

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS
HATCH UPRR 42-11 #1
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

| Soil Sample ID | Depth (bgs) | Date | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | DRO (mg/kg) | GRO (mg/kg) | ORO (mg/kg) | pH (su) | Specific Conductance (mmhos/cm) |
|-------------------------------|-------------|------------|-----------------|-----------------|----------------------|-----------------------|-------------|-------------|----------------|------------|---------------------------------|
| B01@5' | 5' | 02/07/2018 | <0.050 | <0.050 | <0.050 | <0.050 | <25.0 | 6.45 | <100 | 8.26 | 0.0380 |
| E01@4' | 4' | 02/07/2018 | 0.005 | 0.020 | 0.145 | 0.313 | <25.0 | 4.10 | <100 | 6.28 | 0.0168 |
| N01@4' | 4' | 02/07/2018 | <0.002 | 0.005 | 0.010 | 0.018 | <25.0 | <0.200 | <100 | 6.28 | 0.0112 |
| S01@4' | 4' | 02/07/2018 | <0.050 | <0.050 | <0.050 | <0.050 | <25.0 | <5.00 | <100 | 6.42 | 0.0113 |
| W01@4' | 4' | 02/07/2018 | 0.362 | 12.2 | 51.7 | 147 | 1070 | 2800 | <100 | 6.26 | 0.0156 |
| W02@13' | 13' | 02/08/2018 | <0.050 | 0.107 | 0.920 | 1.52 | 229 | 71.8 | <100 | 8.59 | 0.0625 |
| E02@13' | 13' | 02/12/2018 | <0.050 | <0.050 | <0.050 | <0.050 | <25.0 | <5.00 | <100 | 8.45 | 0.0711 |
| N02@13' | 13' | 02/12/2018 | <0.002 | <0.002 | <0.002 | <0.002 | <25.0 | <0.200 | <100 | 8.44 | 0.0973 |
| S02@13' | 13' | 02/12/2018 | <0.050 | <0.050 | <0.050 | <0.050 | <25.0 | 8.34 | <100 | 8.23 | 0.0872 |
| COGCC Allowable Levels | | | 0.17 | 85 | 100 | 175 | 500* | 500* | 500* | 6-9 | 4 |

Notes: bgs - below ground surface

COGCC - Colorado Oil and Gas Conservation Commission

DRO - diesel range organics

GRO - gasoline range organics

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter

NA - not analyzed/not available

ORO - oil range organics

su - standard units

* - Standard applies to combined DRO-GRO-ORO

< - less than laboratory reporting limit

Bold indicates result exceeds allowable level



TABLE 2
GROUNDWATER ANALYTICAL AND FIELD RESULTS
HATCH UPRR 42-11 #1
WELD COUNTY, COLORADO
KERR-MCGEE OIL & GAS ONSHORE LP

| Well Name | Date | Benzene (µg/L) | Toluene (µg/L) | Ethylbenzene (µg/L) | Total Xylenes (µg/L) | Depth Water/ (Product Thickness) (ft bgs) |
|------------------|-------------|---------------------------|---------------------------|--------------------------------|-------------------------------------|--|
| GW01 | 02/12/2018 | 167 | 772 | 130 | 2180 | 17.00 |
| CGWQS | | 5 | 1000 | 700 | 1400 | |

Notes: CGWQS - Colorado Groundwater Quality Standards
ft bgs - feet below ground surface
NA - not analyzed/not available
NM - not measured

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





February 08, 2018

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

Project Name - KMG - Hatch UPRR 42-11 #1

Project Number - 014218028

Attached are your analytical results for KMG - Hatch UPRR 42-11 #1 received by Origins Laboratory, Inc. February 07, 2018. This project is associated with Origins project number Y802116-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



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

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|------------------------|------------------|
| B01@5' | Y802116-01 | Soil | February 7, 2018 11:30 | 02/07/2018 18:34 |
| N01@4' | Y802116-02 | Soil | February 7, 2018 11:31 | 02/07/2018 18:34 |
| E01@4' | Y802116-03 | Soil | February 7, 2018 11:32 | 02/07/2018 18:34 |
| S01@4' | Y802116-04 | Soil | February 7, 2018 11:33 | 02/07/2018 18:34 |
| W01@4' | Y802116-05 | Soil | February 7, 2018 11:34 | 02/07/2018 18:34 |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

ORIGINS
LABORATORY, INC

www.originslaboratory.com

4802116

page 1 of 1

Client: LT Environmental, Inc.
Address: 4600 W 60th Ave
Arvada, CO 80003
Telephone Number: 303 433 9788
Email Address: bsulzberger@ltenv.com

Project Manager: Brian Sulzberger
Project Name: Hatch UPRR 42-11 #1
Project Number: 014218028
Samples Collected By: Daniel Thomas

| Sample ID Description | Date Sampled | Time Sampled | # of Containers | Preservative | | | | Matrix | | | Analysis | | | | Sample Instructions |
|-----------------------|--------------|--------------|-----------------|--------------|-----|------------------|-------|-------------|------|----------|----------|-------|-----|----|---------------------|
| | | | | Unpreserved | HCl | HNO ₃ | Other | Groundwater | Soil | Air Summ | Other | G-TEX | TPH | EC | |
| B01 @ 5' | 02-07-19 | 1130 | 2 | | | | | | X | | | X | X | X | Run |
| N01 @ 4' | | 1131 | 2 | | | | | | X | | | X | X | X | |
| E01 @ 4' | | 1132 | 2 | | | | | | X | | | X | X | X | |
| S01 @ 4' | | 1133 | 2 | | | | | | X | | | X | X | X | |
| W01 @ 4' | | 1134 | 2 | | | | | | X | | | X | X | X | |
| B601 | | 1135 | 1 | | | | | | X | | | X | X | X | Hold |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

| Relinquished By: | Date: | Time: | Received By: | Date: | Time: | Turnaround Time: |
|--------------------|--------|-------|--------------------|--------|-------|---|
| <i>[Signature]</i> | 2-7-18 | 1834 | <i>[Signature]</i> | 2-7-18 | 1834 | Same Day <input checked="" 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 type="checkbox"/> |

Temp Received: 33 Date Results Needed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y 802116

Client: LSE

Client Project ID: KMG - Hatch UPRR 42-11 #1

Checklist Completed by: De Lee

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

Date/time completed: 2-7-16

Airbill #: ND

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

Cooler Number/Temperature: 1 3.3 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: 1003

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | <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 ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Was adequate sample volume provided ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <u>PH</u> |
| Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| For volatiles in water — is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative. | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| Are samples preserved that require preservation and was it checked ⁽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) | <input type="checkbox"/> | <input type="checkbox"/> | <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.

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 2-7-16

Origins Laboratory, Inc.

Jefe Pellegrini

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

B01@5'
2/7/2018 11:30:00AM

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

Origins Laboratory, Inc.
Y802116-01 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 25.0 | mg/kg | 1 | B8B0706 | 02/07/2018 | 02/07/2018 | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 84.7 % 59-131 " " "

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|------|-------|-------|----|---------|------------|------------|---|
| Gasoline Range Hydrocarbons | 6.45 | 5.00 | mg/kg | 25 | B8B0705 | 02/07/2018 | 02/08/2018 | |
| Benzene | ND | 0.050 | " | " | " | " | " | U |
| Toluene | ND | 0.050 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | " | " | U |

Surrogate: 1,2-Dichloroethane-d4 98.9 % 70-130 " " "
Surrogate: Toluene-d8 100 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 8.26 | | pH Units | 1 | B8B0707 | 02/07/2018 | 02/08/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|
| Specific Conductance (EC) | 0.0380 | | mmhos/cm | " | B8B0708 | 02/07/2018 | 02/08/2018 | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

N01@4'
2/7/2018 11:31:00AM

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

Origins Laboratory, Inc.
Y802116-02 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 25.0 | mg/kg | 1 | B8B0706 | 02/07/2018 | 02/07/2018 | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 80.7 % 59-131 " " "

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|-------|-------|-------|---|---------|------------|------------|---|
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | 1 | B8B0705 | 02/07/2018 | 02/08/2018 | U |
| Benzene | ND | 0.002 | " | " | " | " | " | U |
| Toluene | 0.005 | 0.002 | " | " | " | " | " | |
| Ethylbenzene | 0.010 | 0.002 | " | " | " | " | " | |
| Xylenes, total | 0.018 | 0.002 | " | " | " | " | " | |

Surrogate: 1,2-Dichloroethane-d4 109 % 70-130 " " "
Surrogate: Toluene-d8 99.7 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 105 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 6.28 | | pH Units | 1 | B8B0707 | 02/07/2018 | 02/08/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|
| Specific Conductance (EC) | 0.0112 | | mmhos/cm | " | B8B0708 | 02/07/2018 | 02/08/2018 | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

E01@4'
2/7/2018 11:32:00AM

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

Origins Laboratory, Inc.
Y802116-03 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 25.0 | mg/kg | 1 | B8B0706 | 02/07/2018 | 02/07/2018 | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 82.6 % 59-131 " " "

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|-------|-------|-------|---|---------|------------|------------|--|
| Gasoline Range Hydrocarbons | 4.10 | 0.200 | mg/kg | 1 | B8B0705 | 02/07/2018 | 02/08/2018 | |
| Benzene | 0.005 | 0.002 | " | " | " | " | " | |
| Toluene | 0.020 | 0.002 | " | " | " | " | " | |
| Ethylbenzene | 0.145 | 0.002 | " | " | " | " | " | |
| Xylenes, total | 0.313 | 0.002 | " | " | " | " | " | |

Surrogate: 1,2-Dichloroethane-d4 107 % 70-130 " " "

Surrogate: Toluene-d8 95.6 % 70-130 " " "

Surrogate: 4-Bromofluorobenzene 116 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 6.28 | | pH Units | 1 | B8B0707 | 02/07/2018 | 02/08/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|
| Specific Conductance (EC) | 0.0168 | | mmhos/cm | " | B8B0708 | 02/07/2018 | 02/08/2018 | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

S01@4'
2/7/2018 11:33:00AM

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

Origins Laboratory, Inc.
Y802116-04 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 25.0 | mg/kg | 1 | B8B0706 | 02/07/2018 | 02/07/2018 | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 80.0 % 59-131 " " "

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|----|-------|-------|----|---------|------------|------------|---|
| Gasoline Range Hydrocarbons | ND | 5.00 | mg/kg | 25 | B8B0705 | 02/07/2018 | 02/08/2018 | U |
| Benzene | ND | 0.050 | " | " | " | " | " | U |
| Toluene | ND | 0.050 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | " | " | U |

Surrogate: 1,2-Dichloroethane-d4 99.7 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 98.4 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 6.42 | | pH Units | 1 | B8B0707 | 02/07/2018 | 02/08/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|
| Specific Conductance (EC) | 0.0113 | | mmhos/cm | " | B8B0708 | 02/07/2018 | 02/08/2018 | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

W01@4'
2/7/2018 11:34:00AM

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

Origins Laboratory, Inc.
Y802116-05 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|------|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | 1070 | 25.0 | mg/kg | 1 | B8B0706 | 02/07/2018 | 02/07/2018 | |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

| | | | | | | | | |
|------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: o-Terphenyl | 93.1 % | 59-131 | | | " | " | " | |
|------------------------|--------|--------|--|--|---|---|---|--|

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|-------|-------|-------|-----|---------|------------|------------|--|
| Gasoline Range Hydrocarbons | 2800 | 50.0 | mg/kg | 250 | B8B0705 | 02/07/2018 | 02/08/2018 | |
| Benzene | 0.362 | 0.050 | " | 25 | " | " | 02/08/2018 | |
| Toluene | 12.2 | 0.498 | " | 250 | " | " | 02/08/2018 | |
| Ethylbenzene | 51.7 | 0.498 | " | " | " | " | " | |
| Xylenes, total | 147 | 0.498 | " | " | " | " | " | |

| | | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|--|
| Surrogate: 1,2-Dichloroethane-d4 | 104 % | 70-130 | | | " | " | " | |
| Surrogate: Toluene-d8 | 86.7 % | 70-130 | | | " | " | " | |
| Surrogate: 4-Bromofluorobenzene | 112 % | 70-130 | | | " | " | " | |

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 6.26 | | pH Units | 1 | B8B0707 | 02/07/2018 | 02/08/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|
| Specific Conductance (EC) | 0.0156 | | mmhos/cm | " | B8B0708 | 02/07/2018 | 02/08/2018 | |
|---------------------------|--------|--|----------|---|---------|------------|------------|--|

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0705 - EPA 5030 (soil) | | | | | | | | | | |
| Blank (B8B0705-BLK1) | | | | | Prepared: 02/07/2018 Analyzed: 02/07/2018 | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | | | | | | | U |
| Benzene | ND | 0.002 | " | | | | | | | U |
| Toluene | ND | 0.002 | " | | | | | | | U |
| Ethylbenzene | ND | 0.002 | " | | | | | | | U |
| Xylenes, total | ND | 0.002 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 70 | | ug/kg | 62.5 | | 113 | 70-130 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 98.3 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 65 | | " | 62.5 | | 104 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0705 - EPA 5030 (soil) | | | | | | | | | | |
| LCS (B8B0705-BS1) | | | | | Prepared: 02/07/2018 Analyzed: 02/07/2018 | | | | | |
| Benzene | 0.103 | 0.002 | mg/kg | 0.100 | | 103 | 77.1-124 | | | |
| Toluene | 0.099 | 0.002 | " | 0.100 | | 98.6 | 74.5-128 | | | |
| Ethylbenzene | 0.098 | 0.002 | " | 0.100 | | 98.3 | 66.4-127 | | | |
| m,p-Xylene | 0.202 | 0.004 | " | 0.200 | | 101 | 76.6-124 | | | |
| o-Xylene | 0.105 | 0.002 | " | 0.100 | | 105 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 64 | | ug/kg | 62.5 | | 102 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 99.1 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 63 | | " | 62.5 | | 100 | 70-130 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0705 - EPA 5030 (soil)

| Matrix Spike (B8B0705-MS1) | | Source: Y802104-01 | | | Prepared: 02/07/2018 Analyzed: 02/07/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|--|--|-------|
| Benzene | 0.136 | 0.002 | mg/kg | 0.100 | ND | 136 | 71.8-126 | | | QM-07 |
| Toluene | 0.099 | 0.002 | " | 0.100 | ND | 98.6 | 65.1-130 | | | |
| Ethylbenzene | 0.100 | 0.002 | " | 0.100 | ND | 100 | 62.2-130 | | | |
| m,p-Xylene | 0.205 | 0.004 | " | 0.200 | ND | 102 | 46.5-137 | | | |
| o-Xylene | 0.105 | 0.002 | " | 0.100 | ND | 105 | 54.2-134 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 62 | | ug/kg | 62.5 | | 99.2 | 70-130 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 98.1 | 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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0705 - EPA 5030 (soil)

| Matrix Spike Dup (B8B0705-MSD1) | | Source: Y802104-01 | | | Prepared: 02/07/2018 Analyzed: 02/07/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|------|------|-------|
| Benzene | 0.128 | 0.002 | mg/kg | 0.100 | ND | 128 | 71.8-126 | 6.09 | 11.3 | QM-07 |
| Toluene | 0.096 | 0.002 | " | 0.100 | ND | 96.4 | 65.1-130 | 2.34 | 15.4 | |
| Ethylbenzene | 0.096 | 0.002 | " | 0.100 | ND | 95.8 | 62.2-130 | 4.69 | 19.6 | |
| m,p-Xylene | 0.196 | 0.004 | " | 0.200 | ND | 98.2 | 46.5-137 | 4.04 | 19.2 | |
| o-Xylene | 0.102 | 0.002 | " | 0.100 | ND | 102 | 54.2-134 | 2.95 | 17.9 | |
| Surrogate: 1,2-Dichloroethane-d4 | 62 | | ug/kg | 62.5 | | 99.3 | 70-130 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 97.7 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 63 | | " | 62.5 | | 100 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 8015C - Quality Control
Origins Laboratory, Inc.

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

Batch B8B0706 - EPA 3580

Blank (B8B0706-BLK1)

Prepared: 02/07/2018 Analyzed: 02/07/2018

| | | | | | | | | | | |
|-----------------------------------|----|------|-------|------|--|-----|--------|--|--|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | | | | | | | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | | | | | | | U |
| Surrogate: o-Terphenyl | 51 | | " | 50.0 | | 103 | 59-131 | | | |

LCS (B8B0706-BS1)

Prepared: 02/07/2018 Analyzed: 02/07/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|--|-----|--------|--|--|--|
| Diesel (C10-C28) | 1090 | 50.0 | mg/kg | 1000 | | 109 | 64-121 | | | |
| Residual Range Organics (C28-C40) | 1060 | 200 | " | 1000 | | 106 | 58-124 | | | |
| Surrogate: o-Terphenyl | 55 | | " | 50.0 | | 111 | 59-131 | | | |

Matrix Spike (B8B0706-MS1)

Source: Y802095-01

Prepared: 02/07/2018 Analyzed: 02/07/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|------|------|--------|--|--|--|
| Diesel (C10-C28) | 1030 | 50.0 | mg/kg | 1000 | ND | 103 | 53-125 | | | |
| Residual Range Organics (C28-C40) | 994 | 200 | " | 1000 | 11.5 | 98.2 | 47-133 | | | |
| Surrogate: o-Terphenyl | 52 | | " | 50.0 | | 105 | 59-131 | | | |

Matrix Spike Dup (B8B0706-MSD1)

Source: Y802095-01

Prepared: 02/07/2018 Analyzed: 02/07/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|------|------|--------|------|----|--|
| Diesel (C10-C28) | 1010 | 50.0 | mg/kg | 1000 | ND | 101 | 53-125 | 1.63 | 20 | |
| Residual Range Organics (C28-C40) | 962 | 200 | " | 1000 | 11.5 | 95.1 | 47-133 | 3.28 | 20 | |
| Surrogate: o-Terphenyl | 50 | | " | 50.0 | | 100 | 59-131 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0707 - NO PREP | | | | | | | | | | |
| Duplicate (B8B0707-DUP1) | | Source: Y802111-01 | | | Prepared: 02/07/2018 Analyzed: 02/08/2018 | | | | | |
| pH | 8.05 | | pH Units | | 8.39 | | | 4.14 | 25 | |
| Batch B8B0708 - NO PREP | | | | | | | | | | |
| Blank (B8B0708-BLK1) | | Prepared: 02/07/2018 Analyzed: 02/08/2018 | | | | | | | | |
| Specific Conductance (EC) | 0.00170 | | mmhos/cm | | | | | | | |
| Duplicate (B8B0708-DUP1) | | Source: Y802111-01 | | | Prepared: 02/07/2018 Analyzed: 02/08/2018 | | | | | |
| Specific Conductance (EC) | 0.0924 | | mmhos/cm | | 0.0822 | | | 11.7 | 25 | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

Notes and Definitions

U Sample is Non-Detect.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jen Pellegrini For Noelle Doyle Mathis, President



February 09, 2018

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

Project Name - KMG - Hatch UPRR 42-11 #1

Project Number - 014218028

Attached are your analytical results for KMG - Hatch UPRR 42-11 #1 received by Origins Laboratory, Inc. February 08, 2018. This project is associated with Origins project number Y802129-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



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

LT Environmental, Inc.

4600 West 60th Avenue

Arvada CO 80003

Brian Sulzberger

Project Number: 014218028

Project: KMG - Hatch UPRR 42-11 #1

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|------------------------|------------------|
| W02@13' | Y802129-01 | Soil | February 8, 2018 15:15 | 02/08/2018 17:50 |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

ORIGINS

LABORATORY, INC

www.originslaboratory.com

1802129

page 1 of 1

Client: LT Environmental, Inc.
 Address: 4600 W 60th Ave
Arvada, CO 80003
 Telephone Number: 303 433 9788
 Email Address: bisulzberger@ltenvi.com

Project Manager: Brian Sulzberger
 Project Name: Hatch UPRCL 43-11 #1
 Project Number: 014018038
 Samples Collected By: Daniel Thomas

| Sample ID Description | Date Sampled | Time Sampled | # of Containers | Preservative | | | | Matrix | | | Analysis | | | | Sample Instructions |
|-------------------------------------|---------------------|-------------------|---------------------------------|---------------------|-------------------|--|-------|-------------|------|--------------|----------|-------|-----|----|---------------------|
| | | | | Unpreserved | HCl | HNO ₃ | Other | Groundwater | Soil | As Summary # | Other | GBTEX | TPH | EC | |
| W01@13 | 2-8-18 | 1515 | 2 | | | | | | X | | | | X | X | Run |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Relinquished By: <u>[Signature]</u> | Date: <u>2-8-18</u> | Time: <u>1750</u> | Received By: <u>[Signature]</u> | Date: <u>2-8-18</u> | Time: <u>1750</u> | Turnaround Time: Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/> | | | | | | | | | |
| Relinquished By: | Date: | Time: | Received By: | Date: | Time: | | | | | | | | | | |

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

Temp. Received: 15.4

Date Results Needed

Origins Laboratory, Inc.

Jeff Pellipini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y802129

Client: LTE

Client Project ID: KMG - Hatch UPRR

Checklist Completed by: Don Lee

Shipped Via: 18
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 2-8-12

Airbill #: NA

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

Cooler Number/Temperature: 1 15.4 °C 1 °C 1 °C 1 °C

Thermometer ID: T003

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | | <input checked="" type="checkbox"/> | | sampled same Day |
| Is there ice present (document if blue ice is used) | <input checked="" type="checkbox"/> | | | |
| Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact) | | <input checked="" type="checkbox"/> | | |
| Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact) | | <input checked="" type="checkbox"/> | | |
| Were all samples received intact ⁽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"/> | | | pt |
| 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 HNO ₃ , HCL, H ₂ SO ₄) / (pH >10 for samples preserved with NaAsO ₂ +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.

Reviewed by (Project Manager) Don Lee

Date/Time Reviewed 2-8-12

Origins Laboratory, Inc.

Jefe Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

W02@13'
2/8/2018 3:15:00PM

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

Origins Laboratory, Inc.
Y802129-01 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|-----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | 229 | 25.0 | mg/kg | 1 | B8B0803 | 02/08/2018 | 02/08/2018 | |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 101 % 59-131 " " "

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|-------|-------|-------|----|---------|------------|------------|---|
| Gasoline Range Hydrocarbons | 71.8 | 5.00 | mg/kg | 25 | B8B0802 | 02/08/2018 | 02/08/2018 | |
| Benzene | ND | 0.050 | " | " | " | " | " | U |
| Toluene | 0.107 | 0.050 | " | " | " | " | " | |
| Ethylbenzene | 0.920 | 0.050 | " | " | " | " | " | |
| Xylenes, total | 1.52 | 0.050 | " | " | " | " | " | |

Surrogate: 1,2-Dichloroethane-d4 104 % 70-130 " " "
Surrogate: Toluene-d8 97.9 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 109 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 8.59 | | pH Units | 1 | B8B0807 | 02/08/2018 | 02/08/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|--|----------|---|---------|------------|---|--|
| Specific Conductance (EC) | 0.0625 | | mmhos/cm | " | B8B0808 | 02/08/2018 | " | |
|---------------------------|--------|--|----------|---|---------|------------|---|--|

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0802 - EPA 5030 (soil) | | | | | | | | | | |
| Blank (B8B0802-BLK1) | | | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | | | | | | | U |
| Benzene | ND | 0.002 | " | | | | | | | U |
| Toluene | ND | 0.002 | " | | | | | | | U |
| Ethylbenzene | ND | 0.002 | " | | | | | | | U |
| Xylenes, total | ND | 0.002 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 64 | | ug/kg | 62.5 | | 103 | 70-130 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | | 100 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 65 | | " | 62.5 | | 105 | 70-130 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0802 - EPA 5030 (soil) | | | | | | | | | | |
| Blank (B8B0802-BLK2) | | | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | | | | | | | U |
| Benzene | ND | 0.002 | " | | | | | | | U |
| Toluene | ND | 0.002 | " | | | | | | | U |
| Ethylbenzene | ND | 0.002 | " | | | | | | | U |
| Xylenes, total | ND | 0.002 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 64 | | ug/kg | 62.5 | | 103 | 70-130 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | | 100 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 65 | | " | 62.5 | | 105 | 70-130 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0802 - EPA 5030 (soil) | | | | | | | | | | |
| LCS (B8B0802-BS1) | | | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
| Benzene | 0.092 | 0.002 | mg/kg | 0.100 | | 92.3 | 77.1-124 | | | |
| Toluene | 0.089 | 0.002 | " | 0.100 | | 88.6 | 74.5-128 | | | |
| Ethylbenzene | 0.087 | 0.002 | " | 0.100 | | 86.9 | 66.4-127 | | | |
| m,p-Xylene | 0.177 | 0.004 | " | 0.200 | | 88.3 | 76.6-124 | | | |
| o-Xylene | 0.092 | 0.002 | " | 0.100 | | 92.3 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 60 | | ug/kg | 62.5 | | 96.7 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 98.6 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 62 | | " | 62.5 | | 99.4 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0802 - EPA 5030 (soil) | | | | | | | | | | |
| LCS (B8B0802-BS2) | | | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
| Benzene | 0.100 | 0.002 | mg/kg | 0.100 | | 100 | 77.1-124 | | | |
| Toluene | 0.098 | 0.002 | " | 0.100 | | 97.6 | 74.5-128 | | | |
| Ethylbenzene | 0.097 | 0.002 | " | 0.100 | | 97.1 | 66.4-127 | | | |
| m,p-Xylene | 0.196 | 0.004 | " | 0.200 | | 98.1 | 76.6-124 | | | |
| o-Xylene | 0.103 | 0.002 | " | 0.100 | | 103 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 58 | | ug/kg | 62.5 | | 93.0 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 99.8 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 63 | | " | 62.5 | | 100 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0802 - EPA 5030 (soil)

| Matrix Spike (B8B0802-MS1) | | Source: Y802095-01 | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|--|--|--|
| Benzene | 0.093 | 0.002 | mg/kg | 0.100 | ND | 92.6 | 71.8-126 | | | |
| Toluene | 0.091 | 0.002 | " | 0.100 | ND | 90.9 | 65.1-130 | | | |
| Ethylbenzene | 0.090 | 0.002 | " | 0.100 | ND | 89.6 | 62.2-130 | | | |
| m,p-Xylene | 0.181 | 0.004 | " | 0.200 | ND | 90.4 | 46.5-137 | | | |
| o-Xylene | 0.095 | 0.002 | " | 0.100 | ND | 94.9 | 54.2-134 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 58 | | ug/kg | 62.5 | | 93.5 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 99.5 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 64 | | " | 62.5 | | 102 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0802 - EPA 5030 (soil)

| Matrix Spike (B8B0802-MS2) | | Source: Y802095-02 | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|--|--|--|
| Benzene | 0.088 | 0.002 | mg/kg | 0.100 | ND | 87.7 | 71.8-126 | | | |
| Toluene | 0.084 | 0.002 | " | 0.100 | ND | 83.9 | 65.1-130 | | | |
| Ethylbenzene | 0.082 | 0.002 | " | 0.100 | ND | 81.5 | 62.2-130 | | | |
| m,p-Xylene | 0.165 | 0.004 | " | 0.200 | ND | 82.6 | 46.5-137 | | | |
| o-Xylene | 0.087 | 0.002 | " | 0.100 | ND | 87.0 | 54.2-134 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 60 | | ug/kg | 62.5 | | 96.5 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 99.2 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 62 | | " | 62.5 | | 99.1 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0802 - EPA 5030 (soil)

| Matrix Spike Dup (B8B0802-MSD1) | | Source: Y802095-01 | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|-------|------|--|
| Benzene | 0.091 | 0.002 | mg/kg | 0.100 | ND | 91.4 | 71.8-126 | 1.37 | 11.3 | |
| Toluene | 0.089 | 0.002 | " | 0.100 | ND | 89.2 | 65.1-130 | 1.84 | 15.4 | |
| Ethylbenzene | 0.088 | 0.002 | " | 0.100 | ND | 88.2 | 62.2-130 | 1.58 | 19.6 | |
| m,p-Xylene | 0.180 | 0.004 | " | 0.200 | ND | 90.0 | 46.5-137 | 0.465 | 19.2 | |
| o-Xylene | 0.094 | 0.002 | " | 0.100 | ND | 94.1 | 54.2-134 | 0.846 | 17.9 | |
| Surrogate: 1,2-Dichloroethane-d4 | 61 | | ug/kg | 62.5 | | 97.5 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 99.3 | 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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0802 - EPA 5030 (soil)

| Matrix Spike Dup (B8B0802-MSD2) | | Source: Y802095-02 | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|------|------|--|
| Benzene | 0.094 | 0.002 | mg/kg | 0.100 | ND | 93.9 | 71.8-126 | 6.83 | 11.3 | |
| Toluene | 0.091 | 0.002 | " | 0.100 | ND | 90.5 | 65.1-130 | 7.61 | 15.4 | |
| Ethylbenzene | 0.087 | 0.002 | " | 0.100 | ND | 87.0 | 62.2-130 | 6.50 | 19.6 | |
| m,p-Xylene | 0.178 | 0.004 | " | 0.200 | ND | 88.9 | 46.5-137 | 7.38 | 19.2 | |
| o-Xylene | 0.094 | 0.002 | " | 0.100 | ND | 93.6 | 54.2-134 | 7.31 | 17.9 | |
| Surrogate: 1,2-Dichloroethane-d4 | 61 | | ug/kg | 62.5 | | 97.0 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 99.7 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 63 | | " | 62.5 | | 100 | 70-130 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 8015C - Quality Control

Origins Laboratory, Inc.

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

Batch B8B0803 - EPA 3550B

Blank (B8B0803-BLK1)

Prepared: 02/08/2018 Analyzed: 02/08/2018

| | | | | | | | | | | |
|-----------------------------------|----|------|-------|------|--|------|--------|--|--|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | | | | | | | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | | | | | | | U |
| Surrogate: o-Terphenyl | 43 | | " | 50.0 | | 85.4 | 59-131 | | | |

Blank (B8B0803-BLK2)

Prepared: 02/08/2018 Analyzed: 02/09/2018

| | | | | | | | | | | |
|-----------------------------------|----|------|-------|------|--|------|--------|--|--|---|
| Diesel (C10-C28) | ND | 50.0 | mg/kg | | | | | | | U |
| Residual Range Organics (C28-C40) | ND | 200 | " | | | | | | | U |
| Surrogate: o-Terphenyl | 43 | | " | 50.0 | | 85.2 | 59-131 | | | |

LCS (B8B0803-BS1)

Prepared: 02/08/2018 Analyzed: 02/08/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|--|-----|--------|--|--|--|
| Diesel (C10-C28) | 1170 | 50.0 | mg/kg | 1000 | | 117 | 64-121 | | | |
| Residual Range Organics (C28-C40) | 1110 | 200 | " | 1000 | | 111 | 58-124 | | | |
| Surrogate: o-Terphenyl | 58 | | " | 50.0 | | 116 | 59-131 | | | |

LCS (B8B0803-BS2)

Prepared: 02/08/2018 Analyzed: 02/09/2018

| | | | | | | | | | | |
|-----------------------------------|-----|------|-------|------|--|------|--------|--|--|--|
| Diesel (C10-C28) | 963 | 50.0 | mg/kg | 1000 | | 96.3 | 64-121 | | | |
| Residual Range Organics (C28-C40) | 957 | 200 | " | 1000 | | 95.7 | 58-124 | | | |
| Surrogate: o-Terphenyl | 49 | | " | 50.0 | | 97.2 | 59-131 | | | |

Matrix Spike (B8B0803-MS1)

Source: Y802097-01

Prepared: 02/08/2018 Analyzed: 02/08/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|------|------|--------|--|--|--|
| Diesel (C10-C28) | 975 | 50.0 | mg/kg | 1000 | ND | 97.5 | 53-125 | | | |
| Residual Range Organics (C28-C40) | 1060 | 200 | " | 1000 | 18.4 | 104 | 47-133 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 |
|--|--------|---------------------------|-------|-------------|---|------|-------------|-------|-----------|-------|
| Batch B8B0803 - EPA 3550B | | | | | | | | | | |
| Matrix Spike (B8B0803-MS1) | | Source: Y802097-01 | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
| Surrogate: o-Terphenyl | 50 | | mg/kg | 50.0 | | 99.1 | 59-131 | | | |
| Matrix Spike (B8B0803-MS2) | | Source: Y802097-02 | | | Prepared: 02/08/2018 Analyzed: 02/09/2018 | | | | | |
| Diesel (C10-C28) | 940 | 50.0 | mg/kg | 1000 | | 94.0 | 53-125 | | | |
| Residual Range Organics (C28-C40) | 909 | 200 | " | 1000 | | 90.9 | 47-133 | | | |
| Surrogate: o-Terphenyl | 48 | | " | 50.0 | | 96.6 | 59-131 | | | |
| Matrix Spike Dup (B8B0803-MSD1) | | Source: Y802097-01 | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
| Diesel (C10-C28) | 993 | 50.0 | mg/kg | 1000 | ND | 99.3 | 53-125 | 1.79 | 20 | |
| Residual Range Organics (C28-C40) | 969 | 200 | " | 1000 | 18.4 | 95.0 | 47-133 | 8.74 | 20 | |
| Surrogate: o-Terphenyl | 50 | | " | 50.0 | | 99.3 | 59-131 | | | |
| Matrix Spike Dup (B8B0803-MSD2) | | Source: Y802097-02 | | | Prepared: 02/08/2018 Analyzed: 02/09/2018 | | | | | |
| Diesel (C10-C28) | 949 | 50.0 | mg/kg | 1000 | | 94.9 | 53-125 | 0.972 | 20 | |
| Residual Range Organics (C28-C40) | 935 | 200 | " | 1000 | | 93.5 | 47-133 | 2.80 | 20 | |
| Surrogate: o-Terphenyl | 48 | | " | 50.0 | | 96.2 | 59-131 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B0807 - NO PREP | | | | | | | | | | |
| Duplicate (B8B0807-DUP1) | | Source: Y802126-01 | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
| pH | 7.51 | | pH Units | | 7.81 | | | 3.92 | 25 | |
| Batch B8B0808 - NO PREP | | | | | | | | | | |
| Blank (B8B0808-BLK1) | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | | | | |
| Specific Conductance (EC) | 0.00220 | | mmhos/cm | | | | | | | |
| Duplicate (B8B0808-DUP1) | | Source: Y802126-01 | | | Prepared: 02/08/2018 Analyzed: 02/08/2018 | | | | | |
| Specific Conductance (EC) | 0.721 | | mmhos/cm | | 0.772 | | | 6.78 | 25 | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



February 13, 2018

LT Environmental, Inc.

Brian Sulzberger

4600 West 60th Avenue

Arvada

CO 80003

Project Name - KMG - Hatch UPRR 42-11 #1

Project Number - 014218028

Attached are your analytical results for KMG - Hatch UPRR 42-11 #1 received by Origins Laboratory, Inc. February 12, 2018. This project is associated with Origins project number Y802166-01.

The analytical results in the following report were analyzed under the guidelines of EPA Methods. These methods are identified as follows; "SW" are defined in SW-846, "EPA" are defined in 40CFR part 136 and "SM" are defined in the most current revision of Standard Methods For the Examination of Water and Wastewater.

The analytical results apply specifically to the samples and analyses specified per the attached Chain of Custody. As such, this report shall not be reproduced except in full, without the written approval of Origin's laboratory.

Unless otherwise noted, the analytical results for all soil samples are reported on a wet weight basis. All analytical analyses were performed under NELAP guidelines unless noted by a data qualifier.

Any holding time exceedances, deviations from the method specifications or deviations from Origins Laboratory's Standard Operating Procedures are outlined in the case narrative.

Thank you for selecting Origins for your analytical needs. Please contact us with any questions concerning this report, or if we can help with anything at all.

Origins Laboratory, Inc.
303.433.1322
o-squad@oelabinc.com



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

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

CROSS REFERENCE REPORT

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|-----------|---------------|--------|-------------------------|------------------|
| N02@13' | Y802166-01 | Soil | February 12, 2018 15:20 | 02/12/2018 17:13 |
| E02@13' | Y802166-02 | Soil | February 12, 2018 15:21 | 02/12/2018 17:13 |
| S02@13' | Y802166-03 | Soil | February 12, 2018 15:22 | 02/12/2018 17:13 |
| GW01 | Y802166-04 | Water | February 12, 2018 15:30 | 02/12/2018 17:13 |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

ORIGINS
LABORATORY, INC

Client: LT Environmental, Inc.
Address: 4600 W 60th Ave
Arvada CO 80003
Telephone Number: 303 433 9798
Email Address: bsulzberger@ltenv.com

Project Manager: Brian Sulzberger
Project Name: Hatch UPRR 42-11 #1
Project Number: 014218028
Samples Collected By: Dan Thomas

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1982166

page 1 of 1

| Sample ID Description | Date Sampled | Time Sampled | # of Containers | Preservative | | | | Matrix | | | Analysis | | | | Sample Instructions |
|-----------------------|--------------|--------------|-----------------|--------------|-----|------------------|-------|-------------|------|----------------------|----------|------|------|-----|---------------------|
| | | | | Unpreserved | HCl | HNO ₃ | Other | Groundwater | Soil | Air Summa Canister # | Other | BTEX | GPTE | TPH | |
| N02E13 | 1-12-18 | 1520 | 2 | | | | | | X | | | | | | 1 |
| E02E13 | 1-12-18 | 1521 | 1 | | | | | | X | | | | | | 2 |
| S02E13 | 1-12-18 | 1522 | 1 | | | | | | X | | | | | | 3 |
| L001 | 1-12-18 | 1530 | 1 | | | | | X | | | | | | | 4 |
| | | | | | | | | | | | | | | | 5 |
| | | | | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | | | | 7 |
| | | | | | | | | | | | | | | | 8 |
| | | | | | | | | | | | | | | | 9 |
| | | | | | | | | | | | | | | | 10 |

Relinquished By: [Signature]
Date: 2-12-18
Time: 1713

Relinquished By: [Signature]
Date: 2-12-18
Time: 1713

Received By: [Signature]
Date: 2-12-18
Time: 1713

Received By: [Signature]
Date: 2-12-18
Time: 1713

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

Temp Received: 06 Date Results Needed: 06

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y 802166

Client: LTE

Client Project ID: KMG - Hatch UPRR 42-11 #1

Checklist Completed by: Don Lee

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

Date/time completed: 2-12-12

Airbill #: AD

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

Cooler Number/Temperature: 1 0.6 °C 1 °C 1 °C 1 °C (Describe)

Thermometer ID: 1003

| Requirement Description | Yes | No | N/A | Comments (if any) |
|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------|
| If samples require cooling, was the temperature between 0°C to ≤ 6°C ⁽¹⁾ ? | <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 ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Was adequate sample volume provided ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Are short holding time analytes or samples with HTs due within 48 hours present ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | ph |
| Is a chain-of-custody (COC) present and filled out completely ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| Is the COC properly relinquished by the client with date and time recorded ⁽¹⁾ ? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| For volatiles in water — is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative. | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| Are samples preserved that require preservation and was it checked ⁽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) | <input type="checkbox"/> | <input type="checkbox"/> | <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.

Reviewed by (Project Manager)

2-12-12
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

N02@13'
2/12/2018 3:20:00PM

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

Origins Laboratory, Inc.
Y802166-01 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 25.0 | mg/kg | 1 | B8B1206 | 02/12/2018 | 02/12/2018 | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 67.3 % 59-131 " " "

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|----|-------|-------|---|---------|------------|------------|---|
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | 1 | B8B1207 | 02/12/2018 | 02/12/2018 | U |
| Benzene | ND | 0.002 | " | " | " | " | " | U |
| Toluene | ND | 0.002 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.002 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.002 | " | " | " | " | " | U |

Surrogate: 1,2-Dichloroethane-d4 110 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 8.44 | | pH Units | 1 | B8B1209 | 02/12/2018 | 02/12/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|--|----------|---|---------|------------|---|--|
| Specific Conductance (EC) | 0.0973 | | mmhos/cm | " | B8B1210 | 02/12/2018 | " | |
|---------------------------|--------|--|----------|---|---------|------------|---|--|

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

E02@13'
2/12/2018 3:21:00PM

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

Origins Laboratory, Inc.
Y802166-02 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 25.0 | mg/kg | 1 | B8B1206 | 02/12/2018 | 02/12/2018 | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

Surrogate: o-Terphenyl 79.5 % 59-131 " " "

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|----|-------|-------|----|---------|------------|------------|---|
| Gasoline Range Hydrocarbons | ND | 5.00 | mg/kg | 25 | B8B1207 | 02/12/2018 | 02/12/2018 | U |
| Benzene | ND | 0.050 | " | " | " | " | " | U |
| Toluene | ND | 0.050 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | " | " | U |

Surrogate: 1,2-Dichloroethane-d4 99.5 % 70-130 " " "
Surrogate: Toluene-d8 102 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 97.4 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 8.45 | | pH Units | 1 | B8B1209 | 02/12/2018 | 02/12/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|--|----------|---|---------|------------|---|--|
| Specific Conductance (EC) | 0.0711 | | mmhos/cm | " | B8B1210 | 02/12/2018 | " | |
|---------------------------|--------|--|----------|---|---------|------------|---|--|

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

S02@13'
2/12/2018 3:22:00PM

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

Origins Laboratory, Inc.
Y802166-03 (Soil)

DRO/RRO by EPA8015C

| | | | | | | | | |
|-----------------------------------|----|------|-------|---|---------|------------|------------|---|
| Diesel (C10-C28) | ND | 25.0 | mg/kg | 1 | B8B1206 | 02/12/2018 | 02/12/2018 | U |
| Residual Range Organics (C28-C40) | ND | 100 | " | " | " | " | " | U |

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

GBTEX by EPA 8260C

| | | | | | | | | |
|-----------------------------|------|-------|-------|----|---------|------------|------------|---|
| Gasoline Range Hydrocarbons | 8.34 | 5.00 | mg/kg | 25 | B8B1207 | 02/12/2018 | 02/12/2018 | |
| Benzene | ND | 0.050 | " | " | " | " | " | U |
| Toluene | ND | 0.050 | " | " | " | " | " | U |
| Ethylbenzene | ND | 0.050 | " | " | " | " | " | U |
| Xylenes, total | ND | 0.050 | " | " | " | " | " | U |

Surrogate: 1,2-Dichloroethane-d4 101 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 97.6 % 70-130 " " "

pH in Soil by EPA 9045D

| | | | | | | | | |
|----|------|--|----------|---|---------|------------|------------|--|
| pH | 8.23 | | pH Units | 1 | B8B1209 | 02/12/2018 | 02/12/2018 | |
|----|------|--|----------|---|---------|------------|------------|--|

Specific Conductance by Modified 9050A

| | | | | | | | | |
|---------------------------|--------|--|----------|---|---------|------------|---|--|
| Specific Conductance (EC) | 0.0872 | | mmhos/cm | " | B8B1210 | 02/12/2018 | " | |
|---------------------------|--------|--|----------|---|---------|------------|---|--|

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

GW01

2/12/2018 3:30:00PM

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

Origins Laboratory, Inc.
Y802166-04 (Water)

BTEX by EPA 8260C

| | | | | | | | |
|----------------|------|-----|------|-----|---------|------------|------------|
| Benzene | 167 | 100 | ug/L | 100 | B8B1201 | 02/12/2018 | 02/12/2018 |
| Toluene | 772 | 100 | " | " | " | " | " |
| Ethylbenzene | 130 | 100 | " | " | " | " | " |
| Xylenes, total | 2180 | 100 | " | " | " | " | " |

| | | | | | | | |
|----------------------------------|--------|--------|--|--|---|---|---|
| Surrogate: 1,2-Dichloroethane-d4 | 103 % | 84-121 | | | " | " | " |
| Surrogate: Toluene-d8 | 100 % | 85-115 | | | " | " | " |
| Surrogate: 4-Bromofluorobenzene | 99.8 % | 84-114 | | | " | " | " |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1201 - EPA 5030B (Water) | | | | | | | | | | |
| Blank (B8B1201-BLK1) | | | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
| Benzene | ND | 1.00 | ug/L | | | | | | | U |
| Toluene | ND | 1.00 | " | | | | | | | U |
| Ethylbenzene | ND | 1.00 | " | | | | | | | U |
| Xylenes, total | ND | 1.00 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 61 | | " | 62.5 | | 98.0 | 84-121 | | | |
| Surrogate: Toluene-d8 | 60 | | " | 62.5 | | 95.3 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 59 | | " | 62.5 | | 94.3 | 84-114 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1201 - EPA 5030B (Water)

Blank (B8B1201-BLK2)

Prepared: 02/12/2018 Analyzed: 02/12/2018

| | | | | | | | | | | |
|----------------------------------|----|------|------|------|------|--|--------|--|--|---|
| Benzene | ND | 1.00 | ug/L | | | | | | | U |
| Toluene | ND | 1.00 | " | | | | | | | U |
| Ethylbenzene | ND | 1.00 | " | | | | | | | U |
| Xylenes, total | ND | 1.00 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 58 | | " | 62.5 | 92.0 | | 84-121 | | | |
| Surrogate: Toluene-d8 | 64 | | " | 62.5 | 102 | | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 61 | | " | 62.5 | 97.2 | | 84-114 | | | |

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1201 - EPA 5030B (Water) | | | | | | | | | | |
| LCS (B8B1201-BS1) | | | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
| Benzene | 45.1 | 1.00 | ug/L | 50.0 | | 90.3 | 73.3-129 | | | |
| Toluene | 44.0 | 1.00 | " | 50.0 | | 88.0 | 76.2-123 | | | |
| Ethylbenzene | 43.3 | 1.00 | " | 50.0 | | 86.6 | 73.6-130 | | | |
| m,p-Xylene | 85.6 | 2.00 | " | 100 | | 85.6 | 76.1-126 | | | |
| o-Xylene | 42.4 | 1.00 | " | 50.0 | | 84.9 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 60 | | " | 62.5 | | 95.8 | 84-121 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | | 101 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 64 | | " | 62.5 | | 103 | 84-114 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1201 - EPA 5030B (Water) | | | | | | | | | | |
| LCS (B8B1201-BS2) | | | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
| Benzene | 49.2 | 1.00 | ug/L | 50.0 | | 98.5 | 73.3-129 | | | |
| Toluene | 48.7 | 1.00 | " | 50.0 | | 97.4 | 76.2-123 | | | |
| Ethylbenzene | 46.9 | 1.00 | " | 50.0 | | 93.8 | 73.6-130 | | | |
| m,p-Xylene | 91.4 | 2.00 | " | 100 | | 91.4 | 76.1-126 | | | |
| o-Xylene | 44.3 | 1.00 | " | 50.0 | | 88.6 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 61 | | " | 62.5 | | 98.0 | 84-121 | | | |
| Surrogate: Toluene-d8 | 65 | | " | 62.5 | | 104 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 62 | | " | 62.5 | | 100 | 84-114 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1201 - EPA 5030B (Water)

| Matrix Spike (B8B1201-MS1) | | Source: Y802092-05 | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
|----------------------------------|------|--------------------|------|------|---|------|--------|--|--|--|
| Benzene | 52.4 | 1.00 | ug/L | 50.0 | ND | 105 | 74-130 | | | |
| Toluene | 52.2 | 1.00 | " | 50.0 | ND | 104 | 73-131 | | | |
| Ethylbenzene | 49.9 | 1.00 | " | 50.0 | ND | 99.8 | 76-132 | | | |
| m,p-Xylene | 96.5 | 2.00 | " | 100 | ND | 96.5 | 69-139 | | | |
| o-Xylene | 45.7 | 1.00 | " | 50.0 | ND | 91.5 | 74-131 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 54 | | " | 62.5 | | 87.0 | 84-121 | | | |
| Surrogate: Toluene-d8 | 64 | | " | 62.5 | | 102 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 62 | | " | 62.5 | | 99.9 | 84-114 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1201 - EPA 5030B (Water)

| Matrix Spike (B8B1201-MS2) | | Source: Y802092-08 | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
|----------------------------------|------|--------------------|------|------|---|------|--------|--|--|--|
| Benzene | 51.3 | 1.00 | ug/L | 50.0 | ND | 103 | 74-130 | | | |
| Toluene | 50.9 | 1.00 | " | 50.0 | ND | 102 | 73-131 | | | |
| Ethylbenzene | 49.1 | 1.00 | " | 50.0 | 0.070 | 98.1 | 76-132 | | | |
| m,p-Xylene | 94.6 | 2.00 | " | 100 | ND | 94.6 | 69-139 | | | |
| o-Xylene | 45.4 | 1.00 | " | 50.0 | ND | 90.8 | 74-131 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 61 | | " | 62.5 | | 97.8 | 84-121 | | | |
| Surrogate: Toluene-d8 | 64 | | " | 62.5 | | 103 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 61 | | " | 62.5 | | 97.6 | 84-114 | | | |

Origins Laboratory, Inc.



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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1201 - EPA 5030B (Water)

| Matrix Spike Dup (B8B1201-MSD1) | | Source: Y802092-05 | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
|----------------------------------|------|--------------------|------|------|---|------|--------|------|----|--|
| Benzene | 51.5 | 1.00 | ug/L | 50.0 | ND | 103 | 74-130 | 1.62 | 20 | |
| Toluene | 51.1 | 1.00 | " | 50.0 | ND | 102 | 73-131 | 2.19 | 20 | |
| Ethylbenzene | 48.6 | 1.00 | " | 50.0 | ND | 97.2 | 76-132 | 2.68 | 20 | |
| m,p-Xylene | 94.9 | 2.00 | " | 100 | ND | 94.9 | 69-139 | 1.69 | 20 | |
| o-Xylene | 45.2 | 1.00 | " | 50.0 | ND | 90.4 | 74-131 | 1.12 | 20 | |
| Surrogate: 1,2-Dichloroethane-d4 | 54 | | " | 62.5 | | 86.7 | 84-121 | | | |
| Surrogate: Toluene-d8 | 65 | | " | 62.5 | | 105 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 62 | | " | 62.5 | | 99.3 | 84-114 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1201 - EPA 5030B (Water)

| Matrix Spike Dup (B8B1201-MSD2) | | Source: Y802092-08 | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
|----------------------------------|------|--------------------|------|------|---|------|--------|------|----|--|
| Benzene | 46.6 | 1.00 | ug/L | 50.0 | ND | 93.1 | 74-130 | 9.73 | 20 | |
| Toluene | 46.0 | 1.00 | " | 50.0 | ND | 92.0 | 73-131 | 10.2 | 20 | |
| Ethylbenzene | 43.6 | 1.00 | " | 50.0 | 0.070 | 87.1 | 76-132 | 11.9 | 20 | |
| m,p-Xylene | 84.5 | 2.00 | " | 100 | ND | 84.5 | 69-139 | 11.3 | 20 | |
| o-Xylene | 41.6 | 1.00 | " | 50.0 | ND | 83.3 | 74-131 | 8.68 | 20 | |
| Surrogate: 1,2-Dichloroethane-d4 | 61 | | " | 62.5 | | 97.8 | 84-121 | | | |
| Surrogate: Toluene-d8 | 64 | | " | 62.5 | | 103 | 85-115 | | | |
| Surrogate: 4-Bromofluorobenzene | 61 | | " | 62.5 | | 98.2 | 84-114 | | | |

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1207 - EPA 5030 (soil) | | | | | | | | | | |
| Blank (B8B1207-BLK1) | | | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
| Gasoline Range Hydrocarbons | ND | 0.200 | mg/kg | | | | | | | U |
| Benzene | ND | 0.002 | " | | | | | | | U |
| Toluene | ND | 0.002 | " | | | | | | | U |
| Ethylbenzene | ND | 0.002 | " | | | | | | | U |
| Xylenes, total | ND | 0.002 | " | | | | | | | U |
| Surrogate: 1,2-Dichloroethane-d4 | 68 | | ug/kg | 62.5 | | 109 | 70-130 | | | |
| Surrogate: Toluene-d8 | 63 | | " | 62.5 | | 101 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 64 | | " | 62.5 | | 102 | 70-130 | | | |

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1207 - EPA 5030 (soil) | | | | | | | | | | |
| LCS (B8B1207-BS1) | | | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
| Benzene | 0.104 | 0.002 | mg/kg | 0.100 | | 104 | 77.1-124 | | | |
| Toluene | 0.100 | 0.002 | " | 0.100 | | 99.9 | 74.5-128 | | | |
| Ethylbenzene | 0.099 | 0.002 | " | 0.100 | | 99.5 | 66.4-127 | | | |
| m,p-Xylene | 0.198 | 0.004 | " | 0.200 | | 98.8 | 76.6-124 | | | |
| o-Xylene | 0.096 | 0.002 | " | 0.100 | | 96.4 | 76.6-124 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 61 | | ug/kg | 62.5 | | 96.9 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 99.3 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 61 | | " | 62.5 | | 97.4 | 70-130 | | | |

Origins Laboratory, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1207 - EPA 5030 (soil)

| Matrix Spike (B8B1207-MS1) | | Source: Y802157-01 | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|--|--|--|
| Benzene | 0.103 | 0.002 | mg/kg | 0.100 | 0.006 | 96.8 | 71.8-126 | | | |
| Toluene | 0.099 | 0.002 | " | 0.100 | 0.005 | 93.8 | 65.1-130 | | | |
| Ethylbenzene | 0.095 | 0.002 | " | 0.100 | 0.0006 | 94.7 | 62.2-130 | | | |
| m,p-Xylene | 0.195 | 0.004 | " | 0.200 | ND | 97.4 | 46.5-137 | | | |
| o-Xylene | 0.095 | 0.002 | " | 0.100 | 0.0008 | 94.3 | 54.2-134 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | 65 | | ug/kg | 62.5 | | 104 | 70-130 | | | |
| Surrogate: Toluene-d8 | 61 | | " | 62.5 | | 97.2 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 62 | | " | 62.5 | | 99.6 | 70-130 | | | |

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Project: KMG - Hatch UPRR 42-11 #1

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 B8B1207 - EPA 5030 (soil)

| Matrix Spike Dup (B8B1207-MSD1) | | Source: Y802157-01 | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
|----------------------------------|-------|--------------------|-------|-------|---|------|----------|------|------|--|
| Benzene | 0.108 | 0.002 | mg/kg | 0.100 | 0.006 | 102 | 71.8-126 | 5.19 | 11.3 | |
| Toluene | 0.103 | 0.002 | " | 0.100 | 0.005 | 98.6 | 65.1-130 | 4.75 | 15.4 | |
| Ethylbenzene | 0.099 | 0.002 | " | 0.100 | 0.0006 | 98.1 | 62.2-130 | 3.53 | 19.6 | |
| m,p-Xylene | 0.205 | 0.004 | " | 0.200 | ND | 102 | 46.5-137 | 5.02 | 19.2 | |
| o-Xylene | 0.100 | 0.002 | " | 0.100 | 0.0008 | 99.5 | 54.2-134 | 5.24 | 17.9 | |
| Surrogate: 1,2-Dichloroethane-d4 | 65 | | ug/kg | 62.5 | | 104 | 70-130 | | | |
| Surrogate: Toluene-d8 | 62 | | " | 62.5 | | 98.6 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | 61 | | " | 62.5 | | 97.5 | 70-130 | | | |

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Project: KMG - Hatch UPRR 42-11 #1

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 8015C - Quality Control

Origins Laboratory, Inc.

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

Batch B8B1206 - EPA 3550B

Blank (B8B1206-BLK1)

Prepared: 02/12/2018 Analyzed: 02/12/2018

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

LCS (B8B1206-BS1)

Prepared: 02/12/2018 Analyzed: 02/12/2018

| | | | | | | | | | | |
|-----------------------------------|-----|------|-------|------|--|------|--------|--|--|--|
| Diesel (C10-C28) | 907 | 50.0 | mg/kg | 1000 | | 90.7 | 64-121 | | | |
| Residual Range Organics (C28-C40) | 833 | 200 | " | 1000 | | 83.3 | 58-124 | | | |
| Surrogate: o-Terphenyl | 43 | | " | 50.0 | | 86.5 | 59-131 | | | |

Matrix Spike (B8B1206-MS1)

Source: Y802123-01

Prepared: 02/12/2018 Analyzed: 02/12/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|------|------|--------|--|--|--|
| Diesel (C10-C28) | 1300 | 50.0 | mg/kg | 1000 | 380 | 92.3 | 53-125 | | | |
| Residual Range Organics (C28-C40) | 953 | 200 | " | 1000 | 96.5 | 85.6 | 47-133 | | | |
| Surrogate: o-Terphenyl | 52 | | " | 50.0 | | 104 | 59-131 | | | |

Matrix Spike Dup (B8B1206-MSD1)

Source: Y802123-01

Prepared: 02/12/2018 Analyzed: 02/12/2018

| | | | | | | | | | | |
|-----------------------------------|------|------|-------|------|------|------|--------|------|----|--|
| Diesel (C10-C28) | 1260 | 50.0 | mg/kg | 1000 | 380 | 87.7 | 53-125 | 5.06 | 20 | |
| Residual Range Organics (C28-C40) | 883 | 200 | " | 1000 | 96.5 | 78.7 | 47-133 | 8.42 | 20 | |
| Surrogate: o-Terphenyl | 47 | | " | 50.0 | | 93.0 | 59-131 | | | |

Origins Laboratory, Inc.



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LT Environmental, Inc.
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Arvada CO 80003

Brian Sulzberger
Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

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 B8B1209 - NO PREP | | | | | | | | | | |
| Duplicate (B8B1209-DUP1) | | Source: Y802165-01 | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
| pH | 8.42 | | pH Units | | 8.62 | | | 2.35 | 25 | |
| Batch B8B1210 - NO PREP | | | | | | | | | | |
| Blank (B8B1210-BLK1) | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | | | | |
| Specific Conductance (EC) | 0.00410 | | mmhos/cm | | | | | | | |
| Duplicate (B8B1210-DUP1) | | Source: Y802165-01 | | | Prepared: 02/12/2018 Analyzed: 02/12/2018 | | | | | |
| Specific Conductance (EC) | 0.221 | | mmhos/cm | | 0.220 | | | 0.499 | 25 | |

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LT Environmental, Inc.
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Project Number: 014218028
Project: KMG - Hatch UPRR 42-11 #1

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President