

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
ELKHORN CO GU 2
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

COGCC Allowable Concentration (Soil) -->				Organics (mg/kg)								4	(6-9)	12
				500			0.17	85	100	175	23			
Sample ID:	Sample Date:	Sample Depth (feet bgs):	Photoionization Detector Reading (ppm):	TPH-GRO (C6-C10) Low Fraction	TPH-DRO (C10-C28) High Fraction	TPH-RRO (C28-C40) High Fraction	Benzene	Toluene	Ethylbenzene	Xylenes - total	Naphthalene	EC (<4 mmhos/cm or 2x background)	pH (unit)	SAR
B01@4'	04/24/2019	4'	3.5	<0.200	<25.0	<100	<0.002	<0.002	<0.002	<0.002	<0.008	0.0945	8.28	2.50
E01@3'	04/24/2019	3'	6.2	<0.200	<25.0	<100	<0.002	<0.002	<0.002	<0.002	<0.008	NA	NA	NA
N01@3'	04/24/2019	3'	7.1	0.625	31.9	<100	<0.002	<0.002	<0.002	<0.002	<0.008	NA	NA	NA
S01@3'	04/24/2019	3'	3.1	<0.200	<25.0	<100	<0.002	<0.002	<0.002	<0.002	<0.008	NA	NA	NA
W01@3'	04/24/2019	3'	6.7	<0.200	<25.0	<100	<0.002	<0.002	<0.002	<0.002	<0.008	NA	NA	NA

Notes: mg/kg - milligrams per kilogram
COGCC - Colorado Oil and Gas Conservation Commission
bgs - below ground surface
ppm - parts per million
TPH - total petroleum hydrocarbons
GRO - gasoline range organics
DRO - diesel range organics
RRO - residual range organics
mmhos/cm - millimhos per centimeter
NA - not analyzed
Bold indicates result exceeds allowable level
† - Sample was collected at a depth greater than 3 feet bgs





May 01, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

Project Name - KMG - Elkhorn Co GU 2

Project Number - 014219053

Attached are your analytical results for KMG - Elkhorn Co GU 2 received by Origins Laboratory, Inc. April 24, 2019. This project is associated with Origins project number Y904408-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



1725 Elk Place, Denver, CO 80211 | Phone: 303.433.1322 | Fax: 303.265.9645

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01@3'	Y904408-01	Soil	April 24, 2019 13:59	04/24/2019 17:15
E01@3'	Y904408-02	Soil	April 24, 2019 13:52	04/24/2019 17:15
S01@3'	Y904408-03	Soil	April 24, 2019 13:48	04/24/2019 17:15
W01@3'	Y904408-04	Soil	April 24, 2019 13:55	04/24/2019 17:15
B01@4'	Y904408-05	Soil	April 24, 2019 13:45	04/24/2019 17:15

Origins Laboratory, Inc.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

www.originslaboratory.com

page 1 of 1

ORIGINS

LABORATORY, INC

Client: LT Environmental
Address: 4600 W. 60th Ave.
Arvada, CO 80003
Telephone Number: _____
Email Address: KMG Group

Project Manager: B. Sulzberger
Project Name: Elkhorn Co GU 2
Project Number: 014219053
Samples Collected By: BM

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix		Analysis				Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #	Other	GC	TPH	
N01@3'	4-24-19	1359	1	X				X		X				1
S01@3'		1352	1	X				X		X				2
S01@3'		1348	1	X				X		X				3
W01@3'		1355	1	X				X		X				4
B01@4'		1345	2	X				X		X				5
B01		1405	2	X				X		X				6
													Hold	7
														8
														9
														10

Relinquished By: [Signature] Date: 4/24/19 Time: 1715
Relinquished By: [Signature] Date: 4/24/19 Time: 1715

Received By: [Signature] Date: 4/24/19 Time: 1715
Received By: [Signature] Date: 4/24/19 Time: 1715

Turnaround Time: Same Day ☒ 24 Hr ☐
48 Hr ☐ 72 Hr ☐ Standard ☐

Temp Received: 19.6 Date Results Needed

Origins Laboratory, Inc.

Jefe Pellegrini

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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

Origins Laboratory

F-012207-01-R1
Effective Date: 01/09/12

Sample Receipt Checklist

Origins Work Order: Y904408

Client: LTE

Client Project ID: Elkhorn Co GU 2

Checklist Completed by: JG

Shipped Via: HD

(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 4/24/2019

Airbill #: N/A

Matrix(s) Received: (Check all that apply): X Soil/Solid

Water

Other:

(Describe)

Cooler Number/Temperature: 1 / 19.6 °C / °C / °C / °C

Thermometer ID: T003

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ?	<u>/</u>	<u>/</u>		<u>Same Day</u>
Is there ice present (document if blue ice is used)	<u>/</u>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<u>/</u>		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		<u>/</u>		
Were all samples received intact ⁽¹⁾ ?	<u>/</u>			
Was adequate sample volume provided ⁽¹⁾ ?	<u>/</u>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?		<u>/</u>		
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<u>/</u>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<u>/</u>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<u>/</u>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<u>/</u>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<u>/</u>	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)			<u>/</u>	
Additional Comments (if any):				

⁽¹⁾If NO, then contact the client before proceeding with analysis and note date, time and person contacted as well as the corrective action to in the additional comments (above) and the case narrative.

Reviewed by (Project Manager)

Date/Time Reviewed 4/24/19

Origins Laboratory, Inc.

Jefe Pellegrini

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LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Brian Sulzberger

Project Number: 014219053

Project: KMG - Elkhorn Co GU 2

N01@3'

4/24/2019 1:59:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904408-01 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	31.9	25.0	mg/kg	1	B9D2403	JTD	04/24/2019	04/24/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 93.5 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	0.625	0.200	mg/kg	1	B9D2406	JTD	04/24/2019	04/24/2019	
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 126 % 70-130 " " "
 Surrogate: Toluene-d8 111 % 70-130 " " "
 Surrogate: 4-Bromofluorobenzene 98.5 % 70-130 " " "

Origins Laboratory, Inc.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

E01@3'

4/24/2019 1:52:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904408-02 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9D2403	JTD	04/24/2019	04/24/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 90.1 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9D2406	JTD	04/24/2019	04/24/2019	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 122 % 70-130 " " "
Surrogate: Toluene-d8 111 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 96.4 % 70-130 " " "

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LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Brian Sulzberger

Project Number: 014219053

Project: KMG - Elkhorn Co GU 2

S01@3'

4/24/2019 1:48:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904408-03 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9D2403	JTD	04/24/2019	04/24/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 89.0 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9D2406	JTD	04/24/2019	04/24/2019	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 121 % 70-130 " " "
 Surrogate: Toluene-d8 112 % 70-130 " " "
 Surrogate: 4-Bromofluorobenzene 97.5 % 70-130 " " "

Origins Laboratory, Inc.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

W01@3'

4/24/2019 1:55:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904408-04 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9D2403	JTD	04/24/2019	04/24/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 89.9 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9D2406	JTD	04/24/2019	04/24/2019	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 120 % 70-130 " " "
Surrogate: Toluene-d8 112 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 98.1 % 70-130 " " "

Origins Laboratory, Inc.



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LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Brian Sulzberger

Project Number: 014219053

Project: KMG - Elkhorn Co GU 2

B01@4'

4/24/2019 1:45:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904408-05 (Soil)

DRO/ORO by EPA 8015D

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9D2403	JTD	04/24/2019	04/24/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 87.6 % 50-150 " " "

GBTEX + Naphthalene by EPA 8260D

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9D2406	JTD	04/24/2019	04/24/2019	U
Benzene	ND	0.002	"	"	"	JTD	"	"	U
Toluene	ND	0.002	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.002	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.002	"	"	"	JTD	"	"	U
Naphthalene	ND	0.008	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 121 % 70-130 " " "
 Surrogate: Toluene-d8 111 % 70-130 " " "
 Surrogate: 4-Bromofluorobenzene 98.8 % 70-130 " " "

Metals (Saturated Paste Prep)

Calcium	3.77		me/L	1	'[none]'		04/26/2019	05/01/2019	
Magnesium	2.25		"	"	"		"	"	
Sodium	4.33		"	"	"		"	"	

Origins Laboratory, Inc.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

B01@4'

4/24/2019 1:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y904408-05 (Soil)

pH in Soil by EPA 9045D

pH	8.28		pH Units	1	B9D2407	OLAB	04/24/2019	04/24/2019	
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SAR by 20B Saturated Paste

SAR	2.50			1	'[none]'		04/26/2019	05/01/2019	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0945	0.00505	mmhos/cm	1	B9D2408	OLAB	04/24/2019	04/24/2019	
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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D2403 - EPA 3580										
Blank (B9D2403-BLK1)					Prepared: 04/24/2019 Analyzed: 04/24/2019					
Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	45		"	50.0		89.8	50-150			

Origins Laboratory, Inc.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D2403 - EPA 3580

LCS (B9D2403-BS1)

Prepared: 04/24/2019 Analyzed: 04/24/2019

Diesel (C10-C28)	1020	50.0	mg/kg	1000		102	70-130			
Residual Range Organics (C28-C40)	1030	200	"	1000		103	70-130			
Surrogate: o-Terphenyl	51		"	50.0		103	50-150			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D2403 - EPA 3580

Matrix Spike (B9D2403-MS1)		Source: Y904401-02			Prepared: 04/24/2019 Analyzed: 04/24/2019					
Diesel (C10-C28)	1060	50.0	mg/kg	1000	ND	106	70-130			
Residual Range Organics (C28-C40)	1070	200	"	1000	9.58	106	70-130			
Surrogate: o-Terphenyl	51		"	50.0		103	50-150			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

Extractable Petroleum Hydrocarbons by 8015D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D2403 - EPA 3580

Matrix Spike Dup (B9D2403-MSD1)		Source: Y904401-02			Prepared: 04/24/2019 Analyzed: 04/24/2019					
Diesel (C10-C28)	1020	50.0	mg/kg	1000	ND	102	70-130	3.59	35	
Residual Range Organics (C28-C40)	1030	200	"	1000	9.58	102	70-130	3.84	35	
Surrogate: o-Terphenyl	50		"	50.0		100	50-150			

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

Extractable Petroleum Hydrocarbons by 8015D - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D2406 - EPA 5030 (soil)										
Blank (B9D2406-BLK1)					Prepared: 04/24/2019 Analyzed: 04/24/2019					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Naphthalene	ND	0.008	"							U
Surrogate: 1,2-Dichloroethane-d4	0.16		"	0.125		127	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		106	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.2	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D2406 - EPA 5030 (soil)										
LCS (B9D2406-BS1)					Prepared: 04/24/2019 Analyzed: 04/24/2019					
Benzene	0.095	0.002	mg/kg	0.100		95.2	70-130			
Toluene	0.111	0.002	"	0.100		111	70-130			
Ethylbenzene	0.112	0.002	"	0.100		112	70-130			
m,p-Xylene	0.196	0.004	"	0.200		98.0	70-130			
o-Xylene	0.108	0.002	"	0.100		108	70-130			
Naphthalene	0.102	0.008	"	0.100		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		106	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		106	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.
4600 West 60th Avenue
Arvada CO 80003

Brian Sulzberger
Project Number: 014219053
Project: KMG - Elkhorn Co GU 2

Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control
Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D2406 - EPA 5030 (soil)

Matrix Spike (B9D2406-MS1)		Source: Y904401-02			Prepared: 04/24/2019 Analyzed: 04/24/2019					
Benzene	0.074	0.002	mg/kg	0.100	0.0009	72.8	70-130			
Toluene	0.097	0.002	"	0.100	ND	96.9	70-130			
Ethylbenzene	0.094	0.002	"	0.100	0.002	91.9	70-130			
m,p-Xylene	0.163	0.004	"	0.200	0.003	80.0	70-130			
o-Xylene	0.092	0.002	"	0.100	0.0003	91.7	70-130			
Naphthalene	0.107	0.008	"	0.100	0.005	102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		115	70-130			
Surrogate: Toluene-d8	0.14		"	0.125		110	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9D2406 - EPA 5030 (soil)										
Matrix Spike Dup (B9D2406-MSD1)			Source: Y904401-02		Prepared: 04/24/2019 Analyzed: 04/24/2019					
Benzene	0.069	0.002	mg/kg	0.100	0.0009	68.4	70-130	6.10	20	QM-07
Toluene	0.090	0.002	"	0.100	ND	90.4	70-130	6.96	20	
Ethylbenzene	0.091	0.002	"	0.100	0.002	88.2	70-130	4.00	20	
m,p-Xylene	0.155	0.004	"	0.200	0.003	76.0	70-130	5.04	20	
o-Xylene	0.088	0.002	"	0.100	0.0003	88.0	70-130	4.09	20	
Naphthalene	0.110	0.008	"	0.100	0.005	105	70-130	2.93	20	
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		113	70-130			
Surrogate: Toluene-d8	0.14		"	0.125		111	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

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Volatile Organic Compounds by GC/MS SW846 8260D - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Classical Chemistry Parameters - Quality Control

Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B9D2407 - NO PREP

Duplicate (B9D2407-DUP1)		Source: Y904407-01			Prepared: 04/24/2019 Analyzed: 04/24/2019					
pH	6.93		pH Units		7.01			1.15	25	

Batch B9D2408 - NO PREP

Blank (B9D2408-BLK1)		Prepared: 04/24/2019 Analyzed: 04/24/2019								
Specific Conductance (EC)	0.00210	0.00500	mmhos/cm							
Duplicate (B9D2408-DUP1)		Source: Y904407-01			Prepared: 04/24/2019 Analyzed: 04/24/2019					
Specific Conductance (EC)	0.0239	0.00500	mmhos/cm		0.0205			15.3	25	

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Project: KMG - Elkhorn Co GU 2

Notes and Definitions

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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