

**TABLE 1**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**HUETT, JOSEPH UNIT #2**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE LP**

Soil Sample ID	Depth (bgs)	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO (mg/kg)	GRO (mg/kg)	ORO (mg/kg)	pH (su)	Specific Conductance (mmhos/cm)
B01@14'	14'	01/15/2019	<0.050	<0.050	<0.050	<0.050	39.6	19.1	<100	7.63	0.0404
N01@12'	12'	01/16/2019	<0.002	<0.002	<0.002	<0.002	<25.0	0.469	<100	7.79	0.118
S01@12'	12'	01/16/2019	<0.002	<0.002	<0.002	<0.002	<25.0	<0.200	<100	8.50	0.108
W01@12'	12'	01/16/2019	<0.002	<0.002	<0.002	<0.002	<25.0	<0.200	<100	7.84	0.124
B02@19.5'	19.5'	01/18/2019	<b>0.320</b>	0.088	0.050	0.316	<b>838</b>	<b>629</b>	<b>246</b>	7.50	0.0520
E01@17.5'	17.5'	01/18/2019	0.143	<0.050	<0.050	<0.050	<b>748</b>	<b>499</b>	<b>222</b>	8.70	0.106
N02@17.5'	17.5'	01/18/2019	<0.050	<0.050	<0.050	<0.050	157	99.7	<100	8.31	0.102
S02@17.5'	17.5'	01/18/2019	<0.050	<0.050	<0.050	<0.050	166	61.3	<100	8.83	0.154
B03@19.5'	19.5'	01/21/2019	<0.050	0.050	<0.050	<0.050	<b>559</b>	<b>446</b>	<b>161</b>	8.35	0.0449
E02@17.5'	17.5'	01/21/2019	<0.050	<0.050	<0.050	<0.050	<25.0	<5.00	<100	8.48	0.121
N03@17.5'	17.5'	01/21/2019	<0.050	<0.050	<0.050	<0.050	<b>341</b>	<b>71.9</b>	<b>103</b>	8.35	0.120
S03@17.5'	17.5'	01/21/2019	<0.002	<0.002	<0.002	<0.002	<25.0	<0.200	<100	8.33	0.0932
B06@29.5'	29.5'	01/30/2019	0.092	<0.050	0.576	1.12	<b>334</b>	<b>245</b>	<b>&lt;100</b>	7.98	0.0439
B09@29.5'	29.5'	01/30/2019	<0.050	<0.050	<0.050	<0.050	<25.0	20.4	<100	8.26	0.0324
B10@32'	32'	02/05/2019	0.134	<0.050	1.36	7.75	<b>410</b>	<b>475</b>	<b>103</b>	8.24	0.0691
B11@35'	35'	02/05/2019	<0.050	<0.050	<0.050	0.132	85.0	73.3	<100	7.82	0.0718
E03@29'	29'	02/05/2019	<0.050	<0.050	<0.050	0.148	58.8	179	<100	7.98	0.0460
N04@29'	29'	02/05/2019	<0.050	<0.050	<0.050	<0.050	56.4	58.1	<100	8.54	0.0707
N05@29'	29'	02/05/2019	0.050	<0.050	<0.050	<0.050	173	138	<100	8.59	0.0754
N06@17.5'	17.5'	02/05/2019	<0.002	<0.002	<0.002	<0.002	<25.0	<0.200	<100	8.27	0.120
S04@29'	29'	02/05/2019	<0.050	<0.050	<0.050	<0.050	76.3	99.6	<100	8.67	0.0426
S05@29'	29'	02/05/2019	<b>0.452</b>	<0.050	0.198	0.130	174	198	<100	8.59	0.0563



**TABLE 1 (Continued)**  
**SOIL SAMPLE ANALYTICAL RESULTS**  
**HUETT, JOSEPH UNIT #2**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE LP**

Soil Sample ID	Depth (bgs)	Date	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	DRO (mg/kg)	GRO (mg/kg)	ORO (mg/kg)	pH (su)	Specific Conductance (mmhos/cm)
W02@29'	29'	02/05/2019	<b>0.223</b>	<0.050	0.692	<0.050	<b>281</b>	<b>251</b>	<b>&lt;100</b>	8.55	0.0696
W03@31'	31'	02/14/2019	<b>0.308</b>	<0.050	1.11	9.80	<b>812</b>	<b>450</b>	<b>163</b>	7.63	0.109
S06@29'	29'	02/15/2019	<0.050	<0.050	<0.050	<0.050	72.1	37.0	<100	8.60	0.0455
W04@29'	29'	02/20/2019	<0.050	<0.050	<0.050	<0.050	33.7	54.3	<100	8.44	0.0843
<b>COGCC Allowable Levels</b>			<b>0.17</b>	<b>85</b>	<b>100</b>	<b>175</b>	<b>500*</b>	<b>500*</b>	<b>500*</b>	<b>6-9</b>	<b>4</b>

Notes: bgs - below ground surface  
COGCC - Colorado Oil and Gas Conservation Commission  
DRO - diesel range organics  
GRO - gasoline range organics  
mg/kg - milligrams per kilogram  
mmhos/cm - millimhos per centimeter

NA - not analyzed/not available  
ORO - oil range organics  
su - standard units  
\* - Standard applies to combined DRO-GRO-ORO  
< - less than laboratory reporting limit  
Bold indicates result exceeds allowable level



**TABLE 2**  
**GROUNDWATER ANALYTICAL AND FIELD RESULTS**  
**HUETT, JOSEPH UNIT #2**  
**WELD COUNTY, COLORADO**  
**KERR-MCGEE OIL & GAS ONSHORE LP**

<b>Well Name</b>	<b>Date</b>	<b>Benzene (µg/L)</b>	<b>Toluene (µg/L)</b>	<b>Ethylbenzene (µg/L)</b>	<b>Total Xylenes (µg/L)</b>	<b>Depth to Water/ (Product Thickness) (ft bgs)</b>
GW01	02/14/2019	<b>792</b>	<4.00	17.4	35.5	32.00
GW02	02/21/2019	<b>208</b>	15.7	<4.00	75.6	32.00
<b>COGCC Allowable Levels</b>		<b>5</b>	<b>1000</b>	<b>700</b>	<b>1400</b>	

Notes: COGCC - Colorado Oil and Gas Conservation Commission  
ft bgs - feet below ground surface  
NA - not analyzed/not available  
NM - not measured

µg/L - micrograms per liter  
< - less than laboratory reporting limit  
Bold indicates result exceeds allowable level  
Excavation groundwater depth is approximate





January 16, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. January 15, 2019. This project is associated with Origins project number Y901178-01.

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: 014219004

Project: KMG - Joseph Huett Unit 2

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@14'	Y901178-01	Soil	January 15, 2019 15:23	01/15/2019 16:25

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: 014219004  
Project: KMG - Joseph Huett Unit 2

[illegible]

Origins Laboratory, Inc.

Jeff Pellgrini

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 4901178

Client: LT

Client Project ID: KMG - Joseph Huett Unit 2

Checklist Completed by: D. La

Shipped Via: HT  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 1-15-19

Airbill #: 2A

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

Cooler Number/Temperature: 14.8 °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C (Describe)

Thermometer ID: 1003

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"/>			
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" 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 checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<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 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 1-15-19

Origins Laboratory, Inc.

*Jefe Pellegrini*

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

B01@14'

1/15/2019 3:23:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901178-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	39.6	25.0	mg/kg	1	B9A1502	KDK	01/15/2019	01/15/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 71.5 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	19.1	5.00	mg/kg	25	B9A1501	KDK	01/15/2019	01/15/2019	
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

Surrogate: 1,2-Dichloroethane-d4 96.1 % 70-130 " " "  
Surrogate: Toluene-d8 99.0 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 99.5 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	7.63		pH Units	1	B9A1503	OLAB	01/15/2019	01/15/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0404	0.00502	mmhos/cm	"	B9A1504	OLAB	01/15/2019	"	
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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1501 - EPA 5030 (soil)</b>										
<b>Blank (B9A1501-BLK1)</b>					Prepared: 01/15/2019 Analyzed: 01/15/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		94.3	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1501 - EPA 5030 (soil)</b>										
<b>LCS (B9A1501-BS1)</b>					Prepared: 01/15/2019 Analyzed: 01/15/2019					
Benzene	0.104	0.002	mg/kg	0.100		104	77.1-124			
Toluene	0.098	0.002	"	0.100		98.1	74.5-128			
Ethylbenzene	0.099	0.002	"	0.100		98.8	66.4-127			
m,p-Xylene	0.196	0.004	"	0.200		97.8	76.6-124			
o-Xylene	0.098	0.002	"	0.100		97.9	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.5	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.6	70-130			

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Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1501 - EPA 5030 (soil)**

Matrix Spike (B9A1501-MS1)		Source: Y901158-02			Prepared: 01/15/2019 Analyzed: 01/15/2019					
Benzene	2.49	0.050	mg/kg	2.50	ND	99.6	71.8-126			
Toluene	2.35	0.050	"	2.50	ND	94.1	65.1-130			
Ethylbenzene	2.35	0.050	"	2.50	ND	93.9	62.2-130			
m,p-Xylene	4.68	0.100	"	5.00	0.026	93.1	46.5-137			
o-Xylene	2.35	0.050	"	2.50	0.008	94.0	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		94.5	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1501 - EPA 5030 (soil)**

Matrix Spike Dup (B9A1501-MSD1)		Source: Y901158-02			Prepared: 01/15/2019 Analyzed: 01/15/2019					
Benzene	2.48	0.050	mg/kg	2.50	ND	99.3	71.8-126	0.342	11.3	
Toluene	2.33	0.050	"	2.50	ND	93.3	65.1-130	0.833	15.4	
Ethylbenzene	2.35	0.050	"	2.50	ND	94.1	62.2-130	0.170	19.6	
m,p-Xylene	4.69	0.100	"	5.00	0.026	93.2	46.5-137	0.171	19.2	
o-Xylene	2.37	0.050	"	2.50	0.008	94.9	54.2-134	0.953	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		91.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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Brian Sulzberger  
Project Number: 014219004  
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**Volatile Organic Compounds by GC/MS SW846 8260C - 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B9A1502 - EPA 3550B**

**Blank (B9A1502-BLK1)**

Prepared: 01/15/2019 Analyzed: 01/15/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	39		"	50.0		78.1	59-131			

**LCS (B9A1502-BS1)**

Prepared: 01/15/2019 Analyzed: 01/15/2019

Diesel (C10-C28)	903	50.0	mg/kg	1000		90.3	64-121			
Residual Range Organics (C28-C40)	904	200	"	1000		90.4	58-124			
Surrogate: o-Terphenyl	45		"	50.0		90.9	59-131			

**Matrix Spike (B9A1502-MS1)**

**Source: Y901158-02**

Prepared: 01/15/2019 Analyzed: 01/15/2019

Diesel (C10-C28)	909	50.0	mg/kg	1000	ND	90.9	53-125			
Residual Range Organics (C28-C40)	873	200	"	1000	6.92	86.6	47-133			
Surrogate: o-Terphenyl	46		"	50.0		91.2	59-131			

**Matrix Spike Dup (B9A1502-MSD1)**

**Source: Y901158-02**

Prepared: 01/15/2019 Analyzed: 01/15/2019

Diesel (C10-C28)	867	50.0	mg/kg	1000	ND	86.7	53-125	4.68	20	
Residual Range Organics (C28-C40)	853	200	"	1000	6.92	84.6	47-133	2.33	20	
Surrogate: o-Terphenyl	44		"	50.0		87.7	59-131			

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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
<b>Batch B9A1503 - NO PREP</b>										
<b>Duplicate (B9A1503-DUP1)</b>		<b>Source: Y901167-02</b>			Prepared: 01/15/2019 Analyzed: 01/15/2019					
pH	8.09		pH Units		8.59			6.00	25	
<b>Batch B9A1504 - NO PREP</b>										
<b>Blank (B9A1504-BLK1)</b>		Prepared: 01/15/2019 Analyzed: 01/15/2019								
Specific Conductance (EC)	0.00420	0.00500	mmhos/cm							
<b>Duplicate (B9A1504-DUP1)</b>		<b>Source: Y901167-02</b>			Prepared: 01/15/2019 Analyzed: 01/15/2019					
Specific Conductance (EC)	0.130	0.00500	mmhos/cm		0.128			1.63	25	

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4600 West 60th Avenue  
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Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

### 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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January 17, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. January 16, 2019. This project is associated with Origins project number Y901191-01.

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: 014219004  
Project: KMG - Joseph Huett Unit 2

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01@12'	Y901191-01	Soil	January 16, 2019 15:10	01/16/2019 16:30
W01@12'	Y901191-02	Soil	January 16, 2019 15:20	01/16/2019 16:30
S01@12'	Y901191-03	Soil	January 16, 2019 15:27	01/16/2019 16:30

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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460191 page 1 of 1

**ORIGINS**  
LABORATORY, INC

Client: LT Environmental  
Address: \_\_\_\_\_  
Telephone Number: 303 433 9758  
Email Address: KMG Team

Project Manager: Brian Sulzberger  
Project Name: Joseph Huett Unit 2  
Project Number: 014219004  
Samples Collected By: Glenn Thompson

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative			Matrix			Analysis			Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Groundwater	Soil	Air Summa Canister #	Other	GBL	TPH	
N01012'	1-16-19	1510	2	X								X	Hold Jar
W01012'	↓	1520	2	X								X	↓
S01012'	↓	1527	2	X								X	
Relinquished By:	Date: 1-16-19	Time: 1650		Received By:	Date: 11/16/19	Time: 1630		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"/>					
Relinquished By:	Date:	Time:		Received By:	Date:	Time:							

Temp Received: 2.7 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: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

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

### Sample Receipt Checklist

Origins Work Order: 4901191

Client: LTC

Client Project ID: KMG - Joseph Huett Unit 2

Checklist Completed by: Dan Lu

Shipped Via: HQ

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

Date/time completed: 1-16-19

Airbill #: 247

Matrix(s) Received: (Check all that apply):

☒ Soil/Solid

☐ Water

☐ Other: \_\_\_\_\_

(Describe)

Cooler Number/Temperature: 1/23 °C

1 °C

1 °C

1 °C

Thermometer ID: 1003

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? <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) [Signature]

Date/Time Reviewed 1-16-19

Origins Laboratory, Inc.

Jefe Pellegrini

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

N01@12'

1/16/2019 3:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901191-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9A1602	KDK	01/16/2019	01/16/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 73.0 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	0.469	0.200	mg/kg	1	B9A1610	KDK	01/16/2019	01/16/2019	
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 105 % 70-130 " " "  
Surrogate: Toluene-d8 98.4 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	7.79		pH Units	1	B9A1603	OLAB	01/16/2019	01/16/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.118	0.00500	mmhos/cm	"	B9A1604	OLAB	01/16/2019	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

W01@12'  
1/16/2019 3:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901191-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9A1602	KDK	01/16/2019	01/16/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 74.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9A1610	KDK	01/16/2019	01/16/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 102 % 70-130 " " "  
Surrogate: Toluene-d8 98.2 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 98.9 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	7.84		pH Units	1	B9A1603	OLAB	01/16/2019	01/16/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.124	0.00503	mmhos/cm	"	B9A1604	OLAB	01/16/2019	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

S01@12'

1/16/2019 3:27:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901191-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9A1602	KDK	01/16/2019	01/16/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 76.8 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9A1610	KDK	01/16/2019	01/16/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 97.1 % 70-130 " " "  
Surrogate: Toluene-d8 99.7 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 98.4 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.50		pH Units	1	B9A1603	OLAB	01/16/2019	01/16/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.108	0.00500	mmhos/cm	"	B9A1604	OLAB	01/16/2019	"	
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LT Environmental, Inc.  
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Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1610 - EPA 5030 (soil)</b>										
<b>Blank (B9A1610-BLK1)</b>					Prepared: 01/16/2019 Analyzed: 01/16/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.2	70-130			

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Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1610 - EPA 5030 (soil)**

**LCS (B9A1610-BS1)**

Prepared: 01/16/2019 Analyzed: 01/16/2019

Benzene	0.109	0.002	mg/kg	0.100		109	77.1-124			
Toluene	0.108	0.002	"	0.100		108	74.5-128			
Ethylbenzene	0.110	0.002	"	0.100		110	66.4-127			
m,p-Xylene	0.224	0.004	"	0.200		112	76.6-124			
o-Xylene	0.113	0.002	"	0.100		113	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1610 - EPA 5030 (soil)**

Matrix Spike (B9A1610-MS1)		Source: Y901190-01			Prepared: 01/16/2019 Analyzed: 01/16/2019					
Benzene	0.092	0.002	mg/kg	0.100	ND	91.7	71.8-126			
Toluene	0.089	0.002	"	0.100	ND	88.8	65.1-130			
Ethylbenzene	0.089	0.002	"	0.100	ND	88.8	62.2-130			
m,p-Xylene	0.181	0.004	"	0.200	ND	90.4	46.5-137			
o-Xylene	0.092	0.002	"	0.100	ND	92.4	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1610 - EPA 5030 (soil)**

Matrix Spike Dup (B9A1610-MSD1)		Source: Y901190-01			Prepared: 01/16/2019 Analyzed: 01/16/2019					
Benzene	0.109	0.002	mg/kg	0.100	ND	109	71.8-126	16.8	11.3	QR-02
Toluene	0.106	0.002	"	0.100	ND	106	65.1-130	17.3	15.4	QR-02
Ethylbenzene	0.109	0.002	"	0.100	ND	109	62.2-130	20.0	19.6	QR-02
m,p-Xylene	0.219	0.004	"	0.200	ND	109	46.5-137	19.0	19.2	
o-Xylene	0.111	0.002	"	0.100	ND	111	54.2-134	18.3	17.9	QR-02
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	70-130			

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4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

## Volatile Organic Compounds by GC/MS SW846 8260C - 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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## Extractable Petroleum Hydrocarbons by 8015C - 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 B9A1602 - EPA 3580

#### Blank (B9A1602-BLK1)

Prepared: 01/16/2019 Analyzed: 01/16/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	38		"	50.0		75.6	59-131			

#### Blank (B9A1602-BLK2)

Prepared: 01/16/2019 Analyzed: 01/16/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	40		"	50.0		80.8	59-131			

#### LCS (B9A1602-BS1)

Prepared: 01/16/2019 Analyzed: 01/16/2019

Diesel (C10-C28)	854	50.0	mg/kg	1000		85.4	64-121			
Residual Range Organics (C28-C40)	846	200	"	1000		84.6	58-124			
Surrogate: o-Terphenyl	43		"	50.0		85.0	59-131			

#### LCS (B9A1602-BS2)

Prepared: 01/16/2019 Analyzed: 01/16/2019

Diesel (C10-C28)	858	50.0	mg/kg	1000		85.8	64-121			
Residual Range Organics (C28-C40)	861	200	"	1000		86.1	58-124			
Surrogate: o-Terphenyl	42		"	50.0		83.0	59-131			

#### Matrix Spike (B9A1602-MS1)

Source: Y901168-01

Prepared: 01/16/2019 Analyzed: 01/16/2019

Diesel (C10-C28)	1040	50.0	mg/kg	1000	ND	104	53-125			
Residual Range Organics (C28-C40)	1050	200	"	1000	12.9	104	47-133			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1602 - EPA 3580</b>										
<b>Matrix Spike (B9A1602-MS1)</b>		<b>Source: Y901168-01</b>			Prepared: 01/16/2019 Analyzed: 01/16/2019					
Surrogate: o-Terphenyl	49		mg/kg	50.0		98.0	59-131			
<b>Matrix Spike (B9A1602-MS2)</b>		<b>Source: Y901190-01</b>			Prepared: 01/16/2019 Analyzed: 01/16/2019					
Diesel (C10-C28)	868	50.0	mg/kg	1000	ND	86.8	53-125			
Residual Range Organics (C28-C40)	872	200	"	1000	5.95	86.6	47-133			
Surrogate: o-Terphenyl	39		"	50.0		78.0	59-131			
<b>Matrix Spike Dup (B9A1602-MSD1)</b>		<b>Source: Y901168-01</b>			Prepared: 01/16/2019 Analyzed: 01/16/2019					
Diesel (C10-C28)	874	50.0	mg/kg	1000	ND	87.4	53-125	17.2	20	
Residual Range Organics (C28-C40)	873	200	"	1000	12.9	86.0	47-133	18.8	20	
Surrogate: o-Terphenyl	42		"	50.0		84.9	59-131			
<b>Matrix Spike Dup (B9A1602-MSD2)</b>		<b>Source: Y901190-01</b>			Prepared: 01/16/2019 Analyzed: 01/16/2019					
Diesel (C10-C28)	861	50.0	mg/kg	1000	ND	86.1	53-125	0.806	20	
Residual Range Organics (C28-C40)	862	200	"	1000	5.95	85.6	47-133	1.09	20	
Surrogate: o-Terphenyl	40		"	50.0		79.2	59-131			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1603 - NO PREP</b>										
<b>Duplicate (B9A1603-DUP1)</b>		<b>Source: Y901176-01</b>			Prepared: 01/16/2019 Analyzed: 01/16/2019					
pH	8.18		pH Units		8.19			0.122	25	
<b>Batch B9A1604 - NO PREP</b>										
<b>Blank (B9A1604-BLK1)</b>		Prepared: 01/16/2019 Analyzed: 01/16/2019								
Specific Conductance (EC)	0.00190	0.00500	mmhos/cm							
<b>Duplicate (B9A1604-DUP1)</b>		<b>Source: Y901176-01</b>			Prepared: 01/16/2019 Analyzed: 01/16/2019					
Specific Conductance (EC)	0.153	0.00505	mmhos/cm		0.148			3.25	25	

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: 014219004  
Project: KMG - Joseph Huett Unit 2

### Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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.



*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.*



January 21, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. January 18, 2019. This project is associated with Origins project number Y901236-01.

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: 014219004  
Project: KMG - Joseph Huett Unit 2

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B02@19.5'	Y901236-01	Soil	January 18, 2019 15:30	01/18/2019 16:50
N02@17.5'	Y901236-02	Soil	January 18, 2019 15:35	01/18/2019 16:50
S02@17.5'	Y901236-03	Soil	January 18, 2019 15:40	01/18/2019 16:50
E01@17.5'	Y901236-04	Soil	January 18, 2019 15:45	01/18/2019 16:50

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: 014219004  
Project: KMG - Joseph Huett Unit 2

**ORIGINS**

LABORATORY, INC

www.originslaboratory.com

19d236

page 1 of 1

Client: LT Environmental

Project Manager: Brian Salaberger

Address:

Project Name: Joseph Huett Unit #2

Project Number: 614219004

Telephone Number: 303 433 9788

Samples Collected By: Glenn Thompson

Email Address:

KML@Team

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	GERTX	TVA	PB	EC		
B02e19.5	1-18-19	1530	2	X					X			X	X	X	X	Hold SAR	1
N02e17.5	↓	1535	2	X					X			X	X	X	X	↓	2
J02e17.5	↓	1540	2	X					X			X	X	X	X	↓	3
E01e17.5	↓	1545	2	X					X			X	X	X	X	↓	4
																	5
																	6
																	7
																	8
																	9
																	10
Relinquished By: [Signature]	Date: 1-18-19	Time: 1650														Turnaround Time: Same Day <input checked="" type="checkbox"/> 24 Hr 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/>	
Relinquished By: [Signature]	Date: [Blank]	Time: [Blank]														Standard <input type="checkbox"/>	

Temp Received: 39°C

Date Results Needed

Origins Laboratory, Inc.

Jeff Pellipini

*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: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

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

### Sample Receipt Checklist

Origins Work Order: 1901236

Client: LTE

Client Project ID: KMG - Joseph Huett Unit

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 1/18/2019

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 3.9 °C        /        °C        /        °C        /        °C (Describe)

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 NaAsO <sub>2</sub> +NaOH, ZnAc+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) [Signature]

Date/Time Reviewed 1/18/19

Origins Laboratory, Inc.

[Signature]

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: 014219004

Project: KMG - Joseph Huett Unit 2

**B02@19.5'**

**1/18/2019 3:30:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**

**Y901236-01 (Soil)**

## DRO/RRO by EPA8015C

Diesel (C10-C28)	<b>838</b>	25.0	mg/kg	1	B9A1804	JTD	01/18/2019	01/18/2019
Residual Range Organics (C28-C40)	<b>246</b>	100	"	"	"	JTD	"	"

Surrogate: o-Terphenyl	87.7 %	59-131	"	"	"
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## GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	<b>629</b>	50.0	mg/kg	250	B9A1803	KDK	01/18/2019	01/18/2019
Benzene	<b>0.320</b>	0.050	"	25	"	KDK	"	01/19/2019
Toluene	<b>0.088</b>	0.050	"	"	"	KDK	"	"
Ethylbenzene	<b>0.050</b>	0.050	"	"	"	KDK	"	"
Xylenes, total	<b>0.316</b>	0.050	"	"	"	KDK	"	"

Surrogate: 1,2-Dichloroethane-d4	107 %	70-130	"	"	"
Surrogate: Toluene-d8	95.6 %	70-130	"	"	"
Surrogate: 4-Bromofluorobenzene	108 %	70-130	"	"	01/18/2019

## pH in Soil by EPA 9045D

pH	<b>7.50</b>	pH Units	1	B9A1807	OLAB	01/18/2019	01/18/2019
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## Specific Conductance by Modified 9050A

Specific Conductance (EC)	<b>0.0520</b>	0.00500	mmhos/cm	"	B9A1808	OLAB	01/18/2019	"
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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: 014219004  
Project: KMG - Joseph Huett Unit 2

**N02@17.5'**  
**1/18/2019 3:35:00PM**

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901236-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	157	25.0	mg/kg	1	B9A1804	JTD	01/18/2019	01/18/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 75.7 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	99.7	5.00	mg/kg	25	B9A1803	KDK	01/18/2019	01/19/2019	
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

Surrogate: 1,2-Dichloroethane-d4 85.7 % 70-130 " " "  
Surrogate: Toluene-d8 96.5 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 96.9 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.31		pH Units	1	B9A1807	OLAB	01/18/2019	01/18/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.102	0.00500	mmhos/cm	"	B9A1808	OLAB	01/18/2019	"	
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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: 014219004  
Project: KMG - Joseph Huett Unit 2

S02@17.5'

1/18/2019 3:40:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901236-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	166	25.0	mg/kg	1	B9A1804	JTD	01/18/2019	01/18/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 76.0 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	61.3	5.00	mg/kg	25	B9A1803	KDK	01/18/2019	01/19/2019	
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

Surrogate: 1,2-Dichloroethane-d4 95.2 % 70-130 " " "  
Surrogate: Toluene-d8 99.3 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 111 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.83		pH Units	1	B9A1807	OLAB	01/18/2019	01/18/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.154	0.00500	mmhos/cm	"	B9A1808	OLAB	01/18/2019	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

E01@17.5'  
1/18/2019 3:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901236-04 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	748	25.0	mg/kg	1	B9A1804	JTD	01/18/2019	01/18/2019	
Residual Range Organics (C28-C40)	222	100	"	"	"	JTD	"	"	

Surrogate: o-Terphenyl 81.3 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	499	50.0	mg/kg	250	B9A1803	KDK	01/18/2019	01/18/2019	
Benzene	0.143	0.050	"	25	"	KDK	"	01/19/2019	
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 102 % 70-130 " " "  
Surrogate: Toluene-d8 93.5 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 108 % 70-130 " " 01/18/2019

**pH in Soil by EPA 9045D**

pH	8.70		pH Units	1	B9A1807	OLAB	01/18/2019	01/18/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.106	0.00500	mmhos/cm	"	B9A1808	OLAB	01/18/2019	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1803 - EPA 5030 (soil)</b>										
<b>Blank (B9A1803-BLK1)</b>					Prepared: 01/18/2019 Analyzed: 01/18/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		113	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.3	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1803 - EPA 5030 (soil)</b>										
<b>Blank (B9A1803-BLK2)</b>					Prepared: 01/18/2019 Analyzed: 01/18/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.6	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1803 - EPA 5030 (soil)</b>										
<b>Blank (B9A1803-BLK3)</b>					Prepared: 01/18/2019 Analyzed: 01/18/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		108	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.3	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: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1803 - EPA 5030 (soil)</b>										
<b>LCS (B9A1803-BS1)</b>					Prepared: 01/18/2019 Analyzed: 01/18/2019					
Benzene	0.108	0.002	mg/kg	0.100		108	77.1-124			
Toluene	0.102	0.002	"	0.100		102	74.5-128			
Ethylbenzene	0.094	0.002	"	0.100		94.3	66.4-127			
m,p-Xylene	0.197	0.004	"	0.200		98.4	76.6-124			
o-Xylene	0.097	0.002	"	0.100		96.7	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		110	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.2	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: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1803 - EPA 5030 (soil)**

**LCS (B9A1803-BS2)**

Prepared: 01/18/2019 Analyzed: 01/18/2019

Benzene	0.109	0.002	mg/kg	0.100		109	77.1-124			
Toluene	0.110	0.002	"	0.100		110	74.5-128			
Ethylbenzene	0.114	0.002	"	0.100		114	66.4-127			
m,p-Xylene	0.229	0.004	"	0.200		115	76.6-124			
o-Xylene	0.115	0.002	"	0.100		115	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		100	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.*

Jen Pellegrini For Noelle Doyle Mathis, President

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1803 - EPA 5030 (soil)</b>										
<b>LCS (B9A1803-BS3)</b>					Prepared: 01/18/2019 Analyzed: 01/18/2019					
Benzene	0.118	0.002	mg/kg	0.100		118	77.1-124			
Toluene	0.117	0.002	"	0.100		117	74.5-128			
Ethylbenzene	0.110	0.002	"	0.100		110	66.4-127			
m,p-Xylene	0.229	0.004	"	0.200		115	76.6-124			
o-Xylene	0.112	0.002	"	0.100		112	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		105	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.3	70-130			

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1803 - EPA 5030 (soil)**

Matrix Spike (B9A1803-MS1)		Source: Y901210-01			Prepared: 01/18/2019 Analyzed: 01/18/2019					
Benzene	0.107	0.002	mg/kg	0.100	0.0009	106	71.8-126			
Toluene	0.103	0.002	"	0.100	ND	103	65.1-130			
Ethylbenzene	0.098	0.002	"	0.100	ND	98.1	62.2-130			
m,p-Xylene	0.203	0.004	"	0.200	ND	101	46.5-137			
o-Xylene	0.100	0.002	"	0.100	0.0004	99.4	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		107	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.3	70-130			

Origins Laboratory, Inc.



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Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1803 - EPA 5030 (soil)**

Matrix Spike (B9A1803-MS2)		Source: Y901223-01			Prepared: 01/18/2019 Analyzed: 01/18/2019					
Benzene	0.092	0.002	mg/kg	0.100	ND	92.5	71.8-126			
Toluene	0.092	0.002	"	0.100	ND	91.6	65.1-130			
Ethylbenzene	0.096	0.002	"	0.100	ND	95.7	62.2-130			
m,p-Xylene	0.195	0.004	"	0.200	0.0009	97.4	46.5-137			
o-Xylene	0.099	0.002	"	0.100	0.0004	98.5	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1803 - EPA 5030 (soil)**

Matrix Spike (B9A1803-MS3)		Source: Y901220-04			Prepared: 01/18/2019 Analyzed: 01/18/2019					
Benzene	0.112	0.002	mg/kg	0.100	ND	112	71.8-126			
Toluene	0.110	0.002	"	0.100	ND	110	65.1-130			
Ethylbenzene	0.104	0.002	"	0.100	0.0006	104	62.2-130			
m,p-Xylene	0.215	0.004	"	0.200	0.002	107	46.5-137			
o-Xylene	0.106	0.002	"	0.100	0.0009	105	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		105	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.7	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1803 - EPA 5030 (soil)**

Matrix Spike Dup (B9A1803-MSD1)		Source: Y901210-01			Prepared: 01/18/2019 Analyzed: 01/18/2019					
Benzene	0.116	0.002	mg/kg	0.100	0.0009	115	71.8-126	8.23	11.3	
Toluene	0.116	0.002	"	0.100	ND	116	65.1-130	11.6	15.4	
Ethylbenzene	0.115	0.002	"	0.100	ND	115	62.2-130	15.9	19.6	
m,p-Xylene	0.236	0.004	"	0.200	ND	118	46.5-137	15.2	19.2	
o-Xylene	0.114	0.002	"	0.100	0.0004	114	54.2-134	13.6	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1803 - EPA 5030 (soil)**

Matrix Spike Dup (B9A1803-MSD2)		Source: Y901223-01			Prepared: 01/18/2019 Analyzed: 01/18/2019					
Benzene	0.106	0.002	mg/kg	0.100	ND	106	71.8-126	13.3	11.3	QR-02
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130	12.5	15.4	
Ethylbenzene	0.107	0.002	"	0.100	ND	107	62.2-130	11.2	19.6	
m,p-Xylene	0.217	0.004	"	0.200	0.0009	109	46.5-137	10.9	19.2	
o-Xylene	0.110	0.002	"	0.100	0.0004	110	54.2-134	10.6	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A1803 - EPA 5030 (soil)**

Matrix Spike Dup (B9A1803-MSD3)		Source: Y901220-04			Prepared: 01/18/2019 Analyzed: 01/18/2019					
Benzene	0.109	0.002	mg/kg	0.100	ND	109	71.8-126	2.05	11.3	
Toluene	0.114	0.002	"	0.100	ND	114	65.1-130	3.42	15.4	
Ethylbenzene	0.118	0.002	"	0.100	0.0006	118	62.2-130	12.6	19.6	
m,p-Xylene	0.244	0.004	"	0.200	0.002	121	46.5-137	12.7	19.2	
o-Xylene	0.116	0.002	"	0.100	0.0009	115	54.2-134	9.47	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		87.3	70-130			
Surrogate: Toluene-d8	0.13		"	0.125		101	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: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B9A1804 - EPA 3550B**

**Blank (B9A1804-BLK1)**

Prepared: 01/18/2019 Analyzed: 01/18/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	38		"	50.0		75.3	59-131			

**Blank (B9A1804-BLK2)**

Prepared: 01/18/2019 Analyzed: 01/18/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	42		"	50.0		84.7	59-131			

**Blank (B9A1804-BLK3)**

Prepared: 01/18/2019 Analyzed: 01/18/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	40		"	50.0		79.4	59-131			

**LCS (B9A1804-BS1)**

Prepared: 01/18/2019 Analyzed: 01/18/2019

Diesel (C10-C28)	983	50.0	mg/kg	1000		98.3	64-121			
Residual Range Organics (C28-C40)	934	200	"	1000		93.4	58-124			
Surrogate: o-Terphenyl	50		"	50.0		99.6	59-131			

**LCS (B9A1804-BS2)**

Prepared: 01/18/2019 Analyzed: 01/18/2019

Diesel (C10-C28)	877	50.0	mg/kg	1000		87.7	64-121			
Residual Range Organics (C28-C40)	820	200	"	1000		82.0	58-124			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1804 - EPA 3550B</b>										
<b>LCS (B9A1804-BS2)</b>					Prepared: 01/18/2019 Analyzed: 01/18/2019					
Surrogate: o-Terphenyl	44		mg/kg	50.0		88.3	59-131			
<b>LCS (B9A1804-BS3)</b>					Prepared: 01/18/2019 Analyzed: 01/18/2019					
Diesel (C10-C28)	914	50.0	mg/kg	1000		91.4	64-121			
Residual Range Organics (C28-C40)	900	200	"	1000		90.0	58-124			
Surrogate: o-Terphenyl	45		"	50.0		90.4	59-131			
<b>Matrix Spike (B9A1804-MS1)</b>					<b>Source: Y901213-01</b>		Prepared: 01/18/2019 Analyzed: 01/18/2019			
Diesel (C10-C28)	1050	50.0	mg/kg	1000	172	87.9	53-125			
Residual Range Organics (C28-C40)	882	200	"	1000	89.6	79.2	47-133			
Surrogate: o-Terphenyl	45		"	50.0		90.8	59-131			
<b>Matrix Spike (B9A1804-MS2)</b>					<b>Source: Y901223-01</b>		Prepared: 01/18/2019 Analyzed: 01/18/2019			
Diesel (C10-C28)	1030	50.0	mg/kg	1000	ND	103	53-125			
Residual Range Organics (C28-C40)	966	200	"	1000	9.28	95.7	47-133			
Surrogate: o-Terphenyl	47		"	50.0		94.9	59-131			
<b>Matrix Spike (B9A1804-MS3)</b>					<b>Source: Y901220-04</b>		Prepared: 01/18/2019 Analyzed: 01/18/2019			
Diesel (C10-C28)	1060	50.0	mg/kg	1000	ND	106	53-125			
Residual Range Organics (C28-C40)	1100	200	"	1000	34.0	106	47-133			
Surrogate: o-Terphenyl	47		"	50.0		94.0	59-131			
<b>Matrix Spike Dup (B9A1804-MSD1)</b>					<b>Source: Y901213-01</b>		Prepared: 01/18/2019 Analyzed: 01/18/2019			
Diesel (C10-C28)	1080	50.0	mg/kg	1000	172	91.0	53-125	3.40	20	
Residual Range Organics (C28-C40)	940	200	"	1000	89.6	85.0	47-133	7.08	20	
Surrogate: o-Terphenyl	46		"	50.0		92.5	59-131			
<b>Matrix Spike Dup (B9A1804-MSD2)</b>					<b>Source: Y901223-01</b>		Prepared: 01/18/2019 Analyzed: 01/18/2019			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1804 - EPA 3550B</b>										
<b>Matrix Spike Dup (B9A1804-MSD2)</b>		<b>Source: Y901223-01</b>			Prepared: 01/18/2019 Analyzed: 01/18/2019					
Diesel (C10-C28)	954	50.0	mg/kg	1000	ND	95.4	53-125	7.93	20	
Residual Range Organics (C28-C40)	899	200	"	1000	9.28	88.9	47-133	7.32	20	
Surrogate: o-Terphenyl	45		"	50.0		89.3	59-131			
<b>Matrix Spike Dup (B9A1804-MSD3)</b>		<b>Source: Y901220-04</b>			Prepared: 01/18/2019 Analyzed: 01/18/2019					
Diesel (C10-C28)	936	50.0	mg/kg	1000	ND	93.6	53-125	12.5	20	
Residual Range Organics (C28-C40)	942	200	"	1000	34.0	90.8	47-133	15.9	20	
Surrogate: o-Terphenyl	42		"	50.0		83.2	59-131			

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4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A1807 - NO PREP</b>										
<b>Duplicate (B9A1807-DUP1)</b>		<b>Source: Y901220-04</b>			Prepared: 01/18/2019 Analyzed: 01/18/2019					
pH	7.87		pH Units		7.92			0.633	25	
<b>Batch B9A1808 - NO PREP</b>										
<b>Blank (B9A1808-BLK1)</b>		Prepared: 01/18/2019 Analyzed: 01/18/2019								
Specific Conductance (EC)	0.00350	0.00500	mmhos/cm							
<b>Duplicate (B9A1808-DUP1)</b>		<b>Source: Y901220-04</b>			Prepared: 01/18/2019 Analyzed: 01/18/2019					
Specific Conductance (EC)	0.241	0.00509	mmhos/cm		0.240			0.374	25	

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

### Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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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January 22, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. January 21, 2019. This project is associated with Origins project number Y901257-01.

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: 014219004  
Project: KMG - Joseph Huett Unit 2

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E02@17.5'	Y901257-01	Soil	January 21, 2019 15:10	01/21/2019 16:55
B03@19.5'	Y901257-02	Soil	January 21, 2019 15:15	01/21/2019 16:55
S03@17.5'	Y901257-03	Soil	January 21, 2019 15:40	01/21/2019 16:55
N03@17.5'	Y901257-04	Soil	January 21, 2019 15:45	01/21/2019 16:55

Origins Laboratory, Inc.



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Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

[illegible]

Origins Laboratory, Inc.

Jeff Pellipini

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 901257

Client: LTE

Client Project ID: KMG - Joseph Huett Unit 2

Checklist Completed by: JG

Shipped Via: HD  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 1/21/2019

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 11.4 °C / °C / °C / °C (Describe)

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"/>		<u>Same Day</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" 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 checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? <b>If yes, contact client and note in narrative.</b>			<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 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: [Signature] (Project Manager)

Date/Time Reviewed: 1/21/19

Origins Laboratory, Inc.

Jefe Pellegrini

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: 014219004  
Project: KMG - Joseph Huett Unit 2

E02@17.5'

1/21/2019 3:10:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901257-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9A2103	KDK	01/21/2019	01/21/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 136 % 59-131 " " " S-07

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B9A2102	JTD	01/21/2019	01/21/2019	U
Benzene	ND	0.050	"	"	"	JTD	"	"	U
Toluene	ND	0.050	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.050	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.050	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 85.3 % 70-130 " " "

Surrogate: Toluene-d8 99.8 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 96.1 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.48		pH Units	1	B9A2104	OLAB	"	01/21/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.121	0.00500	mmhos/cm	"	B9A2105	OLAB	"	"	
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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: 014219004  
Project: KMG - Joseph Huett Unit 2

**B03@19.5'**

**1/21/2019 3:15:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901257-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	<b>559</b>	25.0	mg/kg	1	B9A2103	KDK	01/21/2019	01/21/2019	
Residual Range Organics (C28-C40)	<b>161</b>	100	"	"	"	KDK	"	"	

Surrogate: o-Terphenyl 97.1 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	<b>446</b>	50.0	mg/kg	250	B9A2102	JTD	01/21/2019	01/21/2019	
Benzene	ND	0.050	"	25	"	JTD	"	01/21/2019	U
Toluene	<b>0.050</b>	0.050	"	"	"	JTD	"	"	
Ethylbenzene	ND	0.050	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.050	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 88.7 % 70-130 " " 01/21/2019  
Surrogate: Toluene-d8 97.0 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 106 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	<b>8.35</b>		pH Units	1	B9A2104	OLAB	"	01/21/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	<b>0.0449</b>	0.00506	mmhos/cm	"	B9A2105	OLAB	"	"	
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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: 014219004  
Project: KMG - Joseph Huett Unit 2

S03@17.5'

1/21/2019 3:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901257-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9A2103	KDK	01/21/2019	01/21/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 85.0 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9A2102	JTD	01/21/2019	01/21/2019	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

Surrogate: 1,2-Dichloroethane-d4 93.0 % 70-130 " " "  
Surrogate: Toluene-d8 97.8 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 97.0 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.33		pH Units	1	B9A2104	OLAB	"	01/21/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0932	0.00500	mmhos/cm	"	B9A2105	OLAB	"	"	
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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: 014219004  
Project: KMG - Joseph Huett Unit 2

N03@17.5'

1/21/2019 3:45:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901257-04 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	341	25.0	mg/kg	1	B9A2103	KDK	01/21/2019	01/21/2019	
Residual Range Organics (C28-C40)	103	100	"	"	"	KDK	"	"	

Surrogate: o-Terphenyl 89.1 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	71.9	5.00	mg/kg	25	B9A2102	JTD	01/21/2019	01/21/2019	
Benzene	ND	0.050	"	"	"	JTD	"	"	U
Toluene	ND	0.050	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.050	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.050	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 66.2 % 70-130 " " " S-04  
Surrogate: Toluene-d8 110 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 74.6 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.35		pH Units	1	B9A2104	OLAB	"	01/21/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.120	0.00500	mmhos/cm	"	B9A2105	OLAB	"	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A2102 - EPA 5030 (soil)</b>										
<b>Blank (B9A2102-BLK1)</b>					Prepared: 01/21/2019 Analyzed: 01/21/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.4	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.4	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A2102 - EPA 5030 (soil)</b>										
<b>LCS (B9A2102-BS1)</b>					Prepared: 01/21/2019 Analyzed: 01/21/2019					
Benzene	0.097	0.002	mg/kg	0.100		96.7	77.1-124			
Toluene	0.096	0.002	"	0.100		95.5	74.5-128			
Ethylbenzene	0.099	0.002	"	0.100		98.7	66.4-127			
m,p-Xylene	0.199	0.004	"	0.200		99.5	76.6-124			
o-Xylene	0.100	0.002	"	0.100		100	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		85.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.5	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A2102 - EPA 5030 (soil)**

Matrix Spike (B9A2102-MS1)		Source: Y901231-01			Prepared: 01/21/2019 Analyzed: 01/21/2019					
Benzene	0.104	0.002	mg/kg	0.100	ND	104	71.8-126			
Toluene	0.102	0.002	"	0.100	ND	102	65.1-130			
Ethylbenzene	0.104	0.002	"	0.100	ND	104	62.2-130			
m,p-Xylene	0.209	0.004	"	0.200	ND	105	46.5-137			
o-Xylene	0.107	0.002	"	0.100	0.0004	107	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.6	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A2102 - EPA 5030 (soil)**

Matrix Spike Dup (B9A2102-MSD1)		Source: Y901231-01			Prepared: 01/21/2019 Analyzed: 01/21/2019					
Benzene	0.103	0.002	mg/kg	0.100	ND	103	71.8-126	0.984	11.3	
Toluene	0.100	0.002	"	0.100	ND	100	65.1-130	2.10	15.4	
Ethylbenzene	0.103	0.002	"	0.100	ND	103	62.2-130	0.946	19.6	
m,p-Xylene	0.208	0.004	"	0.200	ND	104	46.5-137	0.459	19.2	
o-Xylene	0.107	0.002	"	0.100	0.0004	106	54.2-134	0.543	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		90.0	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.4	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B9A2103 - EPA 3550B**

**Blank (B9A2103-BLK1)**

Prepared: 01/21/2019 Analyzed: 01/21/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	46		"	50.0		92.4	59-131			

**LCS (B9A2103-BS1)**

Prepared: 01/21/2019 Analyzed: 01/21/2019

Diesel (C10-C28)	800	50.0	mg/kg	1000		80.0	64-121			
Residual Range Organics (C28-C40)	750	200	"	1000		75.0	58-124			
Surrogate: o-Terphenyl	46		"	50.0		91.3	59-131			

**Matrix Spike (B9A2103-MS1)**

**Source: Y901233-05**

Prepared: 01/21/2019 Analyzed: 01/21/2019

Diesel (C10-C28)	1060	50.0	mg/kg	1000	ND	106	53-125			
Residual Range Organics (C28-C40)	1000	200	"	1000	10.4	99.4	47-133			
Surrogate: o-Terphenyl	51		"	50.0		103	59-131			

**Matrix Spike Dup (B9A2103-MSD1)**

**Source: Y901233-05**

Prepared: 01/21/2019 Analyzed: 01/21/2019

Diesel (C10-C28)	988	50.0	mg/kg	1000	ND	98.8	53-125	7.26	20	
Residual Range Organics (C28-C40)	957	200	"	1000	10.4	94.6	47-133	4.94	20	
Surrogate: o-Terphenyl	47		"	50.0		94.2	59-131			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9A2104 - NO PREP										
Duplicate (B9A2104-DUP1)		Source: Y901233-01			Prepared: 01/21/2019 Analyzed: 01/21/2019					
pH	7.72		pH Units		7.96			3.06	25	
Batch B9A2105 - NO PREP										
Blank (B9A2105-BLK1)		Prepared: 01/21/2019 Analyzed: 01/21/2019								
Specific Conductance (EC)	0.00230	0.00500	mmhos/cm							
Duplicate (B9A2105-DUP1)		Source: Y901233-01			Prepared: 01/21/2019 Analyzed: 01/21/2019					
Specific Conductance (EC)	0.228	0.00500	mmhos/cm		0.227			0.483	25	

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

### Notes and Definitions

U Sample is Non-Detect.

S-07 High surrogate in sample, however sample is non-detect. High surrogate indicates result values are biased high.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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.



*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.*



January 31, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. January 30, 2019. This project is associated with Origins project number Y901383-01.

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: 014219004  
Project: KMG - Joseph Huett Unit 2

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B06@29.5'	Y901383-01	Soil	January 30, 2019 14:35	01/30/2019 16:24
B09@29.5'	Y901383-02	Soil	January 30, 2019 14:50	01/30/2019 16:24

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: 014219004  
Project: KMG - Joseph Huett Unit 2

www.originslaboratory.com

Y901383

page | of |

ORIGINS  
LABORATORY, INC

Client: LT Environmental  
Address: \_\_\_\_\_  
Telephone Number: 303.433.9788  
Email Address: KMG Team  
Project Manager: Brian Sulzberger  
Project Name: Joseph Huett #2  
Project Number: 014219004  
Samples Collected By: Glenn Thompson

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis			Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air/Surface	Other	GC/MS	PH	
B06 029.5'	1-30-19	1435	2	X					X			X	X	Hold SKE
B09 029.5'	1-30-19	1450	2	X					X			X	X	Hold SKE
Relinquished By: <u>[Signature]</u>	Date: <u>1-30-19</u>	Time: _____	Received By: <u>[Signature]</u>	Date: <u>01-30-19</u>	Time: <u>1624</u>	Turnaround Time: <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard								

Date Results Needed

Temp Received: 8.1

Origins Laboratory, Inc.

Jefe Pellegrini

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: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: Y901383

Client: LTE

Client Project ID: KMG - Joseph Huett Unit 2

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 1/30/2019

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 8.1 °C \_\_\_\_\_ / \_\_\_\_\_ °C \_\_\_\_\_ / \_\_\_\_\_ °C (Describe) \_\_\_\_\_ °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"/>	<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 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 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 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 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 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) [Signature]

1/30/19  
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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: 014219004  
Project: KMG - Joseph Huett Unit 2

**B06@29.5'**

**1/30/2019 2:35:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901383-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	334	25.0	mg/kg	1	B9A3003	KDK	01/30/2019	01/30/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 78.8 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	245	50.0	mg/kg	250	B9A3002	KDK	01/30/2019	01/30/2019	
Benzene	0.092	0.050	"	25	"	KDK	"	01/30/2019	
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	0.576	0.050	"	"	"	KDK	"	"	
Xylenes, total	1.12	0.050	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4 91.8 % 70-130 " " 01/30/2019  
Surrogate: Toluene-d8 96.3 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 100 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	7.98		pH Units	1	B9A3004	KDK	01/30/2019	01/30/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0439	0.00505	mmhos/cm	"	B9A3005	KDK	01/30/2019	01/30/2019	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**B09@29.5'**

**1/30/2019 2:50:00PM**

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y901383-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9A3003	KDK	01/30/2019	01/30/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 72.2 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	20.4	5.00	mg/kg	25	B9A3002	KDK	01/30/2019	01/30/2019	
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

Surrogate: 1,2-Dichloroethane-d4 90.2 % 70-130 " " "  
Surrogate: Toluene-d8 97.2 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 99.6 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.26		pH Units	1	B9A3004	KDK	01/30/2019	01/30/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0324	0.00501	mmhos/cm	"	B9A3005	KDK	01/30/2019	01/30/2019	
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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: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A3002 - EPA 5030 (soil)</b>										
<b>Blank (B9A3002-BLK1)</b>					Prepared: 01/30/2019 Analyzed: 01/30/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		95.3	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.3	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9A3002 - EPA 5030 (soil)										
LCS (B9A3002-BS1)					Prepared: 01/30/2019 Analyzed: 01/30/2019					
Benzene	0.106	0.002	mg/kg	0.100		106	77.1-124			
Toluene	0.100	0.002	"	0.100		100	74.5-128			
Ethylbenzene	0.103	0.002	"	0.100		103	66.4-127			
m,p-Xylene	0.209	0.004	"	0.200		105	76.6-124			
o-Xylene	0.106	0.002	"	0.100		106	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.4	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.0	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: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A3002 - EPA 5030 (soil)**

Matrix Spike (B9A3002-MS1)		Source: Y901370-01			Prepared: 01/30/2019 Analyzed: 01/30/2019					
Benzene	0.095	0.002	mg/kg	0.100	ND	95.4	71.8-126			
Toluene	0.089	0.002	"	0.100	ND	88.8	65.1-130			
Ethylbenzene	0.097	0.002	"	0.100	ND	96.5	62.2-130			
m,p-Xylene	0.192	0.004	"	0.200	ND	95.8	46.5-137			
o-Xylene	0.096	0.002	"	0.100	0.0003	95.9	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		89.8	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9A3002 - EPA 5030 (soil)**

Matrix Spike Dup (B9A3002-MSD1)		Source: Y901370-01			Prepared: 01/30/2019 Analyzed: 01/30/2019					
Benzene	0.092	0.002	mg/kg	0.100	ND	92.0	71.8-126	3.59	11.3	
Toluene	0.087	0.002	"	0.100	ND	87.2	65.1-130	1.86	15.4	
Ethylbenzene	0.092	0.002	"	0.100	ND	91.6	62.2-130	5.23	19.6	
m,p-Xylene	0.183	0.004	"	0.200	ND	91.4	46.5-137	4.69	19.2	
o-Xylene	0.091	0.002	"	0.100	0.0003	91.0	54.2-134	5.27	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		90.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		104	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B9A3003 - EPA 3580**

**Blank (B9A3003-BLK1)**

Prepared: 01/30/2019 Analyzed: 01/30/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	43		"	50.0		86.6	59-131			

**LCS (B9A3003-BS1)**

Prepared: 01/30/2019 Analyzed: 01/30/2019

Diesel (C10-C28)	971	50.0	mg/kg	1000		97.1	64-121			
Residual Range Organics (C28-C40)	949	200	"	1000		94.9	58-124			
Surrogate: o-Terphenyl	47		"	50.0		94.1	59-131			

**Matrix Spike (B9A3003-MS1)**

**Source: Y901370-01**

Prepared: 01/30/2019 Analyzed: 01/30/2019

Diesel (C10-C28)	925	50.0	mg/kg	1000	ND	92.5	53-125			
Residual Range Organics (C28-C40)	905	200	"	1000	32.7	87.2	47-133			
Surrogate: o-Terphenyl	42		"	50.0		83.1	59-131			

**Matrix Spike Dup (B9A3003-MSD1)**

**Source: Y901370-01**

Prepared: 01/30/2019 Analyzed: 01/30/2019

Diesel (C10-C28)	905	50.0	mg/kg	1000	ND	90.5	53-125	2.12	20	
Residual Range Organics (C28-C40)	895	200	"	1000	32.7	86.2	47-133	1.19	20	
Surrogate: o-Terphenyl	47		"	50.0		93.1	59-131			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9A3004 - NO PREP</b>										
<b>Duplicate (B9A3004-DUP1)</b>		<b>Source: Y901370-02</b>			Prepared: 01/30/2019 Analyzed: 01/30/2019					
pH	7.86		pH Units		8.63			9.34	25	
<b>Batch B9A3005 - NO PREP</b>										
<b>Blank (B9A3005-BLK1)</b>		Prepared: 01/30/2019 Analyzed: 01/30/2019								
Specific Conductance (EC)	0.00250	0.00500	mmhos/cm							
<b>Duplicate (B9A3005-DUP1)</b>		<b>Source: Y901370-02</b>			Prepared: 01/30/2019 Analyzed: 01/30/2019					
Specific Conductance (EC)	0.0815	0.00500	mmhos/cm		0.0785			3.75	25	

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

### 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.



*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.*

Jen Pellegrini For Noelle Doyle Mathis, President



February 06, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. February 05, 2019. This project is associated with Origins project number Y902050-01.

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: 014219004  
Project: KMG - Joseph Huett Unit 2

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B10@32'	Y902050-01	Soil	February 5, 2019 8:51	02/05/2019 16:30
B11@35'	Y902050-02	Soil	February 5, 2019 9:07	02/05/2019 16:30
S04@29'	Y902050-03	Soil	February 5, 2019 13:24	02/05/2019 16:30
S05@29'	Y902050-04	Soil	February 5, 2019 13:30	02/05/2019 16:30
W02@29'	Y902050-05	Soil	February 5, 2019 13:37	02/05/2019 16:30
E03@29'	Y902050-06	Soil	February 5, 2019 13:45	02/05/2019 16:30
N04@29'	Y902050-07	Soil	February 5, 2019 14:20	02/05/2019 16:30
N05@29'	Y902050-08	Soil	February 5, 2019 14:28	02/05/2019 16:30
N06@17.5'	Y902050-09	Soil	February 5, 2019 14:35	02/05/2019 16:30

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: 014219004  
Project: KMG - Joseph Huett Unit 2

**ORIGINS**  
LABORATORY, INC

www.originslaboratory.com

90050

page 1 of 1

Client: LT Environmental  
Address: 4600 W. 60th Ave.  
Arvada, CO, 80003  
Telephone Number: KML Group  
Email Address: KML Group  
Project Manager: Brian Sulzberger  
Project Name: Joseph Huett Unit #2  
Project Number: 014219004  
Samples Collected By: Dakota H.

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

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	LC	PH		TOC
B10 @ 32'	2-5-19	0851										X	X	X	1
B11 @ 35'		0907										X	X	X	2
S04 @ 29'		1324										X	X	X	3
S05 @ 29'		1330										X	X	X	4
W02 @ 29'		1337										X	X	X	5
S03 @ 29'		1345										X	X	X	6
N04 @ 29'		1420										X	X	X	7
N05 @ 29'		1428										X	X	X	8
N06 @ 17.5'		1435										X	X	X	9
															10

Handwritten notes in Sample Instructions:  
1: Held - Sample taken  
2: off hold per the  
3: email from Andy  
4: on 2/6/19. ap

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

Relinquished By: [Signature] Date: 2-5-19 Time: 1630  
Relinquished By: [Signature] Date: 2-5-19 Time: 1630

Date Results Needed

Temp Received- 15.4

Origins Laboratory, Inc.

*Jefe Pellegrini*

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 1902050

Client: LTE

Client Project ID: KMG - Joseph Huett Unit 2

Checklist Completed by: JG

Shipped Via: HD

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

Date/time completed: 2/5/2019

Airbill #: N/A

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

Cooler Number/Temperature: 1 15.4 °C / °C / °C / °C (Describe)

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"/>		<u>Same</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" 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 checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<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 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 2/5/19

Origins Laboratory, Inc.

*Jefe Pellegrini*

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: 014219004  
Project: KMG - Joseph Huett Unit 2

B10@32'

2/5/2019 8:51:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y902050-01 (Soil)

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	410	25.0	mg/kg	1	B9B0503	KDK	02/05/2019	02/05/2019	
Residual Range Organics (C28-C40)	103	100	"	"	"	KDK	"	"	

Surrogate: o-Terphenyl 85.1 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	475	50.0	mg/kg	250	B9B0502	KDK	"	02/05/2019	
Benzene	0.134	0.050	"	25	"	KDK	"	02/06/2019	
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	1.36	0.050	"	"	"	KDK	"	"	
Xylenes, total	7.75	0.050	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4 89.0 % 70-130 " " 02/05/2019  
Surrogate: Toluene-d8 94.1 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.24		pH Units	1	B9B0506	OLAB	02/05/2019	02/05/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0691	0.00500	mmhos/cm	"	B9B0507	OLAB	02/05/2019	02/05/2019	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

B11@35'

2/5/2019 9:07:00AM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y902050-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	85.0	25.0	mg/kg	1	B9B0503	JTD	02/06/2019	02/06/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 70.5 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	73.3	5.00	mg/kg	25	B9B0502	JTD	"	02/06/2019	
Benzene	ND	0.050	"	"	"	JTD	"	"	U
Toluene	ND	0.050	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.050	"	"	"	JTD	"	"	U
Xylenes, total	0.132	0.050	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4 83.4 % 70-130 " " "  
Surrogate: Toluene-d8 95.2 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 110 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	7.82		pH Units	1	B9B0506	JTD	"	02/06/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0718	0.00502	mmhos/cm	"	B9B0507	JTD	"	02/06/2019	
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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: 014219004  
Project: KMG - Joseph Huett Unit 2

S04@29'

2/5/2019 1:24:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y902050-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	76.3	25.0	mg/kg	1	B9B0503	KDK	02/05/2019	02/05/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 76.3 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	99.6	5.00	mg/kg	25	B9B0502	KDK	"	02/05/2019	
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

Surrogate: 1,2-Dichloroethane-d4 88.1 % 70-130 " " "  
Surrogate: Toluene-d8 93.7 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 97.5 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.67		pH Units	1	B9B0506	OLAB	02/05/2019	02/05/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0426	0.00508	mmhos/cm	"	B9B0507	OLAB	02/05/2019	02/05/2019	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

S05@29'

2/5/2019 1:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y902050-04 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	174	25.0	mg/kg	1	B9B0503	KDK	02/05/2019	02/05/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 82.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	198	5.00	mg/kg	25	B9B0502	KDK	"	02/05/2019	
Benzene	0.452	0.050	"	"	"	KDK	"	"	
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	0.198	0.050	"	"	"	KDK	"	"	
Xylenes, total	0.130	0.050	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4 94.3 % 70-130 " " "  
Surrogate: Toluene-d8 90.2 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 123 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.59		pH Units	1	B9B0506	OLAB	02/05/2019	02/05/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0563	0.00508	mmhos/cm	"	B9B0507	OLAB	02/05/2019	02/05/2019	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

W02@29'

2/5/2019 1:37:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
Y902050-05 (Soil)

### DRO/RRO by EPA8015C

Diesel (C10-C28)	281	25.0	mg/kg	1	B9B0503	KDK	02/05/2019	02/05/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 89.1 % 59-131 " " "

### GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	251	5.00	mg/kg	25	B9B0502	KDK	"	02/05/2019	
Benzene	0.223	0.050	"	"	"	KDK	"	"	
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	0.692	0.050	"	"	"	KDK	"	"	
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 87.3 % 70-130 " " "  
Surrogate: Toluene-d8 92.4 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 123 % 70-130 " " "

### pH in Soil by EPA 9045D

pH	8.55		pH Units	1	B9B0506	OLAB	02/05/2019	02/05/2019	
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### Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0696	0.00504	mmhos/cm	"	B9B0507	OLAB	02/05/2019	02/05/2019	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

E03@29'

2/5/2019 1:45:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y902050-06 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	58.8	25.0	mg/kg	1	B9B0503	KDK	02/05/2019	02/05/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 74.3 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	179	5.00	mg/kg	25	B9B0502	KDK	"	02/06/2019	
Benzene	ND	0.050	"	"	"	KDK	"	"	U
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	0.148	0.050	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4 82.8 % 70-130 " " "  
Surrogate: Toluene-d8 92.5 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 118 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	7.98		pH Units	1	B9B0506	OLAB	02/05/2019	02/05/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0460	0.00500	mmhos/cm	"	B9B0507	OLAB	02/05/2019	02/05/2019	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

N04@29'

2/5/2019 2:20:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y902050-07 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	56.4	25.0	mg/kg	1	B9B0503	KDK	02/05/2019	02/05/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 76.4 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	58.1	5.00	mg/kg	25	B9B0502	KDK	"	02/05/2019	
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

Surrogate: 1,2-Dichloroethane-d4 85.0 % 70-130 " " "  
Surrogate: Toluene-d8 96.5 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 94.9 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.54		pH Units	1	B9B0506	OLAB	02/05/2019	02/05/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0707	0.00500	mmhos/cm	"	B9B0507	OLAB	02/05/2019	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

N05@29'

2/5/2019 2:28:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y902050-08 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	173	25.0	mg/kg	1	B9B0503	KDK	02/05/2019	02/05/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 81.7 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	138	5.00	mg/kg	25	B9B0502	KDK	"	02/05/2019	
Benzene	0.050	0.050	"	"	"	KDK	"	"	
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.050	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.050	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 88.0 % 70-130 " " "  
Surrogate: Toluene-d8 93.8 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.5 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.59		pH Units	1	B9B0506	OLAB	02/05/2019	02/05/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0754	0.00502	mmhos/cm	"	B9B0507	OLAB	02/05/2019	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

N06@17.5'

2/5/2019 2:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y902050-09 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B9B0503	KDK	02/05/2019	02/05/2019	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	KDK	"	"	U

Surrogate: o-Terphenyl 73.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B9B0502	KDK	"	02/06/2019	U
Benzene	ND	0.002	"	"	"	KDK	"	"	U
Toluene	ND	0.002	"	"	"	KDK	"	"	U
Ethylbenzene	ND	0.002	"	"	"	KDK	"	"	U
Xylenes, total	ND	0.002	"	"	"	KDK	"	"	U

Surrogate: 1,2-Dichloroethane-d4 92.3 % 70-130 " " "  
Surrogate: Toluene-d8 93.2 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.0 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.27		pH Units	1	B9B0506	OLAB	02/05/2019	02/05/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.120	0.00508	mmhos/cm	"	B9B0507	OLAB	02/05/2019	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B0502 - EPA 5030 (soil)</b>										
<b>Blank (B9B0502-BLK1)</b>					Prepared: 02/05/2019 Analyzed: 02/05/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.2	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B0502 - EPA 5030 (soil)</b>										
<b>Blank (B9B0502-BLK2)</b>					Prepared: 02/05/2019 Analyzed: 02/05/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		89.4	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		96.3	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B0502 - EPA 5030 (soil)</b>										
<b>LCS (B9B0502-BS1)</b>					Prepared: 02/05/2019 Analyzed: 02/05/2019					
Benzene	0.100	0.002	mg/kg	0.100		100	77.1-124			
Toluene	0.102	0.002	"	0.100		102	74.5-128			
Ethylbenzene	0.103	0.002	"	0.100		103	66.4-127			
m,p-Xylene	0.209	0.004	"	0.200		105	76.6-124			
o-Xylene	0.104	0.002	"	0.100		104	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		87.9	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B0502 - EPA 5030 (soil)

**LCS (B9B0502-BS2)**

Prepared: 02/05/2019 Analyzed: 02/05/2019

Benzene	0.101	0.002	mg/kg	0.100		101	77.1-124			
Toluene	0.096	0.002	"	0.100		96.4	74.5-128			
Ethylbenzene	0.096	0.002	"	0.100		96.5	66.4-127			
m,p-Xylene	0.192	0.004	"	0.200		96.2	76.6-124			
o-Xylene	0.094	0.002	"	0.100		93.5	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		86.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.0	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B0502 - EPA 5030 (soil)**

Matrix Spike (B9B0502-MS1)		Source: Y902039-05			Prepared: 02/05/2019 Analyzed: 02/05/2019					
Benzene	0.078	0.002	mg/kg	0.100	ND	77.9	71.8-126			
Toluene	0.081	0.002	"	0.100	ND	80.8	65.1-130			
Ethylbenzene	0.082	0.002	"	0.100	ND	81.9	62.2-130			
m,p-Xylene	0.168	0.004	"	0.200	ND	83.8	46.5-137			
o-Xylene	0.083	0.002	"	0.100	0.0003	83.2	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		92.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	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: 014219004

Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B0502 - EPA 5030 (soil)**

Matrix Spike (B9B0502-MS2)		Source: Y902052-04			Prepared: 02/05/2019 Analyzed: 02/05/2019					
Benzene	0.108	0.002	mg/kg	0.100	0.0008	107	71.8-126			
Toluene	0.104	0.002	"	0.100	0.005	98.3	65.1-130			
Ethylbenzene	0.102	0.002	"	0.100	0.002	99.9	62.2-130			
m,p-Xylene	0.205	0.004	"	0.200	0.011	97.1	46.5-137			
o-Xylene	0.102	0.002	"	0.100	0.005	96.6	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.6	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: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B0502 - EPA 5030 (soil)**

Matrix Spike Dup (B9B0502-MSD1)		Source: Y902039-05			Prepared: 02/05/2019 Analyzed: 02/05/2019					
Benzene	0.077	0.002	mg/kg	0.100	ND	76.9	71.8-126	1.34	11.3	
Toluene	0.078	0.002	"	0.100	ND	78.4	65.1-130	2.99	15.4	
Ethylbenzene	0.077	0.002	"	0.100	ND	77.0	62.2-130	6.07	19.6	
m,p-Xylene	0.158	0.004	"	0.200	ND	78.9	46.5-137	6.03	19.2	
o-Xylene	0.078	0.002	"	0.100	0.0003	78.3	54.2-134	6.07	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		93.3	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		94.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B0502 - EPA 5030 (soil)**

Matrix Spike Dup (B9B0502-MSD2)		Source: Y902052-04			Prepared: 02/05/2019 Analyzed: 02/05/2019					
Benzene	0.113	0.002	mg/kg	0.100	0.0008	112	71.8-126	4.45	11.3	
Toluene	0.106	0.002	"	0.100	0.005	101	65.1-130	2.57	15.4	
Ethylbenzene	0.105	0.002	"	0.100	0.002	103	62.2-130	3.47	19.6	
m,p-Xylene	0.214	0.004	"	0.200	0.011	101	46.5-137	4.17	19.2	
o-Xylene	0.106	0.002	"	0.100	0.005	101	54.2-134	4.15	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		88.6	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		95.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.9	70-130			

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Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B9B0503 - EPA 3580**

**Blank (B9B0503-BLK1)**

Prepared: 02/05/2019 Analyzed: 02/05/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	44		"	50.0		87.6	59-131			

**Blank (B9B0503-BLK2)**

Prepared: 02/05/2019 Analyzed: 02/05/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	41		"	50.0		81.9	59-131			

**LCS (B9B0503-BS1)**

Prepared: 02/05/2019 Analyzed: 02/05/2019

Diesel (C10-C28)	976	50.0	mg/kg	1000		97.6	64-121			
Residual Range Organics (C28-C40)	976	200	"	1000		97.6	58-124			
Surrogate: o-Terphenyl	49		"	50.0		97.9	59-131			

**LCS (B9B0503-BS2)**

Prepared: 02/05/2019 Analyzed: 02/05/2019

Diesel (C10-C28)	978	50.0	mg/kg	1000		97.8	64-121			
Residual Range Organics (C28-C40)	1000	200	"	1000		100	58-124			
Surrogate: o-Terphenyl	50		"	50.0		99.0	59-131			

**Matrix Spike (B9B0503-MS1)**

**Source: Y902039-05**

Prepared: 02/05/2019 Analyzed: 02/05/2019

Diesel (C10-C28)	982	50.0	mg/kg	1000	ND	98.2	53-125			
Residual Range Organics (C28-C40)	985	200	"	1000	ND	98.5	47-133			

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B0503 - EPA 3580</b>										
<b>Matrix Spike (B9B0503-MS1)</b>		<b>Source: Y902039-05</b>			Prepared: 02/05/2019 Analyzed: 02/05/2019					
Surrogate: o-Terphenyl	43		mg/kg	50.0		86.1	59-131			
<b>Matrix Spike (B9B0503-MS2)</b>		<b>Source: Y902052-04</b>			Prepared: 02/05/2019 Analyzed: 02/05/2019					
Diesel (C10-C28)	953	50.0	mg/kg	1000	ND	95.3	53-125			
Residual Range Organics (C28-C40)	960	200	"	1000	ND	96.0	47-133			
Surrogate: o-Terphenyl	44		"	50.0		88.1	59-131			
<b>Matrix Spike Dup (B9B0503-MSD1)</b>		<b>Source: Y902039-05</b>			Prepared: 02/05/2019 Analyzed: 02/05/2019					
Diesel (C10-C28)	881	50.0	mg/kg	1000	ND	88.1	53-125	10.8	20	
Residual Range Organics (C28-C40)	885	200	"	1000	ND	88.5	47-133	10.8	20	
Surrogate: o-Terphenyl	41		"	50.0		81.7	59-131			
<b>Matrix Spike Dup (B9B0503-MSD2)</b>		<b>Source: Y902052-04</b>			Prepared: 02/05/2019 Analyzed: 02/05/2019					
Diesel (C10-C28)	995	50.0	mg/kg	1000	ND	99.5	53-125	4.24	20	
Residual Range Organics (C28-C40)	997	200	"	1000	ND	99.7	47-133	3.72	20	
Surrogate: o-Terphenyl	46		"	50.0		91.0	59-131			

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Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B0506 - NO PREP</b>										
<b>Duplicate (B9B0506-DUP1)</b>		<b>Source: Y902049-01</b>			Prepared: 02/05/2019 Analyzed: 02/05/2019					
pH	7.67		pH Units		7.93			3.33	25	
<b>Batch B9B0507 - NO PREP</b>										
<b>Blank (B9B0507-BLK1)</b>		Prepared: 02/05/2019 Analyzed: 02/05/2019								
Specific Conductance (EC)	0.00180	0.00500	mmhos/cm							
<b>Duplicate (B9B0507-DUP1)</b>		<b>Source: Y902049-01</b>			Prepared: 02/05/2019 Analyzed: 02/05/2019					
Specific Conductance (EC)	0.455	0.00500	mmhos/cm		0.484			6.30	25	

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

### 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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February 15, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. February 14, 2019. This project is associated with Origins project number Y902181-01.

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: 014219004  
Project: KMG - Joseph Huett Unit 2

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W03@31'	Y902181-01	Soil	February 14, 2019 15:10	02/14/2019 17:00
GW01	Y902181-02	Water	February 14, 2019 13:50	02/14/2019 17:00

Origins Laboratory, Inc.



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LT Environmental, Inc.  
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Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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107201

page 1 of 1

ORIGINS  
LABORATORY, INC

Client: LT Environmental  
Address: 4600 W. 60th Ave  
Arvada, CO 80003  
Telephone Number: 303.265.9645  
Email Address: brian.sulzberger@originslab.com

Project Manager: B. Sulzberger  
Project Name: Joseph Huett #2  
Project Number: 014219004  
Samples Collected By: Dakota Hatch

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative			Matrix		Analysis			Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Groundwater	Soil	Alk Summa	Other	TPH	
W03031	2-14-19	1510	2	K								
G001	2-14-19	1350	3	K								
Relinquished By: <u>Dakota Hatch</u>	Date: <u>2-14-19</u>	Time: <u>1700</u>	Received By: <u>[Signature]</u>	Date: <u>2-14-19</u>	Time: <u>1700</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"/>						

1725 Elk Place | Phone: 303.433.1322 | Fox: 303.265.9645

Date Results Needed

7.8

Temp Received-

Origins Laboratory, Inc.

*Jefe Pellegrini*

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

### Sample Receipt Checklist

Origins Work Order: 4902181

Client: LTE

Client Project ID: KMG - Joseph Huett #2

Checklist Completed by: Dan Lee

Shipped Via: HD  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 2-14-19

Airbill #: NA

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

Cooler Number/Temperature: 7.8 °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C / \_\_\_\_\_ °C (Describe)

Thermometer ID: 1003

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"/>		Sampled same Day
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" 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 checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<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 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) [Signature]

2-14-19  
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

W03@31'  
2/14/2019 3:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y902181-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	812	25.0	mg/kg	1	B9B1404	KDK	02/14/2019	02/14/2019	
Residual Range Organics (C28-C40)	163	100	"	"	"	KDK	"	"	

Surrogate: o-Terphenyl	92.3 %	59-131			"	"	"	"	
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**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	450	5.00	mg/kg	25	B9B1403	KDK	02/14/2019	02/14/2019	
Benzene	0.308	0.050	"	"	"	KDK	"	"	
Toluene	ND	0.050	"	"	"	KDK	"	"	U
Ethylbenzene	1.11	0.050	"	"	"	KDK	"	"	
Xylenes, total	9.80	0.050	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	129 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	94.8 %	70-130			"	"	"	"	
Surrogate: 4-Bromofluorobenzene	131 %	70-130			"	"	"	" S-04	

**pH in Soil by EPA 9045D**

pH	7.63		pH Units	1	B9B1405	OLAB	02/14/2019	02/14/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.109	0.00500	mmhos/cm	"	B9B1406	OLAB	"	"	
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LT Environmental, Inc.  
4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

## GW01

2/14/2019 1:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y902181-02 (Water)

### BTEX by EPA 8260C

Benzene	792	4.00	ug/L	4	B9B1402	JTD	02/14/2019	02/14/2019	
Toluene	ND	4.00	"	"	"	JTD	"	"	U
Ethylbenzene	17.4	4.00	"	"	"	JTD	"	"	
Xylenes, total	35.5	4.00	"	"	"	JTD	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.1 %	84-121	"	"	"
Surrogate: Toluene-d8	101 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	98.8 %	84-114	"	"	"

Origins Laboratory, Inc.



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4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1402 - EPA 5030B (Water)</b>										
<b>Blank (B9B1402-BLK1)</b>					Prepared: 02/14/2019 Analyzed: 02/14/2019					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5	102		84-121			
Surrogate: Toluene-d8	61		"	62.5	97.3		85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5	99.9		84-114			

Origins Laboratory, Inc.



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Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9B1402 - EPA 5030B (Water)										
LCS (B9B1402-BS1)					Prepared: 02/14/2019 Analyzed: 02/14/2019					
Benzene	49.6	1.00	ug/L	50.0		99.1	73.3-129			
Toluene	50.4	1.00	"	50.0		101	76.2-123			
Ethylbenzene	49.2	1.00	"	50.0		98.5	73.6-130			
m,p-Xylene	98.0	2.00	"	100		98.0	76.1-126			
o-Xylene	48.1	1.00	"	50.0		96.2	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.7	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.6	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	84-114			

Origins Laboratory, Inc.



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Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1402 - EPA 5030B (Water)**

Matrix Spike (B9B1402-MS1)		Source: Y902170-06			Prepared: 02/14/2019 Analyzed: 02/14/2019					
Benzene	56.8	1.00	ug/L	50.0	0.100	113	74-130			
Toluene	57.0	1.00	"	50.0	ND	114	73-131			
Ethylbenzene	55.2	1.00	"	50.0	ND	110	76-132			
m,p-Xylene	110	2.00	"	100	ND	110	69-139			
o-Xylene	53.4	1.00	"	50.0	ND	107	74-131			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.7	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.7	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	84-114			

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Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1402 - EPA 5030B (Water)**

Matrix Spike Dup (B9B1402-MSD1)		Source: Y902170-06			Prepared: 02/14/2019 Analyzed: 02/14/2019					
Benzene	56.2	1.00	ug/L	50.0	0.100	112	74-130	0.991	20	
Toluene	57.3	1.00	"	50.0	ND	115	73-131	0.420	20	
Ethylbenzene	54.2	1.00	"	50.0	ND	108	76-132	1.87	20	
m,p-Xylene	107	2.00	"	100	ND	107	69-139	2.10	20	
o-Xylene	53.9	1.00	"	50.0	ND	108	74-131	0.820	20	
Surrogate: 1,2-Dichloroethane-d4	58		"	62.5		92.5	84-121			
Surrogate: Toluene-d8	63		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	84-114			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1403 - EPA 5030 (soil)</b>										
<b>Blank (B9B1403-BLK1)</b>					Prepared: 02/14/2019 Analyzed: 02/14/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.16		"	0.125		124	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.1	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: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1403 - EPA 5030 (soil)</b>										
<b>Blank (B9B1403-BLK2)</b>					Prepared: 02/14/2019 Analyzed: 02/14/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		115	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1403 - EPA 5030 (soil)</b>										
<b>LCS (B9B1403-BS1)</b>					Prepared: 02/14/2019 Analyzed: 02/14/2019					
Benzene	0.093	0.002	mg/kg	0.100		92.9	77.1-124			
Toluene	0.093	0.002	"	0.100		93.1	74.5-128			
Ethylbenzene	0.081	0.002	"	0.100		81.2	66.4-127			
m,p-Xylene	0.179	0.004	"	0.200		89.6	76.6-124			
o-Xylene	0.084	0.002	"	0.100		84.3	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		121	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1403 - EPA 5030 (soil)**

**LCS (B9B1403-BS2)**

Prepared: 02/14/2019 Analyzed: 02/14/2019

Benzene	0.100	0.002	mg/kg	0.100		99.7	77.1-124			
Toluene	0.102	0.002	"	0.100		102	74.5-128			
Ethylbenzene	0.089	0.002	"	0.100		88.7	66.4-127			
m,p-Xylene	0.195	0.004	"	0.200		97.6	76.6-124			
o-Xylene	0.090	0.002	"	0.100		90.2	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		118	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		99.4	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: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1403 - EPA 5030 (soil)**

Matrix Spike (B9B1403-MS1)		Source: Y902165-02			Prepared: 02/14/2019 Analyzed: 02/14/2019					
Benzene	0.091	0.002	mg/kg	0.100	ND	90.6	71.8-126			
Toluene	0.090	0.002	"	0.100	ND	90.0	65.1-130			
Ethylbenzene	0.077	0.002	"	0.100	ND	77.4	62.2-130			
m,p-Xylene	0.169	0.004	"	0.200	ND	84.6	46.5-137			
o-Xylene	0.081	0.002	"	0.100	ND	80.7	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		114	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1403 - EPA 5030 (soil)**

Matrix Spike (B9B1403-MS2)		Source: Y902165-03			Prepared: 02/14/2019 Analyzed: 02/14/2019					
Benzene	0.098	0.002	mg/kg	0.100	ND	97.5	71.8-126			
Toluene	0.098	0.002	"	0.100	ND	98.0	65.1-130			
Ethylbenzene	0.086	0.002	"	0.100	ND	85.8	62.2-130			
m,p-Xylene	0.187	0.004	"	0.200	ND	93.5	46.5-137			
o-Xylene	0.088	0.002	"	0.100	ND	88.2	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.14		"	0.125		108	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1403 - EPA 5030 (soil)**

Matrix Spike Dup (B9B1403-MSD1)		Source: Y902165-02			Prepared: 02/14/2019 Analyzed: 02/14/2019					
Benzene	0.095	0.002	mg/kg	0.100	ND	95.3	71.8-126	5.05	11.3	
Toluene	0.093	0.002	"	0.100	ND	93.3	65.1-130	3.60	15.4	
Ethylbenzene	0.077	0.002	"	0.100	ND	77.4	62.2-130	0.0517	19.6	
m,p-Xylene	0.172	0.004	"	0.200	ND	86.2	46.5-137	1.86	19.2	
o-Xylene	0.081	0.002	"	0.100	ND	81.3	54.2-134	0.741	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.15		"	0.125		122	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.2	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1403 - EPA 5030 (soil)**

Matrix Spike Dup (B9B1403-MSD2)		Source: Y902165-03			Prepared: 02/14/2019 Analyzed: 02/14/2019					
Benzene	0.097	0.002	mg/kg	0.100	ND	97.4	71.8-126	0.164	11.3	
Toluene	0.096	0.002	"	0.100	ND	95.5	65.1-130	2.54	15.4	
Ethylbenzene	0.083	0.002	"	0.100	ND	83.0	62.2-130	3.34	19.6	
m,p-Xylene	0.180	0.004	"	0.200	ND	90.1	46.5-137	3.72	19.2	
o-Xylene	0.086	0.002	"	0.100	ND	85.5	54.2-134	3.13	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		107	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B9B1404 - EPA 3550B**

**Blank (B9B1404-BLK1)**

Prepared: 02/14/2019 Analyzed: 02/14/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	41		"	50.0		82.6	59-131			

**LCS (B9B1404-BS1)**

Prepared: 02/14/2019 Analyzed: 02/14/2019

Diesel (C10-C28)	916	50.0	mg/kg	1000		91.6	64-121			
Residual Range Organics (C28-C40)	900	200	"	1000		90.0	58-124			
Surrogate: o-Terphenyl	46		"	50.0		91.5	59-131			

**Matrix Spike (B9B1404-MS1)**

**Source: Y902165-02**

Prepared: 02/14/2019 Analyzed: 02/14/2019

Diesel (C10-C28)	951	50.0	mg/kg	1000	ND	95.1	53-125			
Residual Range Organics (C28-C40)	927	200	"	1000	18.0	90.9	47-133			
Surrogate: o-Terphenyl	45		"	50.0		90.1	59-131			

**Matrix Spike Dup (B9B1404-MSD1)**

**Source: Y902165-02**

Prepared: 02/14/2019 Analyzed: 02/14/2019

Diesel (C10-C28)	918	50.0	mg/kg	1000	ND	91.8	53-125	3.53	20	
Residual Range Organics (C28-C40)	899	200	"	1000	18.0	88.1	47-133	3.14	20	
Surrogate: o-Terphenyl	42		"	50.0		83.2	59-131			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1405 - NO PREP</b>										
<b>Duplicate (B9B1405-DUP1)</b>		<b>Source: Y902156-01</b>			Prepared: 02/14/2019 Analyzed: 02/14/2019					
pH	7.64		pH Units		7.65			0.131	25	
<b>Batch B9B1406 - NO PREP</b>										
<b>Blank (B9B1406-BLK1)</b>		Prepared: 02/14/2019 Analyzed: 02/14/2019								
Specific Conductance (EC)	0.00320	0.00500	mmhos/cm							
<b>Duplicate (B9B1406-DUP1)</b>		<b>Source: Y902164-01</b>			Prepared: 02/14/2019 Analyzed: 02/14/2019					
Specific Conductance (EC)	0.0887	0.00500	mmhos/cm		0.0885			0.226	25	

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

### Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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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February 18, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. February 15, 2019. This project is associated with Origins project number Y902212-01.

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: 014219004

Project: KMG - Joseph Huett Unit 2

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S06@29'	Y902212-01	Soil	February 15, 2019 13:55	02/15/2019 16:48

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: 014219004  
Project: KMG - Joseph Huett Unit 2

# ORIGINS

## LABORATORY, INC

www.originslaboratory.com

Client: LT Environmental

Project Manager: B. Sulzberger

page 1 of 1

Address: 4600 V. 60th Ave.

Project Name: Joseph Murt #2

Arvada, CO, 80003

Project Number: 014219004

Telephone Number: \_\_\_\_\_

Samples Collected By: Jedekate Hake

Email Address: KM6 group

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air/Surface Contaminant		
5060291	2-15-19	1355	2 K								EC	1
											EC	2
											EC	3
											EC	4
											EC	5
											EC	6
											EC	7
											EC	8
											EC	9
											EC	10

  

Relinquished By: <u>[Signature]</u>	Date: <u>2-15-19</u>	Time: <u>1648</u>	Received By: <u>[Signature]</u>	Date: <u>2-15-19</u>	Time: <u>1648</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"/>
	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____	

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

Temp Received: 11.0

Date Results Needed

Origins Laboratory, Inc.

Jeff Pellipini

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: 4902212

Client: LTE

Client Project ID: KMG - Joseph Huett H-2

Checklist Completed by: Don Lu

Shipped Via: HQ  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 2-15-19

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 11.0 °C \_\_\_\_\_ / \_\_\_\_\_ °C \_\_\_\_\_ / \_\_\_\_\_ °C \_\_\_\_\_ / \_\_\_\_\_ °C (Describe)

Thermometer ID: 603

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"/>		<u>Sampled same day</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" 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 checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			<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 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) [Signature]

Date/Time Reviewed 2-15-19

Origins Laboratory, Inc.

Jefe Pellegrini

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: 014219004  
Project: KMG - Joseph Huett Unit 2

S06@29'

2/15/2019 1:55:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y902212-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	72.1	25.0	mg/kg	1	B9B1502	JTD	02/15/2019	02/15/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 81.7 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	37.0	5.00	mg/kg	25	B9B1501	JTD	02/15/2019	02/15/2019	
Benzene	ND	0.050	"	"	"	JTD	"	"	U
Toluene	ND	0.050	"	"	"	JTD	"	"	U
Ethylbenzene	ND	0.050	"	"	"	JTD	"	"	U
Xylenes, total	ND	0.050	"	"	"	JTD	"	"	U

Surrogate: 1,2-Dichloroethane-d4 95.2 % 70-130 " " "  
Surrogate: Toluene-d8 99.6 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.60		pH Units	1	B9B1503	OLAB	02/15/2019	02/15/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0455	0.00500	mmhos/cm	"	B9B1504	OLAB	"	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1501 - EPA 5030 (soil)</b>										
<b>Blank (B9B1501-BLK1)</b>					Prepared: 02/15/2019 Analyzed: 02/15/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		103	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.9	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.0	70-130			

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4600 West 60th Avenue  
Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1501 - EPA 5030 (soil)</b>										
<b>Blank (B9B1501-BLK2)</b>					Prepared: 02/15/2019 Analyzed: 02/15/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		98.0	70-130			

Origins Laboratory, Inc.



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LT Environmental, Inc.  
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Arvada CO 80003

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1501 - EPA 5030 (soil)</b>										
<b>LCS (B9B1501-BS1)</b>					Prepared: 02/15/2019 Analyzed: 02/15/2019					
Benzene	0.100	0.002	mg/kg	0.100		100	77.1-124			
Toluene	0.098	0.002	"	0.100		97.6	74.5-128			
Ethylbenzene	0.083	0.002	"	0.100		82.5	66.4-127			
m,p-Xylene	0.180	0.004	"	0.200		89.8	76.6-124			
o-Xylene	0.085	0.002	"	0.100		84.9	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		108	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		99.5	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1501 - EPA 5030 (soil)**

**LCS (B9B1501-BS2)**

Prepared: 02/15/2019 Analyzed: 02/15/2019

Benzene	0.101	0.002	mg/kg	0.100		101	77.1-124			
Toluene	0.097	0.002	"	0.100		97.3	74.5-128			
Ethylbenzene	0.088	0.002	"	0.100		87.8	66.4-127			
m,p-Xylene	0.187	0.004	"	0.200		93.7	76.6-124			
o-Xylene	0.088	0.002	"	0.100		88.3	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		96.2	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		98.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1501 - EPA 5030 (soil)**

Matrix Spike (B9B1501-MS1)		Source: Y902194-01			Prepared: 02/15/2019 Analyzed: 02/15/2019					
Benzene	0.098	0.002	mg/kg	0.100	ND	98.2	71.8-126			
Toluene	0.099	0.002	"	0.100	ND	98.5	65.1-130			
Ethylbenzene	0.088	0.002	"	0.100	ND	88.2	62.2-130			
m,p-Xylene	0.191	0.004	"	0.200	ND	95.3	46.5-137			
o-Xylene	0.090	0.002	"	0.100	ND	90.1	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.13		"	0.125		101	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		102	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1501 - EPA 5030 (soil)**

Matrix Spike (B9B1501-MS2)		Source: Y902207-01			Prepared: 02/15/2019 Analyzed: 02/15/2019					
Benzene	0.107	0.002	mg/kg	0.100	ND	107	71.8-126			
Toluene	0.101	0.002	"	0.100	ND	101	65.1-130			
Ethylbenzene	0.092	0.002	"	0.100	ND	92.1	62.2-130			
m,p-Xylene	0.197	0.004	"	0.200	ND	98.4	46.5-137			
o-Xylene	0.093	0.002	"	0.100	0.0003	92.8	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.1	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.7	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		101	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1501 - EPA 5030 (soil)**

Matrix Spike Dup (B9B1501-MSD1)		Source: Y902194-01			Prepared: 02/15/2019 Analyzed: 02/15/2019					
Benzene	0.093	0.002	mg/kg	0.100	ND	93.3	71.8-126	5.12	11.3	
Toluene	0.094	0.002	"	0.100	ND	93.6	65.1-130	5.18	15.4	
Ethylbenzene	0.082	0.002	"	0.100	ND	82.4	62.2-130	6.87	19.6	
m,p-Xylene	0.177	0.004	"	0.200	ND	88.3	46.5-137	7.58	19.2	
o-Xylene	0.085	0.002	"	0.100	ND	84.5	54.2-134	6.41	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		99.3	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.0	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: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1501 - EPA 5030 (soil)**

Matrix Spike Dup (B9B1501-MSD2)		Source: Y902207-01			Prepared: 02/15/2019 Analyzed: 02/15/2019					
Benzene	0.108	0.002	mg/kg	0.100	ND	108	71.8-126	0.391	11.3	
Toluene	0.102	0.002	"	0.100	ND	102	65.1-130	0.787	15.4	
Ethylbenzene	0.091	0.002	"	0.100	ND	90.9	62.2-130	1.33	19.6	
m,p-Xylene	0.195	0.004	"	0.200	ND	97.4	46.5-137	1.08	19.2	
o-Xylene	0.092	0.002	"	0.100	0.0003	91.7	54.2-134	1.24	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.12		"	0.125		98.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.6	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: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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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**Extractable Petroleum Hydrocarbons by 8015C - 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 B9B1502 - EPA 3550B**

**Blank (B9B1502-BLK1)**

Prepared: 02/15/2019 Analyzed: 02/15/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	43		"	50.0		86.6	59-131			

**Blank (B9B1502-BLK2)**

Prepared: 02/15/2019 Analyzed: 02/15/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	38		"	50.0		75.3	59-131			

**LCS (B9B1502-BS1)**

Prepared: 02/15/2019 Analyzed: 02/15/2019

Diesel (C10-C28)	1120	50.0	mg/kg	1000		112	64-121			
Residual Range Organics (C28-C40)	1100	200	"	1000		110	58-124			
Surrogate: o-Terphenyl	55		"	50.0		110	59-131			

**LCS (B9B1502-BS2)**

Prepared: 02/15/2019 Analyzed: 02/15/2019

Diesel (C10-C28)	874	50.0	mg/kg	1000		87.4	64-121			
Residual Range Organics (C28-C40)	872	200	"	1000		87.2	58-124			
Surrogate: o-Terphenyl	43		"	50.0		85.1	59-131			

**Matrix Spike (B9B1502-MS1)**

**Source: Y902183-01**

Prepared: 02/15/2019 Analyzed: 02/15/2019

Diesel (C10-C28)	976	50.0	mg/kg	1000	21.6	95.4	53-125			
Residual Range Organics (C28-C40)	935	200	"	1000	7.14	92.8	47-133			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1502 - EPA 3550B</b>										
<b>Matrix Spike (B9B1502-MS1)</b>		<b>Source: Y902183-01</b>			Prepared: 02/15/2019 Analyzed: 02/15/2019					
Surrogate: o-Terphenyl	46		mg/kg	50.0		91.3	59-131			
<b>Matrix Spike (B9B1502-MS2)</b>		<b>Source: Y902194-01</b>			Prepared: 02/15/2019 Analyzed: 02/15/2019					
Diesel (C10-C28)	923	50.0	mg/kg	1000	ND	92.3	53-125			
Residual Range Organics (C28-C40)	909	200	"	1000	13.9	89.5	47-133			
Surrogate: o-Terphenyl	45		"	50.0		89.0	59-131			
<b>Matrix Spike Dup (B9B1502-MSD1)</b>		<b>Source: Y902183-01</b>			Prepared: 02/15/2019 Analyzed: 02/15/2019					
Diesel (C10-C28)	989	50.0	mg/kg	1000	21.6	96.8	53-125	1.41	20	
Residual Range Organics (C28-C40)	962	200	"	1000	7.14	95.5	47-133	2.93	20	
Surrogate: o-Terphenyl	47		"	50.0		93.4	59-131			
<b>Matrix Spike Dup (B9B1502-MSD2)</b>		<b>Source: Y902194-01</b>			Prepared: 02/15/2019 Analyzed: 02/15/2019					
Diesel (C10-C28)	927	50.0	mg/kg	1000	ND	92.7	53-125	0.417	20	
Residual Range Organics (C28-C40)	896	200	"	1000	13.9	88.2	47-133	1.41	20	
Surrogate: o-Terphenyl	43		"	50.0		85.0	59-131			

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B1503 - NO PREP</b>										
<b>Duplicate (B9B1503-DUP1)</b>	<b>Source: Y902194-01</b>				Prepared: 02/15/2019 Analyzed: 02/15/2019					
pH	7.03		pH Units		7.69			8.97	25	
<b>Duplicate (B9B1503-DUP2)</b>	<b>Source: Y902210-01</b>				Prepared: 02/15/2019 Analyzed: 02/15/2019					
pH	7.27		pH Units		7.60			4.44	25	
<b>Batch B9B1504 - NO PREP</b>										
<b>Blank (B9B1504-BLK1)</b>	Prepared: 02/15/2019 Analyzed: 02/15/2019									
Specific Conductance (EC)	0.00180	0.00500	mmhos/cm							
<b>Duplicate (B9B1504-DUP1)</b>	<b>Source: Y902194-01</b>				Prepared: 02/15/2019 Analyzed: 02/15/2019					
Specific Conductance (EC)	0.303	0.00500	mmhos/cm		0.283			6.99	25	
<b>Duplicate (B9B1504-DUP2)</b>	<b>Source: Y902210-01</b>				Prepared: 02/15/2019 Analyzed: 02/15/2019					
Specific Conductance (EC)	0.546	0.00504	mmhos/cm		0.467			15.6	25	

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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

### 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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February 21, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. February 20, 2019. This project is associated with Origins project number Y902268-01.

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: 014219004

Project: KMG - Joseph Huett Unit 2

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W04@29'	Y902268-01	Soil	February 20, 2019 13:45	02/20/2019 16:39

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

www.originslaboratory.com

page 1 of 1

**ORIGINS**  
LABORATORY, INC

Y002268

Client: LT Environmental  
Address: 4600 W. 60th Ave.  
Arvada, CO 80003  
Telephone Number: KMG Group  
Email Address:  
Project Manager: B. Sulzberger  
Project Name: Joseph Huett II  
Project Number: 014219004  
Samples Collected By: Dakota Huett

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			Other
W040291	2-20-19	1345	2	X					X			PH T PH OKO OKO 687X KX KX	1
													2
													3
													4
													5
													6
													7
													8
													9
													10

  

Relinquished By: Dakota Huett	Date: 2-24-19	Time: 1639	Received By: [Signature]	Date: 2/20/19	Time: 1639
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

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

Temp Received: 5.4 Date Results Needed

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

Origins Laboratory, Inc.

*Jefe Pellegrini*

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: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: Y902268

Client: LTE

Client Project ID: KMG - Joseph Huett #2

Checklist Completed by: JG

Shipped Via: HD  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 2/20/2019

Airbill #: N/A

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

Cooler Number/Temperature: 1 5.4 °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 checked="" type="checkbox"/>	<input 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 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 2/20/19

Origins Laboratory, Inc.

*Jefe Pellegrini*

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: 014219004

Project: KMG - Joseph Huett Unit 2

W04@29'

2/20/2019 1:45:00PM

Analyte	Result	Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
Y902268-01 (Soil)

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	33.7	25.0	mg/kg	1	B9B2002	JTD	02/20/2019	02/20/2019	
Residual Range Organics (C28-C40)	ND	100	"	"	"	JTD	"	"	U

Surrogate: o-Terphenyl 73.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	54.3	5.00	mg/kg	25	B9B2003	KDK	02/20/2019	02/20/2019	
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

Surrogate: 1,2-Dichloroethane-d4 79.1 % 70-130 " " "

Surrogate: Toluene-d8 98.5 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.44		pH Units	1	B9B2004	OLAB	02/20/2019	02/20/2019	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0843	0.00507	mmhos/cm	"	B9B2005	OLAB	02/20/2019	"	
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Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B2003 - EPA 5030 (soil)</b>										
<b>Blank (B9B2003-BLK1)</b>					Prepared: 02/20/2019 Analyzed: 02/20/2019					
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
Surrogate: 1,2-Dichloroethane-d4	0.11		"	0.125		85.4	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	0.12		"	0.125		97.8	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B2003 - EPA 5030 (soil)</b>										
<b>LCS (B9B2003-BS1)</b>					Prepared: 02/20/2019 Analyzed: 02/20/2019					
Benzene	0.096	0.002	mg/kg	0.100		95.5	77.1-124			
Toluene	0.093	0.002	"	0.100		93.0	74.5-128			
Ethylbenzene	0.088	0.002	"	0.100		87.5	66.4-127			
m,p-Xylene	0.183	0.004	"	0.200		91.3	76.6-124			
o-Xylene	0.086	0.002	"	0.100		86.1	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	0.10		"	0.125		83.3	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		97.2	70-130			
Surrogate: 4-Bromofluorobenzene	0.13		"	0.125		105	70-130			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B2003 - EPA 5030 (soil)**

Matrix Spike (B9B2003-MS1)		Source: Y902255-01			Prepared: 02/20/2019 Analyzed: 02/20/2019					
Benzene	0.092	0.002	mg/kg	0.100	ND	92.1	71.8-126			
Toluene	0.087	0.002	"	0.100	ND	87.1	65.1-130			
Ethylbenzene	0.078	0.002	"	0.100	ND	78.4	62.2-130			
m,p-Xylene	0.162	0.004	"	0.200	ND	81.0	46.5-137			
o-Xylene	0.077	0.002	"	0.100	ND	77.4	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	0.10		"	0.125		82.7	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.9	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: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B2003 - EPA 5030 (soil)**

Matrix Spike Dup (B9B2003-MSD1)		Source: Y902255-01			Prepared: 02/20/2019 Analyzed: 02/20/2019					
Benzene	0.100	0.002	mg/kg	0.100	ND	100	71.8-126	8.43	11.3	
Toluene	0.094	0.002	"	0.100	ND	93.7	65.1-130	7.34	15.4	
Ethylbenzene	0.084	0.002	"	0.100	ND	83.8	62.2-130	6.68	19.6	
m,p-Xylene	0.174	0.004	"	0.200	ND	86.9	46.5-137	7.01	19.2	
o-Xylene	0.083	0.002	"	0.100	ND	82.5	54.2-134	6.45	17.9	
Surrogate: 1,2-Dichloroethane-d4	0.10		"	0.125		82.9	70-130			
Surrogate: Toluene-d8	0.12		"	0.125		96.5	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: 014219004  
Project: KMG - Joseph Huett Unit 2

## Volatile Organic Compounds by GC/MS SW846 8260C - 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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## Extractable Petroleum Hydrocarbons by 8015C - 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 B9B2002 - EPA 3550B

##### Blank (B9B2002-BLK1)

Prepared: 02/20/2019 Analyzed: 02/20/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	41		"	50.0		81.4	59-131			

##### Blank (B9B2002-BLK2)

Prepared: 02/20/2019 Analyzed: 02/20/2019

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	44		"	50.0		87.5	59-131			

##### LCS (B9B2002-BS1)

Prepared: 02/20/2019 Analyzed: 02/20/2019

Diesel (C10-C28)	873	50.0	mg/kg	1000		87.3	64-121			
Residual Range Organics (C28-C40)	805	200	"	1000		80.5	58-124			
Surrogate: o-Terphenyl	42		"	50.0		84.5	59-131			

##### LCS (B9B2002-BS2)

Prepared: 02/20/2019 Analyzed: 02/20/2019

Diesel (C10-C28)	953	50.0	mg/kg	1000		95.3	64-121			
Residual Range Organics (C28-C40)	912	200	"	1000		91.2	58-124			
Surrogate: o-Terphenyl	47		"	50.0		93.9	59-131			

##### Matrix Spike (B9B2002-MS1)

Source: Y902253-01

Prepared: 02/20/2019 Analyzed: 02/20/2019

Diesel (C10-C28)	1060	50.0	mg/kg	1000	70.3	98.6	53-125			
Residual Range Organics (C28-C40)	984	200	"	1000	ND	98.4	47-133			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B2002 - EPA 3550B</b>										
<b>Matrix Spike (B9B2002-MS1)</b>		<b>Source: Y902253-01</b>			Prepared: 02/20/2019 Analyzed: 02/20/2019					
Surrogate: o-Terphenyl	49		mg/kg	50.0		97.0	59-131			
<b>Matrix Spike (B9B2002-MS2)</b>		<b>Source: Y902258-01</b>			Prepared: 02/20/2019 Analyzed: 02/20/2019					
Diesel (C10-C28)	1060	50.0	mg/kg	1000	ND	106	53-125			
Residual Range Organics (C28-C40)	982	200	"	1000	ND	98.2	47-133			
Surrogate: o-Terphenyl	48		"	50.0		96.2	59-131			
<b>Matrix Spike Dup (B9B2002-MSD1)</b>		<b>Source: Y902253-01</b>			Prepared: 02/20/2019 Analyzed: 02/20/2019					
Diesel (C10-C28)	1020	50.0	mg/kg	1000	70.3	95.3	53-125	3.39	20	
Residual Range Organics (C28-C40)	933	200	"	1000	ND	93.3	47-133	5.26	20	
Surrogate: o-Terphenyl	46		"	50.0		92.5	59-131			
<b>Matrix Spike Dup (B9B2002-MSD2)</b>		<b>Source: Y902258-01</b>			Prepared: 02/20/2019 Analyzed: 02/20/2019					
Diesel (C10-C28)	939	50.0	mg/kg	1000	ND	93.9	53-125	11.7	20	
Residual Range Organics (C28-C40)	901	200	"	1000	ND	90.1	47-133	8.55	20	
Surrogate: o-Terphenyl	44		"	50.0		88.5	59-131			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Classical Chemistry Parameters - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B9B2004 - NO PREP</b>										
<b>Duplicate (B9B2004-DUP1)</b>		<b>Source: Y902255-01</b>			Prepared: 02/20/2019 Analyzed: 02/20/2019					
pH	7.40		pH Units		7.40			0.00	25	
<b>Batch B9B2005 - NO PREP</b>										
<b>Blank (B9B2005-BLK1)</b>		Prepared: 02/20/2019 Analyzed: 02/20/2019								
Specific Conductance (EC)	0.00330	0.00500	mmhos/cm							
<b>Duplicate (B9B2005-DUP1)</b>		<b>Source: Y902255-01</b>			Prepared: 02/20/2019 Analyzed: 02/20/2019					
Specific Conductance (EC)	0.0614	0.00507	mmhos/cm		0.0616			0.325	25	

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

### 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.



*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.*

Jen Pellegrini For Noelle Doyle Mathis, President



February 22, 2019

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

**Project Name - KMG - Joseph Huett Unit 2**

**Project Number - 014219004**

Attached are your analytical results for KMG - Joseph Huett Unit 2 received by Origins Laboratory, Inc. February 21, 2019. This project is associated with Origins project number Y902290-01.

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: 014219004

Project: KMG - Joseph Huett Unit 2

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW02	Y902290-01	Water	February 21, 2019 9:55	02/21/2019 18:10

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: 014219004  
Project: KMG - Joseph Huett Unit 2

# ORIGINS

LABORATORY, INC

www.originslaboratory.com

907296

page 1 of 1

Client: LT Environmental  
 Address: 1100 W. 60th Ave.  
Arvada, CO, 80003  
 Telephone Number: \_\_\_\_\_  
 Email Address: KMY@arv

Project Manager: B. Subberger  
 Project Name: Joseph Huet #2  
 Project Number: 014219003  
 Samples Collected By: Dakota Katten

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 #	Other							
60107	2-21-19	0955	3	X				X										
Relinquished By: <u>[Signature]</u>	Date: <u>2-21-19</u>	Time: <u>1810</u>		Received By: <u>[Signature]</u>				Date: <u>2-21-19</u>				Time: <u>1810</u>				Turnaround Time: Same Day <input checked="" type="checkbox"/> 24 Hr 48 Hr <input type="checkbox"/> 72 Hr Standard <input type="checkbox"/>		
Relinquished By: _____	Date: _____	Time: _____		Received By: _____				Date: _____				Time: _____						

Temp Received: 104

Date Results Needed

Origins Laboratory, Inc.

Jeff Pellipini

*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: 014219004  
Project: KMG - Joseph Huett Unit 2

Origins Laboratory

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

### Sample Receipt Checklist

Origins Work Order: Y902290

Client: LTE

Client Project ID: KMG - Joseph Huett Unit 2

Checklist Completed by: JG

Shipped Via: HD  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 2/21/2019

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 10.4 °C 1 / 1 °C 1 / 1 °C 1 / 1 °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"/>		<u>Sampled Sun Dry</u>
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		<input checked="" 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 checked="" type="checkbox"/>		
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		<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 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: [Signature] (Project Manager)

2/21/19  
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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: 014219004  
Project: KMG - Joseph Huett Unit 2

## GW02

2/21/2019 9:55:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Prepared	Analyzed	Notes
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## Origins Laboratory, Inc. Y902290-01 (Water)

### BTEX by EPA 8260C

Benzene	208	4.00	ug/L	4	B9B1905	KDK	02/21/2019	02/21/2019	
Toluene	15.7	4.00	"	"	"	KDK	"	"	
Ethylbenzene	ND	4.00	"	"	"	KDK	"	"	U
Xylenes, total	75.6	4.00	"	"	"	KDK	"	"	

Surrogate: 1,2-Dichloroethane-d4	98.5 %	84-121	"	"	"
Surrogate: Toluene-d8	96.1 %	85-115	"	"	"
Surrogate: 4-Bromofluorobenzene	108 %	84-114	"	"	"

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B9B1905 - EPA 5030B (Water)										
Blank (B9B1905-BLK1)					Prepared: 02/19/2019 Analyzed: 02/21/2019					
Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	72		"	62.5	115		84-121			
Surrogate: Toluene-d8	60		"	62.5	96.4		85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5	101		84-114			

Origins Laboratory, Inc.



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

Brian Sulzberger  
Project Number: 014219004  
Project: KMG - Joseph Huett Unit 2

**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1905 - EPA 5030B (Water)**

**LCS (B9B1905-BS1)**

Prepared: 02/19/2019 Analyzed: 02/21/2019

Benzene	47.9	1.00	ug/L	50.0		95.8	73.3-129
Toluene	45.8	1.00	"	50.0		91.7	76.2-123
Ethylbenzene	46.0	1.00	"	50.0		92.0	73.6-130
m,p-Xylene	96.8	2.00	"	100		96.8	76.1-126
o-Xylene	45.8	1.00	"	50.0		91.6	76.6-124
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5		104	84-121
Surrogate: Toluene-d8	60		"	62.5		96.6	85-115
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.5	84-114

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**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1905 - EPA 5030B (Water)**

Matrix Spike (B9B1905-MS1)		Source: Y902219-02			Prepared: 02/19/2019 Analyzed: 02/21/2019					
Benzene	59.0	1.00	ug/L	50.0	4.75	108	74-130			
Toluene	51.3	1.00	"	50.0	0.200	102	73-131			
Ethylbenzene	51.6	1.00	"	50.0	1.25	101	76-132			
m,p-Xylene	118	2.00	"	100	0.580	117	69-139			
o-Xylene	50.7	1.00	"	50.0	0.450	101	74-131			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.9	84-121			
Surrogate: Toluene-d8	61		"	62.5		98.1	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.7	84-114			

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**Volatile Organic Compounds by GC/MS SW846 8260C - 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 B9B1905 - EPA 5030B (Water)**

Matrix Spike Dup (B9B1905-MSD1)		Source: Y902219-02			Prepared: 02/19/2019 Analyzed: 02/21/2019					
Benzene	49.2	1.00	ug/L	50.0	4.75	89.0	74-130	18.0	20	
Toluene	45.0	1.00	"	50.0	0.200	89.7	73-131	13.0	20	
Ethylbenzene	43.3	1.00	"	50.0	1.25	84.1	76-132	17.5	20	
m,p-Xylene	89.0	2.00	"	100	0.580	88.4	69-139	28.0	20	QR-02
o-Xylene	43.2	1.00	"	50.0	0.450	85.5	74-131	16.1	20	
Surrogate: 1,2-Dichloroethane-d4	69		"	62.5		110	84-121			
Surrogate: Toluene-d8	59		"	62.5		94.8	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.5	84-114			

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### Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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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