received 07/31/2016
Complaint 200439757

Total Extractable Petroleum Hydrocarbons (Diesel)

Case Narrative

COGCC

Complaint 200439757

Work Order Number: 1607366

1. This report consists of 1 water sample. The sample was received intact at 5°C or 7.2°C by ALS on 07/20/16.

2. The water sample was extracted by adding hexane to the water sample and shaking the resulting two phase solution according to the current revision of SOP 603, which was developed at ALS. The hydrocarbons partition into the hexane layer, which is then removed for analysis.

3. The sample was analyzed following the current revision of SOP 406 generally based on SW-846 Methods 8000C and 8015D. TEPH is a multicomponent mixture and is quantitated by summing the entire carbon range, rather than individual peaks. The carbon range integrated for dro extends from C_{10} to C_{21} and motor oil extends from C_{21}-C_{32}.

4. All initial and continuing calibration criteria were met.

5. The method blank associated with this project was below the MDL for all analytes.

6. All laboratory control sample and laboratory control sample duplicate recoveries and RPD were within the acceptance criteria.

7. A matrix spike and matrix spike duplicate were not performed because of insufficient sample. A laboratory control sample and laboratory control sample duplicate were performed instead.

8. The sample was extracted and analyzed within the established holding time.

9. All surrogate recoveries were within acceptance criteria.

10. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in the current revision of SOP 939.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Emily Knodel — 7/26/16
Organics Primary Data Reviewer — Date

Organics Final Data Reviewer — 7/30/16
Date

ALS
Data Qualifier Flags
Organics

U or ND:	**This flag indicates that the compound was analyzed for but not detected.**
J:	**This flag indicates an estimated value. This flag is used as follows : (1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the reporting limit (RL) but greater than the method detection limit (MDL); (3) when the retention time data indicate the presence of a compound that meets the GC identification criteria, and the result is less than the RL but greater than the MDL; and (4) the reported value is estimated.**
B:	**This flag is used when the analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user. This flag shall be used for a tentatively identified compound (TIC) as well as for a positively identified target compound.**
E:	**This flag identifies compounds whose concentration exceeds the upper level of the calibration range.**
A:	**This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.**
X:	**This flag indicates that the analyte was diluted below an accurate quantitation level.**
***:**	**This flag indicates that a spike recovery is equal to or outside the control criteria used.**
+:	**This flag indicates that the relative percent difference (RPD) equals or exceeds the control criteria.**

ALS
Data Qualifier Flags
Fuels

G: **This flag indicates that a pattern resembling gasoline was detected in this sample.**

D: **This flag indicates that a pattern resembling diesel was detected in this sample.**

M: **This flag indicates that a pattern resembling motor oil was detected in this sample.**

C: **This flag indicates that a pattern resembling crude oil was detected in this sample.**

4: **This flag indicates that a pattern resembling JP-4 was detected in this sample.**

5: **This flag indicates that a pattern resembling JP-5 was detected in this sample.**

H: **This flag indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest.**

L: **This flag indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest.**

Z: **This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:**
gasoline
JP-8
diesel
mineral spirits
motor oil
Stoddard solvent
bunker C

Multiple flags may be used to indicate the presence of more than one product or component.

ALS -- Fort Collins

Sample Number(s) Cross-Reference Table

OrderNum: 1607366
Client Name: COGCC
Client Project Name: Complaint 200439757
Client Project Number:
Client PO Number: CT 2016-141

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
754977 Platteville Lat.	1607366-1		WATER	20-Jul-16	8:08
754980 Platteville Lat.	1607366-2		WATER	20-Jul-16	8:30
753452 WW	1607366-3		WATER	20-Jul-16	9:45
754914 Sump	1607366-4		WATER	20-Jul-16	9:21

ALS Environmental

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Turnaround time for samples received after 2 p.m. will be calculated beginning from the next business day.

Turnaround time for samples received Saturday will be calculated beginning from the next business day.

ALS WORKORDER #: 1607366

PAGE: 1 of 1

DISPOSAL: BY LAB or RETURN

PROJECT NAME	Conplaint 200439757	TURNAROUND TIME	14 days
PROJECT No.		SITE ID	
		EDD FORMAT	COGCC
COMPANY NAME	Cdpo. Oil & Gas Cons Comm	PURCHASE ORDER	
SEND REPORT TO	Peter Gintautas	BILL TO COMPANY	
ADDRESS	1120 Lincoln St # 801	INVOICE ATTN TO	
CITY / STATE / ZIP	Denver CO 80203	ADDRESS	
PHONE	719 679 1326	CITY / STATE / ZIP	
FAX		PHONE	
E-MAIL	peter.gintautas@state.co.us	FAX	
		E-MAIL	
		SAMPLER	PAG

PARAMETER/METHOD REQUEST FOR ANALYSIS

A	Anions = Br, Cl, F, NO_2, NO_3, SO_4, POx
B	200.7 dissolved, SAR calc
C	200.8 dissolved
D	pH, specific cond, TDS, Alkalinity
E	E300 + STM pH
F	E260 + GRO
G	DRO + Meter Cl
H	TOC
I	
J	

LAB ID	FIELD ID	MATRIX	SAMPLE DATE	SAMPLE TIME	# OF BOTTLES	PRESERVATIVE	QC	A	B	C	D	E	F	G	H	I	J	SEE NOTES SECTION
1	754977 Platteville Lat.	W	07/20/2016	08:04	3	none/H_2SO_4		X	X	X	X				X			
2	754980 Platteville Lat 754	W	07/20/2016	08:30	3	none/H_2SO_4		X	X	X	X				X			
3	753452 WW	W	07/20/16	09:45	3	HCl							X					
	753452 WW	W	07/20/16	09:45	2	—						X		X				
	753452 WW	W	07/20/16	09:45	3	—		X	X	X	X							
↓	753452 WW	W	07/20/16	09:45	1	H_2SO_4									X			
4	754914 Sump	W	07/20	09:21	2	—		X	X	X	X							
	754914 Sump	W	07/20	09:21	1	H_2SO_4									X			
↓	754914 Sump	W	07/20	09:21	1	—						X						

*Time Zone (Circle): EST CST (MST) PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

NOTES

dissolved metals = filter + preserve at lab 200.8-COGCC 16, 200.8 Na 754914 max contain Hydrocarbons 200.7 COGCC 11 Be 200.7 COGCC

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REPORT LEVEL / QC REQUIRED	
X	Summary (Standard QC)
	LEVEL II (Standard QC)
	LEVEL III (Std QC + forms)
	LEVEL IV (Std QC + forms + raw)

PRESERVATION KEY 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaOH/ZnAcetate 6-NaHSO4 7-4°C 8-Other

Form 202r9

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY		Peter Gintautas	7/20/16	14:35
RECEIVED BY		Rebecca Merola	7/20/16	1435
RELINQUISHED BY				1425
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: COGCC Workorder No: 1607366

Project Manager: ARW Initials: SDM Date: 7-20-16

1. Does this project require any special handling in addition to standard ALS procedures?		YES	(NO)
2. Are custody seals on shipping containers intact?	(NONE)	YES	NO
3. Are Custody seals on sample containers intact?	(NONE)	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		(YES)	NO
5. Are the COC and bottle labels complete and legible?		(YES)	NO
* 6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		YES	(NO)
7. Were airbills / shipping documents present and/or removable?	(DROP OFF)	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	(YES)	NO
9. Are all aqueous non-preserved samples pH 4-9?	N/A	(YES)	NO
10. Is there sufficient sample for the requested analyses?		(YES)	NO
11. Were all samples placed in the proper containers for the requested analyses?		(YES)	NO
12. Are all samples within holding times for the requested analyses?		(YES)	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		(YES)	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ____ < green pea ____ > green pea	N/A	YES	(NO)
15. Do any water samples contain sediment? Amount Amount of sediment: ____ dusting ____ moderate ____ heavy	N/A	YES	(NO)
16. Were the samples shipped on ice?		(YES)	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: #2 (#4)	RAD ONLY	YES	(NO)

Cooler #:	1	2						
Temperature (°C):	5.0	7.2						
No. of custody seals on cooler:	0	0						
DOT Survey/ Acceptance Information — External µR/hr reading:	N/A	N/A						
Background µR/hr reading:	11							

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO (NA) (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

* Cooler 2 out of temp. Samples received same day as receipt.

* Sample 4 bottles 1 through 4 have a light layer of oil off top of sample water.

6.) Sample 3 is missing the 250mL amber for TOC analysis. Sample 3 the bottle for wet chem → the COC says 3 ~~Sample~~ bottles only 1 received for the sample.

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: _____

*IR Gun #2: Oakton, SN 29922500201-0066
*IR Gun #4: Oakton, SN 2372220101-0002

Form 201r24.xls (06/04/2012)

Diesel Range Organics

Method SW8015M_MOD

Method Blank

Lab Name: ALS -- Fort Collins
Work Order Number: 1607366
Client Name: COGCC
ClientProject ID: Complaint 200439757

Lab ID: HC160721-100MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 21-Jul-16
Date Analyzed: 21-Jul-16

Prep Batch: HC160721-100
QCBatchID: HC160721-100-2
Run ID: HC160721-8A
Cleanup: NONE
Basis: N/A
File Name: 02714.dat

Sample Aliquot: 38.2 ml
Final Volume: 1 ml
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
68334-30-5	DIESEL RANGE ORGANICS	1	0.47	0.47	0.14	U	
	MOTOR OIL RANGE ORGANICS	1	0.47	0.47	0.14	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
84-15-1	O-TERPHENYL	0.622		0.654	95	63 - 126

Data Package ID: *DRO1607366-1*

Diesel Range Organics

Method SW8015M_MOD

Sample Results

Lab Name: ALS -- Fort Collins
Work Order Number: 1607366
Client Name: COGCC
ClientProject ID: Complaint 200439757

Field ID: 753452 WW
Lab ID: 1607366-3

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 20-Jul-16
Date Extracted: 21-Jul-16
Date Analyzed: 21-Jul-16
Prep Method: METHOD

Prep Batch: HC160721-100
QCBatchID: HC160721-100-2
Run ID: HC160721-8A
Cleanup: NONE
Basis: As Received
File Name: 02715.dat

Analyst: Joel F. Nolte
Sample Aliquot: 37.2 ml
Final Volume: 1 ml
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	RptLimit/ LOQ/LOD	MDL/DL	Result Qualifier	EPA Qualifier
68334-30-5	DIESEL RANGE ORGANICS	1	0.48	0.48	0.15	U	
	MOTOR OIL RANGE ORGANICS	1	0.23	0.48	0.15	J	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
84-15-1	O-TERPHENYL	0.66		0.672	98	63 - 126

Data Package ID: *DRO1607366-1*

Diesel Range Organics

Method SW8015M_MOD

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS -- Fort Collins
Work Order Number: 1607366
Client Name: COGCC
ClientProject ID: Complaint 200439757

Lab ID: HC160721-100LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 07/21/2016
Date Analyzed: 07/21/2016
Prep Method: METHOD

Prep Batch: HC160721-100
QCBatchID: HC160721-100-2
Run ID: HC160721-8A
Cleanup: NONE
Basis: N/A
File Name: 02718.dat

Sample Aliquot: 37.8 ml
Final Volume: 1 ml
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
68334-30-5	DIESEL RANGE ORGANICS	13.2	11.7	0.476		88	36 - 150%

Lab ID: HC160721-100LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 07/21/2016
Date Analyzed: 07/21/2016
Prep Method: METHOD

Prep Batch: HC160721-100
QCBatchID: HC160721-100-2
Run ID: HC160721-8A
Cleanup: NONE
Basis: N/A
File Name: 02719.dat

Sample Aliquot: 37.8 ml
Final Volume: 1 ml
Result Units: MG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
68334-30-5	DIESEL RANGE ORGANICS	13.2	11.9	0.476		90	20	2

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
84-15-1	O-TERPHENYL	0.661	95		96		63 - 126

Data Package ID: *DRO1607366-1*

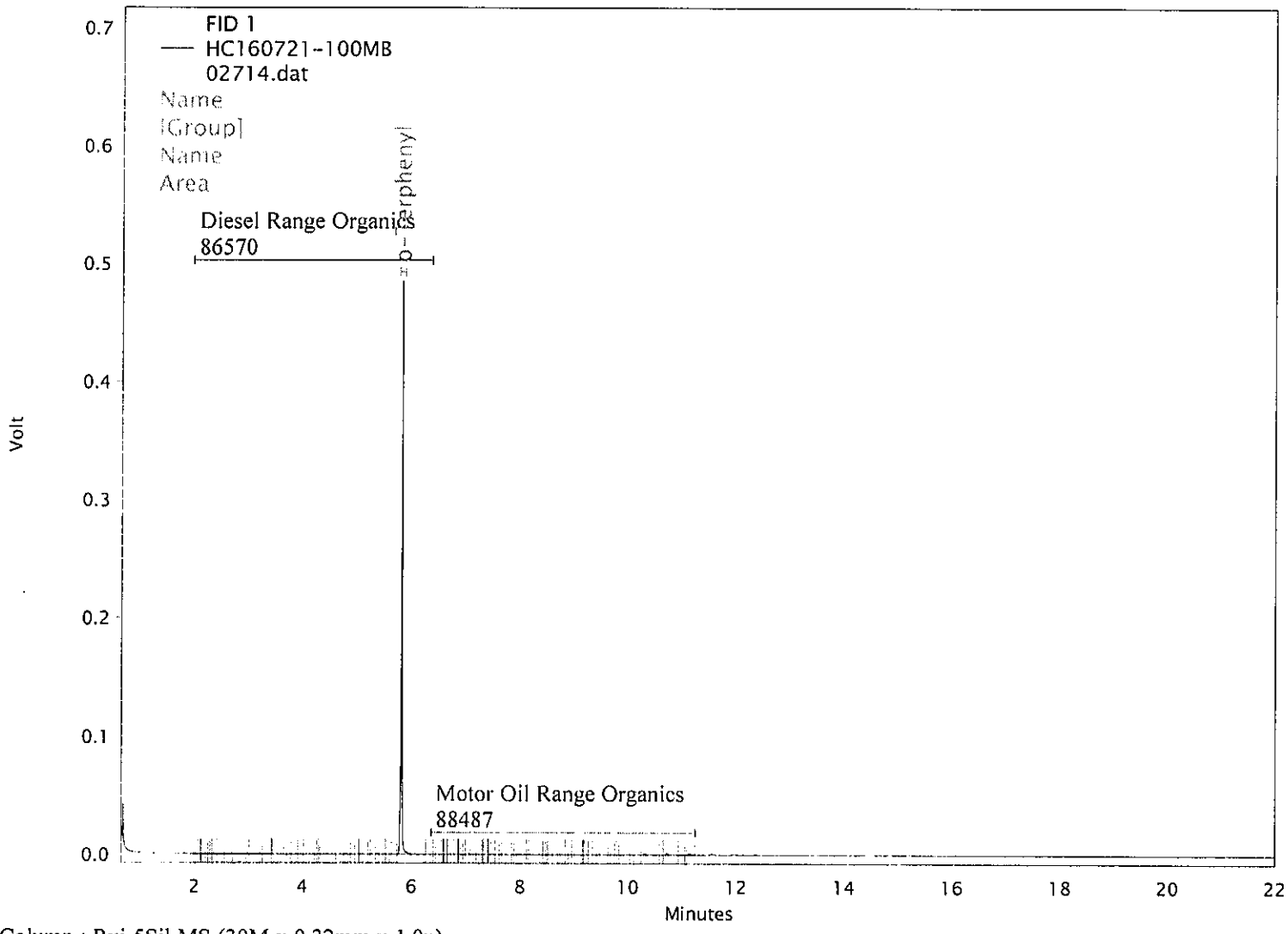
Total Extractable Petroleum Hydrocarbons / DRO (8015) Quantitation Report

ALSLG-Fort Collins

Sample : HC160721-100MB
Filename : \\gcserver\gcdata\Projects\GC8\Data\2016\dromo160721\02714.dat
Acquisition Date : 7/21/2016 1:24:45 PM
Instrument : GC8
Quantitation Date : 7/22/2016 9:08:15 AM
Data Acquired By : noltej
Last Method Update : 7/22/2016 9:05:31 AM
Data Processed By : noltej
Method : \\gcserver\gcdata\Projects\GC8\Method\2016\dromo160715b.met
Inj. Vol. (uL) : 2
Sequence : \\gcserver\gcdata\Projects\GC8\Sequence\2016\dromo160721.seq
Vial : 2
Data Description : water

FID 1 Results

Compound Name	RT	Expected RT	Peak Area	Integration Codes		Conc.	Conc. Units
o-Terphenyl	5.81	5.81	595647	LL	95%	23.754	ug/mL
Diesel Range Organics			86570			1.798 2 mL	ug/mL
Motor Oil Range Organics			88487			4.353	ug/mL



Column : Rxi-5Sil MS (30M x 0.32mm x 1.0u)

(1st int. code is for peak start, 2nd int code is for peak stop) B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

Printed On : 7/22/2016 9:08:16 AM

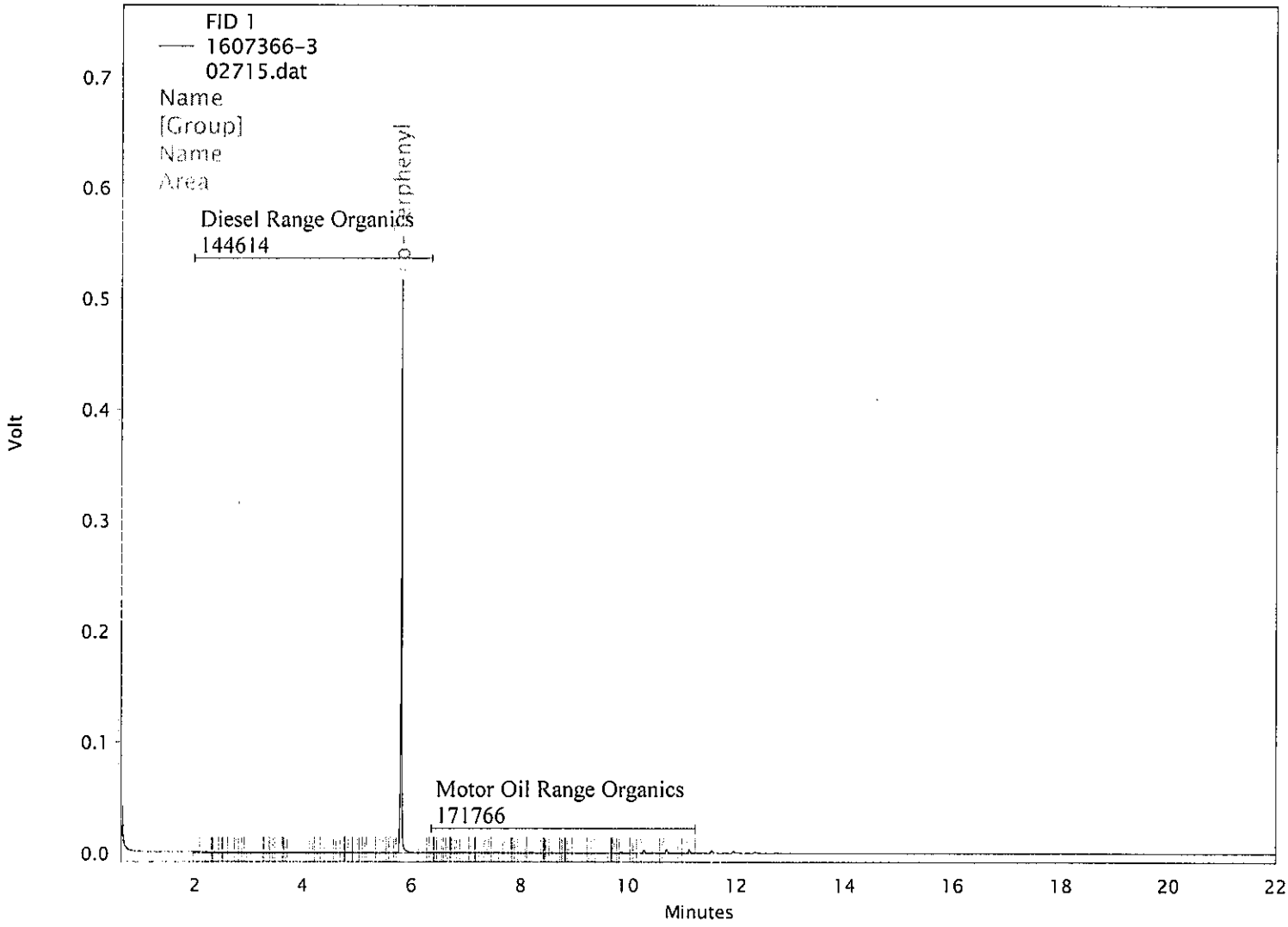
Total Extractable Petroleum Hydrocarbons / DRO (8015) Quantitation Report

ALSLG-Fort Collins

Sample : 1607366-3
Filename : \\gcserver\gcdata\Projects\GC8\Data\2016\dromo160721\02715.dat
Acquisition Date : 7/21/2016 1:58:27 PM — Instrument : GC8
Quantitation Date : 7/22/2016 9:08:19 AM — Data Acquired By : noltej
Last Method Update : 7/22/2016 9:05:31 AM — Data Processed By : noltej
Method : \\gcserver\gcdata\Projects\GC8\Method\2016\dromo160715b.met — Inj. Vol. (uL) : 2
Sequence : \\gcserver\gcdata\Projects\GC8\Sequence\2016\dromo160721.seq — Vial : 3
Data Description : water

FID 1 Results

Compound Name	RT	Expected RT	Peak Area	Integration Codes		Conc.	Conc. Units
o-Terphenyl	5.81	5.81	615088	LL	98%	24.551	ug/mL
Diesel Range Organics			144614			~~4.307~~ 4.307 LMBL	ug/mL
Motor Oil Range Organics			171766			8.482 J	ug/mL



Column : Rxi-5Sil MS (30M x 0.32mm x 1.0u)

(1st int. code is for peak start, 2nd int code is for peak stop) B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

Printed On : 7/22/2016 9:08:20 AM

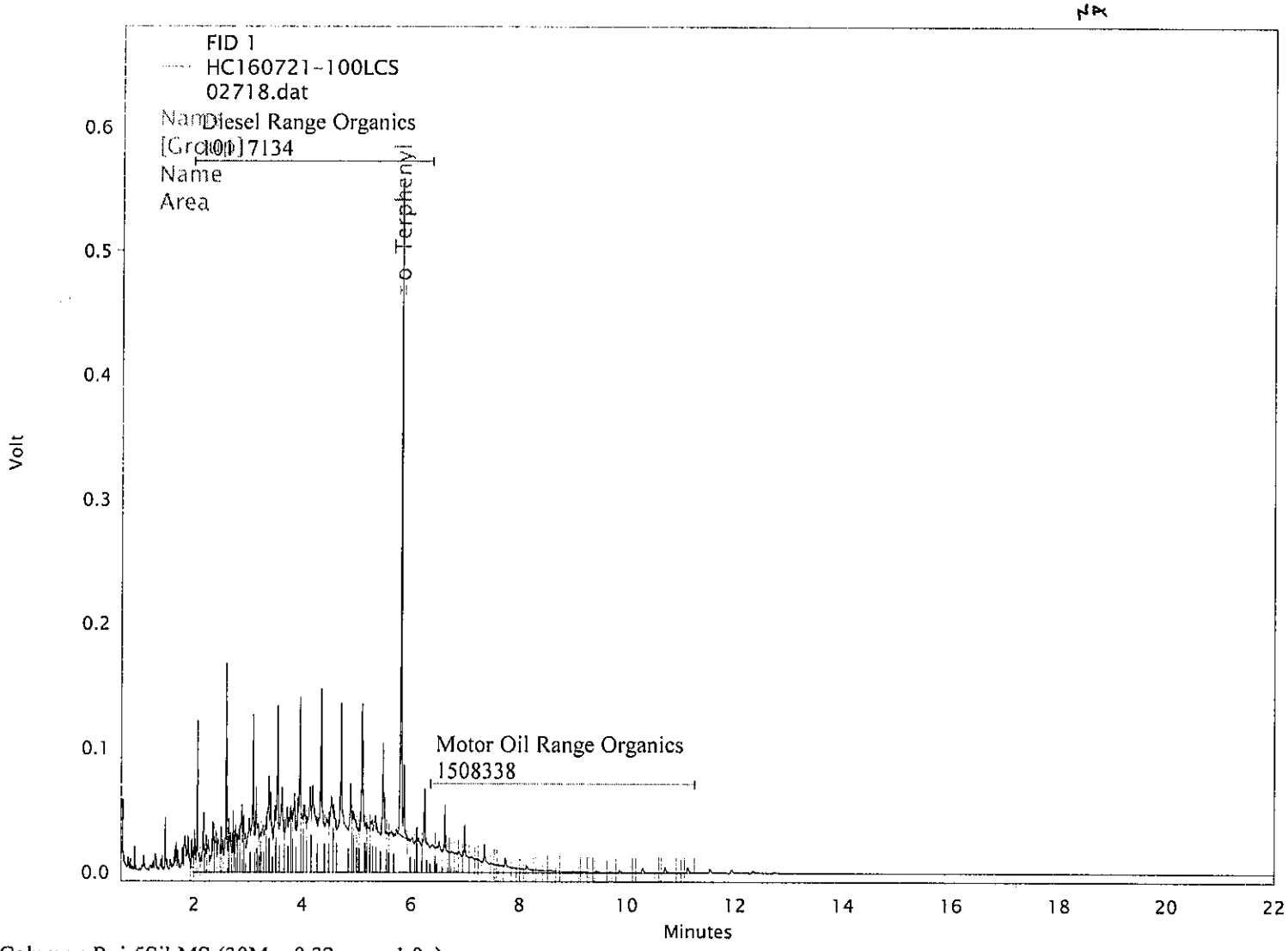
Total Extractable Petroleum Hydrocarbons / DRO (8015) Quantitation Report

ALSLG-Fort Collins

Sample : HC160721-100LCS
Filename : \\gcserver\gcdata\Projects\GC8\Data\2016\dromo160721\02718.dat
Acquisition Date : 7/21/2016 3:38:58 PM — Instrument : GC8
Quantitation Date : 7/22/2016 9:08:30 AM — Data Acquired By : noltej
Last Method Update : 7/22/2016 9:05:31 AM — Data Processed By : noltej
Method : \\gcserver\gcdata\Projects\GC8\Method\2016\dromo160715b.met — Inj. Vol. (uL) : 2
Sequence : \\gcserver\gcdata\Projects\GC8\Sequence\2016\dromo160721.seq — Vial : 6
Data Description : water, 500ppm

FID 1 Results

Compound Name	RT	Expected RT	Peak Area	Integration Codes		Conc.	Conc. Units
o-Terphenyl	5.81	5.81	598203	LL	95%	23.859	ug/mL
Diesel Range Organics			10117134		88%	442.390	ug/mL
Motor Oil Range Organics			1508338			~~74.944~~ NA	ug/mL



Column : Rxi-5Sil MS (30M x 0.32mm x 1.0u)

(1st int. code is for peak start, 2nd int code is for peak stop) B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

Printed On : 7/22/2016 9:08:31 AM

Total Extractable Petroleum Hydrocarbons / DRO (8015) Quantitation Report

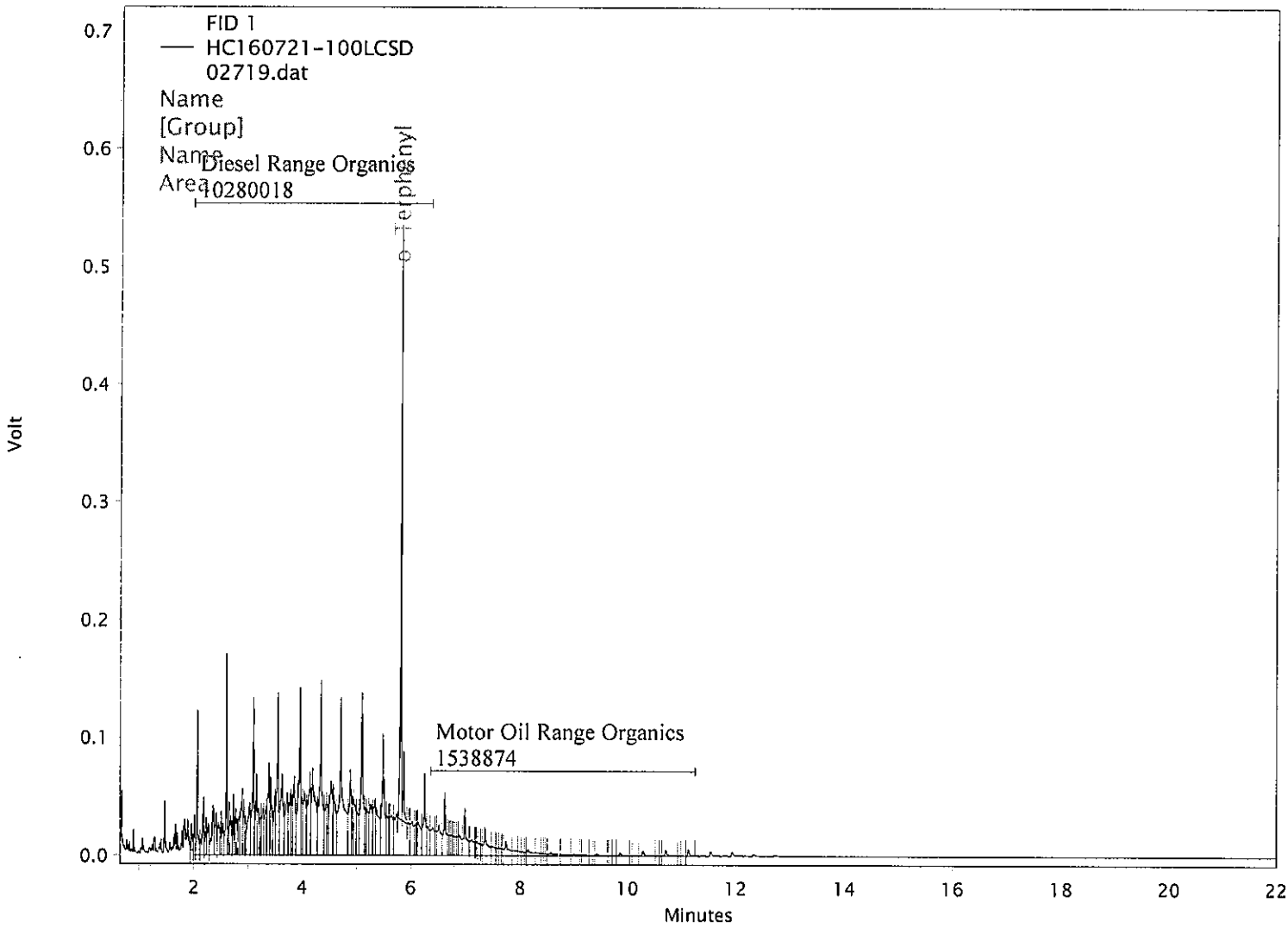
ALSLG-Fort Collins

Sample : HC160721-100LCSD
Filename : \\gcserver\gcdata\Projects\GC8\Data\2016\dromo160721\02719.dat
Acquisition Date : 7/21/2016 4:12:07 PM — Instrument : GC8
Quantitation Date : 7/22/2016 9:08:34 AM — Data Acquired By : noltej
Last Method Update : 7/22/2016 9:05:31 AM — Data Processed By : noltej
Method : \\gcserver\gcdata\Projects\GC8\Method\2016\dromo160715b.met — Inj. Vol. (uL) : 2
Sequence : \\gcserver\gcdata\Projects\GC8\Sequence\2016\dromo160721.seq — Vial : 7
Data Description : water, 500ppm

FID 1 Results

Compound Name	RT	Expected RT	Peak Area	Integration Codes		Conc.	Conc. Units
o-Terphenyl	5.81	5.81	599867	LL	96%	23.927	ug/mL
Diesel Range Organics			10280018		90%	449.665	ug/mL
Motor Oil Range Organics			1538874			76.467	ug/mL

NA



Column : Rxi-5Sil MS (30M x 0.32mm x 1.0u)

(1st int. code is for peak start, 2nd int code is for peak stop) B=baseline, f=force start or stop, I=ended by int. off event, N=begin negative peak, P=end negative peak, H=forward horiz, h=backward horiz, M=manual baseline or peak, m=move baseline start/stop, S=shoulder, T=tangent skim, V=valley, v=forced valley point, x=split peak, E=end of chromatogram encountered, R=reset baseline, L=lowest point horiz.

Printed On : 7/22/2016 9:08:34 AM