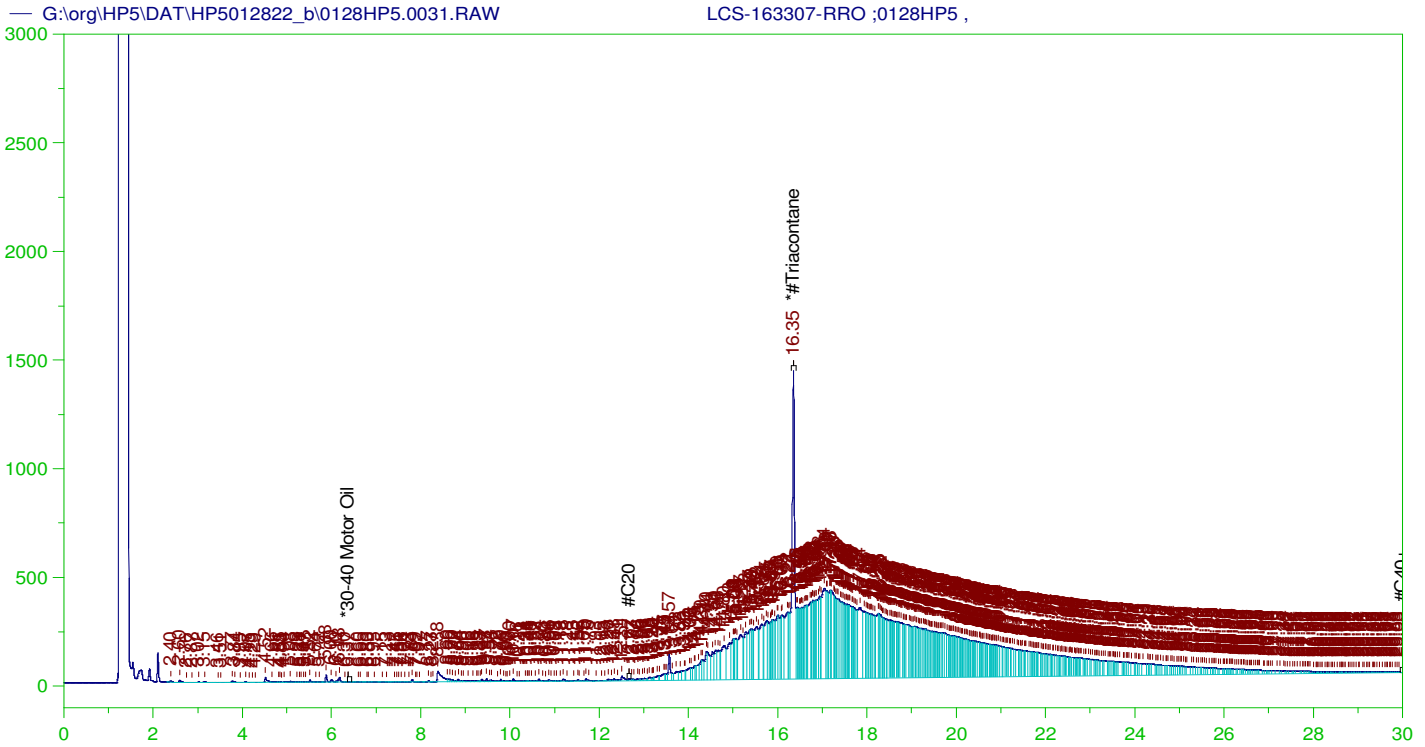
Mean RF for TEH: 32675.36

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

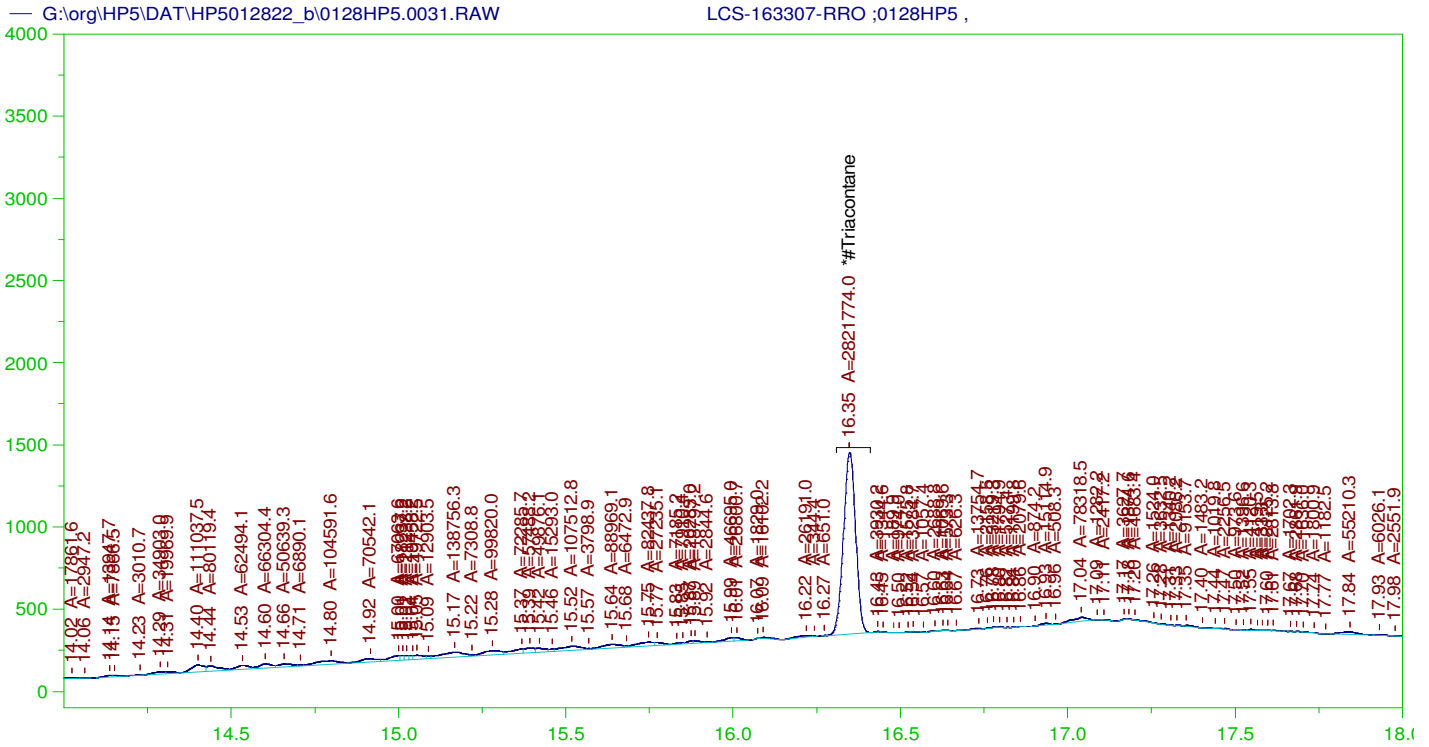
Sample Name: LCS-163307-RRO ;0128HP5 ,
 Raw File: G:\org\HP5\DAT\HP5012822_b\0128HP5.0031.RAW
 Date & Time Acquired: 1/29/2022 8:15:39 AM
 Method File: G:\Org\HP5\Methods\D3_ORO-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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



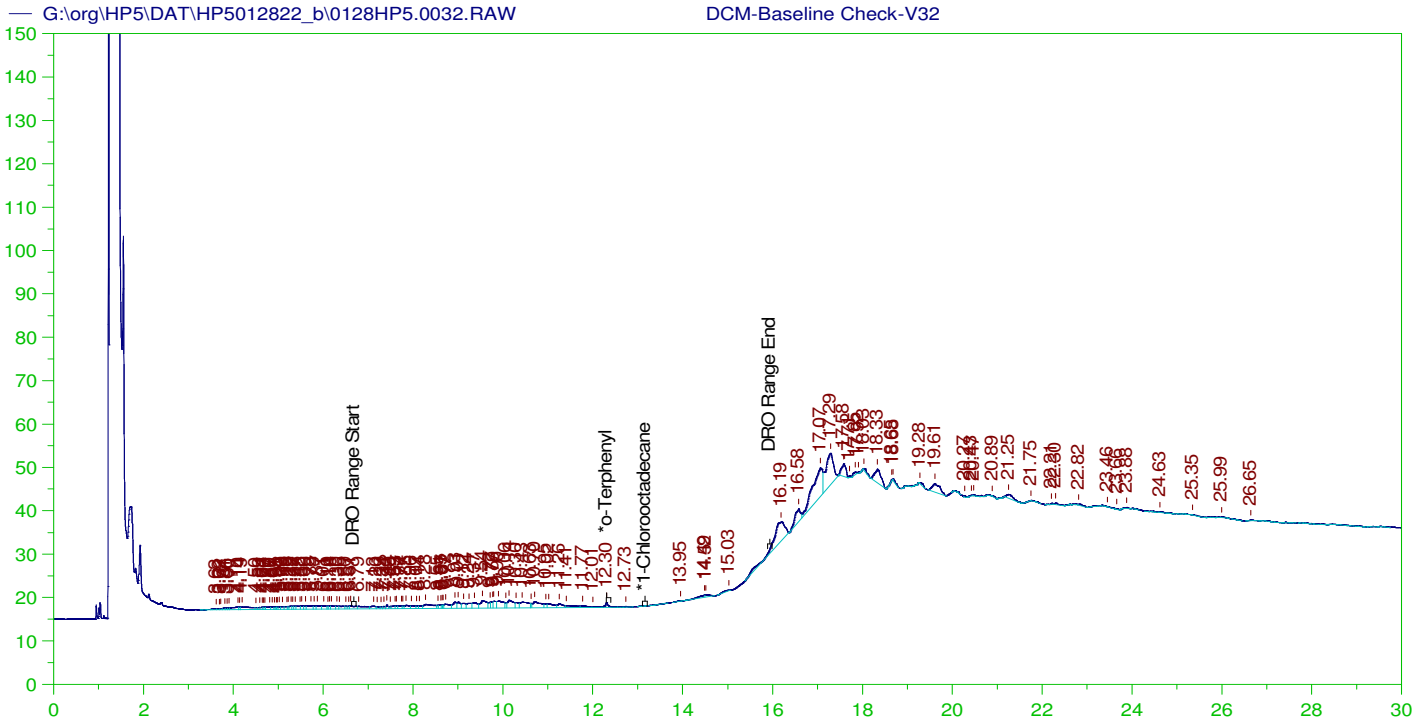
RESIDUAL RANGE ORGANICS CHROMATOGRAM

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

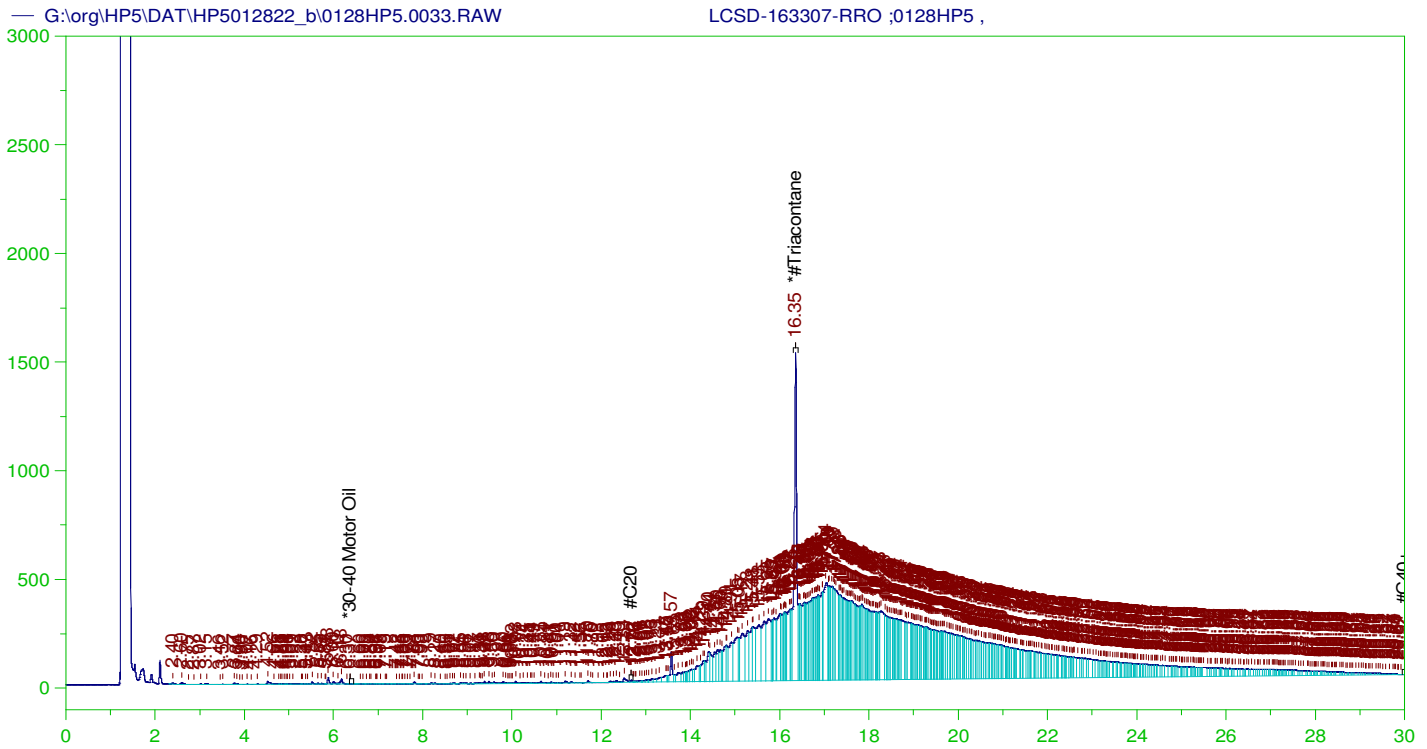
Sample Name: DCM-Baseline Check-V32
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 Date & Time Acquired: 1/29/2022 8:58:17 AM
 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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

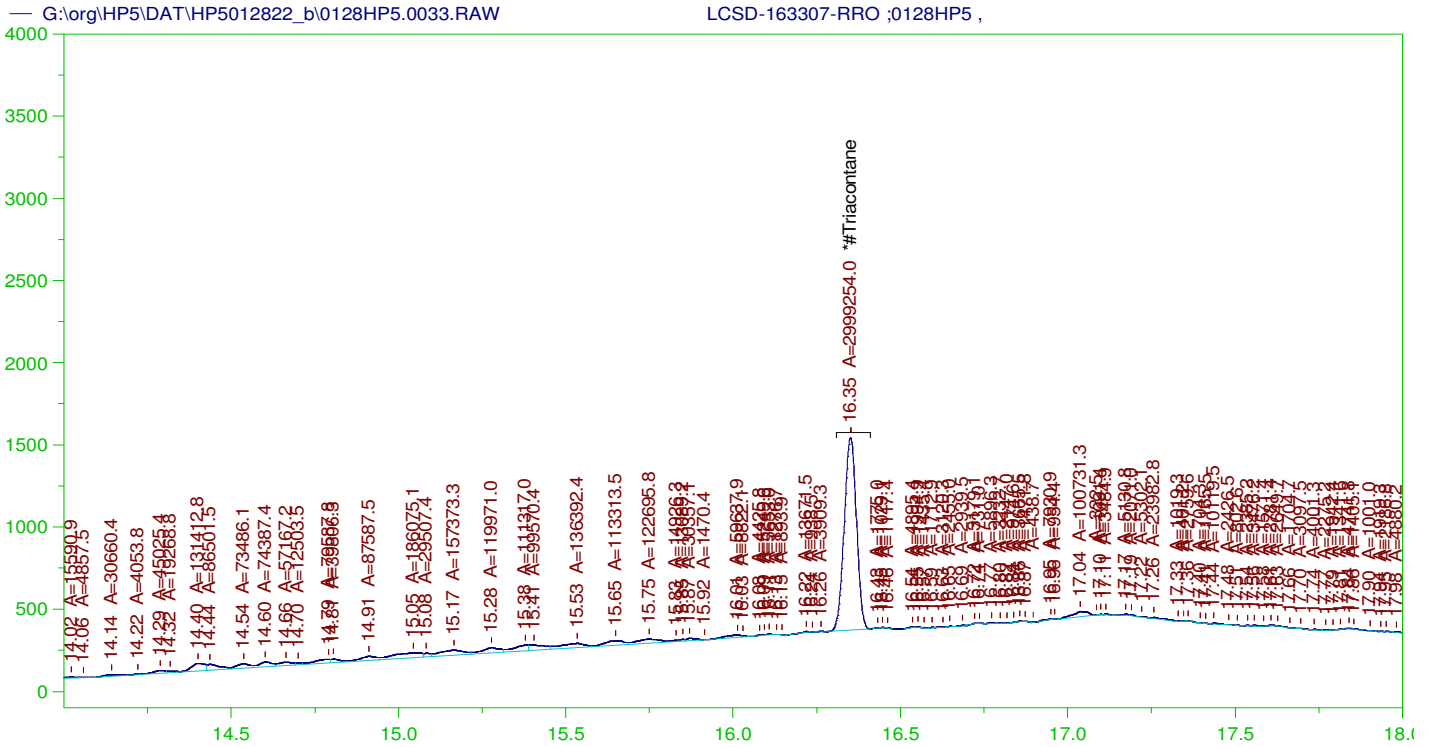
Sample Name: LCSD-163307-RRO ;0128HP5 ,
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 Date & Time Acquired: 1/29/2022 9:40:45 AM
 Method File: G:\Org\HP5\Methods\D3_ORO-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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



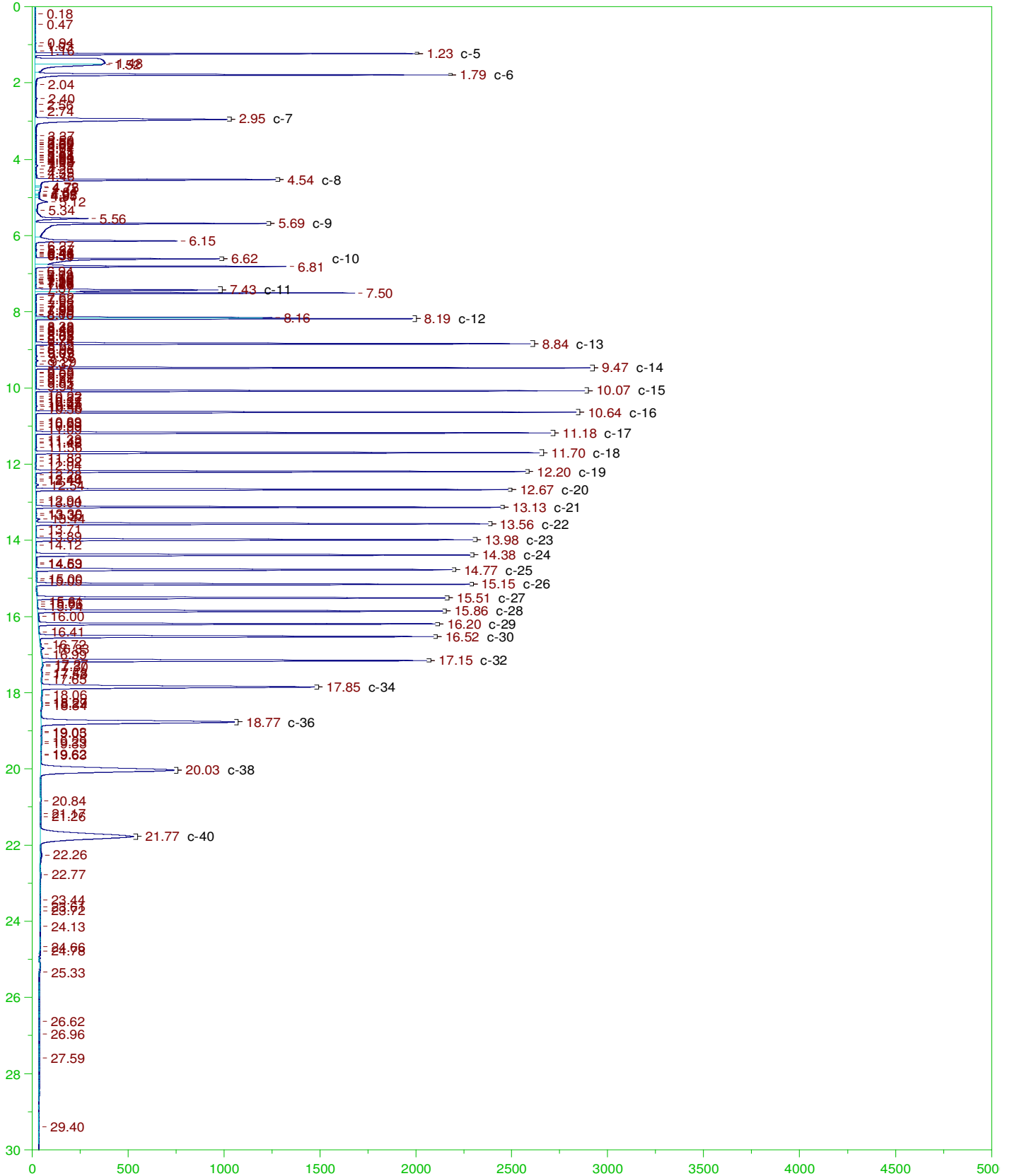
RESIDUAL RANGE ORGANICS CHROMATOGRAM

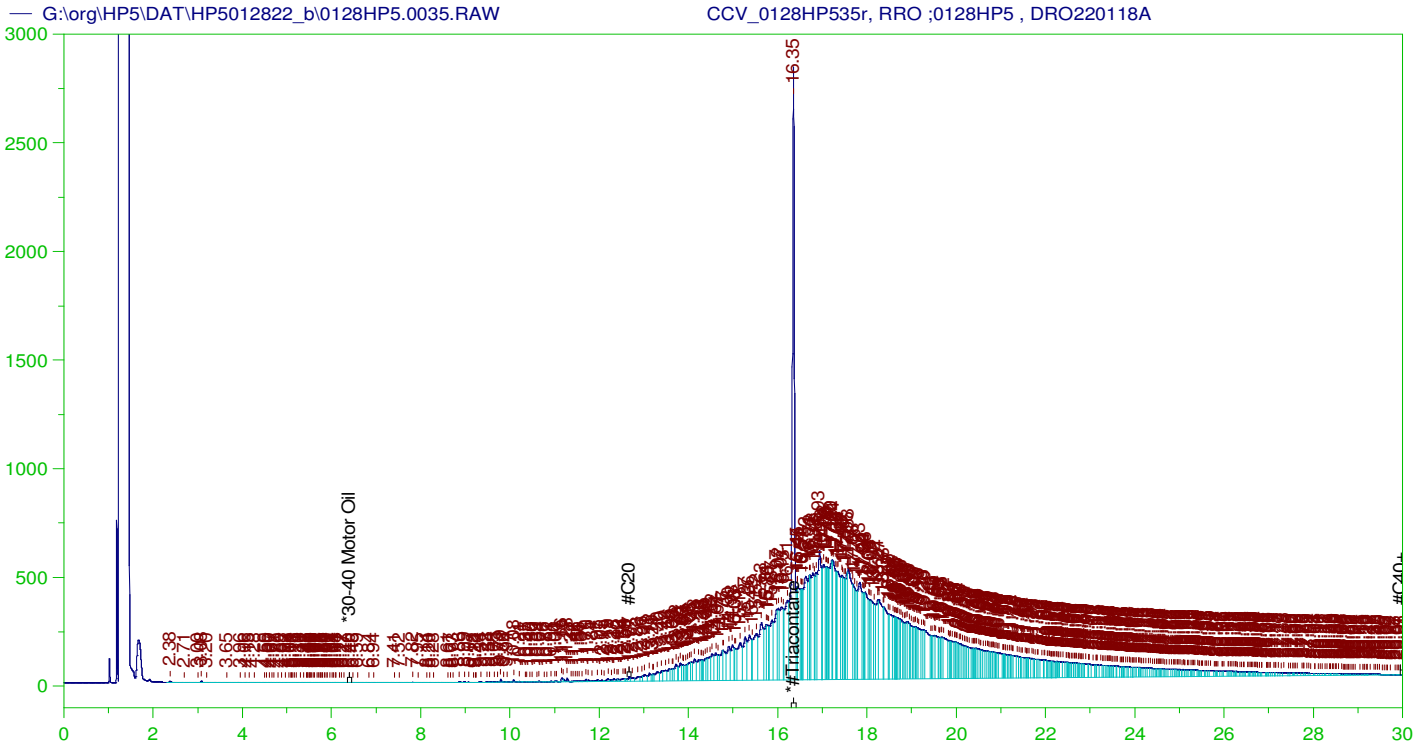
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 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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	-

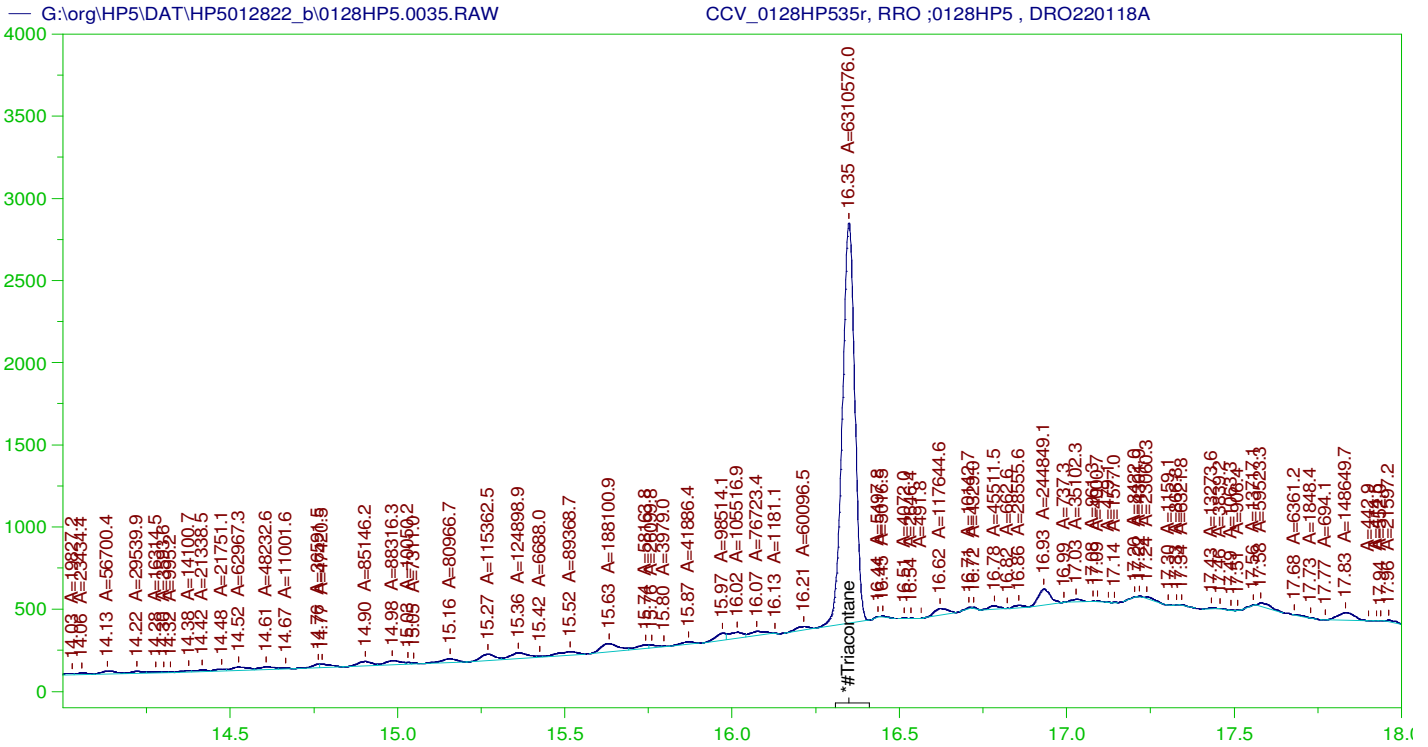
~~RRO~~ TEH(Oil Range) Area:1.305772E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4941.509

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

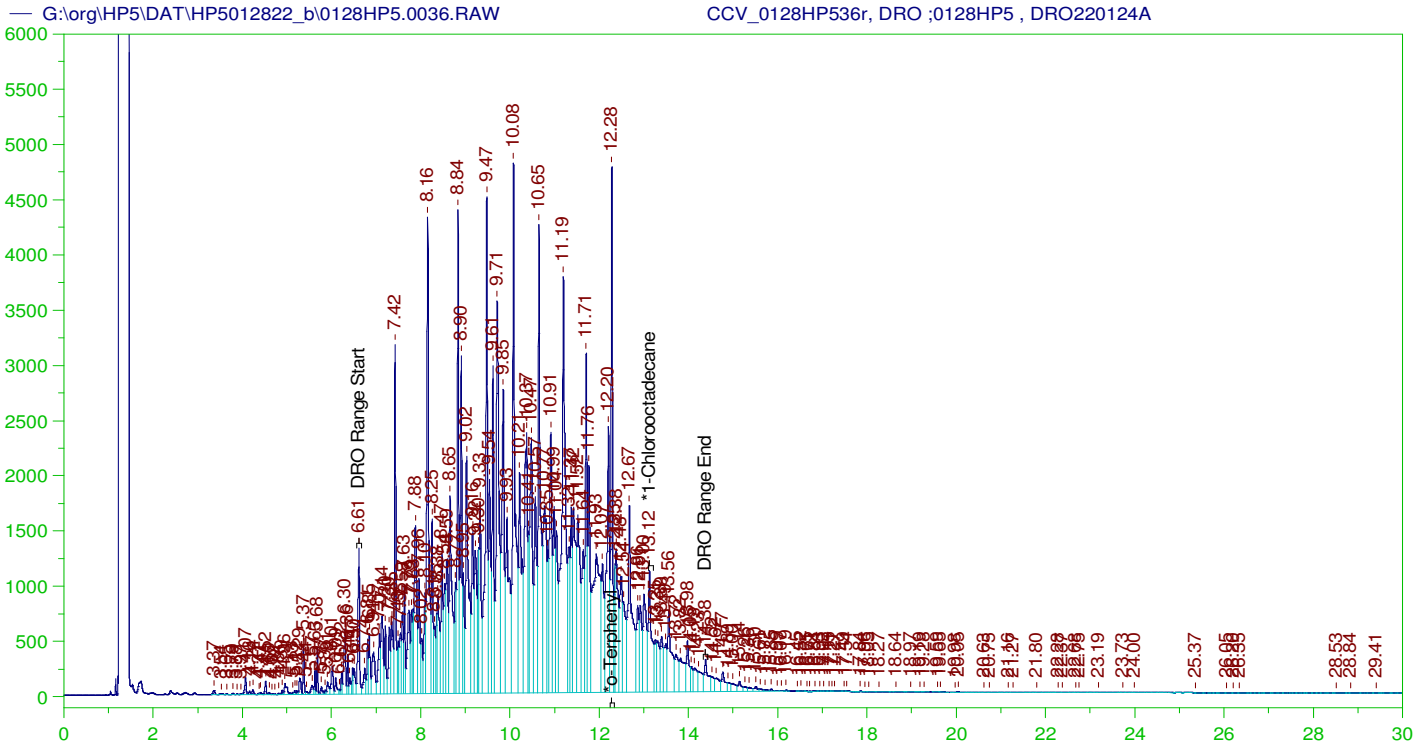
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.349	500.	212.935	42.59	-

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

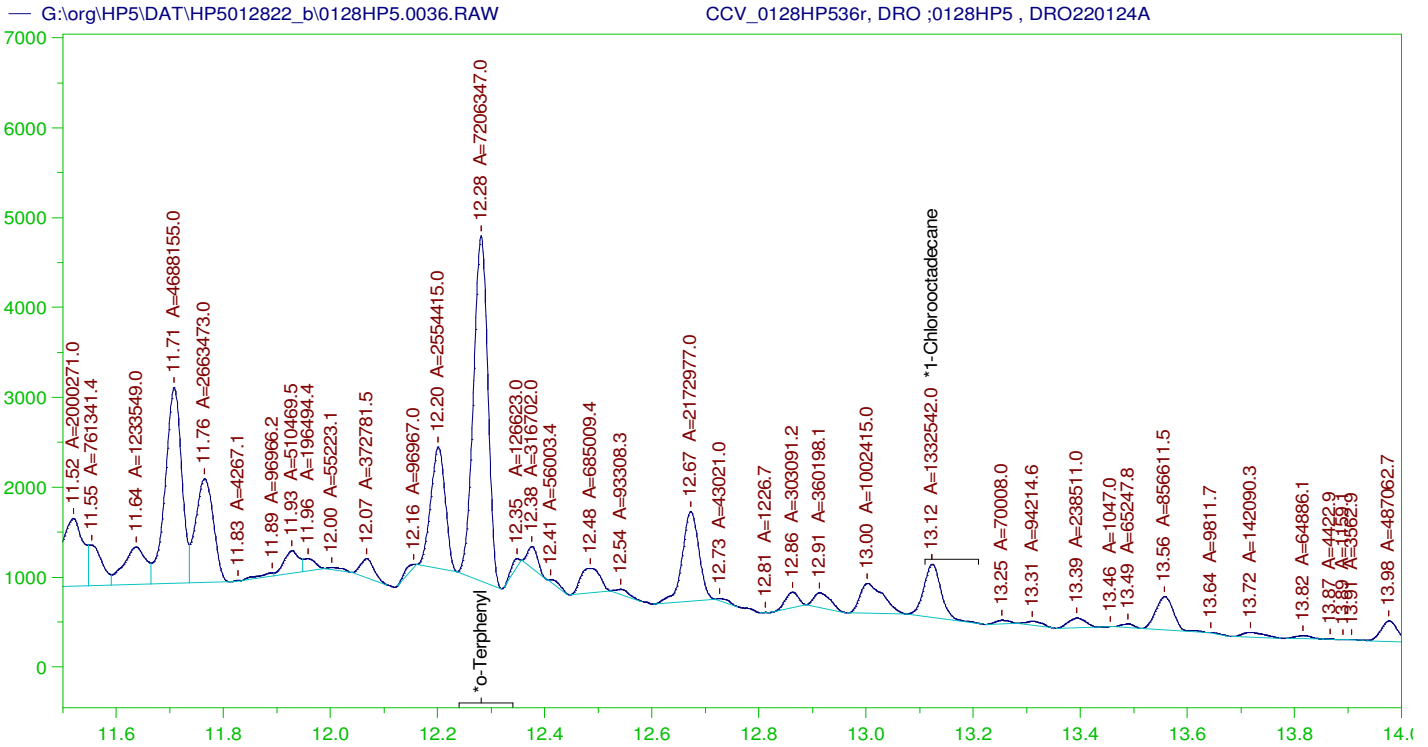
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.281	200.	320.627	160.31
*1-Chlorooctadecane	13.124	200.	152.576	76.29

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

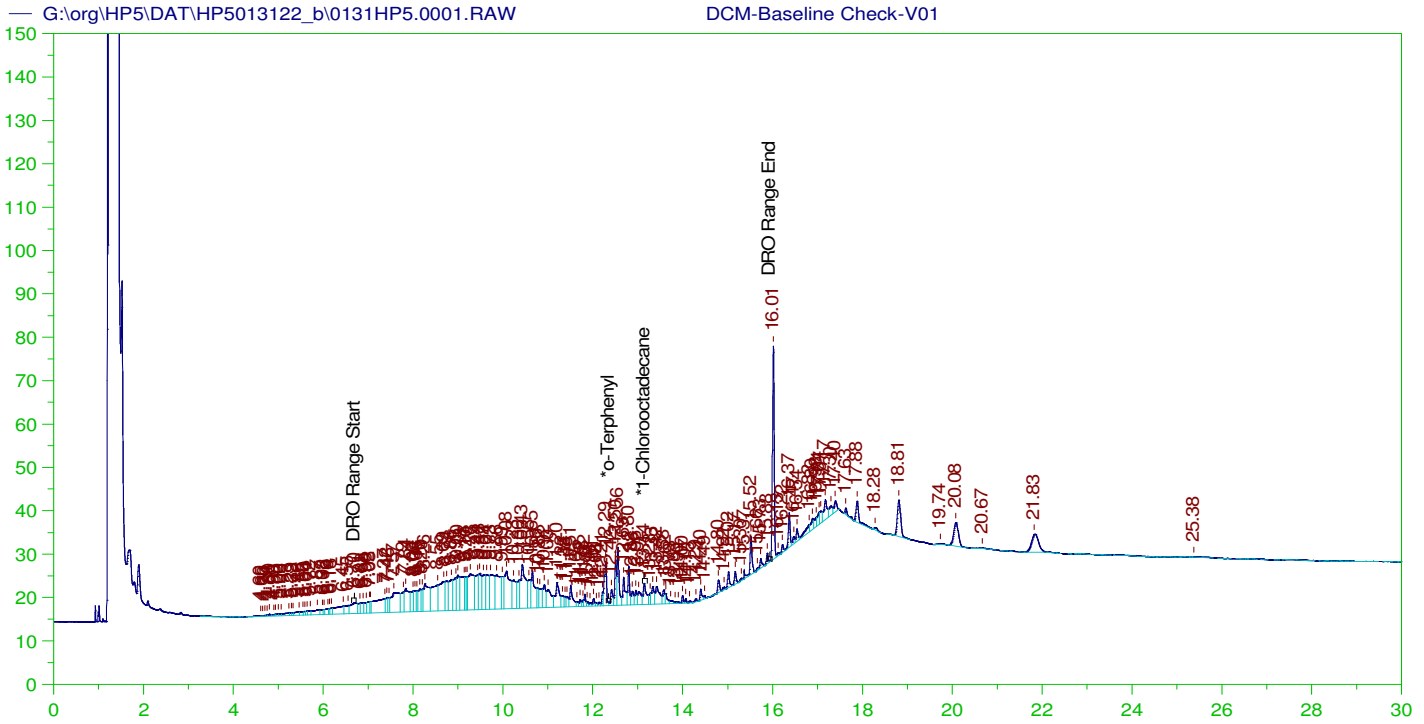
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.281	200.	195.517	97.76
*1-Chlorooctadecane	13.124	200.	36.154	18.08

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



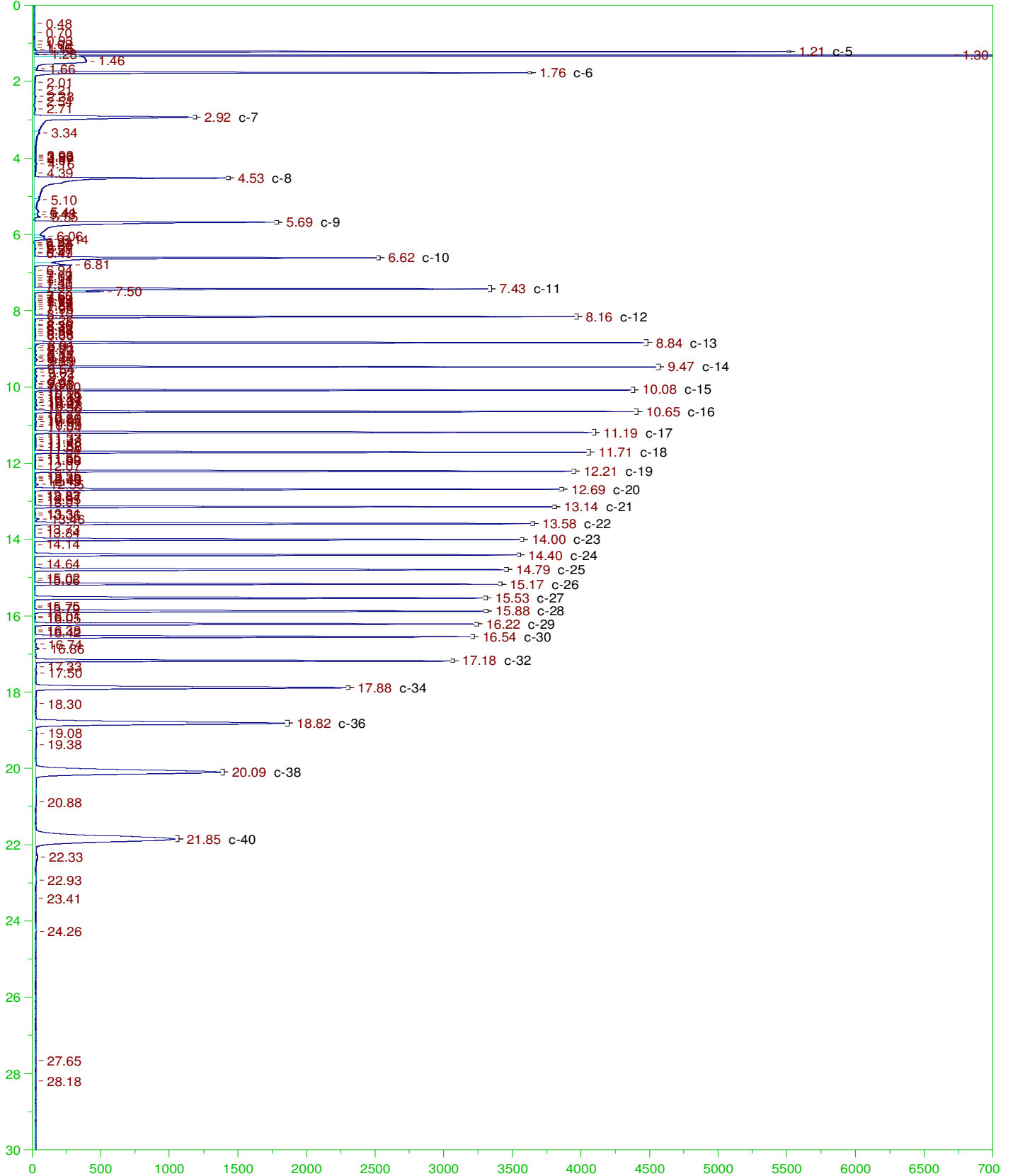
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

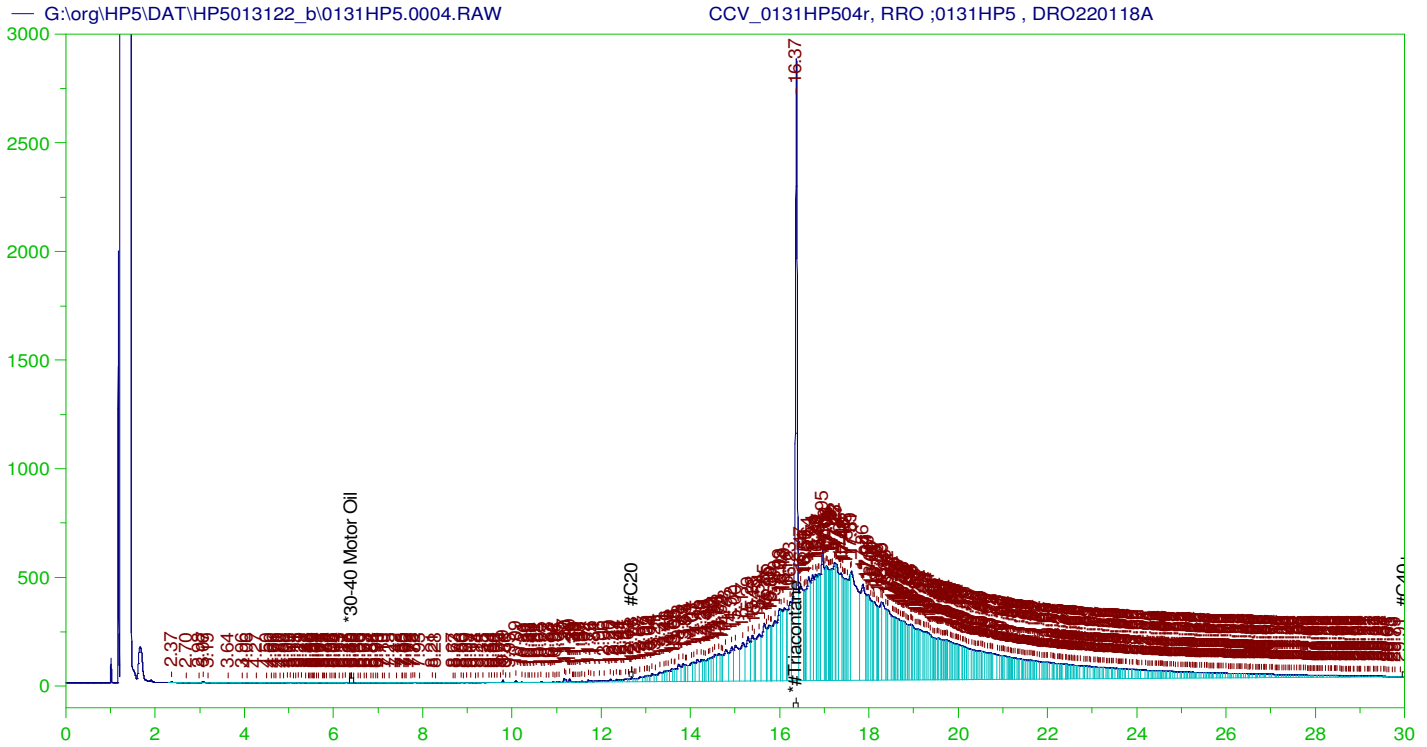
Sample Name: DCM-Baseline Check-V01
 Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0001.RAW
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 Method File: G:\Org\HP5\Methods\DR_8015-JA-LEXP.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JA.CAL
 Sample Weight: 1 Dilution: 1 S.A.: 1

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





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	-

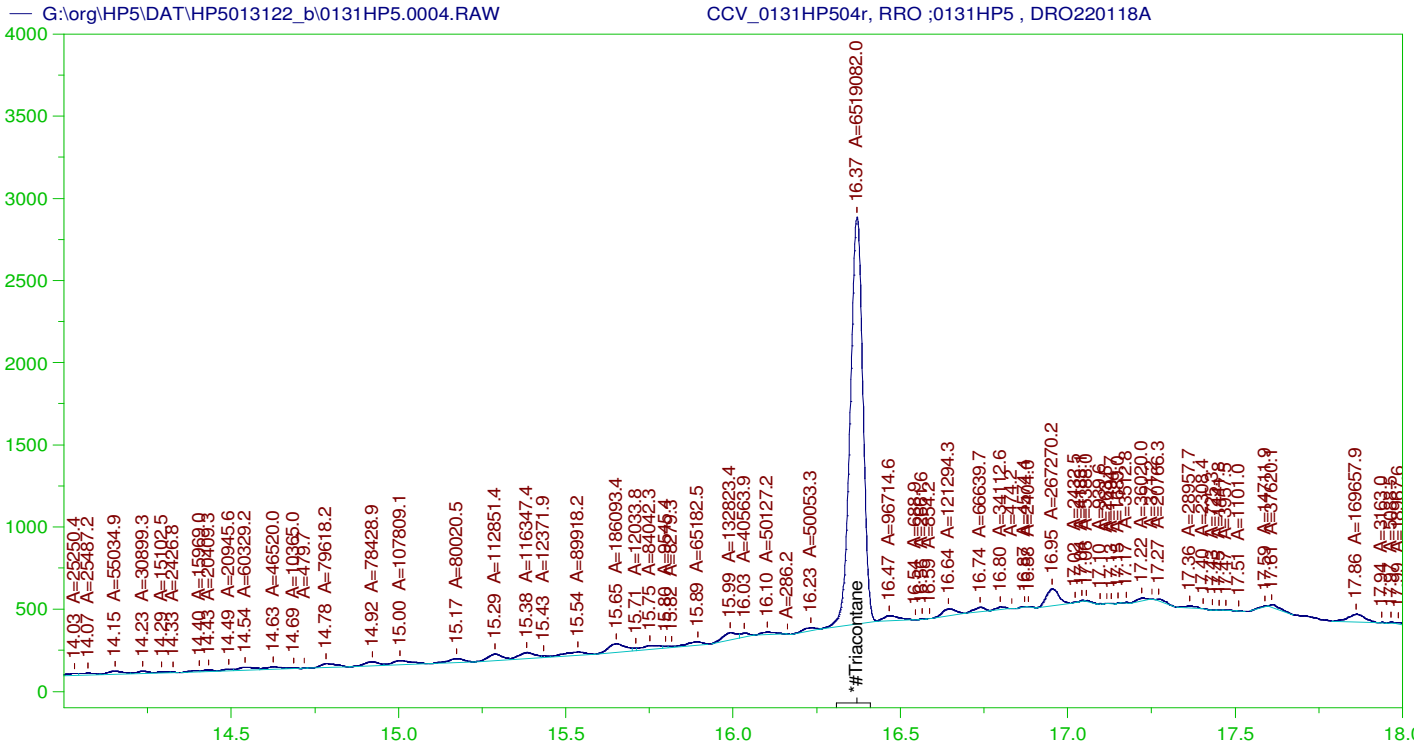
~~RRO~~ TEH(Oil Range) Area:1.284778E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4862.063

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

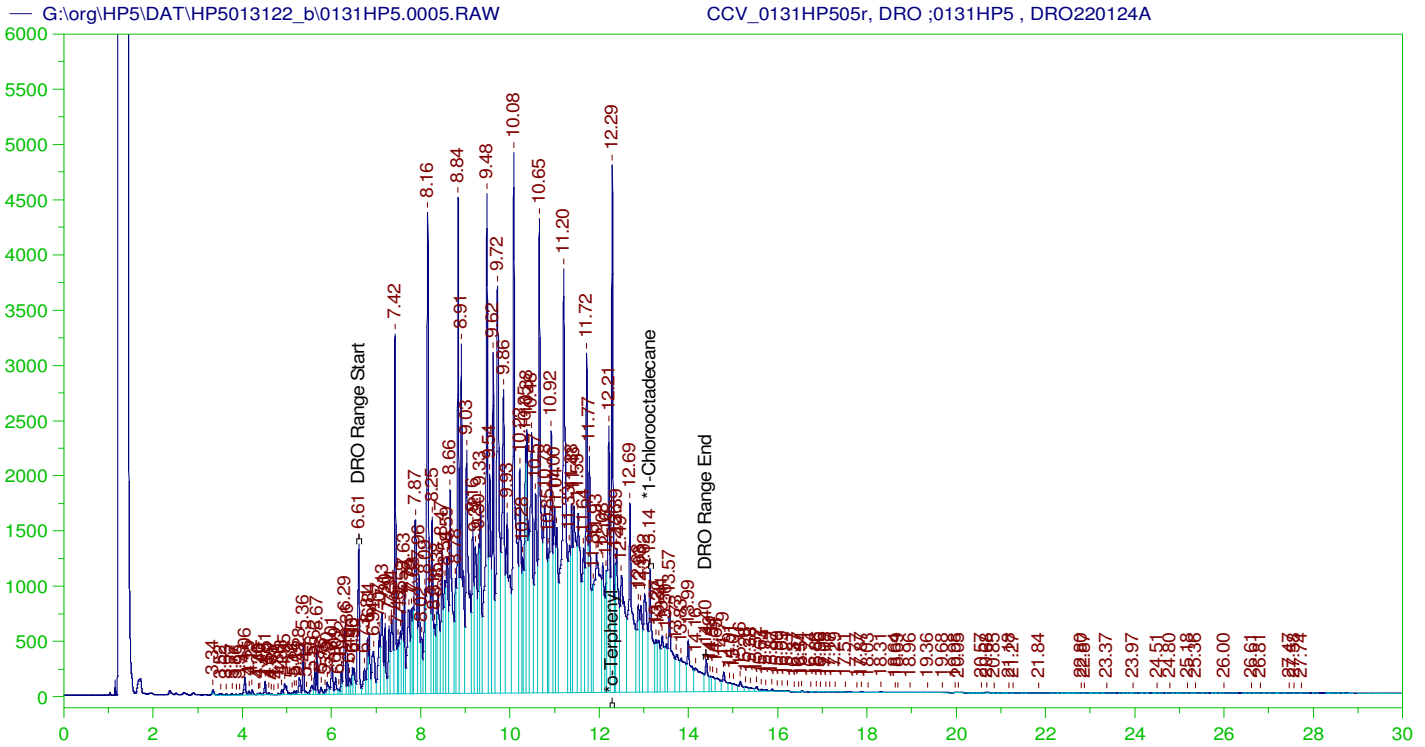
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.37	500.	219.971	43.99	-

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
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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

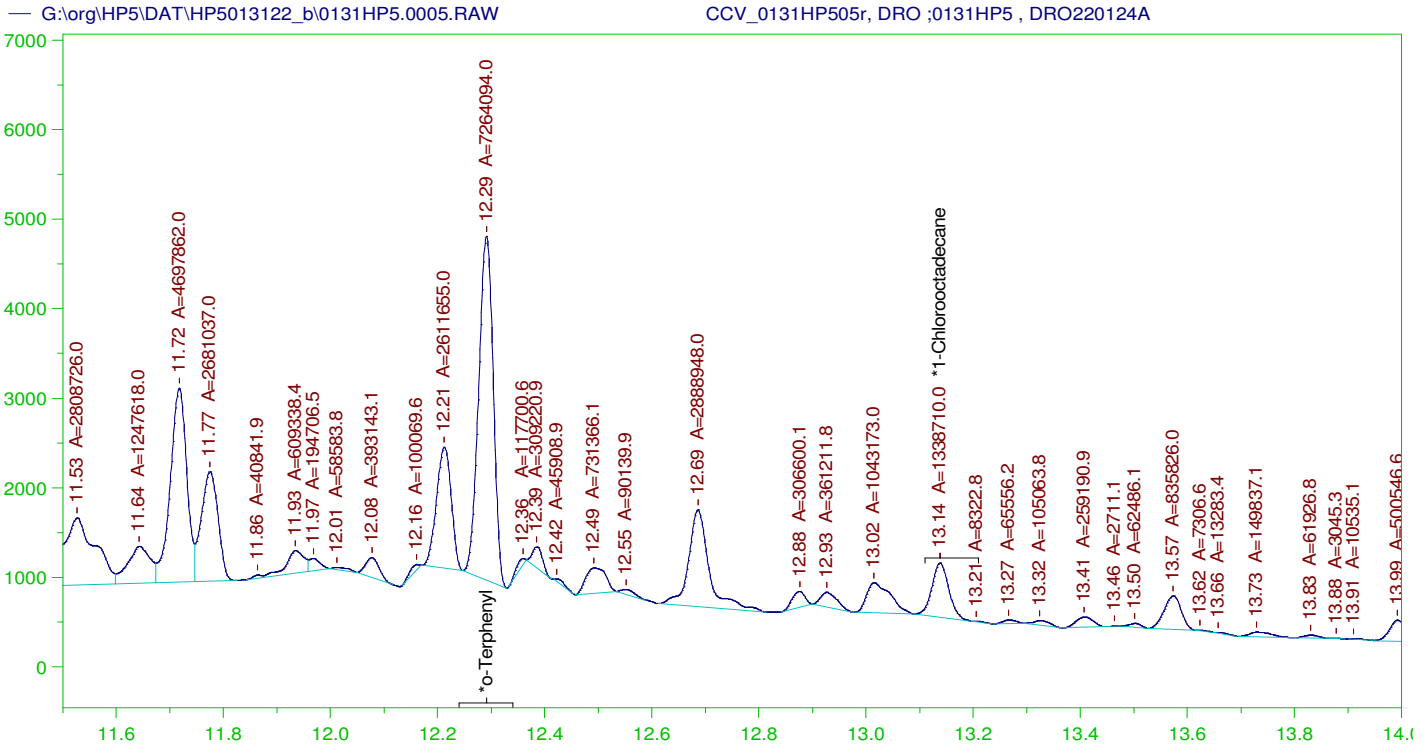
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.291	200.	322.727	161.36
*1-Chlorooctadecane	13.138	200.	153.796	76.9

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

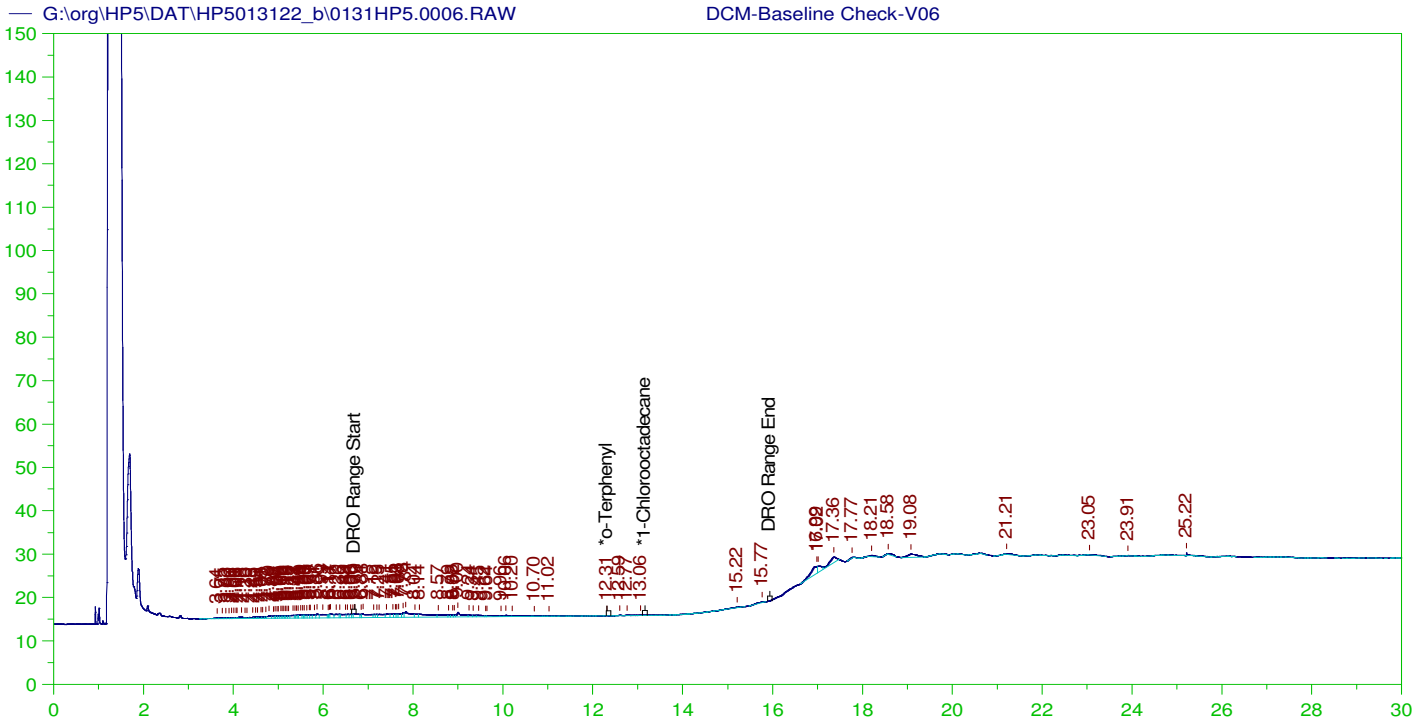
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.291	200.	197.084	98.54	-
*1-Chlorooctadecane	13.138	200.	36.321	18.16	-

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

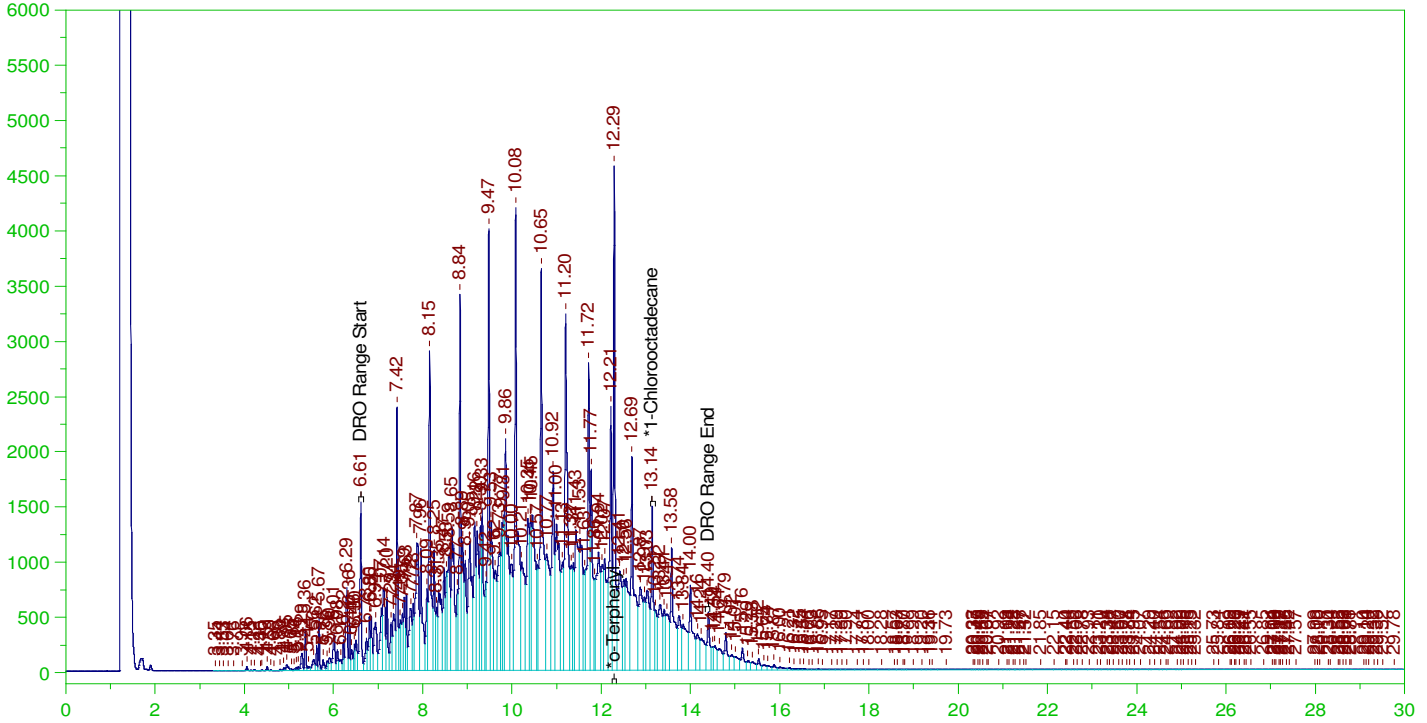
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.314	200.	.019	.01
*1-Chlorooctadecane	29.966	200.	.	.

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

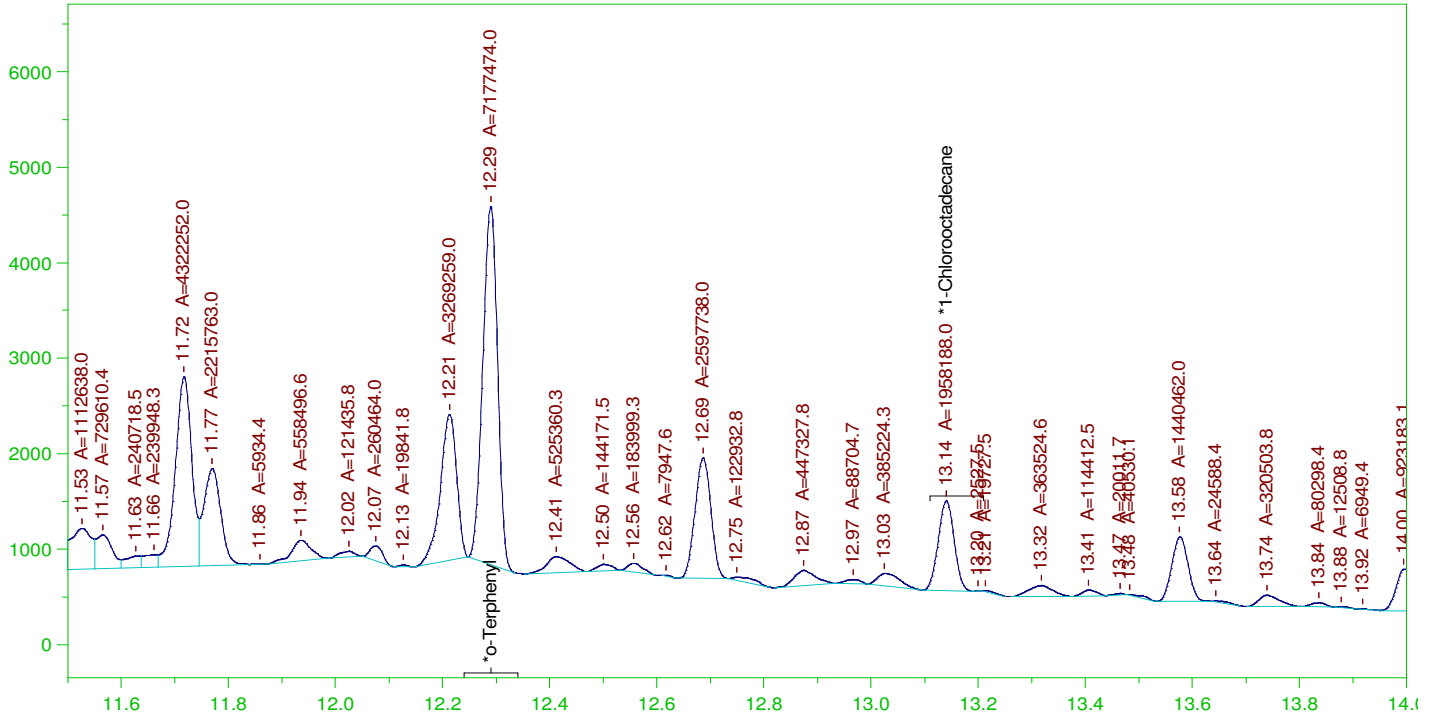
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.29	.2	.332	165.87	-
*1-Chlorooctadecane	13.141	.2	.136	68.02	-

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
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 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

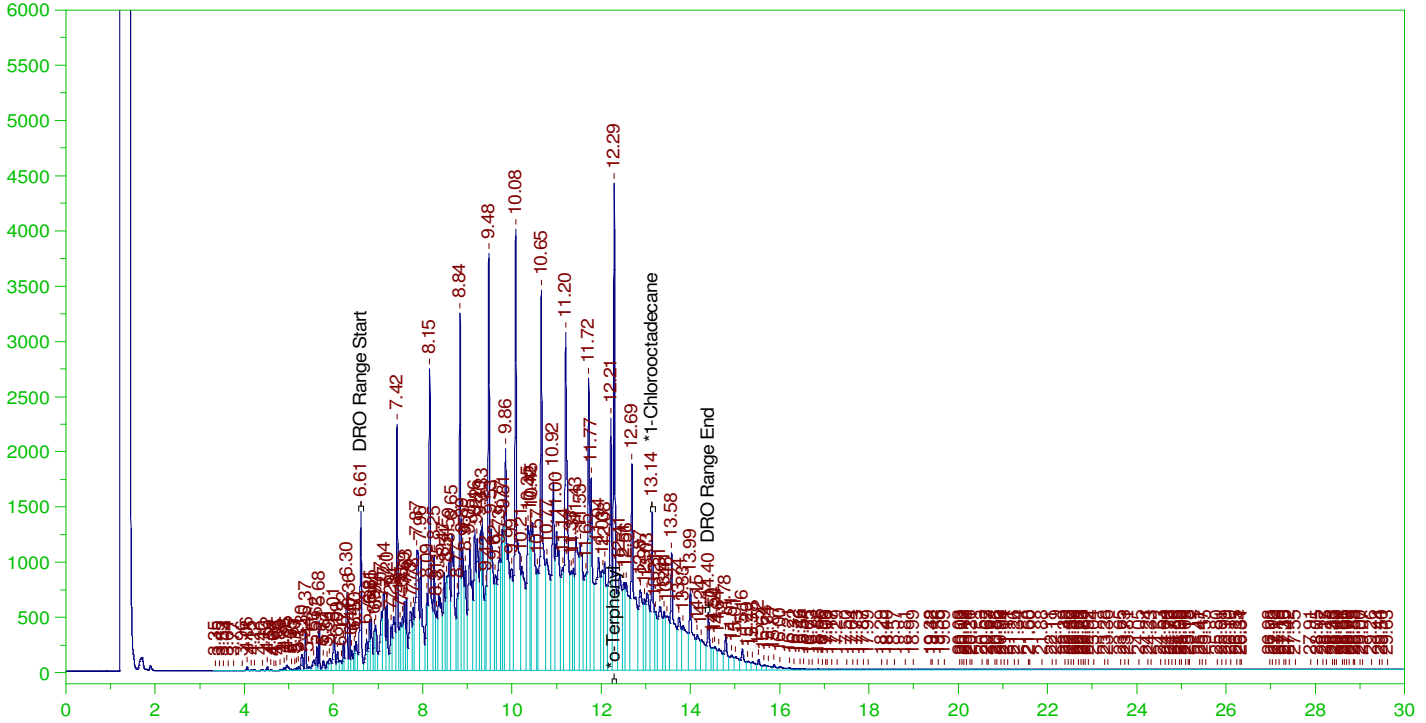
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.29	.2	.195	97.37
*1-Chlorooctadecane	13.141	.2	.053	26.56

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

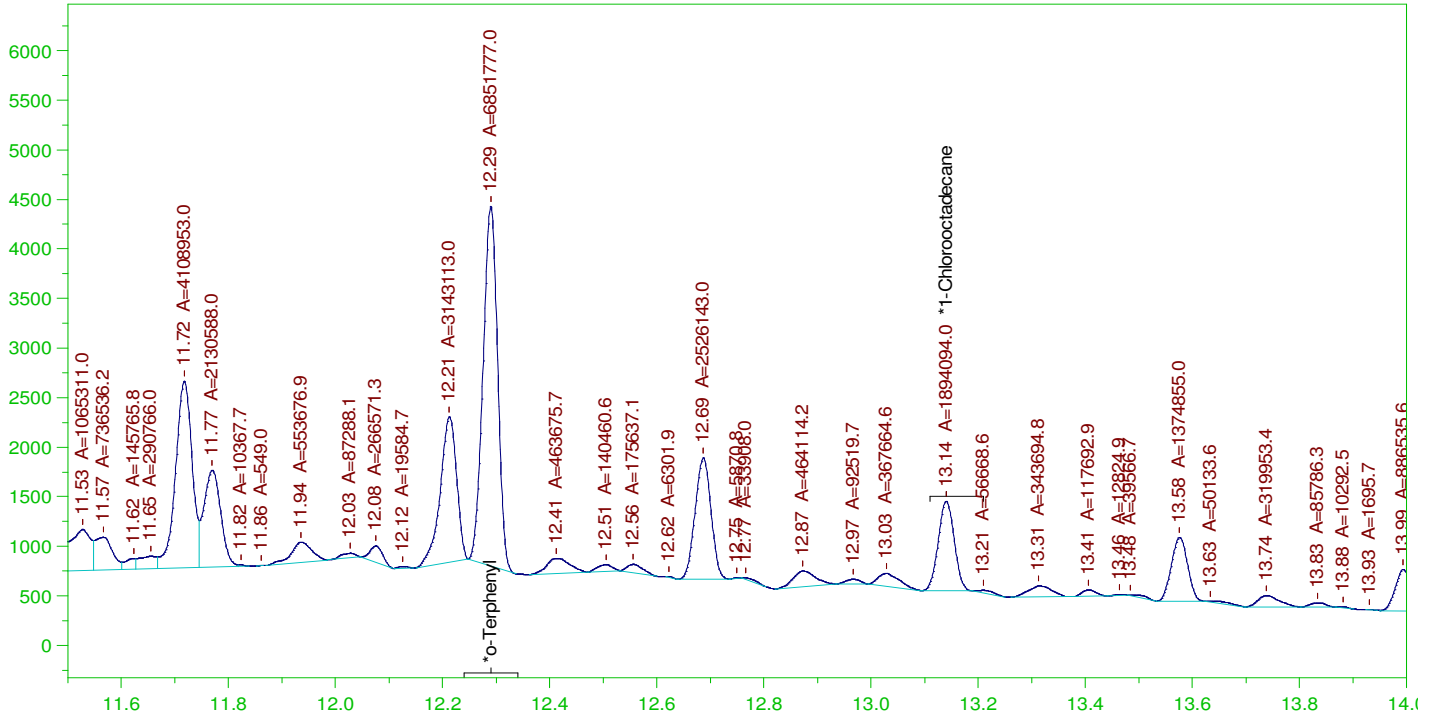
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.29	.2	.324	161.92	-
*1-Chlorooctadecane	13.14	.2	.132	66.14	-

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

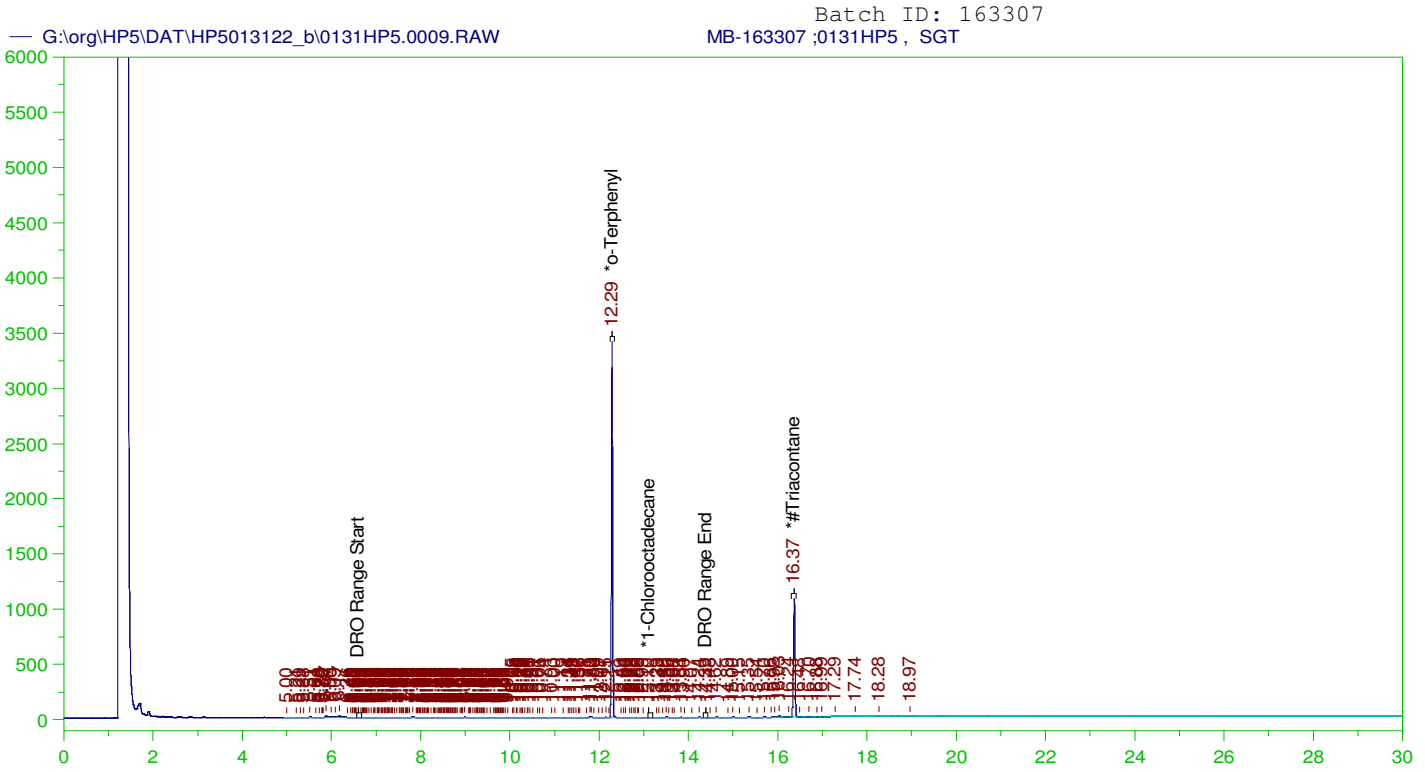
Sample Name: LCSD-163307 ;0131HP5 , SGT
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 Date & Time Acquired: 1/31/2022 3:49:15 PM
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 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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

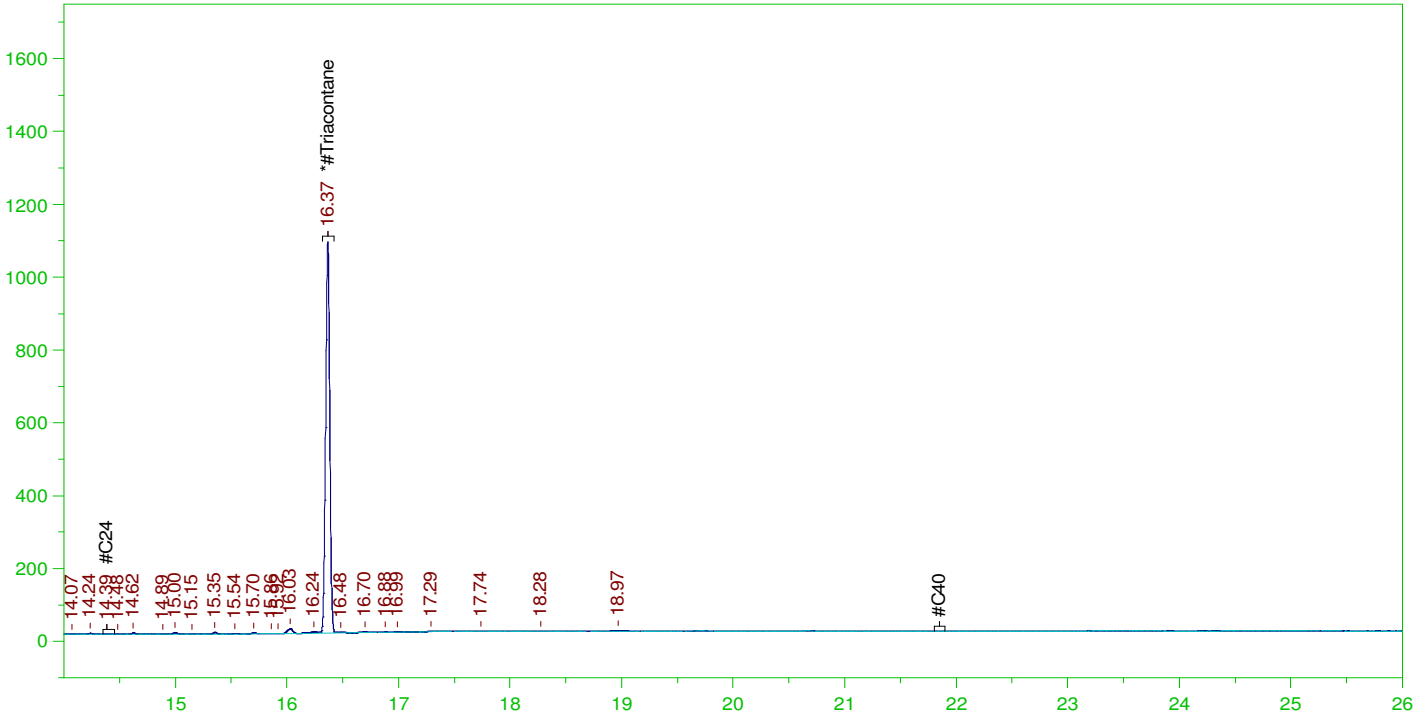
Mean RF for TEH: 32675.36
 Rt range for Diesel Range Organics: 6.57 to 14.43

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



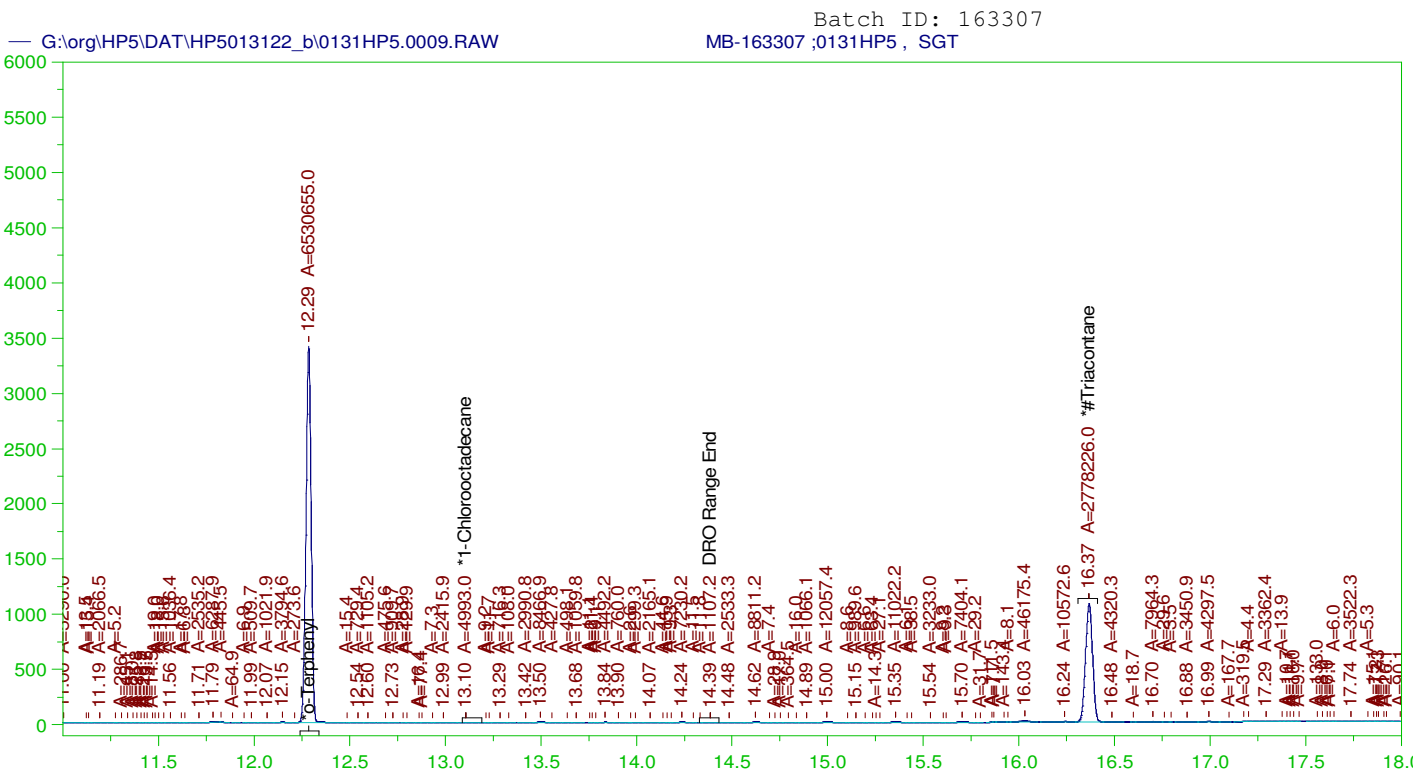
RESIDUAL RANGE ORGANICS CHROMATOGRAM

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



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

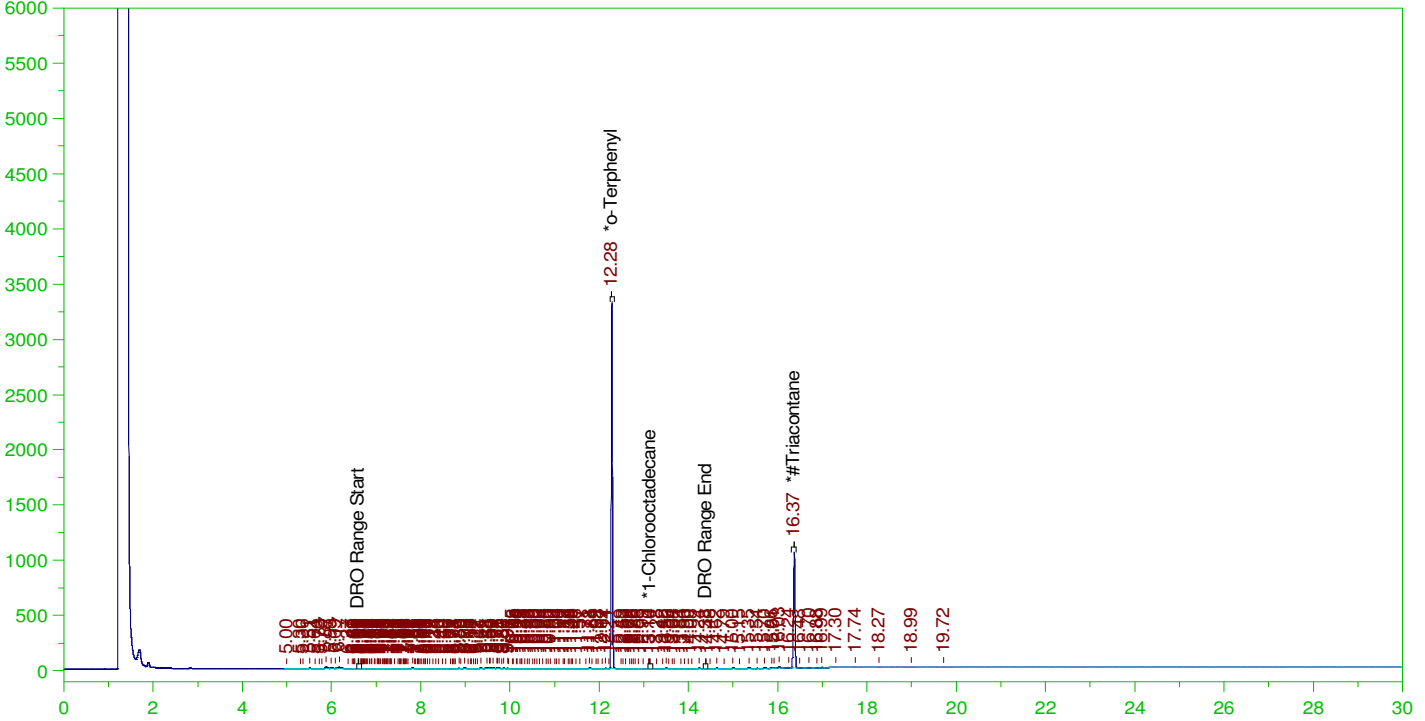
DRO Area:342195 DRO Amount: 1.047257E-02
 TEH Area:841856.2 TEH Amount: 2.576425E-02

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	-

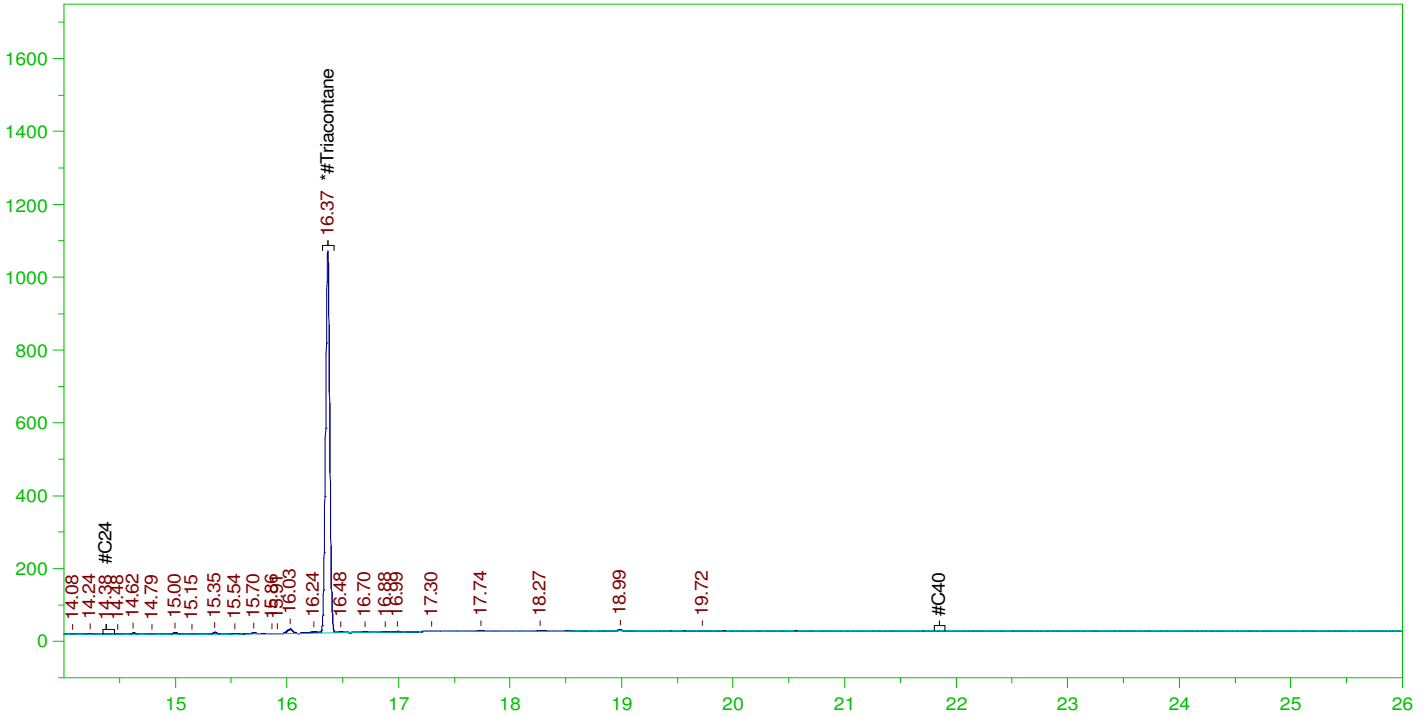
DRO Area:608125.6 DRO Amount: 1.861114E-02
 TEH Area:1006431 TEH Amount: 3.080092E-02

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

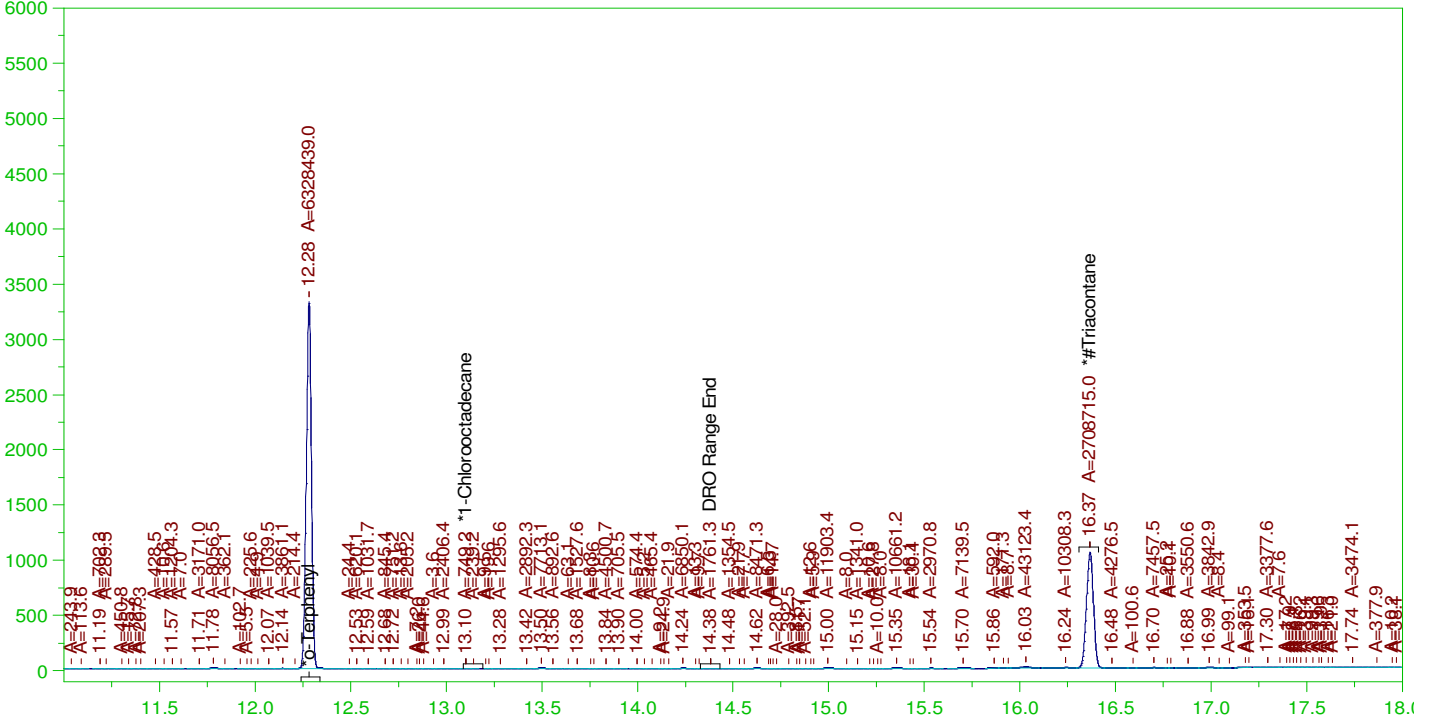
RRO Area:164694.7 RRO AMOUNT: 6.232637E-03

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

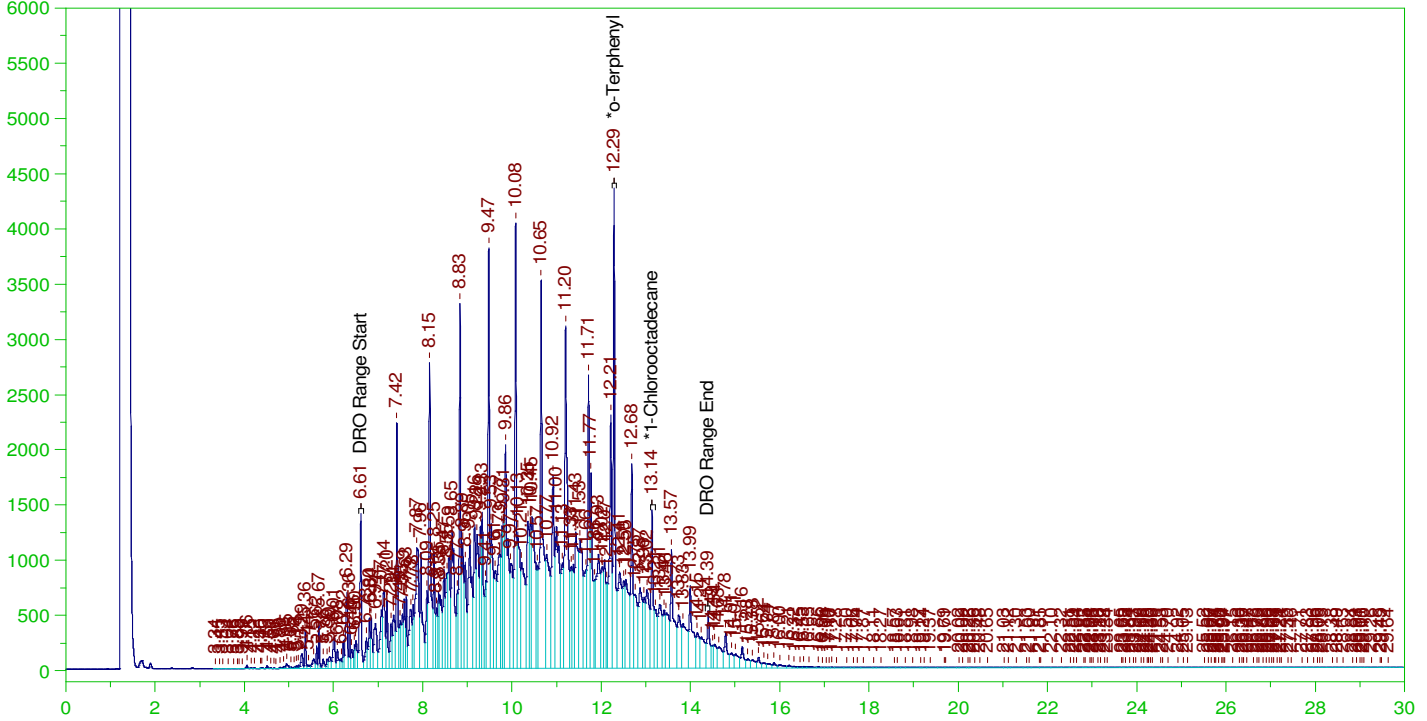
Rt range for Diesel Range Organics: 6.57 to 14.43

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

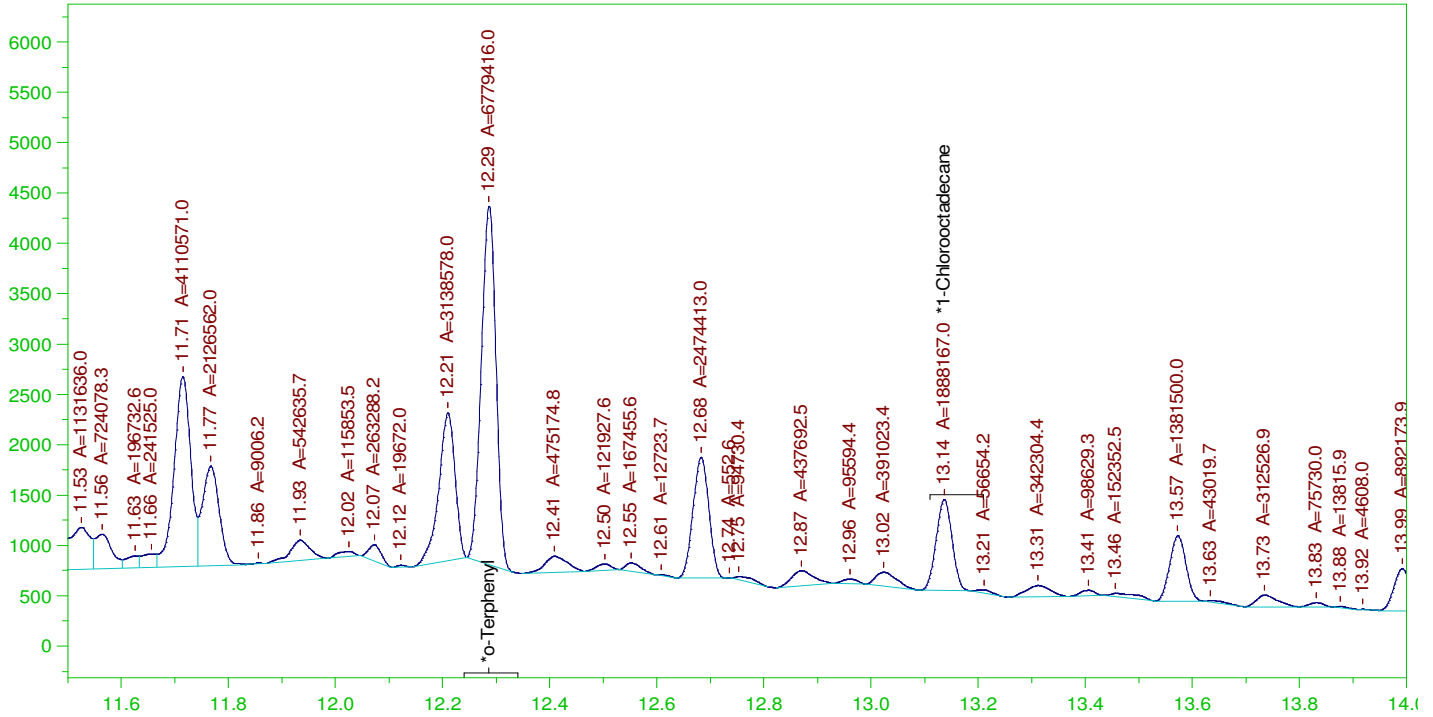
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*o-Terphenyl	12.287	.189	.294	155.94	-
*1-Chlorooctadecane	13.137	.189	.125	66.45	-

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

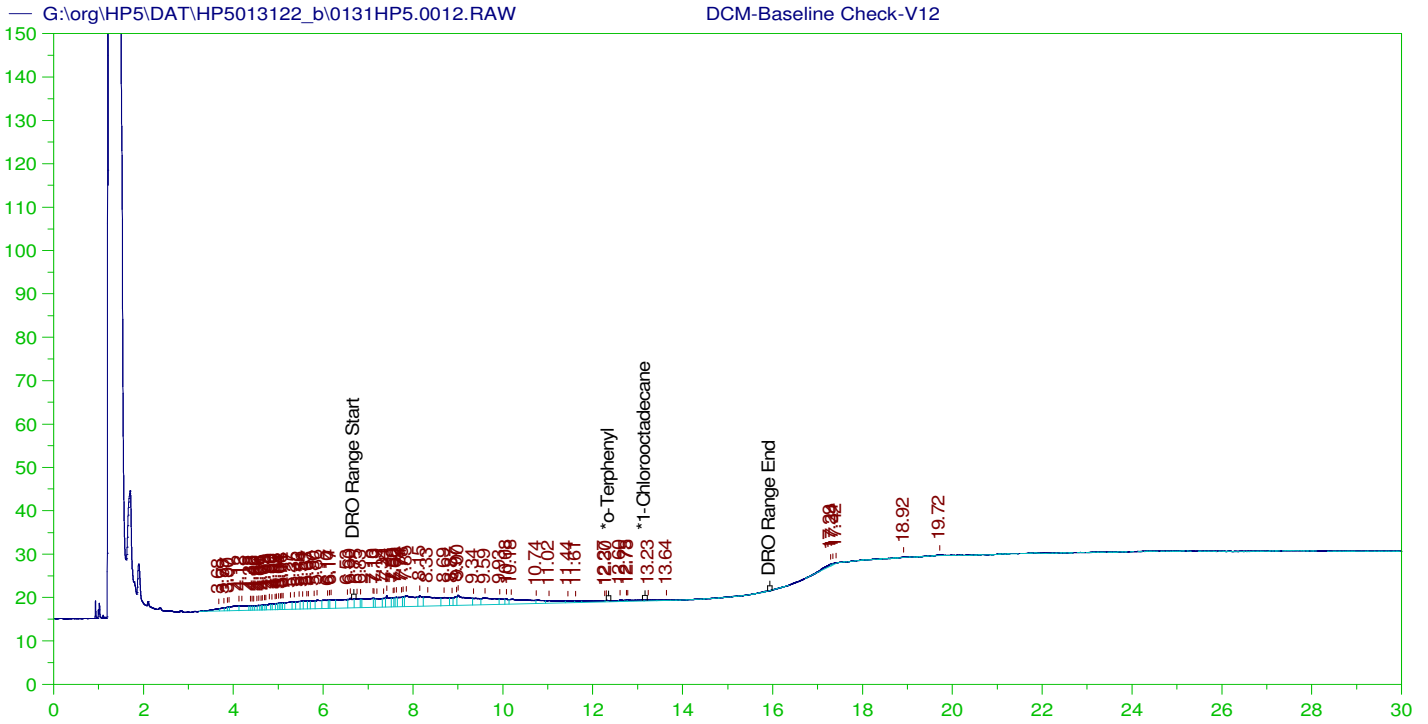
Sample Name: B22011592-001DMS ;0131HP5 , SGT
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 Date & Time Acquired: 1/31/2022 5:58:15 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24-JD-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111JD-C24.CAL
 Sample Weight: 1060 Dilution: 1 S.A.: 1

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.	.	-

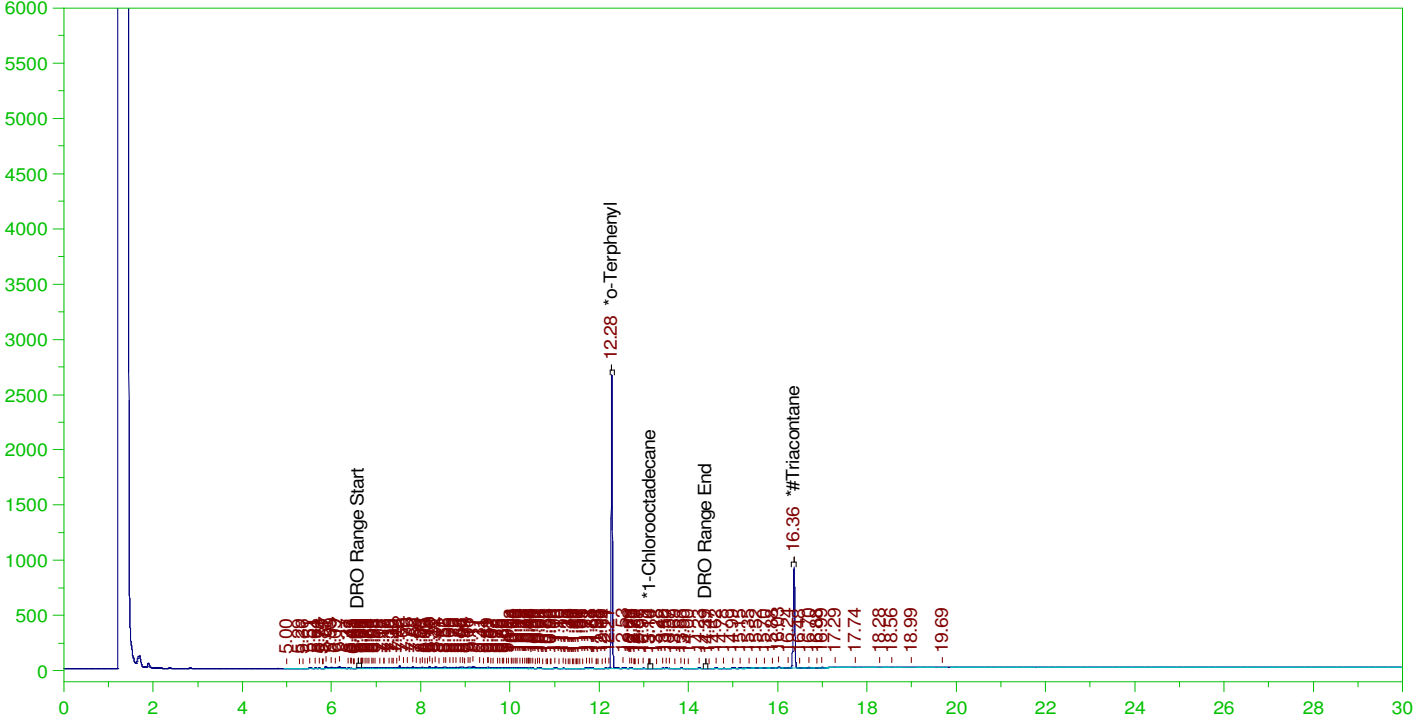
DRO Area: 470225 DRO Amount: 14.39081
 TEH Area: 765908.7 TEH Amount: 23.43995

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	-

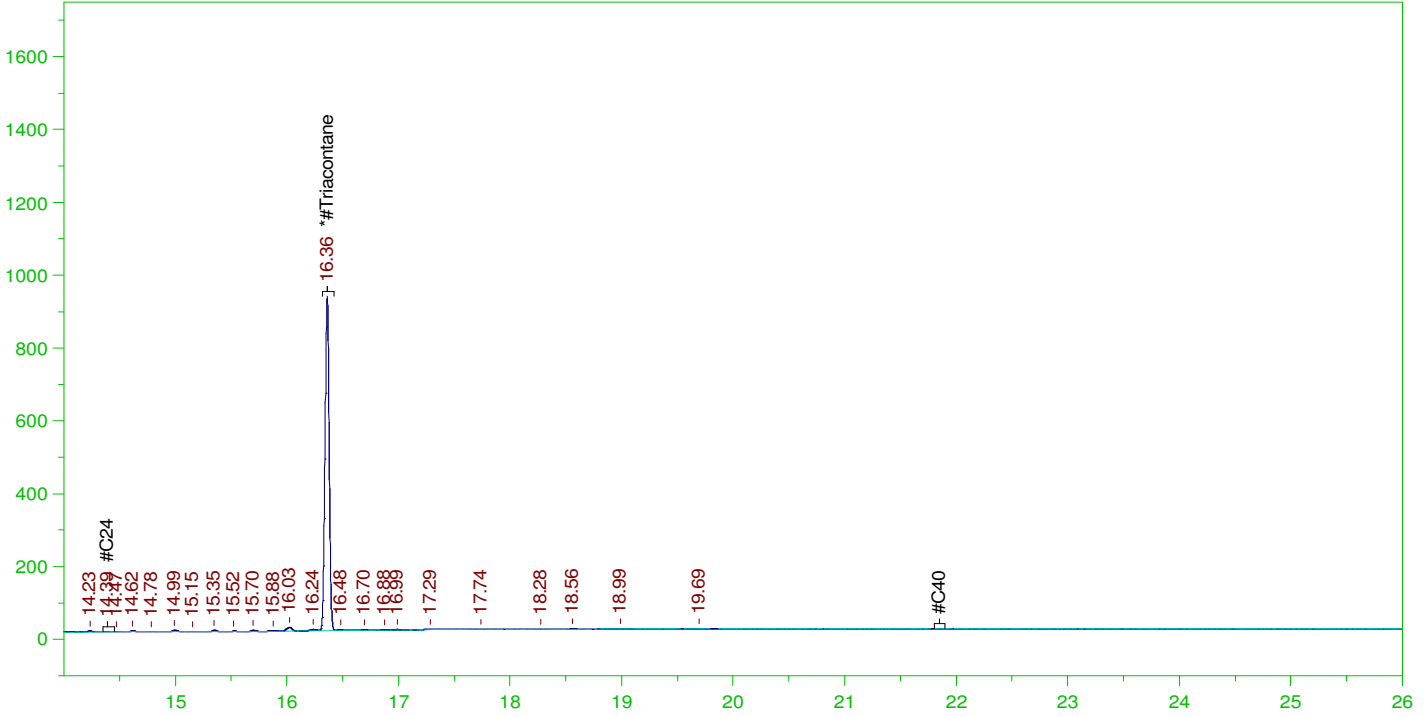
DRO Area:1345256 DRO Amount: 4.076273E-02
 TEH Area:1742234 TEH Amount: 5.279158E-02

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	-

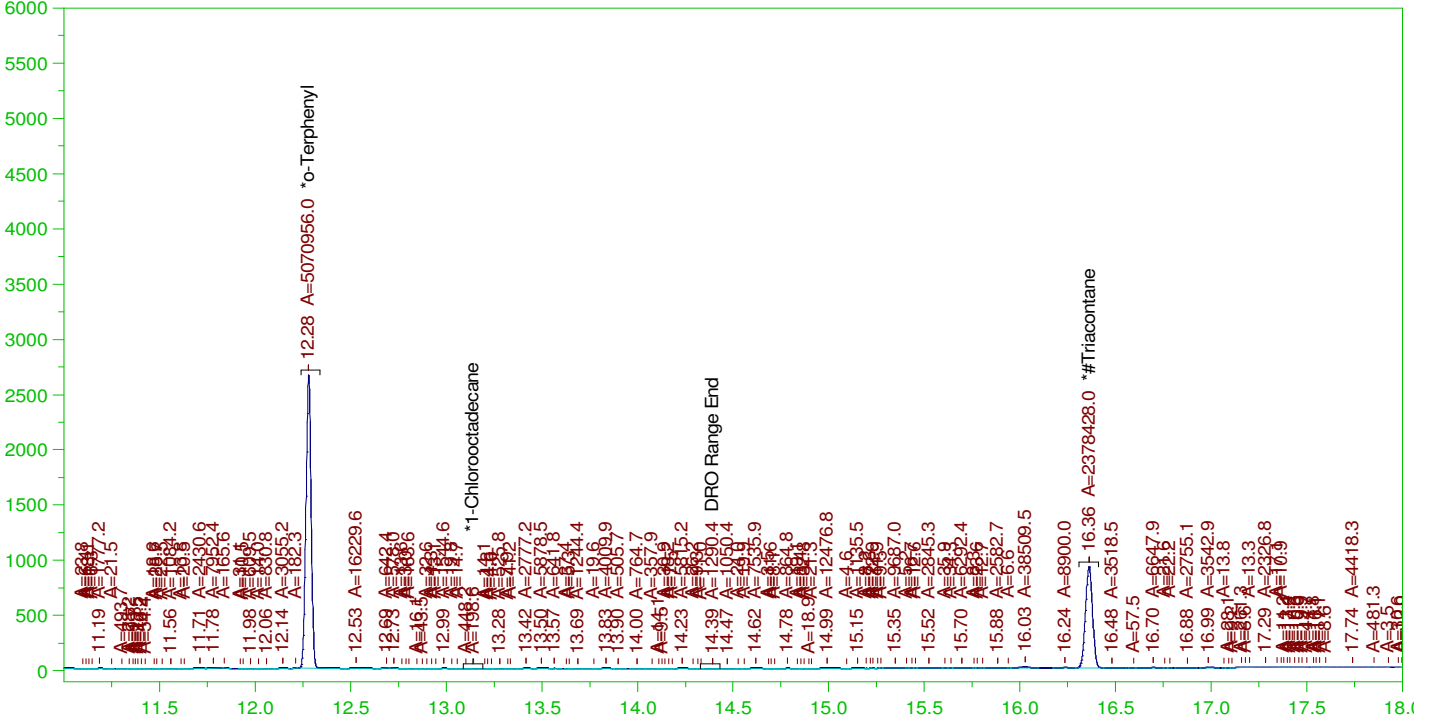
RRO Area:151069.2 RRO AMOUNT: 5.660398E-03

ERH2474 (RHMW01R)

Batch ID: 163307

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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	-

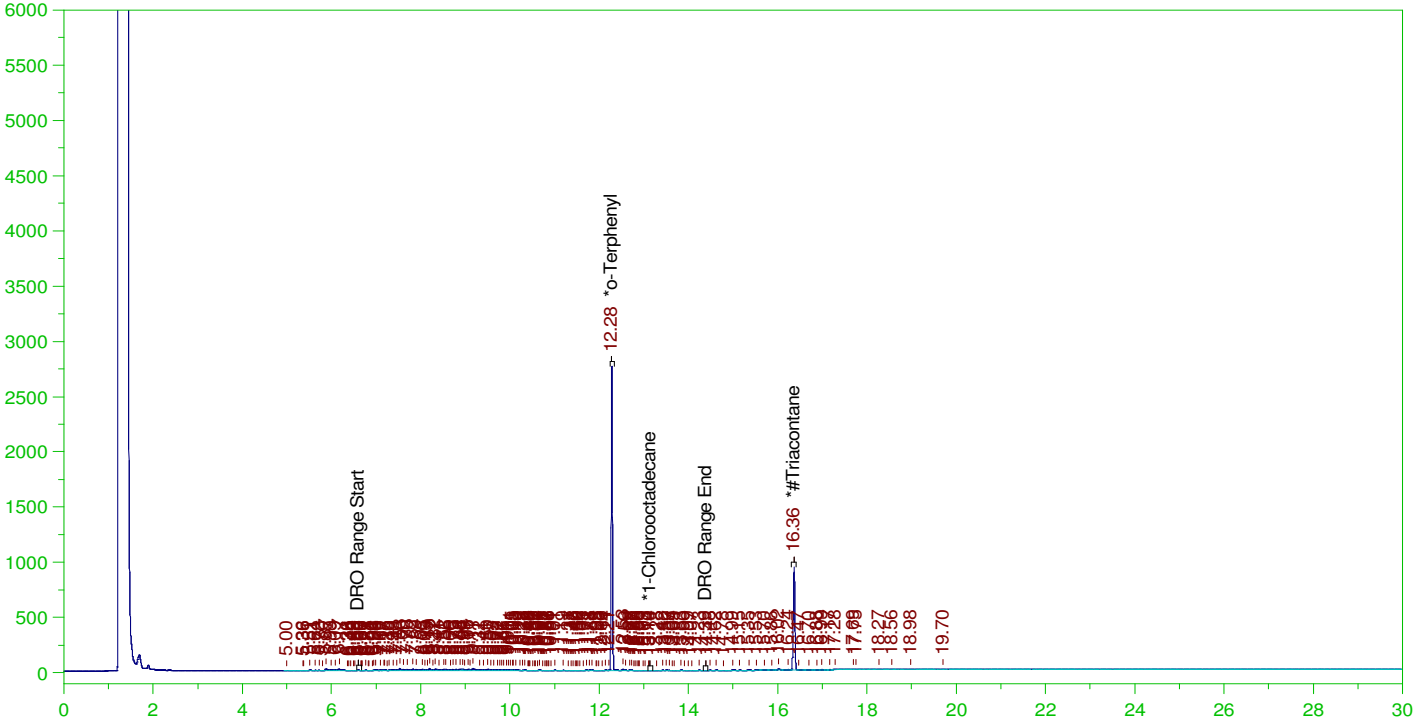
DRO Area:1249729 DRO Amount: 3.786815E-02
 TEH Area:1769513 TEH Amount: 5.361818E-02

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	-

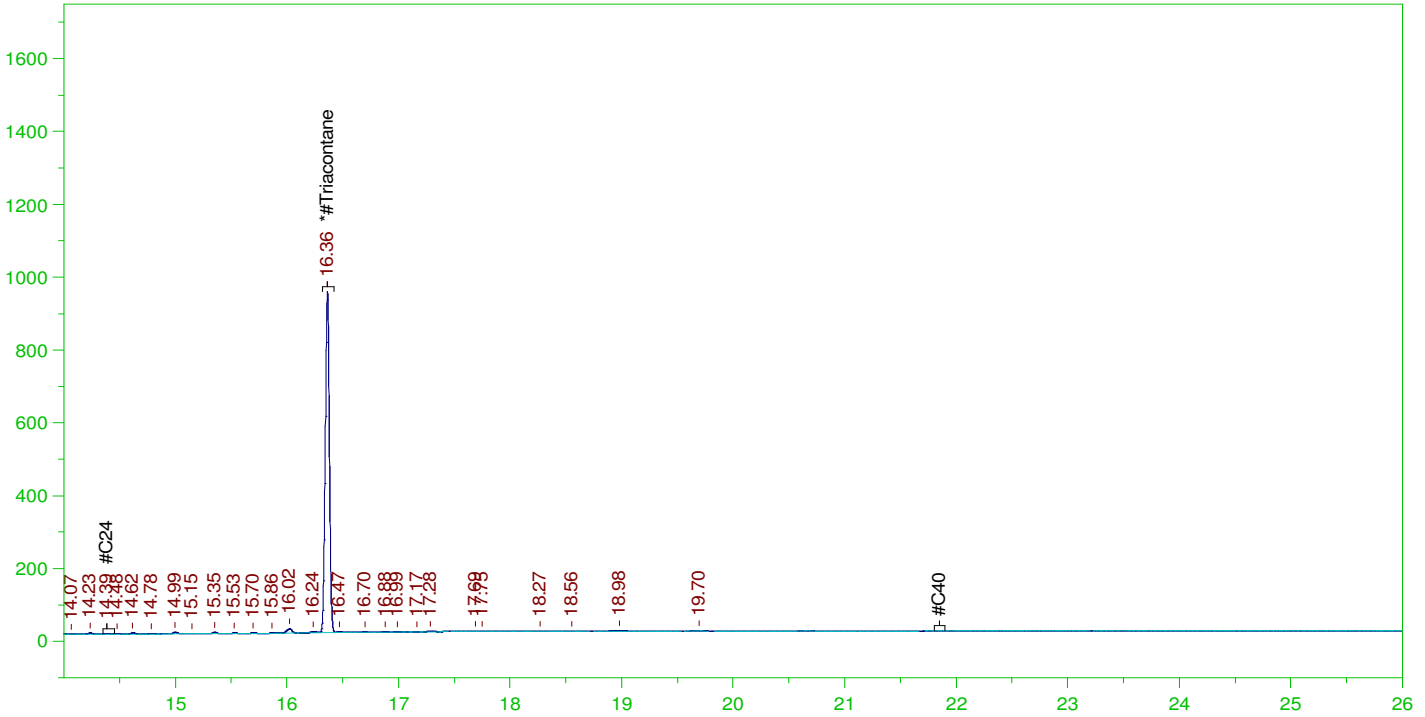
DRO Area:1382601 DRO Amount: 4.189432E-02
 TEH Area:1781709 TEH Amount: 5.398772E-02

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

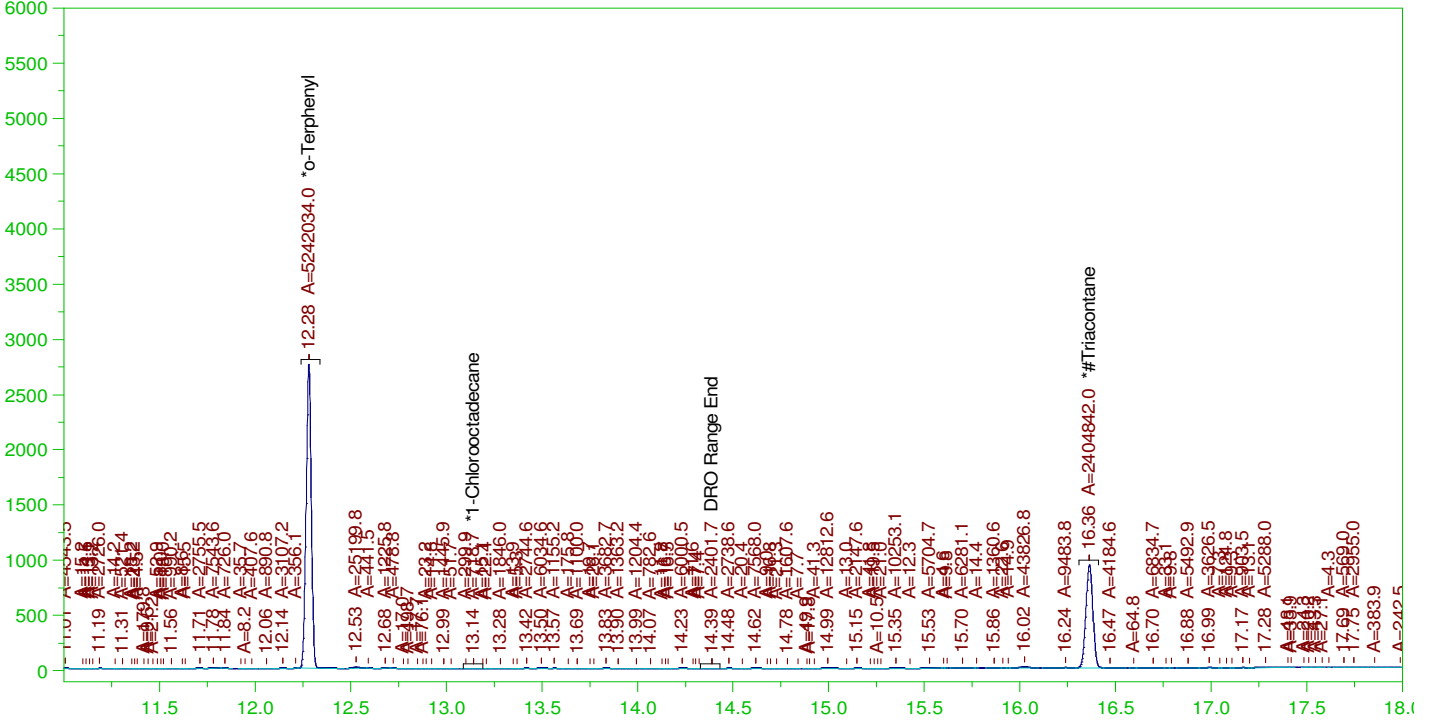
RRO Area:179764.2 RRO AMOUNT: 6.735567E-03

ERH2475 (RHMW01R)

Batch ID: 163307

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



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

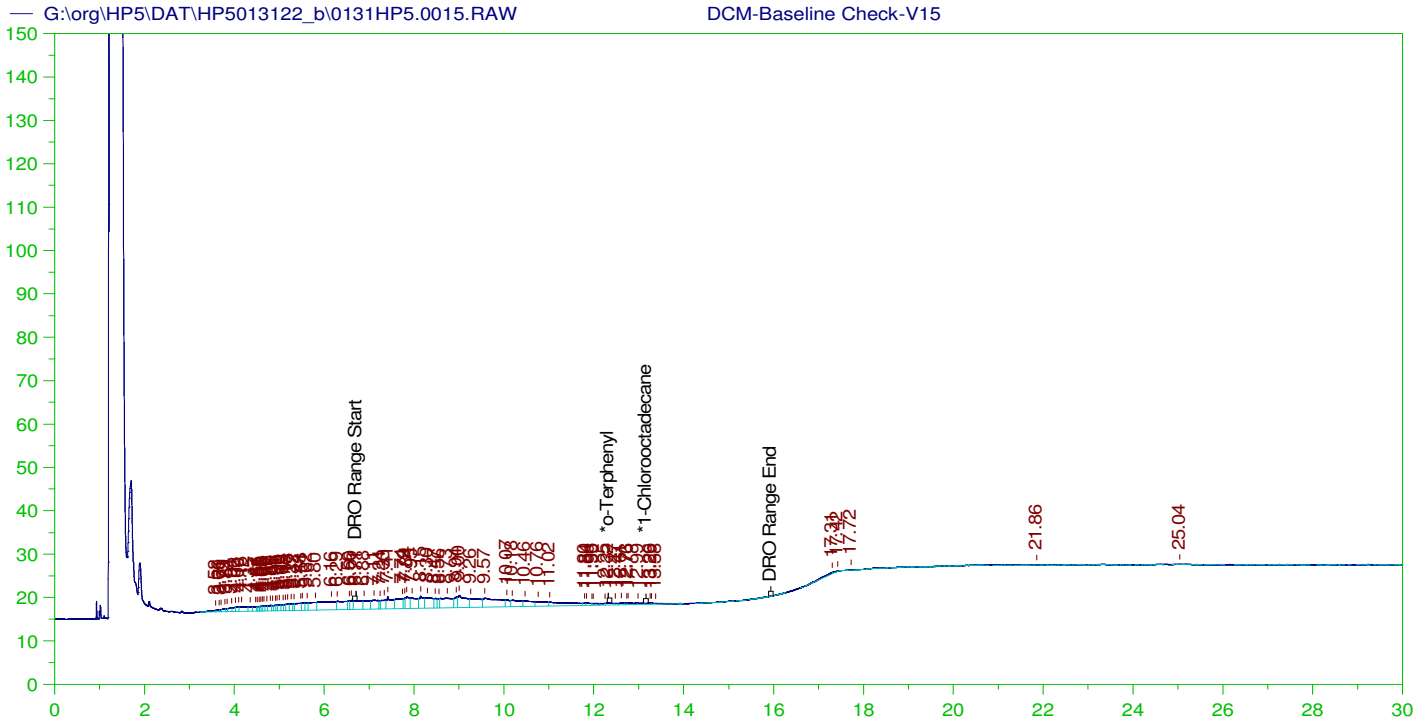
Sample Name: B22011592-007B ;0131HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0014.RAW
 Date & Time Acquired: 1/31/2022 8:07:24 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-JD-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO2201111Jd-C24-T.CAL
 Sample Weight: 1010 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.	.	.

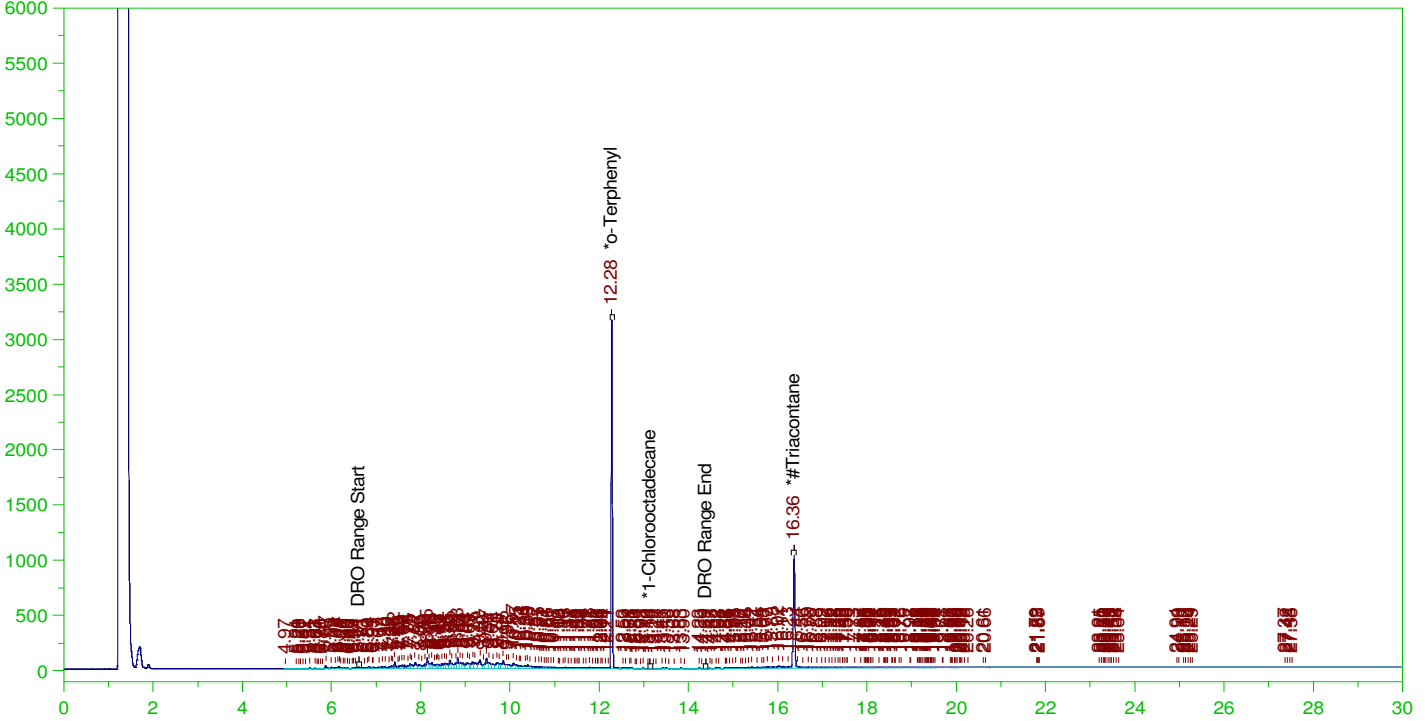
DRO Area:557092.2 DRO Amount: 17.0493
 TEH Area:839643.2 TEH Amount: 25.69653

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	-

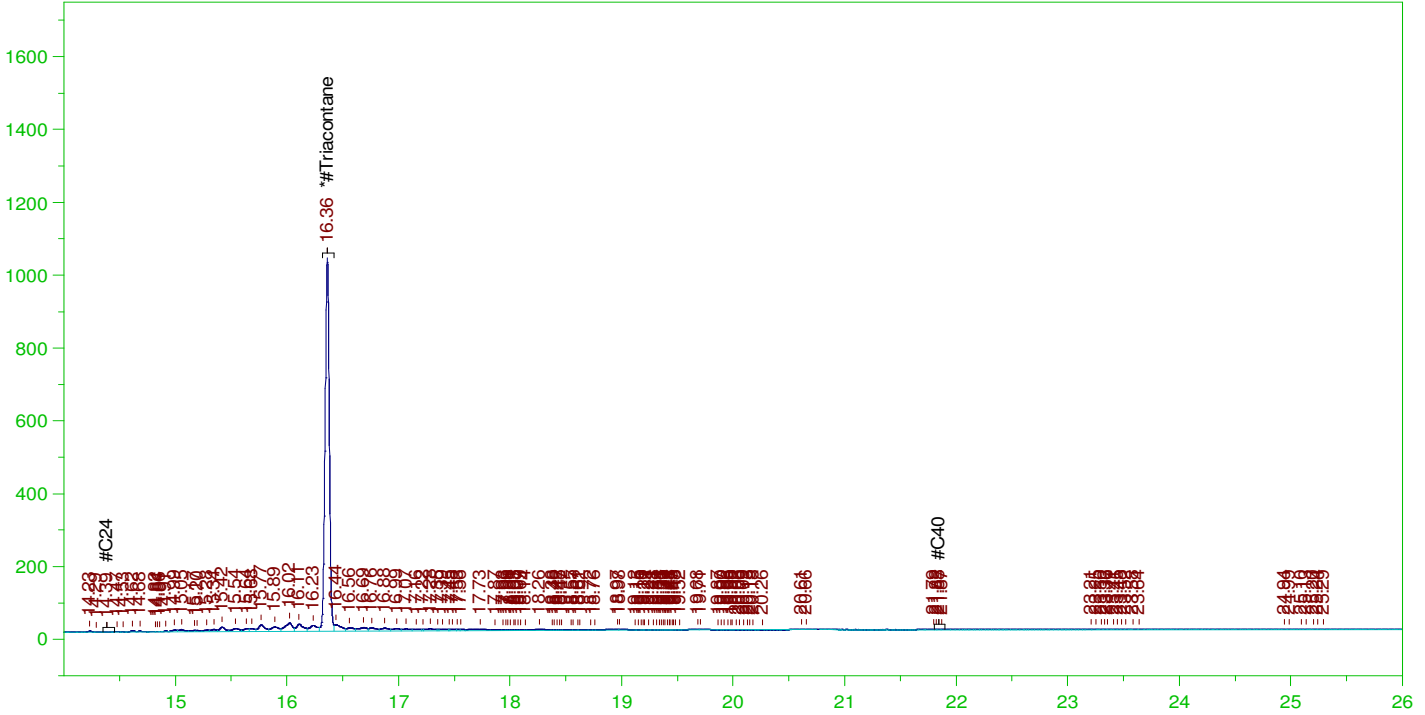
DRO Area:8783842 DRO Amount: 0.2560206
 TEH Area:1.06453E+07 TEH Amount: 0.3102759

ERH2493 (Sump Adit3)

Batch ID: 163307

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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

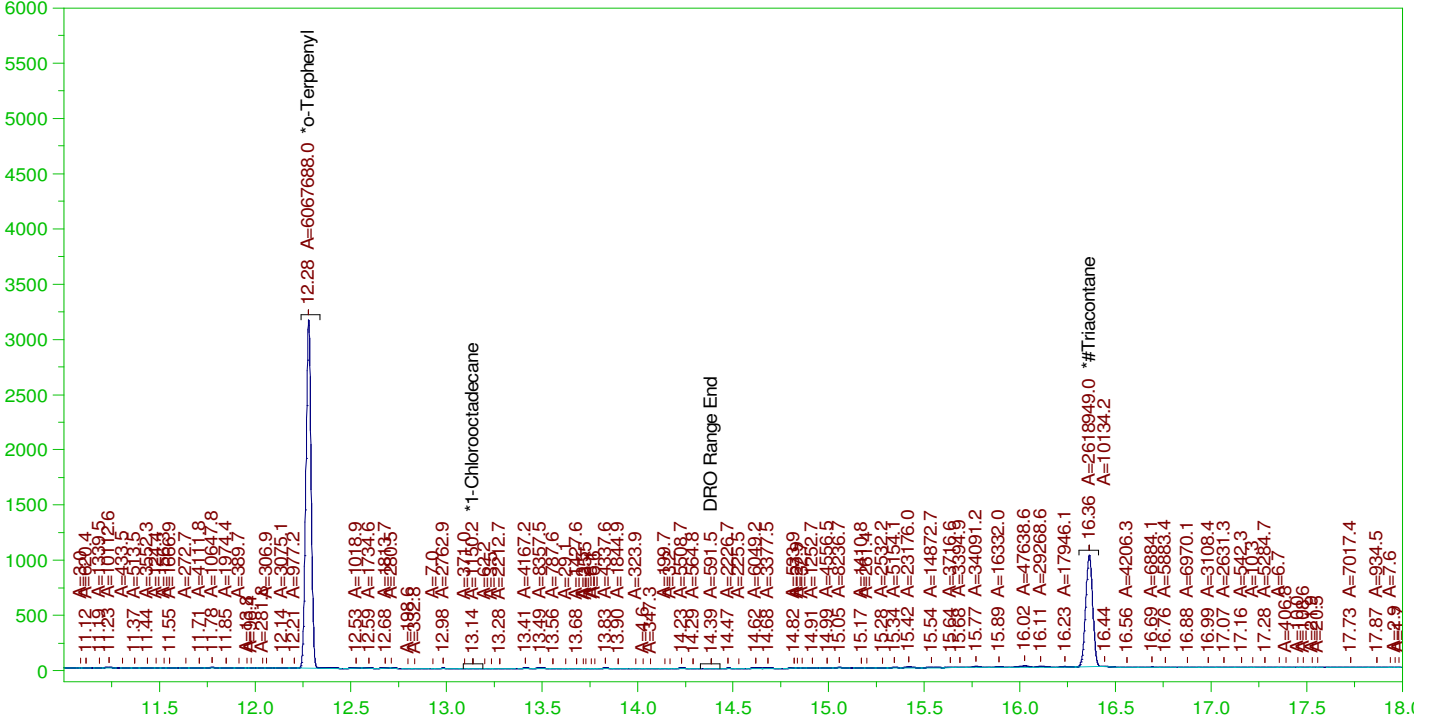
RRO Area:1475748 RRO AMOUNT: 5.318819E-02

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	-

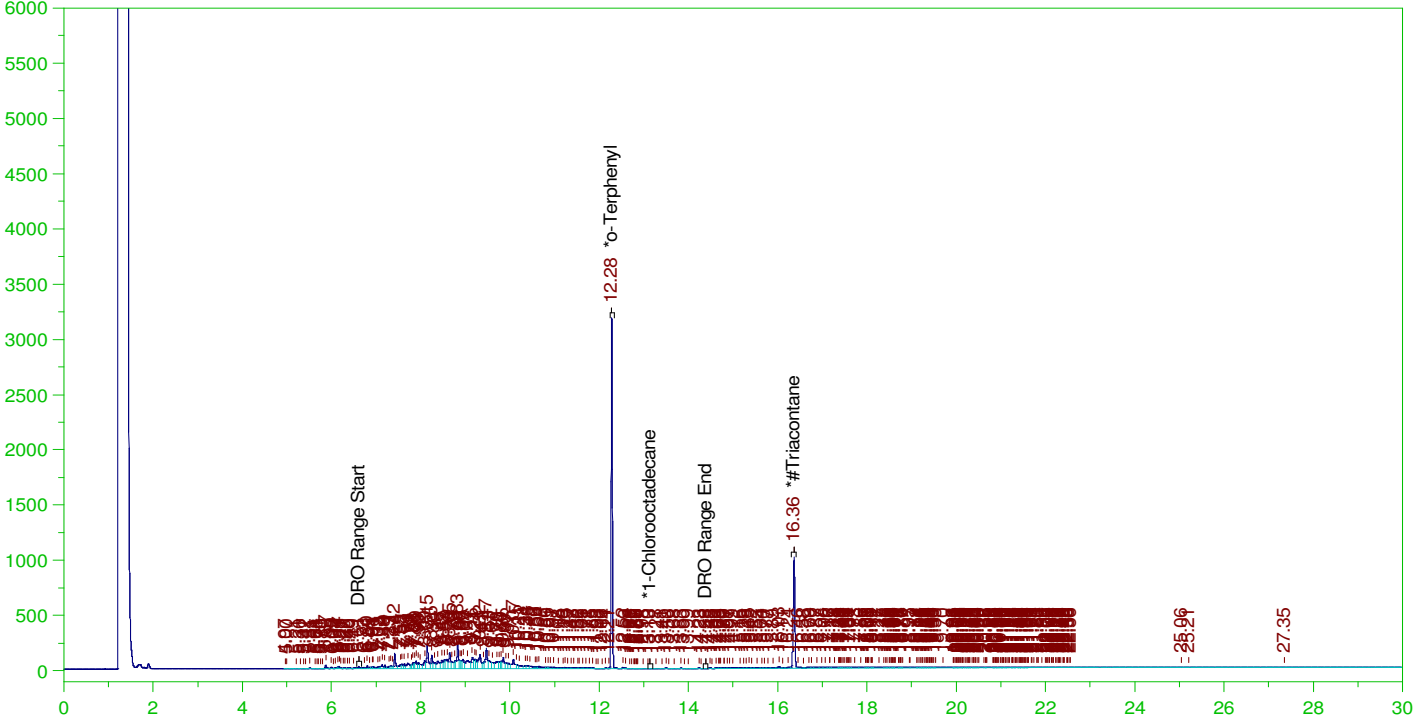
DRO Area:6753404 DRO Amount: 0.1968399
 TEH Area:7329465 TEH Amount: 0.2136302

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 -

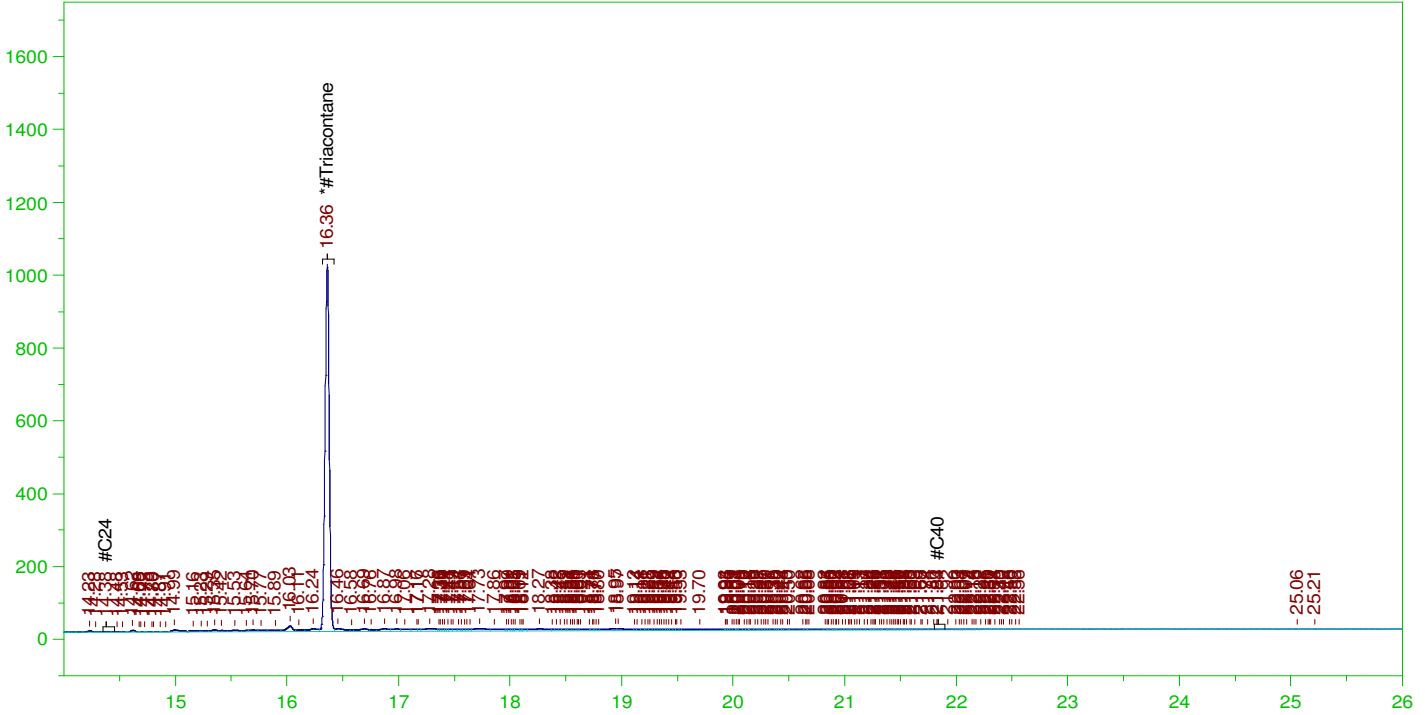
DRO Area:1.259029E+07 DRO Amount: 0.3853146
 TEH Area:1.45153E+07 TEH Amount: 0.4442278

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

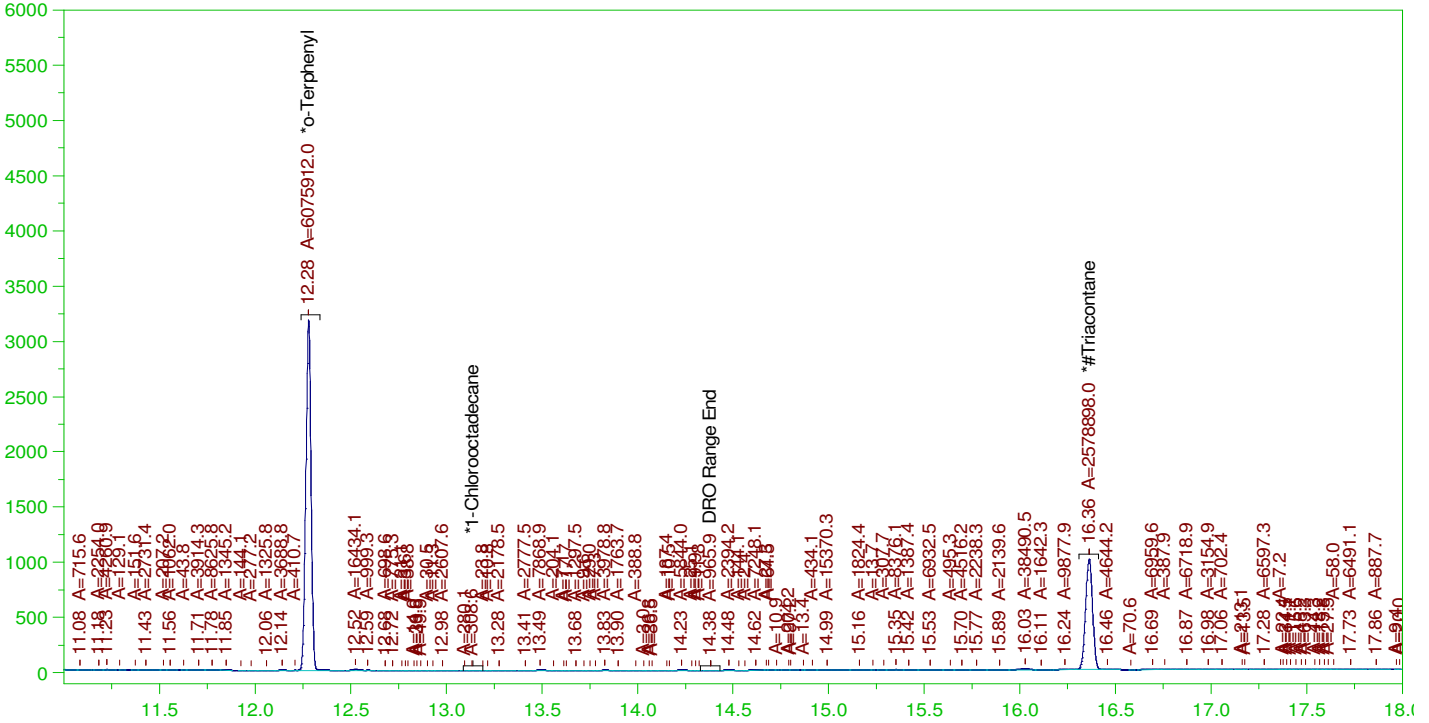
RRO Area:1532114 RRO AMOUNT: 0.0579807

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

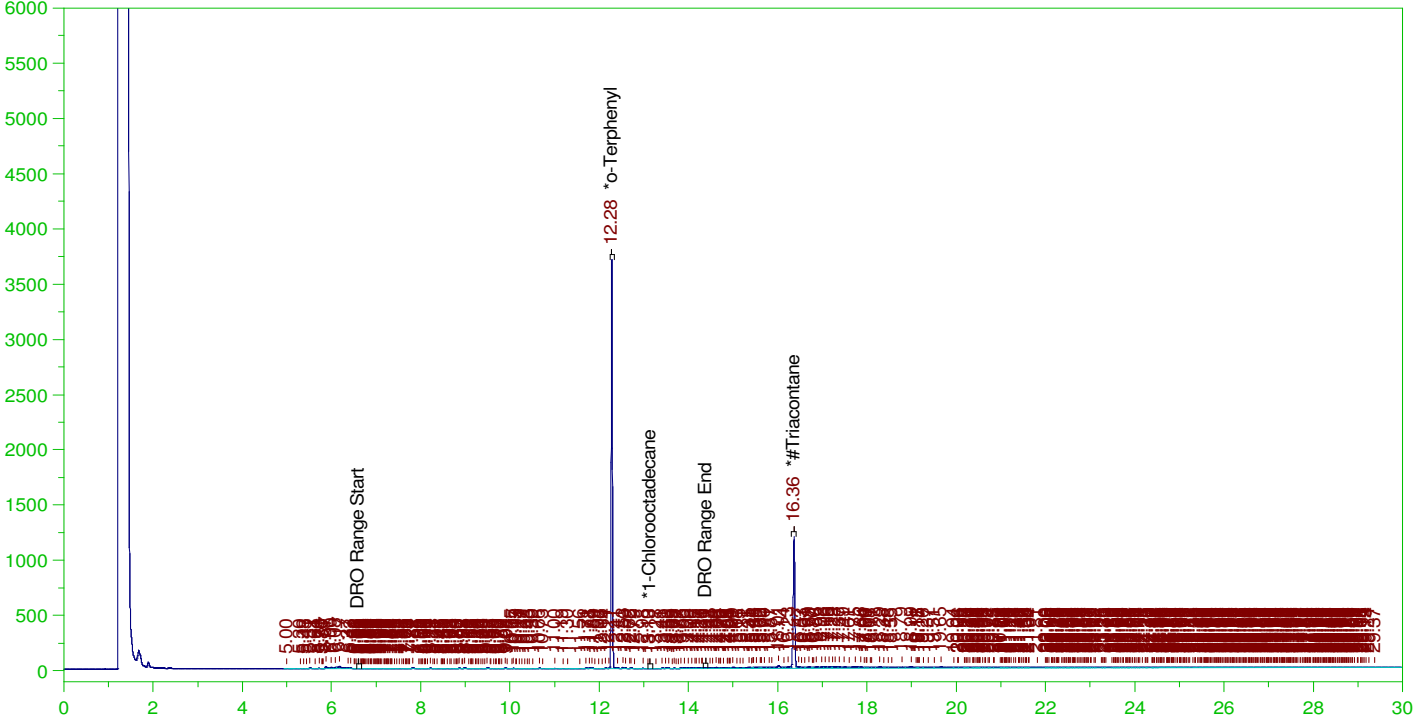
DRO Area:1.013594E+07 DRO Amount: 0.3102012
 TEH Area:1.059168E+07 TEH Amount: 0.3241489

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	-

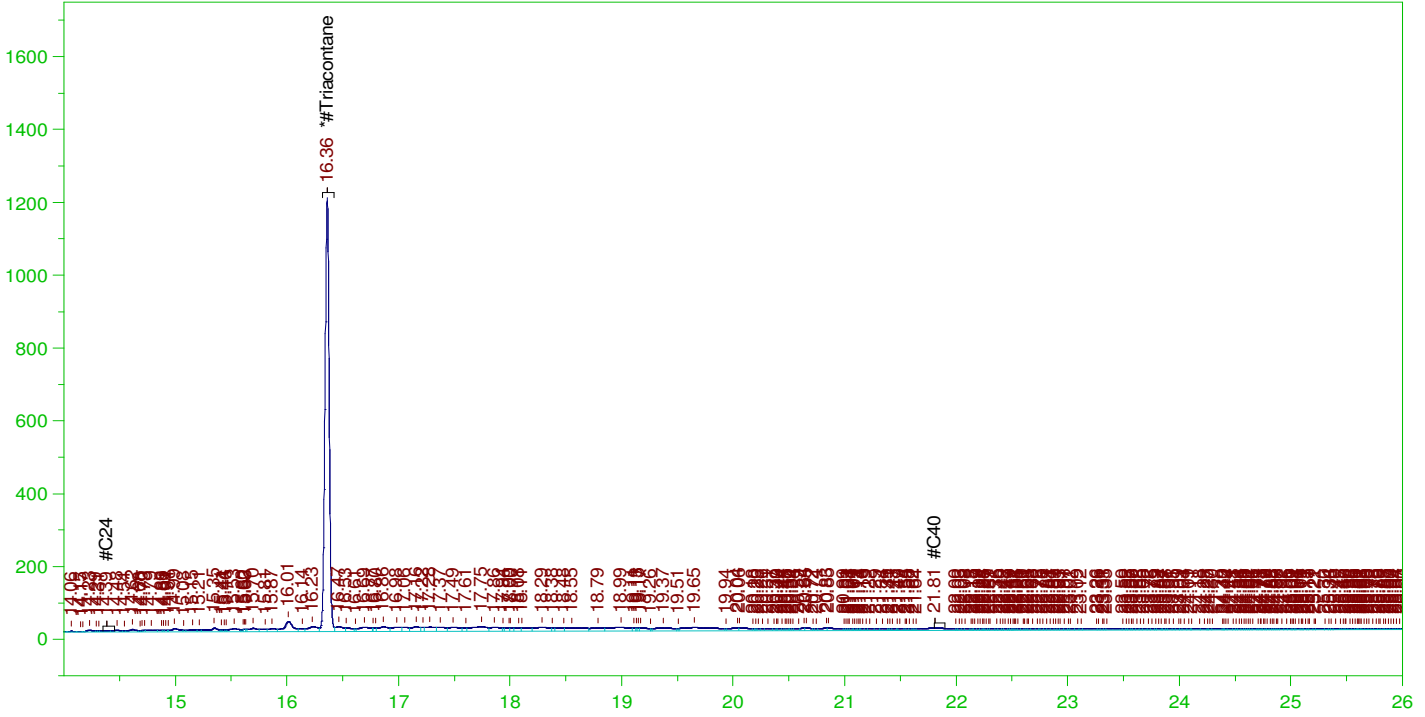
DRO Area:471383.7 DRO Amount: 1.502737E-02
 TEH Area:5256116 TEH Amount: 0.1675611

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

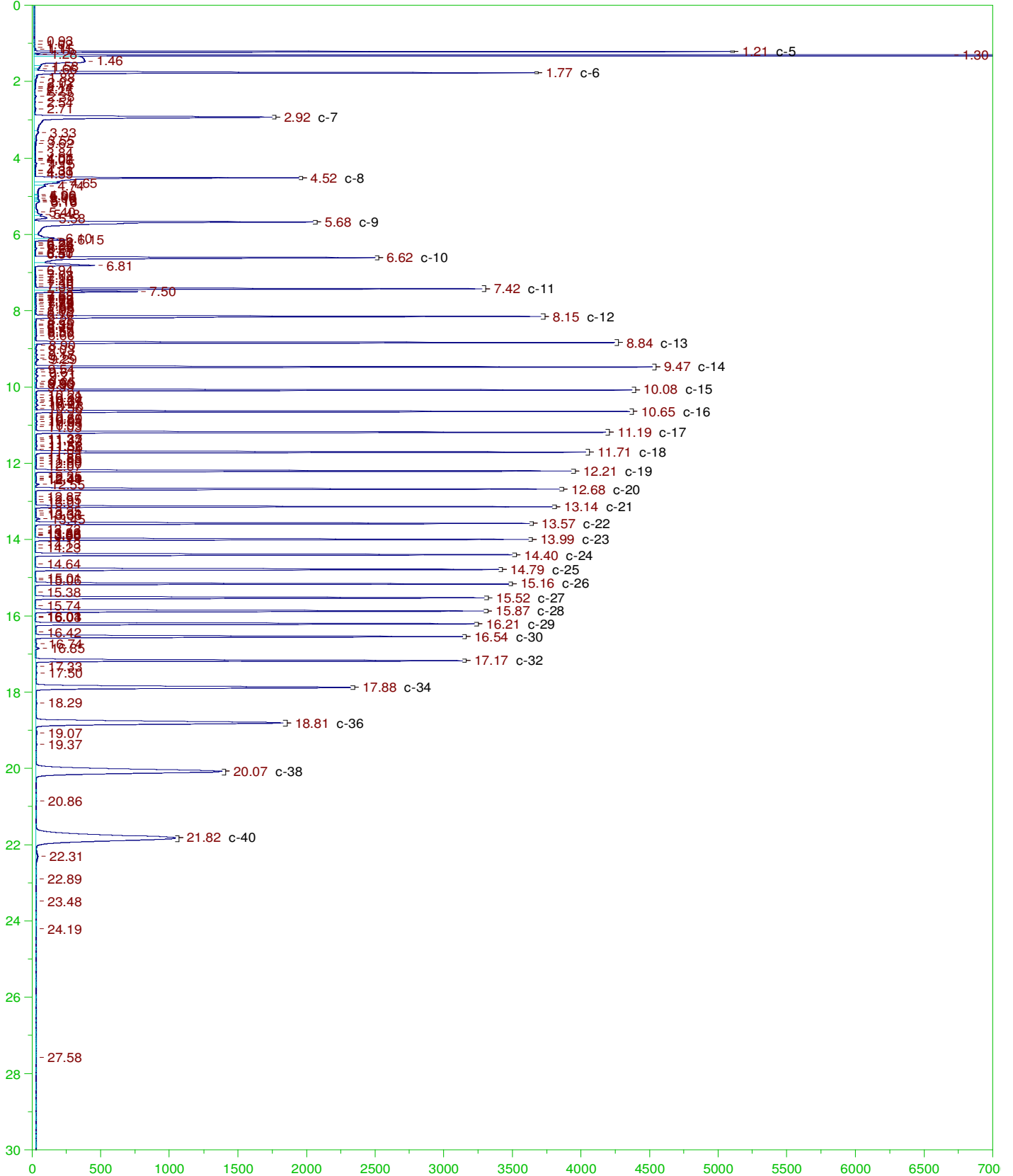
Sample Name: B22011717-001D ;0131HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0018.RAW
 Date & Time Acquired: 1/31/2022 10:59:21 PM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-JD-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO2201111Jd-C24-T.CAL
 Sample Weight: 960 Dilution: 1 S.A.: 1

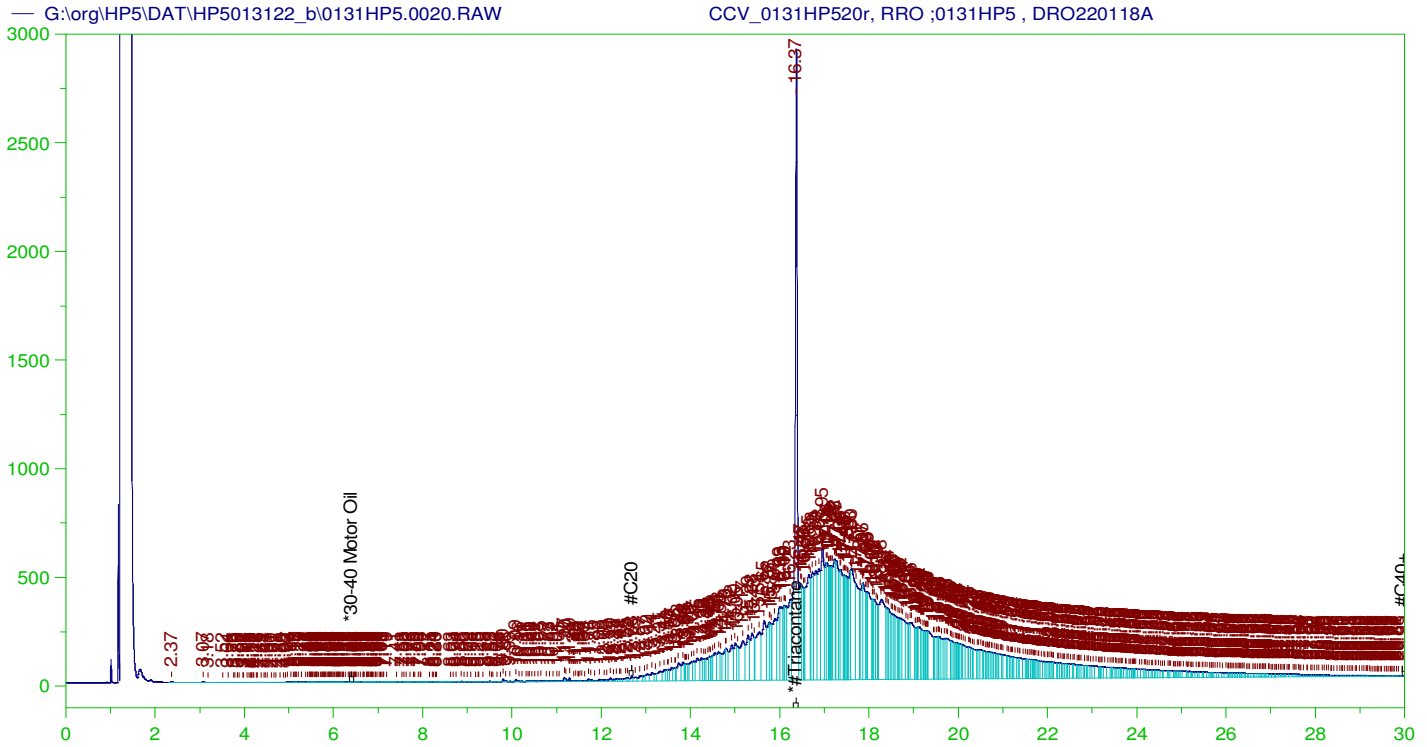
Mean RF for TEH: 32675.36

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	-

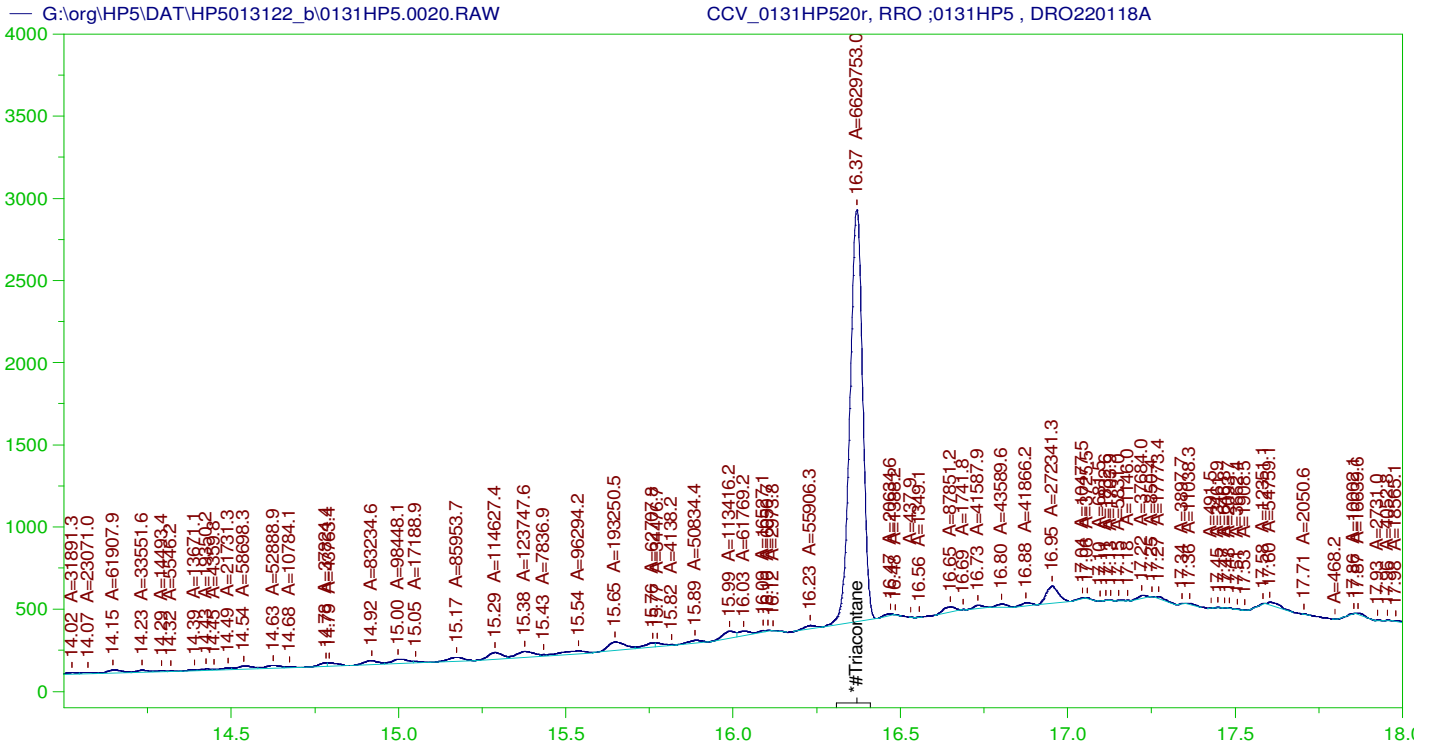
~~RRO~~ TEH(Oil Range) Area:1.309255E+08 ~~RRO~~ TEH(Oil Range) AMOUNT: 4954.691

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

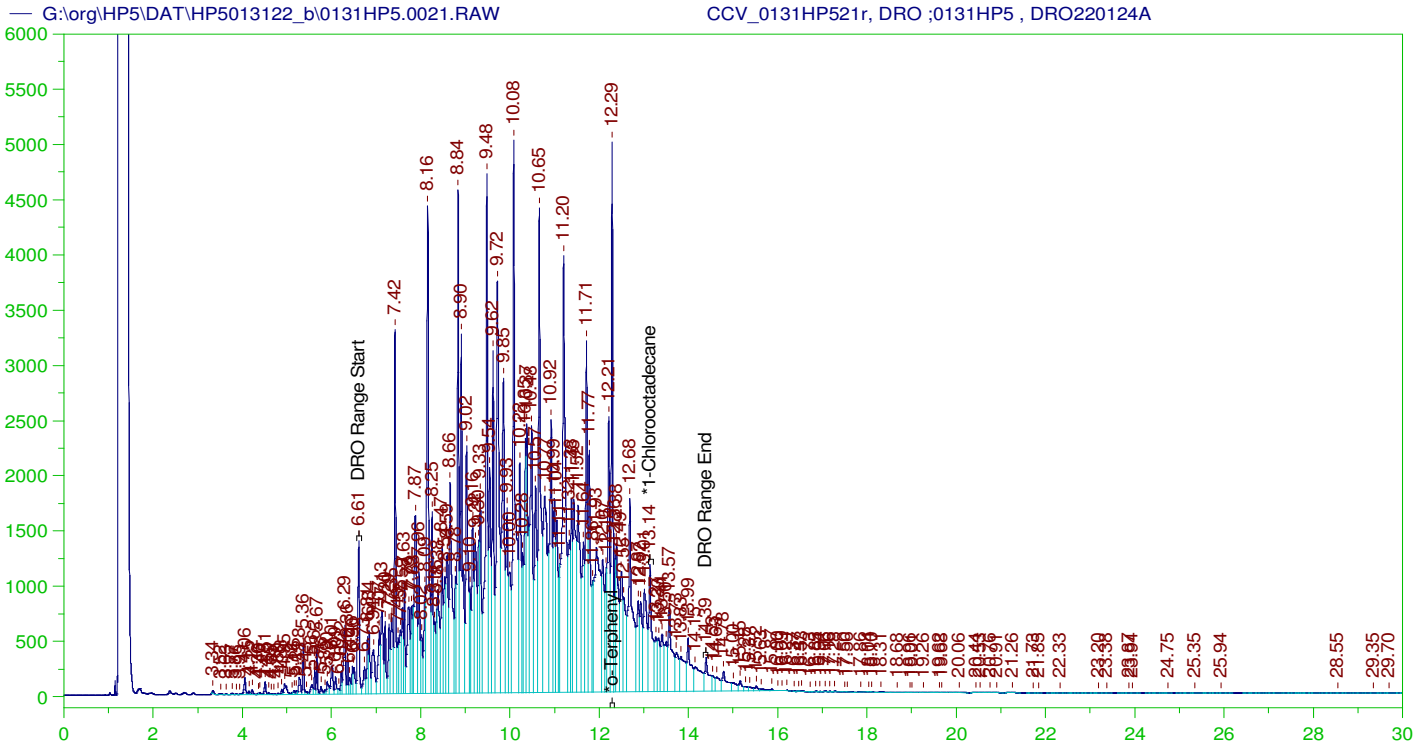
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.37	500.	223.705	44.74

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

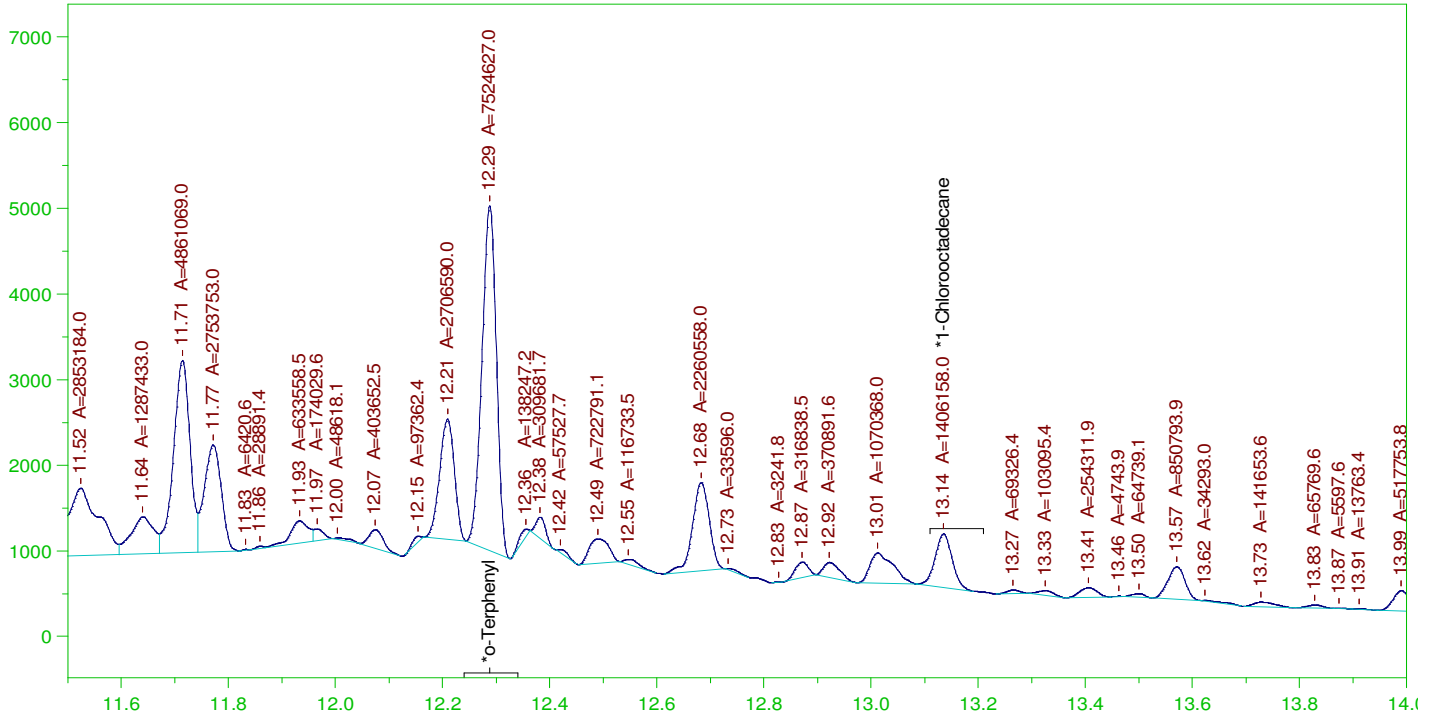
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122_b\0131HP5.0021.RAW

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

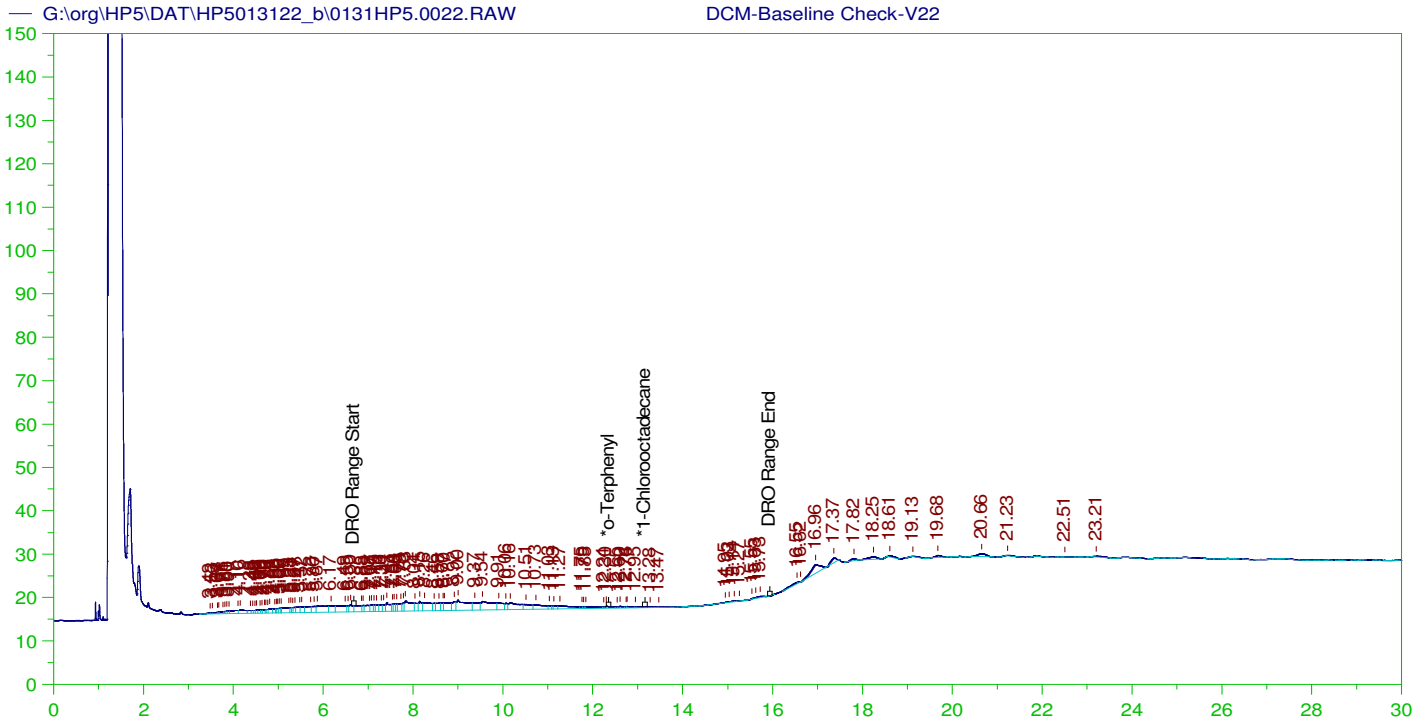
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*o-Terphenyl	12.288	200.	204.153	102.08
*1-Chlorooctadecane	13.135	200.	38.151	19.08

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



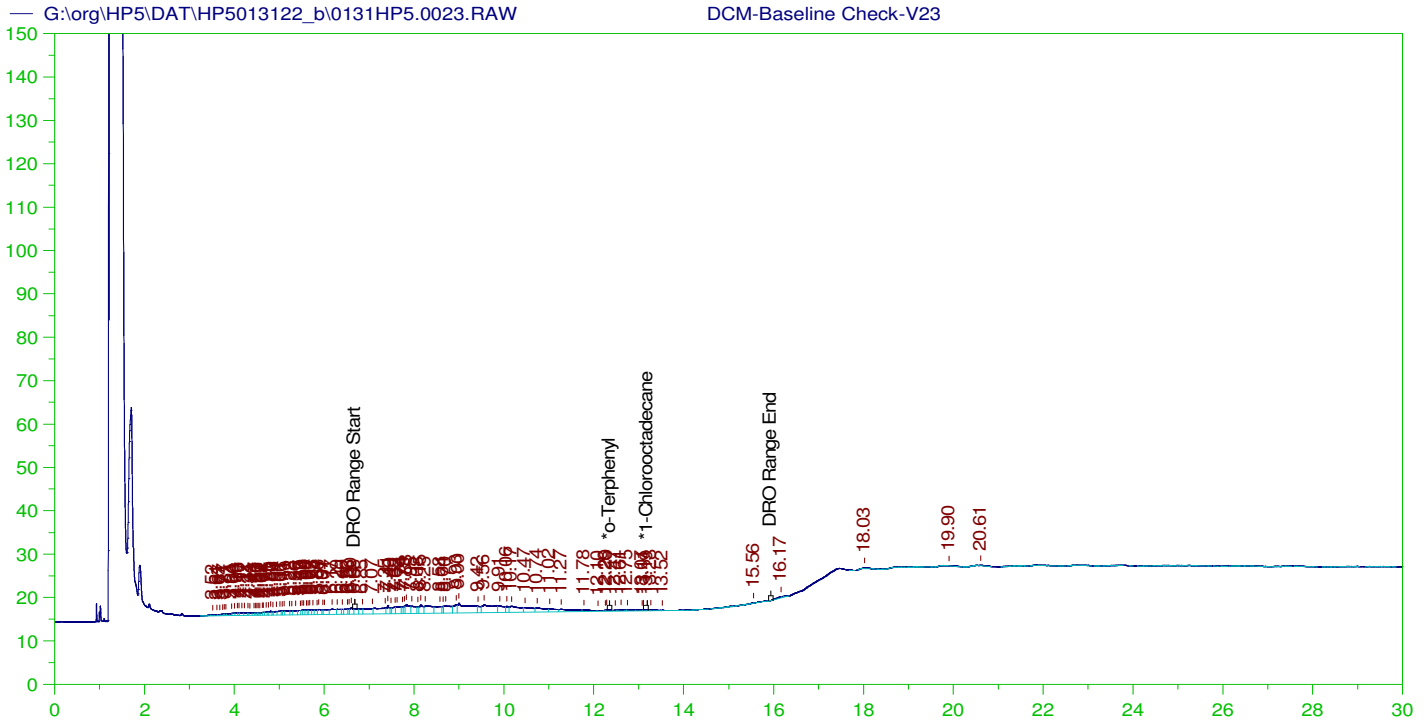
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V22
 Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0022.RAW
 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



DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

Sample Name: DCM-Baseline Check-V23
 Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0023.RAW
 Date & Time Acquired: 2/1/2022 2:33:43 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	29.807	200.	.	-
*1-Chlorooctadecane	13.192	200.	.023	.01 -

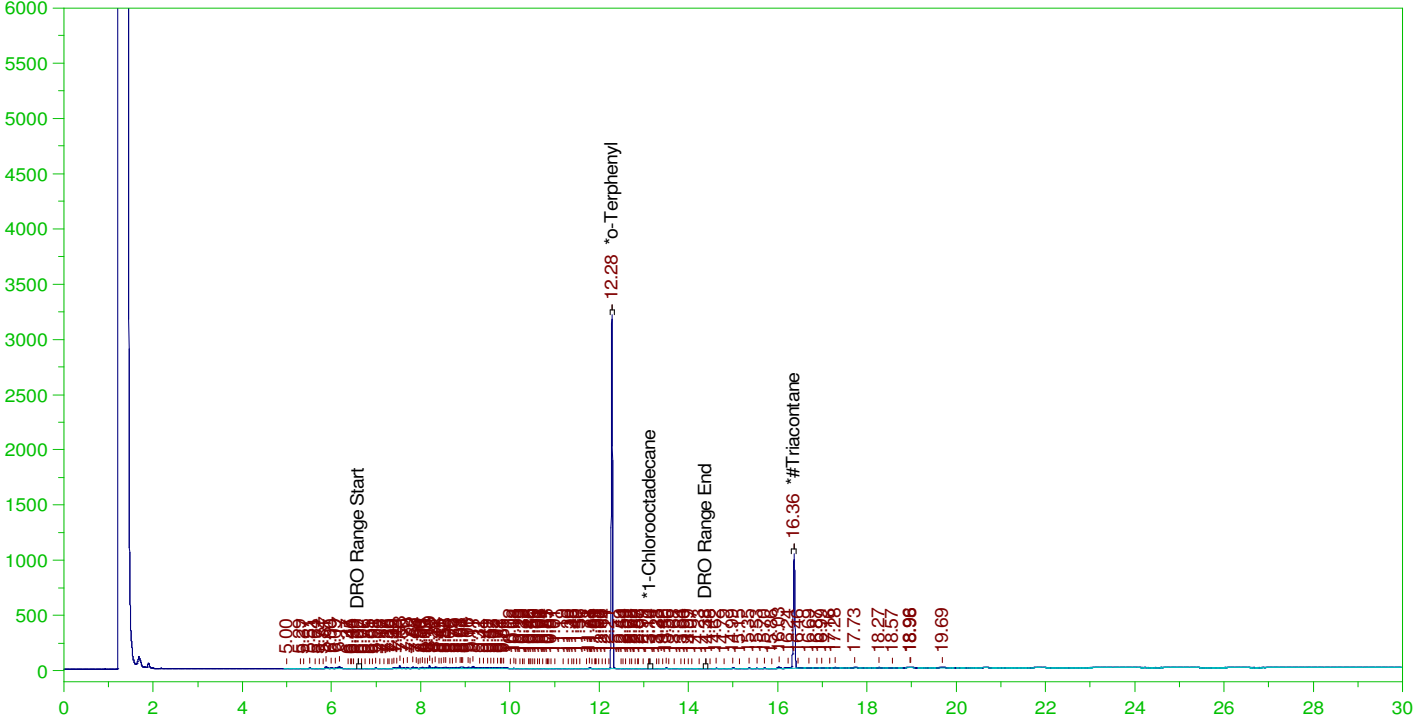
DRO Area:398798 DRO Amount: 12.20485
 TEH Area:571311.2 TEH Amount: 17.48446

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	-

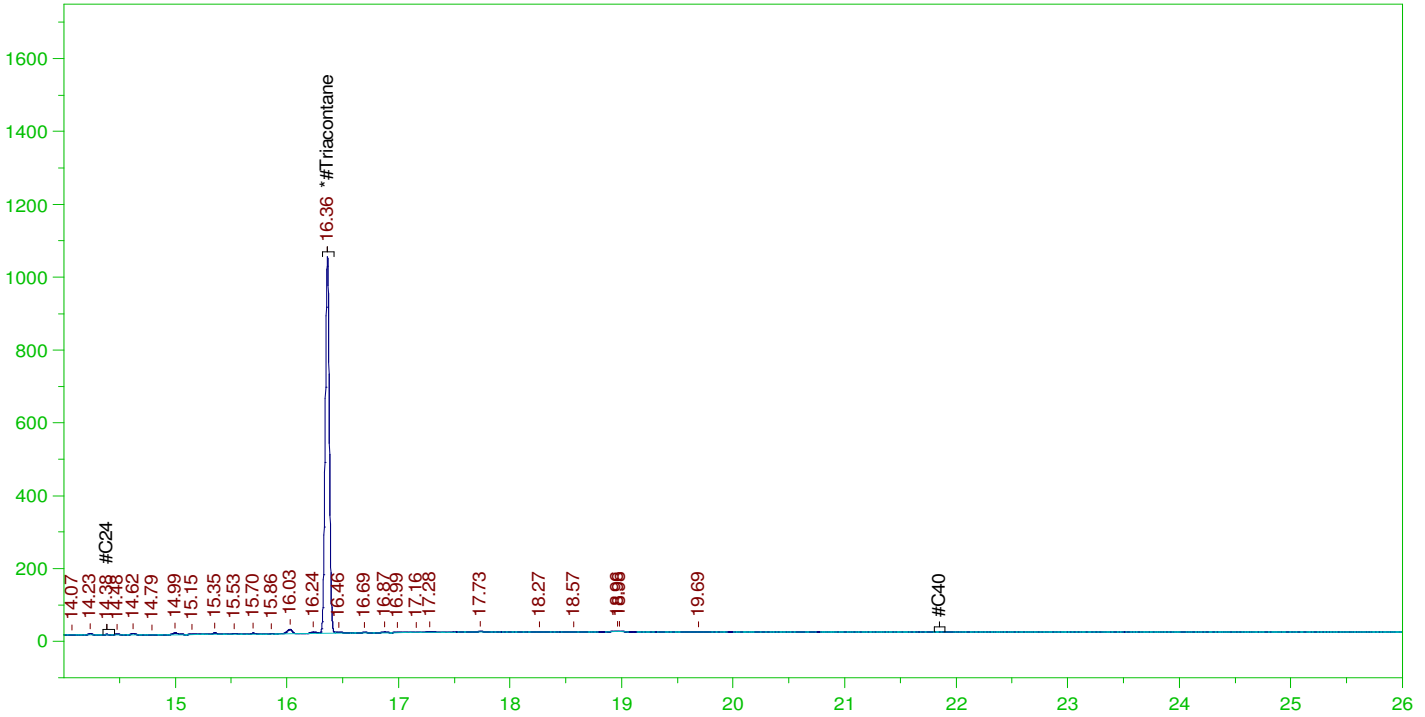
DRO Area:1559217 DRO Amount: 4.678278E-02
 TEH Area:2016203 TEH Amount: 6.049421E-02

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	-

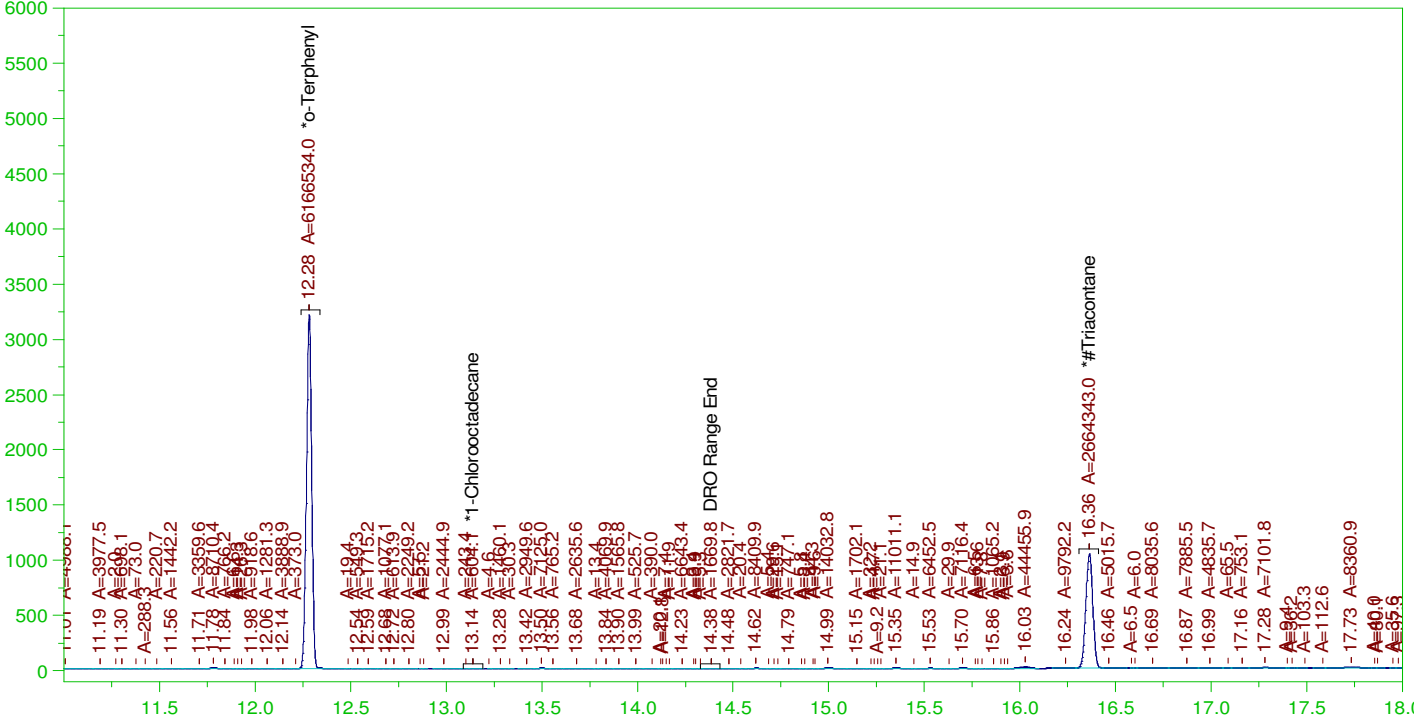
RRO Area:192161.6 RRO AMOUNT: 7.129495E-03

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	-

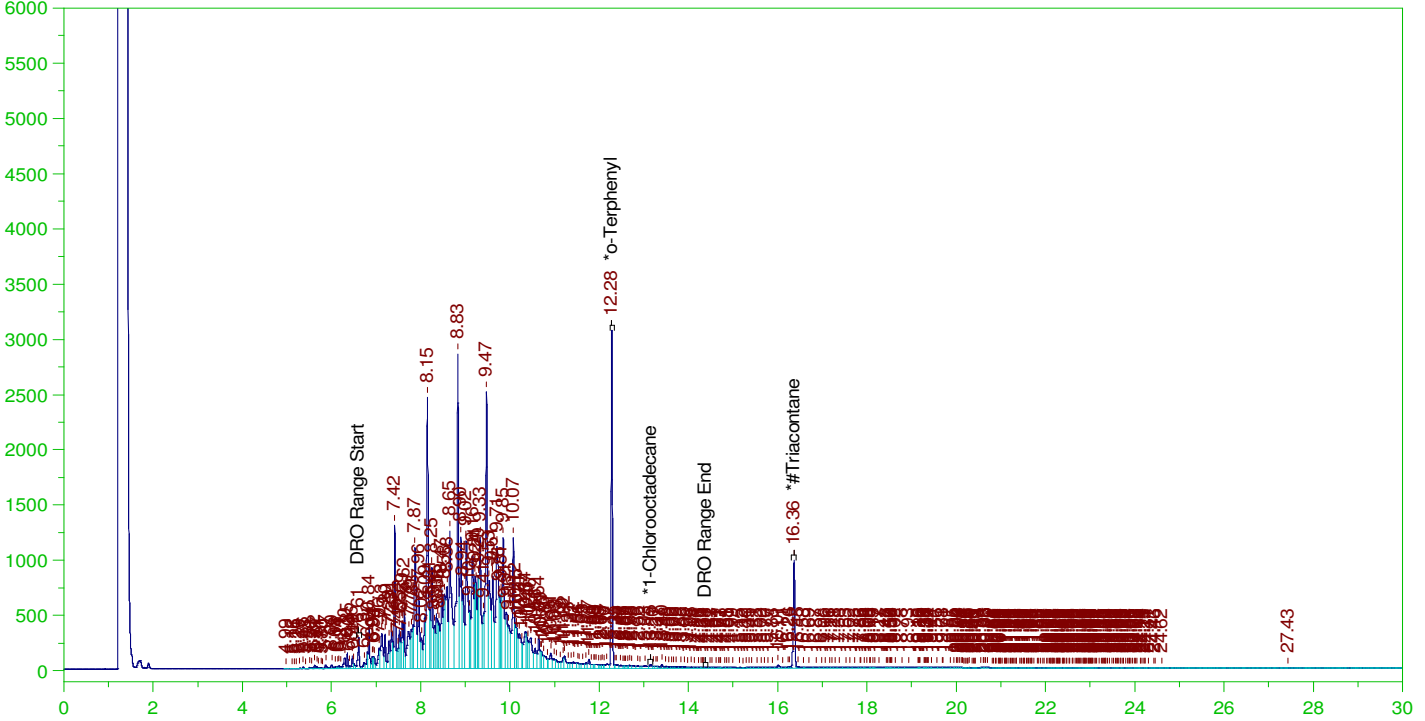
DRO Area:1298889 DRO Amount: 3.897189E-02
 TEH Area:1772207 TEH Amount: 5.317334E-02

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	-

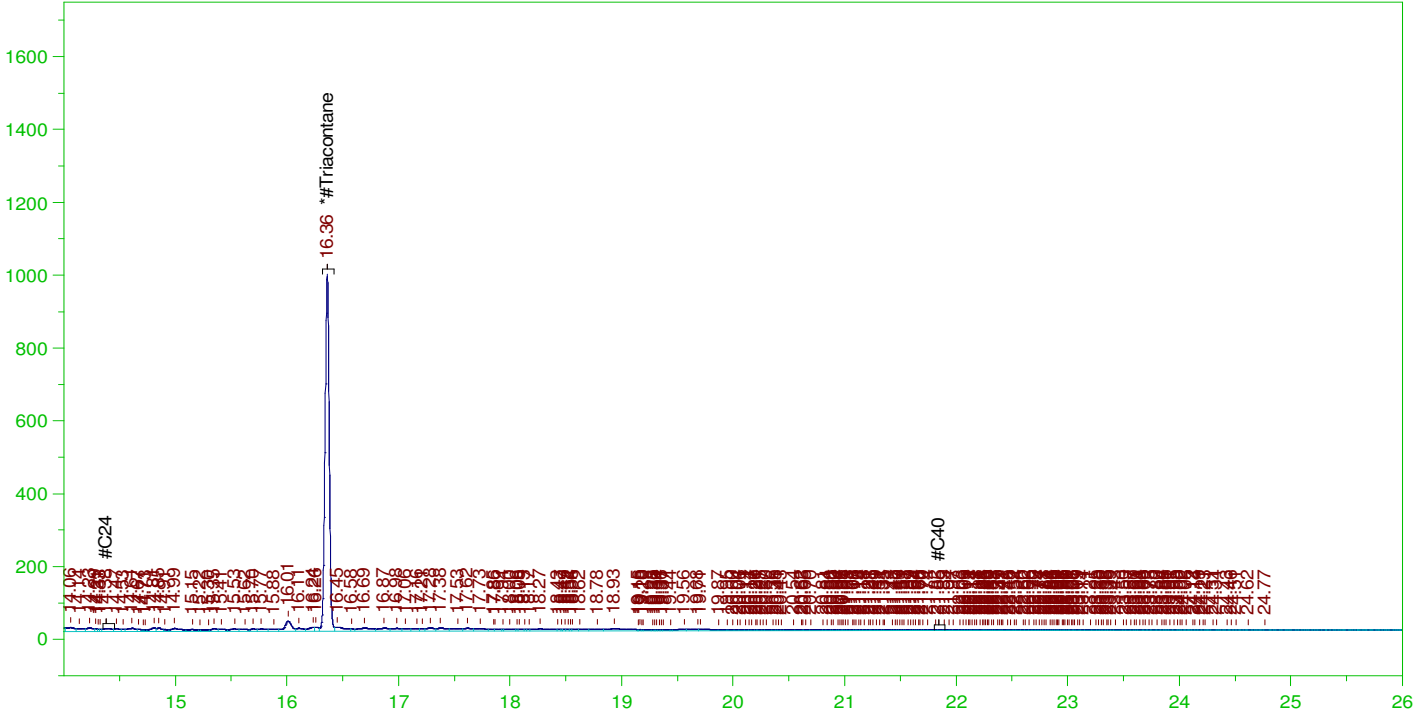
DRO Area: 1.23944E+08 DRO Amount: 3.71882
 TEH Area: 1.279049E+08 TEH Amount: 3.837663

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

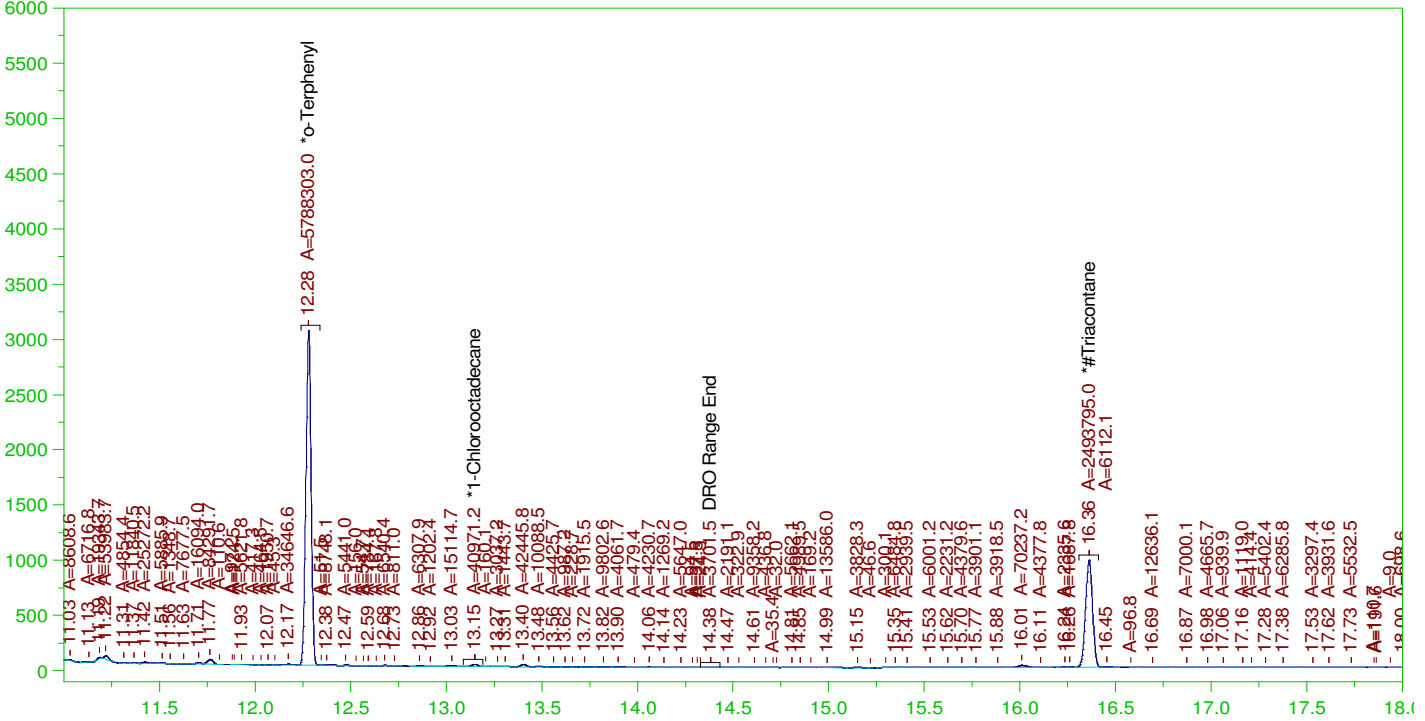
RRO Area:2288955 RRO AMOUNT: 8.492379E-02

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

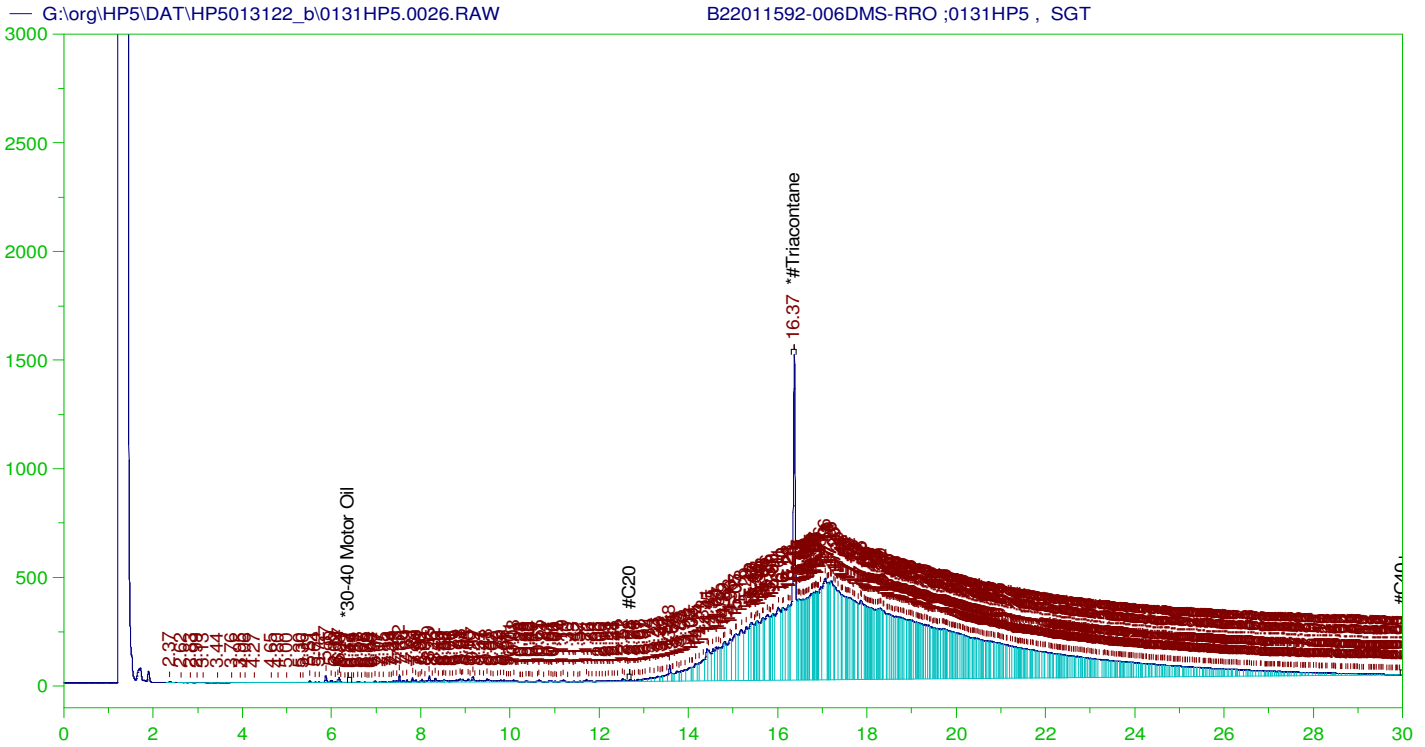
Sample Name: B21121967-001D ;0131HP5 , \$HC-8015-DRO-W, SGT
 Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0025.RAW
 Date & Time Acquired: 2/1/2022 3:59:23 AM
 Method File: G:\Org\HP5\Methods\DS_8015-C24T-JD-L#.met
 Calibration File: G:\Org\HP5\Cals\SW8015C_DRO220111Jd-C24-T.CAL
 Sample Weight: 1020 Dilution: 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

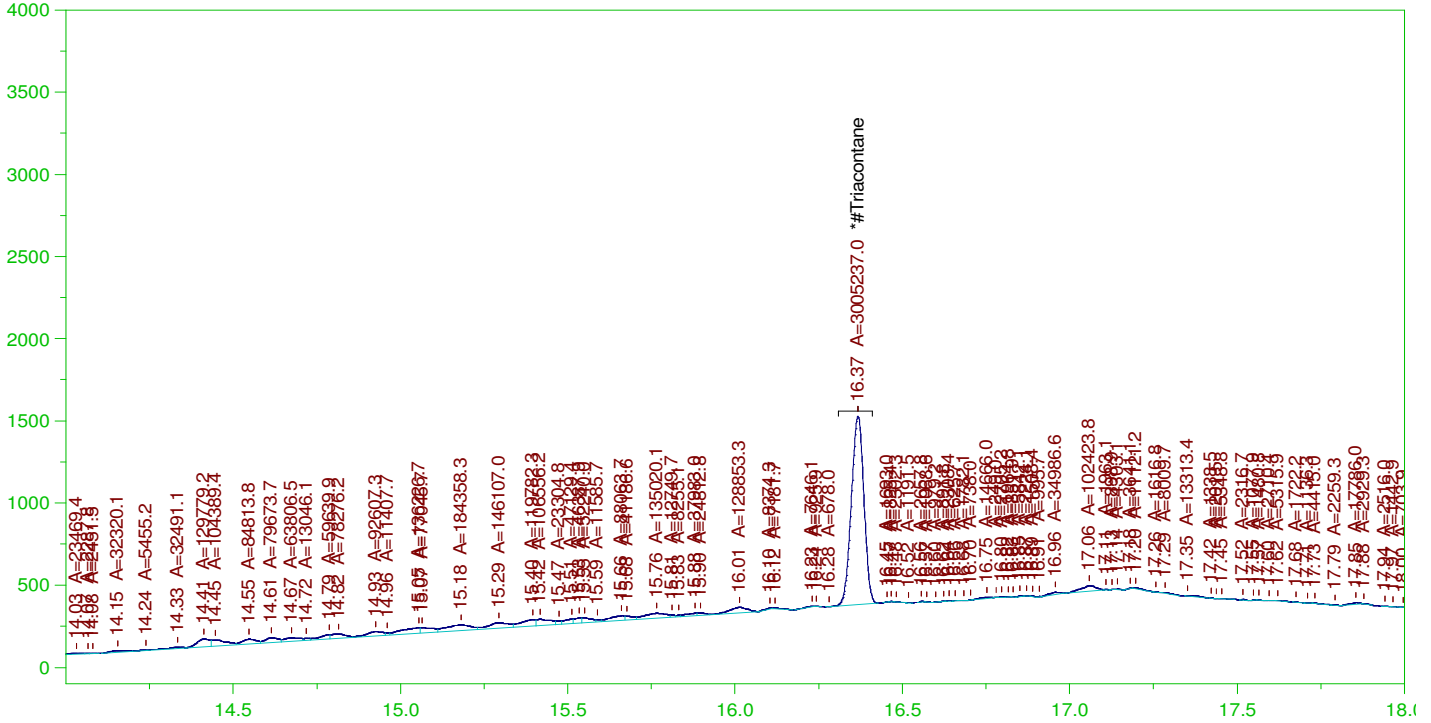
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane_____	16.367	.5	.204	40.71	-

~~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



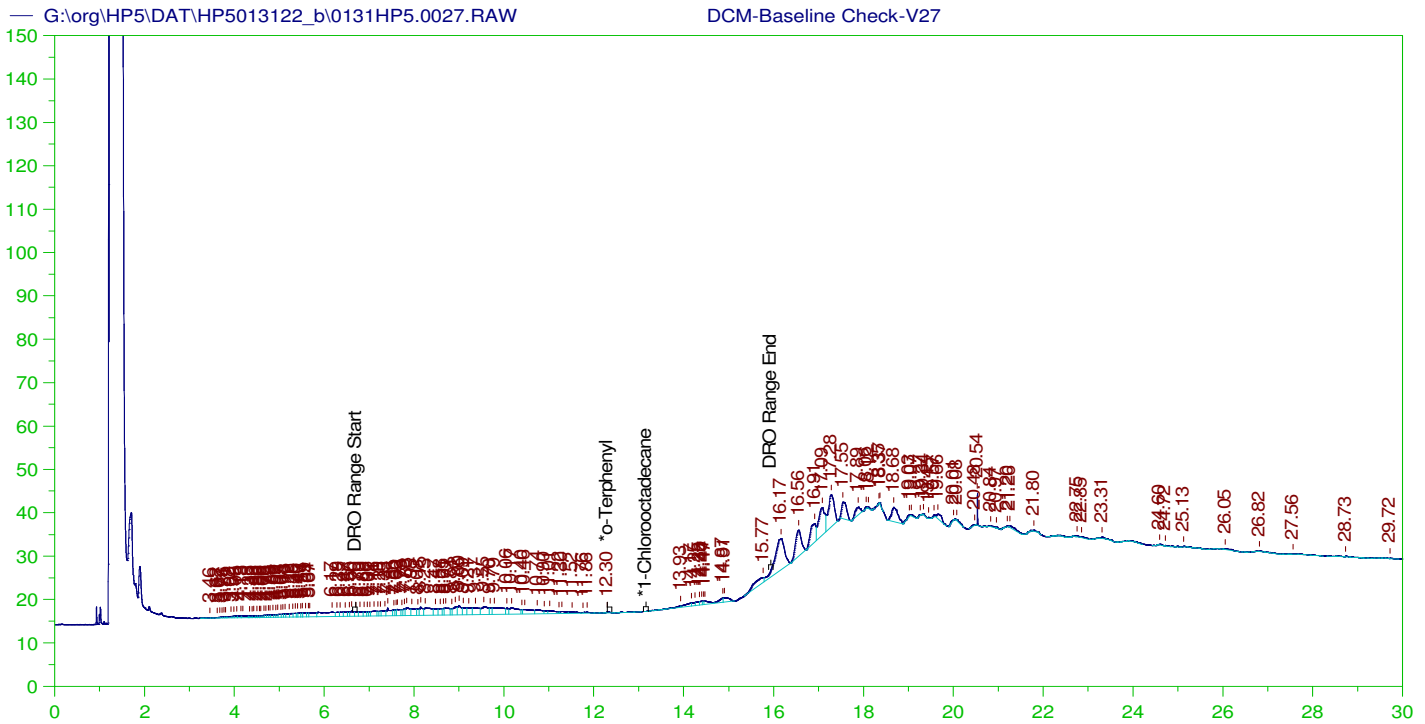
RESIDUAL RANGE ORGANICS CHROMATOGRAM

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



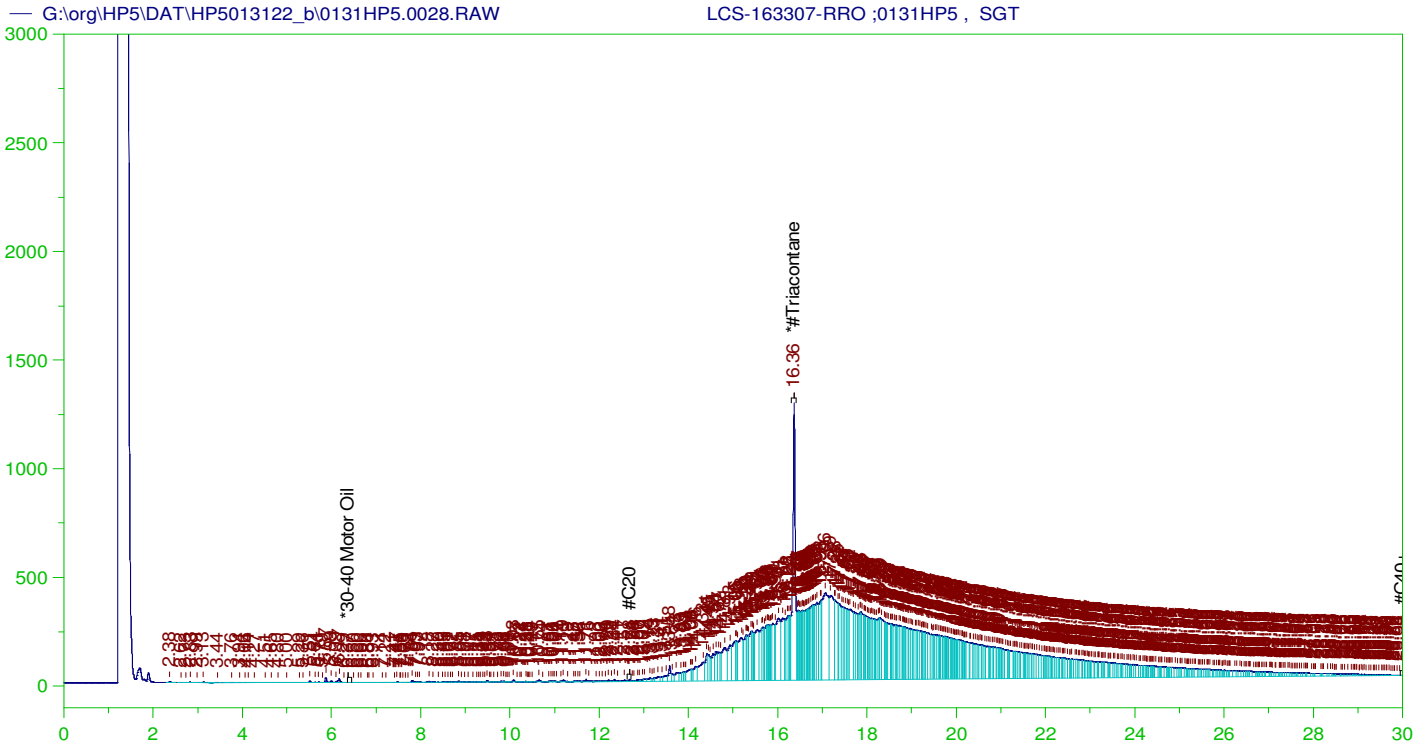
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

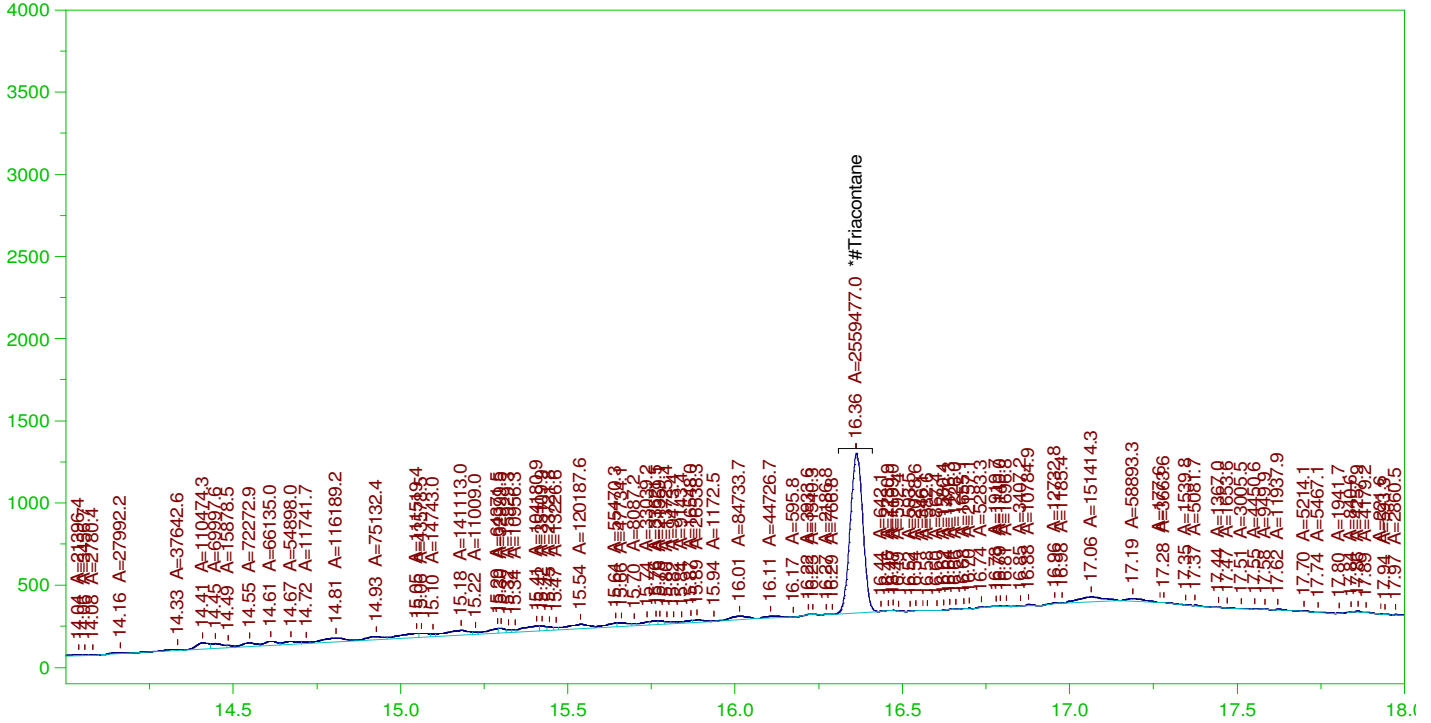
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC	
*#Triacontane	16.362	.5	.166	33.26	-

~~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



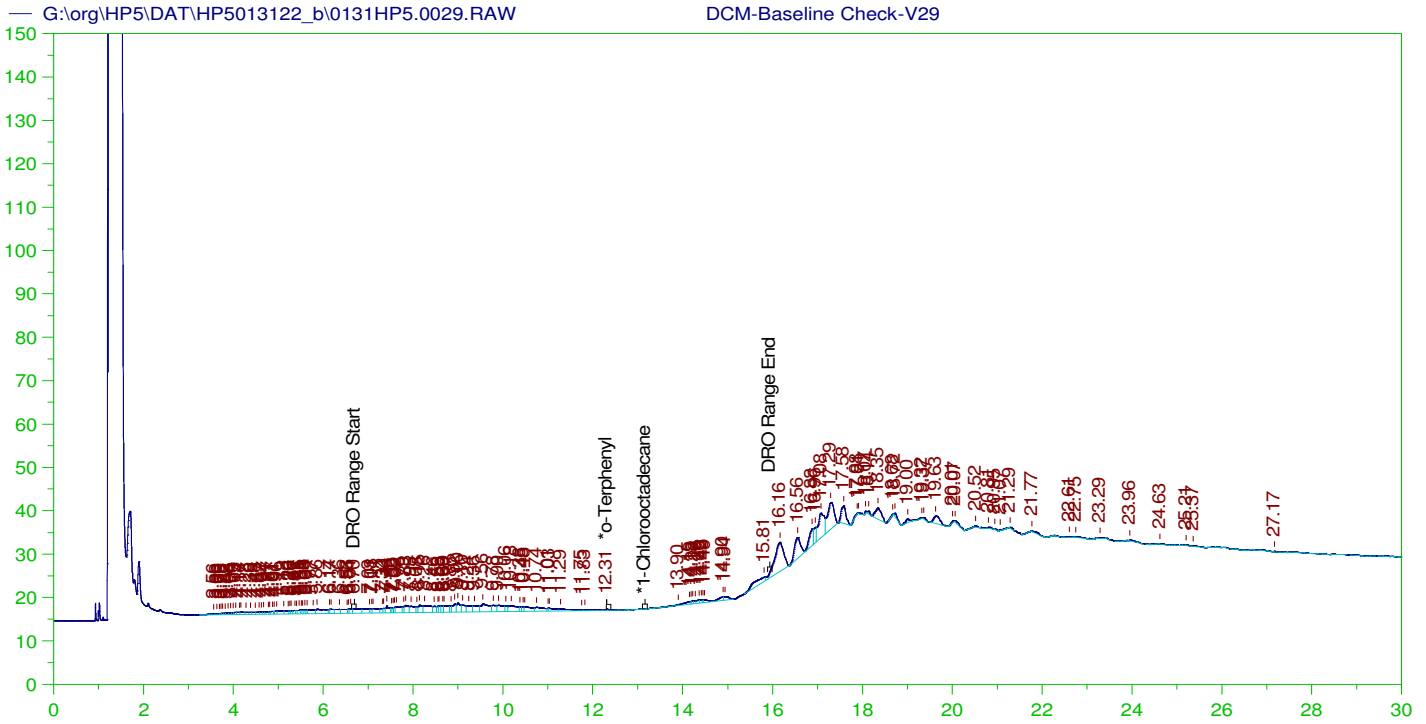
RESIDUAL RANGE ORGANICS CHROMATOGRAM

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



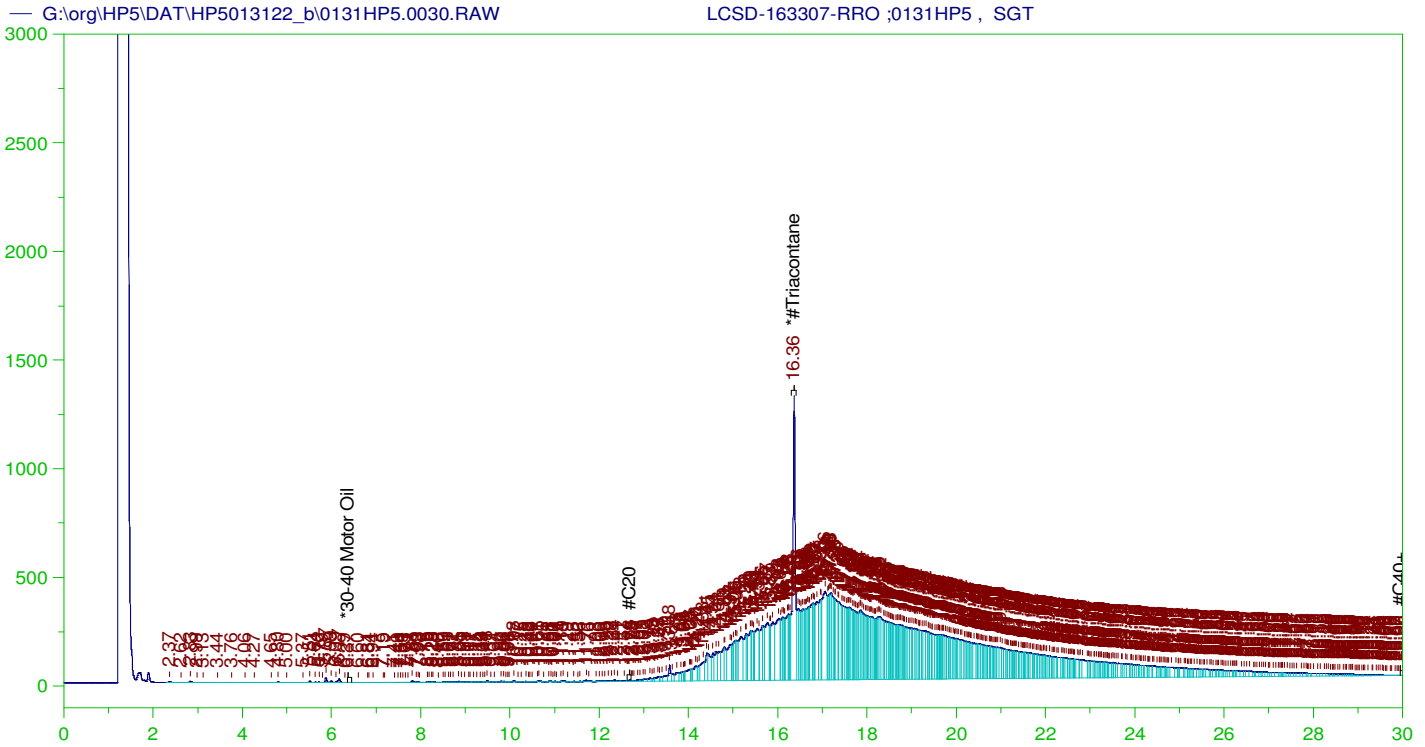
DIESEL RANGE ORGANICS CHROMATOGRAM REPORT

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

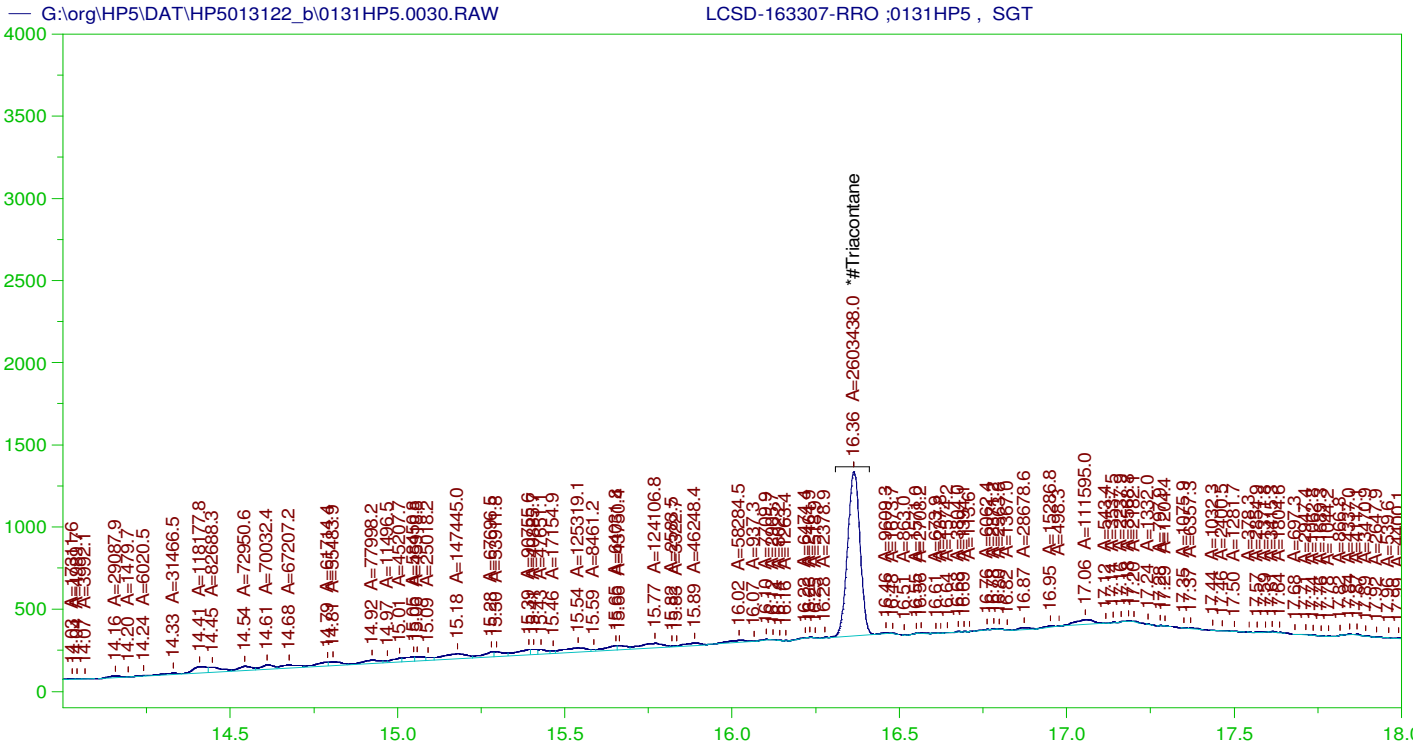
Sample Name: LCSD-163307-RRO ;0131HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0030.RAW
 Date & Time Acquired: 2/1/2022 7:33:28 AM
 Method File: G:\Org\HP5\Methods\D3_ORO-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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



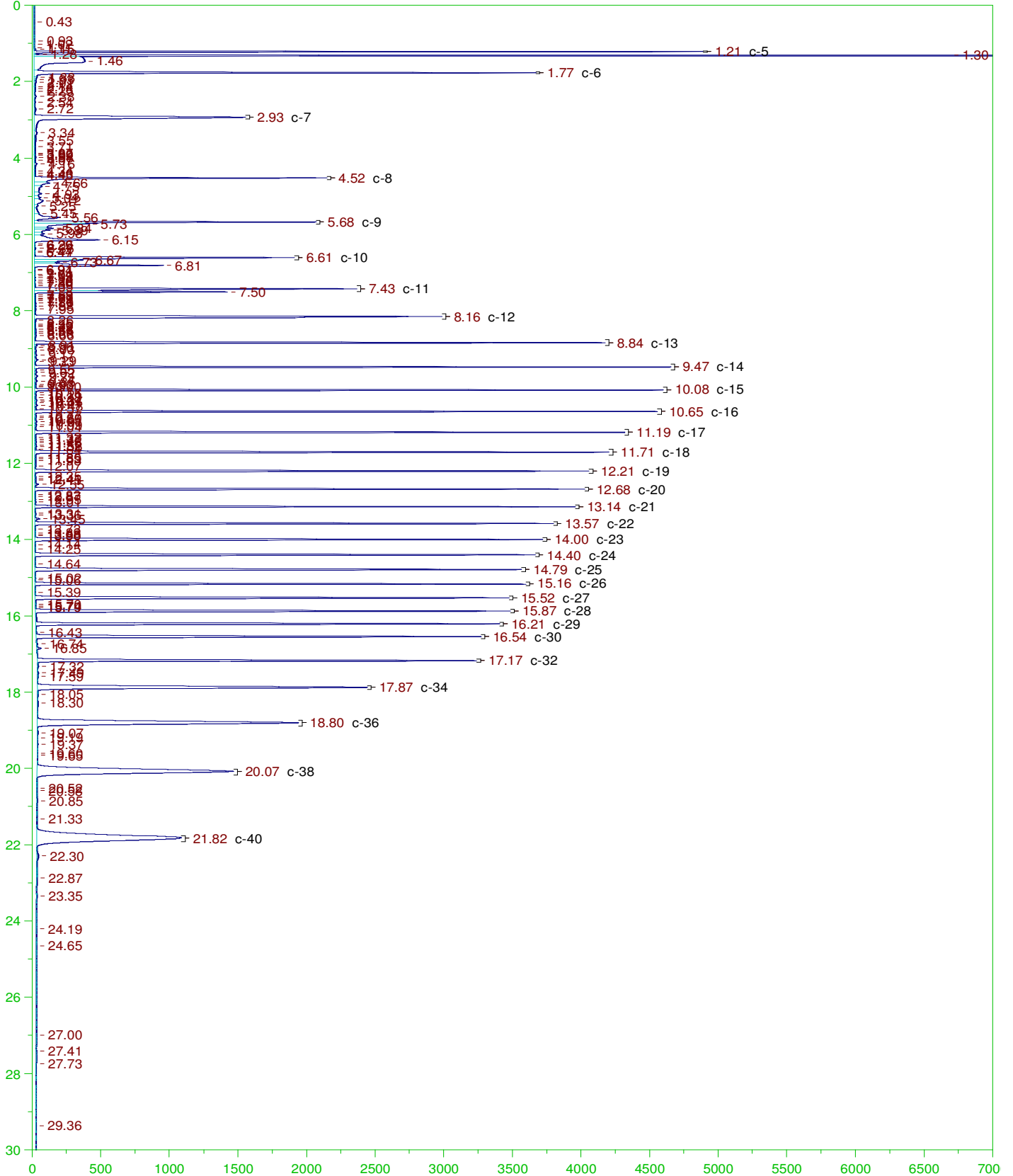
RESIDUAL RANGE ORGANICS CHROMATOGRAM

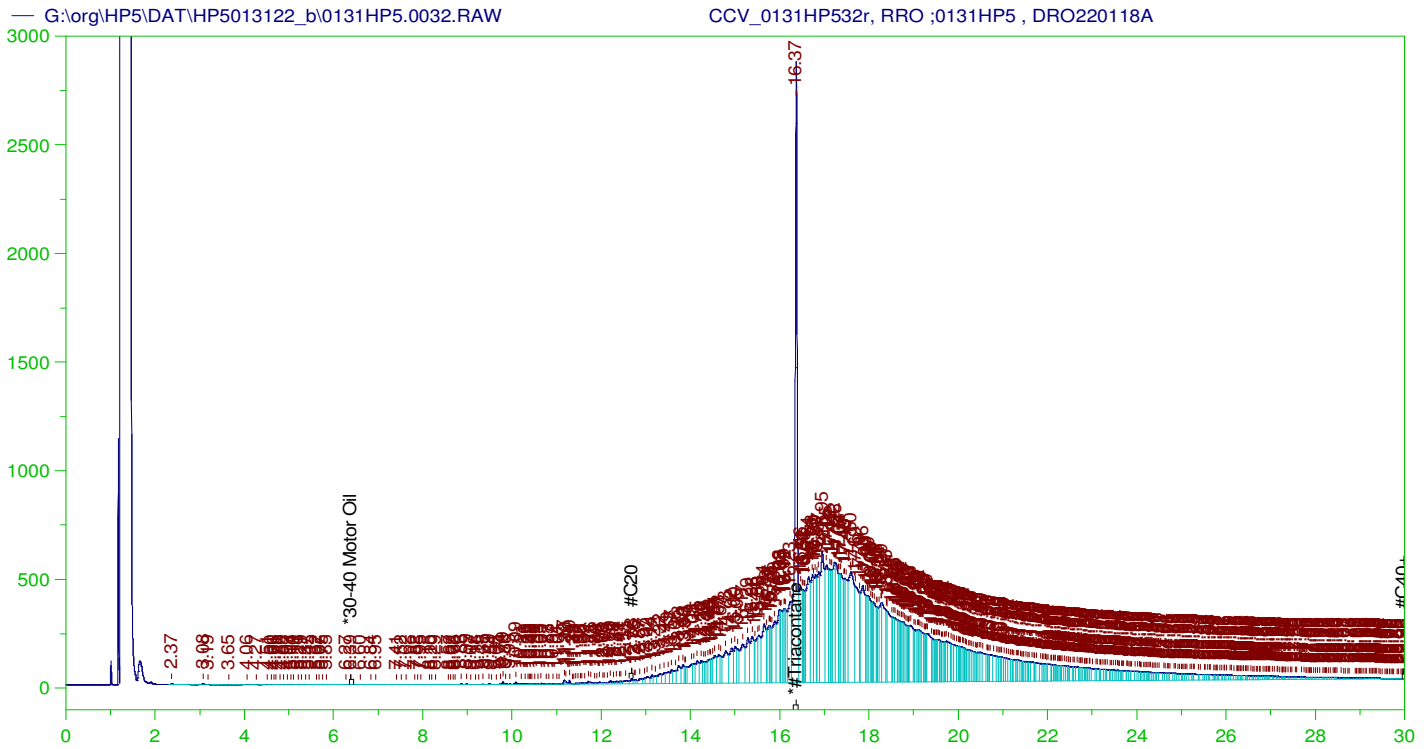
Sample Name: LCSD-163307-RRO ;0131HP5 , SGT
 Raw File: G:\org\HP5\DAT\HP5013122_b\0131HP5.0030.RAW
 Date & Time Acquired: 2/1/2022 7:33:28 AM
 Method File: G:\Org\HP5\Methods\DS_ORO-BD-L%.MET
 Calibration File: G:\Org\HP5\Cals\SW8015C_ORO220111BD.CAL
 Sample Weight: 1000 Dilution: 1 S.A.: 1

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	-

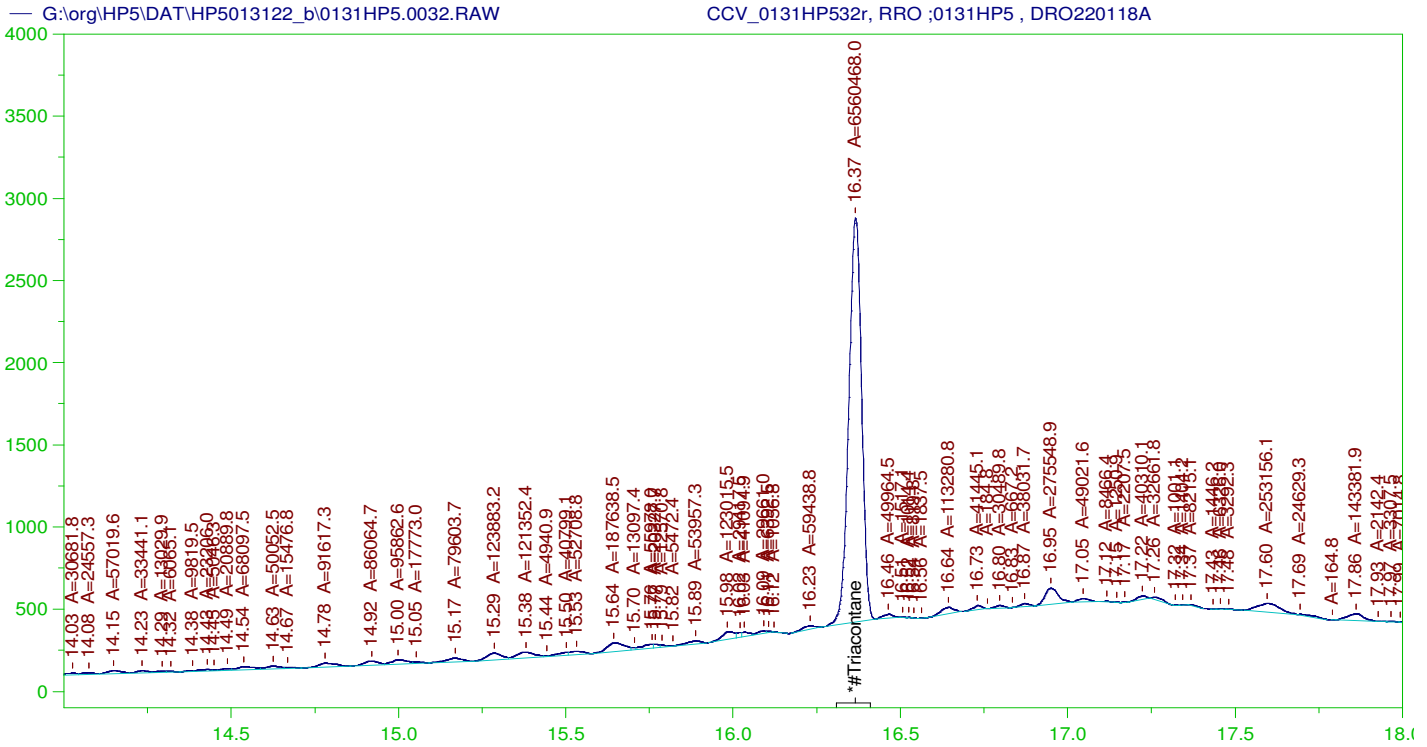
RRO TEH(Oil Range) Area: 1.302758E+08 RRO TEH(Oil Range) AMOUNT: 4930.103

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

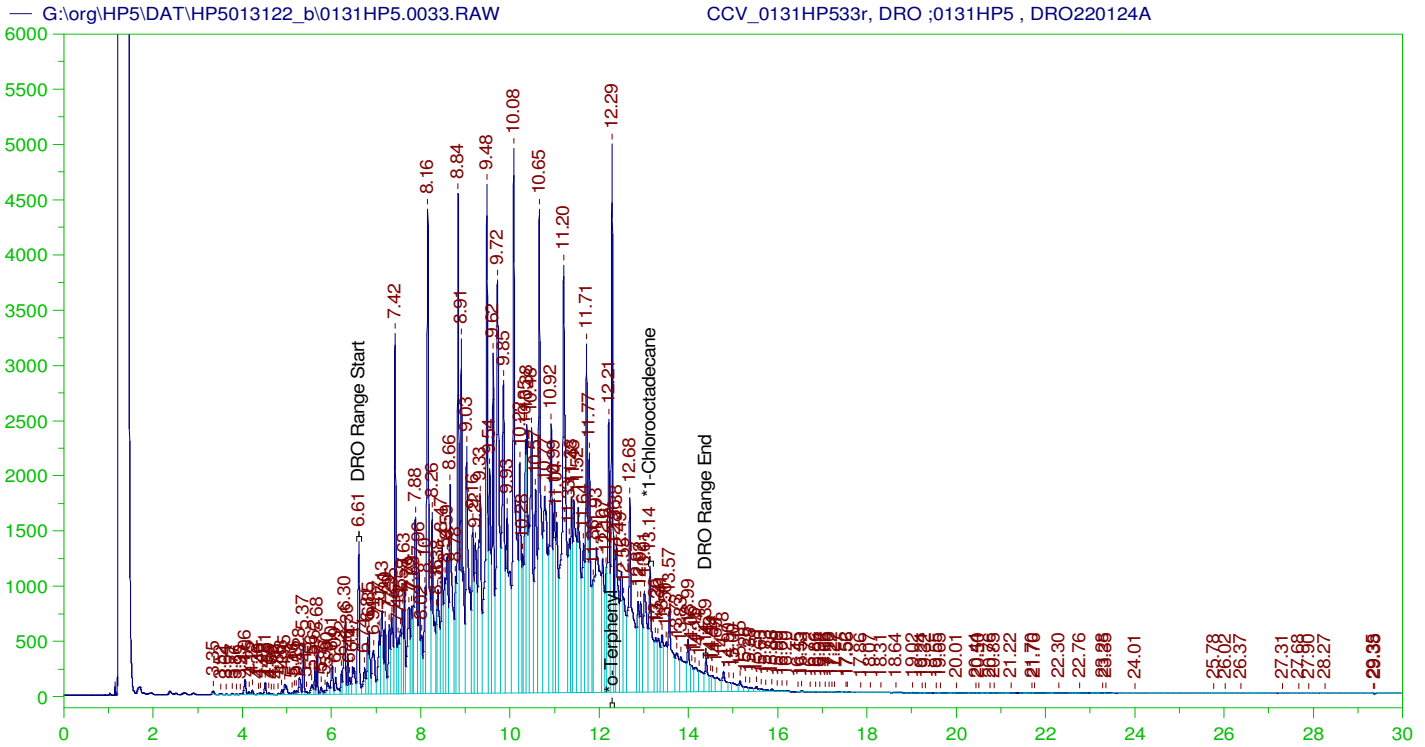
SURROGATE COMPOUND	RT	ACTUAL	MEASURED	%REC
*#Triacontane	16.366	500.	221.367	44.27

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

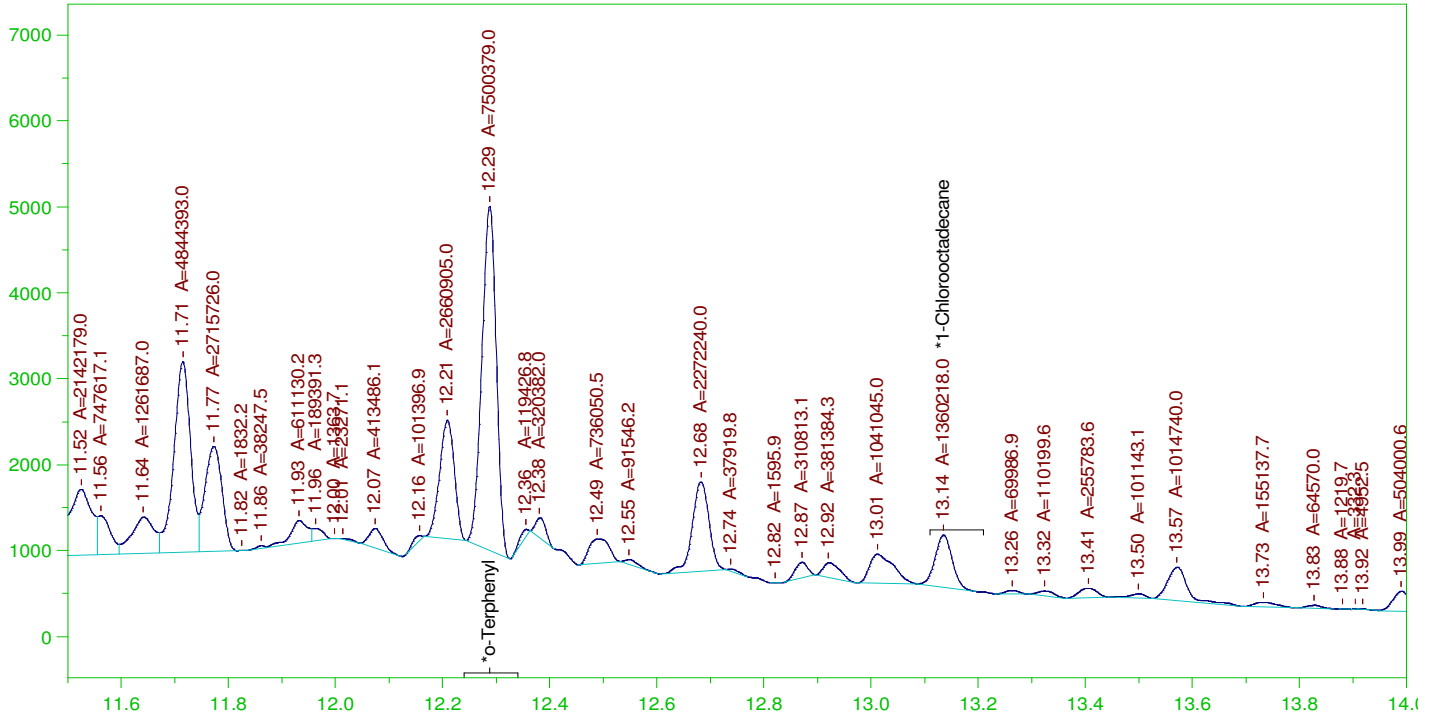
CONTINUING CALIBRATION REPORT: G:\org\HP5\DAT\HP5013122_b\0131HP5.0033.RAW

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	10069		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	10701		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	12650	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	13192	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	13193	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	14050	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	14434	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	14408	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	14623	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	14543	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	14543	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

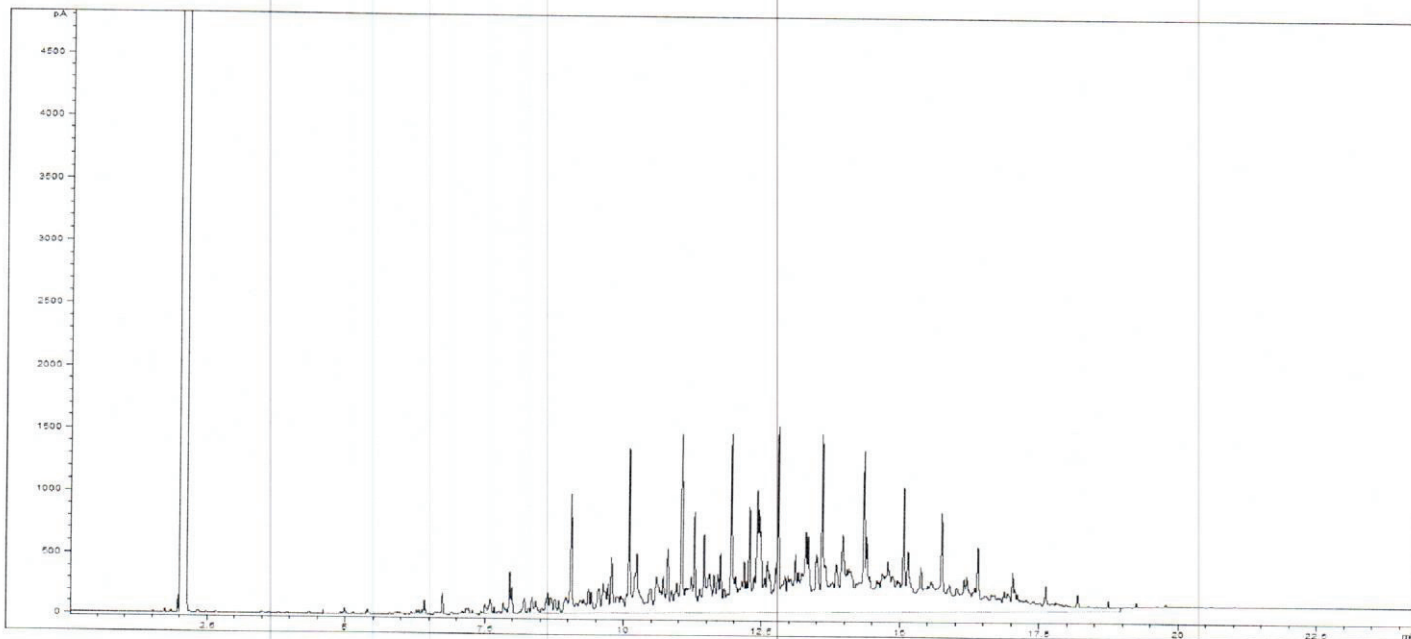
Rec'd: 12/14/2021

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

Certified Values

Analyte	Certified Value ^{1,4}	Units	Raw Material Purity, %	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H₂, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



SIGMA-ALDRICH

2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot **LRAC6316**
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

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

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

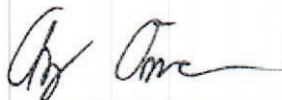
Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual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

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

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

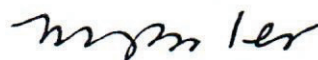
MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager

Certification Date April 30, 2020
Version 0-4302020



Mark Pooler - QA Supervisor



660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C18H14
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

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

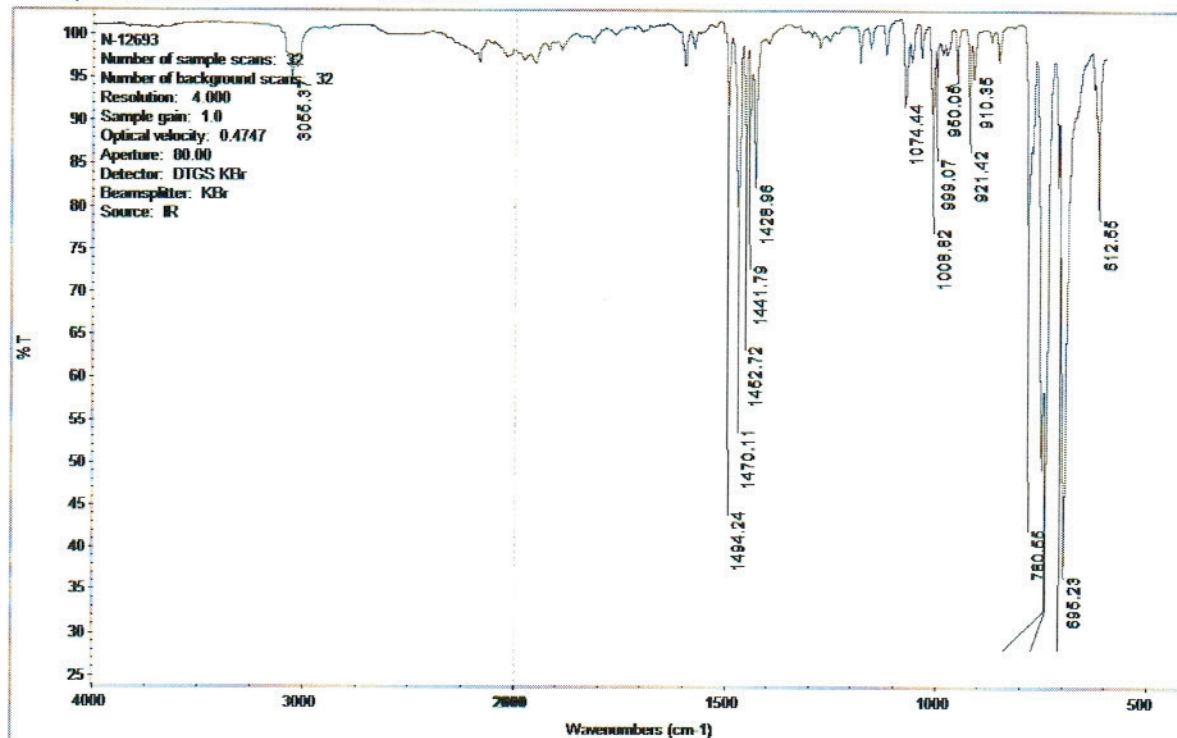
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

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



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



CERTIFICATE OF ANALYSIS

Analysis Method:

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

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

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

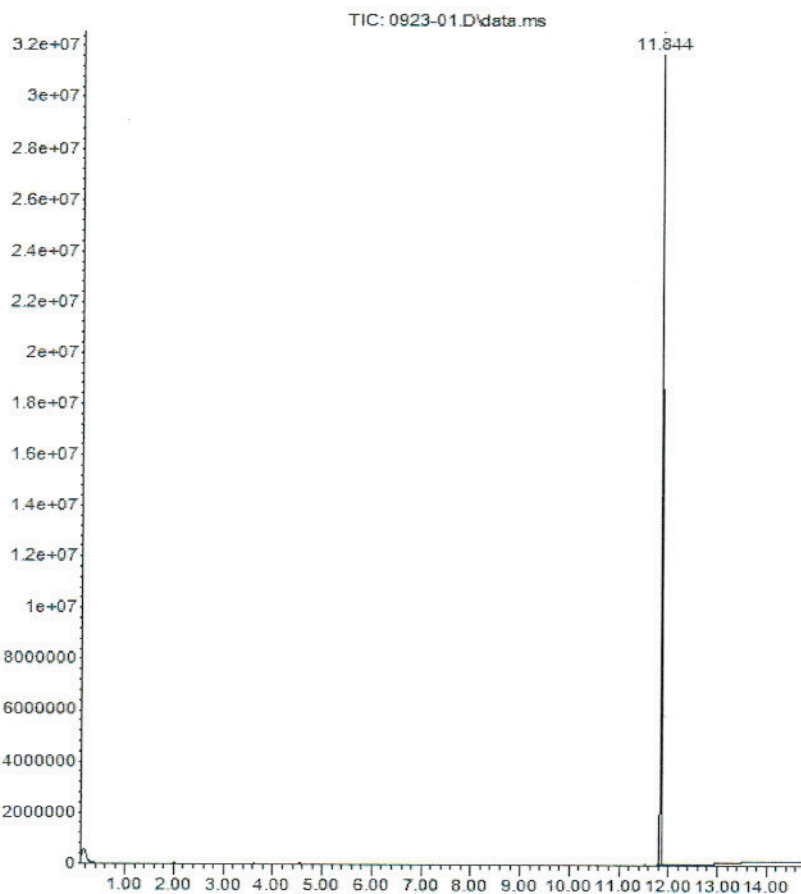
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CERTIFICATE OF ANALYSIS

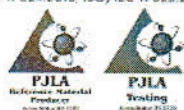
Analysis Method:

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

Abundance



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

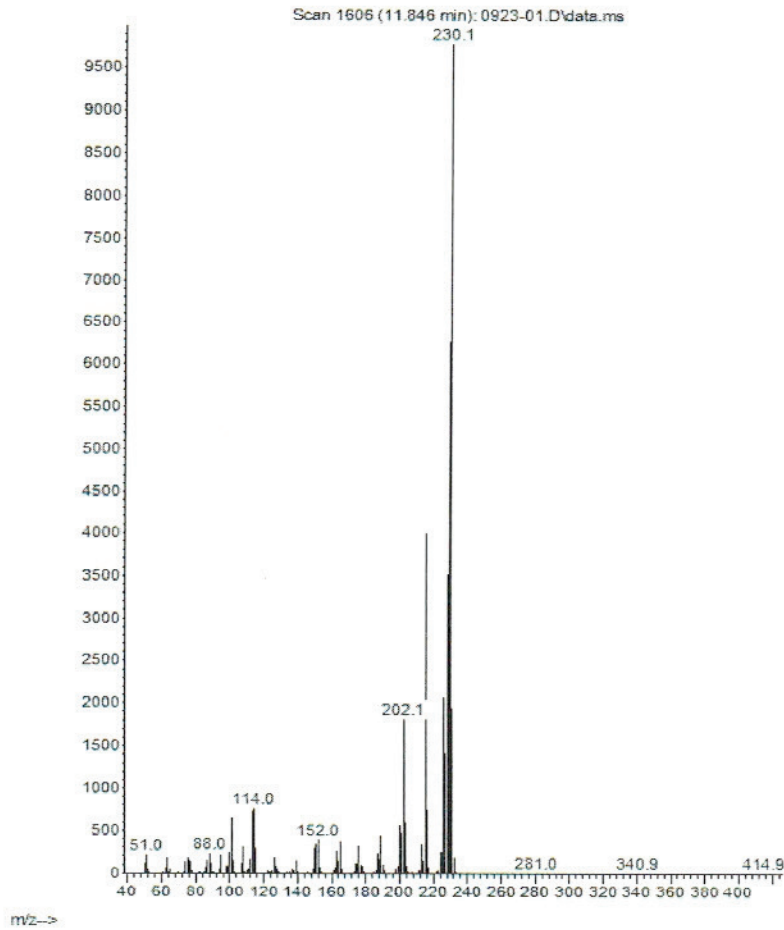


CERTIFICATE OF ANALYSIS

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 • 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



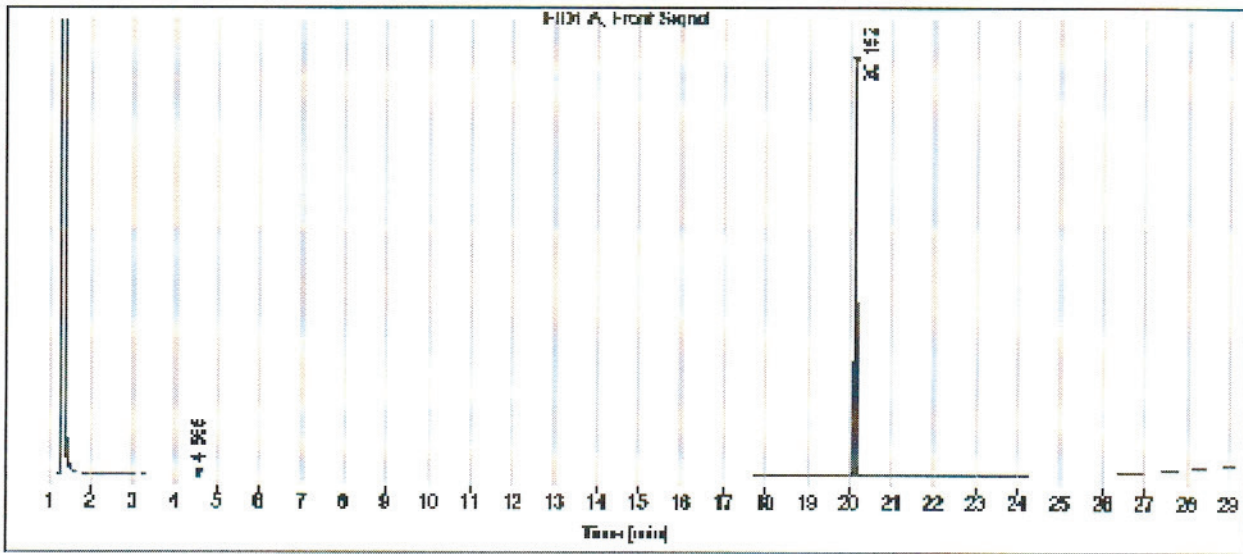
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info@chemservice.com • www.chemservice.com

Gas

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

CERTIFICATE OF ANALYSIS

Location: Vial 141
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

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





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	13736		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	14232		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	14231		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	14196	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	13553	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	14531	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

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:

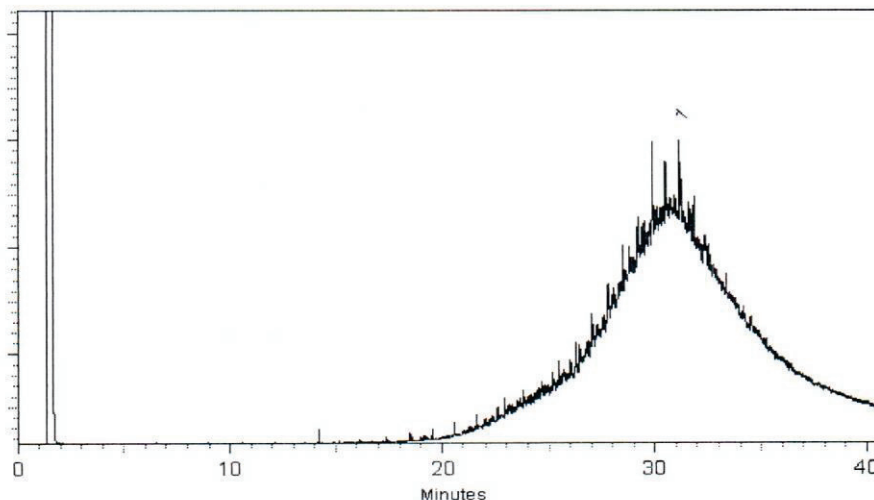
250°C

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

Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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: _____

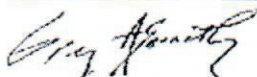
Triacontane-d62-98 atom % D

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	12650	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	13736	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	13553	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	14408	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	14531	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	14623	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	14647	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

Type: Secondary

Prep Date: 1/18/2022

Prep By: Ann Nebel

Exp Date: 4/6/2026

Status: New

Department: dropr

Vendor:

Final Volume: 4 mL

Lot Number:

Balance ID:

Comments: CCV for AK102 and 8015C RRO.

Chemical/Solvent Used	Bottle No	Amt	Units	Expires
Dichloromethane EC849	14747	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	14747	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

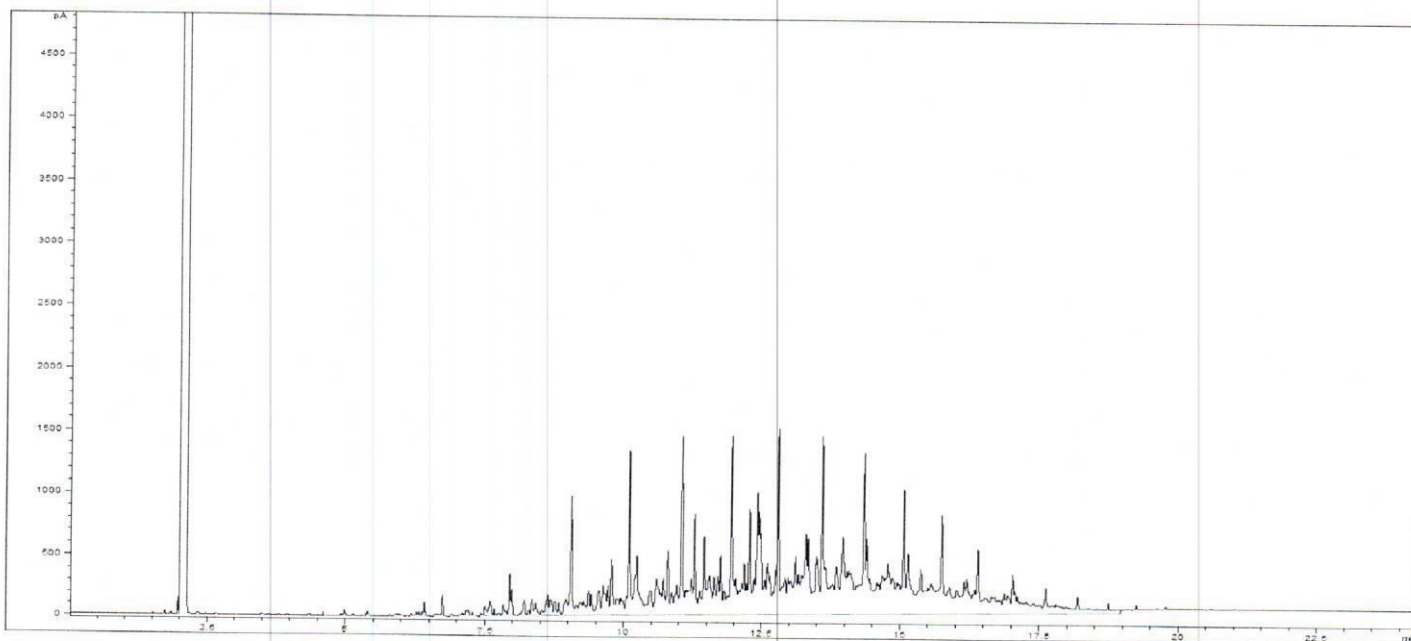
Rec'd: 12/14/2021

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

Certified Values

Analyte	Certified Value ^{1,4}	Units	Raw Material Purity, %	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H₂, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



SIGMA-ALDRICH

2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot **LRAC6316**
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

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

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

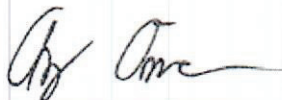
Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual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

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

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

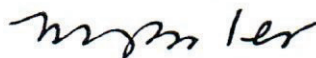
MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager

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:

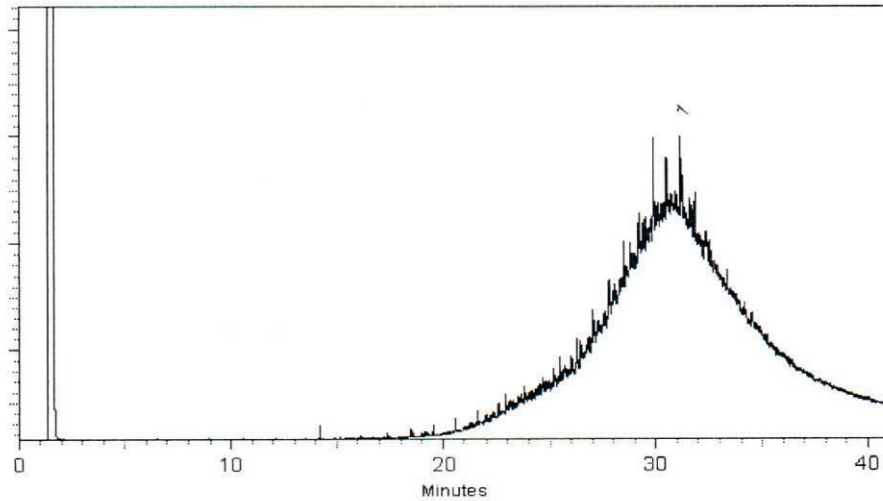
250°C

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

Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C18H14
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

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

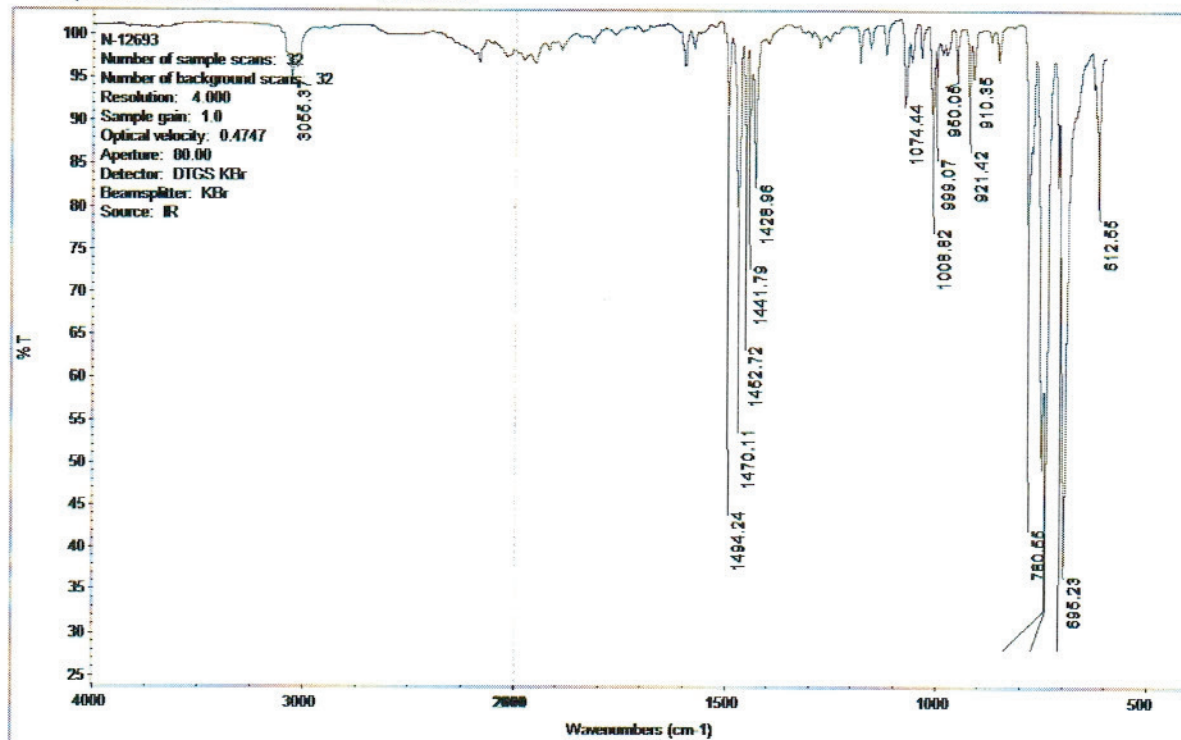
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

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



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



CERTIFICATE OF ANALYSIS

Analysis Method:

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

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

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

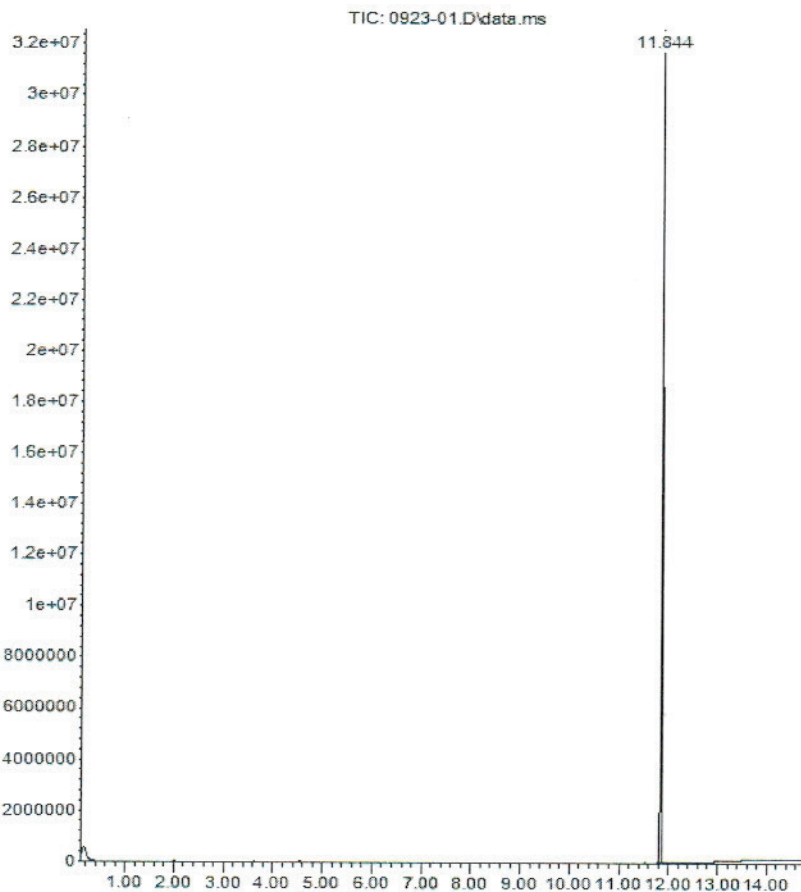
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

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

Abundance



Time-->

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



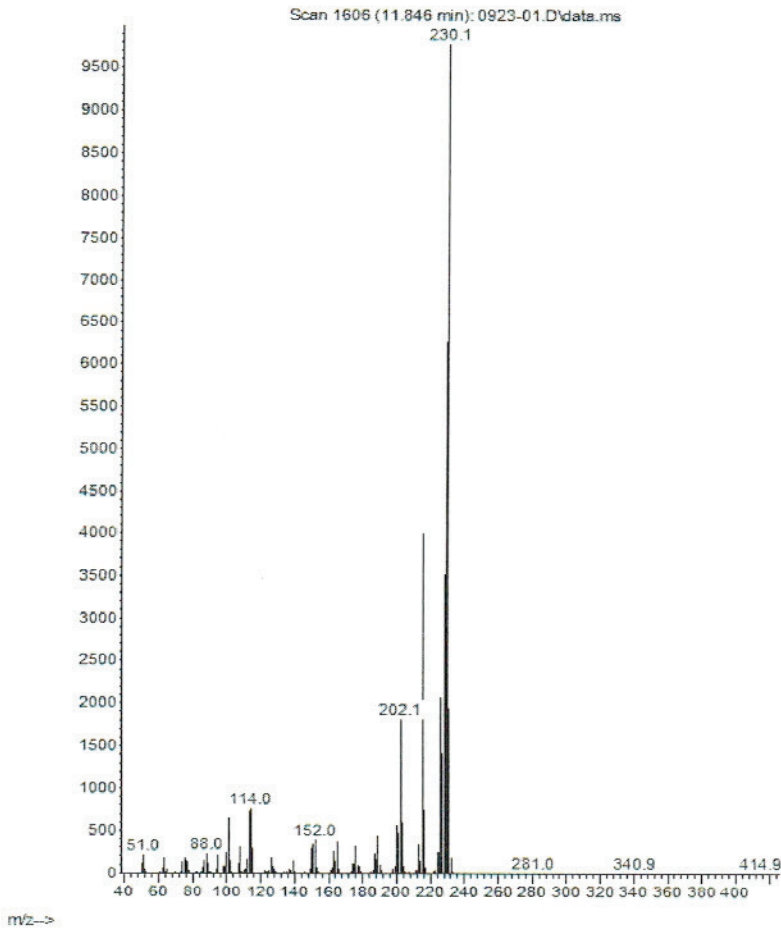
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
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CERTIFICATE OF ANALYSIS

Analysis Method:

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

Abundance



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1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Analysis Method:

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

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



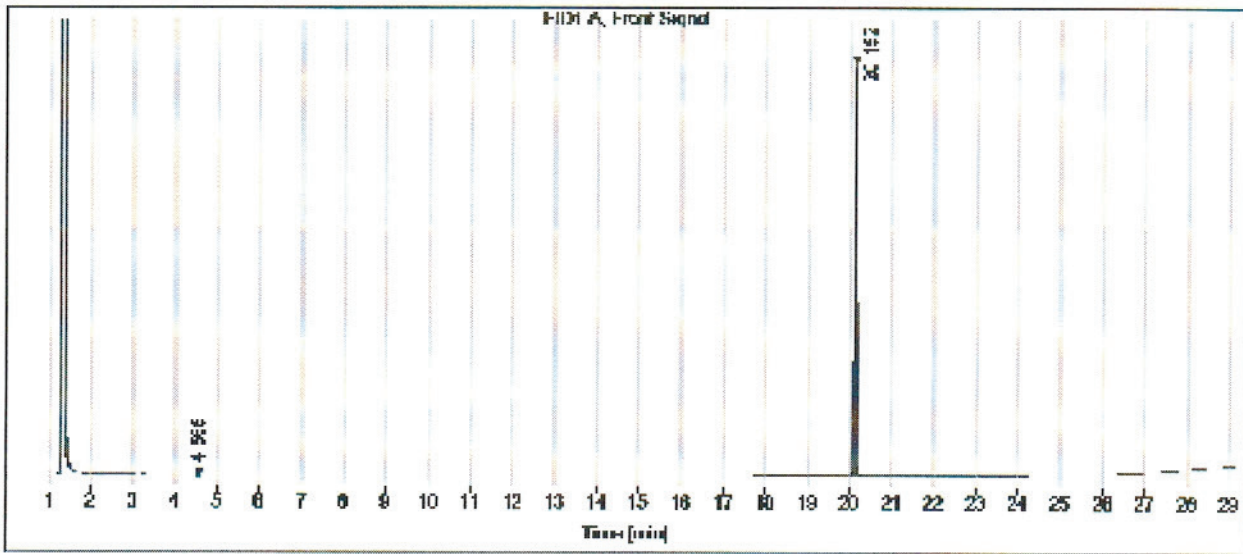
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Gas

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

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: _____

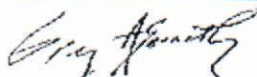
Triacontane-d62-98 atom % D

Expires: 4/6/2026

Rec'd: 4/6/2021

Energy Laboratories Inc 1120 So. 27th Street
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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	12650	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	13736	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	13553	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	14408	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	14531	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	14623	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	14647	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	14747	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	14747	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

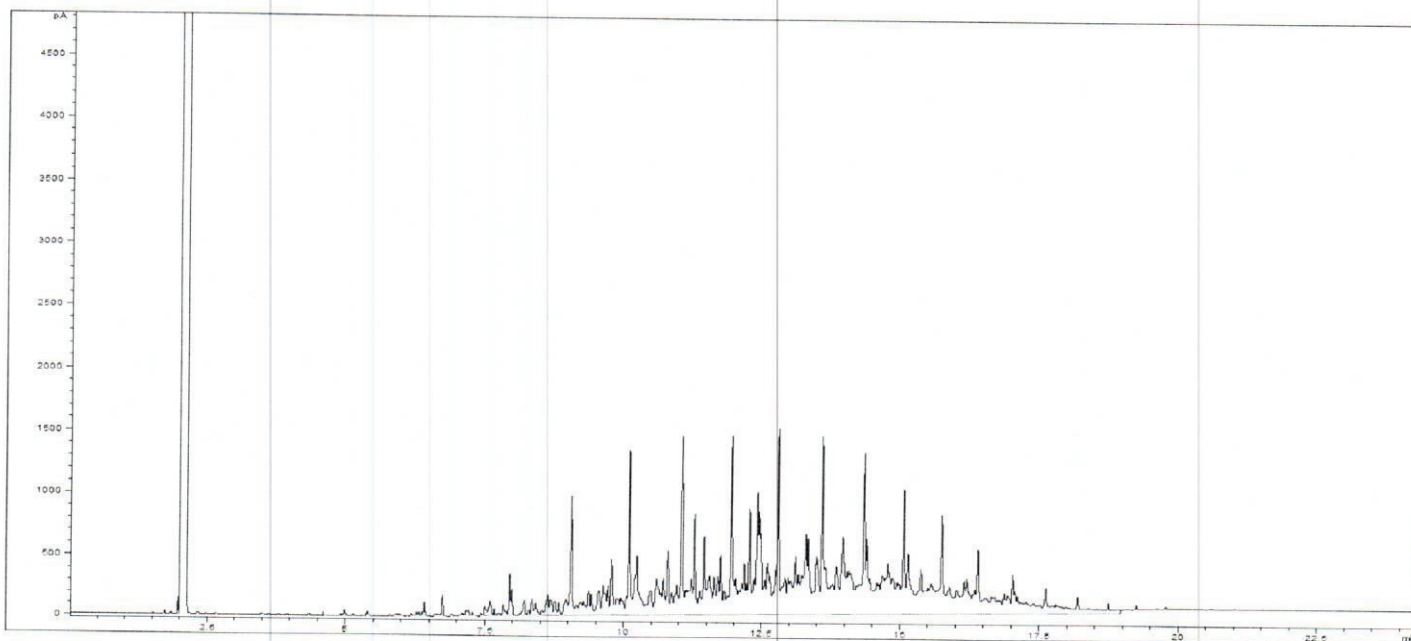
Rec'd: 12/14/2021

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Certified Values

Analyte	Certified Value ^{1,4}	Units	Raw Material Purity,%	Raw Material Lot	CAS
NO.2 FUEL OIL	50001 ± 2770	µg/mL	100.0	LA80505	68476-34-6

Informational Values



Additional Information:

Analytical Method Parameters:

Column: SPB-5, 30 m × 0.53 mm I.D., 1.5 µm film thickness (Column #214)

Carrier Gas: H₂, Flow: 4.0 mL/min

Inlet Temperature: 250 °C, Injection Volume: 1.0 µL

Injection Mode: Split, Split Ratio: 10: 1

Temperature Program: 40 °C (Hold 2 min) @ 15 °C/min to 300 °C (Hold 5 min)

Detector: FID

Detector Temperature: 300 °C



SIGMA-ALDRICH®

2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
800-325-5832
TechService@milliporesigma.com www.sigma-aldrich.com

Description

Lot **LRAC6316**
Expiration Date April 2023
Manufacturing Date April 2020
Storage Conditions Room Temperature
Solvent/Matrix DICHLOROMETHANE

1 Metrological traceability: Traceable to the SI and higher order standards from NIST through an unbroken chain of comparisons. The balance used to weigh raw materials is accurate to +/-0.0001 g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

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

k: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. Assume 2.0 for a **Confidence interval = 95%**

6 Analytical Value- For QC verification of the certified value only- not to be used in calculations. Represents the analytical data obtained by comparison to a standard as analyzed by the method described in the CoA or another acceptable method. The result may differ from the certified value and UCRM based on method uncertainty as well as the uncertainty associated with the standard used for comparison.

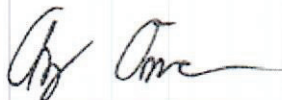
Traceability: The standard was manufactured under an ISO/IEC 17025:2017 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were performed gravimetrically. Additionally, individual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

Homogeneity: Homogeneity was assessed in accordance with ISO 17034:2016. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

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

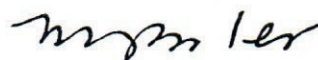
MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2017 (ANAB Cert AT-1467) and ISO 17034:2016 (ANAB Cert AR-1470).



Andy Ommen - QC Manager

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

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:

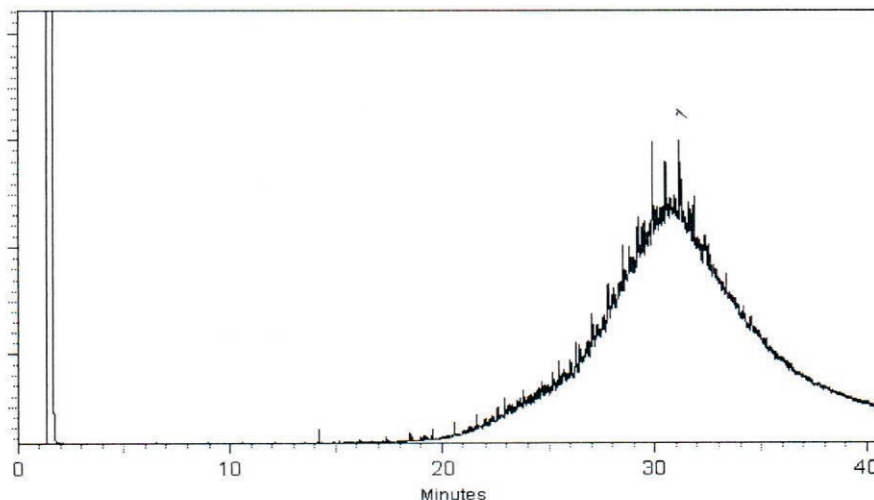
250°C

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

Certified Uncertainty Value Notes:

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

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

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

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer) -20°C or colder (Deep Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.

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1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C18H14
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

Energyl Laboratories Inc 1120 So. 27th Street

Billings MT 59107

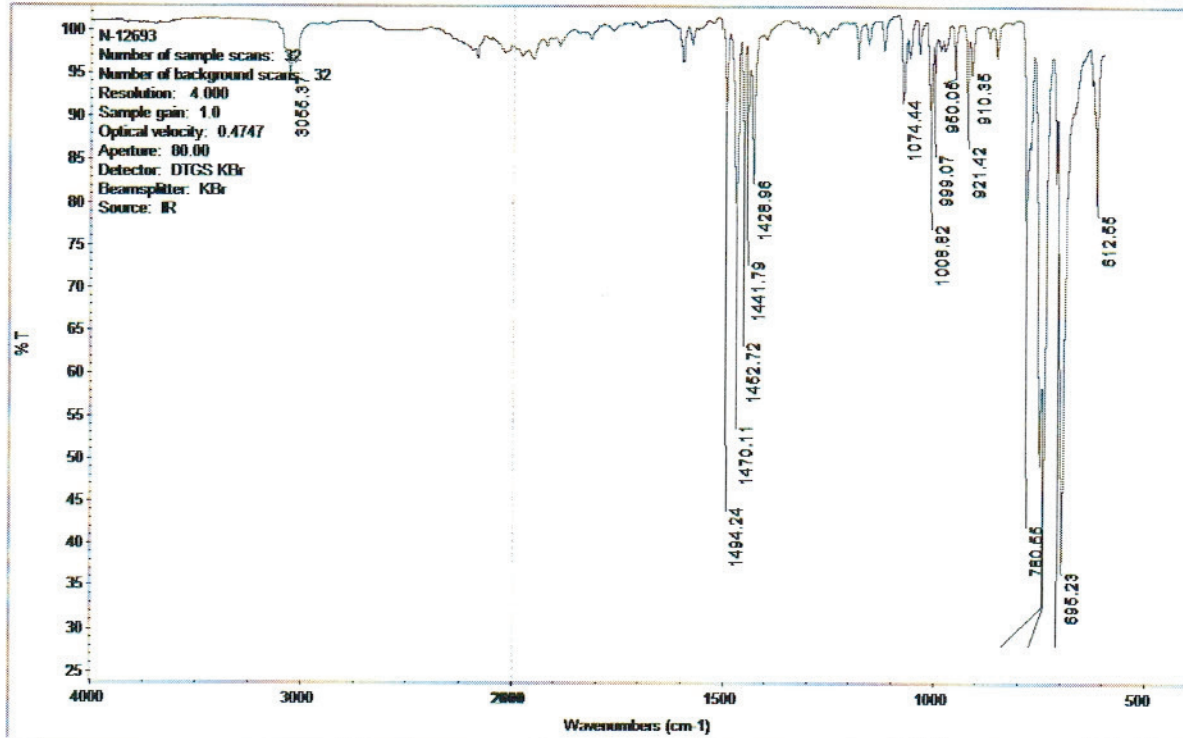
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

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



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CERTIFICATE OF ANALYSIS

Analysis Method:

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

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	11.844	1597	1606	1613	BB	32038221	432253484	100.00%	100.000%

Sum of corrected areas: 432253484

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

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



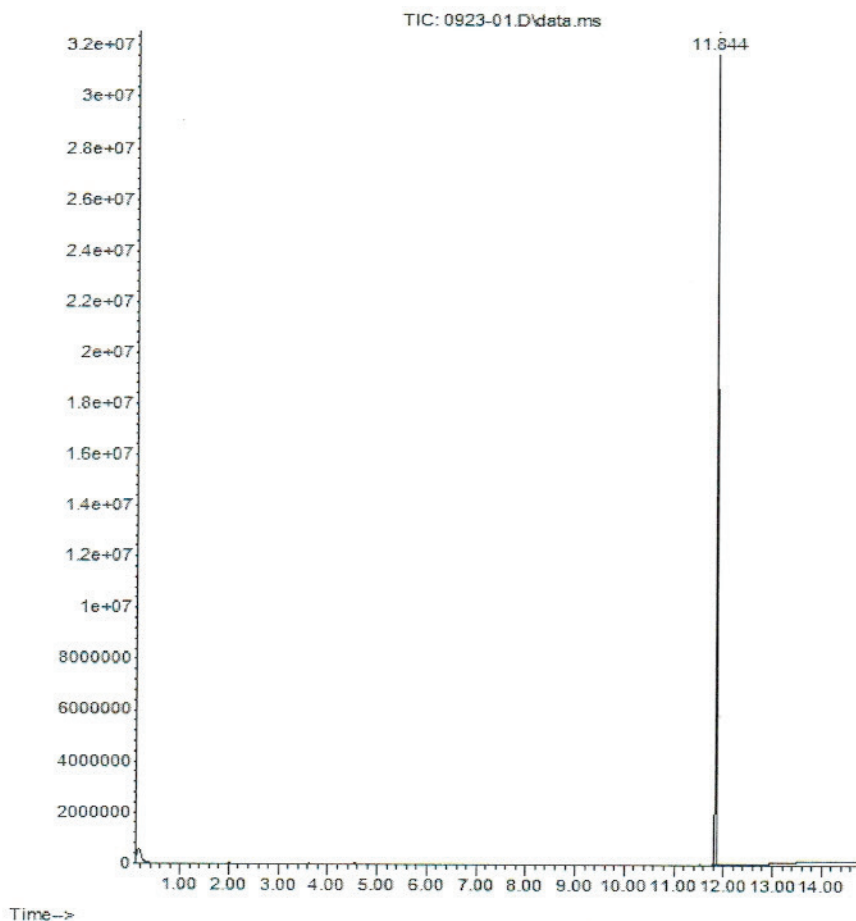
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CERTIFICATE OF ANALYSIS

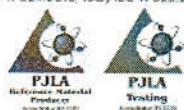
Analysis Method:

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

Abundance



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



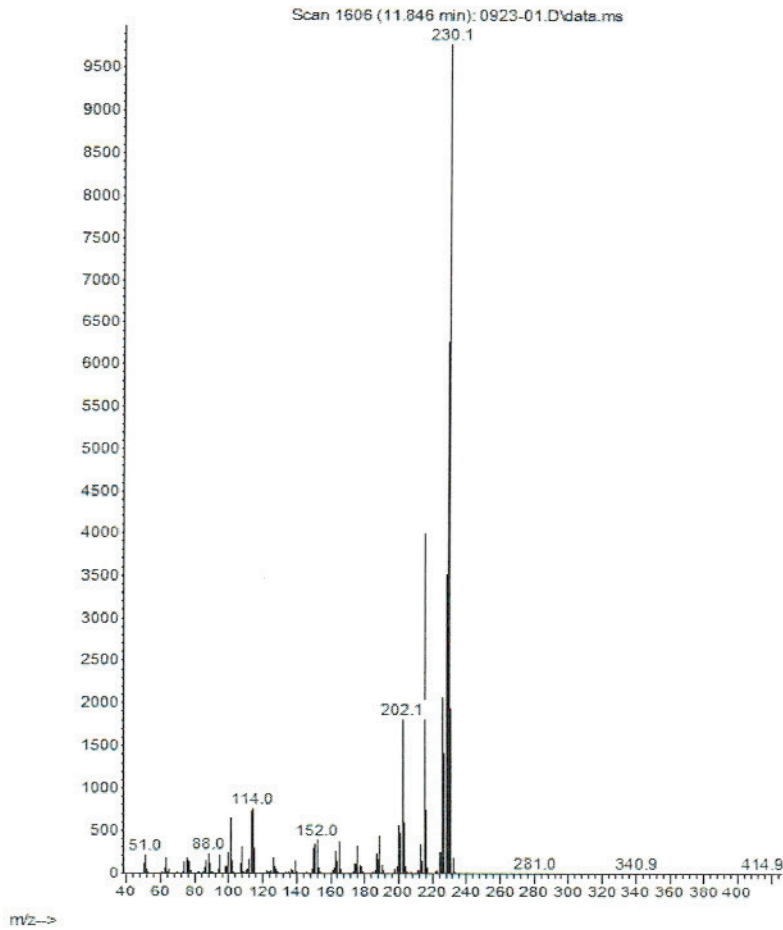
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
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CERTIFICATE OF ANALYSIS

Analysis Method:

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



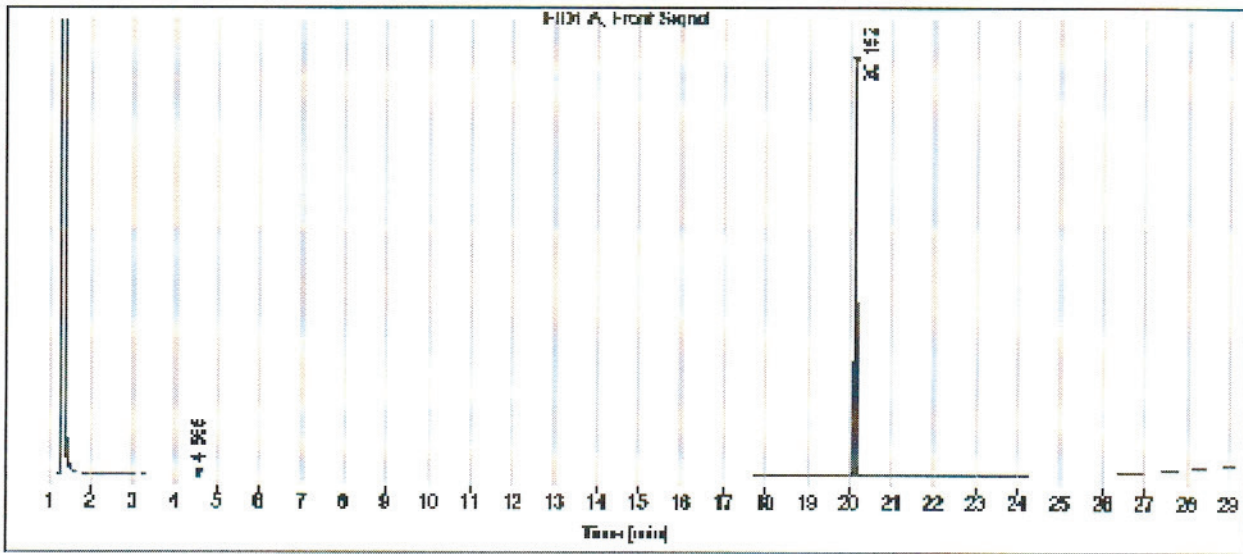
660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

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

CERTIFICATE OF ANALYSIS

Location: Vial 141
Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

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

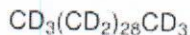


3050 Spruce Street, Saint Louis, MO 63103, USA
 Website: www.sigmaaldrich.com
 Email USA: techserv@sial.com
 Outside USA: eurtechserv@sial.com

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: _____

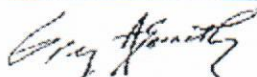
Triacontane-d62-98 atom % D

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	12650	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	13736	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	14232		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	14231		mL	9/1/2026
Stock Source	Base Units	Amount Added		



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	13553	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	14050	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	13297	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	13553	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	13553	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	14647	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	13927	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	14747	5	mL	4/6/2026

Stock Source	Base Units	Amount Added
DRO211006A	ug/mL	5 mL

Anna

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info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

o-Terphenyl

CATALOG NUMBER N-12693-500MG
LOT NUMBER 9972100
DATE CERTIFIED 09/23/19
EXPIRATION DATE 09/30/24
CAS NUMBER 84-15-1
MOLECULAR FORMULA C18H14
MOLECULAR WEIGHT 230.32
STORAGE Store in a cool dry place.
HANDLING See Safety Data Sheet
INTENDED USE For laboratory use only.

Analytical Test	Value
FT-IR SPECTROSCOPY	CONFORMS TO STRUCTURE
GC/MS SPECTRA ID	MATCHES NIST DATABASE
MELTING POINT (°C)	57.1
% PURITY (GC/FID)	99.5

Chem Service, Inc. guarantees the purity to be +/- 0.5% deviation prior to the expiration date shown on the label and exclusive of any customer contamination.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

ID #: 12650

Opened: _____

o-Terphenyl

Expires: 9/30/2024

Rec'd: 4/30/2020

Energyl Laboratories Inc 1120 So. 27th Street

Billings MT 59107

COA Form
Revision 3 (3/2015)

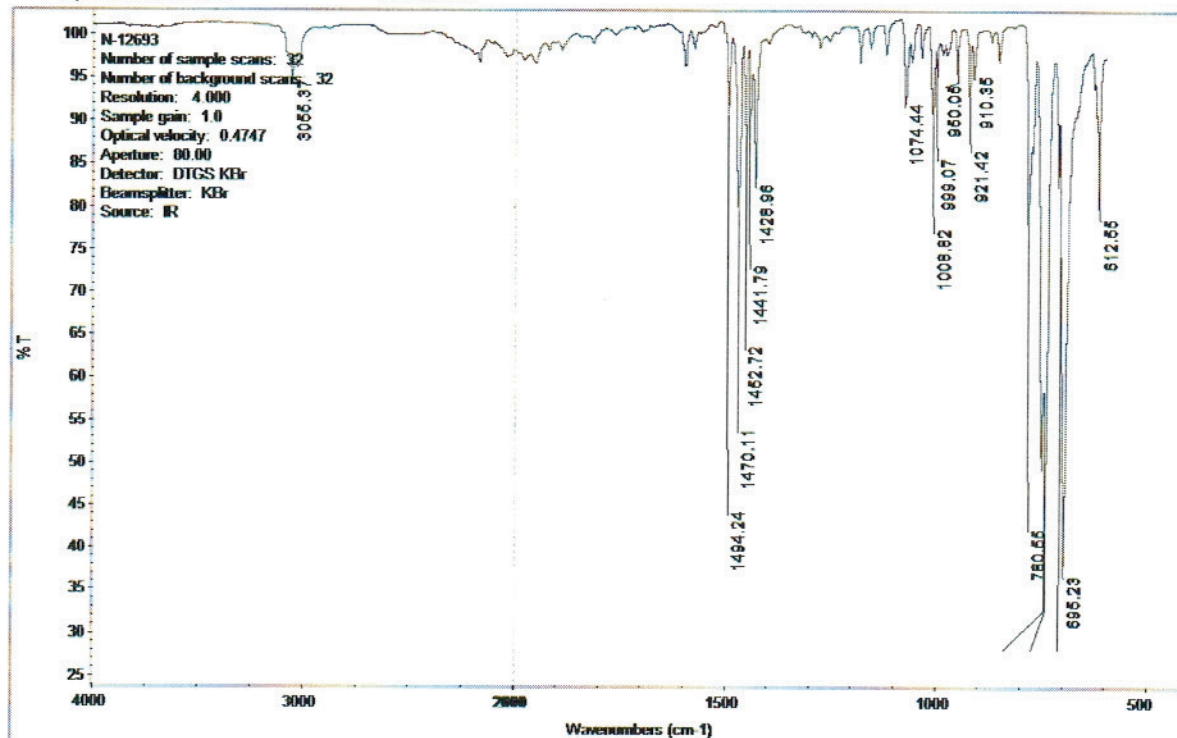
Chem Service is accredited to ISO 17034:2016, ISO/IEC 17025:2017 and certified to ISO 9001:2015



CERTIFICATE OF ANALYSIS

Analysis Method:

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



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CERTIFICATE OF ANALYSIS

Analysis Method:

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

Chem Service Inc Area Percent Report

Data File: D:\msdchem\2019 DATA\0919\0923-01.D
Acq On : 23 Sep 2019 10:40
Operator :
Sample : n-12693
Misc :
ALS Vial : 95

Integration Parameters: autoint1.e
Integrator: ChemStation

DataAcq Meth: SCREEN.M
Method : D:\msdchem\2019 DATA\0919\0903-09.D\ERIN.M

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

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
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Sum of corrected areas: 432253484

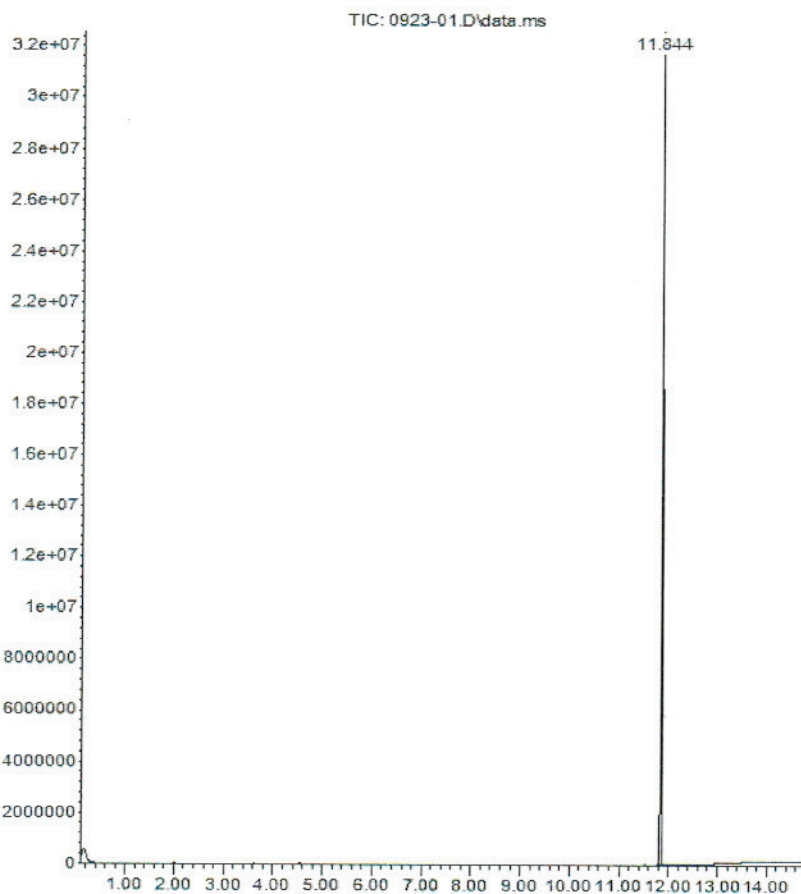
ERIN.M Mon Sep 23 10:55:51 2019

CERTIFICATE OF ANALYSIS

Analysis Method:

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

Abundance



Time-->

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

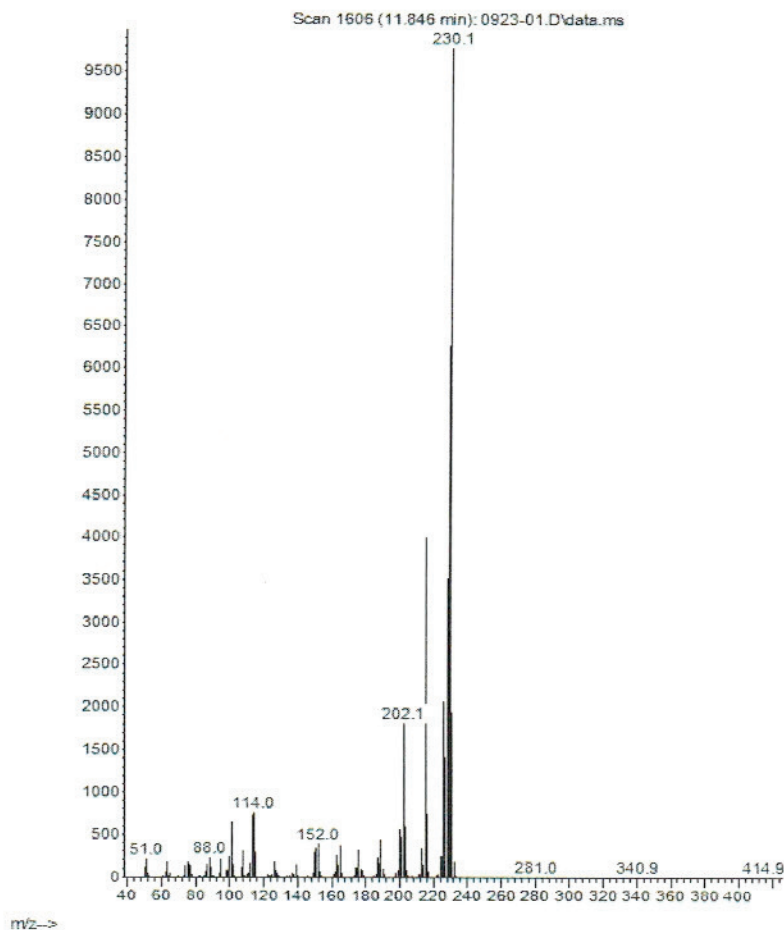


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Catalog Number: N-12693-500MG
Description: o-Terphenyl
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Expiration Date: 09/30/24

Abundance



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Analysis Method:

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

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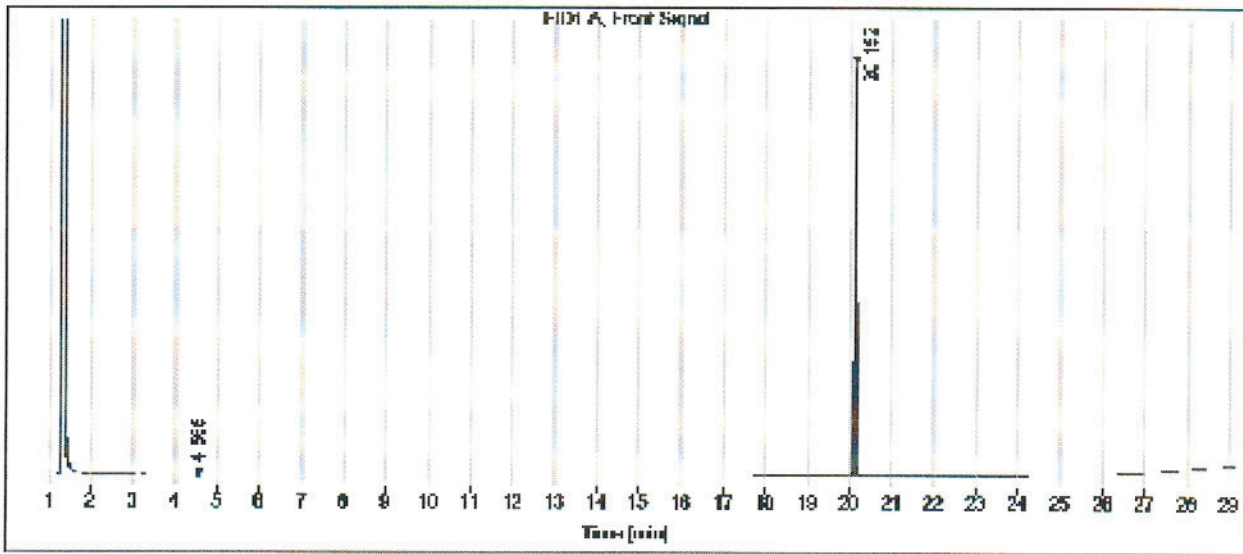
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 1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

Gas

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

CERTIFICATE OF ANALYSIS

Location: Vial 141
 Injection volume: 1.0uL



Signal: FID1 A, Front Signal

RT [min]	Type	Width [min]	Area	Height	Area%
4.565	BB	0.0305	1.2408	0.5122	0.11
20.152	BB	0.0391	1171.9556	439.4599	99.89
		Sum	1173.1963		

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



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: _____

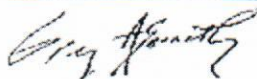
Triacontane-d62-98 atom % D

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.