



February 14, 2014

LT Environmental, Inc.

John Cocroft

4600 West 60th Avenue

Arvada CO 80003

Project Name - KMG - Powers 30N-27HZ Pad

Project Number - 014211290

Attached are your analytical results for KMG - Powers 30N-27HZ Pad received by Origins Laboratory, Inc. January 08, 2014. This project is associated with Origins project number X401069-01.

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: 014211290  
Project: KMG - Powers 30N-27HZ Pad

### CROSS REFERENCE REPORT

| Sample ID             | Laboratory ID | Matrix | Date Sampled          | Date Received    |
|-----------------------|---------------|--------|-----------------------|------------------|
| Powers 13-27 On Pad   | X401069-01    | Soil   | January 8, 2014 9:45  | 01/08/2014 17:00 |
| Powers 13-27 Off (0A) | X401069-02    | Soil   | January 8, 2014 9:55  | 01/08/2014 17:00 |
| Powers 13-27 Off (0B) | X401069-03    | Soil   | January 8, 2014 9:58  | 01/08/2014 17:00 |
| Powers 13-27 Off (0C) | X401069-04    | Soil   | January 8, 2014 9:59  | 01/08/2014 17:00 |
| Powers 13-27 Off (0D) | X401069-05    | Soil   | January 8, 2014 10:01 | 01/08/2014 17:00 |
| Powers 13-27 Off Comp | X401069-06    | Soil   | January 8, 2014 10:05 | 01/08/2014 17:00 |

Origins Laboratory, Inc.



Noelle Doyle Mathis, President

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John Cocroft  
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Project: KMG - Powers 30N-27HZ Pad

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page 1 of 1

X401069

**ORIGINS**  
LABORATORY, INC

Project Manager: JOHN COCROFT  
Project Name: POWERS 13-27HZ  
Project Number: 014211290  
Samples Collected By: B. PARRASLO

Client: LT ENV  
Address: 4600 W 60th AVE  
Telephone Number: 303 433 9788  
Email Address: JCOCROFT@LTENV.COM

| Sample ID Description | Date Sampled | Time Sampled | # of Containers | Preservative |     |                  |       | Matrix      |      |             |       | Analysis |      |             |               | Sample Instructions |               |
|-----------------------|--------------|--------------|-----------------|--------------|-----|------------------|-------|-------------|------|-------------|-------|----------|------|-------------|---------------|---------------------|---------------|
|                       |              |              |                 | Unpreserved  | HCl | HNO <sub>3</sub> | Other | Groundwater | Soil | Air Summa # | Other | TPH      | BTEX | PH, EC, SAR | total Residue |                     | total Residue |
| POWERS 13-27 ON PAD   | 1/8/14       | 945          | 3               | X            |     |                  |       | X           |      |             |       |          | X    | X           | X             | X                   | 1             |
| POWERS 13-27 OFF (OA) |              | 955          | 1               |              |     |                  |       |             |      |             |       |          |      | X           |               |                     | 2             |
| POWERS 13-27 OFF (OB) |              | 958          | 1               |              |     |                  |       |             |      |             |       |          |      | X           |               |                     | 3             |
| POWERS 13-27 OFF (OC) |              | 959          | 1               |              |     |                  |       |             |      |             |       |          |      | X           |               |                     | 4             |
| POWERS 13-27 OFF (OD) |              | 1001         | 1               |              |     |                  |       |             |      |             |       |          |      | X           |               |                     | 5             |
| POWERS 13-27 OFF CAMP |              | 1005         | 2               |              |     |                  |       |             |      |             |       |          |      | X           | X             |                     | 6             |
|                       |              |              |                 |              |     |                  |       |             |      |             |       |          |      |             |               |                     | 7             |
|                       |              |              |                 |              |     |                  |       |             |      |             |       |          |      |             |               |                     | 8             |
|                       |              |              |                 |              |     |                  |       |             |      |             |       |          |      |             |               |                     | 9             |
|                       |              |              |                 |              |     |                  |       |             |      |             |       |          |      |             |               |                     | 10            |

  

| Relinquished By: | Date:  | Time: | Received By: | Date:  | Time: | Turnaround Time:   |
|------------------|--------|-------|--------------|--------|-------|--|
| By: [Signature]  | 1/8/14 | 1700  | [Signature]  | 1/8/14 | 1700  | Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/>   |
| Relinquished By: | Date:  | Time: | Received By: | Date:  | Time: | 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/> |

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

Origins Laboratory, Inc.

*Noelle Doyle Mathis*

Noelle Doyle Mathis, President

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4600 West 60th Avenue

Arvada CO 80003

John Cocroft

Project Number: 014211290

Project: KMG - Powers 30N-27HZ Pad

Origins Laboratory

F-012207-01-R1

Effective Date: 01/09/12

## Sample Receipt Checklist

Origins Work Order: X401069

Client: LTE

Client Project ID: Powers 13-27HZ

Checklist Completed by: Jeff Smith

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

Date/time completed: 1/8/14 17:20

Airbill #: NA

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

Cooler Number/Temperature: 12.4 °C /     °C /     °C /     °C (Describe)

Thermometer ID: TOD

| Requirement Description  | Yes                                 | No                                  | N/A                                 | Comments (if any) |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Is there ice present (document if blue ice is used)  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                   |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                   |
| Were all samples received intact <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Was adequate sample volume provided <sup>(1)</sup> ?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                   |
| For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Soil              |
| Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)(pH <2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH) | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Soil              |
| 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)

01-15-14 1555  
Date/Time Reviewed

Origins Laboratory, Inc.



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John Cocroft

Project Number: 014211290

Project: KMG - Powers 30N-27HZ Pad

## Powers 13-27 On Pad

1/8/2014 9:45:00AM

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

## Origins Laboratory, Inc. X401069-01 (Soil)

### BTEX by EPA 8260C

|                |    |       |       |   |         |            |            |  |
|----------------|----|-------|-------|---|---------|------------|------------|--|
| Benzene        | ND | 0.004 | mg/kg | 1 | 4A09009 | 01/09/2014 | 01/13/2014 |  |
| Toluene        | ND | 0.004 | "     | " | "       | "          | "          |  |
| Ethylbenzene   | ND | 0.004 | "     | " | "       | "          | "          |  |
| Xylenes, total | ND | 0.004 | "     | " | "       | "          | "          |  |

Surrogate: 1,2-Dichloroethane-d4

114 %

70-130

"

"

"

Surrogate: Toluene-d8

107 %

70-130

"

"

"

Surrogate: 4-Bromofluorobenzene

107 %

70-130

"

"

"

### Conductance/Specific Conductance by EPA 120.1

|                           |       |  |          |   |         |            |            |  |
|---------------------------|-------|--|----------|---|---------|------------|------------|--|
| Specific Conductance (EC) | 0.293 |  | mmhos/cm | 1 | 4A09008 | 01/09/2014 | 01/10/2014 |  |
|---------------------------|-------|--|----------|---|---------|------------|------------|--|

### Metals by SW846 3050B/6010C

|         |      |       |           |   |         |            |            |   |
|---------|------|-------|-----------|---|---------|------------|------------|---|
| Arsenic | 2.25 | 2.65  | mg/kg dry | 1 | 1359200 | 01/13/2014 | 01/14/2014 | J |
| Barium  | 411  | 0.442 | "         | " | "       | "          | "          |   |

### pH by SW846 9045C/9045D

|    |      |       |    |   |         |  |            |   |
|----|------|-------|----|---|---------|--|------------|---|
| pH | 8.18 | 0.100 | SU | 1 | 1359375 |  | 01/11/2014 | H |
|----|------|-------|----|---|---------|--|------------|---|

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

|           |      |      |           |   |         |            |            |  |
|-----------|------|------|-----------|---|---------|------------|------------|--|
| Calcium   | 2470 | 22.1 | mg/kg dry | 1 | 1359200 | 01/13/2014 | 01/14/2014 |  |
| Magnesium | 991  | 26.5 | "         | " | "       | "          | "          |  |

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Arvada CO 80003

John Cocroft

Project Number: 014211290

Project: KMG - Powers 30N-27HZ Pad

## Powers 13-27 On Pad

1/8/2014 9:45:00AM

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

## GEL Laboratories, LLC

X401069-01 (Soil)

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

|        |     |      |           |   |         |            |            |
|--------|-----|------|-----------|---|---------|------------|------------|
| Sodium | 143 | 22.1 | mg/kg dry | 1 | 1359200 | 01/13/2014 | 01/14/2014 |
|--------|-----|------|-----------|---|---------|------------|------------|

### Sodium Adsorption Ratio

|                         |       |  |      |   |         |  |            |
|-------------------------|-------|--|------|---|---------|--|------------|
| Sodium Adsorption Ratio | 0.614 |  | none | 1 | 1360022 |  | 01/14/2014 |
|-------------------------|-------|--|------|---|---------|--|------------|

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

|         |    |       |      |   |         |            |            |   |
|---------|----|-------|------|---|---------|------------|------------|---|
| Arsenic | ND | 0.300 | mg/L | 1 | 1359943 | 01/14/2014 | 01/14/2014 | U |
|---------|----|-------|------|---|---------|------------|------------|---|

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

|                                   |    |      |       |   |         |            |            |
|-----------------------------------|----|------|-------|---|---------|------------|------------|
| Gasoline (C6-C10)                 | ND | 25.0 | mg/kg | 1 | 4A09010 | 01/09/2014 | 01/10/2014 |
| Diesel (C10-C28)                  | ND | 25.0 | "     | " | "       | "          | "          |
| Residual Range Organics (C28-C36) | ND | 50.0 | "     | " | "       | "          | "          |
| TPH - Carbon Chain Total          | ND | 25.0 | "     | " | "       | "          | "          |

|                        |        |        |  |  |   |   |   |
|------------------------|--------|--------|--|--|---|---|---|
| Surrogate: o-Terphenyl | 96.3 % | 59-131 |  |  | " | " | " |
|------------------------|--------|--------|--|--|---|---|---|

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Arvada CO 80003

John Cocroft  
Project Number: 014211290  
Project: KMG - Powers 30N-27HZ Pad

Powers 13-27 Off (0A)

1/8/2014 9:55:00AM

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

GEL Laboratories, LLC  
X401069-02 (Soil)

## Metals by SW846 3050B/6010C

|         |      |      |           |   |         |            |            |   |
|---------|------|------|-----------|---|---------|------------|------------|---|
| Arsenic | 2.22 | 2.82 | mg/kg dry | 1 | 1359200 | 01/13/2014 | 01/14/2014 | J |
|---------|------|------|-----------|---|---------|------------|------------|---|

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Project Number: 014211290  
Project: KMG - Powers 30N-27HZ Pad

Powers 13-27 Off (OB)

1/8/2014 9:58:00AM

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

GEL Laboratories, LLC  
X401069-03 (Soil)

## Metals by SW846 3050B/6010C

|         |      |      |           |   |         |            |            |
|---------|------|------|-----------|---|---------|------------|------------|
| Arsenic | 4.17 | 3.13 | mg/kg dry | 1 | 1359200 | 01/13/2014 | 01/14/2014 |
|---------|------|------|-----------|---|---------|------------|------------|

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John Cocroft  
Project Number: 014211290  
Project: KMG - Powers 30N-27HZ Pad

Powers 13-27 Off (OC)

1/8/2014 9:59:00AM

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

GEL Laboratories, LLC  
X401069-04 (Soil)

Metals by SW846 3050B/6010C

|         |      |      |           |   |         |            |            |   |
|---------|------|------|-----------|---|---------|------------|------------|---|
| Arsenic | 2.12 | 2.72 | mg/kg dry | 1 | 1359200 | 01/13/2014 | 01/14/2014 | J |
|---------|------|------|-----------|---|---------|------------|------------|---|

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4600 West 60th Avenue  
Arvada CO 80003

John Cocroft  
Project Number: 014211290  
Project: KMG - Powers 30N-27HZ Pad

Powers 13-27 Off (OD)

1/8/2014 10:01:00AM

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

GEL Laboratories, LLC  
X401069-05 (Soil)

## Metals by SW846 3050B/6010C

|         |      |      |           |   |         |            |            |   |
|---------|------|------|-----------|---|---------|------------|------------|---|
| Arsenic | 2.14 | 3.11 | mg/kg dry | 1 | 1359200 | 01/13/2014 | 01/14/2014 | J |
|---------|------|------|-----------|---|---------|------------|------------|---|

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4600 West 60th Avenue

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John Cocroft

Project Number: 014211290

Project: KMG - Powers 30N-27HZ Pad

## Powers 13-27 Off Comp

1/8/2014 10:05:00AM

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

Origins Laboratory, Inc.  
X401069-06 (Soil)

## Conductance/Specific Conductance by EPA 120.1

|                           |        |          |   |         |            |            |
|---------------------------|--------|----------|---|---------|------------|------------|
| Specific Conductance (EC) | 0.0790 | mmhos/cm | 1 | 4A09008 | 01/09/2014 | 01/10/2014 |
|---------------------------|--------|----------|---|---------|------------|------------|

## Metals by SW846 3050B/6010C

|         |      |       |           |   |         |            |            |   |
|---------|------|-------|-----------|---|---------|------------|------------|---|
| Arsenic | 2.92 | 3.02  | mg/kg dry | 1 | 1359200 | 01/13/2014 | 01/14/2014 | J |
| Barium  | 845  | 0.503 | "         | " | "       | "          | "          |   |

## pH by SW846 9045C/9045D

|    |      |       |    |   |         |  |            |   |
|----|------|-------|----|---|---------|--|------------|---|
| pH | 8.50 | 0.100 | SU | 1 | 1359375 |  | 01/11/2014 | H |
|----|------|-------|----|---|---------|--|------------|---|

## SAR Metals by SW846 3050B/6010C

|           |      |      |           |   |         |            |            |
|-----------|------|------|-----------|---|---------|------------|------------|
| Calcium   | 3670 | 25.1 | mg/kg dry | 1 | 1359200 | 01/13/2014 | 01/14/2014 |
| Magnesium | 527  | 30.2 | "         | " | "       | "          | "          |
| Sodium    | 34.2 | 25.1 | "         | " | "       | "          | "          |

## Sodium Adsorption Ratio

|                         |       |      |   |         |  |            |
|-------------------------|-------|------|---|---------|--|------------|
| Sodium Adsorption Ratio | 0.140 | none | 1 | 1360022 |  | 01/14/2014 |
|-------------------------|-------|------|---|---------|--|------------|

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John Cocroft

Project Number: 014211290

Project: KMG - Powers 30N-27HZ Pad

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 4A09009 - EPA 5030 (soil)

Blank (4A09009-BLK1)

Prepared: 01/09/2014 Analyzed: 01/13/2014

|                                  |    |       |       |      |     |  |        |  |  |  |
|----------------------------------|----|-------|-------|------|-----|--|--------|--|--|--|
| Benzene                          | ND | 0.004 | mg/kg |      |     |  |        |  |  |  |
| Toluene                          | ND | 0.004 | "     |      |     |  |        |  |  |  |
| Ethylbenzene                     | ND | 0.004 | "     |      |     |  |        |  |  |  |
| Xylenes, total                   | ND | 0.004 | "     |      |     |  |        |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 71 |       | ug/kg | 62.5 | 113 |  | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 67 |       | "     | 62.5 | 108 |  | 70-130 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 68 |       | "     | 62.5 | 108 |  | 70-130 |  |  |  |

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Project Number: 014211290

Project: KMG - Powers 30N-27HZ Pad

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 4A09009 - EPA 5030 (soil)

LCS (4A09009-BS1)

Prepared: 01/09/2014 Analyzed: 01/13/2014

|                                  |     |       |       |       |  |      |        |  |  |  |
|----------------------------------|-----|-------|-------|-------|--|------|--------|--|--|--|
| Benzene                          | 0.2 | 0.004 | mg/kg | 0.200 |  | 100  | 70-130 |  |  |  |
| Toluene                          | 0.2 | 0.004 | "     | 0.200 |  | 112  | 70-130 |  |  |  |
| Ethylbenzene                     | 0.2 | 0.004 | "     | 0.200 |  | 105  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.4 | 0.008 | "     | 0.400 |  | 98.3 | 70-130 |  |  |  |
| o-Xylene                         | 0.2 | 0.004 | "     | 0.200 |  | 102  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 61  |       | ug/kg | 62.5  |  | 97.2 | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 69  |       | "     | 62.5  |  | 111  | 70-130 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 66  |       | "     | 62.5  |  | 109  | 70-130 |  |  |  |

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Noelle Doyle Mathis, President

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

John Cocroft

Project Number: 014211290

Project: KMG - Powers 30N-27HZ Pad

**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 4A09009 - EPA 5030 (soil)

| Matrix Spike (4A09009-MS1)       |     | Source: X401067-01 |       |       | Prepared: 01/09/2014 Analyzed: 01/13/2014 |      |        |  |  |  |
|----------------------------------|-----|--------------------|-------|-------|---|------|--------|--|--|--|
| Benzene                          | 0.2 | 0.004              | mg/kg | 0.200 | ND  | 109  | 70-130 |  |  |  |
| Toluene                          | 0.2 | 0.004              | "     | 0.200 | ND  | 111  | 70-130 |  |  |  |
| Ethylbenzene                     | 0.2 | 0.004              | "     | 0.200 | ND  | 105  | 70-130 |  |  |  |
| m,p-Xylene                       | 0.4 | 0.008              | "     | 0.400 | ND  | 96.1 | 70-130 |  |  |  |
| o-Xylene                         | 0.2 | 0.004              | "     | 0.200 | ND  | 105  | 70-130 |  |  |  |
| Surrogate: 1,2-Dichloroethane-d4 | 72  |                    | ug/kg | 62.5  |   | 115  | 70-130 |  |  |  |
| Surrogate: Toluene-d8            | 67  |                    | "     | 62.5  |   | 107  | 70-130 |  |  |  |
| Surrogate: 4-Bromofluorobenzene  | 66  |                    | "     | 62.5  |   | 109  | 70-130 |  |  |  |

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Project: KMG - Powers 30N-27HZ Pad

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 4A09009 - EPA 5030 (soil)

| Matrix Spike Dup (4A09009-MSD1)  |     | Source: X401067-01 |       |       | Prepared: 01/09/2014 Analyzed: 01/13/2014 |      |        |      |    |  |
|----------------------------------|-----|--------------------|-------|-------|---|------|--------|------|----|--|
| Benzene                          | 0.2 | 0.004              | mg/kg | 0.200 | ND  | 100  | 70-130 | 8.30 | 20 |  |
| Toluene                          | 0.2 | 0.004              | "     | 0.200 | ND  | 103  | 70-130 | 7.50 | 20 |  |
| Ethylbenzene                     | 0.2 | 0.004              | "     | 0.200 | ND  | 99.2 | 70-130 | 5.26 | 20 |  |
| m,p-Xylene                       | 0.4 | 0.008              | "     | 0.400 | ND  | 92.3 | 70-130 | 4.01 | 20 |  |
| o-Xylene                         | 0.2 | 0.004              | "     | 0.200 | ND  | 98.8 | 70-130 | 6.08 | 20 |  |
| Surrogate: 1,2-Dichloroethane-d4 | 68  |                    | ug/kg | 62.5  |   | 108  | 70-130 |      |    |  |
| Surrogate: Toluene-d8            | 68  |                    | "     | 62.5  |   | 109  | 70-130 |      |    |  |
| Surrogate: 4-Bromofluorobenzene  | 67  |                    | "     | 62.5  |   | 107  | 70-130 |      |    |  |

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John Cocroft

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Project: KMG - Powers 30N-27HZ Pad

**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 4A09010 - EPA 3580**

**Blank (4A09010-BLK1)**

Prepared: 01/09/2014 Analyzed: 01/09/2014

|                                   |    |      |       |
|-----------------------------------|----|------|-------|
| Gasoline (C6-C10)                 | ND | 50.0 | mg/kg |
| Diesel (C10-C28)                  | ND | 50.0 | "     |
| Residual Range Organics (C28-C36) | ND | 100  | "     |
| TPH - Carbon Chain Total          | ND | 50.0 | "     |

Surrogate: o-Terphenyl 56.8 g 50.0 114 59-131

**Blank (4A09010-BLK2)**

Prepared: 01/09/2014 Analyzed: 01/09/2014

|                                   |    |      |       |
|-----------------------------------|----|------|-------|
| Gasoline (C6-C10)                 | ND | 50.0 | mg/kg |
| Diesel (C10-C28)                  | ND | 50.0 | "     |
| Residual Range Organics (C28-C36) | ND | 100  | "     |
| TPH - Carbon Chain Total          | ND | 50.0 | "     |

Surrogate: o-Terphenyl 46.2 g 50.0 92.4 59-131

**LCS (4A09010-BS1)**

Prepared: 01/09/2014 Analyzed: 01/09/2014

|                                   |      |      |       |      |      |        |
|-----------------------------------|------|------|-------|------|------|--------|
| Gasoline (C6-C10)                 | 956  | 50.0 | mg/kg | 1000 | 95.6 | 59-133 |
| Diesel (C10-C28)                  | 1010 | 50.0 | "     | 1000 | 101  | 64-121 |
| Residual Range Organics (C28-C36) | 923  | 100  | "     | 1000 | 92.3 | 58-124 |

Surrogate: o-Terphenyl 60.9 g 50.0 122 59-131

**LCS (4A09010-BS2)**

Prepared: 01/09/2014 Analyzed: 01/09/2014

|                   |      |      |       |      |     |        |
|-------------------|------|------|-------|------|-----|--------|
| Gasoline (C6-C10) | 1120 | 50.0 | mg/kg | 1000 | 112 | 59-133 |
| Diesel (C10-C28)  | 1160 | 50.0 | "     | 1000 | 116 | 64-121 |

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Arvada CO 80003

John Cocroft  
Project Number: 014211290  
Project: KMG - Powers 30N-27HZ Pad

## 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 4A09010 - EPA 3580          |        |                 |       |             |  |      |             |      |           |       |
| LCS (4A09010-BS2)                 |        |                 |       |             | Prepared: 01/09/2014 Analyzed: 01/09/2014                    |      |             |      |           |       |
| Residual Range Organics (C28-C36) | 1090   | 100             | mg/kg | 1000        |  | 109  | 58-124      |      |           |       |
| Surrogate: o-Terphenyl            | 59.3   |                 | g     | 50.0        |  | 119  | 59-131      |      |           |       |
| Matrix Spike (4A09010-MS1)        |        |                 |       |             | Source: X401067-01 Prepared: 01/09/2014 Analyzed: 01/09/2014 |      |             |      |           |       |
| Gasoline (C6-C10)                 | 953    | 50.0            | mg/kg | 1000        | ND   | 95.3 | 57-139      |      |           |       |
| Diesel (C10-C28)                  | 1000   | 50.0            | "     | 1000        | ND   | 100  | 53-125      |      |           |       |
| Residual Range Organics (C28-C36) | 936    | 100             | "     | 1000        | 22.7   | 91.3 | 47-133      |      |           |       |
| Surrogate: o-Terphenyl            | 55.8   |                 | g     | 50.0        |  | 112  | 59-131      |      |           |       |
| Matrix Spike (4A09010-MS2)        |        |                 |       |             | Source: X401083-02 Prepared: 01/09/2014 Analyzed: 01/09/2014 |      |             |      |           |       |
| Gasoline (C6-C10)                 | 1050   | 50.0            | mg/kg | 1000        | ND   | 105  | 57-139      |      |           |       |
| Diesel (C10-C28)                  | 1090   | 50.0            | "     | 1000        | ND   | 109  | 53-125      |      |           |       |
| Residual Range Organics (C28-C36) | 1060   | 100             | "     | 1000        | 55.8   | 100  | 47-133      |      |           |       |
| Surrogate: o-Terphenyl            | 59.3   |                 | g     | 50.0        |  | 119  | 59-131      |      |           |       |
| Matrix Spike Dup (4A09010-MSD1)   |        |                 |       |             | Source: X401067-01 Prepared: 01/09/2014 Analyzed: 01/09/2014 |      |             |      |           |       |
| Gasoline (C6-C10)                 | 756    | 50.0            | mg/kg | 1000        | ND   | 75.6 | 57-139      | 23.0 | 20        | QR-02 |
| Diesel (C10-C28)                  | 823    | 50.0            | "     | 1000        | ND   | 82.3 | 53-125      | 19.6 | 20        |       |
| Residual Range Organics (C28-C36) | 805    | 100             | "     | 1000        | 22.7   | 78.2 | 47-133      | 15.1 | 20        |       |
| Surrogate: o-Terphenyl            | 41.8   |                 | g     | 50.0        |  | 83.5 | 59-131      |      |           |       |
| Matrix Spike Dup (4A09010-MSD2)   |        |                 |       |             | Source: X401083-02 Prepared: 01/09/2014 Analyzed: 01/09/2014 |      |             |      |           |       |
| Gasoline (C6-C10)                 | 830    | 50.0            | mg/kg | 1000        | ND   | 83.0 | 57-139      | 23.4 | 20        | QR-02 |
| Diesel (C10-C28)                  | 892    | 50.0            | "     | 1000        | ND   | 89.2 | 53-125      | 19.7 | 20        |       |
| Residual Range Organics (C28-C36) | 852    | 100             | "     | 1000        | 55.8   | 79.6 | 47-133      | 21.7 | 20        | QR-02 |
| Surrogate: o-Terphenyl            | 44.4   |                 | g     | 50.0        |  | 88.7 | 59-131      |      |           |       |

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

John Cocroft  
Project Number: 014211290  
Project: KMG - Powers 30N-27HZ Pad

## 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 4A09008 - NO PREP   |         |                 |          |             |  |      |             |      |           |       |
| Blank (4A09008-BLK1)      |         |                 |          |             | Prepared: 01/09/2014 Analyzed: 01/10/2014                    |      |             |      |           |       |
| Specific Conductance (EC) | 0.00180 |                 | mmhos/cm |             |  |      |             |      |           |       |
| Duplicate (4A09008-DUP1)  |         |                 |          |             | Source: X401058-02 Prepared: 01/09/2014 Analyzed: 01/10/2014 |      |             |      |           |       |
| Specific Conductance (EC) | 0.0800  |                 | mmhos/cm |             | 0.0780   |      |             | 2.53 | 10        |       |

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John Cocroft  
Project Number: 014211290  
Project: KMG - Powers 30N-27HZ Pad

**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 |
|-------------------------------|--------|-----------------|-----------|-------------|---|------|---|------|-----------|-------|
| Batch 1359200 - SW846 3050B   |        |                 |           |             |   |      |   |      |           |       |
| <b>BLANK (1203017174-BLK)</b> |        |                 |           |             | Prepared: 01/13/2014 Analyzed: 01/14/2014 |      |   |      |           |       |
| Arsenic                       | ND     | 2.91            | mg/kg     |             | 0   |      | -   |      |           | U     |
| Barium                        | 0.124  | 0.485           | "         |             | 0   |      | -   |      |           | J     |
| <b>LCS (1203017175-BKS)</b>   |        |                 |           |             | Prepared: 01/13/2014 Analyzed: 01/14/2014 |      |   |      |           |       |
| Arsenic                       | 45.7   | 2.77            | mg/kg     | 46.2        | 0   | 98.9 | 80-120                                    |      |           |       |
| Barium                        | 45.4   | 0.462           | "         | 46.2        | 0   | 98.3 | 80-120                                    |      |           |       |
| <b>DUP (1203017176 D)</b>     |        |                 |           |             | <b>Source: 341062001</b>                  |      | Prepared: 01/13/2014 Analyzed: 01/14/2014 |      |           |       |
| Arsenic                       | 1.28   | 2.98            | mg/kg dry |             | 2.02                                      |      | 0-20                                      | 44.6 | 20        | J     |
| Barium                        | 27.0   | 0.497           | "         |             | 28.5                                      |      | 0-20                                      | 5.49 | 20        |       |
| <b>MS (1203017177 S)</b>      |        |                 |           |             | <b>Source: 341062001</b>                  |      | Prepared: 01/13/2014 Analyzed: 01/14/2014 |      |           |       |
| Barium                        | 79.5   | 0.507           | mg/kg dry | 50.7        | 28.5                                      | 101  | 75-125                                    |      |           |       |
| Arsenic                       | 51.1   | 3.04            | "         | 50.7        | 2.02                                      | 96.9 | 75-125                                    |      |           |       |

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Project: KMG - Powers 30N-27HZ Pad

pH by SW846 9045C/9045D - Quality Control  
GEL Laboratories, LLC

| Analyte              | Result                         | Reporting Limit | Units | Spike Level | Source Result                  | %REC | %REC Limits | RPD   | RPD Limit | Notes |
|----------------------|--------------------------------|-----------------|-------|-------------|--------------------------------|------|-------------|-------|-----------|-------|
| Batch 1359375 -      |                                |                 |       |             |                                |      |             |       |           |       |
| DUP (1203017571 D)   | Source: 341062003              |                 |       |             | Prepared: Analyzed: 01/11/2014 |      |             |       |           |       |
| pH                   | 7.75                           | 0.100           | SU    |             | 7.72                           |      | 0-10        | 0.388 | 10        | H     |
| DUP (1203017572 D)   | Source: 341066001              |                 |       |             | Prepared: Analyzed: 01/11/2014 |      |             |       |           |       |
| pH                   | 8.38                           | 0.100           | SU    |             | 8.13                           |      | 0-10        | 3.03  | 10        | H     |
| LCS (1203017573-BKS) | Prepared: Analyzed: 01/11/2014 |                 |       |             |                                |      |             |       |           |       |
| pH                   | 6.98                           | 0.100           | SU    | 7.00        | 0                              | 99.7 | 99-101      |       |           |       |

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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 |
|-----------------------------|--------|-----------------|-------|-------------|---|------|-------------|-----|-----------|-------|
| Batch 1359943 - SW846 3010A |        |                 |       |             |   |      |             |     |           |       |
| TB (1203017407-BLK)         |        |                 |       |             | Prepared: 01/14/2014 Analyzed: 01/14/2014                   |      |             |     |           |       |
| Arsenic                     | ND     | 0.300           | mg/L  |             | 0   |      | -           |     |           | U     |
| MS (1203018196 S)           |        |                 |       |             | Source: 341048001 Prepared: 01/14/2014 Analyzed: 01/14/2014 |      |             |     |           |       |
| Arsenic                     | 5.26   | 0.300           | mg/L  | 5.00        | <0.050  | 105  | 75-125      |     |           |       |
| BLANK (1203018925-BLK)      |        |                 |       |             | Prepared: 01/14/2014 Analyzed: 01/14/2014                   |      |             |     |           |       |
| Arsenic                     | ND     | 0.300           | mg/L  |             | 0   |      | -           |     |           | U     |
| LCS (1203018926-BKS)        |        |                 |       |             | Prepared: 01/14/2014 Analyzed: 01/14/2014                   |      |             |     |           |       |
| Arsenic                     | 5.15   | 0.300           | mg/L  | 5.00        | 0   | 103  | 80-120      |     |           |       |
| DUP (1203019094 D)          |        |                 |       |             | Source: 341048001 Prepared: 01/14/2014 Analyzed: 01/14/2014 |      |             |     |           |       |
| Arsenic                     | ND     | 0.300           | mg/L  |             | <0.050  |      | 0-20        | NR  | 20        | U     |

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### Notes and Definitions

- U Result not detected above the detection limit
- 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.
- J Greater than the detection limit but less than the reporting limit
- H Holding time exceeded
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference

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