

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**SUNMARKE USX O 21-8A**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE, LP**

COGCC Allowable Concentration (Soil) -->				Organics (mg/kg)										
				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@5'	08/05/2019	5'	188.5	<5.00	<25.0	<100	<0.050	<0.050	<0.050	<0.050	<0.200	0.0570	7.93	1.94
E01@4'	08/05/2019	4'	246.5	<5.00	<25.0	<100	<0.050	<0.050	<0.050	<0.050	<0.200	NA	NA	NA
N01@4'	08/05/2019	4'	167.3	<5.00	<25.0	<100	<0.050	<0.050	<0.050	<0.050	<0.200	NA	NA	NA
S01@4'	08/05/2019	4'	354.8	<5.00	<25.0	<100	<0.050	<0.050	<0.050	<0.050	<0.200	NA	NA	NA
W01@4'	08/05/2019	4'	137.7	<5.00	<25.0	<100	<0.050	<0.050	<0.050	<0.050	<0.200	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

EC - Specific Conductance

mmhos/cm - millimhos per centimeter

SAR - Sodium Adsorption Ratio

NA - not analyzed

**Bold** indicates result exceeds allowable level

† - Sample was collected at a depth greater than 3 feet bgs





August 09, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Sunmarke USX 021-8A**

**Project Number - 014219068**

Attached are your analytical results for KMG - Sunmarke USX 021-8A received by Origins Laboratory, Inc. August 05, 2019. This project is associated with Origins project number Y908057-01.

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: 014219068  
Project: KMG - Sunmarke USX 021-8A

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01@4'	Y908057-01	Soil	August 5, 2019 10:20	08/05/2019 16:26
E01@4'	Y908057-02	Soil	August 5, 2019 10:30	08/05/2019 16:26
S01@4'	Y908057-03	Soil	August 5, 2019 10:39	08/05/2019 16:26
W01@4'	Y908057-04	Soil	August 5, 2019 10:35	08/05/2019 16:26
B01@5'	Y908057-05	Soil	August 5, 2019 10:24	08/05/2019 16:26

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.*

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

# ORIGINS

LABORATORY, INC

Y908057

www.originslaboratory.com

page 1 of 1

Client: LT Environmental  
 Address: 4600 W. 60th Ave.  
Arvada, CO, 80005  
 Telephone Number: \_\_\_\_\_  
 Email Address: Kmlb Group

Project Manager: B. Sulzberger  
 Project Name: Summit Lake VSK 021-8A  
 Project Number: 014219068  
 Samples Collected By: GH

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #	Other	TPH	PC	EC	
N0104'	8-5-19	1020		X					X			X	X		1
F0104'		1030										X	X		2
S0104'		1039										X	X		3
W0104'		1035										X	X		4
B0105'	↓	1044										X	X	X	5
B601	↓	1043										X	X	X	6
												X	X	X	7
															8
															9
															10
Relinquished By: <u>[Signature]</u>	Date: <u>8-5-19</u>	Time: <u>1026</u>		Received By: <u>[Signature]</u>	Date: <u>8-5-19</u>	Time: <u>1026</u>		Turnaround Time: Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>							

Temp Received: 5.5

Date Results Needed

Origins Laboratory, Inc.

Jeff Pellgrini

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

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y908057

Client: LTE

Client Project ID: Sunmarke USX

Checklist Completed by: JG

Shipped Via: HD

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

Date/Time completed: 8/5/2019

Airbill #: N/A

Matrix(es) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: \_\_\_\_\_ (Describe)

Cooler Number/Temperature: 1 / 5.5 °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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
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? If yes, contact client and note in narrative.	<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 Na <sub>2</sub> CO <sub>3</sub> -NaOH, ZnAc <sub>2</sub> -NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 8/5/19

Origins Laboratory, Inc.

*Jefe Pellegrini*

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

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

N01@4'

8/5/2019 10:20:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y908057-01 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9H0502	KDK	08/05/2019	08/05/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 82.2 % 50-150 " " "

**GBTEX + Naphthalene by EPA 8260D**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B9H0501	KDK	08/05/2019	08/05/2019	U
Benzene	ND	0.050	"	"	"	KDK	"	"	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U
Naphthalene	ND	0.200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 89.2 % 70-130 " " "  
Surrogate: Toluene-d8 99.5 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 106 % 70-130 " " "

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

E01@4'

8/5/2019 10:30:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y908057-02 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9H0502	KDK	08/05/2019	08/05/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 78.0 % 50-150 " " "

**GBTEX + Naphthalene by EPA 8260D**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B9H0501	KDK	08/05/2019	08/05/2019	U
Benzene	ND	0.050	"	"	"	KDK	"	"	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U
Naphthalene	ND	0.200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 89.0 % 70-130 " " "  
Surrogate: Toluene-d8 100 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 105 % 70-130 " " "

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

S01@4'

8/5/2019 10:39:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y908057-03 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9H0502	KDK	08/05/2019	08/05/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 74.8 % 50-150 " " "

**GBTEX + Naphthalene by EPA 8260D**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B9H0501	KDK	08/05/2019	08/05/2019	U
Benzene	ND	0.050	"	"	"	KDK	"	"	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U
Naphthalene	ND	0.200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 89.4 % 70-130 " " "  
Surrogate: Toluene-d8 101 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 106 % 70-130 " " "

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

W01@4'

8/5/2019 10:35:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y908057-04 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9H0502	KDK	08/05/2019	08/05/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 80.9 % 50-150 " " "

**GBTEX + Naphthalene by EPA 8260D**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B9H0501	KDK	08/05/2019	08/05/2019	U
Benzene	ND	0.050	"	"	"	KDK	"	"	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U
Naphthalene	ND	0.200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 89.2 % 70-130 " " "  
Surrogate: Toluene-d8 101 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 107 % 70-130 " " "

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

B01@5'

8/5/2019 10:24:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y908057-05 (Soil)**

**DRO/ORO by EPA 8015D**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9H0502	KDK	08/05/2019	08/05/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 69.6 % 50-150 " " "

**GBTEX + Naphthalene by EPA 8260D**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B9H0501	KDK	08/05/2019	08/05/2019	U
Benzene	ND	0.050	"	"	"	KDK	"	"	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U
Naphthalene	ND	0.200	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 88.7 % 70-130 " " "  
Surrogate: Toluene-d8 102 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 107 % 70-130 " " "

**Metals (Saturated Paste Prep)**

Calcium	1.44	me/L	1	[none]		08/06/2019	08/08/2019
Magnesium	3.38	"	"	"		"	"
Sodium	3.01	"	"	"		"	"

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4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

B01@5'

8/5/2019 10:24:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y908057-05 (Soil)

**pH in Soil by EPA 9045D**

pH	7.93		pH Units	1	B9H0505	DJL	08/05/2019	08/05/2019	
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**SAR by 20B Saturated Paste**

SAR	1.94			1	[none]		08/06/2019	08/08/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0570	0.00500	mmhos/cm	1	B9H0506	DJL	08/05/2019	08/05/2019	
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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

**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
<b>Batch B9H0501 - EPA 5030 (soil)</b>										
<b>Blank (B9H0501-BLK1)</b>					Prepared: 08/05/2019 Analyzed: 08/05/2019					
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	0.12		"	0.125		93.9	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		104	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



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4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

**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
<b>Batch B9H0501 - EPA 5030 (soil)</b>										
<b>LCS (B9H0501-BS1)</b>					Prepared: 08/05/2019 Analyzed: 08/05/2019					
Benzene	0.087	0.002	mg/kg	0.100		86.6	70-130			
Toluene	0.092	0.002	"	0.100		91.5	70-130			
Ethylbenzene	0.089	0.002	"	0.100		89.4	70-130			
m,p-Xylene	0.183	0.004	"	0.200		91.3	70-130			
o-Xylene	0.093	0.002	"	0.100		93.2	70-130			
Naphthalene	0.085	0.008	"	0.100		85.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

**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 B9H0501 - EPA 5030 (soil)**

Matrix Spike (B9H0501-MS1)		Source: Y908037-05			Prepared: 08/05/2019 Analyzed: 08/05/2019					
Benzene	0.084	0.002	mg/kg	0.100	ND	83.9	70-130			
Toluene	0.086	0.002	"	0.100	ND	85.9	70-130			
Ethylbenzene	0.087	0.002	"	0.100	ND	86.9	70-130			
m,p-Xylene	0.176	0.004	"	0.200	ND	88.2	70-130			
o-Xylene	0.091	0.002	"	0.100	ND	90.7	70-130			
Naphthalene	0.081	0.008	"	0.100	ND	81.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.4	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		103	70-130			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

**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
<b>Batch B9H0501 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B9H0501-MSD1)</b>		<b>Source: Y908037-05</b>			Prepared: 08/05/2019 Analyzed: 08/05/2019					
Benzene	0.087	0.002	mg/kg	0.100	ND	87.1	70-130	3.72	20	
Toluene	0.088	0.002	"	0.100	ND	87.8	70-130	2.10	20	
Ethylbenzene	0.087	0.002	"	0.100	ND	87.0	70-130	0.0460	20	
m,p-Xylene	0.177	0.004	"	0.200	ND	88.6	70-130	0.441	20	
o-Xylene	0.091	0.002	"	0.100	ND	91.4	70-130	0.791	20	
Naphthalene	0.092	0.008	"	0.100	ND	92.0	70-130	12.3	20	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		100	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

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

Brian Sulzberger  
Project Number: 014219068  
Project: KMG - Sunmarke USX 021-8A

**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 B9H0502 - EPA 3580										
Blank (B9H0502-BLK1)					Prepared: 08/05/2019 Analyzed: 08/05/2019					
Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	42		"	50.0		84.2	50-150			

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**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 B9H0502 - EPA 3580

**LCS (B9H0502-BS1)**

Prepared: 08/05/2019 Analyzed: 08/05/2019

Diesel (C10-C28)	1080	50.0	mg/kg	1000		108	70-130			
Residual Range Organics (C28-C40)	920	200	"	1000		92.0	70-130			
Surrogate: o-Terphenyl	49		"	50.0		98.5	50-150			

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Jen Pellegrini For Noelle Doyle Mathis, President

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Project: KMG - Sunmarke USX 021-8A

**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 B9H0502 - EPA 3580**

Matrix Spike (B9H0502-MS1)		Source: Y908037-05			Prepared: 08/05/2019 Analyzed: 08/05/2019					
Diesel (C10-C28)	983	50.0	mg/kg	1000	ND	98.3	70-130			
Residual Range Organics (C28-C40)	880	200	"	1000	ND	88.0	70-130			
Surrogate: o-Terphenyl	46		"	50.0		91.8	50-150			

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## 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 B9H0502 - EPA 3580										
<b>Matrix Spike Dup (B9H0502-MSD1)</b>		<b>Source: Y908037-05</b>			Prepared: 08/05/2019 Analyzed: 08/05/2019					
Diesel (C10-C28)	942	50.0	mg/kg	1000	ND	94.2	70-130	4.27	35	
Residual Range Organics (C28-C40)	813	200	"	1000	ND	81.3	70-130	7.99	35	
Surrogate: o-Terphenyl	40		"	50.0		79.8	50-150			

Origins Laboratory, Inc.



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Project Number: 014219068  
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## 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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## 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 B9H0505 - NO PREP

<b>Duplicate (B9H0505-DUP1)</b>		<b>Source: Y908053-02</b>			Prepared: 08/05/2019 Analyzed: 08/05/2019					
pH	8.17		pH Units		8.24			0.853	25	

#### Batch B9H0506 - NO PREP

<b>Blank (B9H0506-BLK1)</b>		Prepared: 08/05/2019 Analyzed: 08/05/2019								
Specific Conductance (EC)	0.00190	0.00500	mmhos/cm							
<b>Duplicate (B9H0506-DUP1)</b>		<b>Source: Y908053-02</b>			Prepared: 08/05/2019 Analyzed: 08/05/2019					
Specific Conductance (EC)	0.332	0.00508	mmhos/cm		0.318			4.30	25	

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Project: KMG - Sunmarke USX 021-8A

### Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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