



State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax (303)894-2109

FOR OGCC USE ONLY

OGCC Employee: _____

Spill Complaint

Inspection NOAV

Tracking No: _____

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever applicable. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): _____

GENERAL INFORMATION

OGCC Operator Number: <u>47120</u>	Contact Name and Telephone
Name of Operator: <u>Kerr-McGee Oil and Onshore LP</u>	Name: <u>Erik Mickelson</u>
Address: <u>PO Box 173779</u>	No: <u>720-929-4306</u>
City: <u>Denver</u> State: <u>CO</u> Zip: <u>80217</u>	Fax: _____
API/Facility No: <u>05-001-08987</u>	County: <u>Adams</u>
Facility Name: <u>Green 61S68W/14SWNE</u>	Facility Number: <u>320310</u>
Well Name: <u>Green</u>	Well Number: <u>32-14(1)</u>
Location: (QtrQtr, Sec, Twp, Rng, Meridian): <u>SWNE Sec. 14 1S 68W 6</u>	Latitude: <u>39.966623</u> Longitude: <u>-104.966568</u>

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Crude oil

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Non-crop land, City of Thornton

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Sandy clay grading to siltstone/claystone bedrock

Potential receptors (water wells within 1/4 mi, surface waters, etc.): 2 water wells (one monitoring well approx. 400' NE and 1 domestic well approx 980' SSE), surface water, wetlands, and residential homes

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):	Extent of Impact:	How Determined:
<input checked="" type="checkbox"/> Soils	<u>41' (N-S) x 32' (W-E) x 6' bgs</u>	<u>Sampling of soils during excavation</u>
<input type="checkbox"/> Vegetation	_____	_____
<input checked="" type="checkbox"/> Groundwater	<u>See attached data</u>	<u>Sampling of GW within the excavation</u>
<input type="checkbox"/> Surface Water	_____	_____

REMEDIATION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

On April 5, 2016, a release was discovered at the Green 61S68W/14SWNE facility (Location ID 320310). An estimated 45 barrels of crude oil was released into the unlined secondary containment berm, from a hole located just above the base of the oil tank. Groundwater was encountered in the excavation at approximately 5 feet below ground surface (bgs). On April 6, soil excavation and groundwater extraction activities began, after emergency utility locates cleared. On April 8, an Initial Form 19 was submitted to the COGCC and on April 14, a Supplemental Form 19 was submitted to the COGCC. The COGCC issued a Spill Tracking number 445453 for this release. During excavation activities, apparent potential remnant staining from a former release was observed. COGCC Remediation Project #485, which was assigned to the former release that occurred in 2000, was closed by the COGCC in 2003. A copy of COGCC's closure letter for the 2000 release is provided in Attachment A. A regional topographic facility location map is provided as Figure 1.

Describe how source is to be removed:

In total, approximately 360 cubic yards of impacted material was excavated and transported to Front Range Landfill in Erie, Colorado, for disposal. The excavation was expanded, as guided in the field by volatile organic carbon screening equipment. Soils were excavated into the phreatic zone to remove potential hydrocarbon impacts that may have been present below the current groundwater table. Soil samples (North 1@5', West1@5', South1@5' and East1@5') were collected from the sidewalls at the excavation's final lateral extent. Soil samples were submitted to Origins Laboratory in Denver, Colorado, for analysis of benzene, toluene, ethylbenzene, total xylenes (BTEX), total petroleum hydrocarbons (TPH) - gasoline range organics (GRO) by USEPA Method 8260C, TPH - diesel range and residual range organics (DRO and RRO, respectively) by USEPA Method 8015, electrical conductivity (EC) and pH. Laboratory analytical results indicated that BTEX and TPH concentrations in the soil samples collected from the final lateral excavation extent were below laboratory detection limits and below applicable COGCC Table 910-1 standards. For EC and pH, soil sample laboratory analytical results indicated that concentrations were within COGCC Table 910-1 allowable thresholds. On April 6, four surface water samples (Green 1 through 4) were collected from the adjacent water feature, Big Dry Creek (Figure 2). Surface water samples were submitted to Origins Laboratory in Denver, Colorado, for analysis of BTEX by USEPA Method 8260C. Laboratory analytical results from the surface water samples indicated that BTEX concentrations were below laboratory detection limits and less than COGCC Table 910-1 allowable levels. On April 7, a groundwater sample (Groundwater1@6) was collected and submitted for laboratory analysis of BTEX by USEPA Method 8260C. Analytical results from the sample indicated that benzene and toluene exceeded the applicable COGCC Table 910-1 standards for groundwater at 774 micrograms per liter (µg/L) and 2,770 µg/L, respectively. To address impacted groundwater, approximately 768 barrels of groundwater were removed from the excavation via vacuum truck and transported to Kerr-McGee's licensed injection facility for disposal. A second groundwater sample (Groundwater2@6) was subsequently collected from the excavation and submitted for laboratory analysis of BTEX. Analytical results from the sample indicated that benzene and toluene exceeded the applicable COGCC Table 910-1 standards for groundwater at 255 µg/L and 798 µg/L, respectively. Groundwater was encountered in the excavation at approximately 5 feet bgs but due to groundwater extraction activities, the groundwater level in the excavation was 6 feet bgs at the time the samples were collected. The general facility layout, excavation location, and laboratory results are shown in Figure 3. Analytical results are summarized in Tables 1 - 3, and laboratory reports are provided as Attachment B.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oil vegetation, etc.:

Impacted soil was excavated and transported to Front Range Landfill in Erie, Colorado, for disposal. Impacted groundwater was removed via a vacuum truck and transported to Kerr-McGee's licensed injection facility for disposal. To stimulate the hydrocarbon degradation process, on April 13, 200 pounds of Chemically Oxygenated Granular Activated Carbon (COGAC) was applied to the groundwater within the excavation, prior to backfilling. Additional groundwater monitoring measures are described hereafter.

State of Colorado
Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801, Denver, Colorado 80203
(303)894-2100 Fax (303)894-2109



Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

REMEDIATION WORKPLAN (CONT.)

OGCC Employee: _____

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):
Based on the analytical results from the groundwater samples, a subsurface assessment will be conducted at the facility, to determine if shallow groundwater has been impacted outside of the excavation area. In an attempt to determine the extent and magnitude of impacts, a minimum of four groundwater monitoring wells will be installed. Groundwater monitoring will be conducted on a quarterly basis. Collected groundwater samples will be submitted for laboratory analysis of BTEX by USEPA Method 8260. Quarterly groundwater monitoring at the location will continue until BTEX concentrations remain below COGCC Table 910-1 groundwater standards in all wells for four consecutive quarters. If necessary, additional monitoring wells will be installed to characterize the extent of the hydrocarbon plume. Locations of the proposed monitoring wells are show in Figure 4.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.
The excavation was backfilled with clean sand and soil, and graded to match the adjacent topography. Kerr-McGee's tank battery and associated components remain at the facility location. Future reclamation activities at the facility location will be compliant with COGCC regulations.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.
Is further site investigation required? Y N If yes, describe:
Groundwater monitoring wells will be installed to delineate the dissolved-phase hydrocarbon plume. Quarterly groundwater monitoring will be conducted to determine the extent and magnitude of dissolved-phase hydrocarbon impacts. The need for future remediation activities will be based on the results from the groundwater assessment activities.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):
Hydrocarbon impacted soil was transported to Front Range Landfill in Erie, Colorado, for disposal. Groundwater was removed via a vacuum truck and transported to Kerr-McGee's licensed injection facility for disposal.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: <u>4/5/2016</u>	Date Site Investigation Completed: <u>Active</u>	Remediation Plan Submitted: _____
Remediation Start Date: <u>4/6/2016</u>	Anticipated Completion Date: <u>To be determined</u>	Actual Completion Date: _____

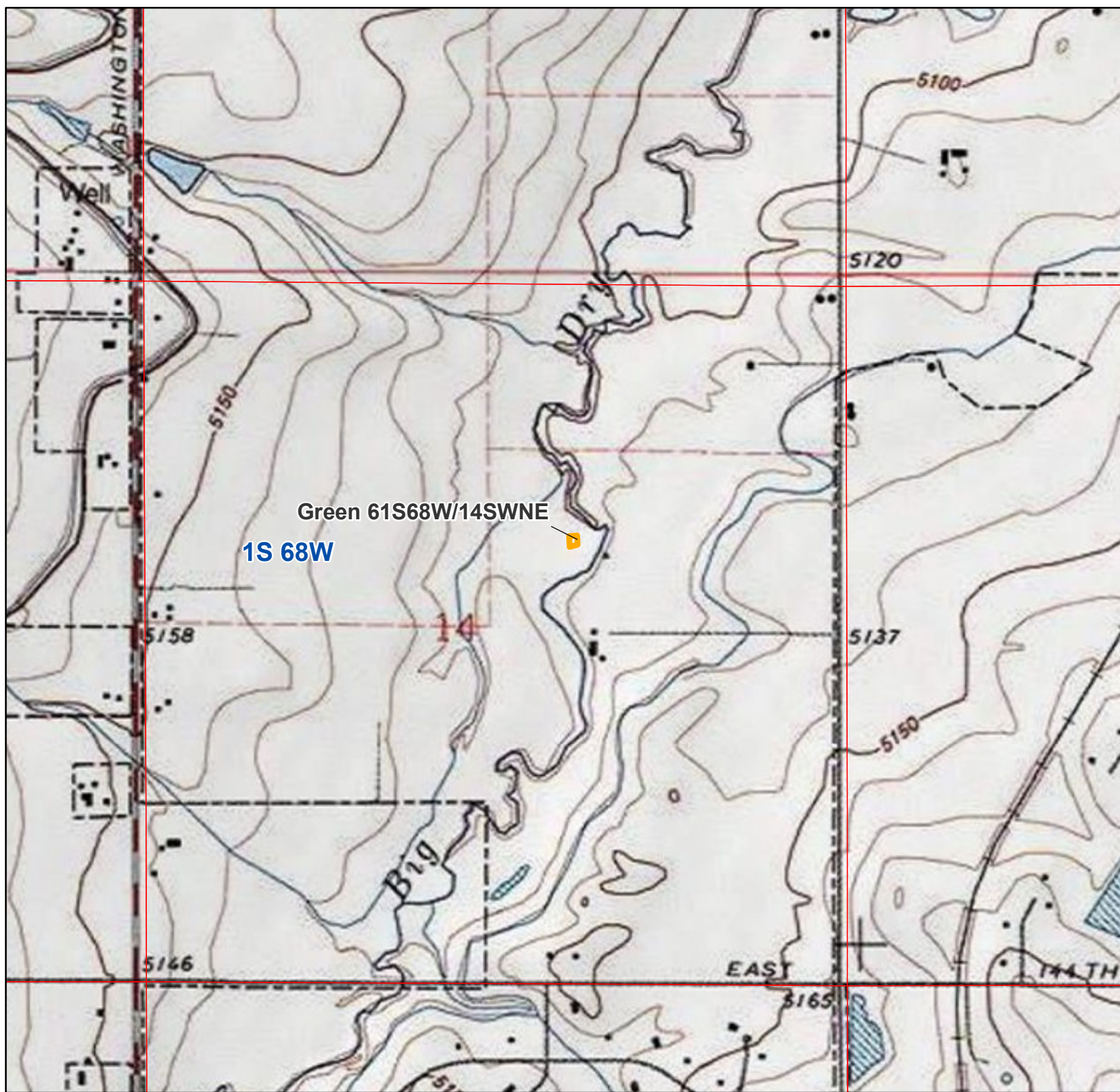
I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Erik Mickelson

Signed: Title: Senior HSE Representative Date: 4/19/16

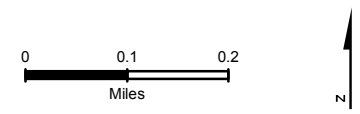
OGCC Approved: _____ Title: _____ Date: _____

Figure 1
Green 61S68W/14SWNE
Regional Map



Legend

Site Location



Site Characteristics

Legal Location: SWNE, Sec 14, T1S R68W
County: Adams
Land Use: Non-Cropland
Topography: 0-3% Slopes
Run-Off Risk: Low
Soil Type: Arvada loam

REVISED	BY	COMMENT
4/6/2016	BJB	Figure 1



Green 4
 B: <4.0 µg/L
 T: <4.0 µg/L
 E: <4.0 µg/L
 X: <4.0 µg/L

Green 3
 B: <4.0 µg/L
 T: <4.0 µg/L
 E: <4.0 µg/L
 X: <4.0 µg/L

Facility Location

Green 2
 B: <4.0 µg/L
 T: <4.0 µg/L
 E: <4.0 µg/L
 X: <4.0 µg/L

Green 1
 B: <4.0 µg/L
 T: <4.0 µg/L
 E: <4.0 µg/L
 X: <4.0 µg/L

Creek Flow



Figure 2
Green 61S68W/14SWNE
Surface Water Sample
Locations &
Analytical Results

Legend

▲ Surface Water Sample

Sample Location

- B: benzene
- T: toluene
- E: ethylbenzene
- X: xylenes
- TPH: total petroleum hydrocarbons

Bold values exceed COGCC Table 910-1 allowable concentrations

Site Characteristics

Legal Location: SWNE, Sec 14, T1S R68W
County: Adams
Land Use: Non-Cropland
Topography: 0-3% Slopes
Run-Off Risk: Low
Soil Type: Arvada loam

REVISED	BY	COMMENT
4/12/2016	BJB	Figure 2

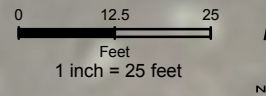


Figure 3
Green 61S68W/14SWNE
Facility Layout &
Analytical Results

Legend

- Soil Sample
- Groundwater Sample
- Excavation Extent
- Former Berm
- Release Location (approx)

Sample Location

- B: benzene
- T: toluene
- E: ethylbenzene
- X: xylenes
- TPH: total petroleum hydrocarbons

Bold values exceed COGCC Table 910-1 allowable concentrations

Site Characteristics

Legal Location: SWNE, Sec 14, T1S R68W
County: Adams
Land Use: Non-Cropland
Topography: 0-3% Slopes
Run-Off Risk: Low
Soil Type: Arvada loam

REVISED	BY	COMMENT
4/12/2016	BJB	Figure 3

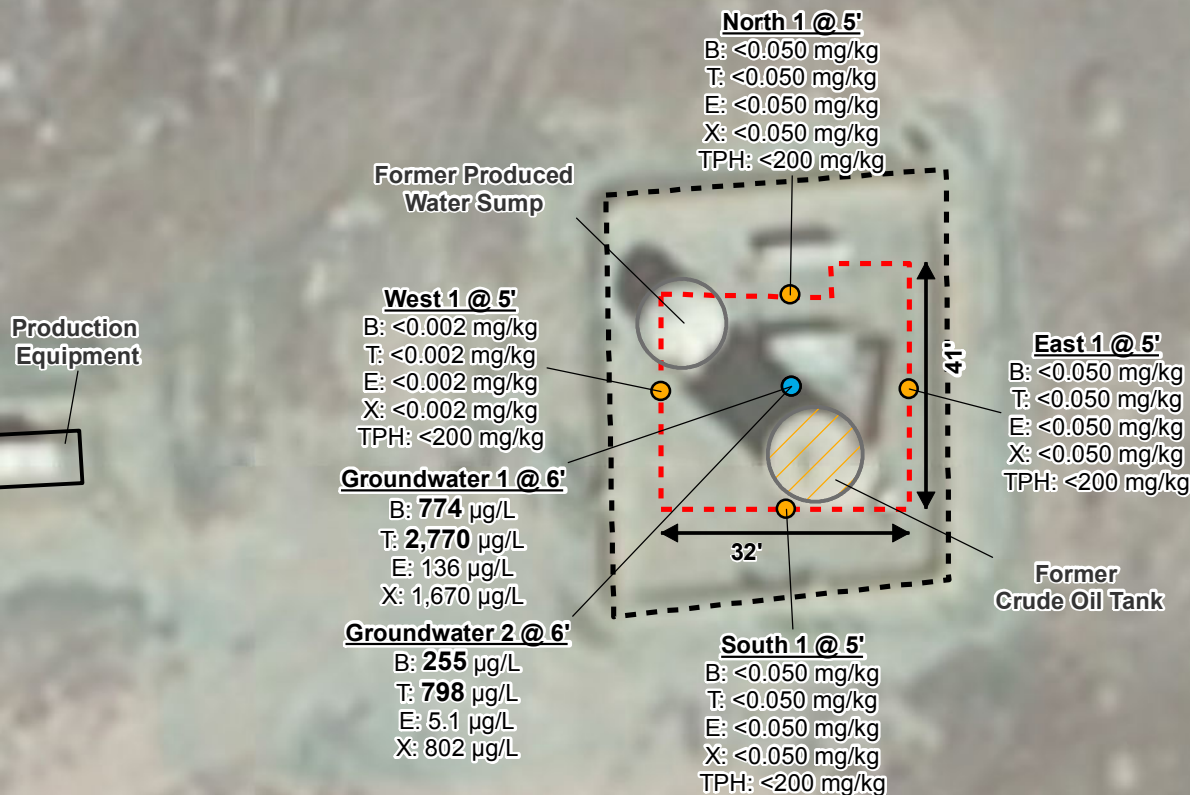


FIGURE 4
Green 61S68W/14SWNE
Facility Layout &
Proposed Monitoring
Wells

Legend

Proposed monitoring well location



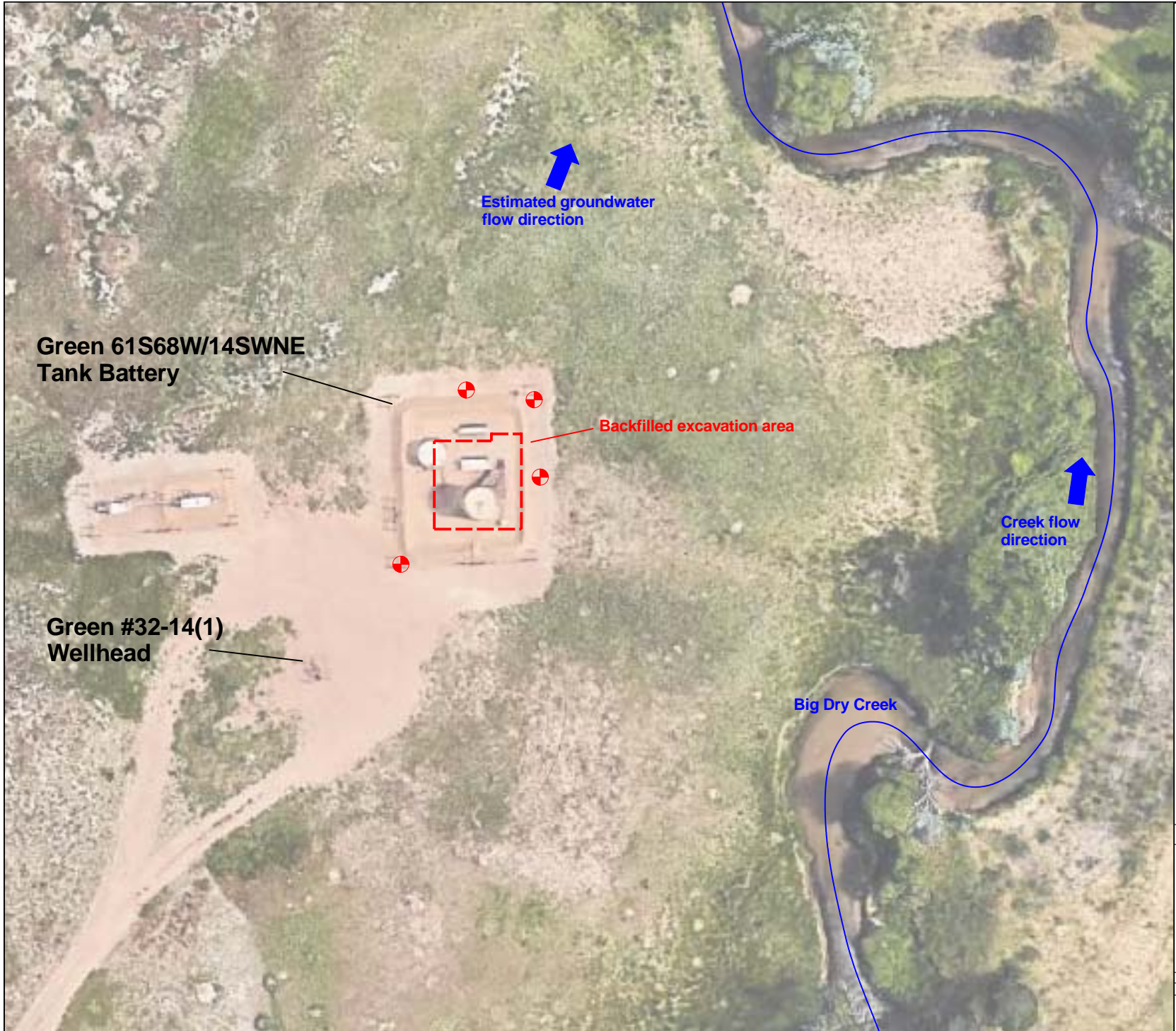
0 50'
 Approximate Scale

Site Characteristics

Legal Location: SWNE Sec 14, T1S R68W
 County: Adams
 Land Use: Non-Cropland
 Topography: 0-3% Slopes
 Run-Off Risk: Low
 Soil Type: Arvada loam

Image source:
 Google Earth Pro

REVISED	BY	COMMENT
4/18/16	JH	Figure 4



Green 61S68W/14SWNE
Tank Battery

Green #32-14(1)
Wellhead

Backfilled excavation area

Estimated groundwater
flow direction

Creek flow
direction

Big Dry Creek

Table 1 - Soil Sample Analytical Results



Kerr-McGee Oil and Gas Onshore LP
 Location Name: Green 61S68W / 14SWNE
 Location ID: 320310
 API #: 05-001-08987
 County: Adams

Sample ID	Sample Date	Depth (feet bgs)	Organics in Soil							Inorganics in Soil	
			TPH-GRO (mg/kg)	TPH-DRO (mg/kg)	TPH-RRO (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes - total (mg/kg)	Electrical Conductivity (mmhos/cm) (<4 or 2x background)	pH (6-9)
West 1 @ 5'	04/07/16	5'	<0.200	<50	<200	<0.002	<0.002	<0.002	<0.002	0.0694	8.63
South 1 @ 5'	04/07/16	5'	<5.00	<50	<200	<0.050	<0.050	<0.050	<0.050	0.170	8.43
North 1 @ 5'	04/07/16	5'	<5.00	<50	<200	<0.050	<0.050	<0.050	<0.050	0.0436	8.61
East 1 @ 5'	04/07/16	5'	<5.00	<50	<200	<0.050	<0.050	<0.050	<0.050	0.0796	8.53

Notes:

TPH Total petroleum hydrocarbons
 GRO Gasoline range hydrocarbons (C6 - C10)
 DRO Diesel range organics (C10 - C28)
 RRO Reduced range organics (C28 - C36)
Bold cell indicates result exceeded COGCC Table 910-1 allowable concentration for the contaminant / inorganic of concern

bgs below ground surface
 mg/kg milligrams per kilogram
 mmhos/cm millimhos per centimeter
 NA Not analyzed / not available
 COGCC Colorado Oil and Gas Conservation Commission

Table 2 - Surface Water Sample Analytical Results



Kerr-McGee Oil and Gas Onshore LP
Location Name: Green 61S68W / 14SWNE
Location ID: 320310
API #: 05-001-08987
County: Adams

Sample ID	Sample Date	Depth (feet bgs)	Organics in Groundwater			
			Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes - total (µg/L)
			5	560	700	10,000
Green 1	04/06/16	0'	<4.0	<4.0	<4.0	<4.0
Green 2	04/06/16	0'	<4.0	<4.0	<4.0	<4.0
Green 3	04/06/16	0'	<4.0	<4.0	<4.0	<4.0
Green 4	04/06/16	0'	<4.0	<4.0	<4.0	<4.0

Notes:

bgs below ground surface
 µg/L micrograms per liter
 NA Not analyzed / not available
 COGCC Colorado Oil and Gas Conservation Commission
Bold cell indicates result exceeded COGCC Table 910-1 allowable concentration for the contaminant of concern

Table 3 - Groundwater Sample Analytical Results



Kerr-McGee Oil and Gas Onshore LP
Location Name: Green 61S68W / 14SWNE
Location ID: 320310
API #: 05-001-08987
County: Adams

Sample ID	Sample Date	Depth (feet bgs)	Organics in Groundwater			
			5	560	700	10,000
			Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes - total (µg/L)
Groundwater 1 @ 6'	04/07/16	6'	774	2,770	136	1,670
Groundwater 2 @ 6'	04/13/16	6'	255	798	5.1	802

Notes:

bgs below ground surface
 µg/L micrograms per liter
 NA Not analyzed / not available
 COGCC Colorado Oil and Gas Conservation Commission
Bold cell indicates result exceeded COGCC Table 910-1 allowable concentration for the contaminant of concern

Attachment A

Closure Letter - COGCC Remediation Project #485

#485



DEPARTMENT OF NATURAL RESOURCES
 Bill Owens, Governor
 1120 Lincoln St., Suite 801
 Denver, CO 80203
 Phone: (303) 894-2100
 FAX: (303) 894-2109
 www.oil-gas.state.co.us

May 12, 2003

Scot Donato, P.G.
 Manager, Environmental Health & Safety
 Kerr McGee Rocky Mountain Corp.
 1999 Broadway, Suite 3600
 Denver, Colorado 80202

RE: Green 32-14 #2 Wellsite
 Remediation No. 485
 SENW 14-T1S-R68W; API 05-001-08987
 Adams County, Colorado

Dear Mr. Donato:

The Colorado Oil and Gas Conservation Commission (COGCC) staff has reviewed your letter of April 2, 2003 for the above references site. The actions taken were consistent with the Form 27 previously submitted for the site. Based on the information provided, no ground water concentration of benzene above the State of Colorado standard, the COGCC staff considers remediation No. 485 closed with no additional requirements. However, should future conditions at the site be discovered of contaminant concentrations in soils or water exceeding COGCC standards, then Kerr McGee may be required to conduct further investigation and/or remediation at the site

Should you have any questions, please call me at (303) 894-2100 ext.112.

Respectfully,

Robert H. Chesson, C.P.G., P.G.
 Environmental Protection Specialist

cc: Rich Griebing - COGCC
 Debbie Baldwin - COGCC



Attachment B

Laboratory Reports



April 07, 2016

Apex Companies, LLC

Jake Hildebrand

3240 W. 71st Avenue, Suite 1

Westminster CO 80030

Project Name - KMG - Green 61S68W/14SWNE

Project Number - 89047057

Attached are your analytical results for KMG - Green 61S68W/14SWNE received by Origins Laboratory, Inc. April 06, 2016. This project is associated with Origins project number X604069-01.

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

Apex Companies, LLC
3240 W. 71st Avenue, Suite 1
Westminster CO 80030

Jake Hildebrand
Project Number: 89047057
Project: KMG - Green 61S68W/14SWNE

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Green 1	X604069-01	Water	April 6, 2016 15:02	04/06/2016 16:16
Green 2	X604069-02	Water	April 6, 2016 15:05	04/06/2016 16:16
Green 3	X604069-03	Water	April 6, 2016 15:09	04/06/2016 16:16
Green 4	X604069-04	Water	April 6, 2016 15:13	04/06/2016 16:16

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X604069

Client: Apex

Client Project ID: Green

Checklist Completed by: Jeff Smith

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

Date/time completed: 4/6/16

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 19.6 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: T103

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

⁽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.

JM
 Reviewed by (Project Manager)

4/6/16
 Date/Time Reviewed

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

Green 1
4/6/2016 3:02:00PM

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

Origins Laboratory, Inc.
X604069-01 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	B6D0605	04/06/2016	04/06/2016	U
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	ND	4.0	"	"	"	"	"	U
Xylenes, total	ND	4.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	98.2 %	84-121			"	"	"	
Surrogate: Toluene-d8	96.1 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

Green 2
4/6/2016 3:05:00PM

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

Origins Laboratory, Inc.
X604069-02 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	B6D0605	04/06/2016	04/06/2016	U
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	ND	4.0	"	"	"	"	"	U
Xylenes, total	ND	4.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	84-121			"	"	"	
Surrogate: Toluene-d8	98.1 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.1 %	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

Green 3
4/6/2016 3:09:00PM

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

Origins Laboratory, Inc.
X604069-03 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	B6D0605	04/06/2016	04/06/2016	U
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	ND	4.0	"	"	"	"	"	U
Xylenes, total	ND	4.0	"	"	"	"	"	U
Surrogate: 1,2-Dichloroethane-d4	101 %	84-121			"	"	"	
Surrogate: Toluene-d8	97.0 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

Green 4
4/6/2016 3:13:00PM

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

Origins Laboratory, Inc.
X604069-04 (Water)

BTEX by EPA 8260C

Benzene	ND	4.0	ug/L	4	B6D0605	04/06/2016	04/07/2016	U
Toluene	ND	4.0	"	"	"	"	"	U
Ethylbenzene	ND	4.0	"	"	"	"	"	U
Xylenes, total	ND	4.0	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.0 %	84-121			"	"	"	
Surrogate: Toluene-d8	97.3 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0605 - EPA 5030B (Water)

Blank (B6D0605-BLK1)

Prepared: 04/06/2016 Analyzed: 04/06/2016

Benzene	ND	1.0	ug/L							U
Toluene	ND	1.0	"							U
Ethylbenzene	ND	1.0	"							U
Xylenes, total	ND	1.0	"							U
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		99.6	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.5	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.7	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0605 - EPA 5030B (Water)

LCS (B6D0605-BS1)

Prepared: 04/06/2016 Analyzed: 04/06/2016

Benzene	55.1	1.0	ug/L	50.0		110	73.3-129			
Toluene	53.9	1.0	"	50.0		108	76.2-123			
Ethylbenzene	54.4	1.0	"	50.0		109	73.6-130			
m,p-Xylene	107	2.0	"	100		107	76.1-126			
o-Xylene	57.6	1.0	"	50.0		115	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.5	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.4	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0605 - EPA 5030B (Water)

Matrix Spike (B6D0605-MS1)	Source: X604016-01			Prepared: 04/06/2016 Analyzed: 04/06/2016						
Benzene	65.4	1.0	ug/L	50.0	ND	131	74-130			QM-07
Toluene	65.3	1.0	"	50.0	ND	131	73-131			
Ethylbenzene	64.6	1.0	"	50.0	ND	129	76-132			
m,p-Xylene	126	2.0	"	100	ND	126	69-139			
o-Xylene	64.8	1.0	"	50.0	ND	130	74-131			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.9	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.4	85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0605 - EPA 5030B (Water)

Matrix Spike Dup (B6D0605-MSD1)	Source: X604016-01			Prepared: 04/06/2016 Analyzed: 04/06/2016						
Benzene	70.1	1.0	ug/L	50.0	ND	140	74-130	6.86	20	QM-07
Toluene	68.9	1.0	"	50.0	ND	138	73-131	5.37	20	QM-07
Ethylbenzene	67.8	1.0	"	50.0	ND	136	76-132	4.85	20	QM-07
m,p-Xylene	133	2.0	"	100	ND	133	69-139	4.84	20	
o-Xylene	68.9	1.0	"	50.0	ND	138	74-131	6.12	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	63		"	62.5		101	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	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.

Apex Companies, LLC
3240 W. 71st Avenue, Suite 1
Westminster CO 80030

Jake Hildebrand
Project Number: 89047057
Project: KMG - Green 61S68W/14SWNE

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.



April 08, 2016

Apex Companies, LLC
Jake Hildebrand
3240 W. 71st Avenue, Suite 1
Westminster CO 80030

Project Name - KMG - Green 61S68W/14SWNE Project Number - 89047057

Attached are your analytical results for KMG - Green 61S68W/14SWNE received by Origins Laboratory, Inc. April 07, 2016. This project is associated with Origins project number X604081-01.

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

Apex Companies, LLC
3240 W. 71st Avenue, Suite 1
Westminster CO 80030

Jake Hildebrand
Project Number: 89047057
Project: KMG - Green 61S68W/14SWNE

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
West 1 @ 5'	X604081-01	Soil	April 7, 2016 14:48	04/07/2016 16:47
South 1 @ 5'	X604081-02	Soil	April 7, 2016 14:51	04/07/2016 16:47
North 1 @ 5'	X604081-03	Soil	April 7, 2016 15:28	04/07/2016 16:47
East 1 @ 5'	X604081-04	Soil	April 7, 2016 14:57	04/07/2016 16:47
Ground Water 1 @ 6'	X604081-05	Water	April 7, 2016 15:39	04/07/2016 16:47

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: X604081 Client: Apex
 Client Project ID: Green 61S68W 14SWNE
 Checklist Completed by: Jeff Smith Shipped Via: H/D
 Date/time completed: 4/7/16 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: NA
 Matrix(s) Received: (Check all that apply): Soil/Solid Water Other: _____
 Cooler Number/Temperature: 1 / 20.6°c _____ °c _____ °c (Describe) _____ °c
 Thermometer ID: T303

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C ^{(1)?}		X		Sampled Same ID: y
Is there ice present (document if blue ice is used)	X <u>Y</u>	X		
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		Y		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		Y		
Were all samples received intact ^{(1)?}	Y			
Was adequate sample volume provided ^{(1)?}	Y			
Are short holding time analytes or samples with HTs due within 48 hours present ^{(1)?}	X			PH
Is a chain-of-custody (COC) present and filled out completely ^{(1)?}	Y			
Does the COC agree with the number and type of sample bottles received ^{(1)?}	Y			
Do the sample IDs on the bottle labels match the COC ^{(1)?}	Y			
Is the COC properly relinquished by the client with date and time recorded ^{(1)?}	Y			
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.		X		
Are samples preserved that require preservation and was it checked ^{(1)?} (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO3, HCL, H2SO4) / (pH >10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)		X		
Additional Comments (if any):				

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

Reviewed by (Project Manager) Jeff Smith Date/Time Reviewed 4/7/16

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

West 1 @ 5'
4/7/2016 2:48:00PM

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

Origins Laboratory, Inc.
X604081-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	50	mg/kg	1	B6D0707	04/07/2016	04/07/2016	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	"	"	U

Surrogate: *o*-Terphenyl 81.6 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6D0708	04/07/2016	04/08/2016	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 119 % 70-130 " " "
 Surrogate: Toluene-d8 95.6 % 70-130 " " "
 Surrogate: 4-Bromofluorobenzene 97.3 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.63		pH Units	1	B6D0709	04/07/2016	04/07/2016	
----	------	--	----------	---	---------	------------	------------	--

Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0694		mmhos/cm	"	B6D0710	"	04/07/2016	
---------------------------	--------	--	----------	---	---------	---	------------	--

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

South 1 @ 5'
4/7/2016 2:51:00PM

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

Origins Laboratory, Inc.
X604081-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	50	mg/kg	1	B6D0707	04/07/2016	04/07/2016	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	"	"	U

Surrogate: o-Terphenyl 61.8 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6D0708	04/07/2016	04/08/2016	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 98.7 % 70-130 " " "
Surrogate: Toluene-d8 99.1 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 99.8 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.43		pH Units	1	B6D0709	04/07/2016	04/07/2016	
----	------	--	----------	---	---------	------------	------------	--

Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.170		mmhos/cm	"	B6D0710	"	04/07/2016	
---------------------------	-------	--	----------	---	---------	---	------------	--

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

North 1 @ 5'
4/7/2016 3:28:00PM

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

Origins Laboratory, Inc.
X604081-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	50	mg/kg	1	B6D0707	04/07/2016	04/07/2016	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	"	"	U

Surrogate: o-Terphenyl 80.9 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6D0708	04/07/2016	04/08/2016	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 95.8 % 70-130 " " "
Surrogate: Toluene-d8 95.5 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 96.4 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.61		pH Units	1	B6D0709	04/07/2016	04/07/2016	
----	------	--	----------	---	---------	------------	------------	--

Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0436		mmhos/cm	"	B6D0710	"	04/07/2016	
---------------------------	--------	--	----------	---	---------	---	------------	--

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

East 1 @ 5'
4/7/2016 2:57:00PM

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

Origins Laboratory, Inc.
X604081-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	50	mg/kg	1	B6D0707	04/07/2016	04/07/2016	U
Residual Range Organics (C28-C40)	ND	200	"	"	"	"	"	U

Surrogate: o-Terphenyl 82.7 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6D0708	04/07/2016	04/08/2016	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 100 % 70-130 " " "
Surrogate: Toluene-d8 101 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.53		pH Units	1	B6D0709	04/07/2016	04/07/2016	
----	------	--	----------	---	---------	------------	------------	--

Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0796		mmhos/cm	"	B6D0710	"	04/07/2016	
---------------------------	--------	--	----------	---	---------	---	------------	--

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

Ground Water 1 @ 6'
4/7/2016 3:39:00PM

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

Origins Laboratory, Inc.
X604081-05 (Water)

BTEX by EPA 8260C

Benzene	774	50.0	ug/L	50	B6D0703	04/07/2016	04/07/2016	
Toluene	2770	50.0	"	"	"	"	"	
Ethylbenzene	136	50.0	"	"	"	"	"	
Xylenes, total	1670	50.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	97.7 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.6 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0703 - EPA 5030B (Water)

Blank (B6D0703-BLK1)

Prepared: 04/07/2016 Analyzed: 04/07/2016

Benzene	ND	1.0	ug/L							U
Toluene	ND	1.0	"							U
Ethylbenzene	ND	1.0	"							U
Xylenes, total	ND	1.0	"							U
Surrogate: 1,2-Dichloroethane-d4	65		"	62.5	104		84-121			
Surrogate: Toluene-d8	62		"	62.5	99.6		85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5	97.8		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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0703 - EPA 5030B (Water)

LCS (B6D0703-BS1)

Prepared: 04/07/2016 Analyzed: 04/07/2016

Benzene	56.3	1.0	ug/L	50.0		113	73.3-129			
Toluene	53.9	1.0	"	50.0		108	76.2-123			
Ethylbenzene	54.2	1.0	"	50.0		108	73.6-130			
m,p-Xylene	110	2.0	"	100		110	76.1-126			
o-Xylene	59.1	1.0	"	50.0		118	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.9	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.9	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0703 - EPA 5030B (Water)

Matrix Spike (B6D0703-MS1)	Source: X604013-01			Prepared: 04/07/2016 Analyzed: 04/07/2016						
Benzene	63.6	1.0	ug/L	50.0	ND	127	74-130			
Toluene	62.7	1.0	"	50.0	ND	125	73-131			
Ethylbenzene	62.0	1.0	"	50.0	ND	124	76-132			
m,p-Xylene	125	2.0	"	100	ND	125	69-139			
o-Xylene	63.2	1.0	"	50.0	ND	126	74-131			
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		98.0	84-121			
Surrogate: Toluene-d8	61		"	62.5		97.7	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0703 - EPA 5030B (Water)

Matrix Spike Dup (B6D0703-MSD1)	Source: X604013-01			Prepared: 04/07/2016 Analyzed: 04/07/2016						
Benzene	71.5	1.0	ug/L	50.0	ND	143	74-130	11.8	20	QM-07
Toluene	71.6	1.0	"	50.0	ND	143	73-131	13.3	20	QM-07
Ethylbenzene	68.0	1.0	"	50.0	ND	136	76-132	9.34	20	QM-07
m,p-Xylene	137	2.0	"	100	ND	137	69-139	9.42	20	
o-Xylene	71.1	1.0	"	50.0	ND	142	74-131	11.7	20	QM-07
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.9	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0708 - EPA 5030 (soil)										
Blank (B6D0708-BLK1)										
					Prepared: 04/07/2016 Analyzed: 04/07/2016					
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	66.8		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	61.1		"	62.5		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	63.0		"	62.5		101	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0708 - EPA 5030 (soil)

Blank (B6D0708-BLK2)

Prepared: 04/07/2016 Analyzed: 04/07/2016

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	70.2		ug/kg	62.5		112	70-130			
Surrogate: Toluene-d8	60.1		"	62.5		96.1	70-130			
Surrogate: 4-Bromofluorobenzene	61.9		"	62.5		99.0	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0708 - EPA 5030 (soil)

LCS (B6D0708-BS1)

Prepared: 04/07/2016 Analyzed: 04/07/2016

Benzene	0.083	0.002	mg/kg	0.100		83.2	77.1-124			
Toluene	0.083	0.002	"	0.100		83.3	74.5-128			
Ethylbenzene	0.084	0.002	"	0.100		84.2	66.4-127			
m,p-Xylene	0.168	0.004	"	0.200		84.1	76.6-124			
o-Xylene	0.083	0.002	"	0.100		83.1	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63.6		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	62.2		"	62.5		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	65.0		"	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0708 - EPA 5030 (soil)

LCS (B6D0708-BS2)

Prepared: 04/07/2016 Analyzed: 04/07/2016

Benzene	0.096	0.002	mg/kg	0.100		95.7	77.1-124			
Toluene	0.092	0.002	"	0.100		92.5	74.5-128			
Ethylbenzene	0.090	0.002	"	0.100		90.1	66.4-127			
m,p-Xylene	0.178	0.004	"	0.200		89.2	76.6-124			
o-Xylene	0.091	0.002	"	0.100		91.1	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	67.3		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	61.3		"	62.5		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	62.2		"	62.5		99.5	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0708 - EPA 5030 (soil)

Matrix Spike (B6D0708-MS1)	Source: X604079-01			Prepared: 04/07/2016 Analyzed: 04/07/2016						
Benzene	0.090	0.002	mg/kg	0.100	ND	89.6	71.8-126			
Toluene	0.086	0.002	"	0.100	ND	85.5	65.1-130			
Ethylbenzene	0.083	0.002	"	0.100	ND	83.3	62.2-130			
m,p-Xylene	0.168	0.004	"	0.200	ND	84.0	46.5-137			
o-Xylene	0.086	0.002	"	0.100	ND	85.6	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	68.8		ug/kg	62.5		110	70-130			
Surrogate: Toluene-d8	60.4		"	62.5		96.7	70-130			
Surrogate: 4-Bromofluorobenzene	62.8		"	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0708 - EPA 5030 (soil)

Matrix Spike (B6D0708-MS2)	Source: X604079-02			Prepared: 04/07/2016 Analyzed: 04/07/2016						
Benzene	0.087	0.002	mg/kg	0.100	ND	86.9	71.8-126			
Toluene	0.083	0.002	"	0.100	ND	82.6	65.1-130			
Ethylbenzene	0.080	0.002	"	0.100	ND	79.5	62.2-130			
m,p-Xylene	0.160	0.004	"	0.200	ND	80.2	46.5-137			
o-Xylene	0.082	0.002	"	0.100	ND	81.9	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	70.9		ug/kg	62.5		113	70-130			
Surrogate: Toluene-d8	60.5		"	62.5		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	63.8		"	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0708 - EPA 5030 (soil)

Matrix Spike Dup (B6D0708-MSD1)	Source: X604079-01			Prepared: 04/07/2016 Analyzed: 04/07/2016						
Benzene	0.089	0.002	mg/kg	0.100	ND	88.9	71.8-126	0.874	11.3	
Toluene	0.086	0.002	"	0.100	ND	86.2	65.1-130	0.792	15.4	
Ethylbenzene	0.083	0.002	"	0.100	ND	82.9	62.2-130	0.457	19.6	
m,p-Xylene	0.167	0.004	"	0.200	ND	83.5	46.5-137	0.609	19.2	
o-Xylene	0.086	0.002	"	0.100	ND	85.7	54.2-134	0.210	17.9	
Surrogate: 1,2-Dichloroethane-d4	71.2		ug/kg	62.5		114	70-130			
Surrogate: Toluene-d8	61.2		"	62.5		97.9	70-130			
Surrogate: 4-Bromofluorobenzene	63.0		"	62.5		101	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0708 - EPA 5030 (soil)

Matrix Spike Dup (B6D0708-MSD2)	Source: X604079-02			Prepared: 04/07/2016 Analyzed: 04/07/2016						
Benzene	0.085	0.002	mg/kg	0.100	ND	84.5	71.8-126	2.73	11.3	
Toluene	0.080	0.002	"	0.100	ND	80.0	65.1-130	3.10	15.4	
Ethylbenzene	0.077	0.002	"	0.100	ND	77.3	62.2-130	2.86	19.6	
m,p-Xylene	0.156	0.004	"	0.200	ND	78.2	46.5-137	2.55	19.2	
o-Xylene	0.079	0.002	"	0.100	ND	79.5	54.2-134	3.00	17.9	
Surrogate: 1,2-Dichloroethane-d4	72.6		ug/kg	62.5		116	70-130			
Surrogate: Toluene-d8	60.1		"	62.5		96.2	70-130			
Surrogate: 4-Bromofluorobenzene	64.1		"	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0707 - EPA 3580

Blank (B6D0707-BLK1)

Prepared: 04/07/2016 Analyzed: 04/07/2016

Diesel (C10-C28)	ND	50	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	48		"	50.0		95.4	59-131			

Blank (B6D0707-BLK2)

Prepared: 04/07/2016 Analyzed: 04/07/2016

Diesel (C10-C28)	ND	50	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	41		"	50.0		82.8	59-131			

LCS (B6D0707-BS1)

Prepared: 04/07/2016 Analyzed: 04/07/2016

Diesel (C10-C28)	940	50	mg/kg				64-121			
Residual Range Organics (C28-C40)	760	200	"				58-124			
Surrogate: o-Terphenyl	48		"	50.0		96.5	59-131			

LCS (B6D0707-BS2)

Prepared: 04/07/2016 Analyzed: 04/07/2016

Diesel (C10-C28)	930	50	mg/kg				64-121			
Residual Range Organics (C28-C40)	1100	200	"				58-124			
Surrogate: o-Terphenyl	60		"	50.0		119	59-131			

LCS Dup (B6D0707-BSD1)

Prepared: 04/07/2016 Analyzed: 04/07/2016

Diesel (C10-C28)	970	50	mg/kg				64-121		20	
Residual Range Organics (C28-C40)	760	200	"				58-124		20	

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0707 - EPA 3580										
LCS Dup (B6D0707-BSD1)					Prepared: 04/07/2016 Analyzed: 04/07/2016					
Surrogate: o-Terphenyl	45		mg/kg	50.0		90.1	59-131			
LCS Dup (B6D0707-BSD2)					Prepared: 04/07/2016 Analyzed: 04/07/2016					
Diesel (C10-C28)	880	50	mg/kg				64-121		20	
Residual Range Organics (C28-C40)	790	200	"				58-124		20	
Surrogate: o-Terphenyl	45		"	50.0		89.8	59-131			

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D0709 - NO PREP										
Duplicate (B6D0709-DUP1)		Source: X604081-01			Prepared: 04/07/2016 Analyzed: 04/07/2016					
pH	8.80		pH Units		8.63			1.95	25	
Batch B6D0710 - NO PREP										
Blank (B6D0710-BLK1)		Prepared: 04/07/2016 Analyzed: 04/07/2016								
Specific Conductance (EC)	0.00300		mmhos/cm							
Duplicate (B6D0710-DUP1)		Source: X604081-01			Prepared: 04/07/2016 Analyzed: 04/07/2016					
Specific Conductance (EC)	0.0761		mmhos/cm		0.0694			9.21	25	

Origins Laboratory, Inc.



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

Apex Companies, LLC
3240 W. 71st Avenue, Suite 1
Westminster CO 80030

Jake Hildebrand
Project Number: 89047057
Project: KMG - Green 61S68W/14SWNE

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.



April 14, 2016

Apex Companies, LLC
Jake Hildebrand
3240 W. 71st Avenue, Suite 1
Westminster CO 80030

Project Name - KMG - Green 61S68W/14SWNE Project Number - 89047057

Attached are your analytical results for KMG - Green 61S68W/14SWNE received by Origins Laboratory, Inc. April 13, 2016. This project is associated with Origins project number X604141-01.

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

Apex Companies, LLC
3240 W. 71st Avenue, Suite 1
Westminster CO 80030

Jake Hildebrand
Project Number: 89047057
Project: KMG - Green 61S68W/14SWNE

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Groundwater 2 @ 6'	X604141-01	Water	April 13, 2016 9:51	04/13/2016 11:48

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

ORIGINS LABORATORY, INC X604141 www.originslaboratory.com

page of

Client: Apex Companies Project Manager: Jacob Hildebrand
 Address: 1761 Cole Blvd Project Name: Green 61S68W 14SWNE
 Lakewood, CO 80401 Project Number: 89047057
 Telephone Number: 970-903-1260 Samples Collected By: Skyler Bruno
 Email Address: Jake.Hildebrand@apexcos.com *** Bill to Anadarko please**

Sample ID Description	Date Sampled	Time Sampled	No. of Containers	Preservative				Matrix				Analysis		Sample Instructions	
				None	HCl	HNO ₃	Other	Soil	As Is/As Collected	Other	BTEX				
Groundwater 206	4/13/16	951	3	X				X				X			
Relinquished By: <i>SM Pro</i>	Date: 4/13/16	Time: 1148	Received By: <i>[Signature]</i>	Date: 4/13/16	Time: 1148	Turnaround Time		Same Day <input checked="" type="checkbox"/>		24 Hr <input type="checkbox"/>		48 Hr <input type="checkbox"/>		72 Hr <input type="checkbox"/>	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Standard <input type="checkbox"/>		Date Results Needed: 4/14/16		7AM					

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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

Sample Receipt Checklist

Origins Work Order: X604141 Client: Apex
 Client Project ID: Green 61S68W/14SWNE
 Checklist Completed by: Jeff Smith Shipped Via: 4m
 Date/Time completed: 4/13/12 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
 Airbill #: N/A
 Matrix(s) Received: (Check all that apply) Soil/Solid Water Other _____
 Cooler Number/Temperature: 1 / 10.5 °C _____ °C _____ °C (Describe: _____)
 Thermometer ID: JK03

Requirement Description	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature between 0°C to ≤ 6°C? ¹		X		Sampled Same Day
Is there ice present (document if blue ice is used)	X			
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)		X		
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)		X		
Were all samples received intact? ²	X			
Was adequate sample volume provided? ³	X			
Are short holding time analytes or samples with HTs due within 48 hours present? ⁴		X		
Is a chain-of-custody (COC) present and filled out completely? ⁵	X			
Does the COC agree with the number and type of sample bottles received? ⁶	X			
Do the sample IDs on the bottle labels match the COC? ⁷	X			
Is the COC properly relinquished by the client with date and time recorded? ⁸	X			
For volatiles in water – is there headspace (> 1/4 inch bubble) present? ⁹ If yes, contact client and note in narrative.		X		
Are samples preserved that require preservation and was it checked? ¹⁰ (note ID of confirmation instrument used in comments; ¹¹ preservation is not confirmed for subcontracted analyses in order to insure sample integrity.) (pH < 2 for samples preserved with HVO3; HCL, H2SO4); pH > 10 for samples preserved with NaAsO2+NaOH, ZnAc+NaOH)		X		
Additional Comments (if any):				

¹⁰ 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): Jeff Smith Date/Time Reviewed: 4/13/12

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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

Groundwater 2 @ 6'
4/13/2016 9:51:00AM

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

Origins Laboratory, Inc.
X604141-01 (Water)

BTEX by EPA 8260C

Benzene	255	4.0	ug/L	4	B6D1109	04/13/2016	04/13/2016	
Toluene	798	4.0	"	"	"	"	"	
Ethylbenzene	5.1	4.0	"	"	"	"	"	
Xylenes, total	802	4.0	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	99.5 %	84-121			"	"	"	
Surrogate: Toluene-d8	99.0 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.2 %	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D1109 - EPA 5030B (Water)

Blank (B6D1109-BLK1)

Prepared: 04/11/2016 Analyzed: 04/13/2016

Benzene	ND	1.0	ug/L							U
Toluene	ND	1.0	"							U
Ethylbenzene	ND	1.0	"							U
Xylenes, total	ND	1.0	"							U
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	62		"	62.5		99.5	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.3	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D1109 - EPA 5030B (Water)

LCS (B6D1109-BS1)

Prepared: 04/11/2016 Analyzed: 04/13/2016

Benzene	57.9	1.0	ug/L	50.0		116	73.3-129			
Toluene	58.0	1.0	"	50.0		116	76.2-123			
Ethylbenzene	57.5	1.0	"	50.0		115	73.6-130			
m,p-Xylene	114	2.0	"	100		114	76.1-126			
o-Xylene	54.2	1.0	"	50.0		108	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	62		"	62.5		98.5	84-121			
Surrogate: Toluene-d8	61		"	62.5		98.3	85-115			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D1109 - EPA 5030B (Water)

Matrix Spike (B6D1109-MS1)	Source: X604088-03			Prepared: 04/11/2016 Analyzed: 04/13/2016						
Benzene	70.5	1.0	ug/L	50.0	ND	141	74-130			QM-07
Toluene	68.9	1.0	"	50.0	ND	138	73-131			QM-07
Ethylbenzene	69.1	1.0	"	50.0	ND	138	76-132			QM-07
m,p-Xylene	135	2.0	"	100	ND	135	69-139			
o-Xylene	63.9	1.0	"	50.0	ND	128	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		96.4	84-121			
Surrogate: Toluene-d8	62		"	62.5		98.7	85-115			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	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.

Apex Companies, LLC
 3240 W. 71st Avenue, Suite 1
 Westminster CO 80030

Jake Hildebrand
 Project Number: 89047057
 Project: KMG - Green 61S68W/14SWNE

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 B6D1109 - EPA 5030B (Water)

Matrix Spike Dup (B6D1109-MSD1)	Source: X604088-03			Prepared: 04/11/2016 Analyzed: 04/13/2016						
Benzene	66.2	1.0	ug/L	50.0	ND	132	74-130	6.32	20	QM-07
Toluene	64.6	1.0	"	50.0	ND	129	73-131	6.41	20	
Ethylbenzene	63.9	1.0	"	50.0	ND	128	76-132	7.82	20	
m,p-Xylene	128	2.0	"	100	ND	128	69-139	5.12	20	
o-Xylene	61.7	1.0	"	50.0	ND	123	74-131	3.38	20	
Surrogate: 1,2-Dichloroethane-d4	61		"	62.5		97.5	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	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.

Apex Companies, LLC
3240 W. 71st Avenue, Suite 1
Westminster CO 80030

Jake Hildebrand
Project Number: 89047057
Project: KMG - Green 61S68W/14SWNE

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.