



August 18, 2015

LT Environmental, Inc.

John Cocroft

4600 West 60th Avenue

Arvada CO 80003

Project Name - KMG - LDS 15-24

Project Number - APC WO# 88868659

Attached are your analytical results for KMG - LDS 15-24 received by Origins Laboratory, Inc. August 17, 2015. This project is associated with Origins project number X508200-01.

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

John Cocroft
Project Number: APC WO# 88868659
Project: KMG - LDS 15-24

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N01@4'	X508200-01	Soil	August 17, 2015 14:40	08/17/2015 17:00
S01@4'	X508200-02	Soil	August 17, 2015 14:45	08/17/2015 17:00
W01@4'	X508200-03	Soil	August 17, 2015 14:50	08/17/2015 17:00
W02@4'	X508200-04	Soil	August 17, 2015 14:55	08/17/2015 17:00
B01@6'	X508200-05	Soil	August 17, 2015 15:00	08/17/2015 17:00
B02@6'	X508200-06	Soil	August 17, 2015 15:05	08/17/2015 17:00

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

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

Sample Receipt Checklist

Origins Work Order: X588200 Client: LT Environmental
 Client Project ID: LDS 15-24
 Checklist Completed by: J. Anderson Shipped Via: HD
 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Date/time completed: 8/17/15 1718 Airbill #: NA
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
 Cooler Number/Temperature: 1 / 13.3 °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 ^{(1)?}		X		Sampled same day
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ^{(1)?}	X			
Was adequate sample volume provided ^{(1)?}	X			
Are short holding time analytes or samples with HTs due within 48 hours present ^{(1)?}	X	X ^{PH}		PH
Is a chain-of-custody (COC) present and filled out completely ^{(1)?}	X			
Does the COC agree with the number and type of sample bottles received ^{(1)?}	X			
Do the sample IDs on the bottle labels match the COC ^{(1)?}	X			
Is the COC properly relinquished by the client with date and time recorded ^{(1)?}	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			X	
Are samples preserved that require preservation and was it checked ^{(1)?} (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)			X	
Additional Comments (if any):				

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

J. Smith Reviewed by (Project Manager) 8/17/15
Date/Time Reviewed

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

N01@4'

8/17/2015 2:40:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X508200-01 (Soil)

BTEX by EPA 8260C

Benzene	ND		0.002	mg/kg	1	5H17009	08/17/2015	08/17/2015	
Toluene	ND		0.002	"	"	"	"	"	
Ethylbenzene	ND		0.002	"	"	"	"	"	
Xylenes, total	ND		0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	110 %		70-130			"	"	"	
Surrogate: Toluene-d8	104 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.6 %		70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.17			pH Units	1	5H17014	08/17/2015	08/17/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.168			mmhos/cm	"	5H17015	08/17/2015	"	
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TPH-Carbon Chain by EPA Method 8015C

Gasoline (C6-C10)	ND	8.4	25	mg/kg	1	5H17008	08/17/2015	08/17/2015	
Diesel (C10-C28)	11	6.5	25	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	2.3	100	"	"	"	"	"	
Surrogate: o-Terphenyl	77.2 %		65-146			"	"	"	

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

S01@4'

8/17/2015 2:45:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
 X508200-02 (Soil)

BTEX by EPA 8260C

Benzene	ND		0.002	mg/kg	1	5H17009	08/17/2015	08/17/2015	
Toluene	ND		0.002	"	"	"	"	"	
Ethylbenzene	ND		0.002	"	"	"	"	"	
Xylenes, total	ND		0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	109 %		70-130			"	"	"	
Surrogate: Toluene-d8	101 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.5 %		70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.51			pH Units	1	5H17014	08/17/2015	08/17/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0734			mmhos/cm	"	5H17015	08/17/2015	"	
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TPH-Carbon Chain by EPA Method 8015C

Gasoline (C6-C10)	ND	8.4	25	mg/kg	1	5H17008	08/17/2015	08/17/2015	
Diesel (C10-C28)	12	6.5	25	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	2.3	100	"	"	"	"	"	
Surrogate: o-Terphenyl	78.1 %		65-146			"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

W01@4'

8/17/2015 2:50:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X508200-03 (Soil)

BTEX by EPA 8260C

Benzene	ND		0.002	mg/kg	1	5H17009	08/17/2015	08/17/2015	
Toluene	ND		0.002	"	"	"	"	"	
Ethylbenzene	ND		0.002	"	"	"	"	"	
Xylenes, total	ND		0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	101 %		70-130			"	"	"	
Surrogate: Toluene-d8	101 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.4 %		70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.96			pH Units	1	5H17014	08/17/2015	08/17/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.195			mmhos/cm	"	5H17015	08/17/2015	"	
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TPH-Carbon Chain by EPA Method 8015C

Gasoline (C6-C10)	ND	8.4	25	mg/kg	1	5H17008	08/17/2015	08/18/2015	
Diesel (C10-C28)	14	6.5	25	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	2.3	100	"	"	"	"	"	
Surrogate: o-Terphenyl	87.0 %		65-146			"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

W02@4'

8/17/2015 2:55:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X508200-04 (Soil)

BTEX by EPA 8260C

Benzene	ND		0.002	mg/kg	1	5H17009	08/17/2015	08/17/2015	
Toluene	ND		0.002	"	"	"	"	"	
Ethylbenzene	ND		0.002	"	"	"	"	"	
Xylenes, total	ND		0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	101 %		70-130			"	"	"	
Surrogate: Toluene-d8	101 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.3 %		70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.15			pH Units	1	5H17014	08/17/2015	08/17/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.108			mmhos/cm	"	5H17015	08/17/2015	"	
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TPH-Carbon Chain by EPA Method 8015C

Gasoline (C6-C10)	ND	8.4	25	mg/kg	1	5H17008	08/17/2015	08/17/2015	
Diesel (C10-C28)	11	6.5	25	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	2.3	100	"	"	"	"	"	
Surrogate: o-Terphenyl	76.5 %		65-146			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

B01@6'

8/17/2015 3:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X508200-05 (Soil)

BTEX by EPA 8260C

Benzene	ND		0.002	mg/kg	1	5H17009	08/17/2015	08/17/2015	
Toluene	ND		0.002	"	"	"	"	"	
Ethylbenzene	0.034		0.002	"	"	"	"	"	
Xylenes, total	0.123		0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	94.5 %		70-130			"	"	"	
Surrogate: Toluene-d8	108 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %		70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.18			pH Units	1	5H17014	08/17/2015	08/17/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.120			mmhos/cm	"	5H17015	08/17/2015	"	
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TPH-Carbon Chain by EPA Method 8015C

Gasoline (C6-C10)	360	8.4	25	mg/kg	1	5H17008	08/17/2015	08/17/2015	
Diesel (C10-C28)	550	6.5	25	"	"	"	"	"	
Residual Range Organics (C28-C36)	180	2.3	100	"	"	"	"	"	
Surrogate: o-Terphenyl	87.7 %		65-146			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

B02@6'

8/17/2015 3:05:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X508200-06 (Soil)

BTEX by EPA 8260C

Benzene	ND		0.002	mg/kg	1	5H17009	08/17/2015	08/17/2015	
Toluene	ND		0.002	"	"	"	"	"	
Ethylbenzene	0.006		0.002	"	"	"	"	"	
Xylenes, total	0.016		0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	93.6 %		70-130			"	"	"	
Surrogate: Toluene-d8	104 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %		70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.06			pH Units	1	5H17014	08/17/2015	08/17/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.170			mmhos/cm	"	5H17015	08/17/2015	"	
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TPH-Carbon Chain by EPA Method 8015C

Gasoline (C6-C10)	320	8.4	25	mg/kg	1	5H17008	08/17/2015	08/17/2015	
Diesel (C10-C28)	550	6.5	25	"	"	"	"	"	
Residual Range Organics (C28-C36)	180	2.3	100	"	"	"	"	"	
Surrogate: o-Terphenyl	80.7 %		65-146			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

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 5H17009 - EPA 5030 (soil)

Blank (5H17009-BLK1)

Prepared: 08/17/2015 Analyzed: 08/17/2015

Benzene	ND	0.002	mg/kg							
Toluene	ND	0.002	"							
Ethylbenzene	ND	0.002	"							
Xylenes, total	ND	0.002	"							
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

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 5H17009 - EPA 5030 (soil)

LCS (5H17009-BS1)

Prepared: 08/17/2015 Analyzed: 08/17/2015

Benzene	0.111	0.002	mg/kg	0.100		111	77.1-124			
Toluene	0.110	0.002	"	0.100		110	74.5-128			
Ethylbenzene	0.102	0.002	"	0.100		102	66.4-127			
m,p-Xylene	0.206	0.004	"	0.200		103	76.6-124			
o-Xylene	0.100	0.002	"	0.100		100	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		98.8	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.6	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	70-130			

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

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 5H17009 - EPA 5030 (soil)

Matrix Spike (5H17009-MS1)	Source: X508169-01			Prepared: 08/17/2015 Analyzed: 08/17/2015						
Benzene	0.103	0.002	mg/kg	0.100	ND	103	71.8-126			
Toluene	0.101	0.002	"	0.100	ND	101	65.1-130			
Ethylbenzene	0.099	0.002	"	0.100	ND	99.1	62.2-130			
m,p-Xylene	0.196	0.004	"	0.200	ND	97.9	46.5-137			
o-Xylene	0.100	0.002	"	0.100	ND	100	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.0	70-130			

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

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 5H17009 - EPA 5030 (soil)

Matrix Spike Dup (5H17009-MSD1)	Source: X508169-01			Prepared: 08/17/2015 Analyzed: 08/17/2015						
Benzene	0.092	0.002	mg/kg	0.100	ND	91.7	71.8-126	11.4	11.3	QR-02
Toluene	0.092	0.002	"	0.100	ND	92.0	65.1-130	9.38	15.4	
Ethylbenzene	0.090	0.002	"	0.100	ND	89.8	62.2-130	9.87	19.6	
m,p-Xylene	0.182	0.004	"	0.200	ND	91.2	46.5-137	7.01	19.2	
o-Xylene	0.090	0.002	"	0.100	ND	90.2	54.2-134	10.8	17.9	
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.1	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

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 5H17008 - EPA 3580

Blank (5H17008-BLK1)

Prepared: 08/17/2015 Analyzed: 08/17/2015

Gasoline (C6-C10)	ND	50	mg/kg							
Diesel (C10-C28)	20	50	"							
Residual Range Organics (C28-C36)	ND	200	"							
Surrogate: o-Terphenyl	34.3		"	50.0		68.7	65-146			

LCS (5H17008-BS1)

Prepared: 08/17/2015 Analyzed: 08/17/2015

Gasoline (C6-C10)	860	50	mg/kg	1000		86.4	66.7-119			
Diesel (C10-C28)	790	50	"	1000		78.6	70.1-127			
Residual Range Organics (C28-C36)	990	200	"	1000		98.7	54.5-139			
Surrogate: o-Terphenyl	47.1		"	50.0		94.3	65-146			

Matrix Spike (5H17008-MS1)

Source: X508169-01

Prepared: 08/17/2015 Analyzed: 08/17/2015

Gasoline (C6-C10)	890	50	mg/kg	1000	ND	88.6	56.4-132			
Diesel (C10-C28)	820	50	"	1000	24	79.9	57.4-138			
Residual Range Organics (C28-C36)	1000	200	"	1000	ND	102	47.7-129			
Surrogate: o-Terphenyl	43.7		"	50.0		87.4	65-146			

Matrix Spike Dup (5H17008-MSD1)

Source: X508169-01

Prepared: 08/17/2015 Analyzed: 08/17/2015

Gasoline (C6-C10)	940	50	mg/kg	1000	ND	94.4	56.4-132	6.31	22	
Diesel (C10-C28)	880	50	"	1000	24	85.4	57.4-138	6.52	18.3	
Residual Range Organics (C28-C36)	1100	200	"	1000	ND	113	47.7-129	9.83	30.1	
Surrogate: o-Terphenyl	45.9		"	50.0		91.9	65-146			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: APC WO# 88868659
 Project: KMG - LDS 15-24

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 5H17014 - NO PREP										
Duplicate (5H17014-DUP1)		Source: X508200-01			Prepared: 08/17/2015 Analyzed: 08/17/2015					
pH	8.38		pH Units		8.17			2.54	25	
Batch 5H17015 - NO PREP										
Blank (5H17015-BLK1)		Prepared: 08/17/2015 Analyzed: 08/17/2015								
Specific Conductance (EC)	0.00260		mmhos/cm							
Duplicate (5H17015-DUP1)		Source: X508200-01			Prepared: 08/17/2015 Analyzed: 08/17/2015					
Specific Conductance (EC)	0.174		mmhos/cm		0.168			3.04	25	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
Project Number: APC WO# 88868659
Project: KMG - LDS 15-24

Notes and Definitions

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 on a wet weight basis.

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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.

August 20, 2015

LT Environmental, Inc.

John Cocroft

4600 West 60th Avenue

Arvada CO 80003

Project Name - KMG - LDS 15-24

Project Number - [none]

Attached are your analytical results for KMG - LDS 15-24 received by Origins Laboratory, Inc. August 19, 2015. This project is associated with Origins project number X508233-01.

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



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

John Cocroft
Project Number: [none]
Project: KMG - LDS 15-24

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B03 @ 7'	X508233-01	Soil	August 19, 2015 16:00	08/19/2015 16:58
B04 @ 7'	X508233-02	Soil	August 19, 2015 16:10	08/19/2015 16:58

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: [none]
 Project: KMG - LDS 15-24

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: XS08233 Client: LTE
 Client Project ID: LDS 15-24
 Checklist Completed by: Jeff Smith Shipped Via: HTD
 Date/time completed: 8/19/15 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
 Cooler Number/Temperature: 1 / 4.7 °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 ⁽¹⁾ ?	<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 ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	<input checked="" type="checkbox"/>			PH
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	<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 ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

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

Jeff Smith Reviewed by (Project Manager) 8/19/15 Date/Time Reviewed

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: [none]
 Project: KMG - LDS 15-24

B03 @ 7'
8/19/2015 4:00:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X508233-01 (Soil)

BTEX by EPA 8260C

Benzene	ND		0.002	mg/kg	1	5H19011	08/19/2015	08/20/2015	
Toluene	ND		0.002	"	"	"	"	"	
Ethylbenzene	ND		0.002	"	"	"	"	"	
Xylenes, total	ND		0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	103 %		70-130			"	"	"	
Surrogate: Toluene-d8	98.0 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %		70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.25			pH Units	1	5H19012	08/19/2015	08/19/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.142			mmhos/cm	"	5H19013	08/19/2015	08/19/2015	
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TPH-Carbon Chain by EPA Method 8015C

Gasoline (C6-C10)	ND	8.4	25	mg/kg	1	5H19010	08/19/2015	08/19/2015	
Diesel (C10-C28)	8.5	6.5	25	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	2.3	100	"	"	"	"	"	
Surrogate: o-Terphenyl	72.9 %		65-146			"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: [none]
 Project: KMG - LDS 15-24

B04 @ 7'
8/19/2015 4:10:00PM

Analyte	Result	Min Detection Limit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X508233-02 (Soil)

BTEX by EPA 8260C

Benzene	ND		0.002	mg/kg	1	5H19011	08/19/2015	08/19/2015	
Toluene	ND		0.002	"	"	"	"	"	
Ethylbenzene	ND		0.002	"	"	"	"	"	
Xylenes, total	ND		0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	105 %		70-130			"	"	"	
Surrogate: Toluene-d8	98.8 %		70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %		70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.44			pH Units	1	5H19012	08/19/2015	08/19/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.128			mmhos/cm	"	5H19013	08/19/2015	08/19/2015	
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TPH-Carbon Chain by EPA Method 8015C

Gasoline (C6-C10)	ND	8.4	25	mg/kg	1	5H19010	08/19/2015	08/19/2015	
Diesel (C10-C28)	11	6.5	25	"	"	"	"	"	
Residual Range Organics (C28-C36)	ND	2.3	100	"	"	"	"	"	
Surrogate: o-Terphenyl	82.3 %		65-146			"	"	"	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: [none]
 Project: KMG - LDS 15-24

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 5H19011 - EPA 5030 (soil)

Blank (5H19011-BLK1)

Prepared: 08/19/2015 Analyzed: 08/19/2015

Benzene	ND	0.002	mg/kg							
Toluene	ND	0.002	"							
Ethylbenzene	ND	0.002	"							
Xylenes, total	ND	0.002	"							
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: [none]
 Project: KMG - LDS 15-24

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 5H19011 - EPA 5030 (soil)

LCS (5H19011-BS1)

Prepared: 08/19/2015 Analyzed: 08/19/2015

Benzene	0.100	0.002	mg/kg	0.100		99.7	77.1-124			
Toluene	0.099	0.002	"	0.100		99.2	74.5-128			
Ethylbenzene	0.100	0.002	"	0.100		100	66.4-127			
m,p-Xylene	0.200	0.004	"	0.200		100	76.6-124			
o-Xylene	0.100	0.002	"	0.100		100	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		94.4	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: [none]
 Project: KMG - LDS 15-24

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 5H19011 - EPA 5030 (soil)

Matrix Spike (5H19011-MS1)	Source: X508226-03			Prepared: 08/19/2015 Analyzed: 08/19/2015						
Benzene	0.107	0.002	mg/kg	0.100	ND	107	71.8-126			
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130			
Ethylbenzene	0.107	0.002	"	0.100	ND	107	62.2-130			
m,p-Xylene	0.213	0.004	"	0.200	ND	107	46.5-137			
o-Xylene	0.106	0.002	"	0.100	ND	106	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		98.7	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: [none]
 Project: KMG - LDS 15-24

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 5H19011 - EPA 5030 (soil)

Matrix Spike Dup (5H19011-MSD1)	Source: X508226-03			Prepared: 08/19/2015 Analyzed: 08/19/2015						
Benzene	0.105	0.002	mg/kg	0.100	ND	105	71.8-126	1.83	11.3	
Toluene	0.101	0.002	"	0.100	ND	101	65.1-130	2.60	15.4	
Ethylbenzene	0.103	0.002	"	0.100	ND	103	62.2-130	3.68	19.6	
m,p-Xylene	0.206	0.004	"	0.200	ND	103	46.5-137	3.18	19.2	
o-Xylene	0.103	0.002	"	0.100	ND	103	54.2-134	3.56	17.9	
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		100	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: [none]
 Project: KMG - LDS 15-24

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 5H19010 - EPA 3580

Blank (5H19010-BLK1)

Prepared: 08/19/2015 Analyzed: 08/19/2015

Gasoline (C6-C10)	ND	50	mg/kg							
Diesel (C10-C28)	21	50	"							
Residual Range Organics (C28-C36)	ND	200	"							
Surrogate: o-Terphenyl	51.0		"	50.0		102	65-146			

LCS (5H19010-BS1)

Prepared: 08/19/2015 Analyzed: 08/19/2015

Gasoline (C6-C10)	890	50	mg/kg				66.7-119			
Diesel (C10-C28)	820	50	"				70.1-127			
Residual Range Organics (C28-C36)	990	200	"	1000		98.9	54.5-139			
Surrogate: o-Terphenyl	45.2		"	50.0		90.4	65-146			

Matrix Spike (5H19010-MS1)

Source: X508226-03

Prepared: 08/19/2015 Analyzed: 08/19/2015

Gasoline (C6-C10)	750	50	mg/kg		ND		56.4-132			
Diesel (C10-C28)	690	50	"		11		57.4-138			
Residual Range Organics (C28-C36)	770	200	"	1000	ND	77.4	47.7-129			
Surrogate: o-Terphenyl	39.4		"	50.0		78.9	65-146			

Matrix Spike Dup (5H19010-MSD1)

Source: X508226-03

Prepared: 08/19/2015 Analyzed: 08/19/2015

Gasoline (C6-C10)	760	50	mg/kg		ND		56.4-132	1.60	22	
Diesel (C10-C28)	710	50	"		11		57.4-138	1.75	18.3	
Residual Range Organics (C28-C36)	790	200	"	1000	ND	78.8	47.7-129	1.83	30.1	
Surrogate: o-Terphenyl	37.7		"	50.0		75.4	65-146			

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
 Project Number: [none]
 Project: KMG - LDS 15-24

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 5H19012 - NO PREP										
Duplicate (5H19012-DUP1)		Source: X508226-03			Prepared: 08/19/2015 Analyzed: 08/19/2015					
pH	8.79		pH Units		8.78			0.114	25	
Batch 5H19013 - NO PREP										
Blank (5H19013-BLK1)		Prepared: 08/19/2015 Analyzed: 08/19/2015								
Specific Conductance (EC)	0.00250		mmhos/cm							
Duplicate (5H19013-DUP1)		Source: X508226-03			Prepared: 08/19/2015 Analyzed: 08/19/2015					
Specific Conductance (EC)	0.255		mmhos/cm		0.270			5.71	25	

Origins Laboratory, Inc.



Jen Pellegrini For Noelle Doyle Mathis, President

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

John Cocroft
Project Number: [none]
Project: KMG - LDS 15-24

Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported on 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



August 26, 2015

LT Environmental, Inc.

John Cocroft

4600 West 60th Avenue

Arvada CO 80003

Project Name - KMG - LDS 15-24

Project Number - 014215154

Attached are your analytical results for KMG - LDS 15-24 received by Origins Laboratory, Inc. August 25, 2015. This project is associated with Origins project number X508297-01.

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

John Cocroft
Project Number: 014215154
Project: KMG - LDS 15-24

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E01 @ 4'	X508297-01	Soil	August 25, 2015 12:00	08/25/2015 17:00
E02 @ 4'	X508297-02	Soil	August 25, 2015 12:10	08/25/2015 17:00
GW01	X508297-03	Water	August 25, 2015 12:20	08/25/2015 17:00

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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: XS08297

Client: LTE

Client Project ID: LDS 15-24

Checklist Completed by: Jeff Smith

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

Date/time completed: 8/25/15

Airbill #: NA

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

Cooler Number/Temperature: 1 / 4.4 °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 ⁽¹⁾ ?	X			
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact ⁽¹⁾ ?	X			
Was adequate sample volume provided ⁽¹⁾ ?	X			
Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ?	X	<u>8/25/15</u> <u>ASD</u>		<u>PH</u>
Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ?	X			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	X			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	X			
Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ?	X			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.			X	
Are samples preserved that require preservation and was it checked ⁽¹⁾ ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +NaOH, ZnAc+NaOH)			X	
Additional Comments (if any):	<u>Kelly K. requested by phone conversation to change analysis on COC to GBTEX, DRAPRO and Remout BTEX, TPH.</u> <u>8/25/15 Jeff Smith</u>			

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

Jeff Smith
 Reviewed by (Project Manager)

8/25/15
 Date/Time Reviewed

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

E01 @ 4'
8/25/2015 12:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X508297-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	50	mg/kg	1	5H25009	08/25/2015	08/26/2015	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

Surrogate: *o*-Terphenyl 61.2 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	0.274	0.200	mg/kg	1	5H25012	08/25/2015	08/25/2015	
Benzene	ND	0.002	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 123 % 70-130 " " "
 Surrogate: Toluene-d8 107 % 70-130 " " "
 Surrogate: 4-Bromofluorobenzene 103 % 70-130 " " "

pH in Soil by EPA 9045D

pH	7.96		pH Units	1	5H25014	08/25/2015	08/25/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.146		mmhos/cm	"	5H25015	08/25/2015	08/25/2015	
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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

E02 @ 4'
8/25/2015 12:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X508297-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	50	mg/kg	1	5H25009	08/25/2015	08/26/2015	
Residual Range Organics (C28-C36)	ND	200	"	"	"	"	"	

Surrogate: *o*-Terphenyl 72.5 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	5H25012	08/25/2015	08/25/2015	
Benzene	ND	0.002	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	
Ethylbenzene	ND	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 117 % 70-130 " " "
 Surrogate: Toluene-d8 102 % 70-130 " " "
 Surrogate: 4-Bromofluorobenzene 107 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.17		pH Units	1	5H25014	08/25/2015	08/25/2015	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.121		mmhos/cm	"	5H25015	08/25/2015	08/25/2015	
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LT Environmental, Inc.
 4600 West 60th Avenue
 Arvada CO 80003

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

GW01
8/25/2015 12:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
X508297-03 (Water)

BTEX by EPA 8260C

Benzene	ND	1.0	ug/L	1	5H25006	08/25/2015	08/25/2015	
Toluene	ND	1.0	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	
Xylenes, total	ND	1.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	97.7 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.5 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.3 %	84-114			"	"	"	

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25006 - EPA 5030B (Water)

Blank (5H25006-BLK1)

Prepared: 08/25/2015 Analyzed: 08/25/2015

Benzene	ND	1.0	ug/L							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5	96.6		84-121			
Surrogate: Toluene-d8	62		"	62.5	98.7		85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5	99.3		84-114			

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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25006 - EPA 5030B (Water)

LCS (5H25006-BS1)

Prepared: 08/25/2015 Analyzed: 08/25/2015

Benzene	55.6	1.0	ug/L	50.0		111	75-126			
Toluene	54.2	1.0	"	50.0		108	78.7-126			
Ethylbenzene	56.3	1.0	"	50.0		113	80-130			
m,p-Xylene	112	2.0	"	100		112	77.2-133			
o-Xylene	54.4	1.0	"	50.0		109	77.9-126			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.2	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.4	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25006 - EPA 5030B (Water)

Matrix Spike (5H25006-MS1)	Source: X508274-01			Prepared: 08/25/2015 Analyzed: 08/25/2015						
Benzene	48.8	1.0	ug/L	50.0	ND	97.6	74-130			
Toluene	48.1	1.0	"	50.0	ND	96.2	73-131			
Ethylbenzene	49.7	1.0	"	50.0	ND	99.4	76-132			
m,p-Xylene	99.8	2.0	"	100	ND	99.8	69-139			
o-Xylene	51.3	1.0	"	50.0	ND	103	74-131			
Surrogate: 1,2-Dichloroethane-d4	59		"	62.5		94.3	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

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LT Environmental, Inc.
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 Arvada CO 80003

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25006 - EPA 5030B (Water)

Matrix Spike Dup (5H25006-MSD1)	Source: X508274-01			Prepared: 08/25/2015 Analyzed: 08/25/2015						
Benzene	51.3	1.0	ug/L	50.0	ND	103	74-130	5.02	20	
Toluene	49.6	1.0	"	50.0	ND	99.1	73-131	2.97	20	
Ethylbenzene	50.7	1.0	"	50.0	ND	101	76-132	1.95	20	
m,p-Xylene	100	2.0	"	100	ND	100	69-139	0.340	20	
o-Xylene	51.1	1.0	"	50.0	ND	102	74-131	0.391	20	
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.2	84-121			
Surrogate: Toluene-d8	63		"	62.5		100	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	84-114			

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LT Environmental, Inc.
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 Arvada CO 80003

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25012 - EPA 5030 (soil)

Blank (5H25012-BLK1)

Prepared: 08/25/2015 Analyzed: 08/25/2015

Gasoline Range Hydrocarbons	ND	0.200	mg/kg							
Benzene	ND	0.002	"							
Toluene	ND	0.002	"							
Ethylbenzene	ND	0.002	"							
Xylenes, total	ND	0.002	"							
Surrogate: 1,2-Dichloroethane-d4	73.6		ug/kg	62.5		118	70-130			
Surrogate: Toluene-d8	64.0		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	66.2		"	62.5		106	70-130			

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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25012 - EPA 5030 (soil)

LCS (5H25012-BS1)

Prepared: 08/25/2015 Analyzed: 08/25/2015

Benzene	0.098	0.002	mg/kg	0.100		97.5	77.1-124			
Toluene	0.096	0.002	"	0.100		95.9	74.5-128			
Ethylbenzene	0.089	0.002	"	0.100		88.8	66.4-127			
m,p-Xylene	0.175	0.004	"	0.200		87.6	76.6-124			
o-Xylene	0.092	0.002	"	0.100		92.0	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	74.8		ug/kg	62.5		120	70-130			
Surrogate: Toluene-d8	64.1		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	65.7		"	62.5		105	70-130			

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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25012 - EPA 5030 (soil)

Matrix Spike (5H25012-MS1)	Source: X508290-01			Prepared: 08/25/2015 Analyzed: 08/25/2015						
Benzene	0.083	0.002	mg/kg	0.100	ND	82.9	71.8-126			
Toluene	0.078	0.002	"	0.100	ND	77.6	65.1-130			
Ethylbenzene	0.071	0.002	"	0.100	ND	70.8	62.2-130			
m,p-Xylene	0.143	0.004	"	0.200	ND	71.6	46.5-137			
o-Xylene	0.071	0.002	"	0.100	ND	71.3	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	76.3		ug/kg	62.5		122	70-130			
Surrogate: Toluene-d8	64.4		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	63.8		"	62.5		102	70-130			

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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25012 - EPA 5030 (soil)

Matrix Spike Dup (5H25012-MSD1)	Source: X508290-01			Prepared: 08/25/2015 Analyzed: 08/25/2015						
Benzene	0.088	0.002	mg/kg	0.100	ND	87.7	71.8-126	5.56	11.3	
Toluene	0.082	0.002	"	0.100	ND	82.5	65.1-130	6.17	15.4	
Ethylbenzene	0.076	0.002	"	0.100	ND	76.0	62.2-130	7.14	19.6	
m,p-Xylene	0.152	0.004	"	0.200	ND	76.2	46.5-137	6.24	19.2	
o-Xylene	0.076	0.002	"	0.100	ND	76.3	54.2-134	6.78	17.9	
Surrogate: 1,2-Dichloroethane-d4	76.9		ug/kg	62.5		123	70-130			
Surrogate: Toluene-d8	62.7		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	67.0		"	62.5		107	70-130			

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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25009 - EPA 3580

Blank (5H25009-BLK1)

Prepared: 08/25/2015 Analyzed: 08/25/2015

Diesel (C10-C28)	ND	50	mg/kg							
Residual Range Organics (C28-C36)	ND	200	"							
Surrogate: o-Terphenyl	51		"	50.0		101	59-131			

LCS (5H25009-BS1)

Prepared: 08/25/2015 Analyzed: 08/25/2015

Diesel (C10-C28)	900	50	mg/kg				64-121			
Residual Range Organics (C28-C36)	1000	200	"	1000		103	58-124			
Surrogate: o-Terphenyl	48		"	50.0		95.7	59-131			

Matrix Spike (5H25009-MS1)

Source: X508292-04

Prepared: 08/25/2015 Analyzed: 08/25/2015

Diesel (C10-C28)	850	50	mg/kg		ND		53-125			
Residual Range Organics (C28-C36)	890	200	"	1000	ND	88.6	47-133			
Surrogate: o-Terphenyl	44		"	50.0		87.9	59-131			

Matrix Spike Dup (5H25009-MSD1)

Source: X508292-04

Prepared: 08/25/2015 Analyzed: 08/25/2015

Diesel (C10-C28)	870	50	mg/kg		ND		53-125	3.12	20	
Residual Range Organics (C28-C36)	900	200	"	1000	ND	89.5	47-133	1.05	20	
Surrogate: o-Terphenyl	40		"	50.0		79.9	59-131			

Origins Laboratory, Inc.



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

John Cocroft
 Project Number: 014215154
 Project: KMG - LDS 15-24

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 5H25014 - NO PREP										
Duplicate (5H25014-DUP1)		Source: X508298-01			Prepared: 08/25/2015 Analyzed: 08/25/2015					
pH	7.47		pH Units		8.30			10.5	25	
Batch 5H25015 - NO PREP										
Blank (5H25015-BLK1)		Prepared: 08/25/2015 Analyzed: 08/25/2015								
Specific Conductance (EC)	0.00300		mmhos/cm							
Duplicate (5H25015-DUP1)		Source: X508298-01			Prepared: 08/25/2015 Analyzed: 08/25/2015					
Specific Conductance (EC)	0.367		mmhos/cm		0.370			0.814	25	

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

John Cocroft
Project Number: 014215154
Project: KMG - LDS 15-24

Notes and Definitions

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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Jen Pellegrini For Noelle Doyle Mathis, President