

**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)										
				500			0.17	85	100	175	23	4	(6-9)	12
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

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):  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 <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>Same Day</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (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 <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup>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.



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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	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 " " "

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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 " " "

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 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)**

**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		"	"	"		"	"	

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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
<b>Batch B9D2403 - EPA 3580</b>										
<b>Blank (B9D2403-BLK1)</b>										
					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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 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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 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
<b>Batch B9D2403 - EPA 3580</b>										
<b>Matrix Spike (B9D2403-MS1)</b>			<b>Source: Y904401-02</b>			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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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**

<b>Matrix Spike Dup (B9D2403-MSD1)</b>	<b>Source: Y904401-02</b>		<b>Prepared: 04/24/2019 Analyzed: 04/24/2019</b>							
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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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 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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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

**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)**

**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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 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			

Origins Laboratory, Inc.



*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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 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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### 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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Jen Pellegrini For Noelle Doyle Mathis, President