



February 18, 2015

LT Environmental, Inc.

Justin Solomon

4600 West 60th Avenue

Arvada CO 80003

**Project Name - KMG - NRC 3C-4Hz**

**Project Number - 014211290-377**

Attached are your analytical results for KMG - NRC 3C-4Hz received by Origins Laboratory, Inc. February 11, 2015. This project is associated with Origins project number X502142-01.

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

Justin Solomon  
Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

## CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled            | Date Received    |
|-----------|---------------|--------|-------------------------|------------------|
| Off S     | X502142-01    | Soil   | February 10, 2015 13:10 | 02/11/2015 16:05 |
| Off E     | X502142-02    | Soil   | February 10, 2015 13:15 | 02/11/2015 16:05 |
| Off N     | X502142-03    | Soil   | February 10, 2015 13:20 | 02/11/2015 16:05 |
| Off W     | X502142-04    | Soil   | February 10, 2015 13:25 | 02/11/2015 16:05 |
| Off Comp  | X502142-05    | Soil   | February 10, 2015 13:30 | 02/11/2015 16:05 |
| Pad Comp  | X502142-06    | Soil   | February 10, 2015 13:35 | 02/11/2015 16:05 |

Origins Laboratory, Inc.




Jen Pellegrini For Noelle Doyle Mathis, President

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Justin Solomon  
Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

|  |  |                                 |  |                           |
|--|--|---------------------------------|--|---------------------------|
| <b>ORIGINS</b><br>LABORATORY, INC        |  | X502142                         |  | www.originslaboratory.com |
| Client: LT Environmental Inc.            |  | Project Manager: Justin Solomon |  | page 1 of 1               |
| Address: 4600 W. 60th Ave Avada CO 80002 |  | Project Name: KMG - NRC 3C-442  |  |                           |
| Telephone Number: 303.433.7988           |  | Project Number: 014211290-377   |  |                           |
| Email Address: isolomon@itenv.com        |  | Samples Collected By: RZ        |  |                           |

| 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 Continer # | Other  | THEDAO DMO DMOL | BTEX | pH, EC, SAR | Total Arsenic |                     | Total Barium |
| Off S  | 2/10/15       | 1316         | 1               | X            |              |                  |       |              |       | X                    |  |                 |      | X           |               | 1                   |              |
| Off E  |               | 1315         | 1               | X            |              |                  |       |              |       | X                    |  |                 |      | X           |               | 2                   |              |
| Off N  |               | 1326         | 1               | X            |              |                  |       |              |       | X                    |  |                 |      | X           |               | 3                   |              |
| Off W  |               | 1325         | 1               | X            |              |                  |       |              |       | X                    |  |                 |      | X           |               | 4                   |              |
| Off Comp   |               | 1330         | 2               | X            |              |                  |       |              |       | X                    |  |                 |      | X           | X             | 5                   |              |
| Pad Comp   |               | 1335         | 3               | X            |              |                  |       |              |       | X                    |  |                 | X    | X           | X             | 6                   |              |
|  |               |              |                 |              |              |                  |       |              |       |                      |  |                 |      |             |               | 7                   |              |
|  |               |              |                 |              |              |                  |       |              |       |                      |  |                 |      |             |               | 8                   |              |
|  |               |              |                 |              |              |                  |       |              |       |                      |  |                 |      |             |               | 9                   |              |
|  |               |              |                 |              |              |                  |       |              |       |                      |  |                 |      |             |               | 10                  |              |
| Relinquished By:  | Date: 2/11/15 |              | Time: 1605      | Time:        | Received By: | Date:            | Time: | Received By: | Date: | Time:                | Turnaround Time:<br>Same Day <input type="checkbox"/> 24 Hr <input checked="" type="checkbox"/><br>48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/><br>Standard <input checked="" type="checkbox"/> |                 |      |             |               |                     |              |
| Relinquished By:   | Date:         |              | Time:           | Time:        | Received By: | Date:            | Time: | Received By: | Date: | Time:                |  |                 |      |             |               |                     |              |

Date Results Needed

Jeff Pellgrini

Jen Pellegrini For Noelle Doyle Mathis, President

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

Justin Solomon  
Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: XS02142

Client: LTE

Client Project ID: NRC 3C-4Hz

Checklist Completed by: Jeff Smith

Shipped Via: H/D

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

Date/time completed: 2/11/15

Airbill #: NA

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

Cooler Number/Temperature: 1 / 5.4 °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"/> |                                     |                                     |                   |
| 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"/> |                                     |                                     | <u>PH</u>         |
| 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 02-13-15

Origins Laboratory, Inc.

[Signature]

Jen Pellegrini For Noelle Doyle Mathis, President

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Justin Solomon  
Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

Off S

2/10/2015 1:10:00PM

| Analyte | Result | Min Detection<br>Limit | Reporting<br>Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|------------------------|--------------------|-------|----------|-------|----------|----------|-------|
|---------|--------|------------------------|--------------------|-------|----------|-------|----------|----------|-------|

**GEL Laboratories, LLC**  
**X502142-01 (Soil)**

**Total Metals by SW846 3050B/6010C**

|         |      |       |      |           |   |         |            |            |  |
|---------|------|-------|------|-----------|---|---------|------------|------------|--|
| Arsenic | 7.44 | 0.559 | 3.35 | mg/kg dry | 1 | 1457753 | 02/13/2015 | 02/16/2015 |  |
|---------|------|-------|------|-----------|---|---------|------------|------------|--|

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Justin Solomon  
Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

Off E

2/10/2015 1:15:00PM

| Analyte | Result | Min Detection<br>Limit | Reporting<br>Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|------------------------|--------------------|-------|----------|-------|----------|----------|-------|
|---------|--------|------------------------|--------------------|-------|----------|-------|----------|----------|-------|

**GEL Laboratories, LLC**  
**X502142-02 (Soil)**

**Total Metals by SW846 3050B/6010C**

|         |      |       |      |           |   |         |            |            |  |
|---------|------|-------|------|-----------|---|---------|------------|------------|--|
| Arsenic | 8.72 | 0.580 | 3.48 | mg/kg dry | 1 | 1457753 | 02/13/2015 | 02/16/2015 |  |
|---------|------|-------|------|-----------|---|---------|------------|------------|--|

Origins Laboratory, Inc.



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Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

Off N

2/10/2015 1:20:00PM

| Analyte | Result | Min Detection<br>Limit | Reporting<br>Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|------------------------|--------------------|-------|----------|-------|----------|----------|-------|
|---------|--------|------------------------|--------------------|-------|----------|-------|----------|----------|-------|

**GEL Laboratories, LLC**  
**X502142-03 (Soil)**

**Total Metals by SW846 3050B/6010C**

|         |      |       |      |           |   |         |            |            |  |
|---------|------|-------|------|-----------|---|---------|------------|------------|--|
| Arsenic | 10.3 | 0.570 | 3.42 | mg/kg dry | 1 | 1457753 | 02/13/2015 | 02/16/2015 |  |
|---------|------|-------|------|-----------|---|---------|------------|------------|--|

Origins Laboratory, Inc.



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Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

Off W

2/10/2015 1:25:00PM

| Analyte | Result | Min Detection<br>Limit | Reporting<br>Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|------------------------|--------------------|-------|----------|-------|----------|----------|-------|
|---------|--------|------------------------|--------------------|-------|----------|-------|----------|----------|-------|

**GEL Laboratories, LLC**  
**X502142-04 (Soil)**

**Total Metals by SW846 3050B/6010C**

|         |      |       |      |           |   |         |            |            |  |
|---------|------|-------|------|-----------|---|---------|------------|------------|--|
| Arsenic | 7.42 | 0.560 | 3.36 | mg/kg dry | 1 | 1457753 | 02/13/2015 | 02/16/2015 |  |
|---------|------|-------|------|-----------|---|---------|------------|------------|--|

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**Off Comp**  
**2/10/2015 1:30:00PM**

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

**Origins Laboratory, Inc.**  
**X502142-05 (Soil)**

**pH in Soil by EPA 9045D**

|    |      |  |  |          |   |         |            |            |
|----|------|--|--|----------|---|---------|------------|------------|
| pH | 8.64 |  |  | pH Units | 1 | 5B12007 | 02/12/2015 | 02/13/2015 |
|----|------|--|--|----------|---|---------|------------|------------|

**SAR Metals by SW846 3050B/6010C**

|           |       |      |      |           |   |         |            |            |
|-----------|-------|------|------|-----------|---|---------|------------|------------|
| Calcium   | 24600 | 9.13 | 28.5 | mg/kg dry | 1 | 1457752 | 02/13/2015 | 02/16/2015 |
| Magnesium | 6320  | 9.70 | 34.2 | "         | " | "       | "          | "          |
| Sodium    | 350   | 7.99 | 28.5 | "         | " | "       | "          | "          |

**Sodium Adsorption Ratio**

|                         |       |  |  |      |   |         |  |            |
|-------------------------|-------|--|--|------|---|---------|--|------------|
| Sodium Adsorption Ratio | 0.516 |  |  | none | 1 | 1458674 |  | 02/18/2015 |
|-------------------------|-------|--|--|------|---|---------|--|------------|

**Specific Conductance by Modified 9050A**

|                           |       |  |  |          |   |         |            |            |
|---------------------------|-------|--|--|----------|---|---------|------------|------------|
| Specific Conductance (EC) | 0.119 |  |  | mmhos/cm | 1 | 5B12008 | 02/12/2015 | 02/13/2015 |
|---------------------------|-------|--|--|----------|---|---------|------------|------------|

**Total Metals by SW846 3050B/6010C**

|         |      |       |       |           |   |         |            |            |
|---------|------|-------|-------|-----------|---|---------|------------|------------|
| Arsenic | 8.87 | 0.570 | 3.42  | mg/kg dry | 1 | 1457753 | 02/13/2015 | 02/16/2015 |
| Barium  | 192  | 0.114 | 0.570 | "         | " | "       | "          | "          |

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## Pad Comp

2/10/2015 1:35:00PM

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

## Origins Laboratory, Inc. X502142-06 (Soil)

### BTEX by EPA 8260C

|                |    |       |       |   |         |            |            |
|----------------|----|-------|-------|---|---------|------------|------------|
| Benzene        | ND | 0.002 | mg/kg | 1 | 5B12010 | 02/12/2015 | 02/14/2015 |
| Toluene        | ND | 0.002 | "     | " | "       | "          | "          |
| Ethylbenzene   | ND | 0.002 | "     | " | "       | "          | "          |
| Xylenes, total | ND | 0.002 | "     | " | "       | "          | "          |

|                                  |        |        |   |   |   |
|----------------------------------|--------|--------|---|---|---|
| Surrogate: 1,2-Dichloroethane-d4 | 116 %  | 70-130 | " | " | " |
| Surrogate: Toluene-d8            | 100 %  | 70-130 | " | " | " |
| Surrogate: 4-Bromofluorobenzene  | 99.2 % | 70-130 | " | " | " |

### pH in Soil by EPA 9045D

|    |      |          |   |         |            |            |
|----|------|----------|---|---------|------------|------------|
| pH | 8.23 | pH Units | 1 | 5B12007 | 02/12/2015 | 02/13/2015 |
|----|------|----------|---|---------|------------|------------|

### SAR Metals by SW846 3050B/6010C

|           |       |      |      |           |   |         |            |            |
|-----------|-------|------|------|-----------|---|---------|------------|------------|
| Calcium   | 37700 | 9.16 | 28.6 | mg/kg dry | 1 | 1457752 | 02/13/2015 | 02/16/2015 |
| Magnesium | 6540  | 9.73 | 34.3 | "         | " | "       | "          | "          |
| Sodium    | 1410  | 8.01 | 28.6 | "         | " | "       | "          | "          |

### Sodium Adsorption Ratio

|                         |      |      |   |         |            |
|-------------------------|------|------|---|---------|------------|
| Sodium Adsorption Ratio | 1.77 | none | 1 | 1458674 | 02/18/2015 |
|-------------------------|------|------|---|---------|------------|

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Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

**Pad Comp**

**2/10/2015 1:35:00PM**

| Analyte | Result | Min Detection Limit | Reporting Limit | Units | Dilution | Batch | Prepared | Analyzed | Notes |
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|
|---------|--------|---------------------|-----------------|-------|----------|-------|----------|----------|-------|

**Origins Laboratory, Inc.**  
**X502142-06 (Soil)**

**Specific Conductance by Modified 9050A**

|                           |       |  |  |          |   |         |            |            |  |
|---------------------------|-------|--|--|----------|---|---------|------------|------------|--|
| Specific Conductance (EC) | 0.490 |  |  | mmhos/cm | 1 | 5B12008 | 02/12/2015 | 02/13/2015 |  |
|---------------------------|-------|--|--|----------|---|---------|------------|------------|--|

**TCLP Metals by 1311/3010A/6010C**

|         |    |       |       |      |   |         |            |            |   |
|---------|----|-------|-------|------|---|---------|------------|------------|---|
| Arsenic | ND | 0.050 | 0.300 | mg/L | 1 | 1458310 | 02/17/2015 | 02/17/2015 | U |
|---------|----|-------|-------|------|---|---------|------------|------------|---|

**Total Metals by SW846 3050B/6010C**

|         |      |       |       |           |   |         |            |            |  |
|---------|------|-------|-------|-----------|---|---------|------------|------------|--|
| Arsenic | 7.71 | 0.572 | 3.43  | mg/kg dry | 1 | 1457753 | 02/13/2015 | 02/16/2015 |  |
| Barium  | 1450 | 0.114 | 0.572 | "         | " | "       | "          | "          |  |

**TPH-Carbon Chain by EPA Method 8015C**

|                                   |    |     |     |       |   |         |            |            |  |
|-----------------------------------|----|-----|-----|-------|---|---------|------------|------------|--|
| Gasoline (C6-C10)                 | ND | 17  | 50  | mg/kg | 1 | 5B12009 | 02/12/2015 | 02/12/2015 |  |
| Diesel (C10-C28)                  | 99 | 13  | 50  | "     | " | "       | "          | "          |  |
| Residual Range Organics (C28-C36) | ND | 4.6 | 200 | "     | " | "       | "          | "          |  |

|                        |        |  |        |  |  |   |   |   |  |
|------------------------|--------|--|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 80.8 % |  | 65-146 |  |  | " | " | " |  |
|------------------------|--------|--|--------|--|--|---|---|---|--|

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Justin Solomon  
Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

**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 5B12010 - EPA 5030 (soil)**

**Blank (5B12010-BLK1)**

Prepared: 02/12/2015 Analyzed: 02/12/2015

|                                  |    |       |       |      |  |     |        |  |  |  |
|----------------------------------|----|-------|-------|------|--|-----|--------|--|--|--|
| Benzene                          | ND | 0.002 | mg/kg |      |  |     |        |  |  |  |
| Toluene                          | ND | 0.002 | "     |      |  |     |        |  |  |  |
| Ethylbenzene                     | ND | 0.002 | "     |      |  |     |        |  |  |  |
| Xylenes, total                   | ND | 0.002 | "     |      |  |     |        |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 81 |       | ug/kg | 62.5 |  | 130 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 64 |       | "     | 62.5 |  | 103 | 70-130 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 69 |       | "     | 62.5 |  | 111 | 70-130 |  |  |  |

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Project: KMG - NRC 3C-4Hz

**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 5B12010 - EPA 5030 (soil)**

**LCS (5B12010-BS1)**

Prepared: 02/12/2015 Analyzed: 02/12/2015

|                                  |       |       |       |       |  |     |          |  |  |  |
|----------------------------------|-------|-------|-------|-------|--|-----|----------|--|--|--|
| Benzene                          | 0.108 | 0.002 | mg/kg | 0.100 |  | 108 | 77.1-124 |  |  |  |
| Toluene                          | 0.106 | 0.002 | "     | 0.100 |  | 106 | 74.5-128 |  |  |  |
| Ethylbenzene                     | 0.112 | 0.002 | "     | 0.100 |  | 112 | 66.4-127 |  |  |  |
| m,p-Xylene                       | 0.231 | 0.004 | "     | 0.200 |  | 116 | 76.6-124 |  |  |  |
| o-Xylene                         | 0.111 | 0.002 | "     | 0.100 |  | 111 | 76.6-124 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 77    |       | ug/kg | 62.5  |  | 123 | 70-130   |  |  |  |
| Surrogate: Toluene-d8            | 65    |       | "     | 62.5  |  | 104 | 70-130   |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 69    |       | "     | 62.5  |  | 110 | 70-130   |  |  |  |

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

Justin Solomon  
Project Number: 014211290-377  
Project: KMG - NRC 3C-4Hz

**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 5B12010 - EPA 5030 (soil)**

| Matrix Spike (5B12010-MS1)       |       | Source: X502131-06 |       |       | Prepared: 02/12/2015 Analyzed: 02/12/2015 |     |          |  |  |  |
|----------------------------------|-------|--------------------|-------|-------|---|-----|----------|--|--|--|
| Benzene                          | 0.103 | 0.002              | mg/kg | 0.100 | ND  | 103 | 71.8-126 |  |  |  |
| Toluene                          | 0.102 | 0.002              | "     | 0.100 | ND  | 102 | 65.1-130 |  |  |  |
| Ethylbenzene                     | 0.109 | 0.002              | "     | 0.100 | ND  | 109 | 62.2-130 |  |  |  |
| m,p-Xylene                       | 0.221 | 0.004              | "     | 0.200 | ND  | 110 | 46.5-137 |  |  |  |
| o-Xylene                         | 0.109 | 0.002              | "     | 0.100 | ND  | 109 | 54.2-134 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 78    |                    | ug/kg | 62.5  |   | 125 | 70-130   |  |  |  |
| Surrogate: Toluene-d8            | 63    |                    | "     | 62.5  |   | 101 | 70-130   |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 68    |                    | "     | 62.5  |   | 109 | 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 5B12010 - EPA 5030 (soil)</b> |        |                           |       |             |   |      |             |      |           |       |
| <b>Matrix Spike Dup (5B12010-MSD1)</b> |        | <b>Source: X502131-06</b> |       |             | Prepared: 02/12/2015 Analyzed: 02/12/2015 |      |             |      |           |       |
| Benzene                                | 0.099  | 0.002                     | mg/kg | 0.100       | ND  | 98.9 | 71.8-126    | 3.71 | 11.3      |       |
| Toluene                                | 0.097  | 0.002                     | "     | 0.100       | ND  | 97.5 | 65.1-130    | 4.83 | 15.4      |       |
| Ethylbenzene                           | 0.102  | 0.002                     | "     | 0.100       | ND  | 102  | 62.2-130    | 6.64 | 19.6      |       |
| m,p-Xylene                             | 0.215  | 0.004                     | "     | 0.200       | ND  | 108  | 46.5-137    | 2.50 | 19.2      |       |
| o-Xylene                               | 0.103  | 0.002                     | "     | 0.100       | ND  | 103  | 54.2-134    | 6.47 | 17.9      |       |
| Surrogate: 1,2-Dichloroethane-d4       | 78     |                           | ug/kg | 62.5        |   | 124  | 70-130      |      |           |       |
| Surrogate: Toluene-d8                  | 66     |                           | "     | 62.5        |   | 105  | 70-130      |      |           |       |
| Surrogate: 4-Bromofluorobenzene        | 68     |                           | "     | 62.5        |   | 109  | 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 |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

## Extractable Petroleum Hydrocarbons by 8015M - Quality Control

### Origins Laboratory, Inc.

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

#### Batch 5B12009 - EPA 3580

#### Blank (5B12009-BLK1)

Prepared: 02/12/2015 Analyzed: 02/12/2015

|                                   |    |     |       |
|-----------------------------------|----|-----|-------|
| Gasoline (C6-C10)                 | 36 | 50  | mg/kg |
| Diesel (C10-C28)                  | 19 | 50  | "     |
| Residual Range Organics (C28-C36) | ND | 200 | "     |

Surrogate: o-Terphenyl

60.1

"

50.0

120

65-146

#### LCS (5B12009-BS1)

Prepared: 02/12/2015 Analyzed: 02/12/2015

|                                   |      |     |       |      |  |      |          |
|-----------------------------------|------|-----|-------|------|--|------|----------|
| Gasoline (C6-C10)                 | 970  | 50  | mg/kg | 1000 |  | 96.5 | 66.7-119 |
| Diesel (C10-C28)                  | 960  | 50  | "     | 1000 |  | 96.2 | 70.1-127 |
| Residual Range Organics (C28-C36) | 1100 | 200 | "     | 1000 |  | 111  | 54.5-139 |

Surrogate: o-Terphenyl

51.6

"

50.0

103

65-146

#### Matrix Spike (5B12009-MS1)

Source: X502131-06

Prepared: 02/12/2015 Analyzed: 02/12/2015

|                                   |      |     |       |      |    |      |          |
|-----------------------------------|------|-----|-------|------|----|------|----------|
| Gasoline (C6-C10)                 | 990  | 50  | mg/kg | 1000 | ND | 99.4 | 56.4-132 |
| Diesel (C10-C28)                  | 1000 | 50  | "     | 1000 | 26 | 97.2 | 57.4-138 |
| Residual Range Organics (C28-C36) | 1100 | 200 | "     | 1000 | ND | 113  | 47.7-129 |

Surrogate: o-Terphenyl

44.0

"

50.0

88.1

65-146

#### Matrix Spike Dup (5B12009-MSD1)

Source: X502131-06

Prepared: 02/12/2015 Analyzed: 02/12/2015

|                                   |      |     |       |      |    |     |          |      |      |
|-----------------------------------|------|-----|-------|------|----|-----|----------|------|------|
| Gasoline (C6-C10)                 | 1000 | 50  | mg/kg | 1000 | ND | 101 | 56.4-132 | 1.56 | 22   |
| Diesel (C10-C28)                  | 1000 | 50  | "     | 1000 | 26 | 102 | 57.4-138 | 4.86 | 18.3 |
| Residual Range Organics (C28-C36) | 1100 | 200 | "     | 1000 | ND | 115 | 47.7-129 | 1.56 | 30.1 |

Surrogate: o-Terphenyl

43.7

"

50.0

87.4

65-146

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Justin Solomon  
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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 5B12007 - NO PREP</b>  |         |                           |          |             |   |      |             |       |           |       |
| <b>Duplicate (5B12007-DUP1)</b> |         | <b>Source: X502131-05</b> |          |             | Prepared: 02/12/2015 Analyzed: 02/12/2015 |      |             |       |           |       |
| pH                              | 7.80    |                           | pH Units |             | 7.83                                      |      |             | 0.384 | 25        |       |
| <b>Duplicate (5B12007-DUP2)</b> |         | <b>Source: X502131-06</b> |          |             | Prepared: 02/12/2015 Analyzed: 02/12/2015 |      |             |       |           |       |
| pH                              | 8.77    |                           | pH Units |             | 8.81                                      |      |             | 0.455 | 25        |       |
| <b>Batch 5B12008 - NO PREP</b>  |         |                           |          |             |   |      |             |       |           |       |
| <b>Blank (5B12008-BLK1)</b>     |         |                           |          |             | Prepared: 02/12/2015 Analyzed: 02/12/2015 |      |             |       |           |       |
| Specific Conductance (EC)       | 0.00250 |                           | mmhos/cm |             |   |      |             |       |           |       |
| <b>Blank (5B12008-BLK2)</b>     |         |                           |          |             | Prepared: 02/12/2015 Analyzed: 02/12/2015 |      |             |       |           |       |
| Specific Conductance (EC)       | 0.00310 |                           | mmhos/cm |             |   |      |             |       |           |       |
| <b>Duplicate (5B12008-DUP1)</b> |         | <b>Source: X502131-05</b> |          |             | Prepared: 02/12/2015 Analyzed: 02/12/2015 |      |             |       |           |       |
| Specific Conductance (EC)       | 0.0293  |                           | mmhos/cm |             | 0.0333                                    |      |             | 12.8  | 25        |       |
| <b>Duplicate (5B12008-DUP2)</b> |         | <b>Source: X502131-06</b> |          |             | Prepared: 02/12/2015 Analyzed: 02/12/2015 |      |             |       |           |       |
| Specific Conductance (EC)       | 0.111   |                           | mmhos/cm |             | 0.107                                     |      |             | 3.21  | 25        |       |

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**TCLP Metals by 1311/3010A/6010C - Quality Control**  
**GEL Laboratories, LLC**

| Analyte                            | Result                                    | Reporting Limit | Units | Spike Level | Source Result                             | %REC | %REC Limits | RPD  | RPD Limit | Notes |
|------------------------------------|---|-----------------|-------|-------------|---|------|-------------|------|-----------|-------|
| <b>Batch 1458310 - SW846 3010A</b> |   |                 |       |             |   |      |             |      |           |       |
| <b>MS (1203264605 S)</b>           | <b>Source: X502142-06</b>                 |                 |       |             | Prepared: 02/17/2015 Analyzed: 02/17/2015 |      |             |      |           |       |
| Arsenic                            | 4.21                                      | 0.300           | mg/L  | 5.00        | <0.050                                    | 84.2 | 75-125      |      |           |       |
| <b>TB (1203264606-BLK)</b>         | Prepared: 02/17/2015 Analyzed: 02/17/2015 |                 |       |             |   |      |             |      |           |       |
| Arsenic                            | ND  | 0.300           | mg/L  |             |   |      | -           |      |           | U     |
| <b>TB (1203265547-BLK)</b>         | Prepared: 02/17/2015 Analyzed: 02/17/2015 |                 |       |             |   |      |             |      |           |       |
| Arsenic                            | ND  | 0.300           | mg/L  |             |   |      | -           |      |           | U     |
| <b>BLANK (1203266167-BLK)</b>      | Prepared: 02/17/2015 Analyzed: 02/17/2015 |                 |       |             |   |      |             |      |           |       |
| Arsenic                            | ND  | 0.300           | mg/L  |             |   |      | -           |      |           | U     |
| <b>LCS (1203266168-BKS)</b>        | Prepared: 02/17/2015 Analyzed: 02/17/2015 |                 |       |             |   |      |             |      |           |       |
| Arsenic                            | 4.92                                      | 0.300           | mg/L  | 5.00        |   | 98.4 | 80-120      |      |           |       |
| <b>DUP (1203266169 D)</b>          | <b>Source: X502142-06</b>                 |                 |       |             | Prepared: 02/17/2015 Analyzed: 02/17/2015 |      |             |      |           |       |
| Arsenic                            | ND  | 0.300           | mg/L  |             | <0.050                                    |      | 0-20        | 12.3 | 20        | U     |

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**Total Metals by SW846 3050B/6010C - Quality Control**  
**GEL Laboratories, LLC**

| Analyte                            | Result | Reporting Limit | Units     | Spike Level | Source Result   | %REC | %REC Limits | RPD  | RPD Limit | Notes |
|------------------------------------|--------|-----------------|-----------|-------------|---|------|-------------|------|-----------|-------|
| <b>Batch 1457753 - SW846 3050B</b> |        |                 |           |             |   |      |             |      |           |       |
| <b>BLANK (1203264755-BLK)</b>      |        |                 |           |             | Prepared: 02/13/2015 Analyzed: 02/16/2015                   |      |             |      |           |       |
| Barium                             | ND     | 0.499           | mg/kg     |             |   |      | -           |      |           | U     |
| Arsenic                            | ND     | 2.99            | "         |             |   |      | -           |      |           | U     |
| <b>LCS (1203264756-BKS)</b>        |        |                 |           |             | Prepared: 02/13/2015 Analyzed: 02/16/2015                   |      |             |      |           |       |
| Arsenic                            | 49.2   | 2.90            | mg/kg     | 48.3        |   | 102  | 80-120      |      |           |       |
| Barium                             | 48.9   | 0.483           | "         | 48.3        |   | 101  | 80-120      |      |           |       |
| <b>DUP (1203264757 D)</b>          |        |                 |           |             | Source: 367134001 Prepared: 02/13/2015 Analyzed: 02/16/2015 |      |             |      |           |       |
| Arsenic                            | 8.01   | 3.54            | mg/kg dry |             | 7.13  |      | 0-20        | 11.6 | 20        |       |
| Barium                             | 162    | 0.589           | "         |             | 147   |      | 0-20        | 9.55 | 20        |       |
| <b>MS (1203264758 S)</b>           |        |                 |           |             | Source: 367134001 Prepared: 02/13/2015 Analyzed: 02/16/2015 |      |             |      |           |       |
| Arsenic                            | 68.4   | 3.55            | mg/kg dry | 59.2        | 7.13  | 104  | 75-125      |      |           |       |
| Barium                             | 226    | 0.592           | "         | 59.2        | 147   | 133  | 75-125      |      |           | N     |
| <b>PS (1203265990 S)</b>           |        |                 |           |             | Source: 367134001 Prepared: 02/13/2015 Analyzed: 02/16/2015 |      |             |      |           |       |
| Barium                             | 2.06   | 0.00604         | mg/kg dry | 500         |   | 95.7 | 80-120      |      |           |       |

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### Notes and Definitions

- U Result not detected above the detection limit
- N Spiked sample recovery not within control limits
- J Greater than the detection limit but less than the reporting limit
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- All soil results are reported on a wet weight basis.

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