

Supporting Data for Information Presented in
Navy Swarm Team Technical Meeting with BWS

Navy Swarm Team Technical Meeting with BWS



10 December 2024



Apple



Android

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Method 3510 (Separatory Funnel) Quenched and Unquenched Matrix Spike Study



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Matrix Spike Study

Measure	Unquench MS Samples	Quenched MS Samples
Number of Samples	23	22
Percent Recovery	51.6 - 131.4%	37.9 - 109.5%
Average % Recovery	91.7%	81.4%
QSM Limits (DRO)	36 – 132%	

*There was one outlier in the quenched sample group. The parent sample A2-TW-0002130-23325-N-Q yielded a detection of 105 ppb that was attributed to unknown contamination in the parent sample.

Excellent recoveries.

Comparison of Quenched and Unquenched Matrix Spike Recoveries

Location	D3-BLDG0520				D3-ILIM0118				D3-PAKA0408			
Sampling Date	2/6/2024				2/6/2024				2/6/2024			
SDG	DA61743		DA61743Q		DA61741		DA61741Q		DA61742		DA61742Q	
Client Sample ID	D3-TW-0017507-23342-N-3		D3-TW-0017507-23342-N-3-Q		D3-TW-0009714-23342-3-N		D3-TW-0009714-23342-3-N-Q		D3-TW-0010327-23342-N		D3-TW-0010327-23342-N-Q	
Lab Sample ID	DA61743-1	OP25065-MS	DA61743-1Q	OP25065-MSQ	DA61741-1	OP25051-MS	DA61741-1Q	OP25051-MSQ	DA61742-1	OP25063-MS	DA61742-1Q	OP25063-MSQ
Quenched/Unquenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched
Sample Type	N	MS	Q	MSQ	FD	MS	Q	MSQ	N	MS	Q	MSQ
Result (ug/L)	53 UJ	70.5	50 U	64.4	50 U	100	50 U	77.2	50 UJ	83.8	50 UJ	65.7
JP-5 Spike Amount (ug/L)		95		95		95		96		96		96
%Recovery		74.2		67.8		105.3		80.4		87.3		68.4

Notes:

All samples were received at the laboratory unquenched.
 Unquenched samples were analyzed along with an unquenched matrix spike analysis.
 Samples were quenched at the laboratory and analyzed along with a quenched matrix spike (Lab Sample IDs ending with Q).
 All matrix spikes were spiked with JP-5 near the reporting limit.
 U - Undetected: The analyte was analyzed for, but not detected.
 UJ - The analyte was not detected; however, the result is estimated due to discrepancies in meeting certain analyte-specific quality control criteria.
 J - Estimated Value

Sample Type

N - unquenched sample
 MS - unquenched matrix spike
 Q - quenched sample
 MSQ - quenched matrix spike
 FD - sample was collected as a field duplicate

Comparison of Quenched :

Location	A3-EEKO4820B				A3-IROQ5297				A3-WEHI4954C			
Sampling Date	2/7/2024				2/7/2024				2/7/2024			
SDG	DA61812		DA61812Q		DA61816		DA61816Q		DA61813		DA61813Q	
Client Sample ID	A3-TW-0017290-23337-N		A3-TW-0017290-23337-N-Q		A3-TW-0012500-23337-N		A3-TW-0012500-23337-N-Q		A3-TW-0016759-23337-N		A3-TW-0016759-23337-N-Q	
Lab Sample ID	DA61812-15	OP25076-MS	DA61812-15Q	OP25076-MSQ	DA61816-1	OP25094-MS	DA61816-1Q	OP25094-MSQ	DA61813-6	OP25078-MS	DA61813-6Q	OP25078-MSQ
Quenched/Unquenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched
Sample Type	N	MS	Q	MSQ	N	MS	Q	MSQ	N	MS	Q	MSQ
Result (ug/L)	50 U	51.8	50 U	75.4	50 UJ	73.3	50 UJ	79.4	50 UJ	49	50 UJ	36
JP-5 Spike Amout (ug/L)		95		96		100		100		95		95
%Recovery		54.5		78.5		73.3		79.4		51.6		37.9

Comparison of Quenched :

Location	H1-SKYV0457				F2-SCHM2754				A2-WASP4980			
Sampling Date	2/7/2024				2/9/2024				2/9/2024			
SDG	DA61815		DA61815Q		DA61904		DA61904Q		DA61901		DA61901Q	
Client Sample ID	H1-TW-0012658-23327-A		H1-TW-0012658-23327-A-Q		F2-TW-0010877-23335-N		F2-TW-0010877-23335-N-Q		A2-TW-0002130-23325-N		A2-TW-0002130-23325-N-Q	
Lab Sample ID	DA61815-1	OP25092-MS	DA61815-1Q	OP25092-MSQ	DA61904-2	OP25103-MS	DA61904-2Q	OP25103-MSQ	DA61901-3	OP25101-MS	DA61901-3Q	OP25101-MSQ
Quenched/Unquenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched
Sample Type	N	MS	Q	MSQ	N	MS	Q	MSQ	N	MS	Q	MSQ
Result (ug/L)	50 U	69.5	50 U	54.4	50 U	89	50 U	88.4	50 U	81.3	105 J	60.1
JP-5 Spike Amout (ug/L)		100		100		95		96		95		96
%Recovery		69.5		54.4		93.7		92.1		85.6		0.0

Comparison of Quenched :

Location	A1-WAIE7028				A1-WAIE7028				D2-3RD0203B			
Sampling Date	2/9/2024				2/9/2024				2/12/2024			
SDG	DA61900		DA61900Q		DA61900		DA61900Q		DA61940		DA61940Q	
Client Sample ID	A1-TW-0001438-23319-N		A1-TW-0001438-23319-N-Q		A1-TW-0001438-23319-3-N		A1-TW-0001438-23319-3-N-Q		D2-TW-0007021-23337-N		D2-TW-0007021-23337-N-Q	
Lab Sample ID	DA61900-14	OP25101-MS2	DA61900-14Q	OP25101-MSQ2	DA61900-7	OP25099-MS	DA61900-7Q	OP25099-MSQ	DA61940-6	OP25111-MS	DA61940-6Q	OP25111-MSQ
Quenched/Unquenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched
Sample Type	N	MS2	Q	MSQ2	FD	MS	Q	MSQ	N	MS	Q	MSQ
Result (ug/L)	50 UJ	94.3	50 UJ	93.8	50 U	89.7	50 UJ	58.7	50 U	76.8	50 U	55.5
JP-5 Spike Amout (ug/L)		95		96		96		95		95		95
%Recovery		99.3		97.7		93.4		61.8		80.8		58.4

Comparison of Quenched :

Location	A1-ETCE0269				D3-OHAN0618				SHFTAIEA-CP-PR			
Sampling Date	2/12/2024				2/13/2024				2/15/2024			
SDG	DA61945		DA61945Q		DA61981		DA61981Q		DA61982A		DA61982Q	
Client Sample ID	A1-TW-0001237-23319-N		A1-TW-0001237-23319-N-Q		D3-TW-0009451-23342-N		D3-TW-0009451-23342-N-Q		SHAFT-HW-0017491-22266-N		SHAFT-HW-0017491-22266-N-Q	
Lab Sample ID	DA61945-1	OP25113-MS	DA61945-1Q	OP25113-MSQ	DA61981-1	OP25120-MS	DA61981-1Q	OP25120-MSQ	DA61982-1	OP25124-MS	DA61982-1Q	OP25124-MSQ
Quenched/Unquenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched
Sample Type	N	MS	Q	MSQ	N	MS	Q	MSQ	N	MS	Q	MSQ
Result (ug/L)	50 U	105	50 U	90.1	50 UJ	112	50 U	76.4	50 U	80.8	50 U	78.2
JP-5 Spike Amout (ug/L)		95		96		95		95		96		95
%Recovery		110.5		93.9		117.9		80.4		84.2		82.3

Comparison of Quenched :

Location	D2-HYD0498				D3-WELA0296				H1-HYD1416A			
Sampling Date	2/14/2024				2/14/2024				2/15/2024			
SDG	DA62032		DA62032Q		DA62034		DA62034Q		DA62080		DA62080Q	
Client Sample ID	D2-DL-0017715-23337-N		D2-DL-0017715-23337-N-Q		D3-TW-0010657-23342-N		D3-TW-0010657-23342-N-Q		H1-DL-0017755-23327-A		H1-DL-0017755-23327-A-Q	
Lab Sample ID	DA62032-1	OP25133-MS	DA62032-1Q	OP25133-MSQ	DA62034-7	OP25137-MS	DA62034-4Q	OP25137-MSQ	DA62080-2	OP25146-MS	DA62080-2Q	OP25146-MSQ
Quenched/Unquenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched
Sample Type	N	MS	Q	MSQ	N	MS	Q	MSQ	N	MS	Q	MSQ
Result (ug/L)	50 UJ	107	50 U	97.7	50 U	97.4	50 U	104	50 U	107	50 U	100
JP-5 Spike Amout (ug/L)		95		96		95		95		95		95
%Recovery		112.6		101.8		102.5		109.5		112.6		105.3

Comparison of Quenched :

Location	H1-IXOR6639				F1-TAYL3489				F1-ROOD4127			
Sampling Date	2/15/2024				2/16/2024				2/16/2024			
SDG	DA62072		DA62072Q		DA62119		DA62119Q		DA62120		DA62120Q	
Client Sample ID	H1-TW-0012945-23327-A		H1-TW-0012945-23327-A-Q		F1-TW-0008582-23335-N		F1-TW-0008582-23335-N-Q		F1-TW-0009116-23335-N		F1-TW-0009116-23335-N-Q	
Lab Sample ID	DA62072-8	OP25145-MS	DA62072-8Q	OP25145-MSQ	DA62119-1	OP25148-MS	DA62119-1Q	OP25148-MSQ	DA62120-3	OP25157-MS	DA62120-3Q	OP25157-MSQ
Quenched/Unquenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched
Sample Type	N	MS	Q	MSQ	N	MS	Q	MSQ	N	MS	Q	MSQ
Result (ug/L)	52 U	111	50 U	87.3	50 U	73.3	50 U	56.6	50 U	83.5	50 U	90.7
JP-5 Spike Amout (ug/L)		95		95		96		95		100		100
%Recovery		116.8		91.9		76.4		59.6		83.5		90.7

Comparison of Quenched :

Location	F2-SHIE3277				F2-SIBL0740			
Sampling Date	2/19/2024				2/19/2024			
SDG	DA62136		DA62136Q		DA62136		DA62136Q	
Client Sample ID	F2-TW-0010897-23335-N		F2-TW-0010897-23335-N-Q		F2-TW-0010958-23335-3-N		F2-TW-0010958-23335-3-N-Q	
Lab Sample ID	DA62136-1	OP25173-MS	DA62136-1Q	OP25173-MSQ	DA62136-20	OP25183-MS	DA62136-20Q	OP25183-MSQ
Quenched/Unquenched	Unquenched	Unquenched	Quenched	Quenched	Unquenched	Unquenched	Quenched	Quenched
Sample Type	N	MS	Q	MSQ	FD	MS	Q	MSQ
Result (ug/L)	50 U	85.8	50 U	89.5	50 U	134	50 U	104
JP-5 Spike Amout (ug/L)		95		95		100		100
%Recovery		90.3		94.2		134.0		104.0

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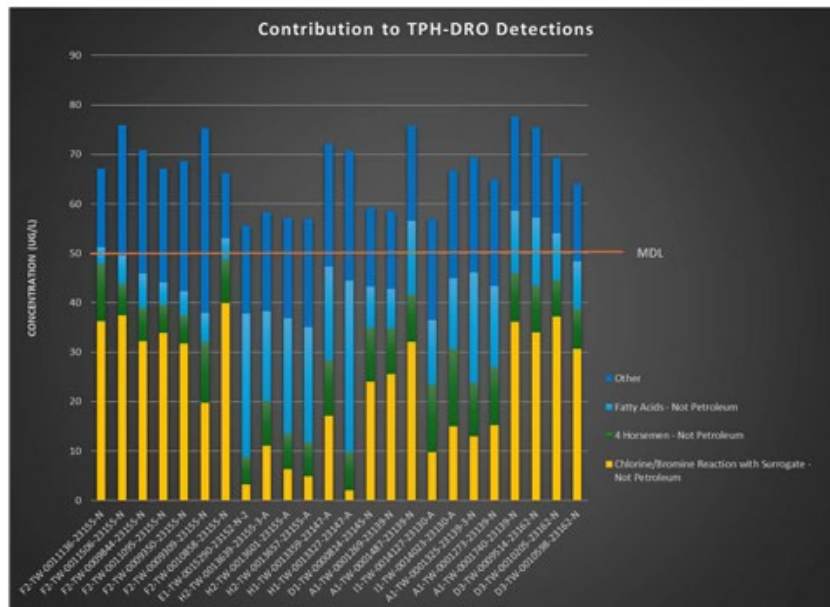
Non-Petroleum Contributions to DRO Detectors



Point #5 (Cont.) Contribution to TPH Detections

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Facts:



The TPH signal from the chlorinated surrogate is not constant.

Client Sample ID	Lab Sample ID	Lab File ID	Sampling Date	Analysis Date	Analyte Name	Units	DL	RL	DRO Result	Identified non-Petroleum Contributions			
										4 Horsemen	Fatty Acids	Brominated OTP	Total
A1-TW-0001269-23139-N	DA58891-5	FH068110.D	9/26/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	51	78	58.6	9.182	8.014	25.592	42.8
A1-TW-0001273-23139-N	DA58943-4	FH068121.D	9/27/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	78	65.0	11.749	16.338	15.276	43.4
A1-TW-0001325-23139-3-N	DA58943-1	FH068118.D	9/27/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	77	69.4	10.879	22.297	12.943	46.1
A1-TW-0001487-23139-N	DA58891-6	FH068111.D	9/26/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	51	78	75.9	9.471	14.971	32.109	56.6
A1-TW-0001740-23139-N	DA58943-8	FH068125.D	9/27/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	78	77.7	9.862	12.586	36.125	58.6
D1-TW-0000814-23145-N	DA58833-2	FH067820.D	9/22/2023	9/24/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	52	80	59.3	10.882	8.276	24.065	43.2
D3-TW-0009514-23162-N	DA58944-1	FH068126.D	9/27/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	77	75.4	9.441	13.649	34.035	57.1
D3-TW-0010205-23162-N	DA58944-2	FH068127.D	9/27/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	51	78	69.3	7.413	9.523	37.174	54.1
D3-TW-0010598-23162-N	DA58944-3	FH068128.D	9/27/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	78	64.0	8.12	9.575	30.633	48.3
E1-TW-0015290-23152-N-2	DA58574-10	LW16881.D	9/14/2023	9/17/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	77	55.6	5.604	28.959	3.253	37.8
F2-TW-0009309-23155-N	DA58316-8	LW16506.D	9/5/2023	9/9/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	52	80	75.3	12.324	5.851	19.764	37.9
F2-TW-0009350-23155-N	DA58316-7	LW16505.D	9/5/2023	9/9/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	52	80	68.7	5.681	4.855	31.735	42.3
F2-TW-0009844-23155-N	DA58316-5	LW16503.D	9/5/2023	9/9/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	76	70.9	6.701	6.882	32.254	45.8
F2-TW-0010858-23155-N	DA58316-9	LW16507.D	9/5/2023	9/9/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	76	66.2	8.787	4.255	39.972	53.0
F2-TW-0011095-23155-N	DA58316-6	LW16504.D	9/5/2023	9/9/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	76	67.1	5.749	4.427	33.859	44.0
F2-TW-0011136-23155-N	DA58316-14	LW16514.D	9/5/2023	9/9/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	76	67.1	11.556	3.395	36.277	51.2
F2-TW-0011506-23155-N	DA58316-4	LW16502.D	9/5/2023	9/9/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	76	75.9	6.334	5.836	37.437	49.6
H1-TW-0013327-23147-A	DA58613-5	LW16892.D	9/15/2023	9/18/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	52	80	70.8	7.799	34.683	2.006	44.5
H1-TW-0013359-23147-A	DA58613-1	LW16888.D	9/15/2023	9/18/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	51	78	72.1	11.179	19.042	17.124	47.3
H2-TW-0013601-23155-A	DA58576-4	LW16886.D	9/14/2023	9/17/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	51	78	57.1	7.247	23.33	6.272	36.8
H2-TW-0013639-23155-3-A	DA58576-3	LW16885.D	9/14/2023	9/17/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	78	58.3	8.932	18.283	11.11	38.3
H2-TW-0013657-23155-A	DA58576-5	LW16887.D	9/14/2023	9/18/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	51	78	57.0	6.719	23.446	4.949	35.1
I1-TW-0014023-23130-A	DA58892-3	FH068114.D	9/26/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	78	66.8	15.718	14.168	14.972	44.9
I1-TW-0014127-23130-A	DA58892-1	FH068112.D	9/26/2023	9/28/2023	Petroleum Hydrocarbons (as Diesel)	UG/L	50	77	56.9	13.768	12.966	9.809	36.5

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068110.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 9:25 pm
 Operator : ██████████
 Sample : da58891-5
 Misc : OP24412,GFH23722,1020,,,1,1
 ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:04:34 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.244	807458641	1561.347 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	23762737	63.976 ug/ml
3) H TPH-DRO (C10-C24)	1.840	22029059	59.798 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	3887134	22.237 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	6221449	20.026 ug/ml

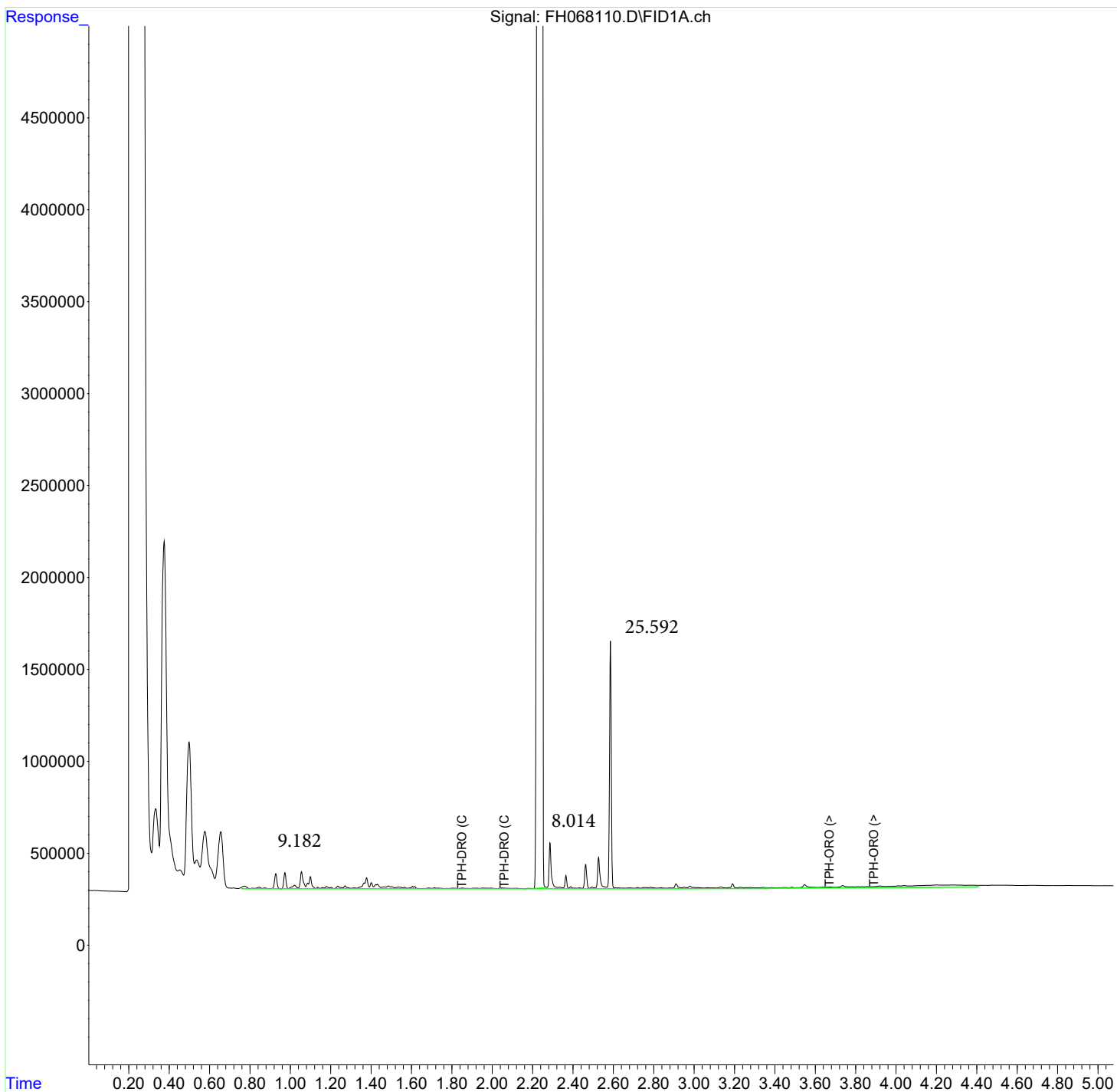
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068110.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 9:25 pm
Operator : ██████████
Sample : da58891-5
Misc : OP24412,GFH23722,1020,,,1,1
ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:04:34 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068121.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 10:54 pm
 Operator : ██████████
 Sample : da58943-4
 Misc : OP24412,GFH23722,1030,,,1,1
 ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:04:56 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.245	862398904	1667.582 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	28461723	76.627 ug/ml
3) H TPH-DRO (C10-C24)	1.840	24669685	66.966 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	7163729	40.982 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	11151862	35.896 ug/ml

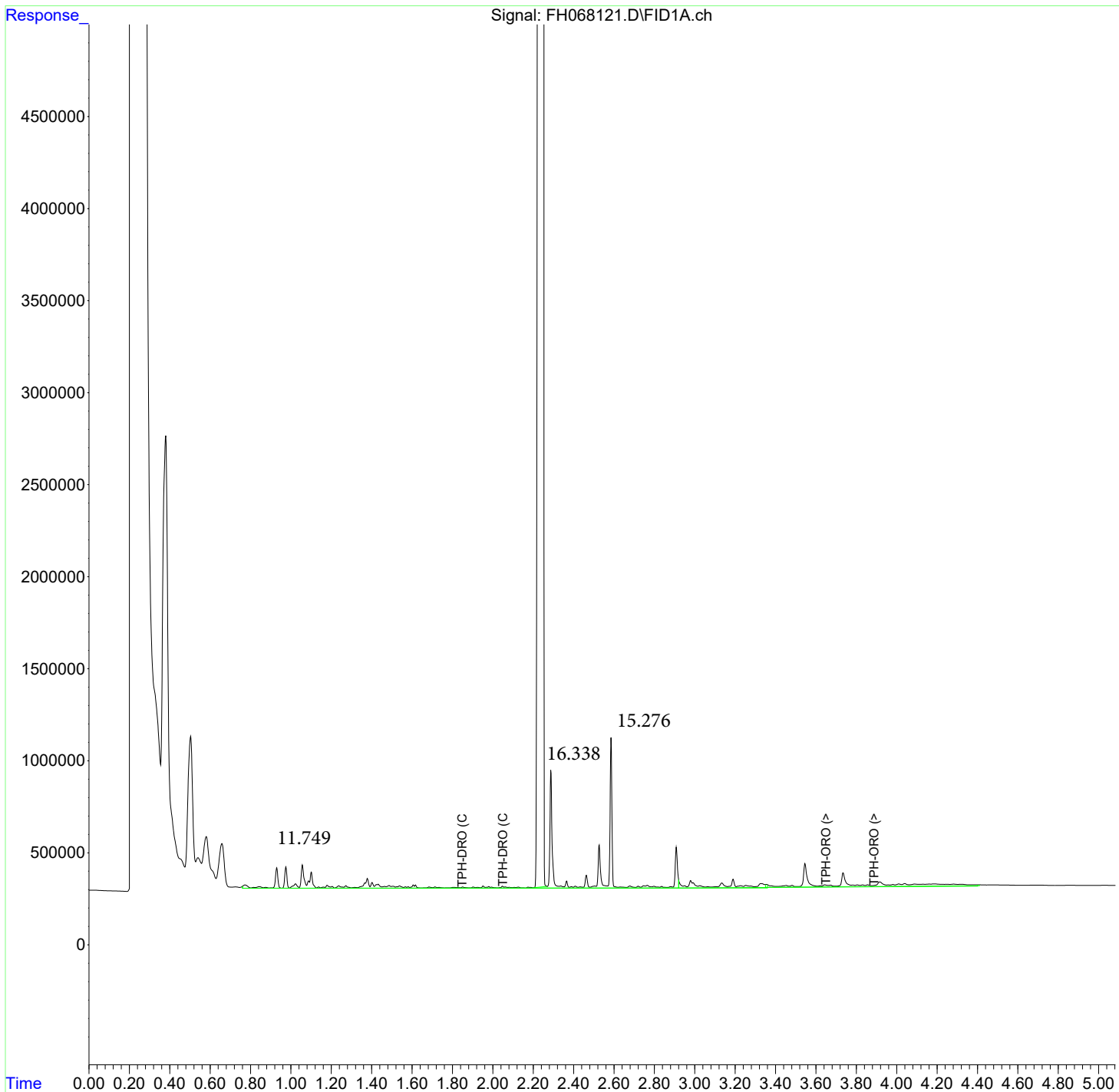
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068121.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 10:54 pm
Operator : ██████████
Sample : da58943-4
Misc : OP24412,GFH23722,1030,,,1,1
ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:04:56 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068118.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 10:30 pm
 Operator : ██████████
 Sample : da58943-1
 Misc : OP24412,GFH23722,1040,,,1,1
 ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:04:50 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.243	757806815	1465.337 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	31180869	83.947 ug/ml
3) H TPH-DRO (C10-C24)	1.840	26601055	72.208 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	8911429	50.980 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	14057888	45.249 ug/ml

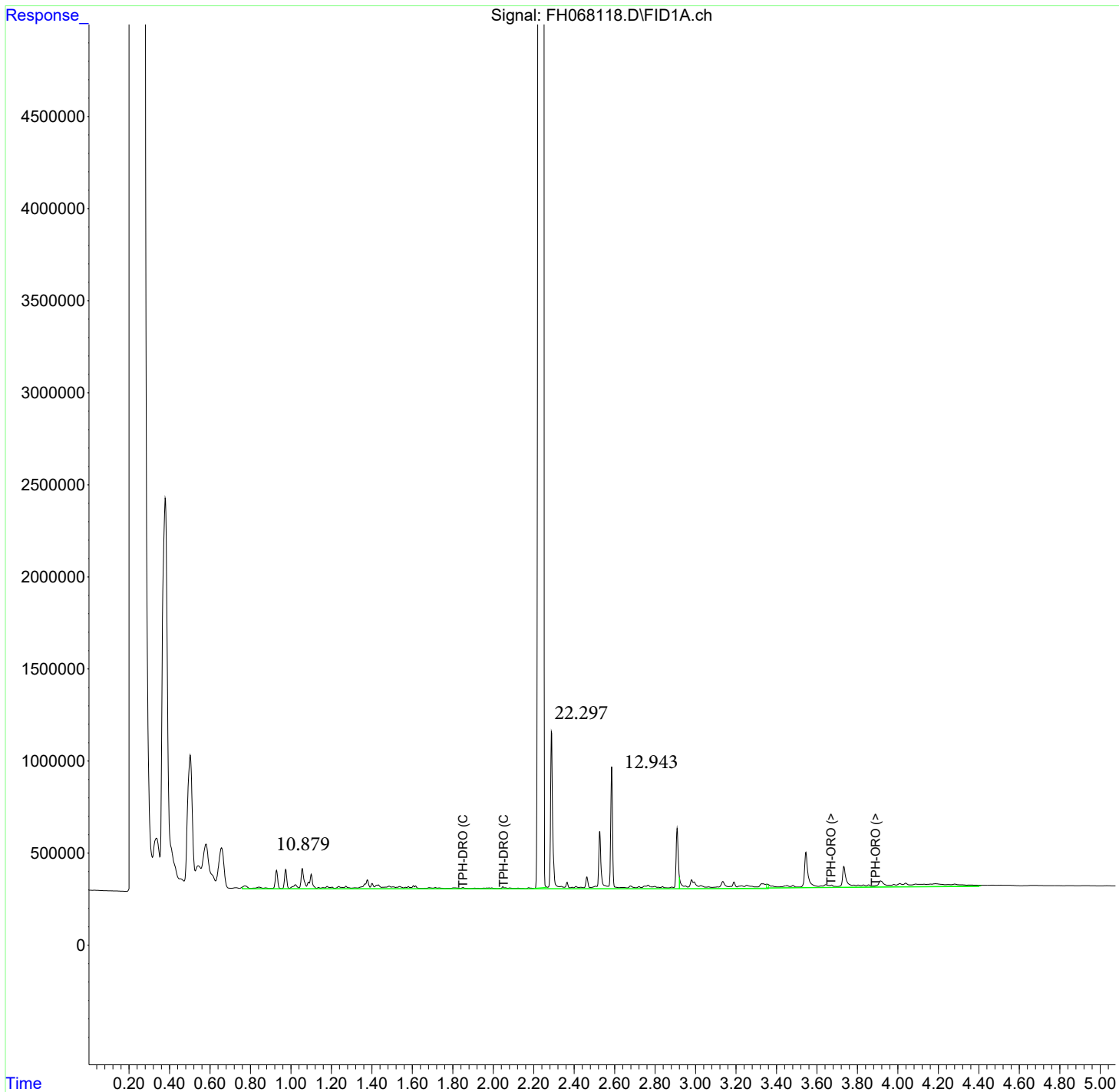
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068118.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 10:30 pm
Operator : ██████████
Sample : da58943-1
Misc : OP24412,GFH23722,1040,,,1,1
ALS Vial : 18 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:04:50 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068111.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 9:33 pm
 Operator : ██████████
 Sample : da58891-6
 Misc : OP24412,GFH23722,1020,,,1,1
 ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:04:36 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.246	862917787	1668.586 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	31368807	84.453 ug/ml
3) H TPH-DRO (C10-C24)	1.840	28532810	77.452 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	5028308	28.766 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	8191467	26.367 ug/ml

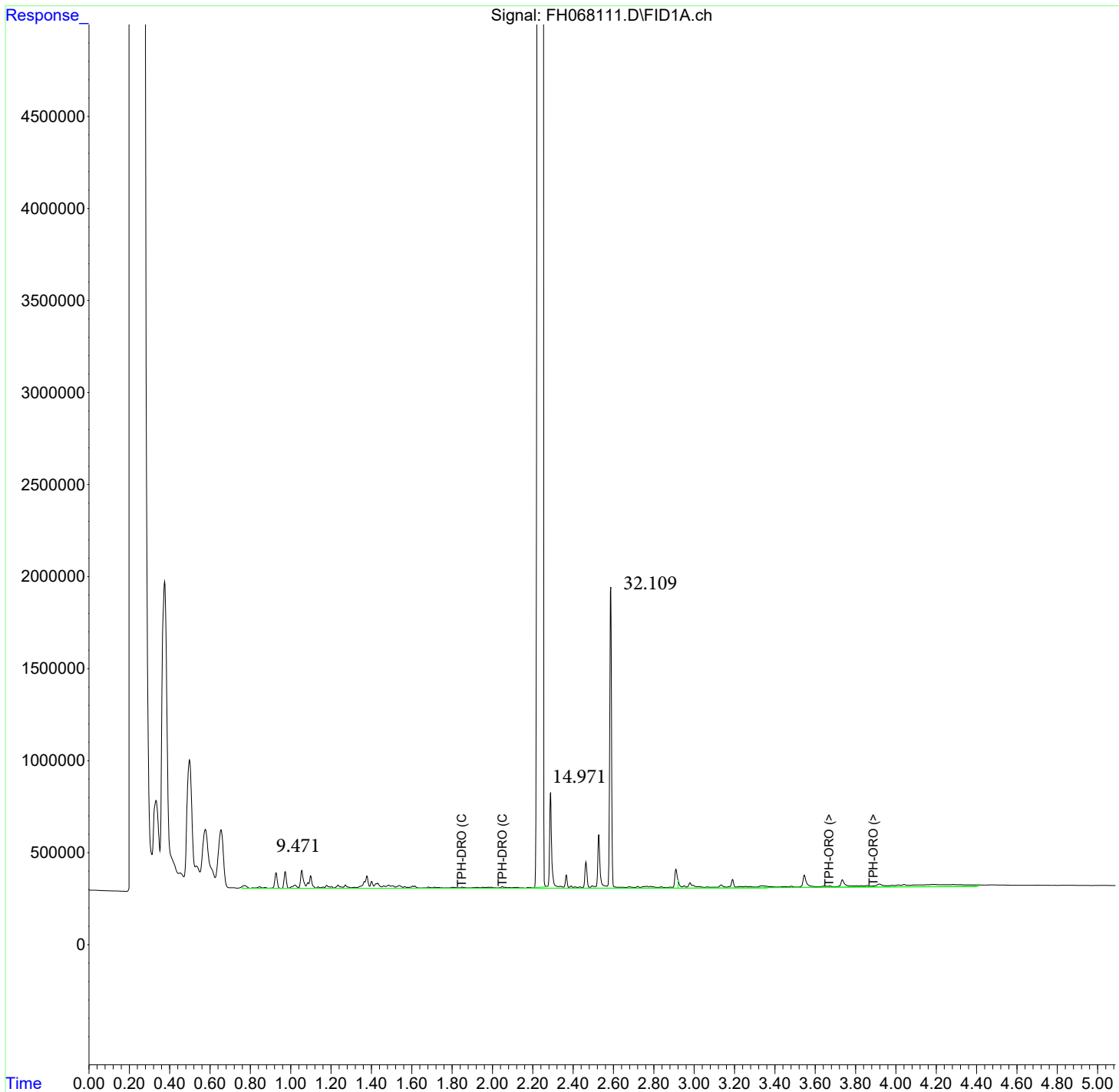
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068111.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 9:33 pm
Operator : ██████████
Sample : da58891-6
Misc : OP24412,GFH23722,1020,,,1,1
ALS Vial : 13 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:04:36 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068125.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 11:27 pm
 Operator : ██████████
 Sample : da58943-8
 Misc : OP24412,GFH23722,1030,,,1,1
 ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:05:04 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.245	871202803	1684.606 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	32261587	86.857 ug/ml
3) H TPH-DRO (C10-C24)	1.840	29486131	80.040 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	4905040	28.061 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	8060714	25.946 ug/ml

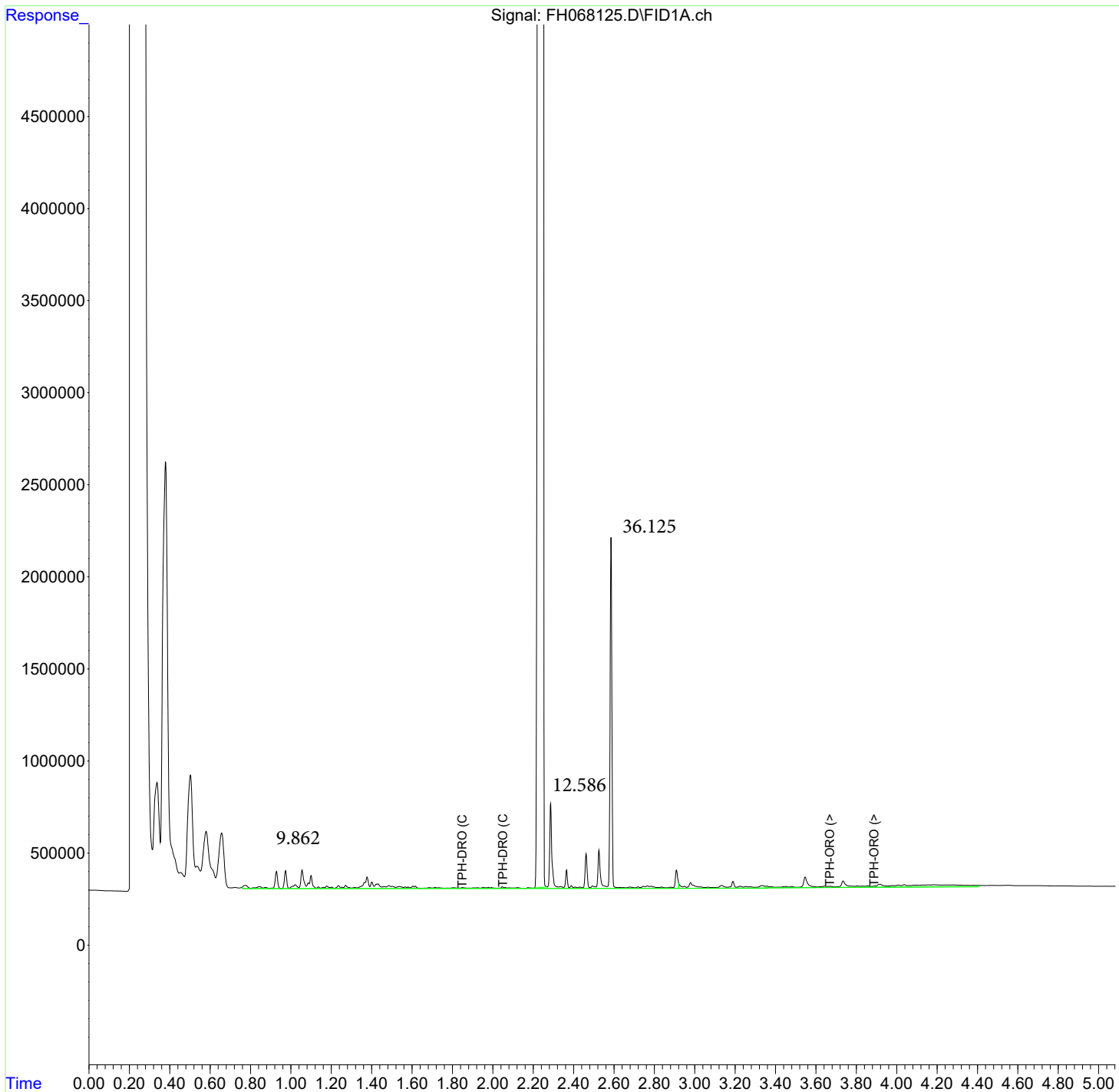
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068125.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 11:27 pm
Operator : ██████████
Sample : da58943-8
Misc : OP24412,GFH23722,1030,,,1,1
ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:05:04 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092423\
 Data File : FH067820.D
 Signal(s) : FID1A.ch
 Acq On : 24 Sep 2023 9:43 pm
 Operator : ██████████
 Sample : da58833-2
 Misc : OP24381,GFH23716,1000,,,1,1
 ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 25 11:18:10 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.247	851623465	1646.746 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	24031878	64.700 ug/ml
3) H TPH-DRO (C10-C24)	1.840	21829950	59.257 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	3677294	21.037 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	6269844	20.181 ug/ml

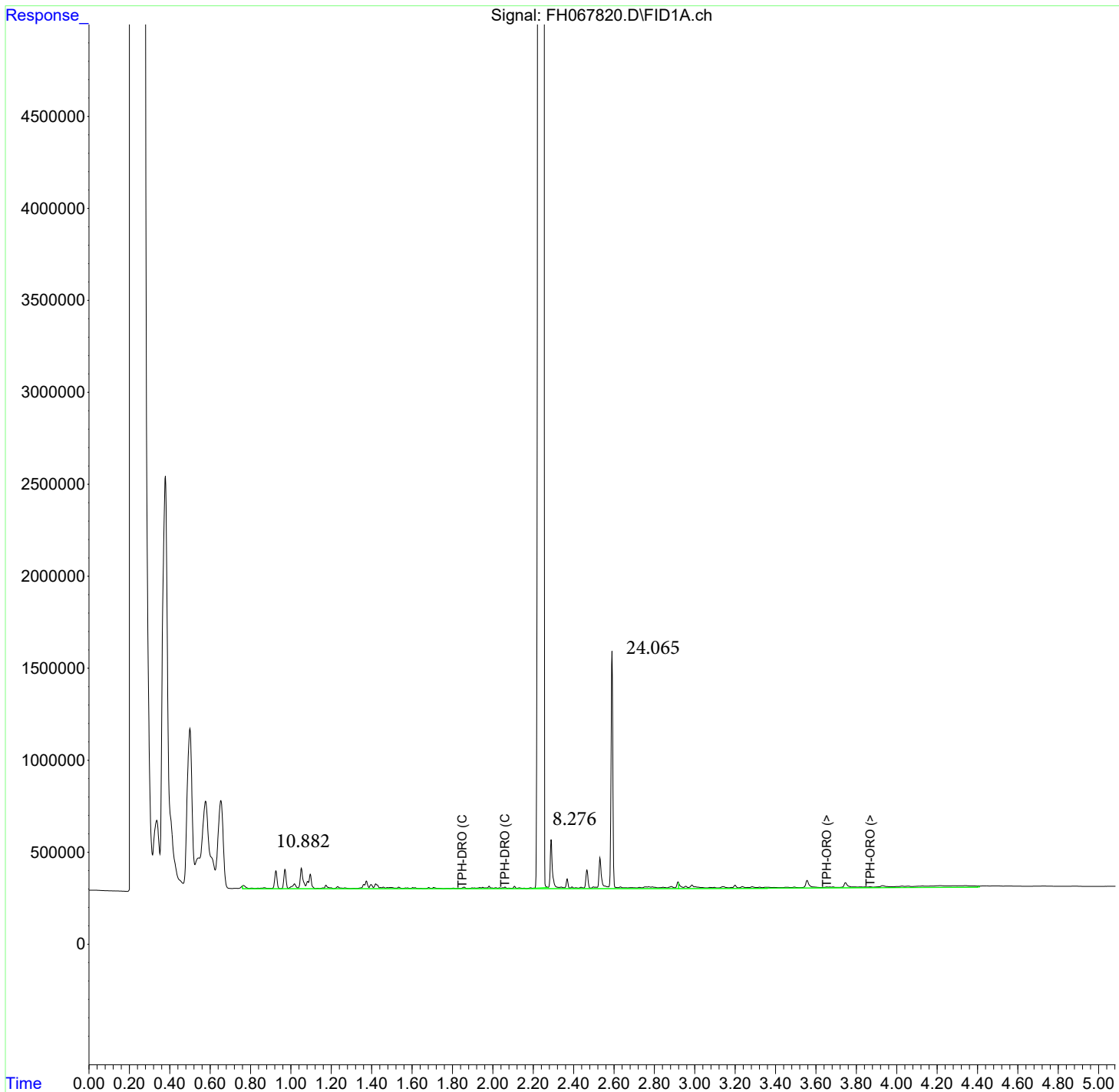
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092423\
Data File : FH067820.D
Signal(s) : FID1A.ch
Acq On : 24 Sep 2023 9:43 pm
Operator : ██████████
Sample : da58833-2
Misc : OP24381,GFH23716,1000,,,1,1
ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 25 11:18:10 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068126.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 11:35 pm
 Operator : ██████████
 Sample : da58944-1
 Misc : OP24412,GFH23722,1040,,,1,1
 ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:05:06 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.244	831851396	1608.514 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	32004915	86.166 ug/ml
3) H TPH-DRO (C10-C24)	1.840	28892555	78.429 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	5335647	30.524 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	8577082	27.608 ug/ml

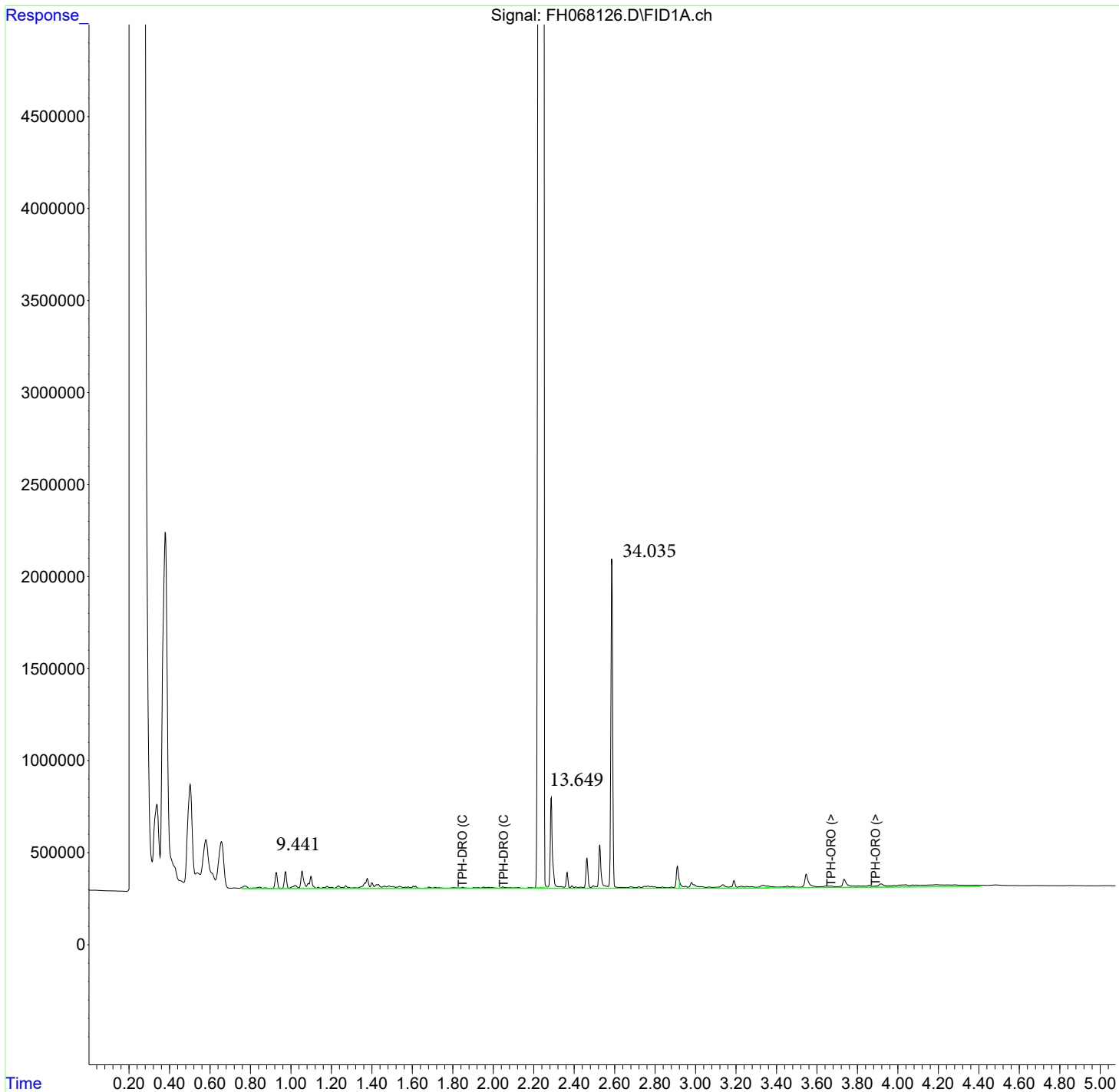
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068126.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 11:35 pm
Operator : ██████████
Sample : da58944-1
Misc : OP24412,GFH23722,1040,,,1,1
ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:05:06 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068127.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 11:43 pm
 Operator : ██████████
 Sample : da58944-2
 Misc : OP24412,GFH23722,1020,,,1,1
 ALS Vial : 27 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:05:08 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.241	710539461	1373.938 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	28428215	76.536 ug/ml
3) H TPH-DRO (C10-C24)	1.840	26045977	70.702 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	4438582	25.392 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	7300198	23.498 ug/ml

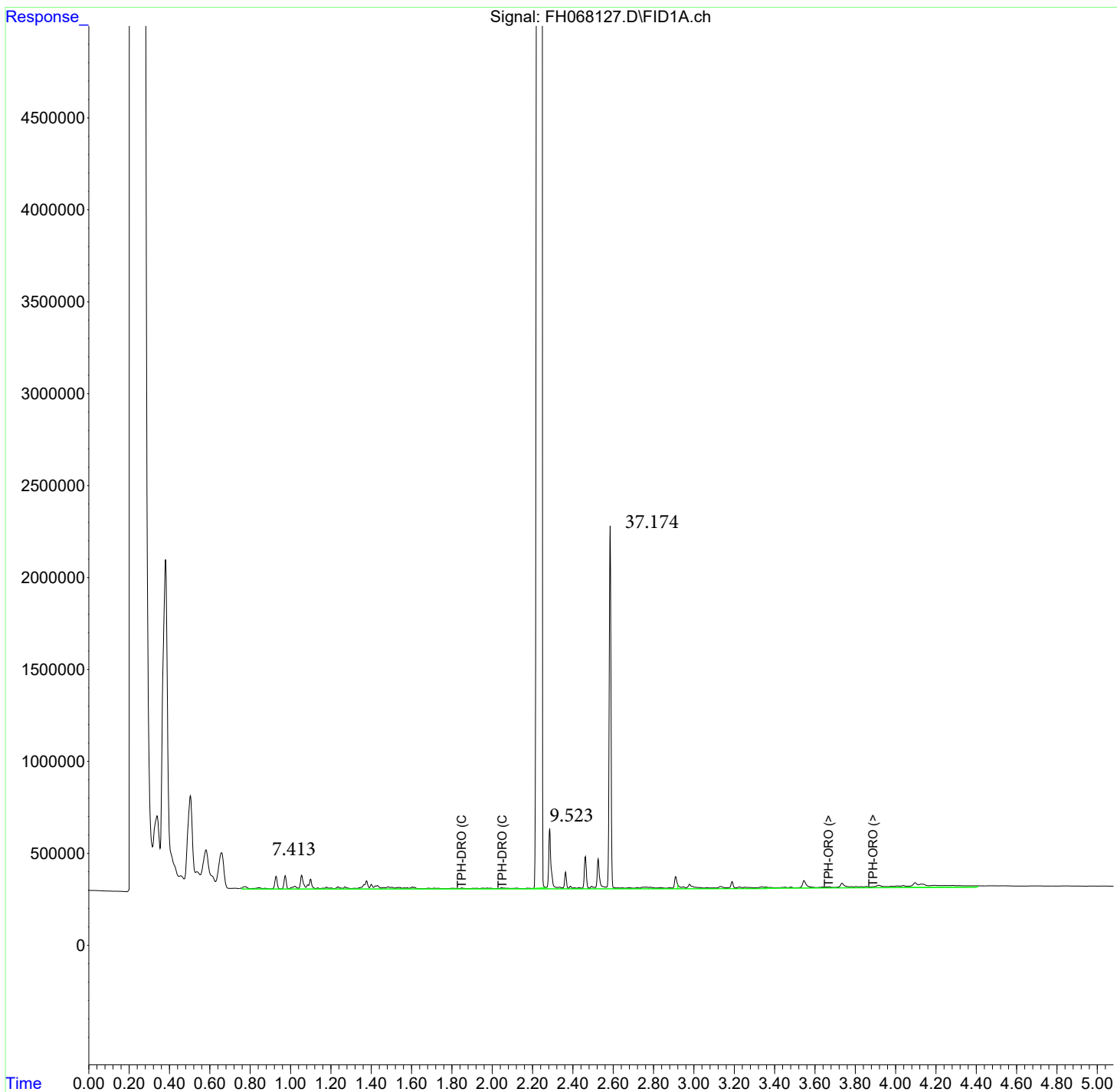
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068127.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 11:43 pm
Operator : ██████████
Sample : da58944-2
Misc : OP24412,GFH23722,1020,,,1,1
ALS Vial : 27 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:05:08 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068128.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 11:51 pm
 Operator : ██████████
 Sample : da58944-3
 Misc : OP24412,GFH23722,1030,,,1,1
 ALS Vial : 28 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:05:10 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.241	695480963	1344.820 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	26836785	72.252 ug/ml
3) H TPH-DRO (C10-C24)	1.840	24293691	65.945 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	4657008	26.642 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	7606865	24.485 ug/ml

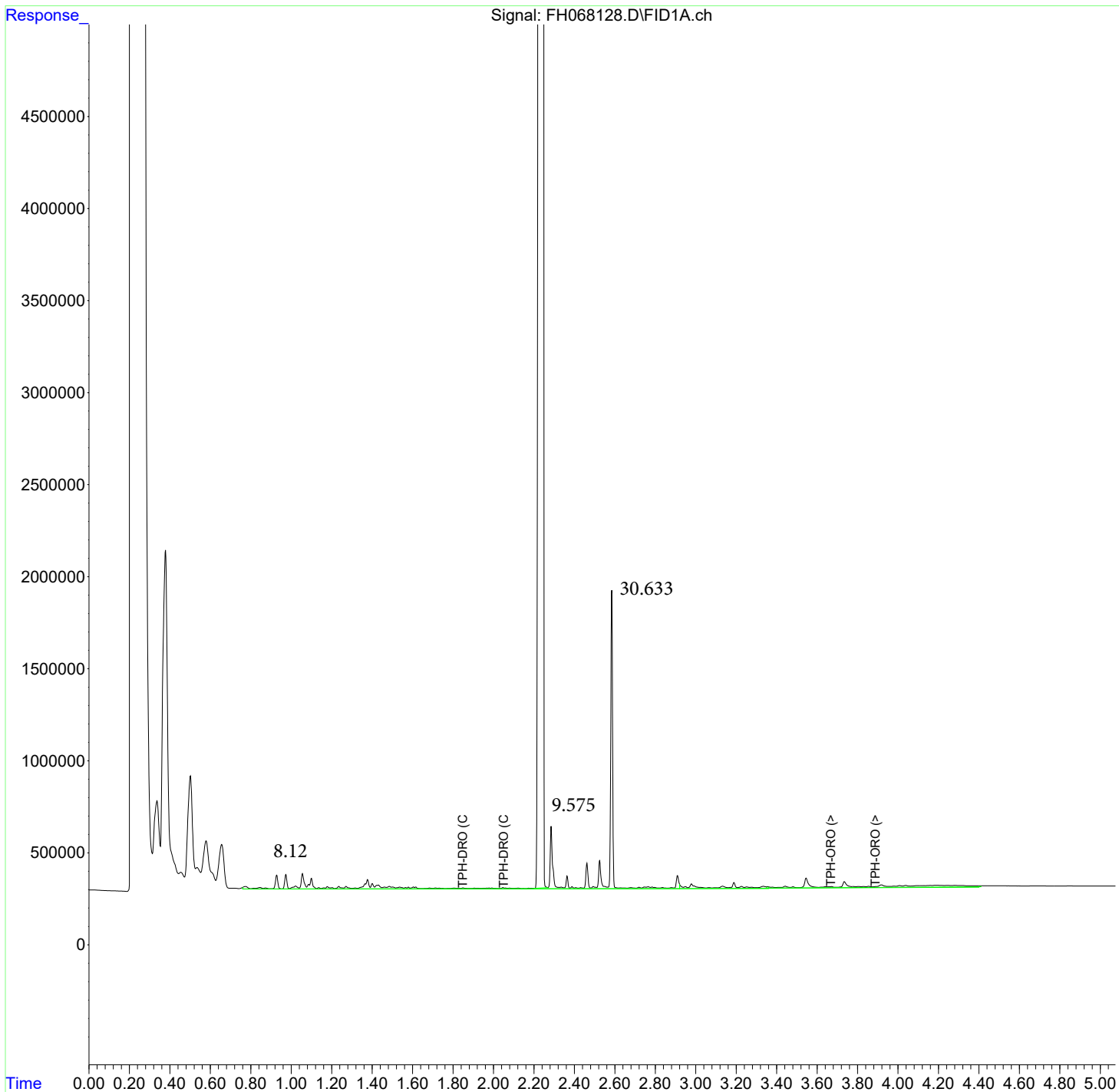
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068128.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 11:51 pm
Operator : ██████████
Sample : da58944-3
Misc : OP24412,GFH23722,1030,,,1,1
ALS Vial : 28 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:05:10 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
 Data File : LW16881.d
 Signal(s) : FID1B.CH
 Acq On : 17 Sep 2023 23:07 pm
 Operator : ██████████
 Sample : da58574-10
 Misc : OP24339, GLW562, 1040, , , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 18 12:45:34 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.305	33080372	1652.507 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	82.63%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1180928	86.788 ppm
2) H TPH-ORO (>C28-C40)	3.940	503671	55.310 ppm
3) H TPH-DRO (C10-C24)	1.900	774324	57.859 ppm m
4) H TPH-ORO (>C24-C40)	3.720	498292	32.068 ppm m

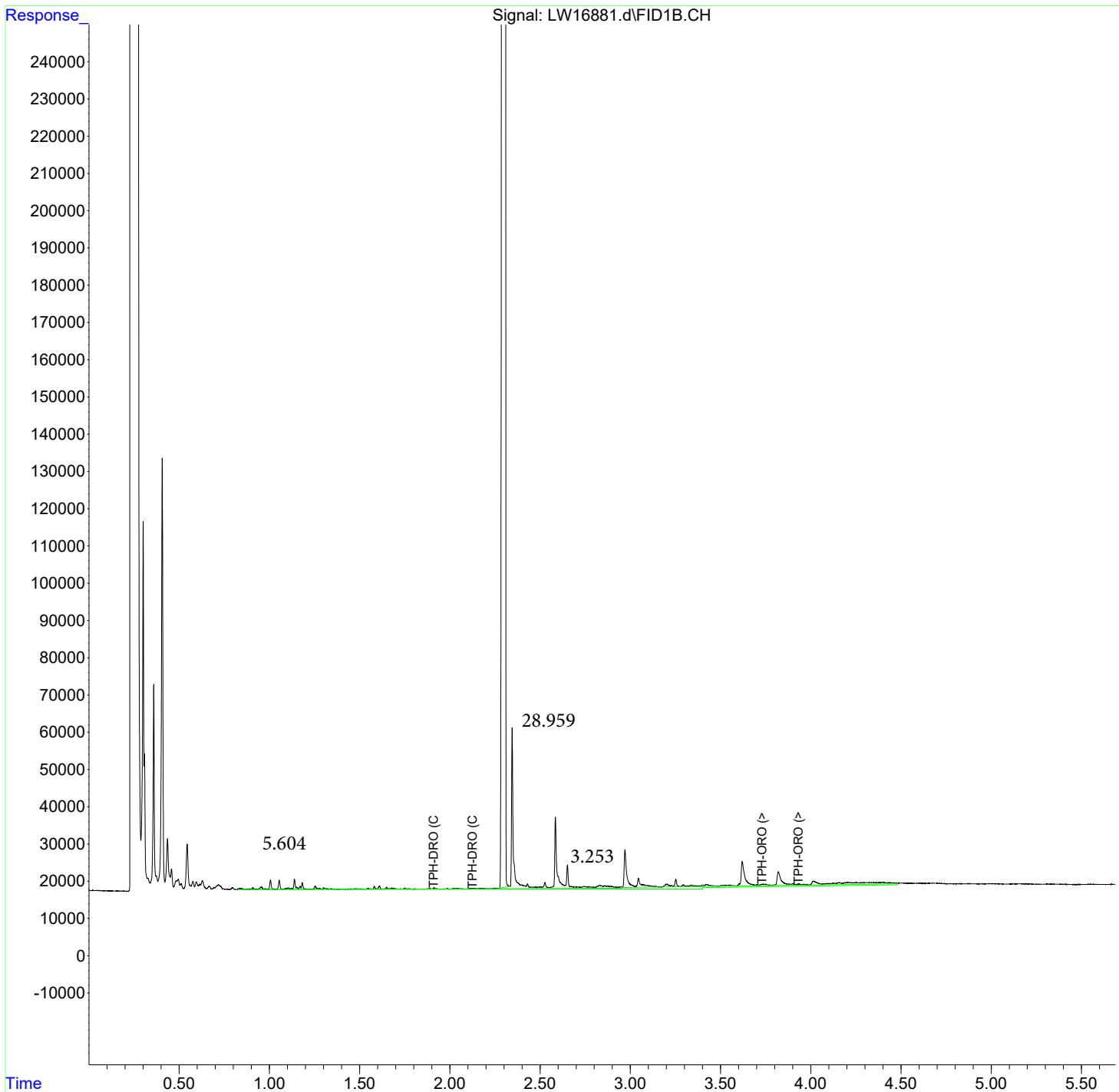
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
Data File : LW16881.d
Signal(s) : FID1B.CH
Acq On : 17 Sep 2023 23:07 pm
Operator : ██████████
Sample : da58574-10
Misc : OP24339, GLW562, 1040, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 18 12:45:34 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
 Data File : LW16506.d
 Signal(s) : FID1B.CH
 Acq On : 09 Sep 2023 19:59 pm
 Operator : ██████████
 Sample : da58316-8
 Misc : OP24284, GLW553, 1000, , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 10 17:49:32 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.309f	38166697	1906.591 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	95.33%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1125513	82.716 ppm
2) H TPH-ORO (>C28-C40)	3.940	128163	14.074 ppm
3) H TPH-DRO (C10-C24)	1.900	1007938	75.315 ppm
4) H TPH-ORO (>C24-C40)	3.720	307431	19.785 ppm

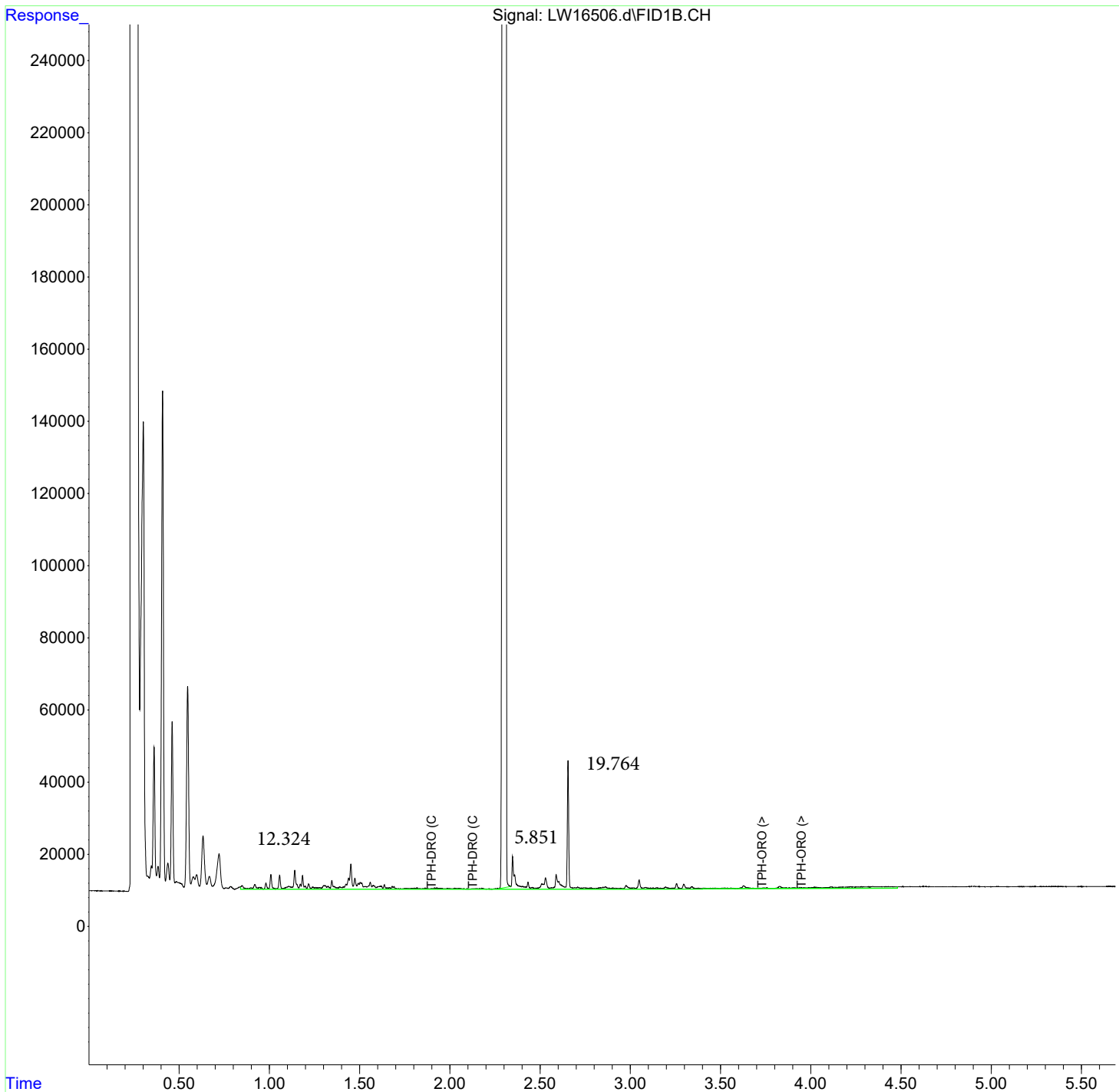
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
Data File : LW16506.d
Signal(s) : FID1B.CH
Acq On : 09 Sep 2023 19:59 pm
Operator : ██████████
Sample : da58316-8
Misc : OP24284, GLW553, 1000, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 10 17:49:32 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
 Data File : LW16505.d
 Signal(s) : FID1B.CH
 Acq On : 09 Sep 2023 19:49 pm
 Operator : ██████████
 Sample : da58316-7
 Misc : OP24284, GLW553, 1000, , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 10 17:49:30 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.309f	39541010	1975.244 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	98.76%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1032263	75.863 ppm
2) H TPH-ORO (>C28-C40)	3.940	136202	14.957 ppm
3) H TPH-DRO (C10-C24)	1.900	919314	68.693 ppm
4) H TPH-ORO (>C24-C40)	3.720	318494	20.497 ppm

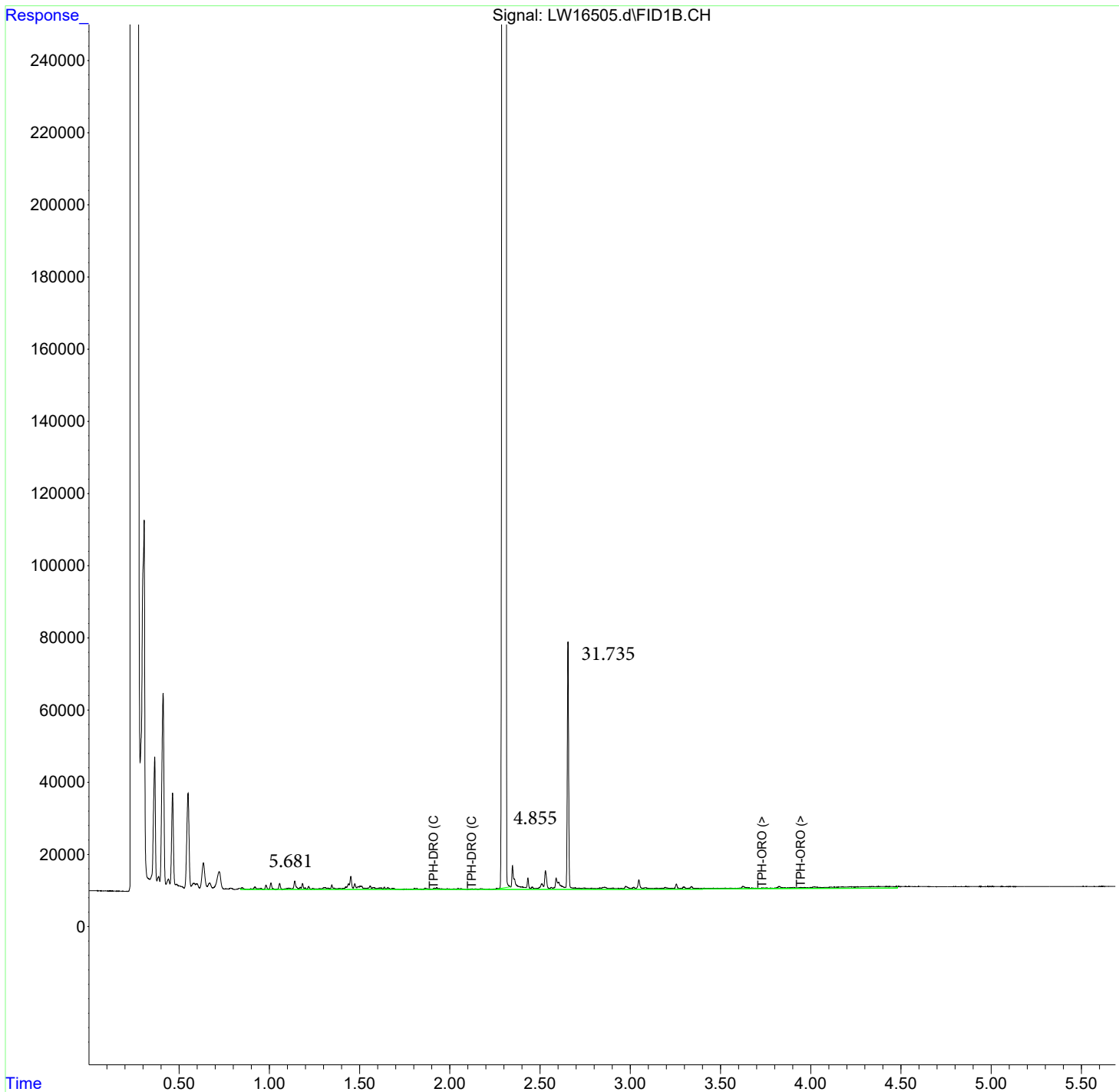
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
Data File : LW16505.d
Signal(s) : FID1B.CH
Acq On : 09 Sep 2023 19:49 pm
Operator : ██████████
Sample : da58316-7
Misc : OP24284, GLW553, 1000, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 10 17:49:30 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
 Data File : LW16503.d
 Signal(s) : FID1B.CH
 Acq On : 09 Sep 2023 19:28 pm
 Operator : ██████████
 Sample : da58316-5
 Misc : OP24284, GLW553, 1050, , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 10 17:49:26 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.310f	38697223	1933.093 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	96.65%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1116487	82.052 ppm
2) H TPH-ORO (>C28-C40)	3.940	138174	15.173 ppm
3) H TPH-DRO (C10-C24)	1.900	995830	74.411 ppm
4) H TPH-ORO (>C24-C40)	3.720	339626	21.857 ppm

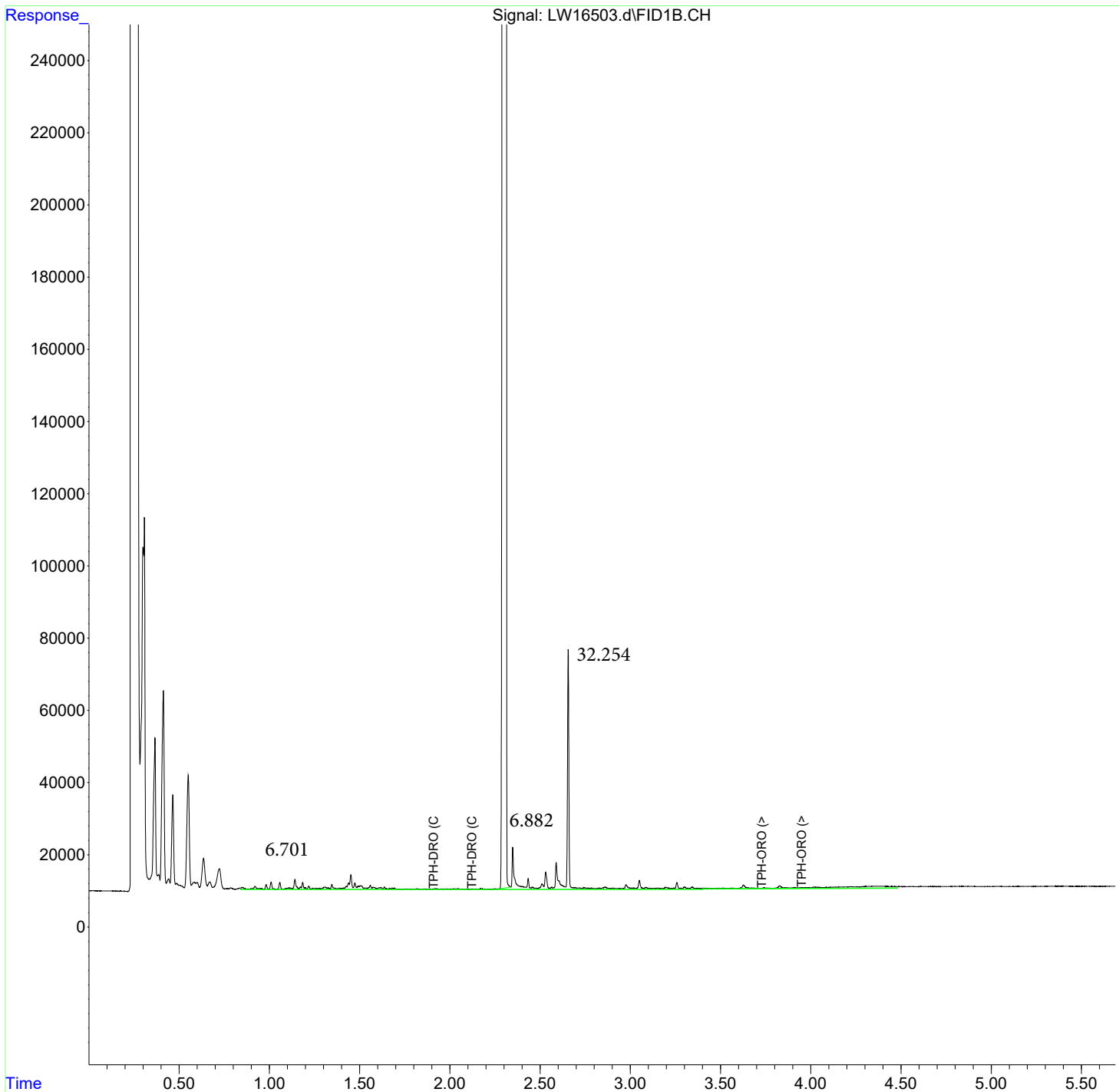
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
Data File : LW16503.d
Signal(s) : FID1B.CH
Acq On : 09 Sep 2023 19:28 pm
Operator : ██████████
Sample : da58316-5
Misc : OP24284, GLW553, 1050, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 10 17:49:26 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
 Data File : LW16507.d
 Signal(s) : FID1B.CH
 Acq On : 09 Sep 2023 20:09 pm
 Operator : ██████████
 Sample : da58316-9
 Misc : OP24284, GLW553, 1050, , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 10 17:49:34 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.307	30063519	1501.802 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	75.09%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1047136	76.956 ppm
2) H TPH-ORO (>C28-C40)	3.940	140630	15.443 ppm
3) H TPH-DRO (C10-C24)	1.900	929707	69.470 ppm
4) H TPH-ORO (>C24-C40)	3.720	350988	22.588 ppm

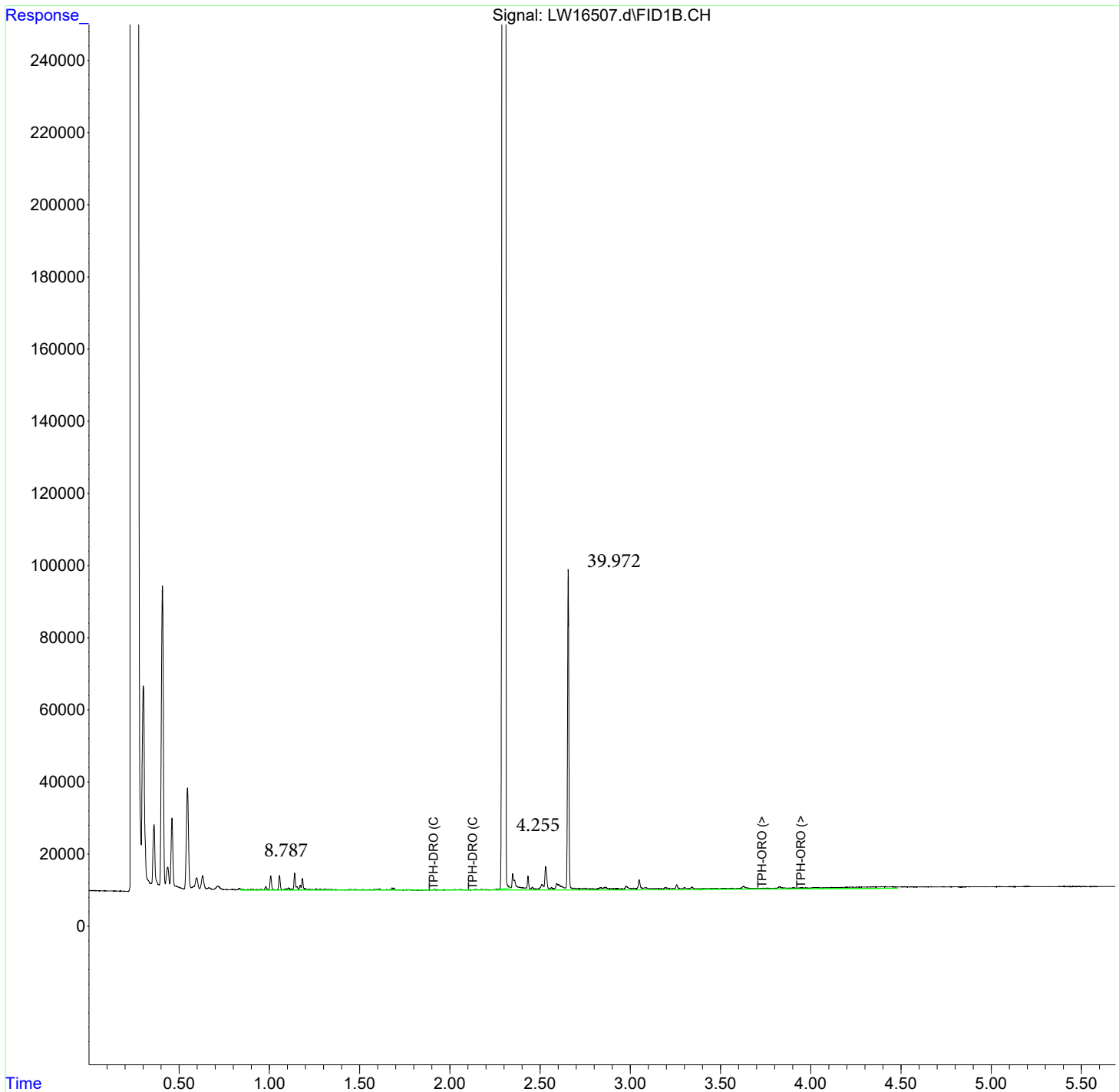
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
Data File : LW16507.d
Signal(s) : FID1B.CH
Acq On : 09 Sep 2023 20:09 pm
Operator : ██████████
Sample : da58316-9
Misc : OP24284, GLW553, 1050, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 10 17:49:34 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
 Data File : LW16504.d
 Signal(s) : FID1B.CH
 Acq On : 09 Sep 2023 19:39 pm
 Operator : ██████████
 Sample : da58316-6
 Misc : OP24284, GLW553, 1050, , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 10 17:49:28 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.308	31582971	1577.706 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	78.89%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1084100	79.672 ppm
2) H TPH-ORO (>C28-C40)	3.940	200886	22.060 ppm
3) H TPH-DRO (C10-C24)	1.900	942829	70.450 ppm
4) H TPH-ORO (>C24-C40)	3.720	446316	28.723 ppm

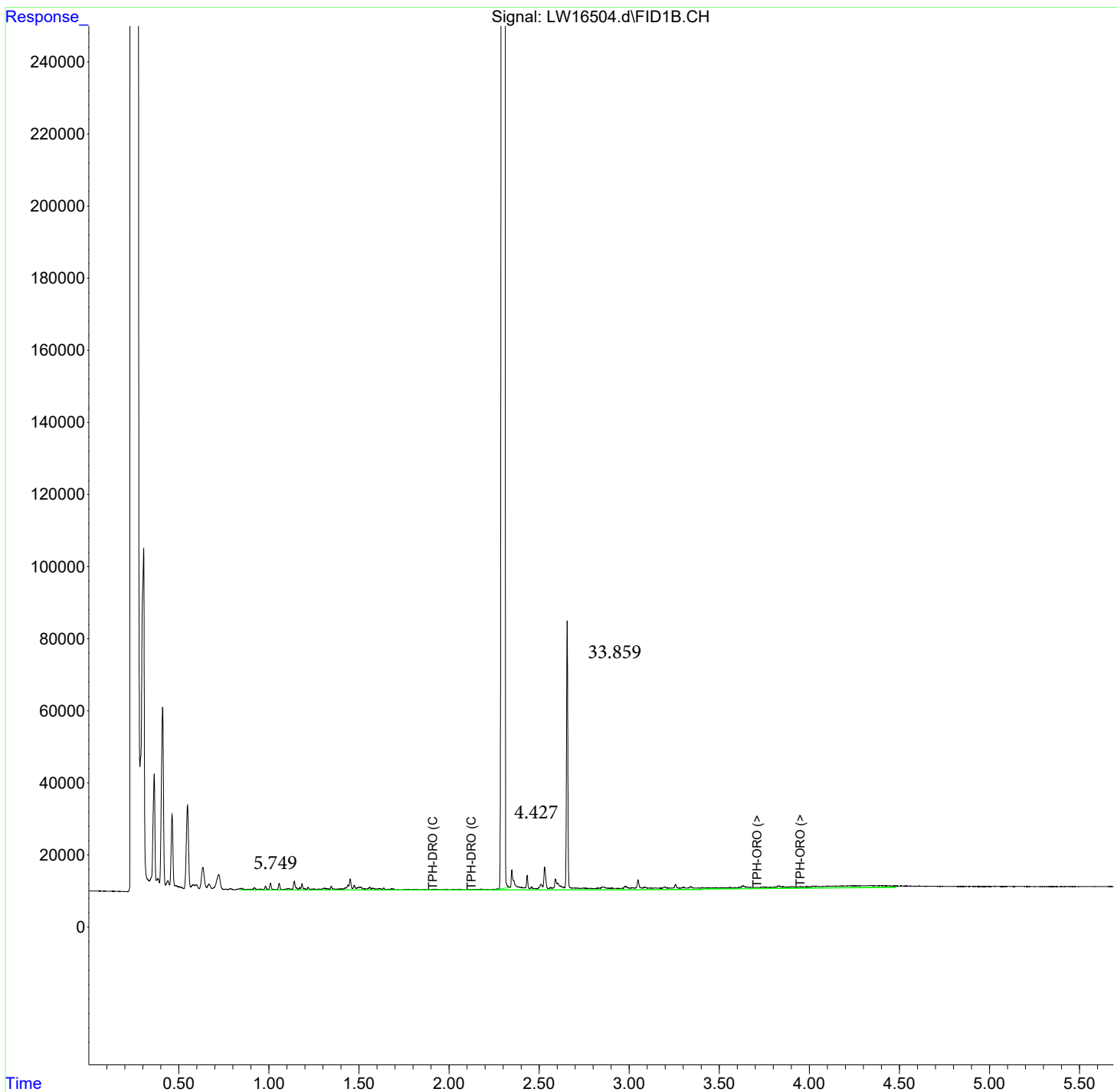
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
Data File : LW16504.d
Signal(s) : FID1B.CH
Acq On : 09 Sep 2023 19:39 pm
Operator : ██████████
Sample : da58316-6
Misc : OP24284, GLW553, 1050, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 10 17:49:28 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
 Data File : LW16514.d
 Signal(s) : FID1B.CH
 Acq On : 09 Sep 2023 21:19 pm
 Operator : ██████████
 Sample : da58316-14
 Misc : OP24284, GLW553, 1050, , , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 26 08:46:05 2024
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.309f	38025626	1899.544 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	94.98%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	478914	35.196 ppm m
2) H TPH-ORO (>C28-C40)	3.940	139059	15.271 ppm
3) H TPH-DRO (C10-C24)	1.900	935579	69.909 ppm m
4) H TPH-ORO (>C24-C40)	3.720	319409	20.556 ppm

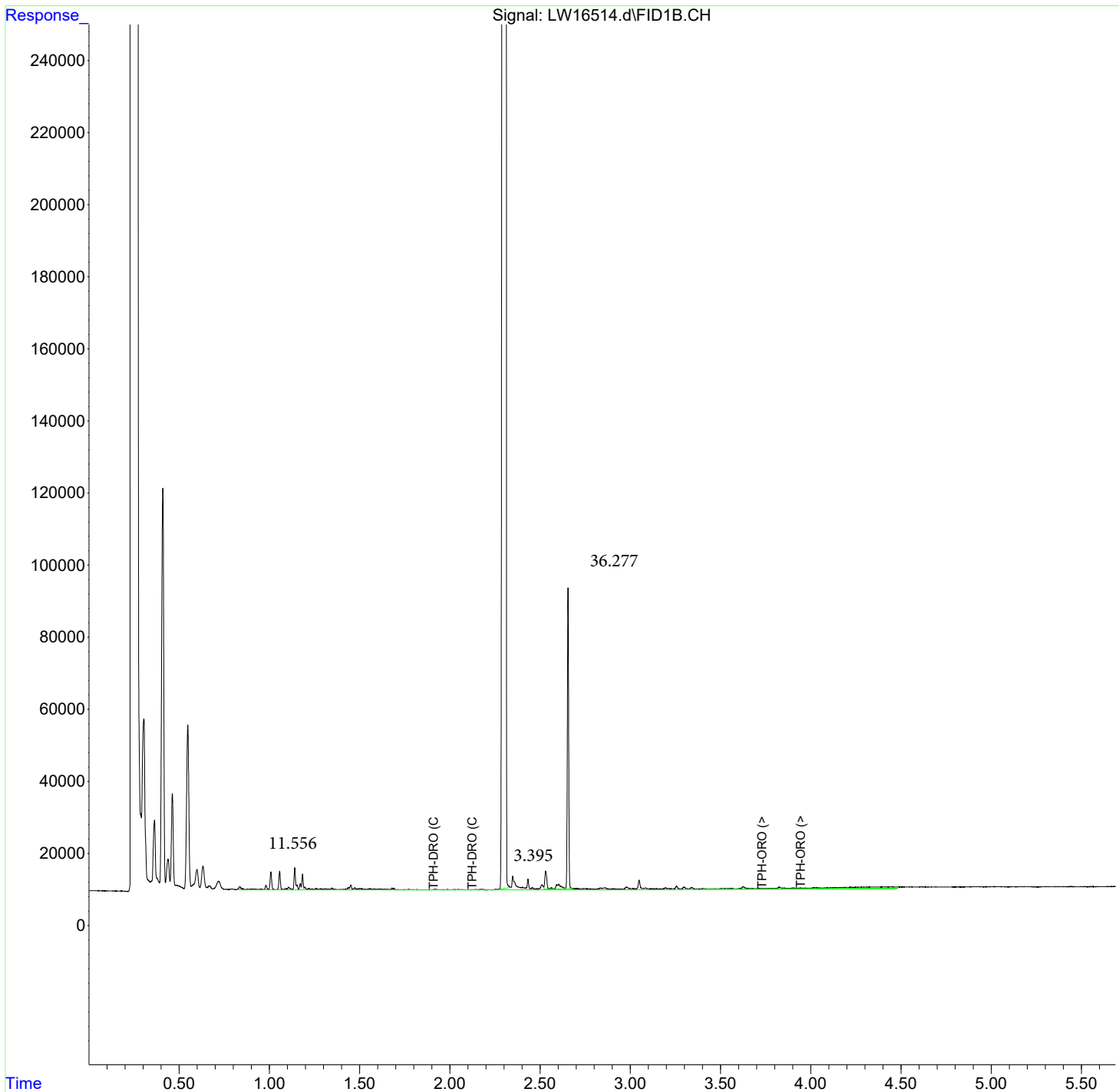
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
Data File : LW16514.d
Signal(s) : FID1B.CH
Acq On : 09 Sep 2023 21:19 pm
Operator : ██████████
Sample : da58316-14
Misc : OP24284, GLW553, 1050, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Nov 26 08:46:05 2024
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
 Data File : LW16502.d
 Signal(s) : FID1B.CH
 Acq On : 09 Sep 2023 19:18 pm
 Operator : ██████████
 Sample : da58316-4
 Misc : OP24284, GLW553, 1050, , , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 26 08:59:03 2024
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.307	32587338	1627.878 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	81.39%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1280308	94.092 ppm
2) H TPH-ORO (>C28-C40)	3.940	233938	25.689 ppm
3) H TPH-DRO (C10-C24)	1.900	1046774	78.217 ppm m
4) H TPH-ORO (>C24-C40)	3.720	519212	33.414 ppm

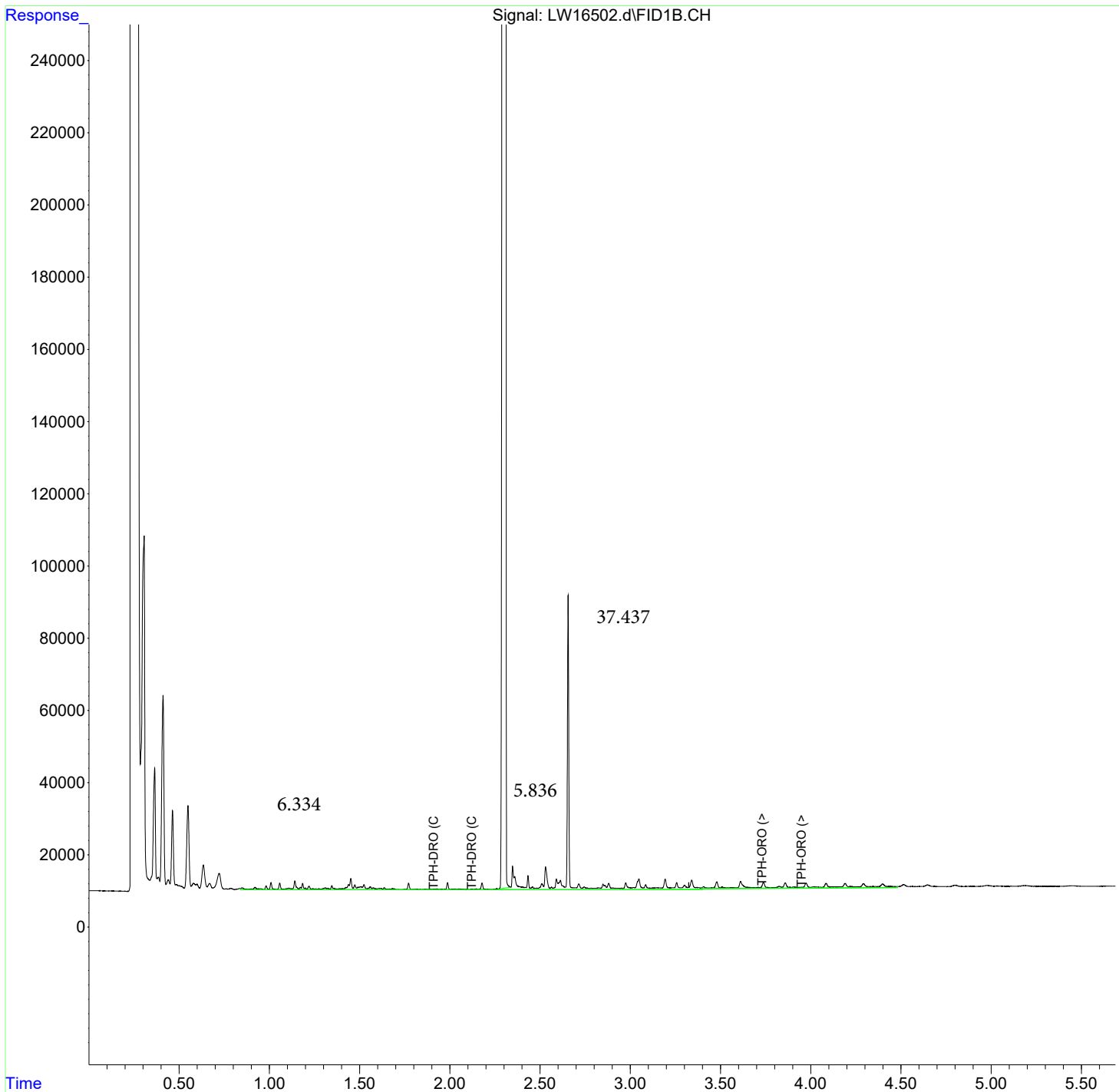
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW090924\
Data File : LW16502.d
Signal(s) : FID1B.CH
Acq On : 09 Sep 2023 19:18 pm
Operator : ██████████
Sample : da58316-4
Misc : OP24284, GLW553, 1050, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Nov 26 08:59:03 2024
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
 Data File : LW16892.d
 Signal(s) : FID1B.CH
 Acq On : 18 Sep 2023 0:58 am
 Operator : ██████████
 Sample : da58613-5
 Misc : OP24339, GLW562, 1000, , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 18 12:51:08 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.305	32964588	1646.723 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	82.34%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1362894	100.161 ppm
2) H TPH-ORO (>C28-C40)	3.940	639158	70.188 ppm
3) H TPH-DRO (C10-C24)	1.900	947168	70.775 ppm
4) H TPH-ORO (>C24-C40)	3.720	685260	44.101 ppm m

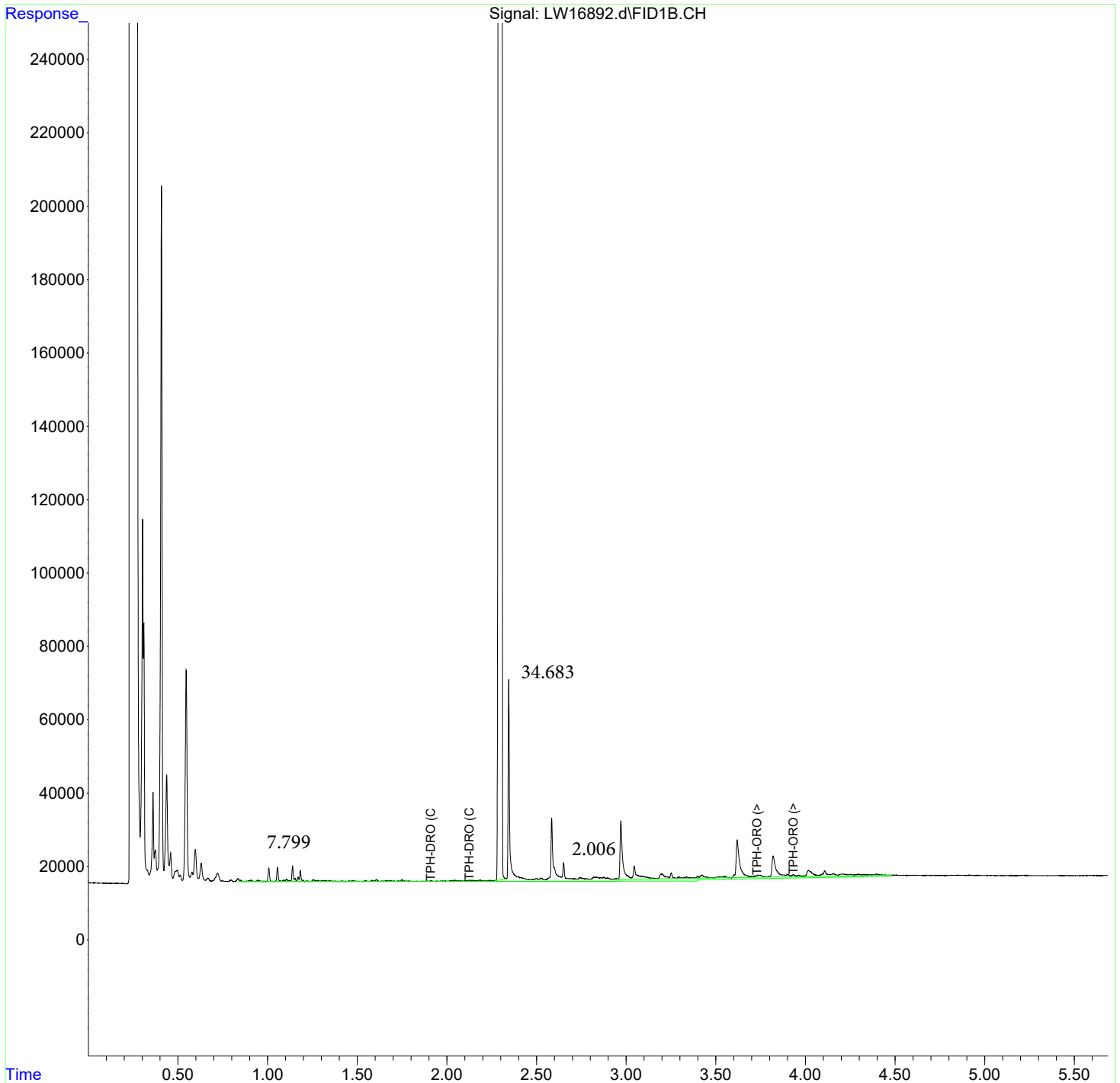
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
Data File : LW16892.d
Signal(s) : FID1B.CH
Acq On : 18 Sep 2023 0:58 am
Operator : ██████████
Sample : da58613-5
Misc : OP24339, GLW562, 1000, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 18 12:51:08 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
 Data File : LW16888.d
 Signal(s) : FID1B.CH
 Acq On : 18 Sep 2023 0:17 am
 Operator : ██████████
 Sample : da58613-1
 Misc : OP24339, GLW562, 1020, , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 18 12:50:18 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.308f	42037103	2099.935 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery	= 105.00%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1207274	88.724 ppm
2) H TPH-ORO (>C28-C40)	3.940	390623	42.896 ppm
3) H TPH-DRO (C10-C24)	1.900	984171	73.539 ppm
4) H TPH-ORO (>C24-C40)	3.720	316070	20.341 ppm m

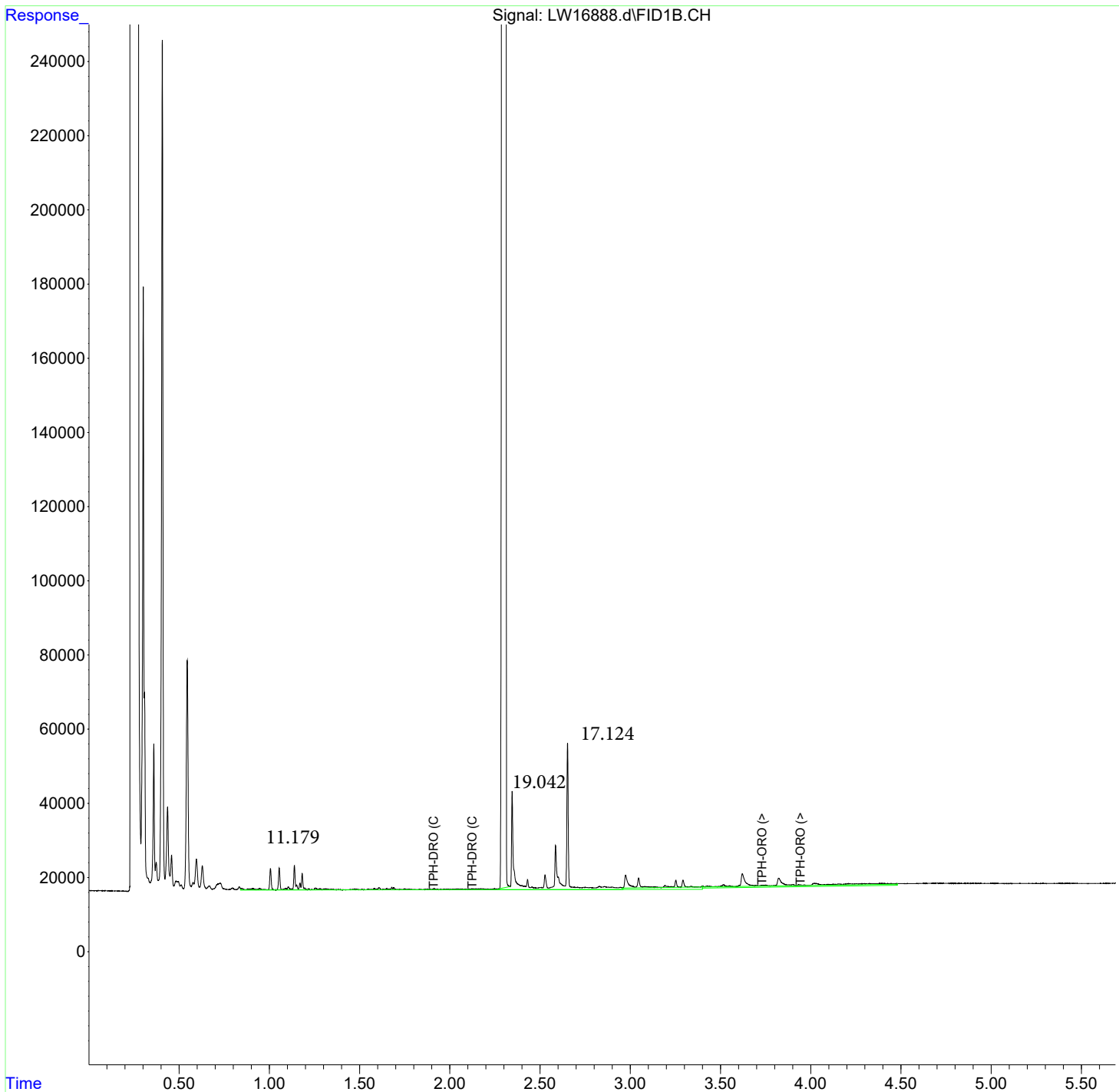
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
Data File : LW16888.d
Signal(s) : FID1B.CH
Acq On : 18 Sep 2023 0:17 am
Operator : ██████████
Sample : da58613-1
Misc : OP24339, GLW562, 1020, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 18 12:50:18 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
 Data File : LW16886.d
 Signal(s) : FID1B.CH
 Acq On : 17 Sep 2023 23:57 pm
 Operator : ██████████
 Sample : da58576-4
 Misc : OP24339, GLW562, 1020, , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 18 12:49:58 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.304	28358786	1416.644 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	70.83%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	947202	69.611 ppm
2) H TPH-ORO (>C28-C40)	3.940	339684	37.302 ppm
3) H TPH-DRO (C10-C24)	1.900	779495	58.246 ppm
4) H TPH-ORO (>C24-C40)	3.720	255280	16.429 ppm m

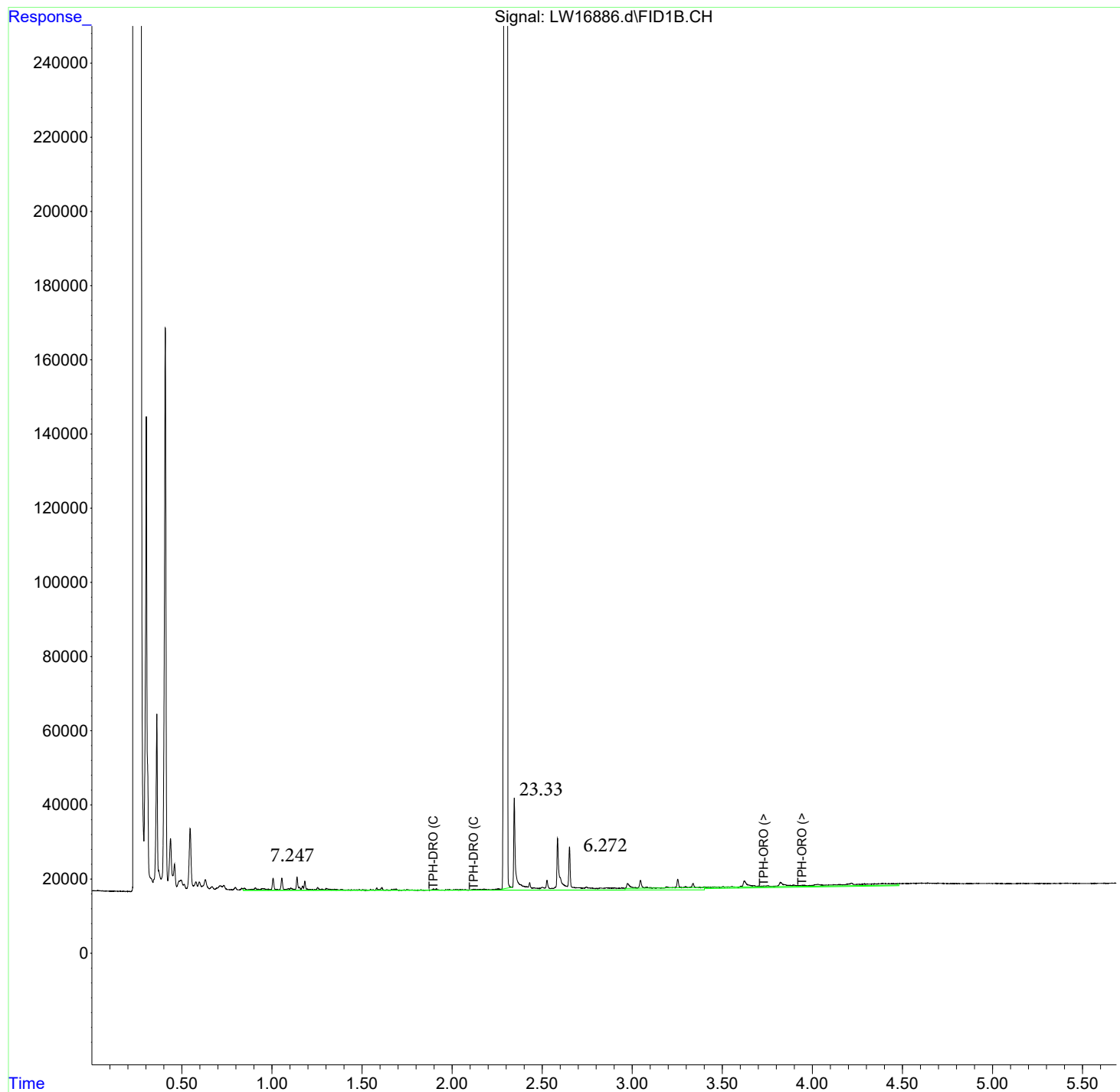
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
Data File : LW16886.d
Signal(s) : FID1B.CH
Acq On : 17 Sep 2023 23:57 pm
Operator : ██████████
Sample : da58576-4
Misc : OP24339, GLW562, 1020, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 18 12:49:58 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
 Data File : LW16885.d
 Signal(s) : FID1B.CH
 Acq On : 17 Sep 2023 23:47 pm
 Operator : ██████████
 Sample : da58576-3
 Misc : OP24339, GLW562, 1030, , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 18 10:40:22 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.307	40154321	2005.881 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery	= 100.29%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	942104	69.237 ppm
2) H TPH-ORO (>C28-C40)	3.940	259760	28.525 ppm
3) H TPH-DRO (C10-C24)	1.900	803724	60.056 ppm
4) H TPH-ORO (>C24-C40)	3.720	435264	28.012 ppm

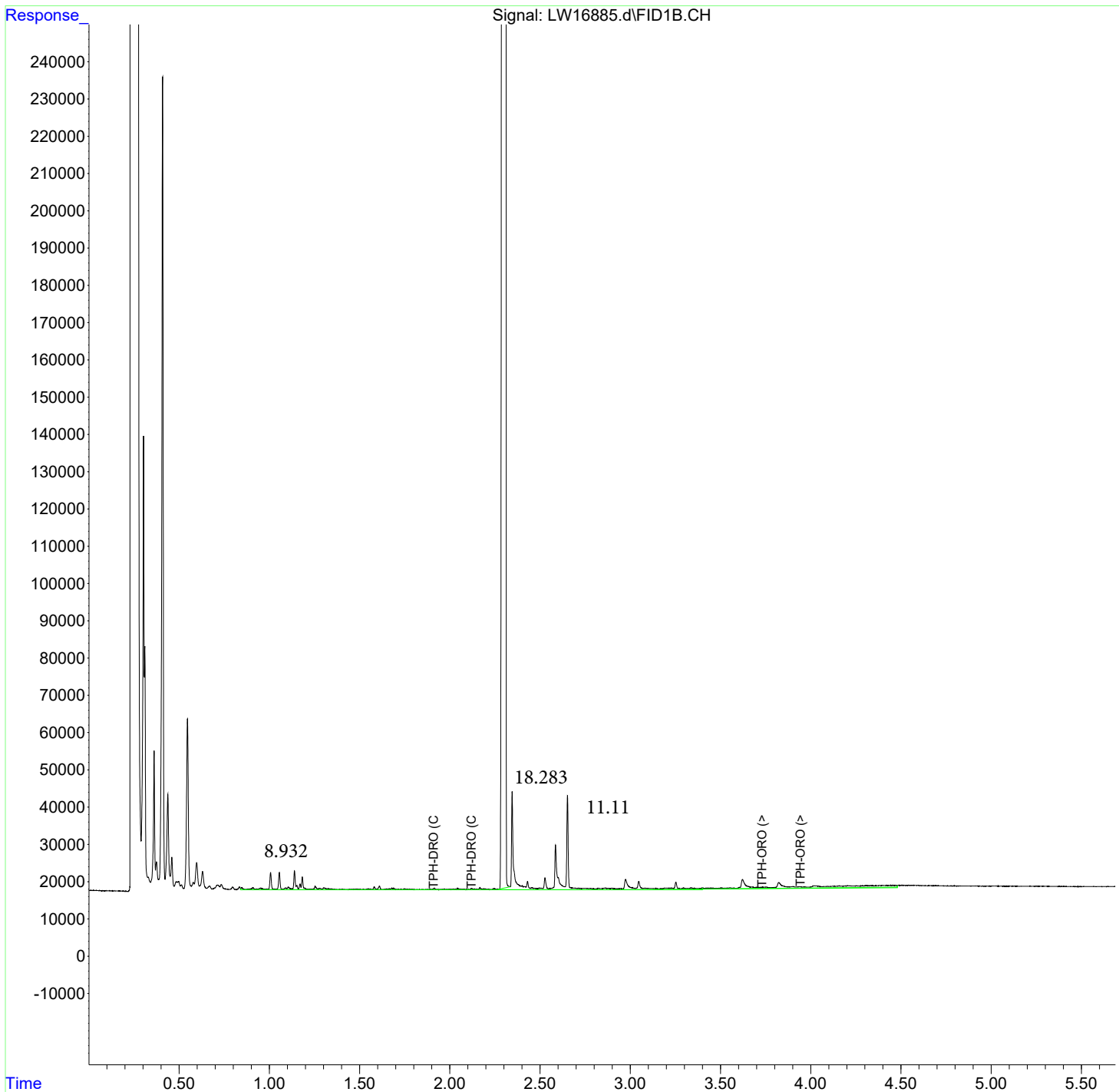
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
Data File : LW16885.d
Signal(s) : FID1B.CH
Acq On : 17 Sep 2023 23:47 pm
Operator : ██████████
Sample : da58576-3
Misc : OP24339, GLW562, 1030, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 18 10:40:22 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
 Data File : LW16887.d
 Signal(s) : FID1B.CH
 Acq On : 18 Sep 2023 0:07 am
 Operator : ██████████
 Sample : da58576-5
 Misc : OP24339, GLW562, 1020, , , , 1, 1
 ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 18 12:50:08 2023
 Quant Method : C:\msdchem\1\methods\DRO090923.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Sat Sep 09 15:29:59 2023
 Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	2.305	32674344	1632.224 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	81.61%
Target Compounds			
1) H TPH-DRO (C10-C28)	2.120	1047514	76.983 ppm
2) H TPH-ORO (>C28-C40)	3.940	429226	47.135 ppm
3) H TPH-DRO (C10-C24)	1.900	778222	58.151 ppm
4) H TPH-ORO (>C24-C40)	3.720	546013	35.139 ppm m

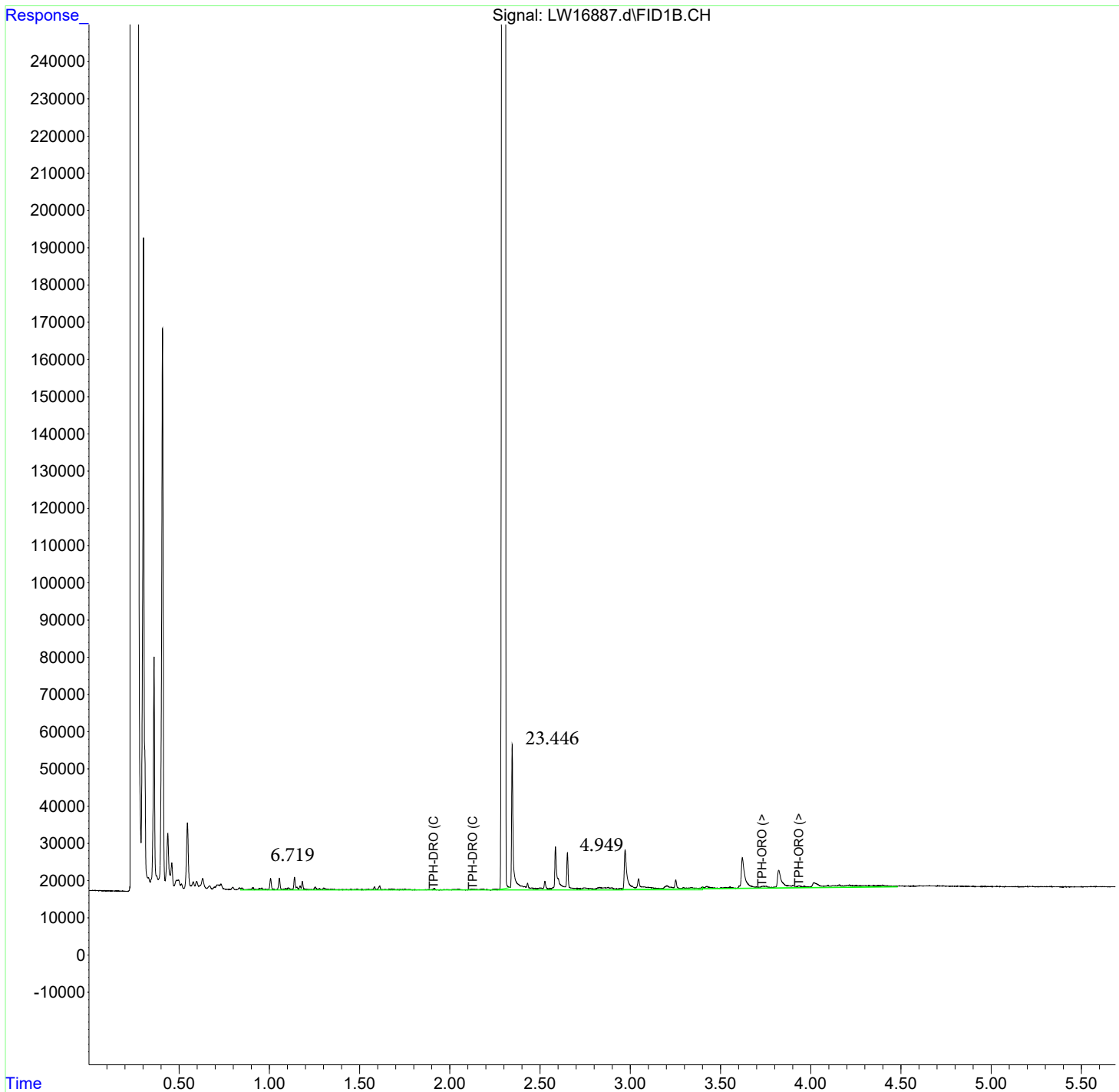
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for LW091723\
Data File : LW16887.d
Signal(s) : FID1B.CH
Acq On : 18 Sep 2023 0:07 am
Operator : ██████████
Sample : da58576-5
Misc : OP24339, GLW562, 1020, , , 1, 1
ALS Vial : 0 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 18 12:50:08 2023
Quant Method : C:\msdchem\1\methods\DRO090923.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Sat Sep 09 15:29:59 2023
Response via : Initial Calibration

Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068114.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 9:57 pm
 Operator : ██████████
 Sample : da58892-3
 Misc : OP24412,GFH23722,1030,,,1,1
 ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:04:42 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.244	781130309	1510.437 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	28363575	76.362 ug/ml
3) H TPH-DRO (C10-C24)	1.840	25364212	68.851 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	5466543	31.273 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	8801433	28.330 ug/ml

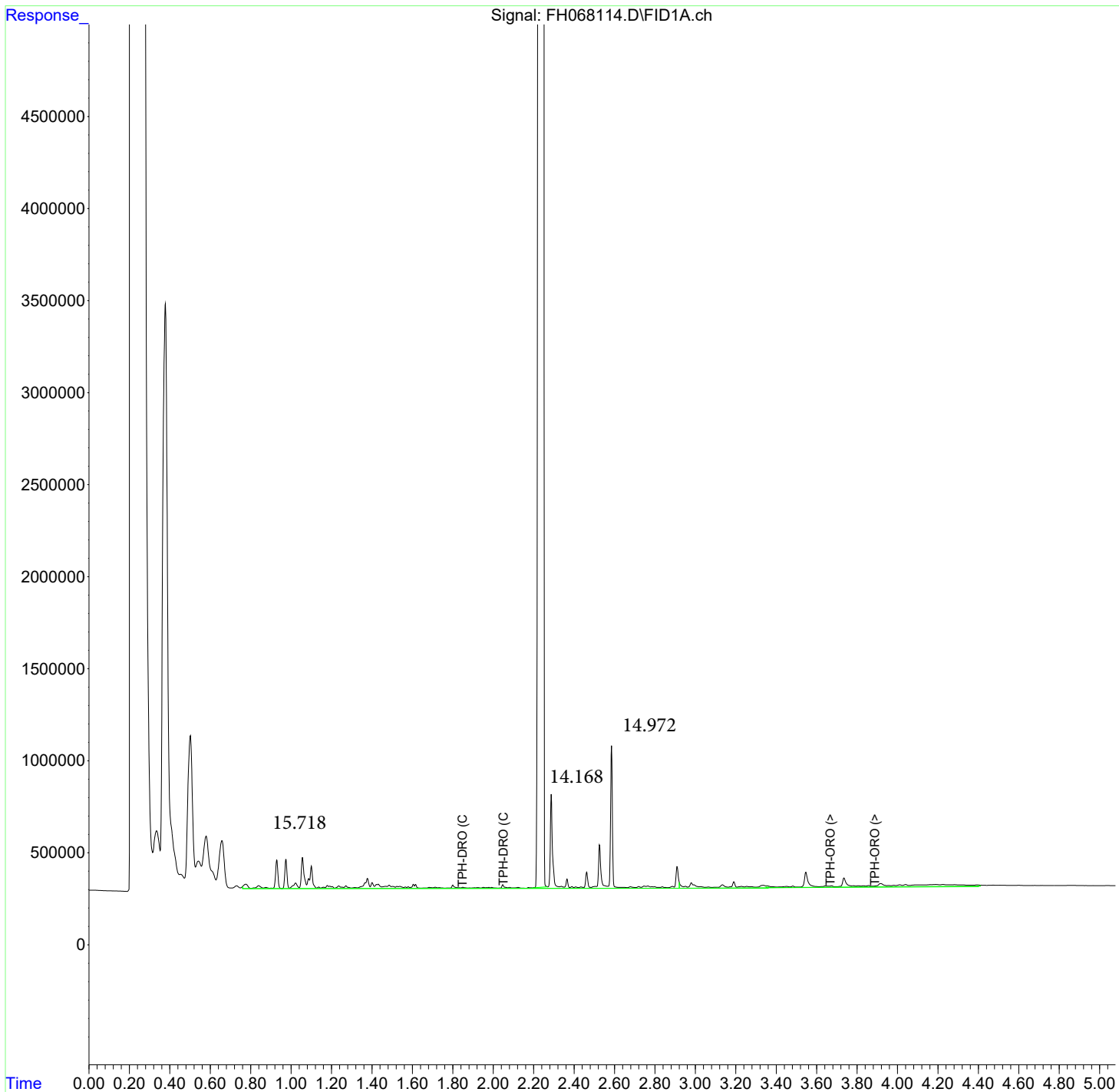
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068114.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 9:57 pm
Operator : ██████████
Sample : da58892-3
Misc : OP24412,GFH23722,1030,,,1,1
ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:04:42 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
 Data File : FH068112.D
 Signal(s) : FID1A.ch
 Acq On : 28 Sep 2023 9:41 pm
 Operator : ██████████
 Sample : da58892-1
 Misc : OP24412,GFH23722,1040,,,1,1
 ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Sep 29 11:04:38 2023
 Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
 Quant Title : DRO-ORO FRONT
 QLast Update : Wed Sep 20 16:12:50 2023
 Response via : Initial Calibration

Integrator: ChemStation
 Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
1) S o-Terphenyl	2.245	844642335	1633.247 ug/ml
Target Compounds			
2) H TPH-DRO (C10-C28)	2.060	24189668	65.125 ug/ml
3) H TPH-DRO (C10-C24)	1.840	21788550	59.145 ug/ml
4) H TPH-ORO (>C28-C40)	3.880	4677346	26.758 ug/ml
5) H TPH-ORO (>C24-C40)	3.660	7664358	24.670 ug/ml

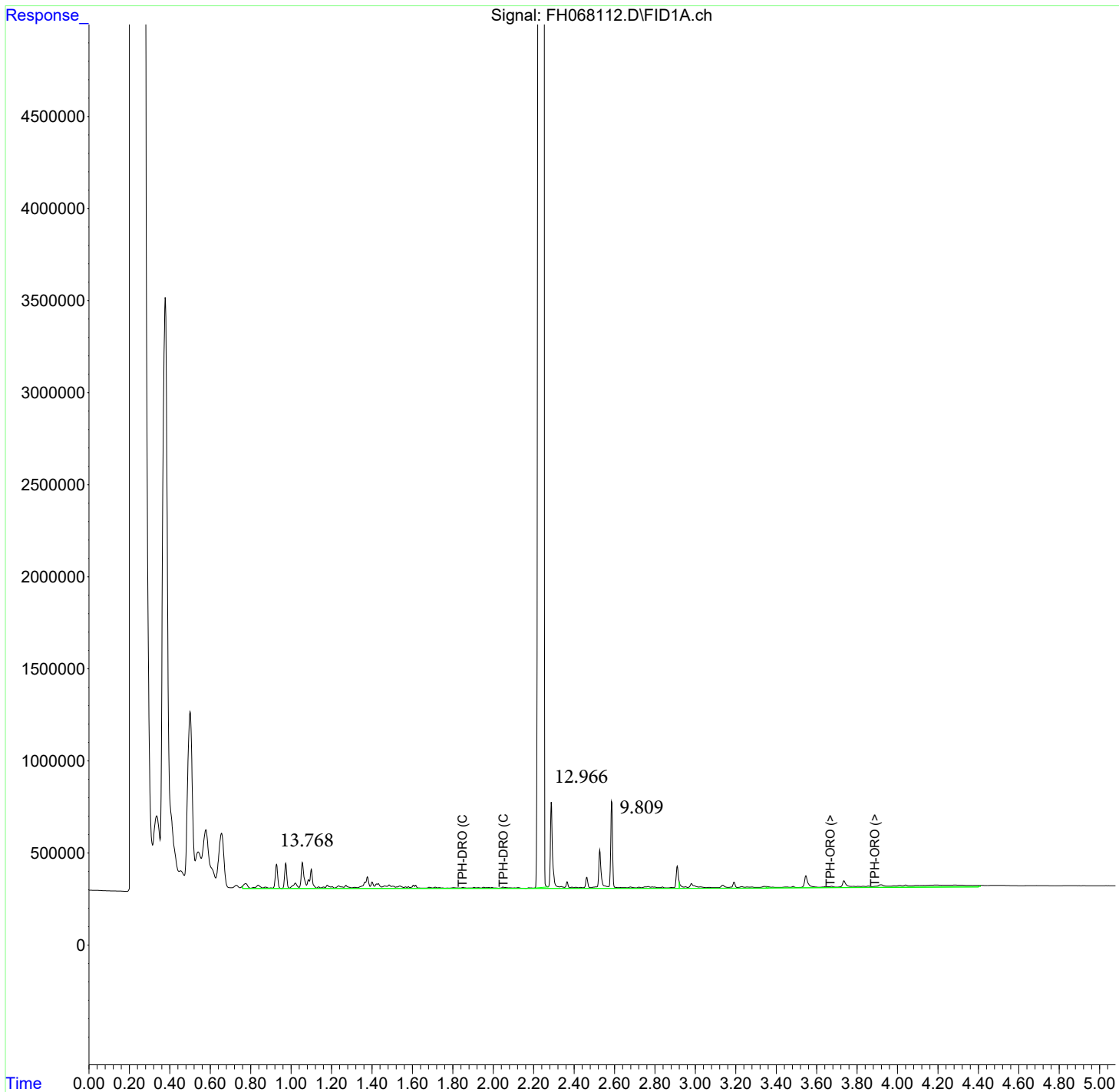
(f)=RT Delta > 1/2 Window

(m)=manual int.

Data Path : C:\Users\██████████\Desktop\AECOM\AECOM Screens\Navy Request\Files for FH092823\
Data File : FH068112.D
Signal(s) : FID1A.ch
Acq On : 28 Sep 2023 9:41 pm
Operator : ██████████
Sample : da58892-1
Misc : OP24412,GFH23722,1040,,,1,1
ALS Vial : 14 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Sep 29 11:04:38 2023
Quant Method : C:\msdchem\1\METHODS\DRO-092023.M
Quant Title : DRO-ORO FRONT
QLast Update : Wed Sep 20 16:12:50 2023
Response via : Initial Calibration

Integrator: ChemStation
Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



Slide 29

MEQ MDL Study



Point #4 (Cont.) EDWM MEQ MDL Study Summary

SAFE. DELIBERATE. ENGAGED. COMMITTED.

Facts:

MEQ MDL Study Results:

- Run 10/27-11/1/2023
- DRO (C₁₀-C₂₄) MDL = 10.5 ug/L
- ORO (C₂₄-C₄₀) MDL = 17.7 ug/L

Statistically Derived; MDL for EDWM Remained 50 ppb (Consistent with LTM).

Analyte	True Value (mg/L)	Replicate #1	Replicate #2	Replicate #3	Replicate #4	Replicate #5	Replicate #6	Replicate #7	Standard Deviation	T Value	MDL
DRO (C10-C24)	0.073	0.067 92.6%	0.063 86.7%	0.070 96.1%	0.073 100.1%	0.072 98.7%	0.067 92.6%	0.071 97.4%	0.003	3.143	0.011
ORO (C24-C40)	0.073	0.052 71.7%	0.045 61.9%	0.049 67.5%	0.062 84.9%	0.054 74.7%	0.056 77.5%	0.058 79.9%	0.006	3.143	0.018

Full MDL Study Report

Sample DA19589-1 **Matrix** AQ **List Type** S8015DR0LVI **Method** SW846 8015D **Analyst** KAPRIEH **Instrument** GCLW

Analyte TPH-DRO (C10-C28)

# Replicates	Standard Deviation	T Value	Calc. MDL	10X	StdDev/Spike
7	0.1011	3.143	0.3178	6	0.05

Date Injected	Spike	Data File	Result	Units	%Rec	Zero Rule	Ratio Rule	Use
10/27/2023 8:33:51 PM	2	LW17803.D	1.92524	mg/l	96.262	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/27/2023 8:50:24 PM	2	LW17804.D	1.72188	mg/l	86.094	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 4:39:33 PM	2	LW17821.D	1.9883	mg/l	99.415	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 4:56:04 PM	2	LW17822.D	1.95238	mg/l	97.619	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 5:12:37 PM	2	LW17823.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/29/2023 5:29:19 PM	2	LW17824.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/30/2023 10:01:01 PM	2	LW17841.D	1.21731	mg/l	60.8655	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/30/2023 10:17:42 PM	2	LW17842.D	1.33925	mg/l	66.9625	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/30/2023 10:34:14 PM	2	LW17843.D	1.24706	mg/l	62.353	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/31/2023 3:58:36 PM	2	LW17855.D	1.99804	mg/l	99.902	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/31/2023 4:15:08 PM	2	LW17856.D	1.80581	mg/l	90.2905	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/31/2023 4:31:38 PM	2	LW17857.D	1.89988	mg/l	94.994	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11/1/2023 11:18:46 PM	2	LW17904.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11/1/2023 11:35:25 PM	2	LW17905.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Analyte TPH-DRO (C10-C24)

# Replicates	Standard Deviation	T Value	Calc. MDL	10X	StdDev/Spike
7	0.0920	3.143	0.2892	7	0.05

Date Injected	Spike	Data File	Result	Units	%Rec	Zero Rule	Ratio Rule	Use
10/27/2023 8:33:51 PM	2	LW17803.D	1.8511	mg/l	92.555	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/27/2023 8:50:24 PM	2	LW17804.D	1.73457	mg/l	86.7285	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 4:39:33 PM	2	LW17821.D	1.92132	mg/l	96.066	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 4:56:04 PM	2	LW17822.D	2.00262	mg/l	100.131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 5:12:37 PM	2	LW17823.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/29/2023 5:29:19 PM	2	LW17824.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/30/2023 10:01:01 PM	2	LW17841.D	0.67536	mg/l	33.768	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/30/2023 10:17:42 PM	2	LW17842.D	0.69879	mg/l	34.9395	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/30/2023 10:34:14 PM	2	LW17843.D	0.65907	mg/l	32.9535	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/31/2023 3:58:36 PM	2	LW17855.D	1.97359	mg/l	98.6795	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/31/2023 4:15:08 PM	2	LW17856.D	1.85184	mg/l	92.592	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/31/2023 4:31:38 PM	2	LW17857.D	1.9485	mg/l	97.425	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11/1/2023 11:18:46 PM	2	LW17904.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11/1/2023 11:35:25 PM	2	LW17905.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Full MDL Study Report

<i>Sample</i> DA19589-1	<i>Matrix</i> AQ	<i>List Type</i> S8015DROLVI	<i>Method</i> SW846 8015D	<i>Analyst</i> KAPRIEH JackB	<i>Instrument</i> GCLW
<i>Analyte</i> TPH-ORO (>C28-C40)					

# Replicates	Standard Deviation	T Value	Calc. MDL	10X	StdDev/Spike
7	0.1492	3.143	0.4689	4	0.07

<i>Date Injected</i>	<i>Spike</i>	<i>Data File</i>	<i>Result</i>	<i>Units</i>	<i>%Rec</i>	<i>Zero Rule</i>	<i>Ratio Rule</i>	<i>Use</i>
10/27/2023 8:33:51 PM	2	LW17803.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/27/2023 8:50:24 PM	2	LW17804.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/29/2023 4:39:33 PM	2	LW17821.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/29/2023 4:56:04 PM	2	LW17822.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/29/2023 5:12:37 PM	2	LW17823.D	1.49228	mg/l	74.614	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 5:29:19 PM	2	LW17824.D	1.14242	mg/l	57.121	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/30/2023 10:01:01 PM	2	LW17841.D	1.14347	mg/l	57.1735	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/30/2023 10:17:42 PM	2	LW17842.D	1.41142	mg/l	70.571	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/30/2023 10:34:14 PM	2	LW17843.D	1.1876	mg/l	59.38	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/31/2023 3:58:36 PM	2	LW17855.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/31/2023 4:15:08 PM	2	LW17856.D	0.15548	mg/l	7.774	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/31/2023 4:31:38 PM	2	LW17857.D	0.18125	mg/l	9.0625	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11/1/2023 11:18:46 PM	2	LW17904.D	1.42247	mg/l	71.1235	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11/1/2023 11:35:25 PM	2	LW17905.D	1.39223	mg/l	69.6115	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Analyte TPH-ORO (>C24-C40)

# Replicates	Standard Deviation	T Value	Calc. MDL	10X	StdDev/Spike
7	0.1547	3.143	0.4862	4	0.08

<i>Date Injected</i>	<i>Spike</i>	<i>Data File</i>	<i>Result</i>	<i>Units</i>	<i>%Rec</i>	<i>Zero Rule</i>	<i>Ratio Rule</i>	<i>Use</i>
10/27/2023 8:33:51 PM	2	LW17803.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/27/2023 8:50:24 PM	2	LW17804.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/29/2023 4:39:33 PM	2	LW17821.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/29/2023 4:56:04 PM	2	LW17822.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/29/2023 5:12:37 PM	2	LW17823.D	1.43498	mg/l	71.749	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 5:29:19 PM	2	LW17824.D	1.23868	mg/l	61.934	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/30/2023 10:01:01 PM	2	LW17841.D	1.3507	mg/l	67.535	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/30/2023 10:17:42 PM	2	LW17842.D	1.69886	mg/l	84.943	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/30/2023 10:34:14 PM	2	LW17843.D	1.4932	mg/l	74.66	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/31/2023 3:58:36 PM	2	LW17855.D	0	mg/l	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/31/2023 4:15:08 PM	2	LW17856.D	0.14542	mg/l	7.271	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10/31/2023 4:31:38 PM	2	LW17857.D	0.16868	mg/l	8.434	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11/1/2023 11:18:46 PM	2	LW17904.D	1.55013	mg/l	77.5065	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11/1/2023 11:35:25 PM	2	LW17905.D	1.59704	mg/l	79.852	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Full MDL Study Report

<i>Sample</i> DA19589-1	<i>Matrix</i> AQ	<i>List Type</i> S8015DROLVI	<i>Method</i> SW846 8015D	<i>Analyst</i> KAPRIEH JackB	<i>Instrument</i> GCLW
<i>Analyte</i> <u>o-Terphenyl</u>					

<i># Replicates</i> 14	<i>Standard Deviation</i> 0.1490	<i>T Value</i> 2.764	<i>Calc. MDL</i> 0.4118	<i>10X</i> 24	<i>StdDev/Spike</i> 0.01
---------------------------	-------------------------------------	-------------------------	----------------------------	------------------	-----------------------------

<i>Date Injected</i>	<i>Spike</i>	<i>Data File</i>	<i>Result</i>	<i>Units</i>	<i>%Rec</i>	<i>Zero Rule</i>	<i>Ratio Rule</i>	<i>Use</i>
10/27/2023 8:33:51 PM	10	LW17803.D	8.7859	mg/l	87.859	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/27/2023 8:50:24 PM	10	LW17804.D	8.55112	mg/l	85.5112	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 4:39:33 PM	10	LW17821.D	8.61403	mg/l	86.1403	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 4:56:04 PM	10	LW17822.D	8.79855	mg/l	87.9855	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 5:12:37 PM	10	LW17823.D	8.50602	mg/l	85.0602	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/29/2023 5:29:19 PM	10	LW17824.D	8.8395	mg/l	88.395	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/30/2023 10:01:01 PM	10	LW17841.D	8.74106	mg/l	87.4106	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/30/2023 10:17:42 PM	10	LW17842.D	8.62519	mg/l	86.2519	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/30/2023 10:34:14 PM	10	LW17843.D	8.66094	mg/l	86.6094	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/31/2023 3:58:36 PM	10	LW17855.D	8.89753	mg/l	88.9753	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/31/2023 4:15:08 PM	10	LW17856.D	8.73765	mg/l	87.3765	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10/31/2023 4:31:38 PM	10	LW17857.D	8.77324	mg/l	87.7324	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11/1/2023 11:18:46 PM	10	LW17904.D	8.94112	mg/l	89.4112	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11/1/2023 11:35:25 PM	10	LW17905.D	9.02721	mg/l	90.2721	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

SGS North America Inc. - Wheat Ridge

MDL Studies

MDL: 3511/LVI-DRO/ORO AQ w HCl

SGS Job Number: DA19589A

Sampling Date: 10/03/23

Report to:

**SGS North America Inc. - Wheat Ridge
4036 Youngfield St.
Wheat Ridge, CO 80033**

ATTN:

Total number of pages in report: 96



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable unless noted in the narrative, comments or footnotes.

Client Service contact:

303-425-6021

Certifications: CO (CO00049), ND (R-027), UT (NELAP CO00049), LA (LA150028), TX (T104704511), WY (8TMS-L) HI (CO00049), NJ (CO011), NV (CO00049), AK (CO00049), CA (3076), and NC (08701)

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Test results relate only to samples analyzed.

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Sample Summary

SGS North America Inc. - Wheat Ridge

Job No: DA19589A

MDL Studies

Project No: MDL: 3511/LVI-DRO/ORO AQ w HCl

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
DA19589-1A	10/03/23	00:00	10/03/23	AQ	Water	MDL: 80 DRO AQ-3511/LVI
DA19589-2A	10/03/23	00:00	10/03/23	AQ	Water	MDL: 80 DRO AQ-3511/LVI
DA19589-3A	10/03/23	00:00	10/03/23	AQ	Water	MDL: 80 DRO AQ-3511/LVI
DA19589-4A	10/03/23	00:00	10/03/23	AQ	Water	MDL: 80 DRO AQ-3511/LVI
DA19589-5A	10/03/23	00:00	10/03/23	AQ	Water	MDL: 80 DRO AQ-3511/LVI
DA19589-6A	10/03/23	00:00	10/03/23	AQ	Water	MDL: 80 DRO AQ-3511/LVI
DA19589-7A	10/03/23	00:00	10/03/23	AQ	Water	MDL: 80 DRO AQ-3511/LVI

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: SGS North America Inc. - Wheat Ridge

Job No: DA19589A

Site: MDL Studies

Report Date 12/13/2023 7:04:20 P

On 10/03/2023, 1 sample(s), 0 Trip Blank(s), 0 Equip. Blanks and 0 Field Blank(s) were received at SGS North America Inc. (SGS) at a temperature of XXXXXNO TEMPERATURE FOUNDXXXXX °C. The samples were intact and properly preserved, unless noted below. An SGS Job Number of DA19589A was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

GC/LC Semi-volatiles By Method SW846 8015D

Matrix: AQ	Batch ID: OP24617
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- The data for SW846 8015D meets quality control requirements.
- The following samples were extracted outside of holding time for method SW846 8015D: DA19589-1A, DA19589-2A Hold time does not apply to MDL studies.
- DA19589-2A: Hold time does not apply to MDL studies.
- DA19589-1A: Hold time does not apply to MDL studies.

Matrix: AQ	Batch ID: OP24618
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- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- The following samples were extracted outside of holding time for method SW846 8015D: DA19589-3A, DA19589-4A Hold time does not apply to MDL studies.
- DA19589-4A: Hold time does not apply to MDL studies.
- DA19589-3A: Hold time does not apply to MDL studies.

Matrix: AQ	Batch ID: OP24619
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- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- The following samples were extracted outside of holding time for method SW846 8015D: DA19589-5A, DA19589-6A, DA19589-7A Hold time does not apply to MDL studies.
- DA19589-6A: Hold time does not apply to MDL studies.
- DA19589-5A: Hold time does not apply to MDL studies.
- DA19589-7A: Hold time does not apply to MDL studies.

Matrix: AQ	Batch ID: OP24660
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- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- The following samples were extracted outside of holding time for method SW846 8015D: DA19589-1A, DA19589-2A Hold time does not apply to MDL studies.
- DA19589-1A: Hold time does not apply to MDL studies.
- DA19589-2A: Hold time does not apply to MDL studies.

SGS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting SGS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by SGS indicated via signature on the report cover.

Summary of Hits

Job Number: DA19589A
Account: SGS North America Inc. - Wheat Ridge
Project: MDL Studies
Collected: 10/03/23



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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DA19589-1A MDL: 80 DRO AQ-3511/LVI

TPH-DRO (C10-C28) ^a	0.0700 J	0.073	0.050	mg/l	SW846 8015D
TPH-DRO (C10-C24) ^a	0.0673 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C28-C40) ^a	0.0517 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C24-C40) ^a	0.0564 J	0.073	0.050	mg/l	SW846 8015D

DA19589-2A MDL: 80 DRO AQ-3511/LVI

TPH-DRO (C10-C28) ^a	0.0626 J	0.073	0.050	mg/l	SW846 8015D
TPH-DRO (C10-C24) ^a	0.0631 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C28-C40) ^a	0.0506 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C24-C40) ^a	0.0581 J	0.073	0.050	mg/l	SW846 8015D

DA19589-3A MDL: 80 DRO AQ-3511/LVI

TPH-DRO (C10-C28) ^a	0.0723 J	0.073	0.050	mg/l	SW846 8015D
TPH-DRO (C10-C24) ^a	0.0699 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C28-C40) ^a	0.0543 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C24-C40) ^a	0.0522 J	0.073	0.050	mg/l	SW846 8015D

DA19589-4A MDL: 80 DRO AQ-3511/LVI

TPH-DRO (C10-C28) ^a	0.0710 J	0.073	0.050	mg/l	SW846 8015D
TPH-DRO (C10-C24) ^a	0.0728 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C28-C40) ^a	0.0415 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C24-C40) ^a	0.0451 J	0.073	0.050	mg/l	SW846 8015D

DA19589-5A MDL: 80 DRO AQ-3511/LVI

TPH-DRO (C10-C28) ^a	0.0727 J	0.073	0.050	mg/l	SW846 8015D
TPH-DRO (C10-C24) ^a	0.0718 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C28-C40) ^a	0.0491 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C24-C40) ^a	0.0416 J	0.073	0.050	mg/l	SW846 8015D

DA19589-6A MDL: 80 DRO AQ-3511/LVI

TPH-DRO (C10-C28) ^a	0.0657 J	0.073	0.050	mg/l	SW846 8015D
TPH-DRO (C10-C24) ^a	0.0673 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C28-C40) ^a	0.0513 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C24-C40) ^a	0.0618 J	0.073	0.050	mg/l	SW846 8015D

DA19589-7A MDL: 80 DRO AQ-3511/LVI

TPH-DRO (C10-C28) ^a	0.0691 J	0.073	0.050	mg/l	SW846 8015D
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Summary of Hits

Job Number: DA19589A
Account: SGS North America Inc. - Wheat Ridge
Project: MDL Studies
Collected: 10/03/23

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TPH-DRO (C10-C24) ^a		0.0709 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C28-C40) ^a		0.0432 J	0.073	0.050	mg/l	SW846 8015D
TPH-ORO (> C24-C40) ^a		0.0543 J	0.073	0.050	mg/l	SW846 8015D

(a) Hold time does not apply to MDL studies.

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID: MDL: 80 DRO AQ-3511/LVI	
Lab Sample ID: DA19589-1A	Date Sampled: 10/03/23
Matrix: AQ - Water	Date Received: 10/03/23
Method: SW846 8015D SW846 3511	Percent Solids: n/a
Project: MDL Studies	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	LW17803A.D	1	10/27/23 20:33	KSS	10/27/23 10:00	OP24617	GLW570
Run #2 ^a	LW17904A.D	1	11/01/23 23:18	JB	10/27/23 10:00	OP24660	GLW573

	Initial Volume	Final Volume
Run #1	55.0 ml	2.0 ml
Run #2	55.0 ml	2.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.0700	0.073	0.050	mg/l	J
	TPH-DRO (C10-C24)	0.0673	0.073	0.050	mg/l	J
	TPH-ORO (> C28-C40)	0.0517 ^b	0.073	0.050	mg/l	J
	TPH-ORO (> C24-C40)	0.0564 ^b	0.073	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%	89%	70-130%

(a) Hold time does not apply to MDL studies.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

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SGS North America Inc.

Report of Analysis

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Client Sample ID:	MDL: 80 DRO AQ-3511/LVI	Date Sampled:	10/03/23
Lab Sample ID:	DA19589-2A	Date Received:	10/03/23
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8015D SW846 3511		
Project:	MDL Studies		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	LW17804A.D	1	10/27/23 20:50	KSS	10/27/23 10:00	OP24617	GLW570
Run #2 ^a	LW17905A.D	1	11/01/23 23:35	JB	10/27/23 10:00	OP24660	GLW573

	Initial Volume	Final Volume
Run #1	55.0 ml	2.0 ml
Run #2	55.0 ml	2.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.0626	0.073	0.050	mg/l	J
	TPH-DRO (C10-C24)	0.0631	0.073	0.050	mg/l	J
	TPH-ORO (> C28-C40)	0.0506 ^b	0.073	0.050	mg/l	J
	TPH-ORO (> C24-C40)	0.0581 ^b	0.073	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%	90%	70-130%

(a) Hold time does not apply to MDL studies.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	MDL: 80 DRO AQ-3511/LVI	Date Sampled:	10/03/23
Lab Sample ID:	DA19589-3A	Date Received:	10/03/23
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8015D SW846 3511		
Project:	MDL Studies		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	LW17821A.D	1	10/29/23 16:39	KSS	10/29/23 10:00	OP24618	GLW571
Run #2 ^a	LW17823A.D	1	10/29/23 17:12	KSS	10/29/23 10:00	OP24618	GLW571

	Initial Volume	Final Volume
Run #1	55.0 ml	2.0 ml
Run #2	55.0 ml	2.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.0723	0.073	0.050	mg/l	J
	TPH-DRO (C10-C24)	0.0699	0.073	0.050	mg/l	J
	TPH-ORO (> C28-C40)	0.0543 ^b	0.073	0.050	mg/l	J
	TPH-ORO (> C24-C40)	0.0522 ^b	0.073	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%	85%	70-130%

(a) Hold time does not apply to MDL studies.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID: MDL: 80 DRO AQ-3511/LVI	
Lab Sample ID: DA19589-4A	Date Sampled: 10/03/23
Matrix: AQ - Water	Date Received: 10/03/23
Method: SW846 8015D SW846 3511	Percent Solids: n/a
Project: MDL Studies	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	LW17822A.D	1	10/29/23 16:56	KSS	10/29/23 10:00	OP24618	GLW571
Run #2 ^a	LW17824A.D	1	10/29/23 17:29	KSS	10/29/23 10:00	OP24618	GLW571

	Initial Volume	Final Volume
Run #1	55.0 ml	2.0 ml
Run #2	55.0 ml	2.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.0710	0.073	0.050	mg/l	J
	TPH-DRO (C10-C24)	0.0728	0.073	0.050	mg/l	J
	TPH-ORO (> C28-C40)	0.0415 ^b	0.073	0.050	mg/l	J
	TPH-ORO (> C24-C40)	0.0451 ^b	0.073	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	88%	88%	70-130%

(a) Hold time does not apply to MDL studies.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID:	MDL: 80 DRO AQ-3511/LVI	Date Sampled:	10/03/23
Lab Sample ID:	DA19589-5A	Date Received:	10/03/23
Matrix:	AQ - Water	Percent Solids:	n/a
Method:	SW846 8015D SW846 3511		
Project:	MDL Studies		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	LW17841A.D	1	10/30/23 22:01	KSS	10/30/23 10:00	OP24619	GLW572
Run #2 ^a	LW17855A.D	1	10/31/23 15:58	KSS	10/30/23 10:00	OP24619	GLW572

	Initial Volume	Final Volume
Run #1	55.0 ml	2.0 ml
Run #2	55.0 ml	2.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.0727 ^b	0.073	0.050	mg/l	J
	TPH-DRO (C10-C24)	0.0718 ^b	0.073	0.050	mg/l	J
	TPH-ORO (> C28-C40)	0.0491	0.073	0.050	mg/l	J
	TPH-ORO (> C24-C40)	0.0416	0.073	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%	89%	70-130%

(a) Hold time does not apply to MDL studies.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID: MDL: 80 DRO AQ-3511/LVI	
Lab Sample ID: DA19589-6A	Date Sampled: 10/03/23
Matrix: AQ - Water	Date Received: 10/03/23
Method: SW846 8015D SW846 3511	Percent Solids: n/a
Project: MDL Studies	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	LW17842A.D	1	10/30/23 22:17	KSS	10/30/23 10:00	OP24619	GLW572
Run #2 ^a	LW17856A.D	1	10/31/23 16:15	KSS	10/30/23 10:00	OP24619	GLW572

	Initial Volume	Final Volume
Run #1	55.0 ml	2.0 ml
Run #2	55.0 ml	2.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.0657 ^b	0.073	0.050	mg/l	J
	TPH-DRO (C10-C24)	0.0673 ^b	0.073	0.050	mg/l	J
	TPH-ORO (> C28-C40)	0.0513	0.073	0.050	mg/l	J
	TPH-ORO (> C24-C40)	0.0618	0.073	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	86%	87%	70-130%

(a) Hold time does not apply to MDL studies.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 1

Client Sample ID: MDL: 80 DRO AQ-3511/LVI	Date Sampled: 10/03/23
Lab Sample ID: DA19589-7A	Date Received: 10/03/23
Matrix: AQ - Water	Percent Solids: n/a
Method: SW846 8015D SW846 3511	
Project: MDL Studies	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	LW17843A.D	1	10/30/23 22:34	KSS	10/30/23 10:00	OP24619	GLW572
Run #2 ^a	LW17857A.D	1	10/31/23 16:31	KSS	10/30/23 10:00	OP24619	GLW572

	Initial Volume	Final Volume
Run #1	55.0 ml	2.0 ml
Run #2	55.0 ml	2.0 ml

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	0.0691 ^b	0.073	0.050	mg/l	J
	TPH-DRO (C10-C24)	0.0709 ^b	0.073	0.050	mg/l	J
	TPH-ORO (> C28-C40)	0.0432	0.073	0.050	mg/l	J
	TPH-ORO (> C24-C40)	0.0543	0.073	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	87%	88%	70-130%

(a) Hold time does not apply to MDL studies.
 (b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Job Number: DA19589A Client project: MDL: 3511/LVI-DRO/ORO AQ w HCl
Account: ALMS SGS North America Inc. - Wheat Ridge
Project: ALMS2465 MDL Studies
HC Date: 16-NOV-23 Deliv: FUL1 StateCode: CO Manager: [REDACTED] ProjTAT: 14

CHECK
Client
Project
Deliverables
Matrix
TAT
Tests
Metals SW846

Sample Number	Client ID	Site	Matx	Receive Date	Collect Date/Time	Due TAT	Date	Samp By	Product List
DA19589-1A	MDL: 80 DRO AQ-3511/LVI	WW		03-OCT-23	03-OCT-23 00:00	44	16-NOV-23		BLV8015DROORO3
DA19589-2A	MDL: 80 DRO AQ-3511/LVI	WW		03-OCT-23	03-OCT-23 00:00	44	16-NOV-23		BLV8015DROORO3
DA19589-3A	MDL: 80 DRO AQ-3511/LVI	WW		03-OCT-23	03-OCT-23 00:00	44	16-NOV-23		BLV8015DROORO3
DA19589-4A	MDL: 80 DRO AQ-3511/LVI	WW		03-OCT-23	03-OCT-23 00:00	44	16-NOV-23		BLV8015DROORO3
DA19589-5A	MDL: 80 DRO AQ-3511/LVI	WW		03-OCT-23	03-OCT-23 00:00	44	16-NOV-23		BLV8015DROORO3
DA19589-6A	MDL: 80 DRO AQ-3511/LVI	WW		03-OCT-23	03-OCT-23 00:00	44	16-NOV-23		BLV8015DROORO3
DA19589-7A	MDL: 80 DRO AQ-3511/LVI	WW		03-OCT-23	03-OCT-23 00:00	44	16-NOV-23		BLV8015DROORO3

Comments: DA19589-1A
3511-LVI water MDL-1 Study with HCl preservative added; prep and analyze 7 MDL samples over 3 days.
Comments: DA19589-2A
3511-LVI water MDL-2 Study with HCl preservative added; prep and analyze 7 MDL samples over 3 days.
Comments: DA19589-3A
3511-LVI water MDL-3 Study with HCl preservative added; prep and analyze 7 MDL samples over 3 days.
Comments: DA19589-4A
3511-LVI water MDL-4 Study with HCl preservative added; prep and analyze 7 MDL samples over 3 days.
Comments: DA19589-5A
3511-LVI water MDL-5 Study with HCl preservative added; prep and analyze 7 MDL samples over 3 days.
Comments: DA19589-6A
3511-LVI water MDL-6 Study with HCl preservative added; prep and analyze 7 MDL samples over 3 days.
Comments: DA19589-7A
3511-LVI water MDL-7 Study with HCl preservative added; prep and analyze 7 MDL samples over 3 days.

EMAIL Address: [REDACTED] CONTACT Address (account): [REDACTED]
SGS North America Inc. - Wheat Ridge 4036 Youngfield St. Wheat Ridge, CO 80033 (303)425-6021
SGS North America Inc. - Wheat Ridge 4036 Youngfield St. Wheat Ridge, CO 80033-3862 (303)425-6021

PO Number:

Project Comments: MDL Study; prep and analyze 7 MDL samples over 3 days.

5.1
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Job Number: DA19589A Client project: MDL: 3511/LVI-DRO/ORO AQ w HCl

Account: ALMS SGS North America Inc. - Wheat Ridge

Project: ALMS2465 MDL Studies

HC Date: 16-NOV-23 Deliv: FULT1 StateCode: CO Manager: [REDACTED] ProjTAT: 14

CHECK
Client
Project
Deliverables
Matrix
TAT
Tests
Metals SW846

Sample Number	Client ID	Site	Matx Date	Receive Date/Time	Collect Date/Time	Due TAT Date	Samp By	Product List
---------------	-----------	------	-----------	-------------------	-------------------	--------------	---------	--------------

Account/Project GLOBAL: ALMS2465
Report Metals to MDL Using J
Report WetChem To MDL Using J

5.1
5

Login: [REDACTED] Date: 13-DEC-23
Login Review: _____ Date: _____
CS Review: _____ Date: _____
ID Review: _____ Date: _____

GC/LC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: DA19589A
Account: ALMS SGS North America Inc. - Wheat Ridge
Project: MDL Studies

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24618-MB	LW17818.D	1	10/29/23	KSS	10/29/23	OP24618	GLW571

The QC reported here applies to the following samples:

Method: SW846 8015D

DA19589-3A, DA19589-4A

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.073	0.035	mg/l	
	TPH-DRO (C10-C24)	ND	0.073	0.035	mg/l	
	TPH-ORO (> C28-C40)	ND	0.073	0.035	mg/l	
	TPH-ORO (> C24-C40)	ND	0.073	0.035	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	88.4% 70-130%

Method Blank Summary

Job Number: DA19589A
Account: ALMS SGS North America Inc. - Wheat Ridge
Project: MDL Studies

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24619-MB	LW17835.D	1	10/30/23	KSS	10/30/23	OP24619	GLW572

The QC reported here applies to the following samples:

Method: SW846 8015D

DA19589-5A, DA19589-6A, DA19589-7A

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.073	0.035	mg/l	
	TPH-DRO (C10-C24)	ND	0.073	0.035	mg/l	
	TPH-ORO (> C28-C40)	ND	0.073	0.035	mg/l	
	TPH-ORO (> C24-C40)	ND	0.073	0.035	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	85.3% 70-130%

Method Blank Summary

Job Number: DA19589A
Account: ALMS SGS North America Inc. - Wheat Ridge
Project: MDL Studies

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24619-MB	LW17852.D	1	10/31/23	KSS	10/30/23	OP24619	GLW572

The QC reported here applies to the following samples:

Method: SW846 8015D

DA19589-5A, DA19589-6A, DA19589-7A

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	0.073	0.035	mg/l	
	TPH-DRO (C10-C24)	ND	0.073	0.035	mg/l	
	TPH-ORO (> C28-C40)	ND	0.073	0.035	mg/l	
	TPH-ORO (> C24-C40)	ND	0.073	0.035	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	89% 70-130%

Method Blank Summary

Job Number: DA19589A
Account: ALMS SGS North America Inc. - Wheat Ridge
Project: MDL Studies

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP24660-MB	LW17889.D	1	11/01/23	JB	11/01/23	OP24660	GLW573

The QC reported here applies to the following samples:

Method: SW846 8015D

DA19589-1A, DA19589-2A

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-ORO (> C28-C40)	ND	0.073	0.035	mg/l	
	TPH-ORO (> C24-C40)	ND	0.073	0.035	mg/l	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	90% 70-130%

GC/LC Semi-volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17803a.d
 Signal(s) : FID2B.CH
 Acq On : 27-Oct-23, 20:33:51
 Operator :
 Sample : da19589-1a d
 Misc : OP24617, GLW570, 55,,, 2, 1
 ALS Vial : 81 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 29 13:37:35 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.664	18120431	8.786 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.44%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	3008490	1.925 ppm
2) H TPH-ORO (>C28-C40)	0.000	0	N.D. ppm d
3) H TPH-DRO (C10-C24)	3.960	2740695	1.851 ppm
4) H TPH-ORO (>C24-C40)	0.000	0	N.D. ppm d

(f)=RT Delta > 1/2 Window

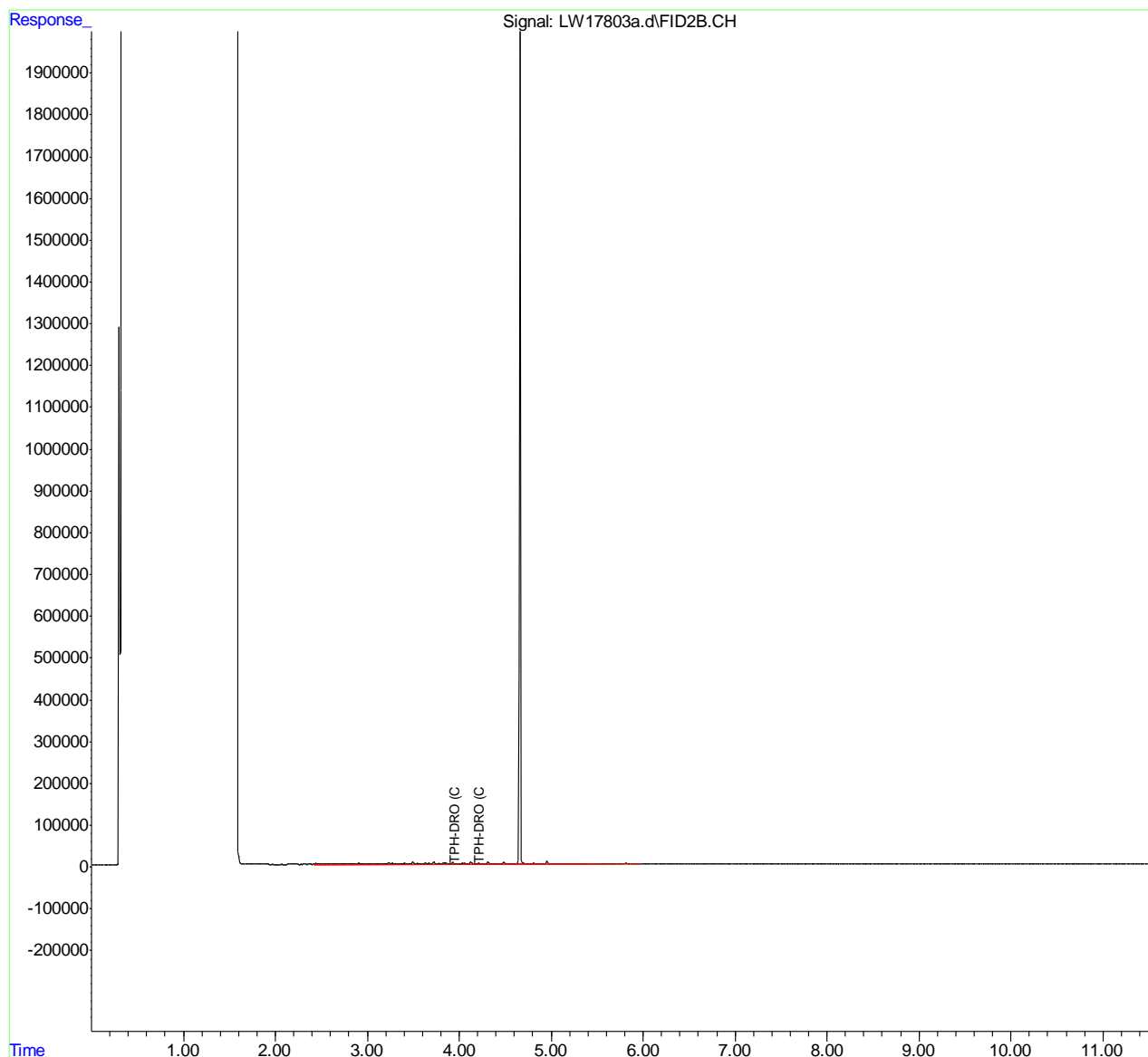
(m)=manual int.

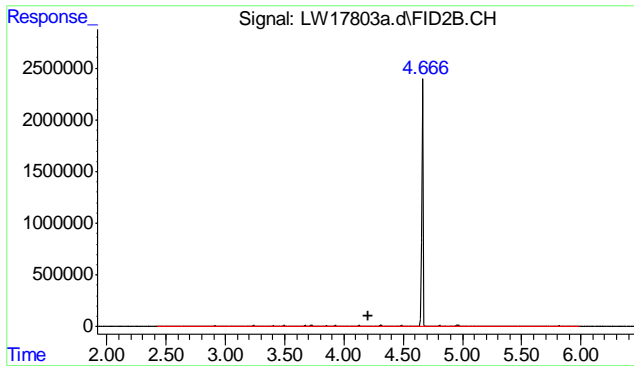
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17803a.d
Signal(s) : FID2B.CH
Acq On : 27-Oct-23, 20:33:51
Operator :
Sample : da19589-1a d
Misc : OP24617, GLW570, 55,,, 2, 1
ALS Vial : 81 Sample Multiplier: 1

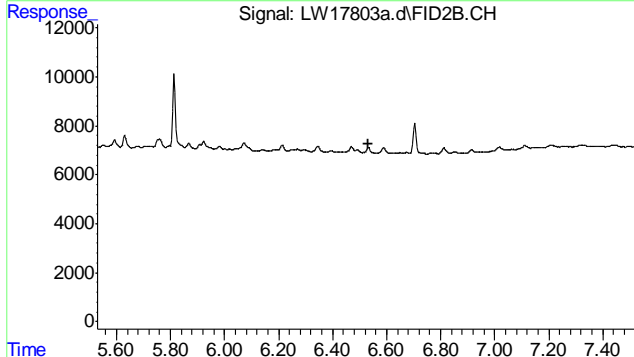
Integration File: autoint1.e
Quant Time: Oct 29 13:37:35 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

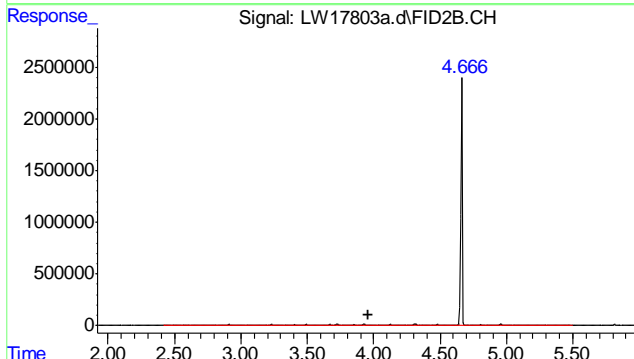




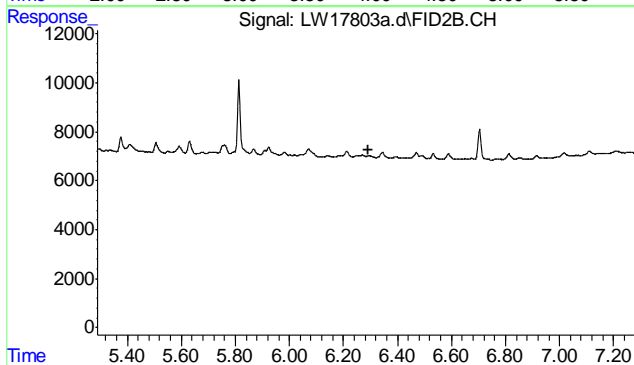
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 3008490
 Conc: 1.93 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 0.000 min
 Exp R.T.: 6.530 min
 Response: 0
 Conc: N.D.

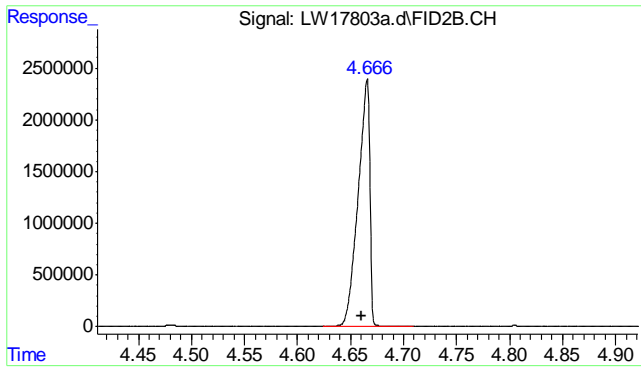


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 2740695
 Conc: 1.85 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 0.000 min
 Exp R.T.: 6.290 min
 Response: 0
 Conc: N.D.

7.1.1
7



#5 O-TERPHENYL

R.T.: 4.664 min
Delta R.T.: 0.004 min
Response: 18120431
Conc: 8.79 ppm

7.1.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17904a.d
 Signal(s) : FID2B.CH
 Acq On : 01-Nov-23, 23:18:46
 Operator : XXXXXXXXXX
 Sample : da19589-1a
 Misc : OP24660, GLW573, 55,,,2,1
 ALS Vial : 25 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 21 09:28:01 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
5) S O-TERPHENYL	4.663	18440551	8.941	ppm
Spiked Amount	10.000	Range 70 - 130	Recovery =	89.41%
Target Compounds				
1) H TPH-DRO (C10-C28)	0.000	0	N.D.	ppm d
2) H TPH-ORO (>C28-C40)	6.510	1048657	1.422	ppm m
3) H TPH-DRO (C10-C24)	0.000	0	N.D.	ppm d
4) H TPH-ORO (>C24-C40)	6.270	2021078	1.550	ppm m

(f)=RT Delta > 1/2 Window

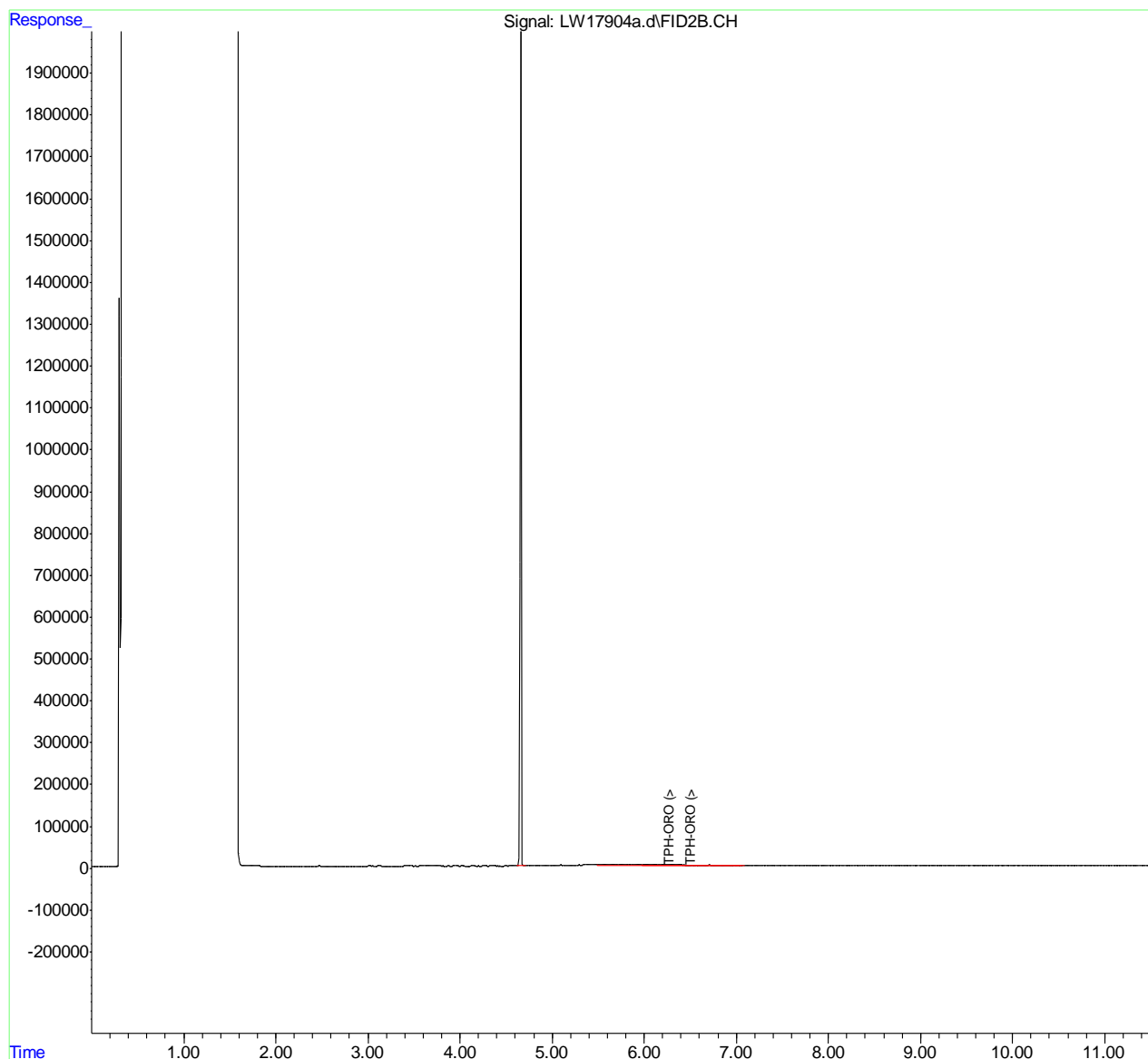
(m)=manual int.

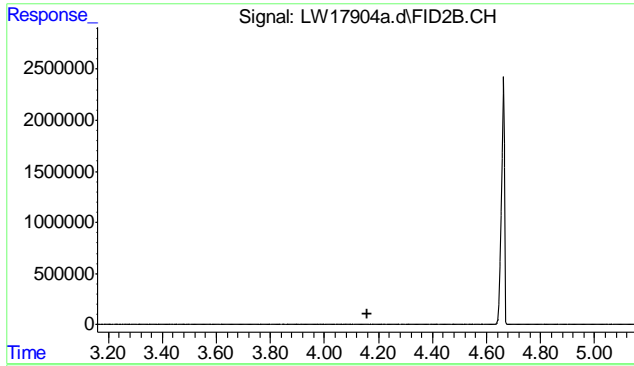
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17904a.d
Signal(s) : FID2B.CH
Acq On : 01-Nov-23, 23:18:46
Operator :
Sample : da19589-1a
Misc : OP24660, GLW573, 55,,, 2, 1
ALS Vial : 25 Sample Multiplier: 1

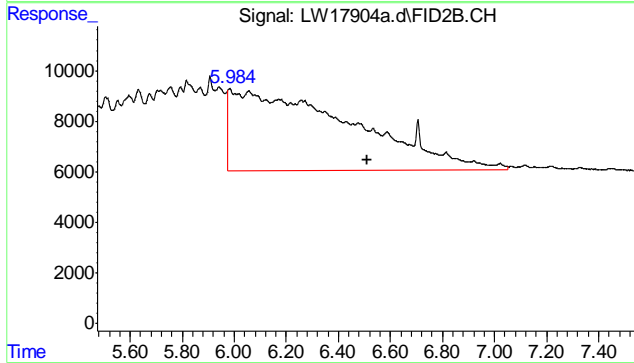
Integration File: autoint1.e
Quant Time: Nov 21 09:28:01 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

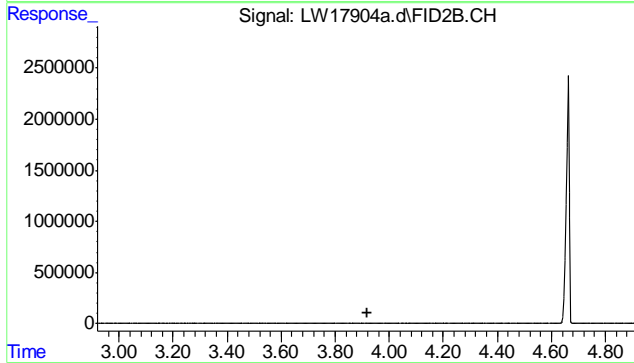




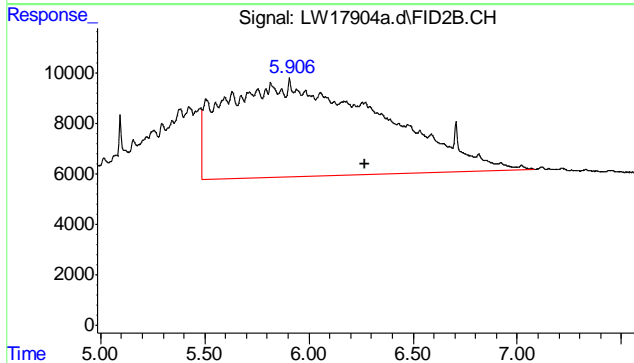
#1 TPH-DRO (C10-C28)
 R.T.: 0.000 min
 Exp R.T.: 4.160 min
 Response: 0
 Conc: N.D.



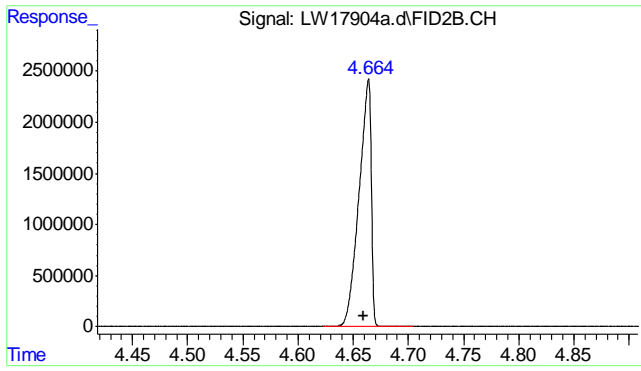
#2 TPH-ORO (>C28-C40)
 R.T.: 6.510 min
 Delta R.T.: 0.000 min
 Response: 1048657
 Conc: 1.42 ppm m



#3 TPH-DRO (C10-C24)
 R.T.: 0.000 min
 Exp R.T.: 3.920 min
 Response: 0
 Conc: N.D.



#4 TPH-ORO (>C24-C40)
 R.T.: 6.270 min
 Delta R.T.: 0.000 min
 Response: 2021078
 Conc: 1.55 ppm m



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 18440551
Conc: 8.94 ppm

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17804a.d
Signal(s) : FID2B.CH
Acq On : 27-Oct-23, 20:50:24
Operator :
Sample : da19589-2a d
Misc : OP24617, GLW570, 55,,, 2, 1
ALS Vial : 82 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 29 13:38:10 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.663	17636211	8.551 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.43%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	2690713	1.722 ppm
2) H TPH-ORO (>C28-C40)	0.000	0	N.D. ppm d
3) H TPH-DRO (C10-C24)	3.960	2568172	1.735 ppm
4) H TPH-ORO (>C24-C40)	0.000	0	N.D. ppm d

(f)=RT Delta > 1/2 Window (m)=manual int.

7.1.3
7

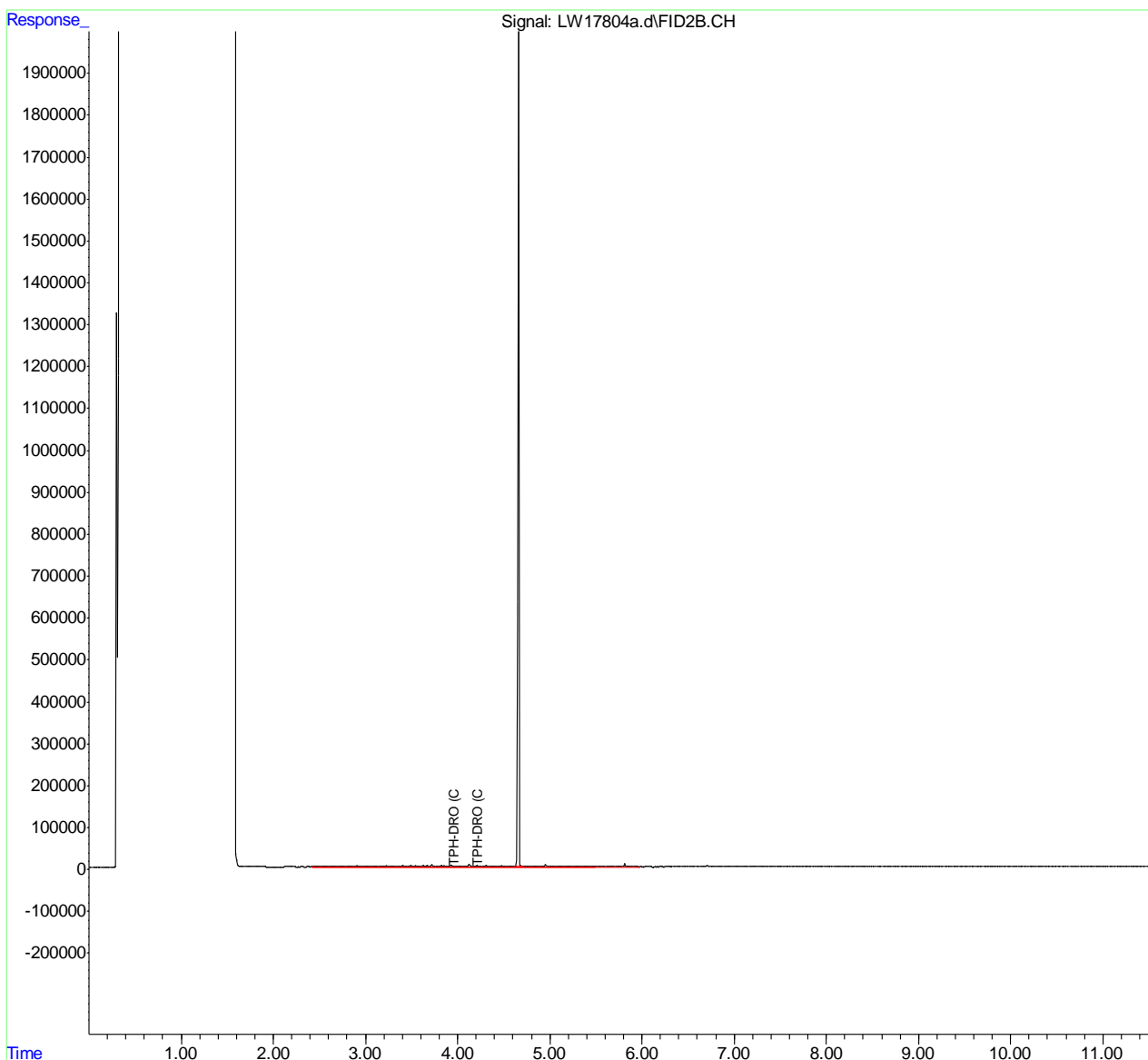


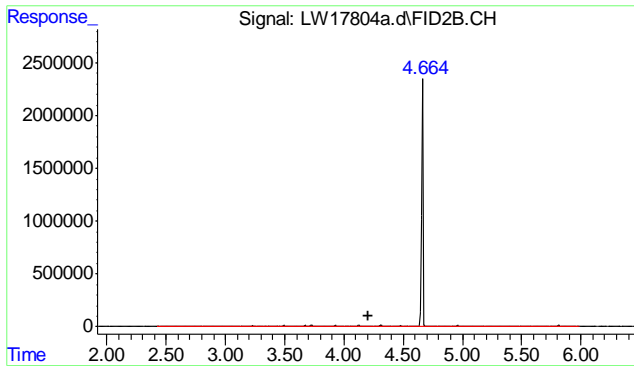
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17804a.d
Signal(s) : FID2B.CH
Acq On : 27-Oct-23, 20:50:24
Operator :
Sample : da19589-2a d
Misc : OP24617, GLW570, 55,,, 2, 1
ALS Vial : 82 Sample Multiplier: 1

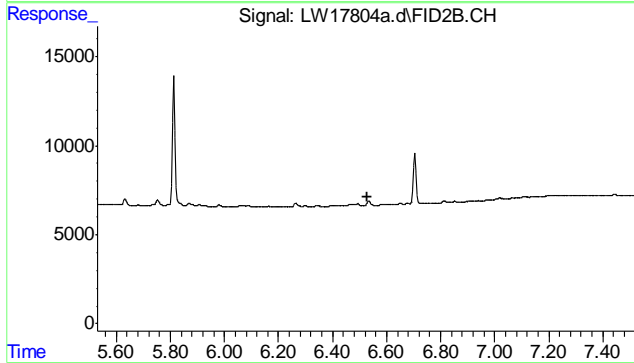
Integration File: autoint1.e
Quant Time: Oct 29 13:38:10 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

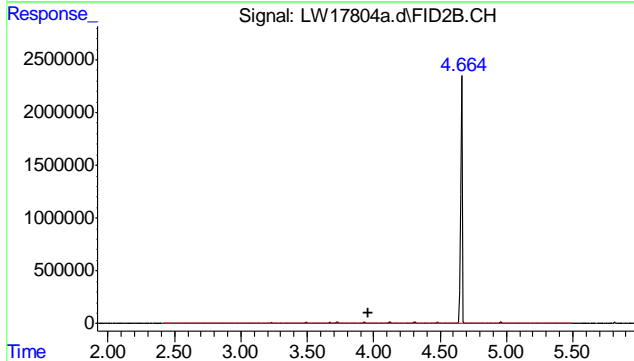




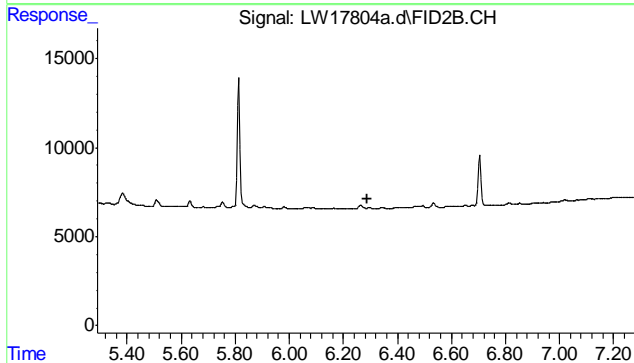
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 2690713
 Conc: 1.72 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 0.000 min
 Exp R.T.: 6.530 min
 Response: 0
 Conc: N.D.

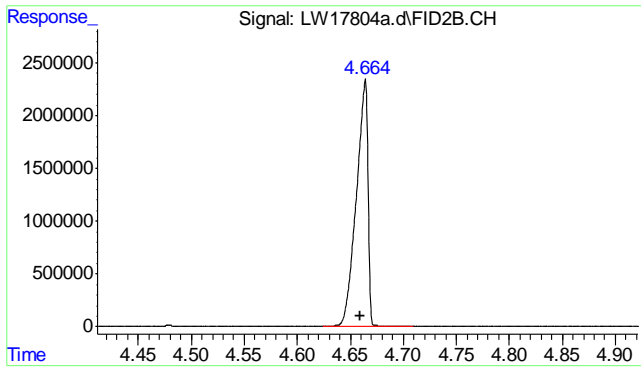


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 2568172
 Conc: 1.73 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 0.000 min
 Exp R.T.: 6.290 min
 Response: 0
 Conc: N.D.

7.1.3
7



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 17636211
Conc: 8.55 ppm

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17905a.d
 Signal(s) : FID2B.CH
 Acq On : 01-Nov-23, 23:35:25
 Operator : XXXXXXXXXX
 Sample : da19589-2a
 Misc : OP24660, GLW573, 55,,,2,1
 ALS Vial : 26 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 21 09:28:14 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
5) S O-TERPHENYL	4.663	18618104	9.027	ppm
Spiked Amount	10.000	Range 70 - 130	Recovery =	90.27%
Target Compounds				
1) H TPH-DRO (C10-C28)	0.000	0	N.D.	ppm d
2) H TPH-ORO (>C28-C40)	6.510	1026360	1.392	ppm m
3) H TPH-DRO (C10-C24)	0.000	0	N.D.	ppm d
4) H TPH-ORO (>C24-C40)	6.270	2082240	1.597	ppm

(f)=RT Delta > 1/2 Window

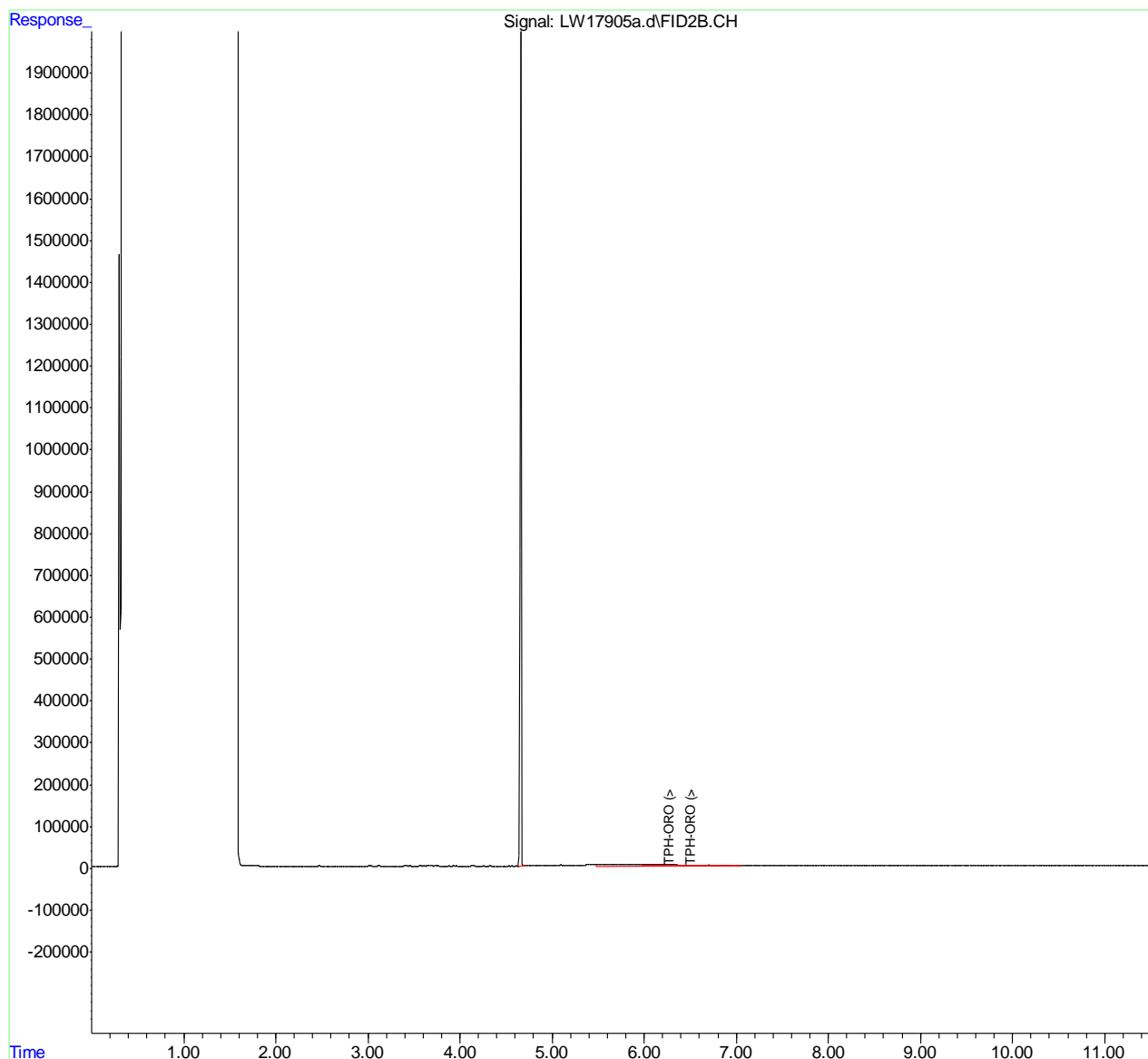
(m)=manual int.

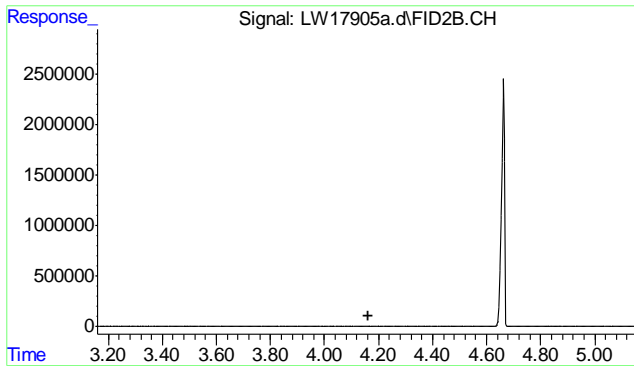
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17905a.d
Signal(s) : FID2B.CH
Acq On : 01-Nov-23, 23:35:25
Operator :
Sample : da19589-2a
Misc : OP24660, GLW573, 55,,, 2, 1
ALS Vial : 26 Sample Multiplier: 1

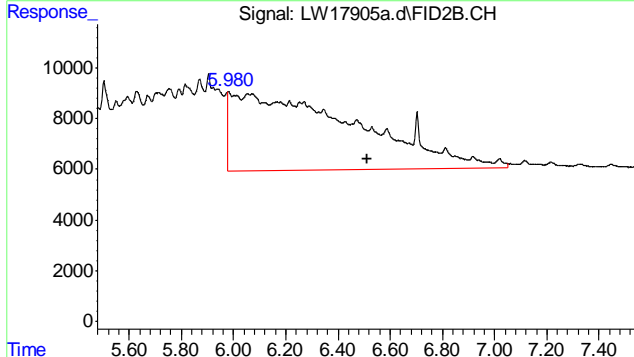
Integration File: autoint1.e
Quant Time: Nov 21 09:28:14 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

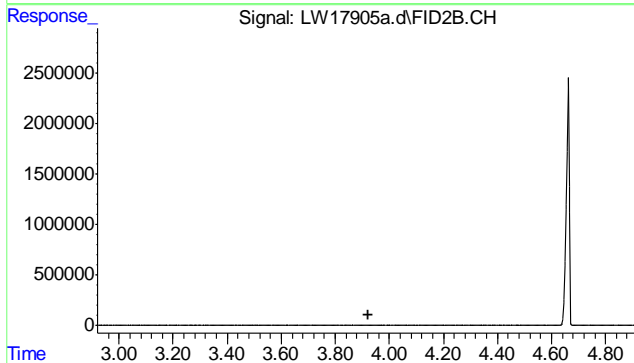




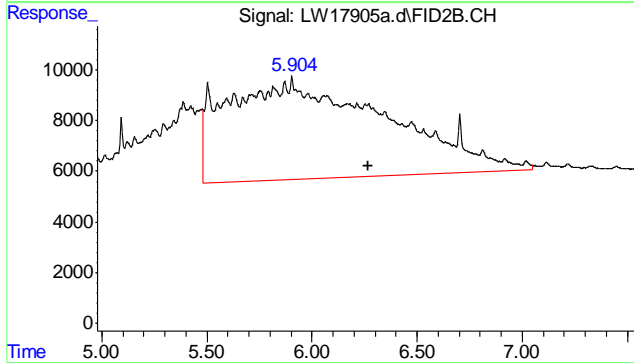
#1 TPH-DRO (C10-C28)
 R.T.: 0.000 min
 Exp R.T.: 4.160 min
 Response: 0
 Conc: N.D.



#2 TPH-ORO (>C28-C40)
 R.T.: 6.510 min
 Delta R.T.: 0.000 min
 Response: 1026360
 Conc: 1.39 ppm m

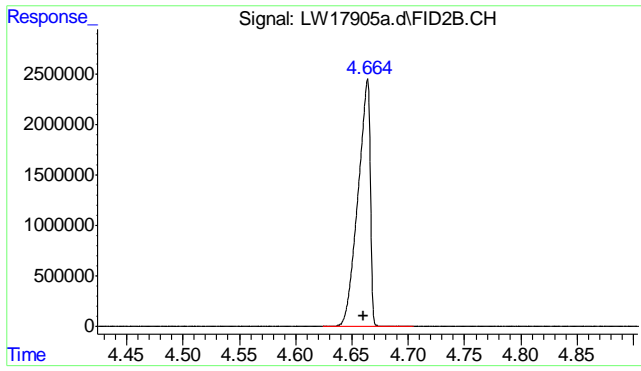


#3 TPH-DRO (C10-C24)
 R.T.: 0.000 min
 Exp R.T.: 3.920 min
 Response: 0
 Conc: N.D.



#4 TPH-ORO (>C24-C40)
 R.T.: 6.270 min
 Delta R.T.: 0.000 min
 Response: 2082240
 Conc: 1.60 ppm

7.14
7



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 18618104
Conc: 9.03 ppm

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17821a.d
 Signal(s) : FID2B.CH
 Acq On : 29-Oct-23, 16:39:33
 Operator :
 Sample : da19589-3a d
 Misc : OP24618, GLW571, 55,,, 2, 1
 ALS Vial : 19 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 29 16:13:24 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.663	17765958	8.614 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.43%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	3107036	1.988 ppm
2) H TPH-ORO (>C28-C40)	0.000	0	N.D. ppm d
3) H TPH-DRO (C10-C24)	3.960	2844663	1.921 ppm
4) H TPH-ORO (>C24-C40)	0.000	0	N.D. ppm d

(f)=RT Delta > 1/2 Window

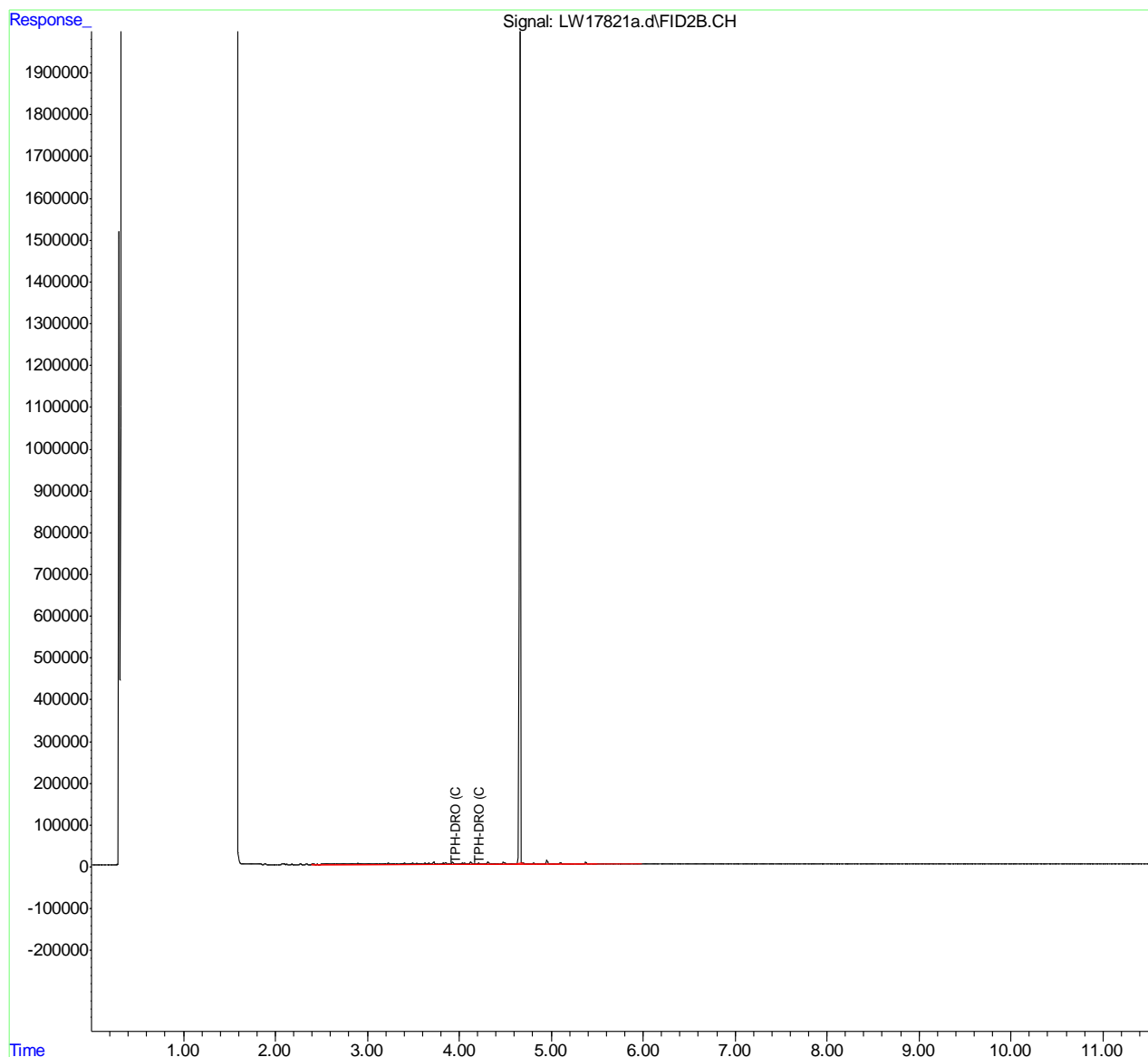
(m)=manual int.

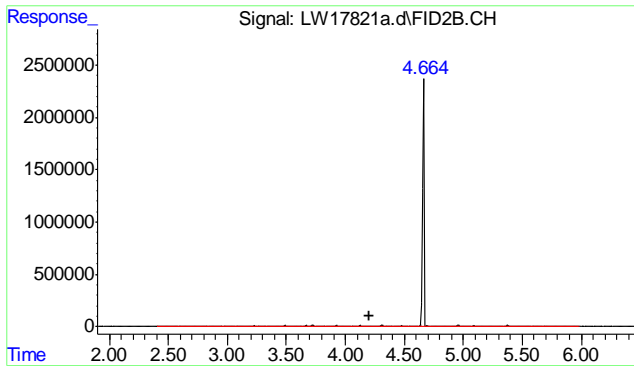
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17821a.d
Signal(s) : FID2B.CH
Acq On : 29-Oct-23, 16:39:33
Operator :
Sample : da19589-3a d
Misc : OP24618, GLW571, 55,,, 2, 1
ALS Vial : 19 Sample Multiplier: 1

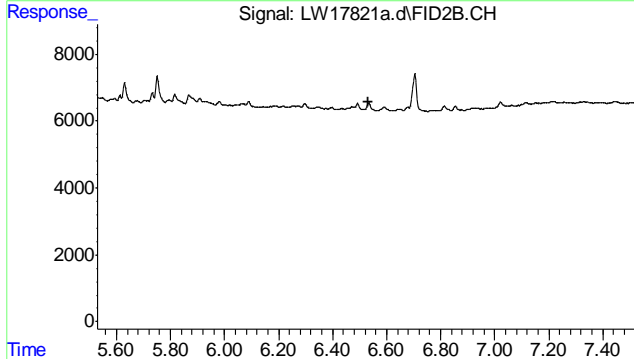
Integration File: autoint1.e
Quant Time: Oct 29 16:13:24 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

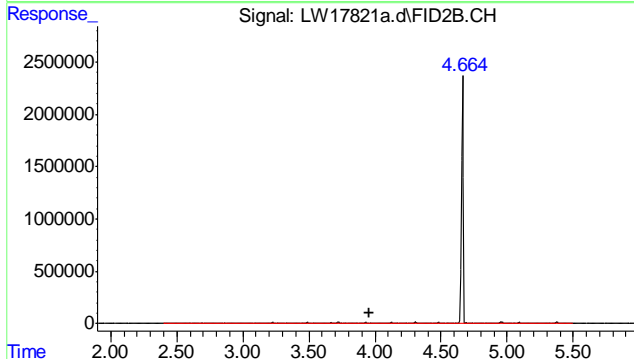




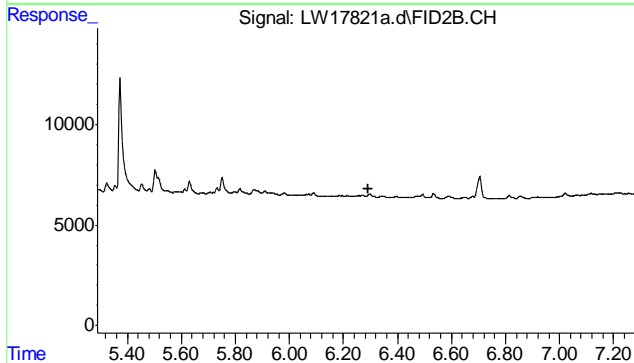
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 3107036
 Conc: 1.99 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 0.000 min
 Exp R.T.: 6.530 min
 Response: 0
 Conc: N.D.

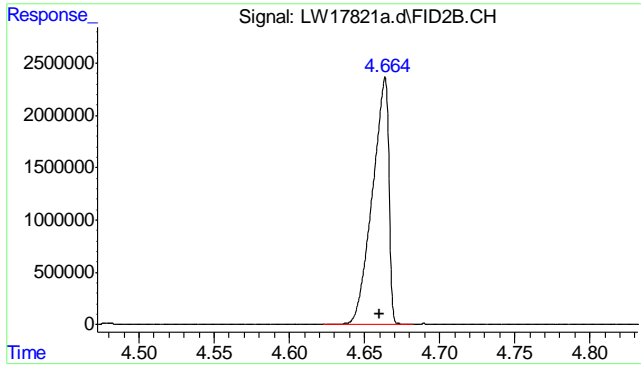


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 2844663
 Conc: 1.92 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 0.000 min
 Exp R.T.: 6.290 min
 Response: 0
 Conc: N.D.

7.15
7



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 17765958
Conc: 8.61 ppm

7.1.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17823a.d
 Signal(s) : FID2B.CH
 Acq On : 29-Oct-23, 17:12:37
 Operator : XXXXXXXXXX
 Sample : da19589-3a o
 Misc : OP24618, GLW571, 55,,, 2, 1
 ALS Vial : 21 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 29 17:14:08 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
5) S O-TERPHENYL	4.663	17543180	8.506	ppm
Spiked Amount	2000.000	Range	10 - 130	Recovery = 0.43%#
Target Compounds				
1) H TPH-DRO (C10-C28)	0.000	0	N.D.	ppm d
2) H TPH-ORO (>C28-C40)	6.530	1100119	1.492	ppm m
3) H TPH-DRO (C10-C24)	0.000	0	N.D.	ppm d
4) H TPH-ORO (>C24-C40)	6.290	1870942	1.435	ppm m

(f)=RT Delta > 1/2 Window

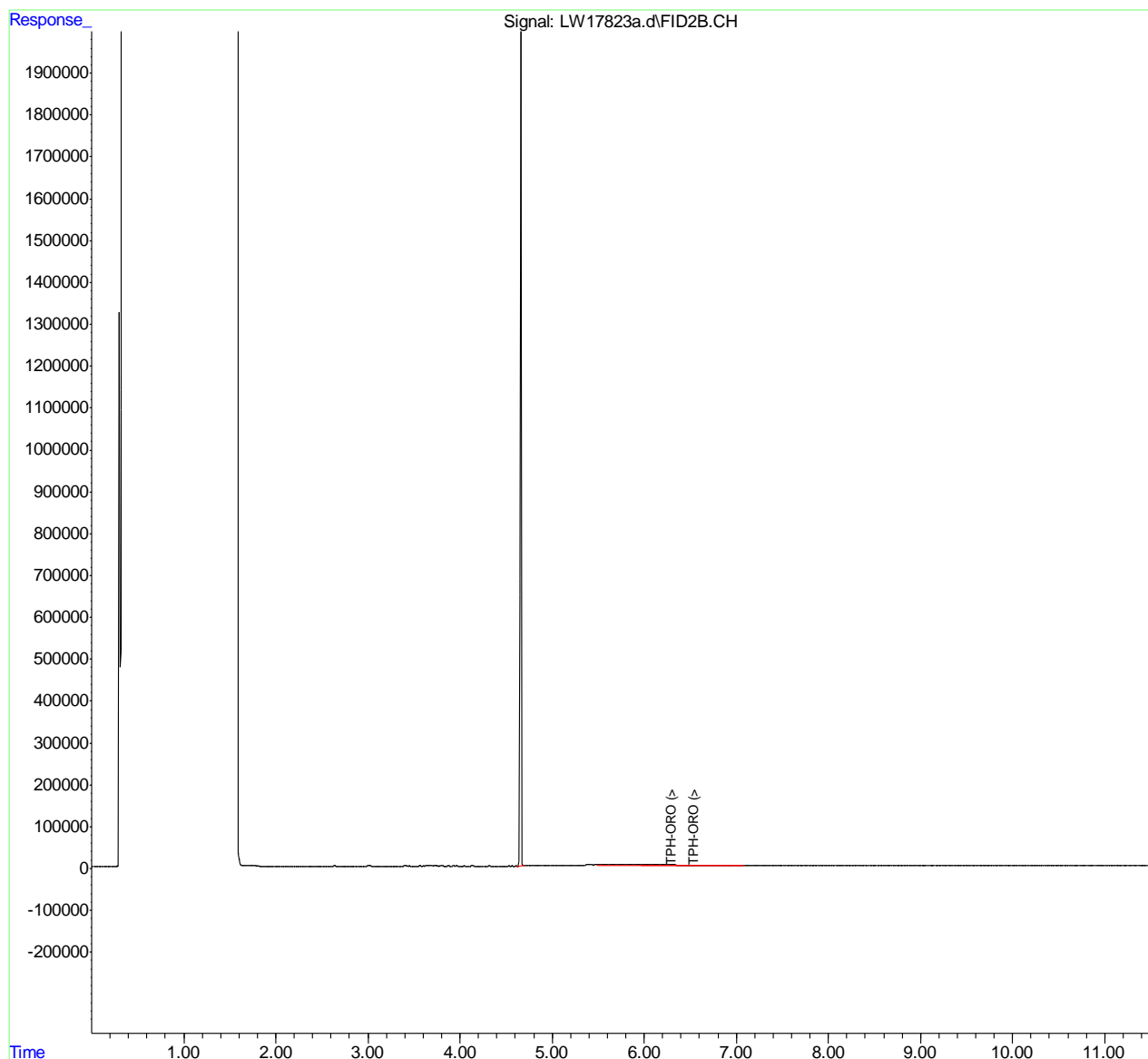
(m)=manual int.

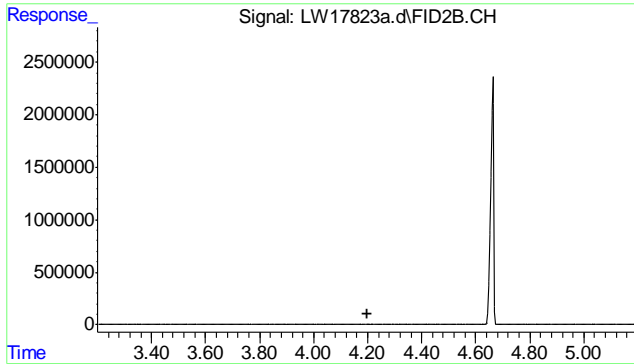
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17823a.d
Signal(s) : FID2B.CH
Acq On : 29-Oct-23, 17:12:37
Operator :
Sample : da19589-3a o
Misc : OP24618, GLW571, 55,,, 2, 1
ALS Vial : 21 Sample Multiplier: 1

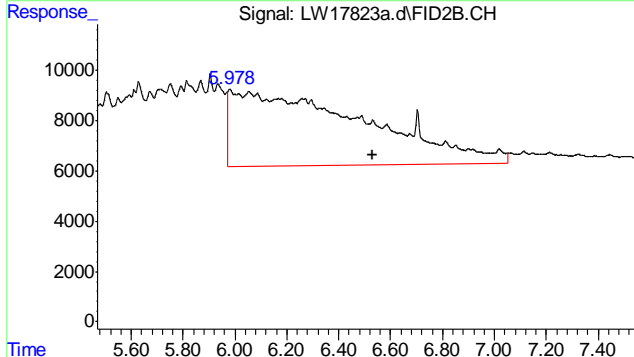
Integration File: autoint1.e
Quant Time: Oct 29 17:14:08 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

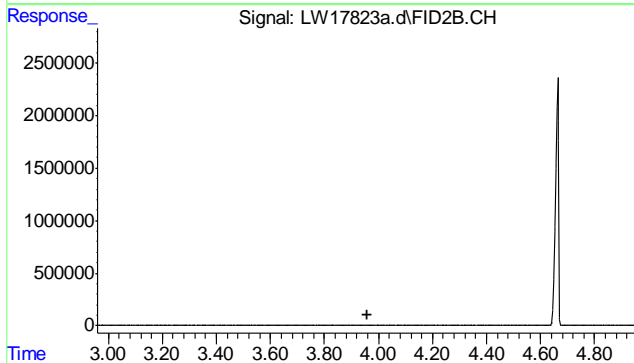




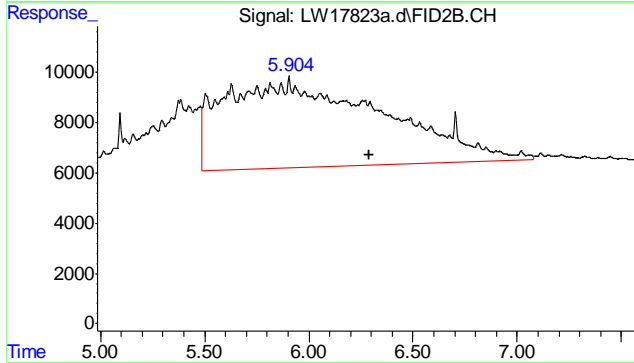
#1 TPH-DRO (C10-C28)
 R.T.: 0.000 min
 Exp R.T.: 4.200 min
 Response: 0
 Conc: N.D.



#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 1100119
 Conc: 1.49 ppm m

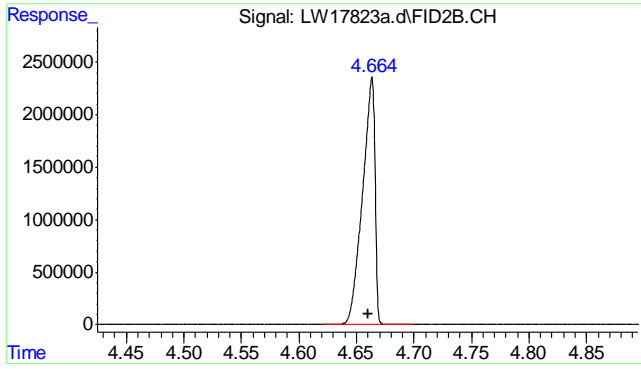


#3 TPH-DRO (C10-C24)
 R.T.: 0.000 min
 Exp R.T.: 3.960 min
 Response: 0
 Conc: N.D.



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 1870942
 Conc: 1.43 ppm m

7.1.6
7



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 17543180
Conc: 8.51 ppm

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17822a.d
 Signal(s) : FID2B.CH
 Acq On : 29-Oct-23, 16:56:04
 Operator : XXXXXXXXXX
 Sample : da19589-4a d
 Misc : OP24618, GLW571, 55,,, 2, 1
 ALS Vial : 20 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 29 16:13:51 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.664	18146517	8.799 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.44%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	3050898	1.952 ppm
2) H TPH-ORO (>C28-C40)	0.000	0	N.D. ppm d
3) H TPH-DRO (C10-C24)	3.960	2965041	2.003 ppm
4) H TPH-ORO (>C24-C40)	0.000	0	N.D. ppm d

(f)=RT Delta > 1/2 Window

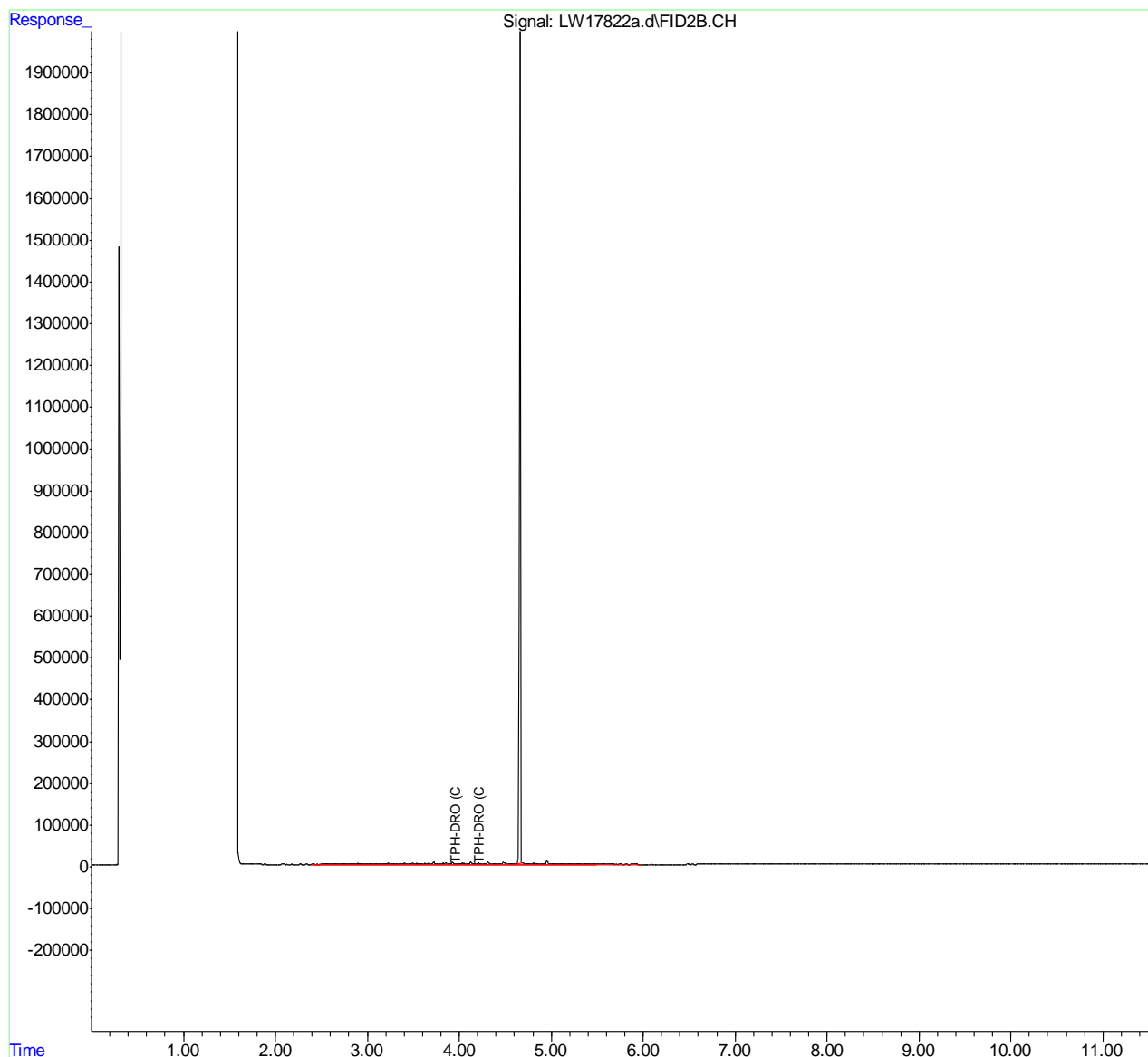
(m)=manual int.

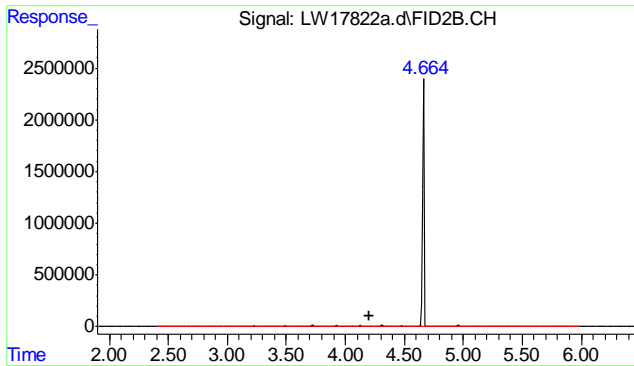
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17822a.d
 Signal(s) : FID2B.CH
 Acq On : 29-Oct-23, 16:56:04
 Operator :
 Sample : da19589-4a d
 Misc : OP24618, GLW571, 55,,, 2, 1
 ALS Vial : 20 Sample Multiplier: 1

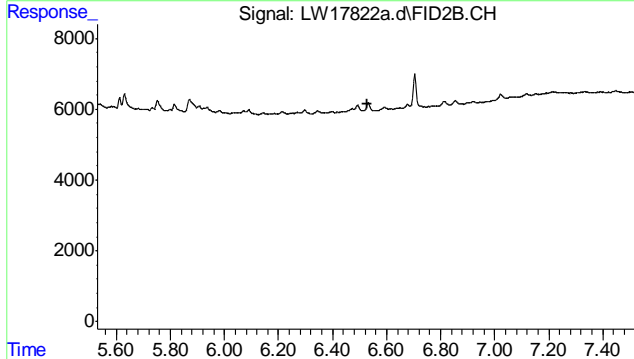
Integration File: autoint1.e
 Quant Time: Oct 29 16:13:51 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

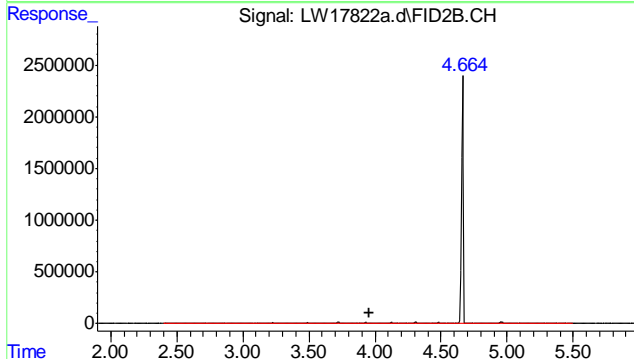




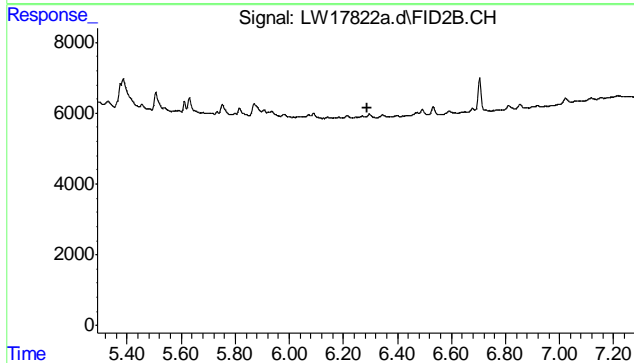
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 3050898
 Conc: 1.95 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 0.000 min
 Exp R.T.: 6.530 min
 Response: 0
 Conc: N.D.

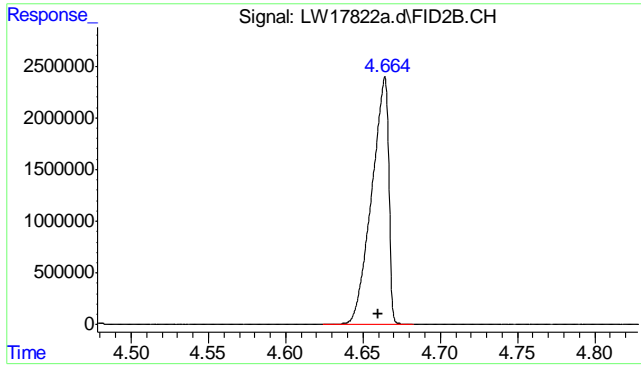


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 2965041
 Conc: 2.00 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 0.000 min
 Exp R.T.: 6.290 min
 Response: 0
 Conc: N.D.

7.17
7



#5 O-TERPHENYL

R.T.: 4.664 min
Delta R.T.: 0.004 min
Response: 18146517
Conc: 8.80 ppm

7.1.7

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17824a.d
 Signal(s) : FID2B.CH
 Acq On : 29-Oct-23, 17:29:19
 Operator :
 Sample : da19589-4a o
 Misc : OP24618, GLW571, 55,,, 2, 1
 ALS Vial : 22 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 29 16:54:13 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc	Units

System Monitoring Compounds				
5) S O-TERPHENYL	4.664	18230965	8.839	ppm
Spiked Amount	2000.000	Range	10 - 130	Recovery = 0.44%#
Target Compounds				
1) H TPH-DRO (C10-C28)	0.000	0	N.D.	ppm d
2) H TPH-ORO (>C28-C40)	6.530	842198	1.142	ppm m
3) H TPH-DRO (C10-C24)	0.000	0	N.D.	ppm d
4) H TPH-ORO (>C24-C40)	6.290	1615003	1.239	ppm m

(f)=RT Delta > 1/2 Window

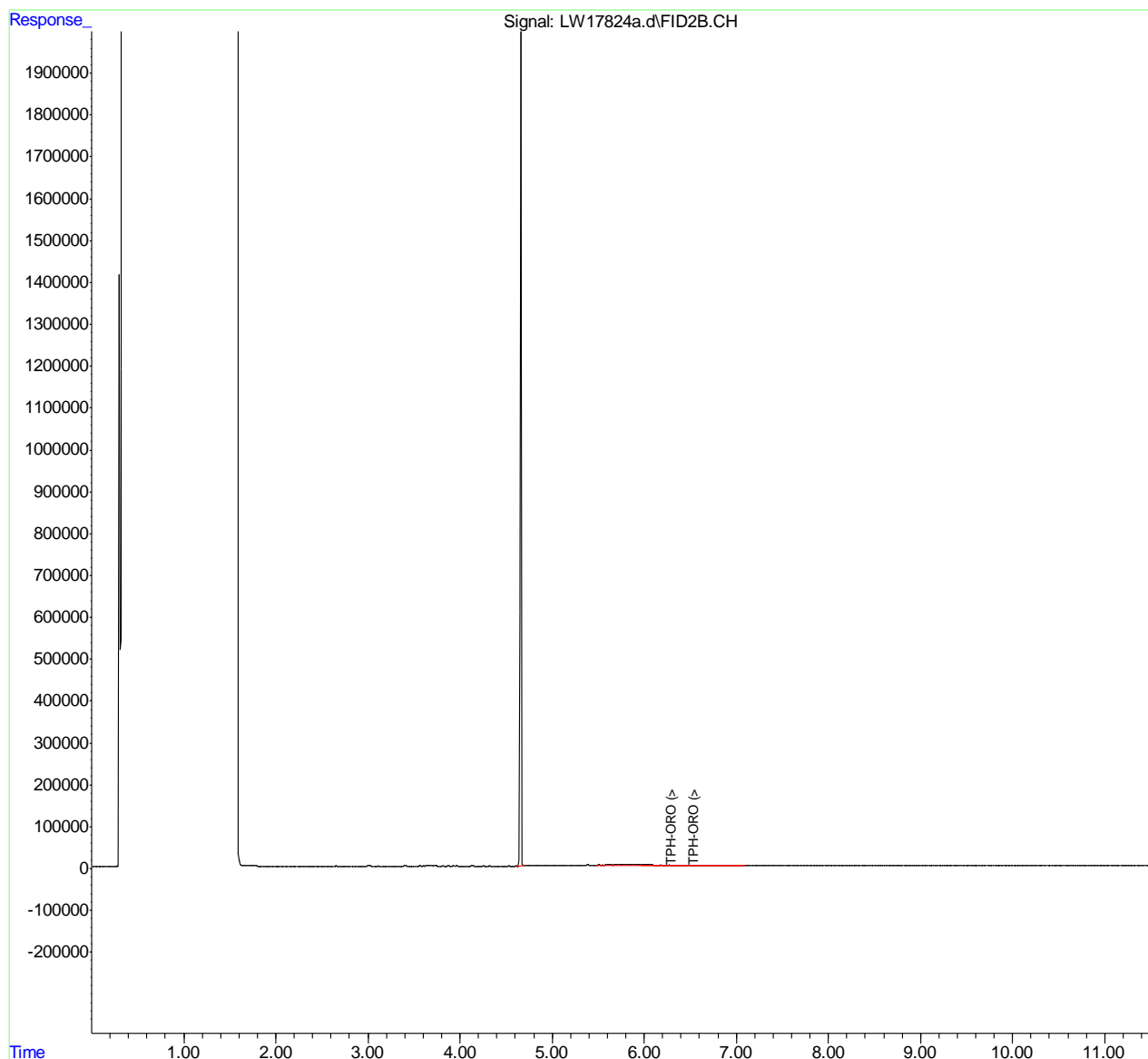
(m)=manual int.

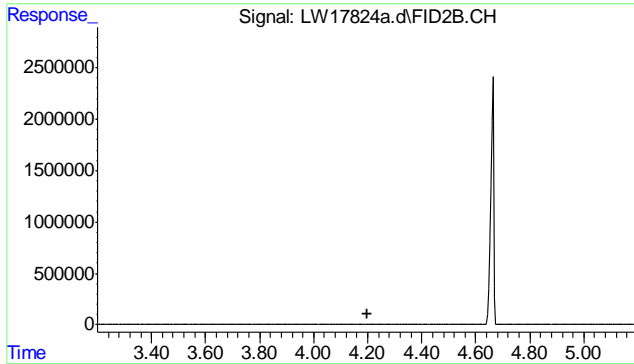
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17824a.d
Signal(s) : FID2B.CH
Acq On : 29-Oct-23, 17:29:19
Operator :
Sample : da19589-4a o
Misc : OP24618, GLW571, 55,,, 2, 1
ALS Vial : 22 Sample Multiplier: 1

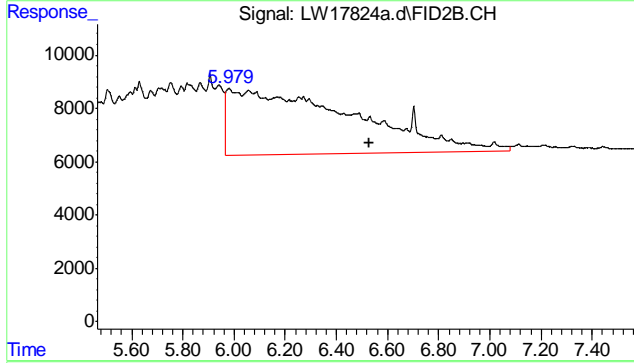
Integration File: autoint1.e
Quant Time: Oct 29 16:54:13 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

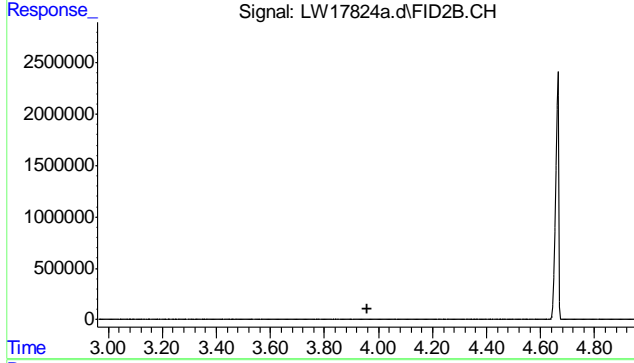




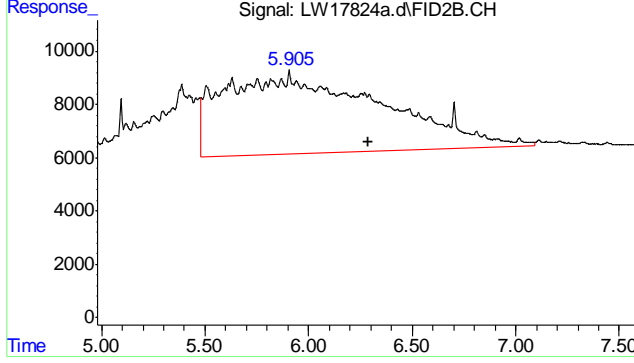
#1 TPH-DRO (C10-C28)
 R.T.: 0.000 min
 Exp R.T. : 4.200 min
 Response: 0
 Conc: N.D.



#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 842198
 Conc: 1.14 ppm m

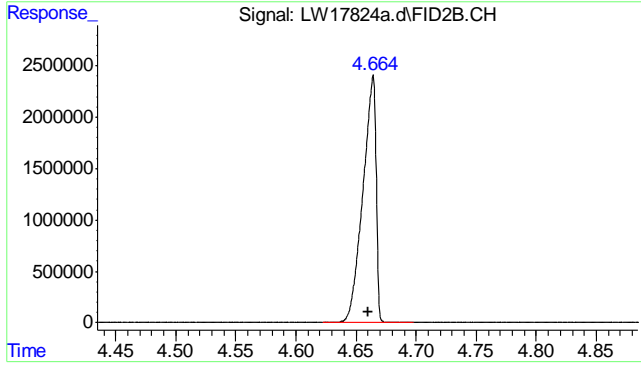


#3 TPH-DRO (C10-C24)
 R.T.: 0.000 min
 Exp R.T. : 3.960 min
 Response: 0
 Conc: N.D.



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 1615003
 Conc: 1.24 ppm m

7.1.8
7



#5 O-TERPHENYL

R.T.: 4.664 min
Delta R.T.: 0.004 min
Response: 18230965
Conc: 8.84 ppm

7.1.8
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17841a.d
 Signal(s) : FID2B.CH
 Acq On : 30-Oct-23, 22:01:01
 Operator :
 Sample : da19589-5a o
 Misc : OP24619, GLW572, 55,,, 2, 1
 ALS Vial : 7 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 31 07:14:32 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.663	18027950	8.741 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.44%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	1902242	1.217 ppm
2) H TPH-ORO (>C28-C40)	6.530	842973	1.143 ppm m
3) H TPH-DRO (C10-C24)	3.960	999928	0.675 ppm
4) H TPH-ORO (>C24-C40)	6.290	1761054	1.351 ppm

(f)=RT Delta > 1/2 Window

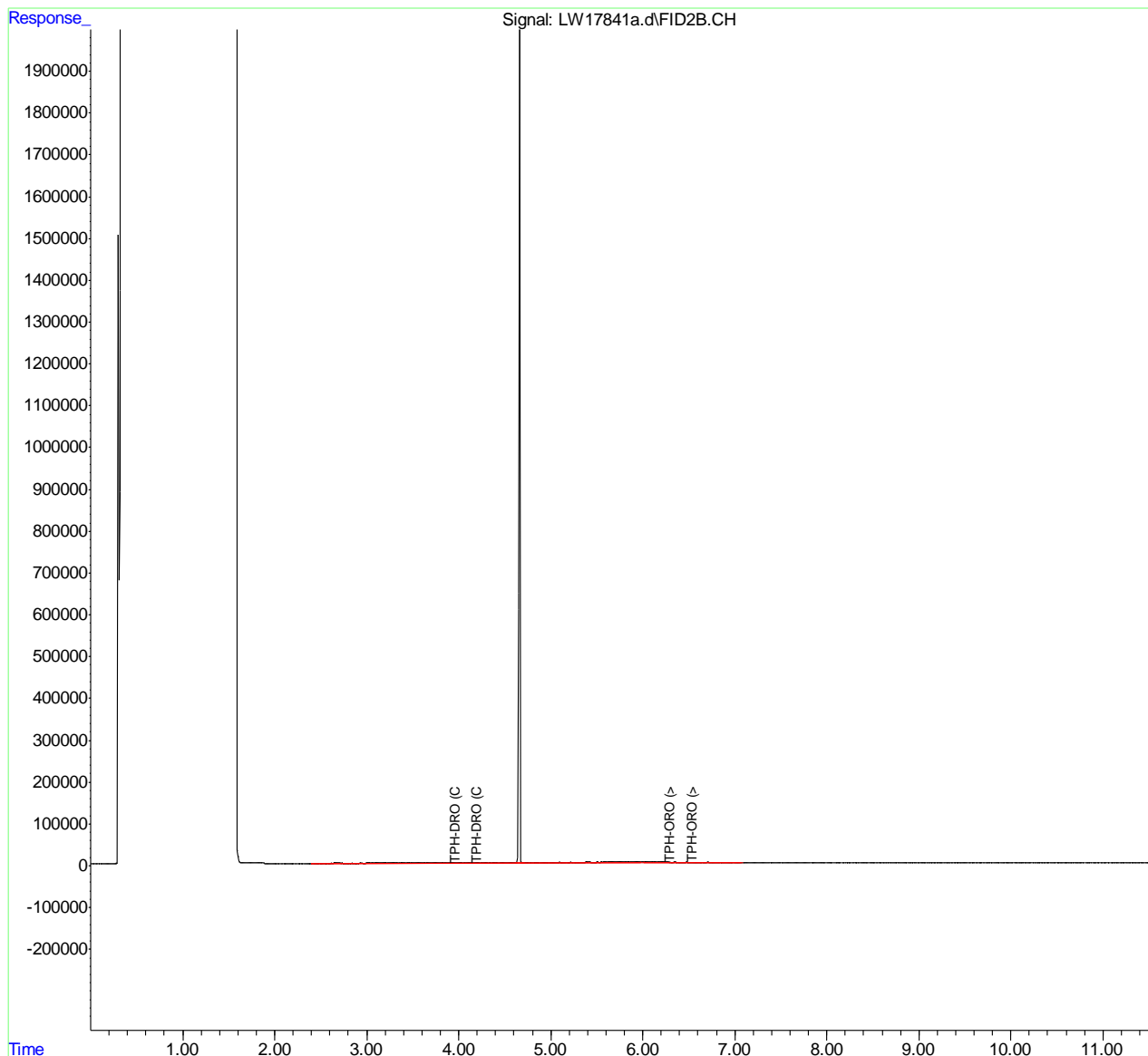
(m)=manual int.

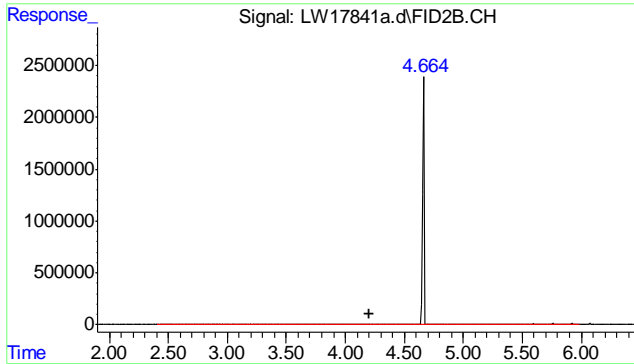
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17841a.d
 Signal(s) : FID2B.CH
 Acq On : 30-Oct-23, 22:01:01
 Operator :
 Sample : da19589-5a o
 Misc : OP24619, GLW572, 55, , , 2, 1
 ALS Vial : 7 Sample Multiplier: 1

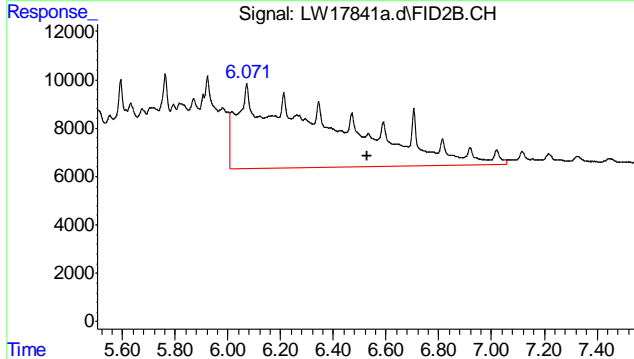
Integration File: autoint1.e
 Quant Time: Oct 31 07:14:32 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

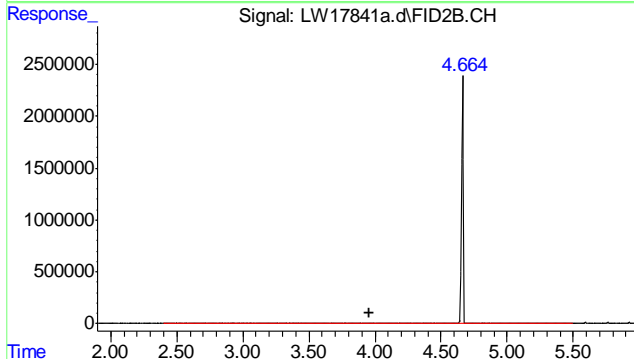




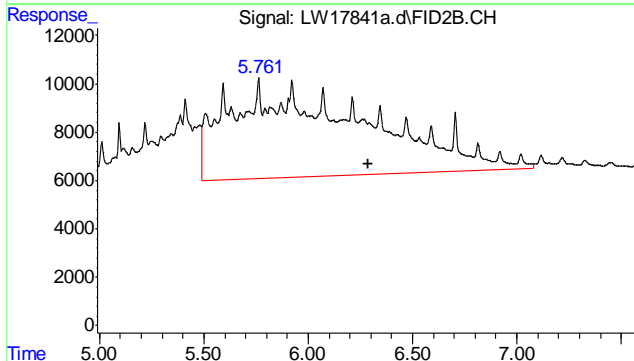
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 1902242
 Conc: 1.22 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 842973
 Conc: 1.14 ppm m

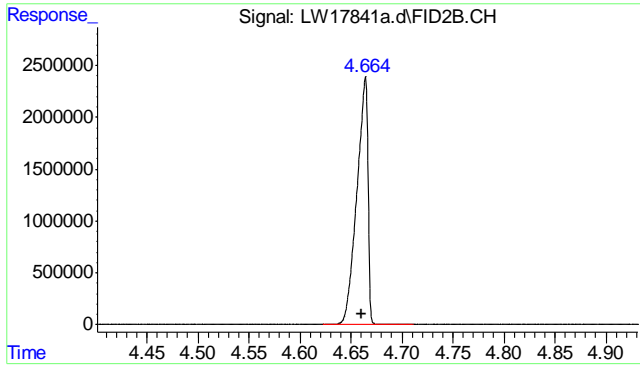


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 999928
 Conc: 0.68 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 1761054
 Conc: 1.35 ppm

7.1.9
7



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 18027950
Conc: 8.74 ppm

7.1.9

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17855a.d
 Signal(s) : FID2B.CH
 Acq On : 31-Oct-23, 15:58:36
 Operator : XXXXXXXXXX
 Sample : da19589-5a d
 Misc : OP24619, GLW572, 55, , , 2, 1
 ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 11 04:51:10 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.665	18350650	8.898 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.44%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	3122259	1.998 ppm
2) H TPH-ORO (>C28-C40)	0.000	0	N.D. ppm d
3) H TPH-DRO (C10-C24)	3.960	2922061	1.974 ppm
4) H TPH-ORO (>C24-C40)	0.000	0	N.D. ppm d

(f)=RT Delta > 1/2 Window

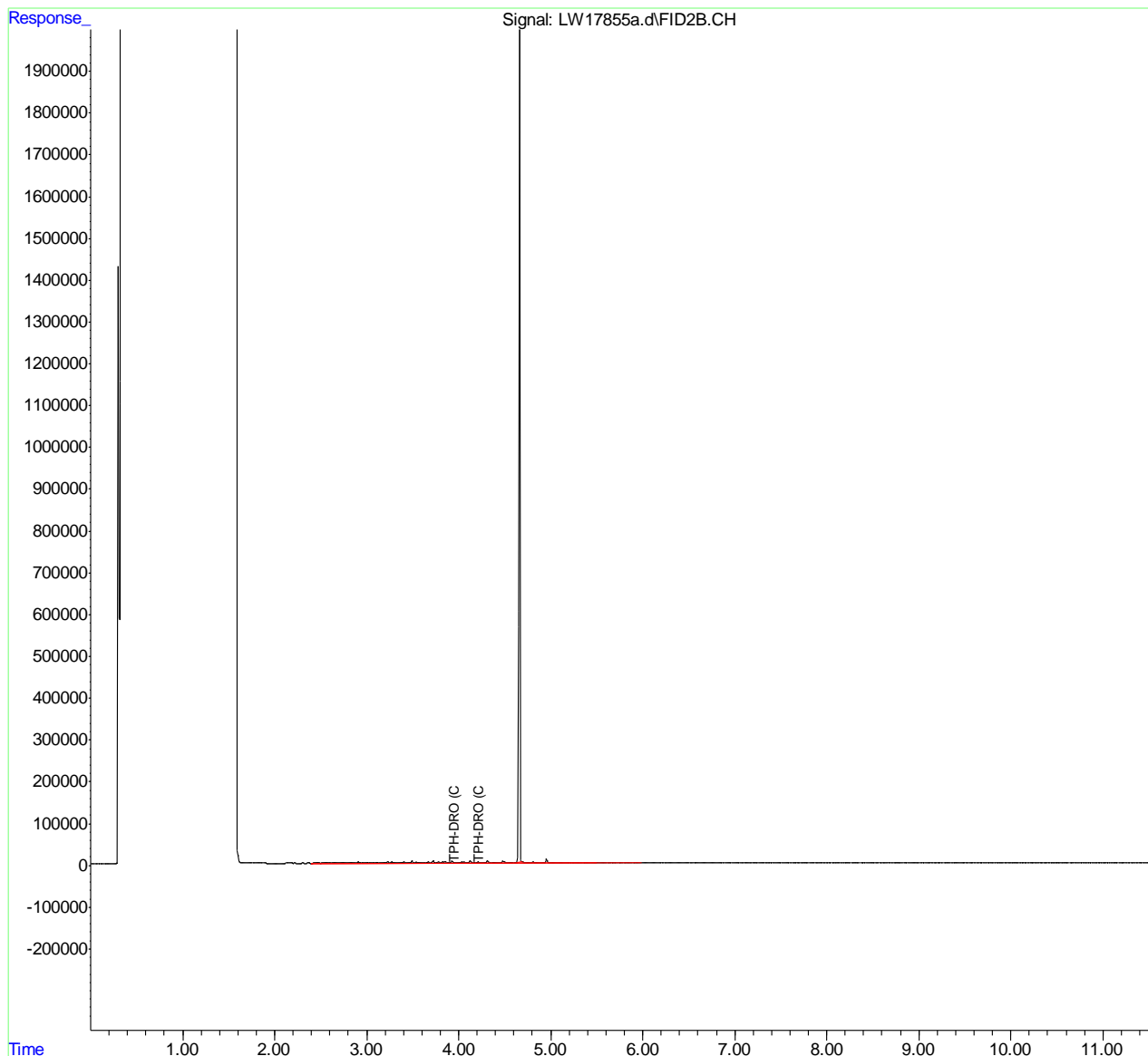
(m)=manual int.

Quantitation Report (QT Reviewed)

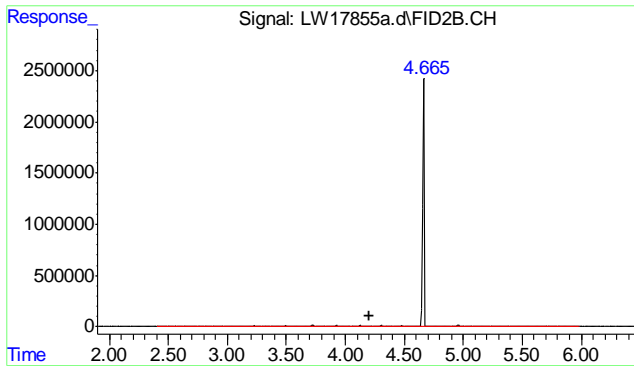
Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17855a.d
Signal(s) : FID2B.CH
Acq On : 31-Oct-23, 15:58:36
Operator :
Sample : da19589-5a d
Misc : OP24619, GLW572, 55, , , 2, 1
ALS Vial : 4 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Nov 11 04:51:10 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

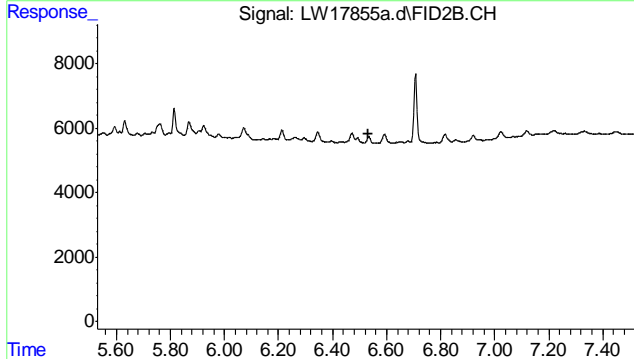
Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df



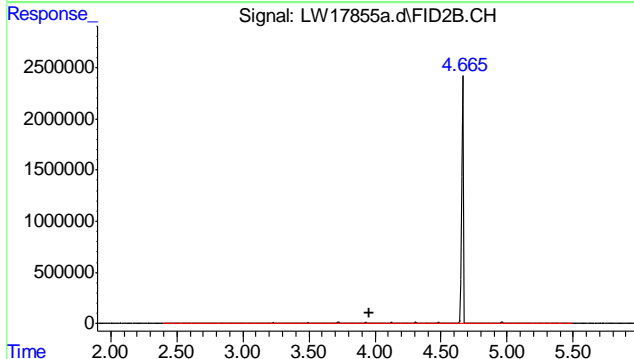
7.1.10
7



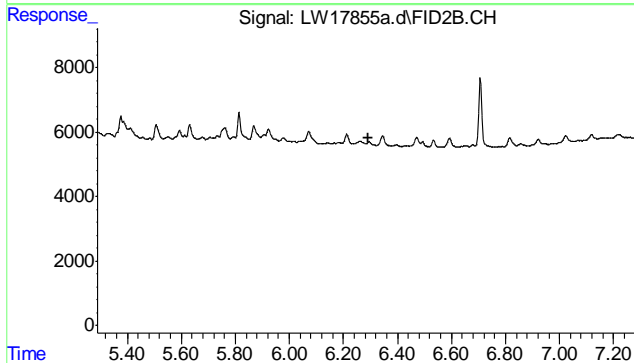
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 3122259
 Conc: 2.00 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 0.000 min
 Exp R.T. : 6.530 min
 Response: 0
 Conc: N.D.

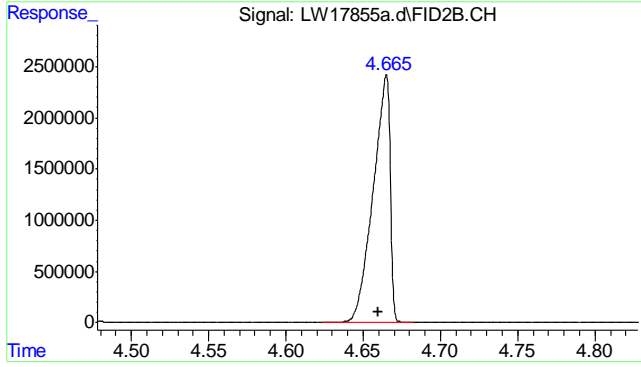


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 2922061
 Conc: 1.97 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 0.000 min
 Exp R.T. : 6.290 min
 Response: 0
 Conc: N.D.

7.1.10
 7



#5 O-TERPHENYL

R.T.: 4.665 min
Delta R.T.: 0.005 min
Response: 18350650
Conc: 8.90 ppm

7.1.10
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17842a.d
 Signal(s) : FID2B.CH
 Acq On : 30-Oct-23, 22:17:42
 Operator :
 Sample : da19589-6a o
 Misc : OP24619, GLW572, 55,,, 2, 1
 ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 31 07:15:03 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.663	17788960	8.625 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.43%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	2092792	1.339 ppm
2) H TPH-ORO (>C28-C40)	6.530	1040510	1.411 ppm
3) H TPH-DRO (C10-C24)	3.960	1034613	0.699 ppm
4) H TPH-ORO (>C24-C40)	6.290	2214997	1.699 ppm

(f)=RT Delta > 1/2 Window

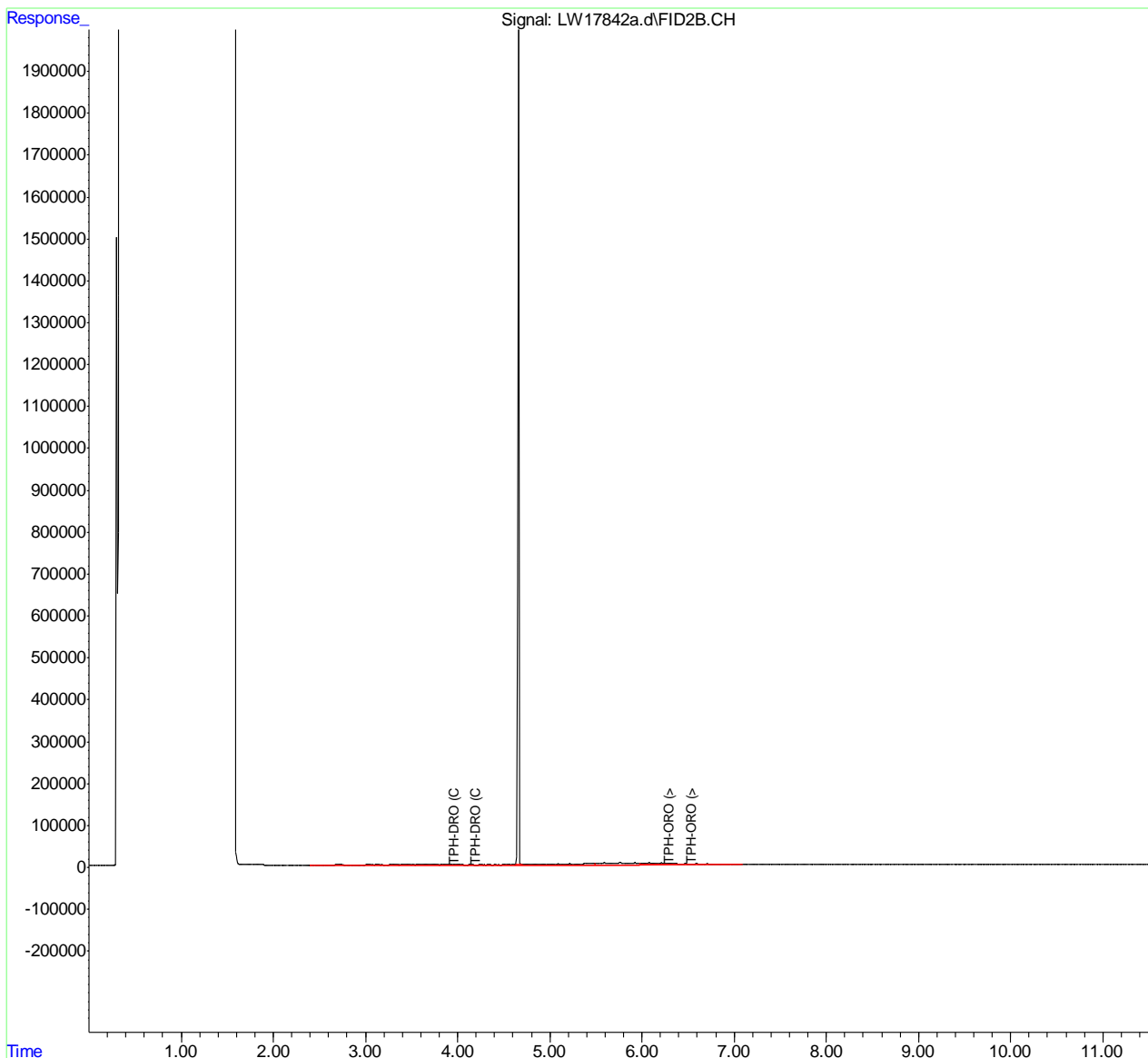
(m)=manual int.

Quantitation Report (QT Reviewed)

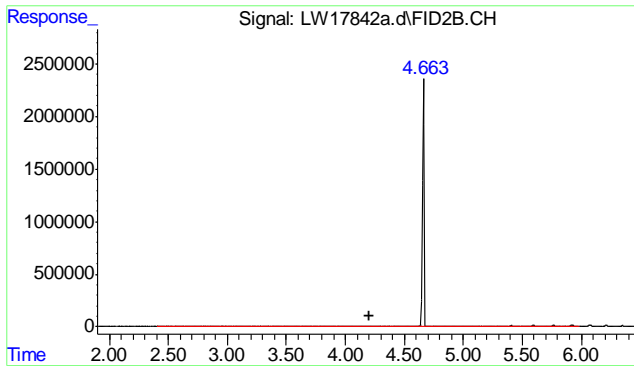
Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17842a.d
 Signal(s) : FID2B.CH
 Acq On : 30-Oct-23, 22:17:42
 Operator :
 Sample : da19589-6a o
 Misc : OP24619, GLW572, 55, , , 2, 1
 ALS Vial : 8 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 31 07:15:03 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

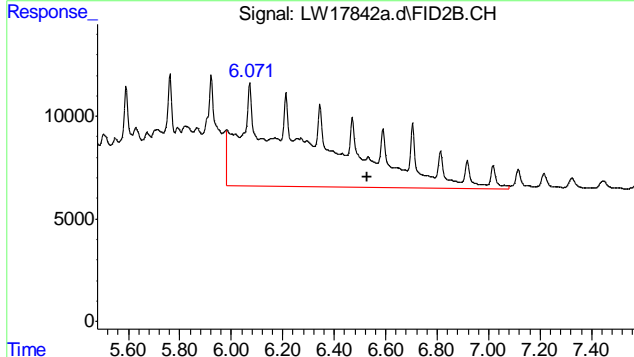
Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df



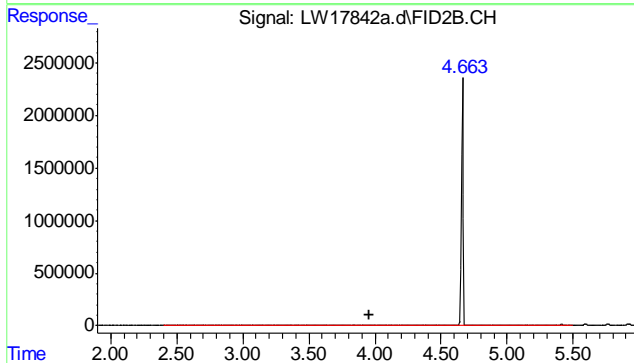
7.1.11
7



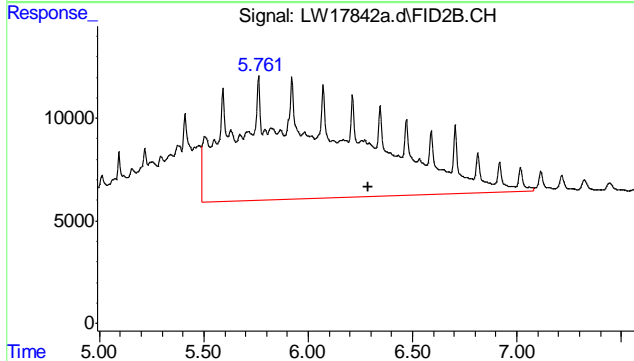
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 2092792
 Conc: 1.34 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 1040510
 Conc: 1.41 ppm

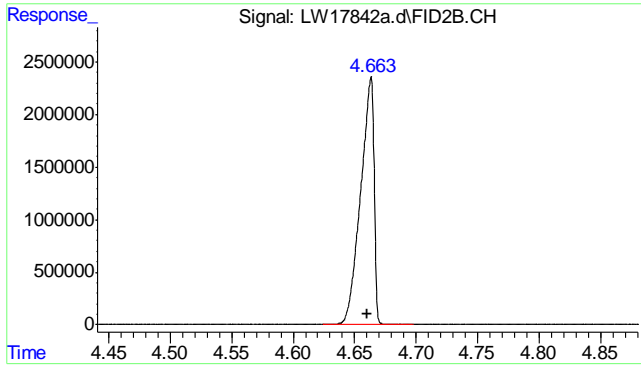


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 1034613
 Conc: 0.70 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 2214997
 Conc: 1.70 ppm

7.1.11
7



#5 O-TERPHENYL
R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 17788960
Conc: 8.63 ppm

7.1.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17856a.d
 Signal(s) : FID2B.CH
 Acq On : 31-Oct-23, 16:15:08
 Operator : XXXXXXXXXX
 Sample : da19589-6a d
 Misc : OP24619, GLW572, 55,,,2,1
 ALS Vial : 5 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 01 03:45:35 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.663	18020907	8.738 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.44%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	2821863	1.806 ppm
2) H TPH-ORO (>C28-C40)	6.530	114620	0.155 ppm
3) H TPH-DRO (C10-C24)	3.960	2741790	1.852 ppm
4) H TPH-ORO (>C24-C40)	6.290	189600	0.145 ppm

(f)=RT Delta > 1/2 Window

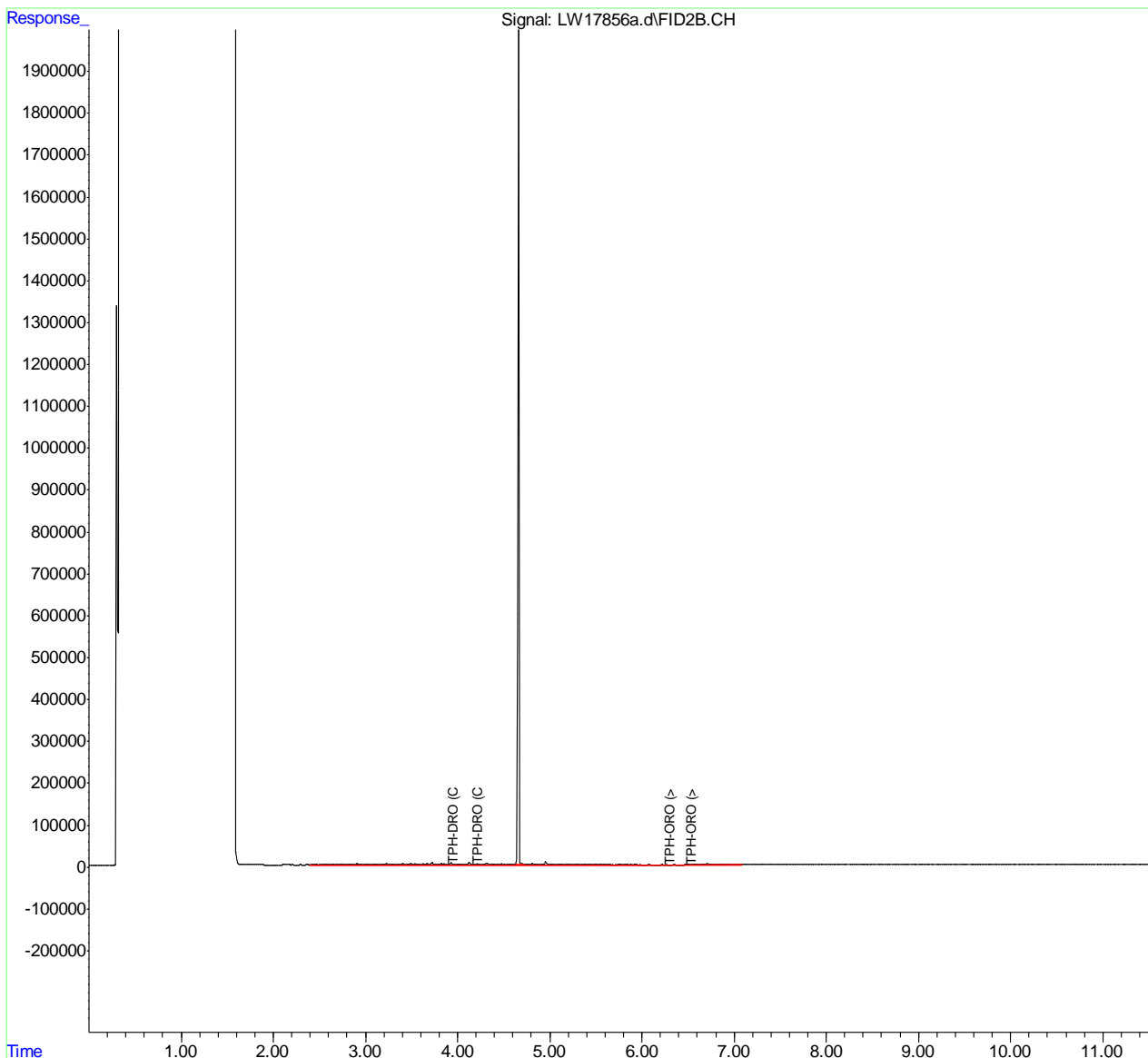
(m)=manual int.

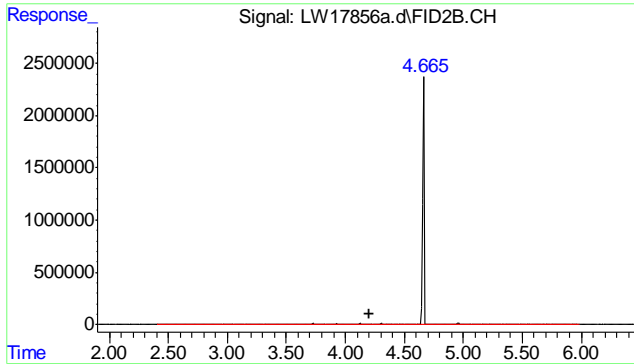
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17856a.d
Signal(s) : FID2B.CH
Acq On : 31-Oct-23, 16:15:08
Operator :
Sample : da19589-6a d
Misc : OP24619, GLW572, 55, , , 2, 1
ALS Vial : 5 Sample Multiplier: 1

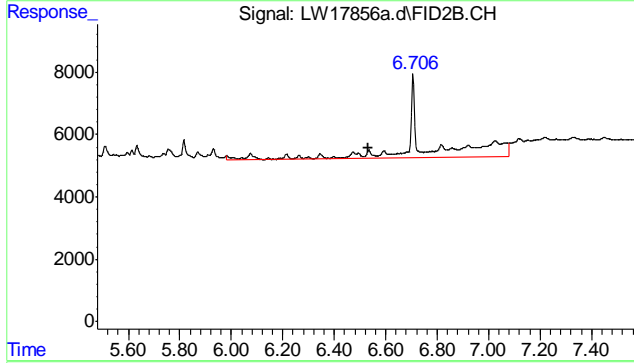
Integration File: autoint1.e
Quant Time: Nov 01 03:45:35 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

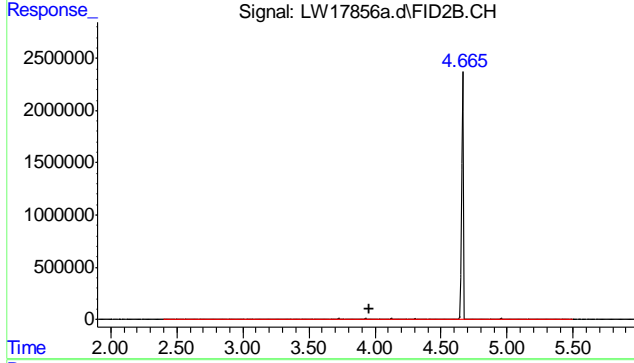




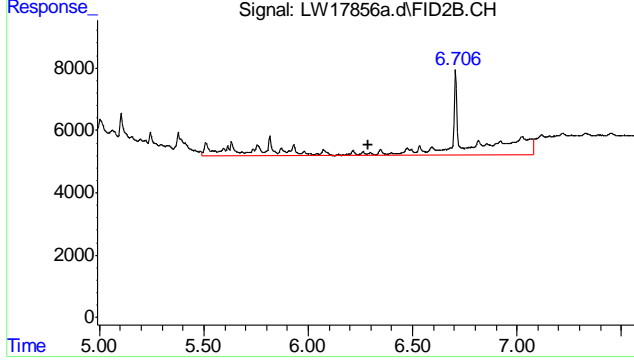
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 2821863
 Conc: 1.81 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 114620
 Conc: 0.16 ppm

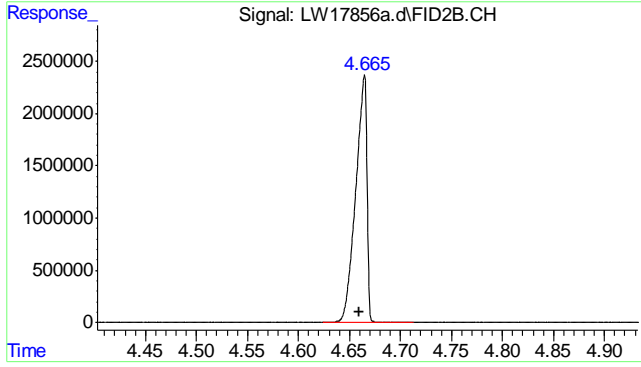


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 2741790
 Conc: 1.85 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 189600
 Conc: 0.15 ppm

7.1.12
 7



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 18020907
Conc: 8.74 ppm

7.1.12
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17843a.d
Signal(s) : FID2B.CH
Acq On : 30-Oct-23, 22:34:14
Operator :
Sample : da19589-7a o
Misc : OP24619, GLW572, 55, , , 2, 1
ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
Quant Time: Oct 31 07:15:32 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.663	17862699	8.661 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.43%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	1948738	1.247 ppm
2) H TPH-ORO (>C28-C40)	6.530	875504	1.188 ppm
3) H TPH-DRO (C10-C24)	3.960	975806	0.659 ppm
4) H TPH-ORO (>C24-C40)	6.290	1946853	1.493 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.

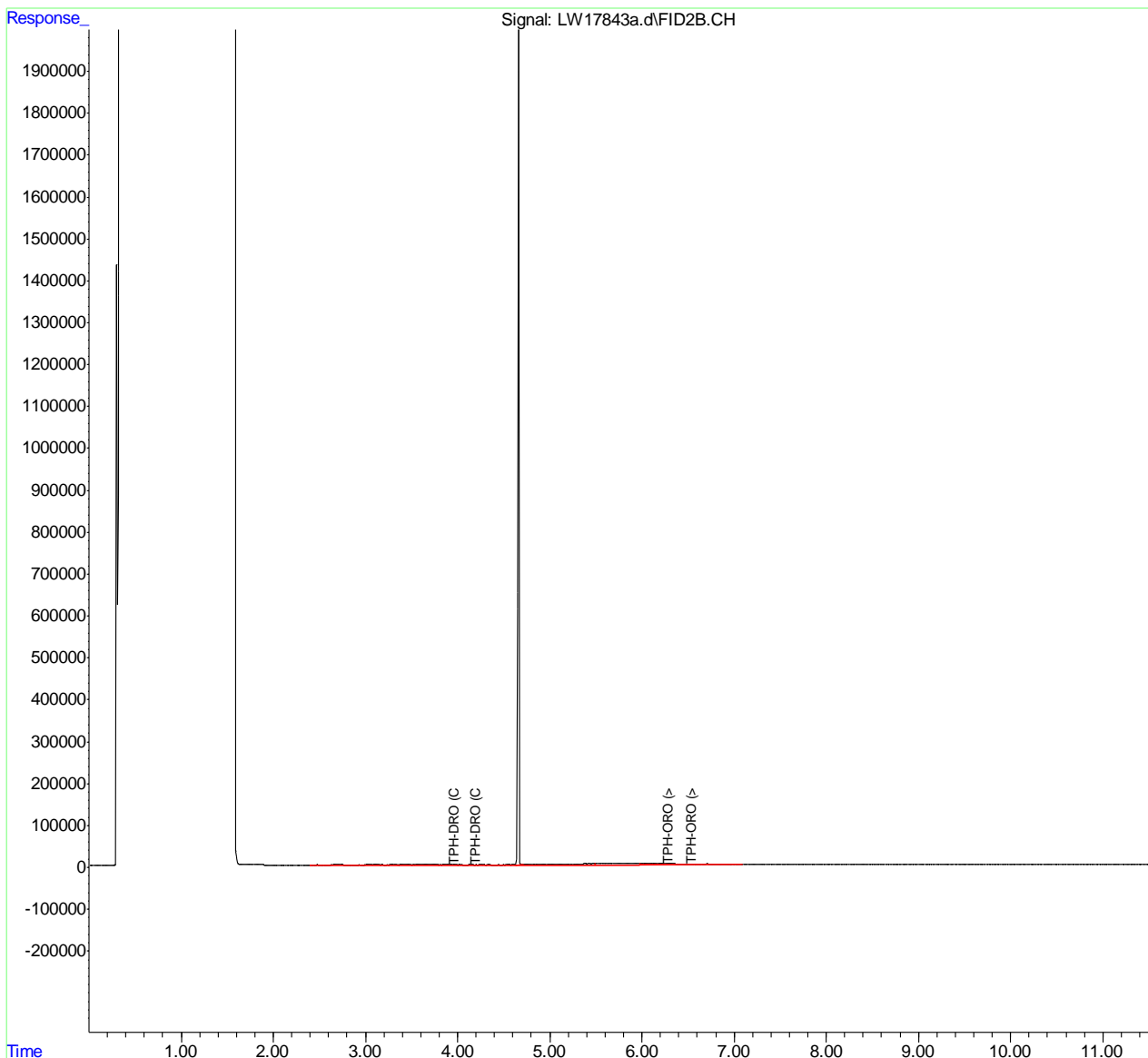
7.1.13
7

Quantitation Report (QT Reviewed)

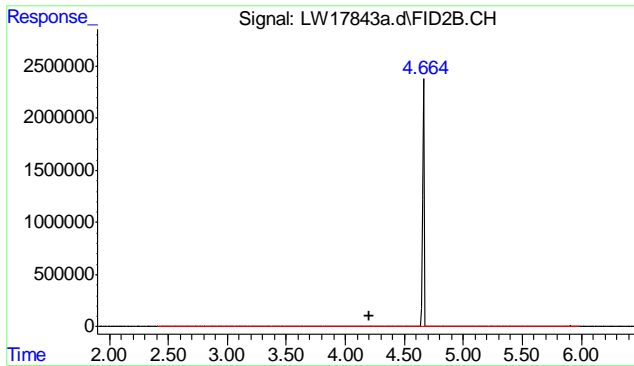
Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17843a.d
 Signal(s) : FID2B.CH
 Acq On : 30-Oct-23, 22:34:14
 Operator :
 Sample : da19589-7a o
 Misc : OP24619, GLW572, 55, , , 2, 1
 ALS Vial : 9 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 31 07:15:32 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

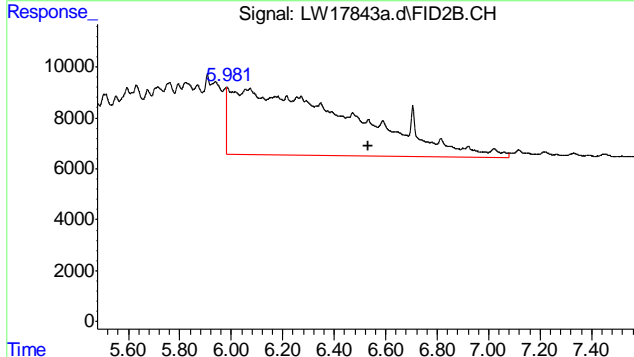
Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df



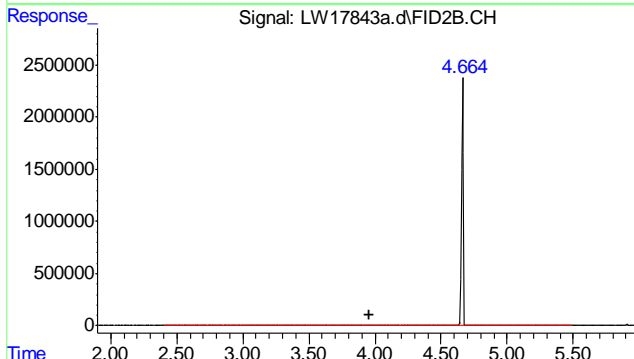
7.1.13
7



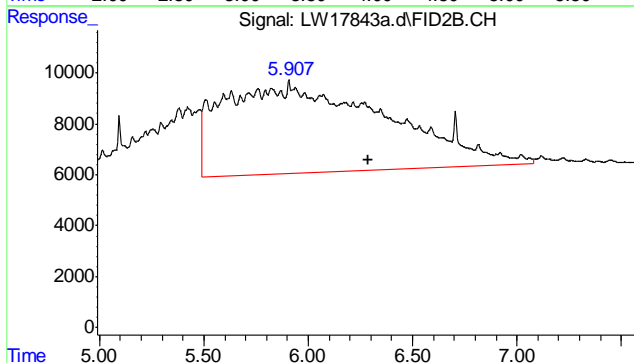
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 1948738
 Conc: 1.25 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 875504
 Conc: 1.19 ppm

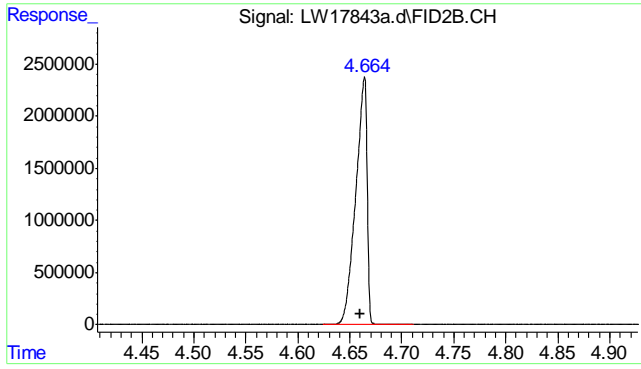


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 975806
 Conc: 0.66 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 1946853
 Conc: 1.49 ppm

7.1.13
 7



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 17862699
Conc: 8.66 ppm

7.1.13
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
 Data File : LW17857a.d
 Signal(s) : FID2B.CH
 Acq On : 31-Oct-23, 16:31:38
 Operator : XXXXXXXXXX
 Sample : da19589-7a d
 Misc : OP24619, GLW572, 55,,,2,1
 ALS Vial : 6 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 11 04:44:18 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.663	18094305	8.773 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.44%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	2968870	1.900 ppm
2) H TPH-ORO (>C28-C40)	6.530	133617	0.181 ppm
3) H TPH-DRO (C10-C24)	3.960	2884909	1.949 ppm
4) H TPH-ORO (>C24-C40)	6.290	219928	0.169 ppm

(f)=RT Delta > 1/2 Window

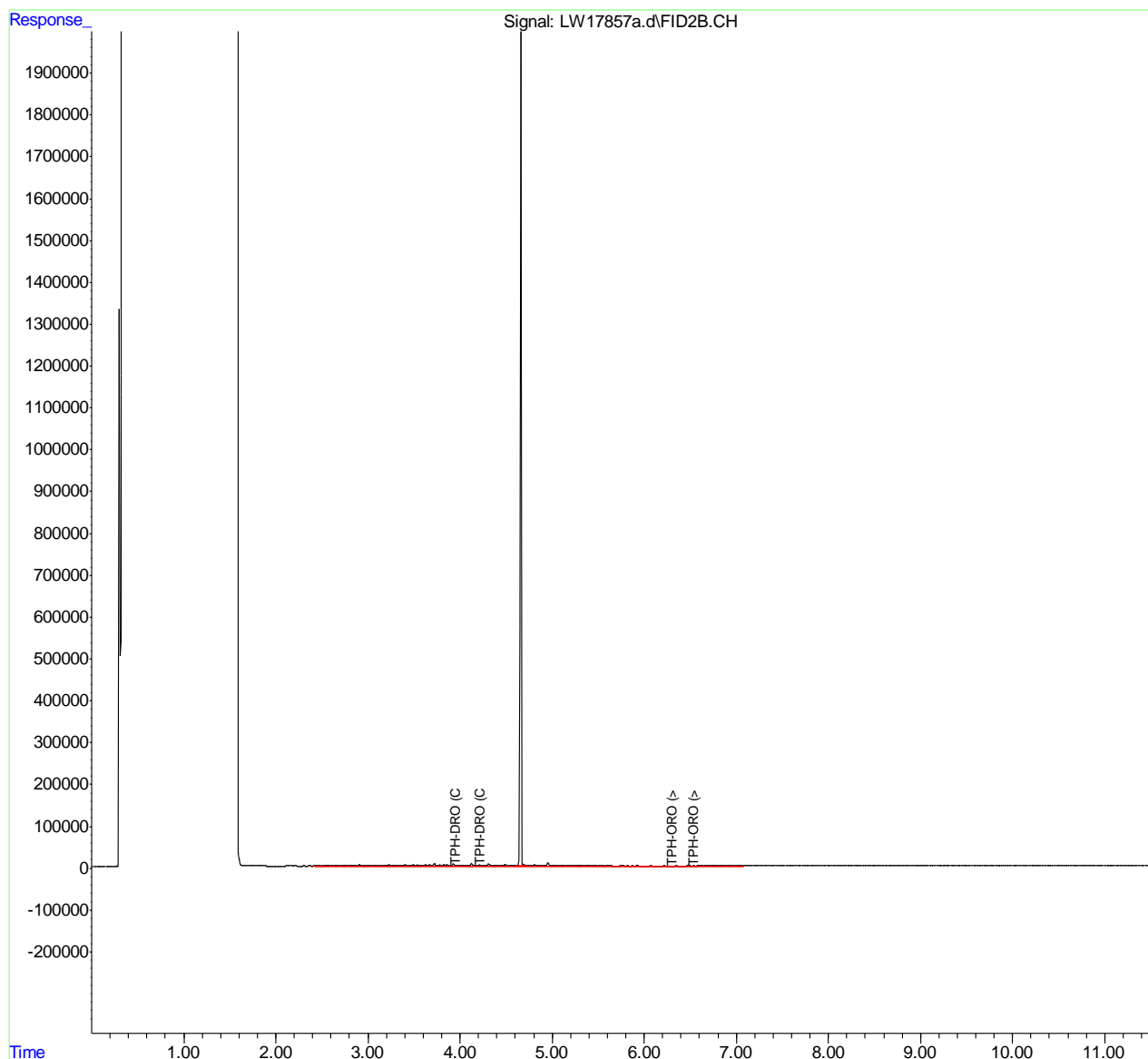
(m)=manual int.

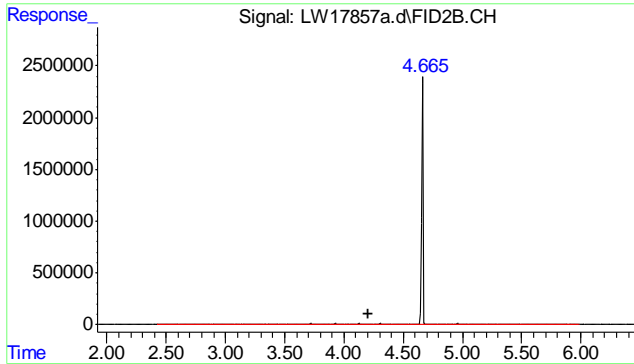
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\mdl a files\
Data File : LW17857a.d
Signal(s) : FID2B.CH
Acq On : 31-Oct-23, 16:31:38
Operator :
Sample : da19589-7a d
Misc : OP24619, GLW572, 55, , , 2, 1
ALS Vial : 6 Sample Multiplier: 1

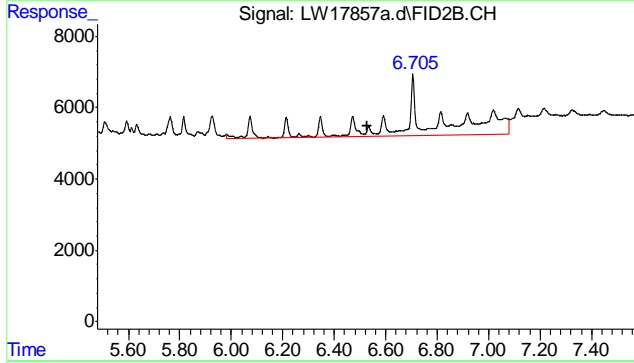
Integration File: autoint1.e
Quant Time: Nov 11 04:44:18 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 25 ul - LVI
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

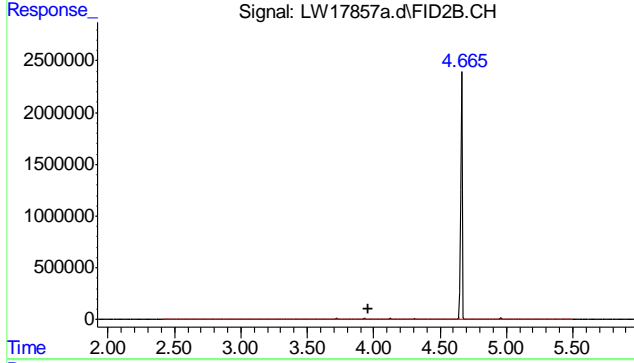




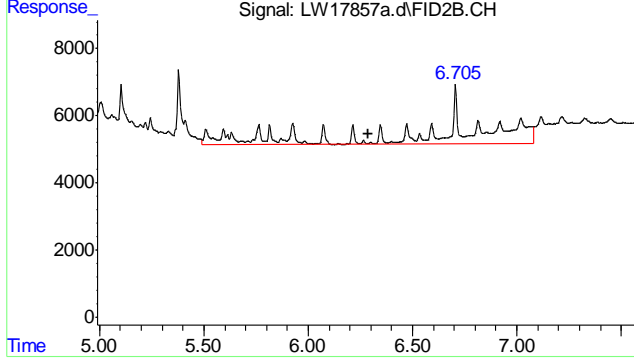
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 2968870
 Conc: 1.90 ppm



#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 133617
 Conc: 0.18 ppm

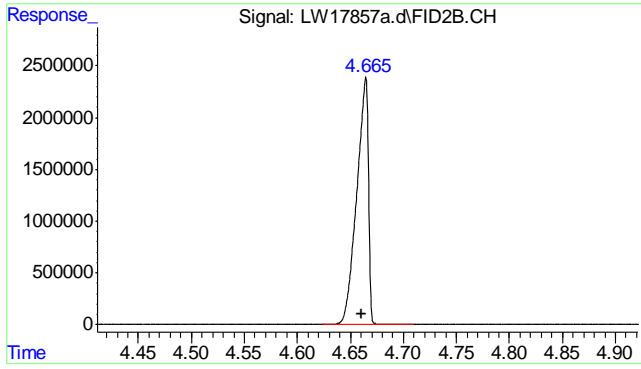


#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 2884909
 Conc: 1.95 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 219928
 Conc: 0.17 ppm

7.1.14
7



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 18094305
Conc: 8.77 ppm

7.1.14
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\10.23\102923\
 Data File : LW17818.d
 Signal(s) : FID2B.CH
 Acq On : 29-Oct-23, 15:49:36
 Operator :
 Sample : op24618-mb
 Misc : OP24618, GLW571, 55,,,2,1
 ALS Vial : 16 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 10 14:41:41 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.663	18228912	8.839 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.44%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	1052355	0.673 ppm
2) H TPH-ORO (>C28-C40)	6.530	256717	0.348 ppm
3) H TPH-DRO (C10-C24)	3.960	656931	0.444 ppm
4) H TPH-ORO (>C24-C40)	6.290	629849	0.483 ppm

(f)=RT Delta > 1/2 Window

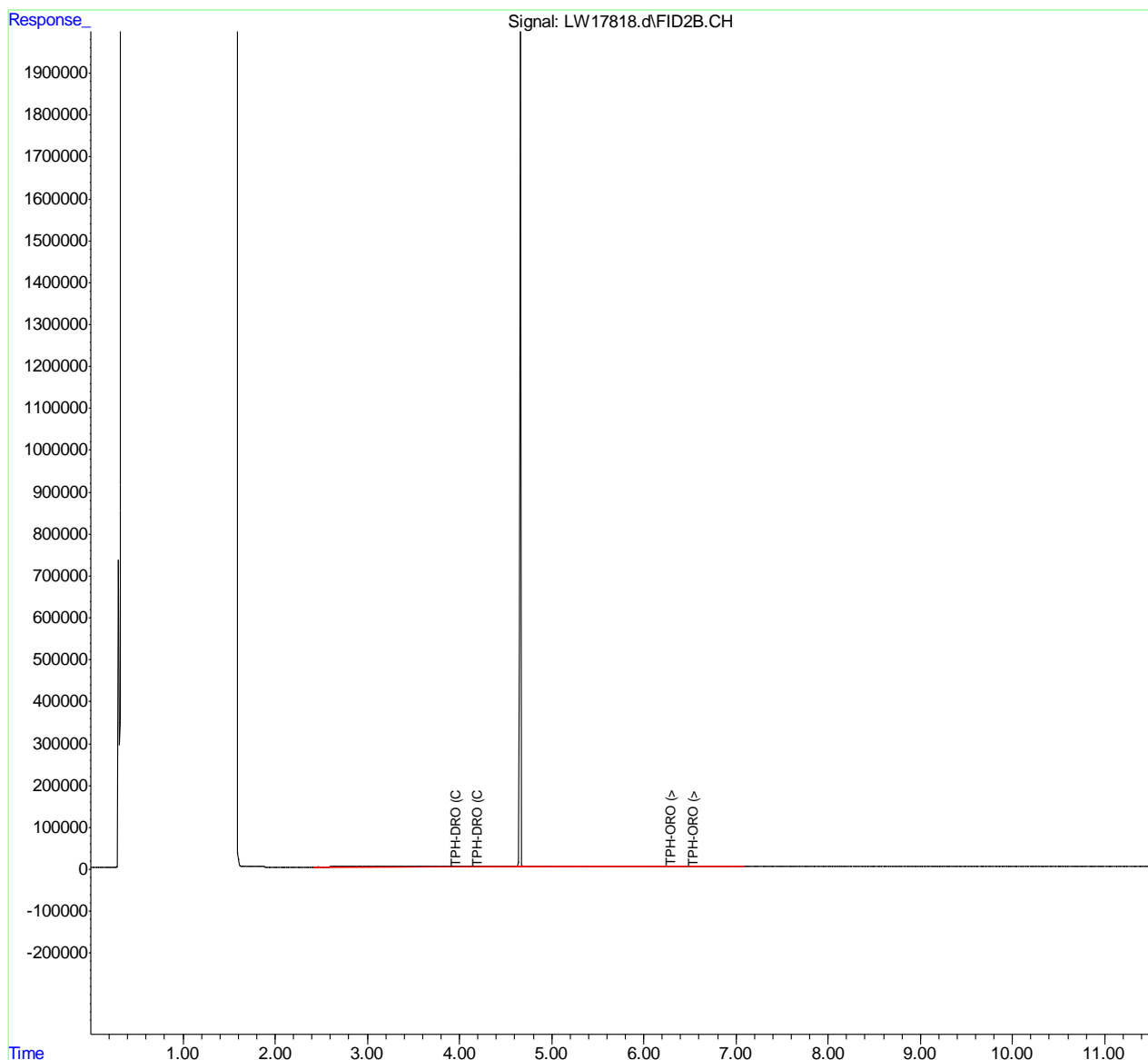
(m)=manual int.

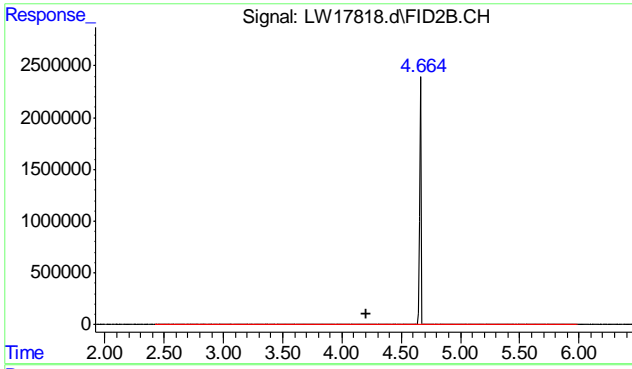
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\10.23\102923\
Data File : LW17818.d
Signal(s) : FID2B.CH
Acq On : 29-Oct-23, 15:49:36
Operator :
Sample : op24618-mb
Misc : OP24618, GLW571, 55,,, 2, 1
ALS Vial : 16 Sample Multiplier: 1

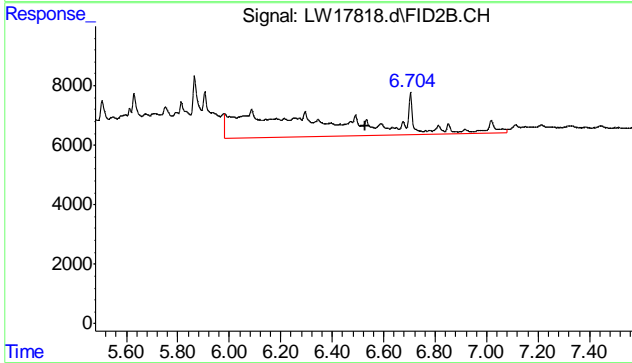
Integration File: autoint1.e
Quant Time: Nov 10 14:41:41 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

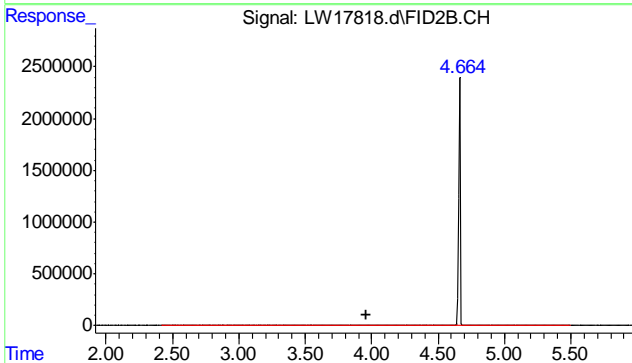




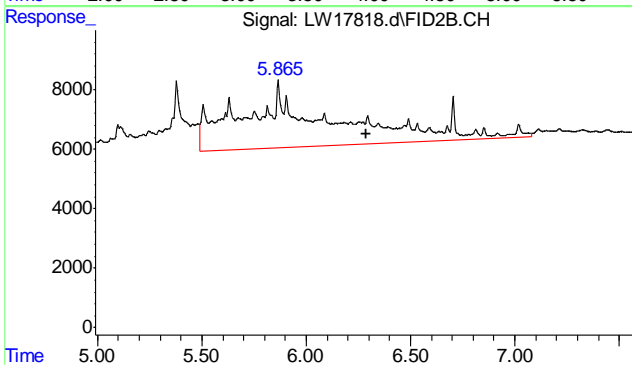
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 1052355
 Conc: 0.67 ppm



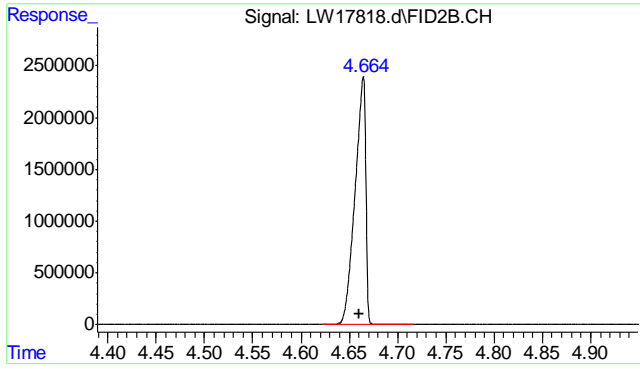
#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 256717
 Conc: 0.35 ppm



#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 656931
 Conc: 0.44 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 629849
 Conc: 0.48 ppm



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 18228912
Conc: 8.84 ppm

7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\10.23\102923\
 Data File : LW17835.d
 Signal(s) : FID2B.CH
 Acq On : 30-Oct-23, 20:21:33
 Operator :
 Sample : op24619-mb
 Misc : OP24619, GLW572, 55,,, 2, 1
 ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Oct 31 07:10:27 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.661	17600588	8.534 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.43%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	494417	0.316 ppm
2) H TPH-ORO (>C28-C40)	6.530	117245	0.159 ppm
3) H TPH-DRO (C10-C24)	3.960	384786	0.260 ppm
4) H TPH-ORO (>C24-C40)	6.290	223431	0.171 ppm

(f)=RT Delta > 1/2 Window

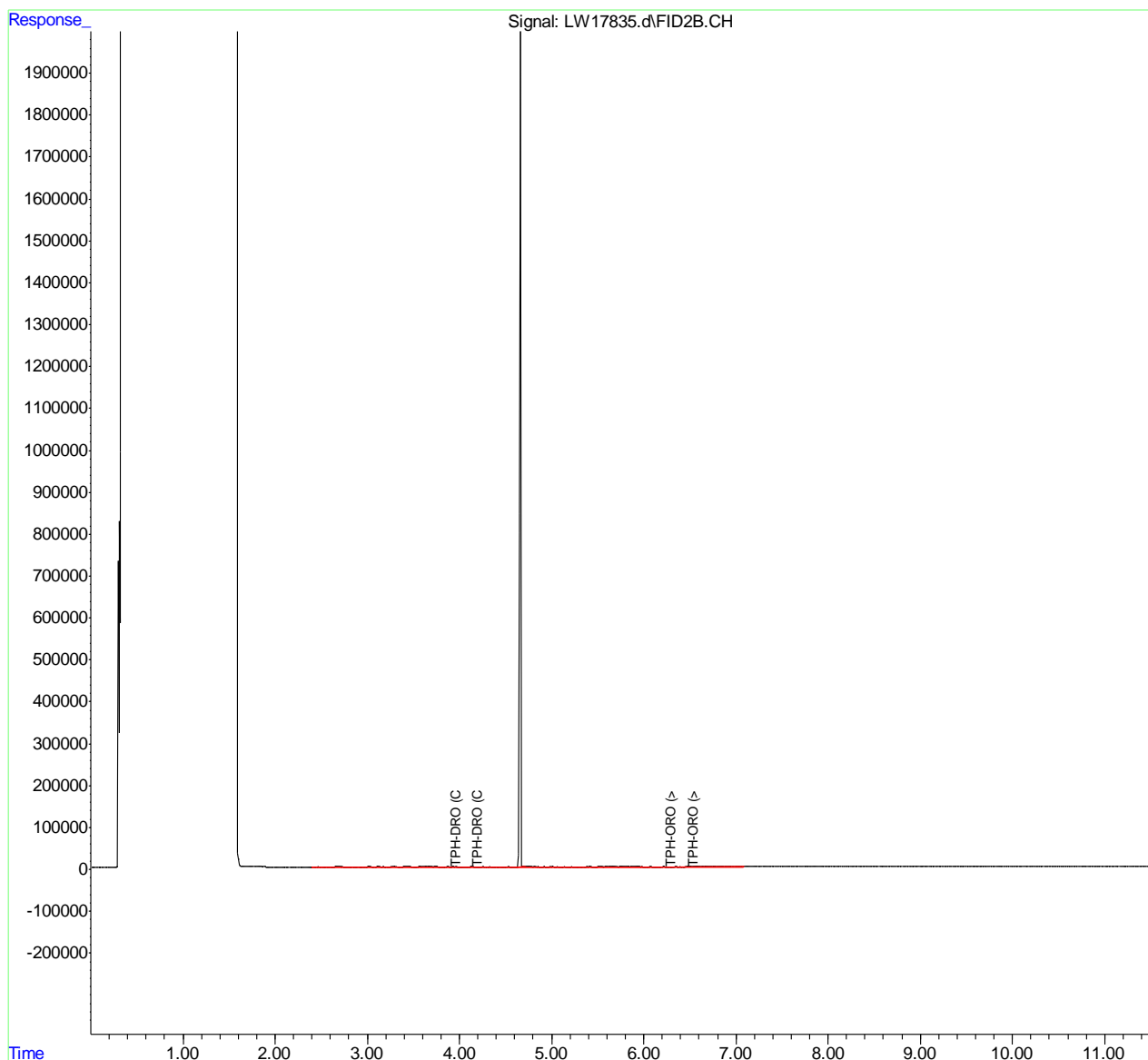
(m)=manual int.

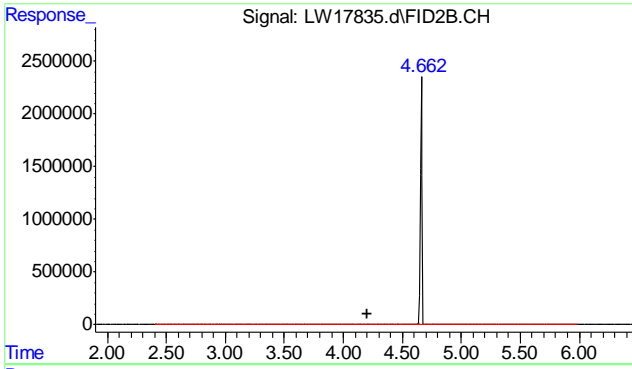
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\10.23\102923\
Data File : LW17835.d
Signal(s) : FID2B.CH
Acq On : 30-Oct-23, 20:21:33
Operator :
Sample : op24619-mb
Misc : OP24619, GLW572, 55, , , 2, 1
ALS Vial : 1 Sample Multiplier: 1

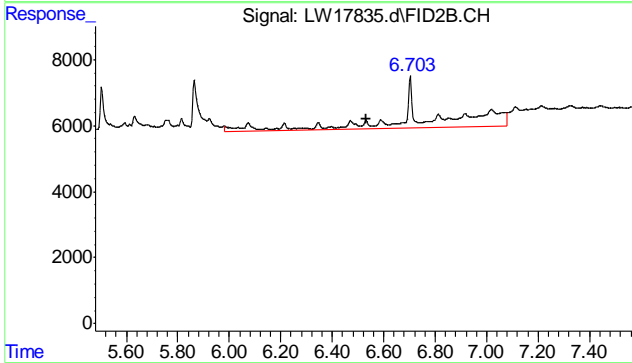
Integration File: autoint1.e
Quant Time: Oct 31 07:10:27 2023
Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
Quant Title : Diesel range organics by method 8015.
QLast Update : Wed Oct 25 17:40:58 2023
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 1 ul
Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
Signal Info : 15M , 0.25 mmID, 0.25 um df

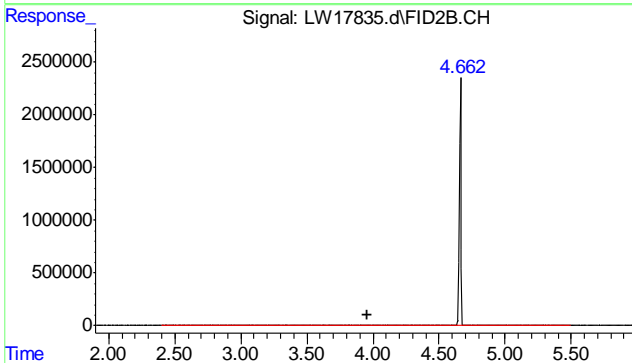




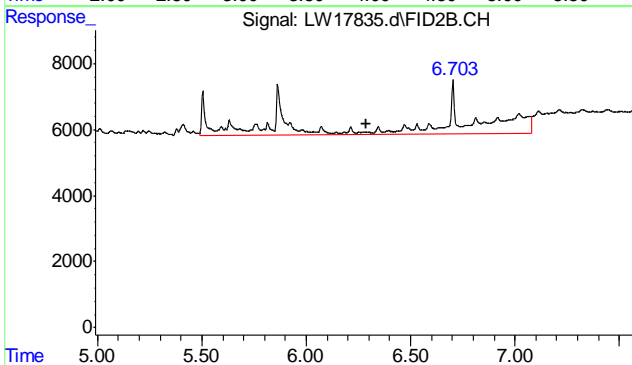
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 494417
 Conc: 0.32 ppm



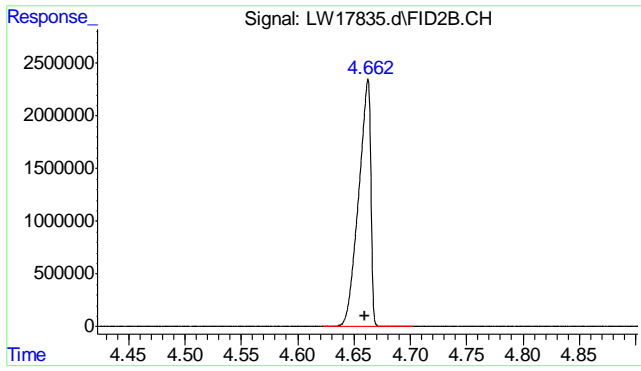
#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 117245
 Conc: 0.16 ppm



#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 384786
 Conc: 0.26 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 223431
 Conc: 0.17 ppm



#5 O-TERPHENYL

R.T.: 4.661 min
Delta R.T.: 0.000 min
Response: 17600588
Conc: 8.53 ppm

7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\10.23\102923\
 Data File : LW17852.d
 Signal(s) : FID2B.CH
 Acq On : 31-Oct-23, 15:08:40
 Operator :
 Sample : op24619-mb
 Misc : OP24619, GLW572, 55,,, 2, 1
 ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 01 03:44:57 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.664	18423628	8.933 ppm
Spiked Amount 2000.000	Range 10 - 130	Recovery =	0.45%#
Target Compounds			
1) H TPH-DRO (C10-C28)	4.200	1297238	0.830 ppm
2) H TPH-ORO (>C28-C40)	6.530	635744	0.862 ppm m
3) H TPH-DRO (C10-C24)	3.960	770315	0.520 ppm
4) H TPH-ORO (>C24-C40)	6.290	1053101	0.808 ppm m

(f)=RT Delta > 1/2 Window

(m)=manual int.

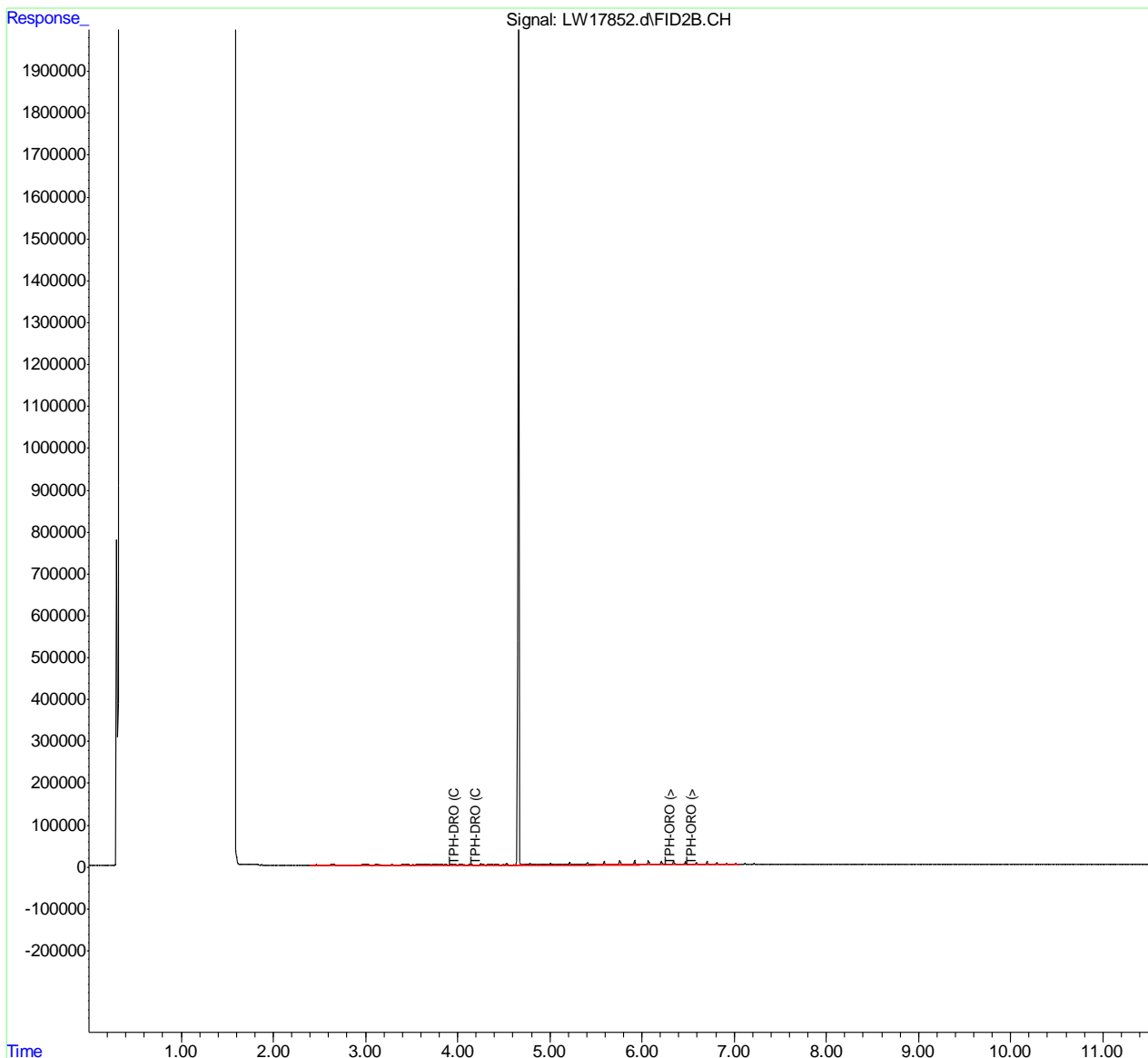
7.2.3
7

Quantitation Report (QT Reviewed)

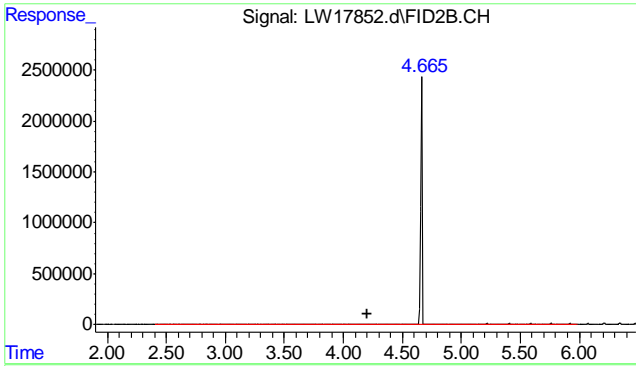
Data Path : C:\msdchem\1\data\2023\10.23\102923\
 Data File : LW17852.d
 Signal(s) : FID2B.CH
 Acq On : 31-Oct-23, 15:08:40
 Operator :
 Sample : op24619-mb
 Misc : OP24619, GLW572, 55, , , 2, 1
 ALS Vial : 1 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 01 03:44:57 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

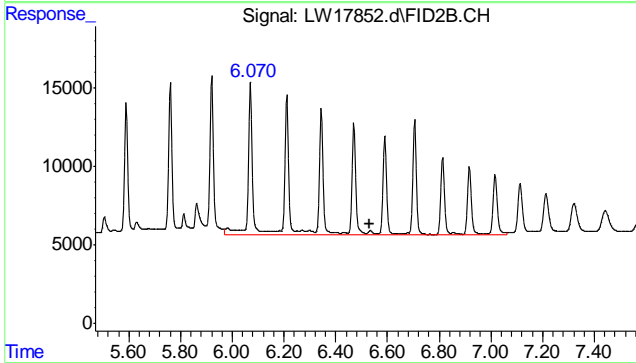
Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df



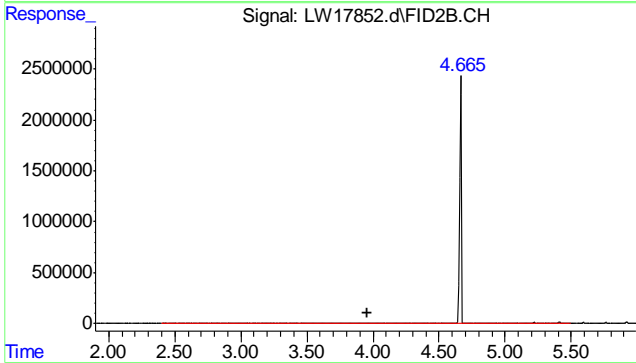
7.2.3
7



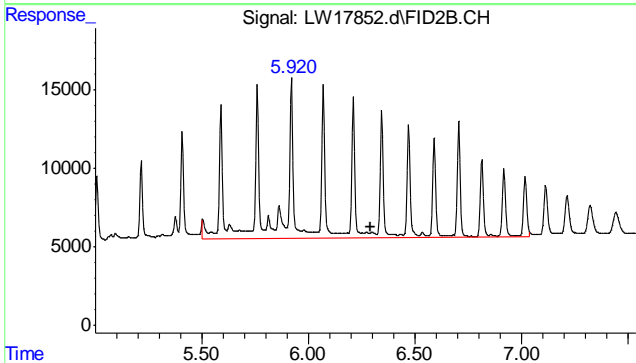
#1 TPH-DRO (C10-C28)
 R.T.: 4.200 min
 Delta R.T.: 0.000 min
 Response: 1297238
 Conc: 0.83 ppm



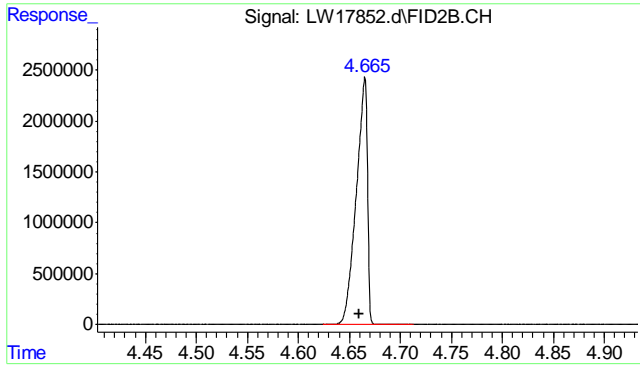
#2 TPH-ORO (>C28-C40)
 R.T.: 6.530 min
 Delta R.T.: 0.000 min
 Response: 635744
 Conc: 0.86 ppm m



#3 TPH-DRO (C10-C24)
 R.T.: 3.960 min
 Delta R.T.: 0.000 min
 Response: 770315
 Conc: 0.52 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 6.290 min
 Delta R.T.: 0.000 min
 Response: 1053101
 Conc: 0.81 ppm m



#5 O-TERPHENYL

R.T.: 4.664 min
Delta R.T.: 0.004 min
Response: 18423628
Conc: 8.93 ppm

7.2.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\2023\11.23\110123\
 Data File : LW17889.d
 Signal(s) : FID2B.CH
 Acq On : 01-Nov-23, 19:09:47
 Operator :
 Sample : op24660-mb
 Misc : OP24660, GLW573, 55,,, 2, 1
 ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 21 09:08:03 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
5) S O-TERPHENYL	4.663	18476578	8.959 ppm
Spiked Amount	10.000	Range 70 - 130	Recovery = 89.59%
Target Compounds			
1) H TPH-DRO (C10-C28)	4.160	461300	0.295 ppm
2) H TPH-ORO (>C28-C40)	6.510	111765	0.152 ppm
3) H TPH-DRO (C10-C24)	3.920	396675	0.268 ppm
4) H TPH-ORO (>C24-C40)	6.270	170881	0.131 ppm

(f)=RT Delta > 1/2 Window

(m)=manual int.

7.24

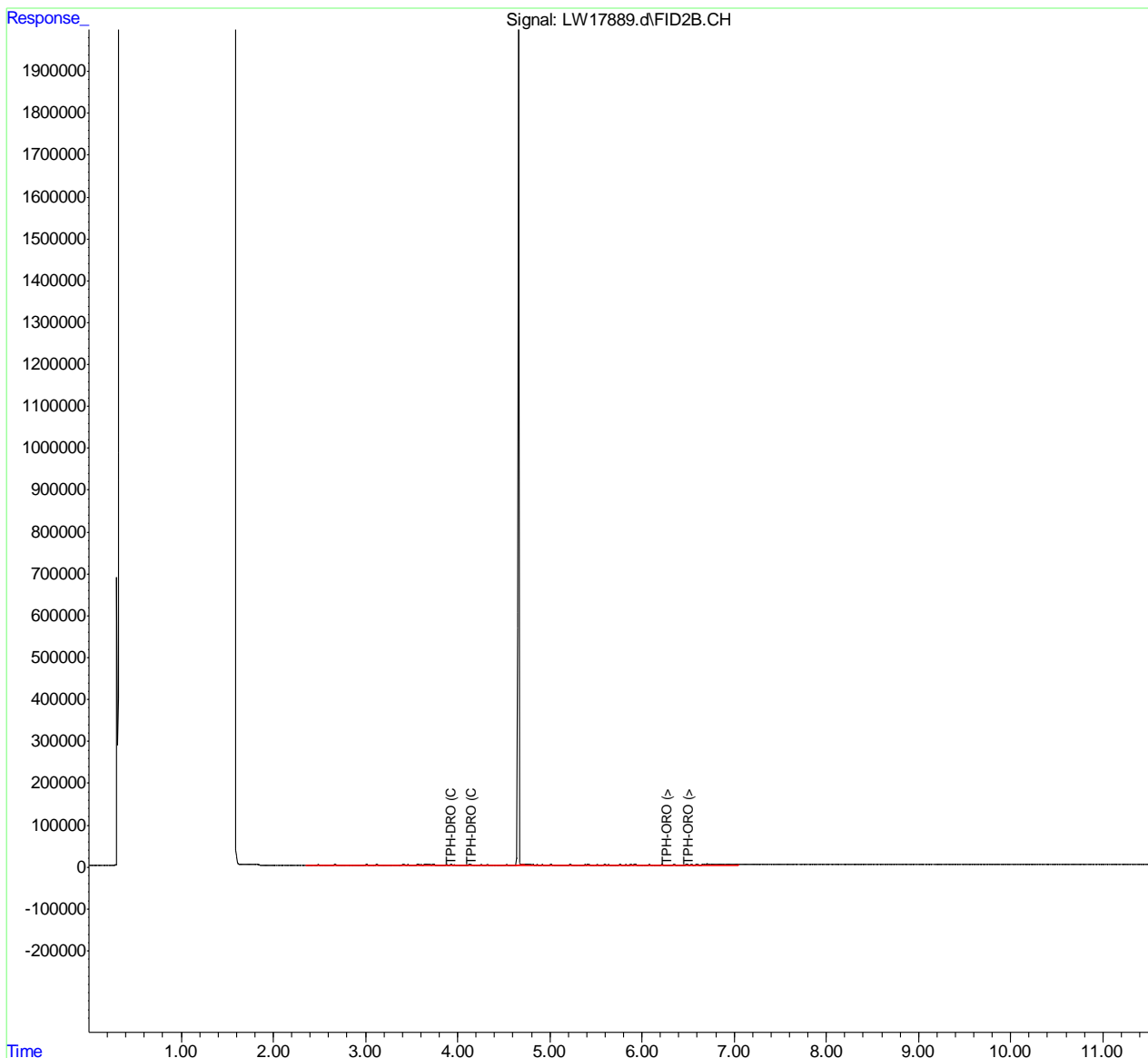
7

Quantitation Report (QT Reviewed)

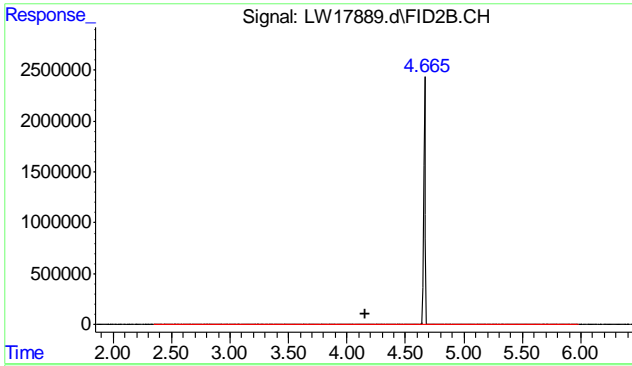
Data Path : C:\msdchem\1\data\2023\11.23\110123\
 Data File : LW17889.d
 Signal(s) : FID2B.CH
 Acq On : 01-Nov-23, 19:09:47
 Operator :
 Sample : op24660-mb
 Misc : OP24660, GLW573, 55,,, 2, 1
 ALS Vial : 12 Sample Multiplier: 1

Integration File: autoint1.e
 Quant Time: Nov 21 09:08:03 2023
 Quant Method : C:\msdchem\1\methods\DROLVI-102523.M
 Quant Title : Diesel range organics by method 8015.
 QLast Update : Wed Oct 25 17:40:58 2023
 Response via : Initial Calibration
 Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

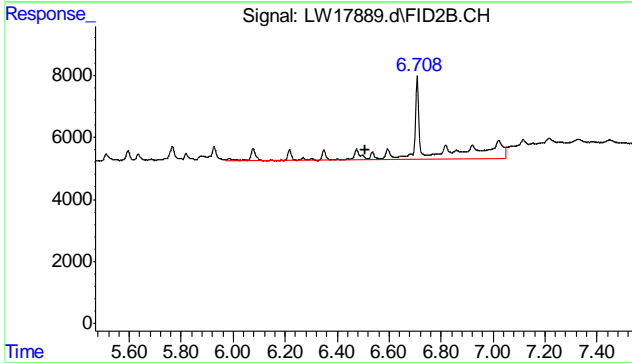
Volume Inj. : 1 ul
 Signal Phase : MXT-5 5% Diphenyl / 95% Dimethyl Polysiloxane
 Signal Info : 15M , 0.25 mmID, 0.25 um df



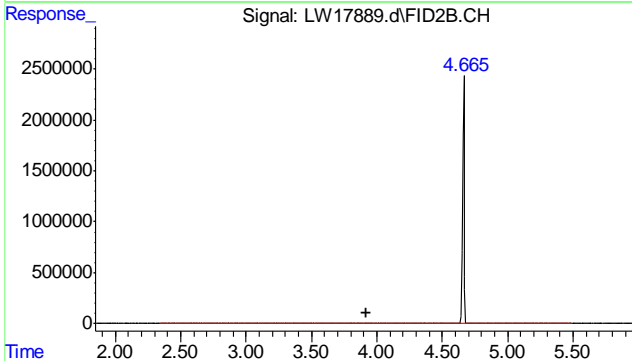
7.2.4
7



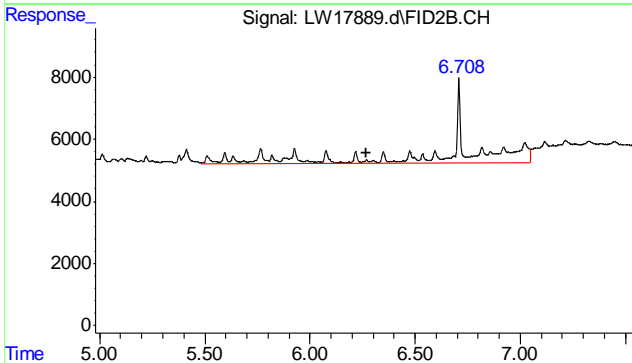
#1 TPH-DRO (C10-C28)
 R.T.: 4.160 min
 Delta R.T.: 0.000 min
 Response: 461300
 Conc: 0.30 ppm



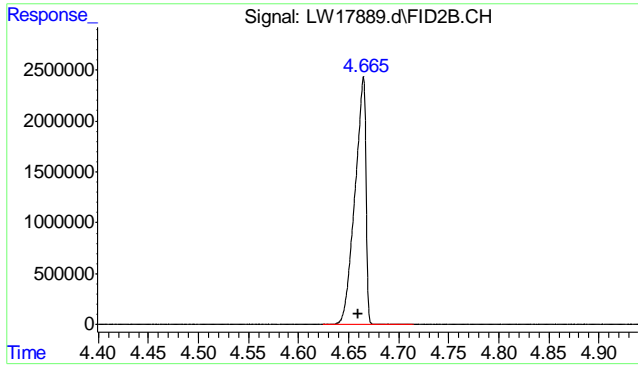
#2 TPH-ORO (>C28-C40)
 R.T.: 6.510 min
 Delta R.T.: 0.000 min
 Response: 111765
 Conc: 0.15 ppm



#3 TPH-DRO (C10-C24)
 R.T.: 3.920 min
 Delta R.T.: 0.000 min
 Response: 396675
 Conc: 0.27 ppm



#4 TPH-ORO (>C24-C40)
 R.T.: 6.270 min
 Delta R.T.: 0.000 min
 Response: 170881
 Conc: 0.13 ppm



#5 O-TERPHENYL

R.T.: 4.663 min
Delta R.T.: 0.003 min
Response: 18476578
Conc: 8.96 ppm

7.2.4

7

Slide 30

EDWM MEQ Matrix Spike Sample Results



Point #4 (Cont.) EDWM MEQ Matrix Spike Sample Results

Measure	Matrix Spike Sample Results (MEQ)
Number of Samples	85
Percent Recovery	67 - 166%
Average % Recovery	105.3%
Standard Deviation	17.9%
QSM Limits (DRO)	36 – 132%

A total of 85 Matrix Spike samples were collected, spiked with 80 ug/L JP-5, and analyzed for TPH via the MEQ method between 04 April 2024 and 28 June 2024. Matrix spike samples will be collected throughout EDWM.

Consistent, Excellent Spike Recoveries Indicate the EDWM TPH Are of Good Quality.

Low Level JP-5 Matrix Spikes
EDWM Quarter 1
April 1 - June 30, 2024

SDG	Client Sample ID	Lab Sample ID	Sample Type	Sampling Date	Test Method	Analysis Date	Preparation Method	Preparation Date	Analyte Name	Units	Amount Spiked (µg/L)	Amount Recovered (µg/L)	% Recovery
DA63487	D3-TW-0017507-24092-N-3	OP25463-MS	MS	4/4/2024	M8015D	4/5/2024	SW3511	4/5/2024	JP-5	UG/L	74	103	139
DA63520	A2-TW-0014310-24092-N-1	OP25465-MS	MS	4/5/2024	M8015D	4/6/2024	SW3511	4/6/2024	JP-5	UG/L	75	90.2	120
DA63554	F1-TW-0014170-24092-N-2	OP25477-MS	MS	4/8/2024	M8015D	4/10/2024	SW3511	4/10/2024	JP-5	UG/L	75	59.8	79
DA63635	F2-TW-0014145-24092-N-2	OP25491-MS	MS	4/11/2024	M8015D	4/12/2024	SW3511	4/12/2024	JP-5	UG/L	69	64.3	93
DA63636	MN-TW-0018347-24092-BWS	OP25492-MS	MS	4/11/2024	M8015D	4/13/2024	SW3511	4/12/2024	JP-5	UG/L	68	71.2	104
DA63665	C1-TW-0014730-24092-N	OP25499-MS	MS	4/12/2024	M8015D	4/15/2024	SW3511	4/14/2024	JP-5	UG/L	71	52.5	73
DA63683	D3-DL-0017730-24092-N	OP25519-MS	MS	4/15/2024	M8015D	4/18/2024	SW3511	4/18/2024	JP-5	UG/L	70	72.5	103
DA63687	D3-TW-0015186-24092-N-2	OP25510-MS	MS	4/15/2024	M8015D	4/17/2024	SW3511	4/16/2024	JP-5	UG/L	69	77.3	112
DA63712	C1-DL-0017789-24092-N	OP25515-MS	MS	4/16/2024	M8015D	4/18/2024	SW3511	4/17/2024	JP-5	UG/L	70	84.9	121
DA63716	H1-TW-0017689-24092-A-1	OP25516-MS	MS	4/16/2024	M8015D	4/18/2024	SW3511	4/17/2024	JP-5	UG/L	70	84.8	121
DA63720	C1-TW-0014739-24092-N	OP25522-MS	MS	4/16/2024	M8015D	4/18/2024	SW3511	4/18/2024	JP-5	UG/L	70	78.0	111
DA63753	H1-TW-0012384-24092-A	OP25527-MS	MS	4/17/2024	M8015D	4/19/2024	SW3511	4/18/2024	JP-5	UG/L	70	83.0	118
DA63754	MN-TW-0018302-24092-N	OP25528-MS	MS	4/17/2024	M8015D	4/20/2024	SW3511	4/18/2024	JP-5	UG/L	69	85.3	123
DA63793	MN-TW-0018324-24092-N	OP25529-MS	MS	4/18/2024	M8015D	4/20/2024	SW3511	4/19/2024	JP-5	UG/L	68	83.4	122
DA63794	MN-TW-0018264-24092-N	OP25539-MS	MS	4/18/2024	M8015D	4/22/2024	SW3511	4/20/2024	JP-5	UG/L	68	69.1	101
DA63835	D2-TW-0008268-24092-N	OP25540-MS	MS	4/19/2024	M8015D	4/22/2024	SW3511	4/22/2024	JP-5	UG/L	68	84.8	124
DA63836	D2-TW-0007393-24092-N	OP25541-MS	MS	4/19/2024	M8015D	4/22/2024	SW3511	4/22/2024	JP-5	UG/L	69	71.0	102
DA63856	D2-TW-0007585-24092-N	OP25551-MS	MS	4/22/2024	M8015D	4/24/2024	SW3511	4/23/2024	JP-5	UG/L	69	95.2	137
DA63857	D2-TW-0007893-24092-N	OP25552-MS	MS	4/22/2024	M8015D	4/23/2024	SW3511	4/23/2024	JP-5	UG/L	68	63.8	93
DA63884	D3-TW-0010600-24092-N	OP25558-MS	MS	4/23/2024	M8015D	4/24/2024	SW3511	4/24/2024	JP-5	UG/L	68	56.8	83
DA63886	D2-DL-0000574-24092-N	OP25559-MS	MS	4/23/2024	M8015D	4/25/2024	SW3511	4/24/2024	JP-5	UG/L	69	55.7	80
DA63909	H3-TW-0011936-24092-A	OP25566-MS	MS	4/24/2024	M8015D	4/27/2024	SW3511	4/25/2024	JP-5	UG/L	70	86.7	123
DA63912A	A3-TW-0016599-24092-N	OP25567-MS	MS	4/24/2024	M8015D	4/27/2024	SW3511	4/25/2024	JP-5	UG/L	69	96.1	139
DA63952	F2-DL-0017744-24092-3-N	OP25572-MS	MS	4/25/2024	M8015D	4/28/2024	SW3511	4/26/2024	JP-5	UG/L	68	51.2	75
DA63954	F2-TW-0009340-24092-N	OP25573-MS	MS	4/25/2024	M8015D	4/28/2024	SW3511	4/26/2024	JP-5	UG/L	72	73.7	102
DA63978	A1-TW-0001462-24092-N	OP25577-MS	MS	4/26/2024	M8015D	4/28/2024	SW3511	4/27/2024	JP-5	UG/L	69	66.9	96
DA63981	A2-DL-0017661-24092-N	OP25587-MS	MS	4/26/2024	M8015D	4/29/2024	SW3511	4/29/2024	JP-5	UG/L	72	78.3	108
DA64006	C2-DL-0017792-24092-N	OP25593-MS	MS	4/29/2024	M8015D	5/1/2024	SW3511	4/30/2024	JP-5	UG/L	69	64.3	93
DA64010	A3-TW-0016090-24092-N	OP25594-MS	MS	4/29/2024	M8015D	5/1/2024	SW3511	4/30/2024	JP-5	UG/L	70	66.1	94
DA64044	F2-TW-0009267-24092-N	OP25606-MS	MS	4/30/2024	M8015D	5/2/2024	SW3511	5/1/2024	JP-5	UG/L	69	70.0	101
DA64044	F2-TW-0010567-24092-N	OP25605-MS	MS	4/30/2024	M8015D	5/1/2024	SW3511	5/1/2024	JP-5	UG/L	69	62.1	90
DA64078	D3-TW-0015143-24122-N-2	OP25613-MS	MS	5/1/2024	M8015D	5/2/2024	SW3511	5/2/2024	JP-5	UG/L	70	67.3	96
DA64079A	D2-TW-0007007-24092-N-WQI	OP25614-MS	MS	5/1/2024	M8015D	5/3/2024	SW3511	5/2/2024	JP-5	UG/L	70	70.3	100
DA64117	D3-TW-0015133-24122-N-4	OP25617-MS	MS	5/2/2024	M8015D	5/4/2024	SW3511	5/3/2024	JP-5	UG/L	69	115	166
DA64119	H1-TW-0017689-24122-A-2	OP25618-MS	MS	5/2/2024	M8015D	5/4/2024	SW3511	5/3/2024	JP-5	UG/L	68	64.9	95
DA64160	F1-TW-0014170-24122-3-N-1	OP25639-MS	MS	5/3/2024	M8015D	5/7/2024	SW3511	5/6/2024	JP-5	UG/L	70	71.4	102
DA64185	D1-TW-0015098-24122-N-1	OP25655-MS	MS	5/6/2024	M8015D	5/8/2024	SW3511	5/8/2024	JP-5	UG/L	69	63.0	91
DA64191	D2-DL-0017714-24122-N	OP25656-MS	MS	5/6/2024	M8015D	5/9/2024	SW3511	5/8/2024	JP-5	UG/L	69	58.8	85
DA64210	D1-TW-0000857-24092-N	OP25663-MS	MS	5/7/2024	M8015D	5/9/2024	SW3511	5/9/2024	JP-5	UG/L	68	59.4	87
DA64211	D3-TW-0011360-24092-N	OP25664-MS	MS	5/7/2024	M8015D	5/10/2024	SW3511	5/9/2024	JP-5	UG/L	68	92.1	135
DA64250	D2-TW-0008196-24092-N	OP25665-MS	MS	5/8/2024	M8015D	5/10/2024	SW3511	5/9/2024	JP-5	UG/L	68	79.4	116
DA64254	D1-TW-0001060-24092-N	OP25671-MS	MS	5/8/2024	M8015D	5/10/2024	SW3511	5/10/2024	JP-5	UG/L	69	64.5	93
DA64295	I1-TW-0014071-24092-A	OP25672-MS	MS	5/9/2024	M8015D	5/11/2024	SW3511	5/10/2024	JP-5	UG/L	68	62.3	91
DA64318	A3-TW-0012485-24092-N	OP25675-MS	MS	5/10/2024	M8015D	5/12/2024	SW3511	5/11/2024	JP-5	UG/L	68	103	151
DA64318	A3-TW-0012580-24092-N	OP25676-MS	MS	5/10/2024	M8015D	5/12/2024	SW3511	5/11/2024	JP-5	UG/L	68	47.0	69

**Low Level JP-5 Matrix Spikes
EDWM Quarter 1
April 1 - June 30, 2024**

SDG	Client Sample ID	Lab Sample ID	Sample Type	Sampling Date	Test Method	Analysis Date	Preparation Method	Preparation Date	Analyte Name	Units	Amount Spiked (µg/L)	Amount Recovered (µg/L)	% Recovery
DA64332	A2-TW-0001980-24092-N	OP25683-MS	MS	5/13/2024	M8015D	5/14/2024	SW3511	5/14/2024	JP-5	UG/L	69	66.2	95
DA64333	A3-TW-0016607-24092-N	OP25684-MS	MS	5/13/2024	M8015D	5/15/2024	SW3511	5/14/2024	JP-5	UG/L	68	67.8	99
DA64363	A3-TW-0016425-24092-3-N	OP25695-MS	MS	5/14/2024	M8015D	5/16/2024	SW3511	5/16/2024	JP-5	UG/L	68	61.4	90
DA64366	A2-TW-0001843-24092-N	OP25696-MS	MS	5/14/2024	M8015D	5/17/2024	SW3511	5/16/2024	JP-5	UG/L	68	67.1	98
DA64401	A1-DL-0016024-24122-3-N	OP25697-MS	MS	5/15/2024	M8015D	5/17/2024	SW3511	5/16/2024	JP-5	UG/L	70	65.4	93
DA64427	J1-TW-0018344-24092-N	OP25698-MS	MS	5/16/2024	M8015D	5/18/2024	SW3511	5/17/2024	JP-5	UG/L	69	77.9	112
DA64429	J1-DL-0018350-24122-N	OP25699-MS	MS	5/16/2024	M8015D	5/17/2024	SW3511	5/17/2024	JP-5	UG/L	70	75.2	107
DA64453	F2-TW-0010772-24092-N	OP25717-MS	MS	5/17/2024	M8015D	5/20/2024	SW3511	5/20/2024	JP-5	UG/L	69	68.6	99
DA64453	F2-TW-0010869-24092-N	OP25716-MS	MS	5/17/2024	M8015D	5/20/2024	SW3511	5/20/2024	JP-5	UG/L	68	49.4	72
DA64467	F1-TW-0008892-24092-N	OP25724-MS	MS	5/20/2024	M8015D	5/21/2024	SW3511	5/21/2024	JP-5	UG/L	69	65.8	95
DA64493	F2-TW-0011600-24092-N	OP25735-MS	MS	5/21/2024	M8015D	5/22/2024	SW3511	5/22/2024	JP-5	UG/L	68	68.5	100
DA64495	F1-DL-0017722-24122-N	OP25736-MS	MS	5/21/2024	M8015D	5/23/2024	SW3511	5/22/2024	JP-5	UG/L	68	73.4	107
DA64530	H1-TW-0012964-24092-A	OP25745-MS	MS	5/22/2024	M8015D	5/24/2024	SW3511	5/23/2024	JP-5	UG/L	68	71.6	105
DA64530	H1-TW-0013346-24092-A	OP25744-MS	MS	5/22/2024	M8015D	5/23/2024	SW3511	5/23/2024	JP-5	UG/L	69	72.9	105
DA64559	H1-TW-0012402-24092-A	OP25751-MS	MS	5/23/2024	M8015D	5/24/2024	SW3511	5/24/2024	JP-5	UG/L	69	75.5	109
DA64561	H1-DL-0017754-24122-A	OP25752-MS	MS	5/23/2024	M8015D	5/24/2024	SW3511	5/24/2024	JP-5	UG/L	68	68.1	100
DA64578	H3-TW-0011937-24092-A	OP25757-MS	MS	5/24/2024	M8015D	5/25/2024	SW3511	5/25/2024	JP-5	UG/L	69	69.0	100
DA64578	H3-TW-0013898-24092-A	OP25764-MS	MS	5/24/2024	M8015D	5/28/2024	SW3511	5/28/2024	JP-5	UG/L	68	84.2	123
DA64599	D2-TW-0007625-24092-N	OP25769-MS	MS	5/28/2024	M8015D	5/29/2024	SW3511	5/29/2024	JP-5	UG/L	67	74.4	111
DA64688	F2-TW-0010396-24092-N	OP25789-MS	MS	5/31/2024	M8015D	6/1/2024	SW3511	6/1/2024	JP-5	UG/L	68	72.3	106
DA64711	F2-TW-0010449-24153-N	OP25802-MS	MS	6/3/2024	M8015D	6/6/2024	SW3511	6/4/2024	JP-5	UG/L	68	70.2	103
DA64738	F1-TW-0015332-24153-N-1	OP25816-MS	MS	6/4/2024	M8015D	6/7/2024	SW3511	6/5/2024	JP-5	UG/L	69	83.0	120
DA64740	SHAFT-HW-0017916-24153-N	OP25817-MS	MS	6/3/2024	M8015D	6/7/2024	SW3511	6/5/2024	JP-5	UG/L	68	79.8	117
DA64778	I1-TW-0011966-24153-A-2	OP25824-MS	MS	6/5/2024	M8015D	6/7/2024	SW3511	6/6/2024	JP-5	UG/L	68	75.8	111
DA64780	F2-TW-0014145-24153-N-1	OP25825-MS	MS	6/5/2024	M8015D	6/7/2024	SW3511	6/6/2024	JP-5	UG/L	68	64.5	94
DA64862	D1-TW-0001019-24092-N	OP25837-MS	MS	6/7/2024	M8015D	6/8/2024	SW3511	6/8/2024	JP-5	UG/L	69	79.5	115
DA64881	E1-TW-0015290-24153-N-2	OP25845-MS	MS	6/10/2024	M8015D	6/11/2024	SW3511	6/11/2024	JP-5	UG/L	68	46.0	67
DA64882	D1-TW-0000872-24092-N	OP25844-MS	MS	6/10/2024	M8015D	6/11/2024	SW3511	6/11/2024	JP-5	UG/L	68	52.8	77
DA64912	D2-TW-0008279-24092-N	OP25853-MS	MS	6/11/2024	M8015D	6/13/2024	SW3511	6/12/2024	JP-5	UG/L	68	76.7	112
DA64981	H1-TW-0012375-24092-A	OP25873-MS	MS	6/13/2024	M8015D	6/15/2024	SW3511	6/15/2024	JP-5	UG/L	70	77.9	111
DA64981	H1-TW-0012953-24092-A	OP25874-MS	MS	6/13/2024	M8015D	6/16/2024	SW3511	6/15/2024	JP-5	UG/L	69	66.9	96
DA65022	F2-TW-0011704-24092-N	OP25883-MS	MS	6/14/2024	M8015D	6/17/2024	SW3511	6/17/2024	JP-5	UG/L	69	90.7	131
DA65080	F2-DL-0017746-24153-N	OP25898-MS	MS	6/18/2024	M8015D	6/20/2024	SW3511	6/19/2024	JP-5	UG/L	67	81.1	121
DA65102	J1-TW-0018221-24092-N	OP25906-MS	MS	6/19/2024	M8015D	6/20/2024	SW3511	6/20/2024	JP-5	UG/L	68	72.5	106
DA65148	A2-DL-0017662-24153-3-N	OP25913-MS	MS	6/20/2024	M8015D	6/22/2024	SW3511	6/21/2024	JP-5	UG/L	69	72.0	104
DA65148	A2-DL-0017662-24153-N	OP25912-MS	MS	6/20/2024	M8015D	6/21/2024	SW3511	6/21/2024	JP-5	UG/L	69	76.8	111
DA65169	A3-TW-0016303-24092-N	OP25918-MS	MS	6/21/2024	M8015D	6/22/2024	SW3511	6/22/2024	JP-5	UG/L	68	74.4	109
DA65182	A3-TW-0016771-24092-N	OP25928-MS	MS	6/24/2024	M8015D	6/25/2024	SW3511	6/25/2024	JP-5	UG/L	69	77.4	112
DA65269	A3-TW-0017013-24092-N-WQI	OP25942-MS	MS	6/26/2024	M8015D	6/28/2024	SW3511	6/27/2024	JP-5	UG/L	69	87.6	126
DA65346	H1-TW-0017687-24153-A-1	OP25972-MS	MS	6/28/2024	M8015D	7/2/2024	SW3511	7/2/2024	JP-5	UG/L	68	84.9	124