

## **ANALYTICAL TABLE**

**TABLE 1**  
**CARTER 10-32**  
**SOIL SAMPLE RESULTS SUMMARY TABLE**  
**KERR-McGEE OIL AND GAS ONSHORE LP**

Sample Location	Date	Depth (ft. bgs)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	TVPH-GRO (mg/kg)	TEPH-DRO (mg/kg)	TEPH-ORO (mg/kg)	EC (mmhos/cm)	pH (units)
COGCC standards for soil (mg/kg) <sup>(1)</sup>			0.17	85	100	175	500			4 mmhos/cm or 2x BG	6-9
SS01@1.5'	06/23/16	1.5	<0.002	<0.002	<0.002	<0.002	<0.200	<25.0	<100	0.0607	8.80
SS02@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.0838	8.61
SS03@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	0.056	19.9	81.4	<100	0.0944	8.64
SS04@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.0886	8.80
SS05@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.104	<b>9.02</b>
SS06@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	51.9	<100	0.163	8.86
SS07@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	180	<100	0.169	8.72
SS08@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.154	<b>9.04</b>
SS09@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.101	<b>9.05</b>
SS10@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.0678	8.88
SS11@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.128	<b>9.27</b>
SS12@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.0436	8.93
SS13@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	178	126	0.0783	8.53
SS14@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.134	7.80
SS15@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.0716	8.71
SS16@1.5'	06/23/16	1.5	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.199	8.53
SS17@2'	06/23/16	2	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.162	8.69
SS18@2'	06/23/16	2	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.196	8.58
SS19@2'	06/23/16	2	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.196	8.22
SS20@2'	06/23/16	2	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.201	8.70
SS21@2'	06/23/16	2	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.0508	8.74
SS22@2'	06/23/16	2	<0.050	<0.050	<0.050	<0.050	<5.00	<25.0	<100	0.0625	8.61
SS05@3'	06/24/16	3.0	NA	NA	NA	NA	NA	NA	NA	NA	<b>9.31*</b>
SS08@3'	06/24/16	3.0	NA	NA	NA	NA	NA	NA	NA	NA	<b>9.26*</b>
SS09@3'	06/24/16	3.0	NA	NA	NA	NA	NA	NA	NA	NA	<b>9.32*</b>
SS11@3'	06/24/16	3.0	NA	NA	NA	NA	NA	NA	NA	NA	<b>9.51*</b>

**Notes:**

1. Standards for soil are taken from 2 CCR 404-1, Table 910-1, effective January 1, 2015.

COGCC = Colorado Oil and Gas Conservation Commission

(<) = Analytical result is less than the indicated laboratory reporting limit.

TVPH - GRO = Total volatile petroleum hydrocarbons - gasoline range organics

TEPH - DRO = Total extractable petroleum hydrocarbons - diesel range organics

TEPH - ORO = Total extractable petroleum hydrocarbons - oil range organics

EC = Electrical conductivity

BG = Background

mmhos/cm = Millimhos per centimeter

mg/kg = Milligrams per kilogram.

ft. bgs = Feet below ground surface.

\* = Soil sample collected from below the designated root zone.

NA = Not analyzed.

**BOLD** = Analytical result is in exceedance of COGCC Table 910-1 soil standards.

## **LABORATORY ANALYTICAL REPORTS**



June 24, 2016

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

**Project Name - KMG - Carter 10-32**

**Project Number - [none]**

Attached are your analytical results for KMG - Carter 10-32 received by Origins Laboratory, Inc. June 23, 2016. This project is associated with Origins project number X606281-01.

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

Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01 @ 1.5'	X606281-01	Soil	June 23, 2016 14:12	06/23/2016 17:23
SS02 @ 1.5'	X606281-02	Soil	June 23, 2016 14:14	06/23/2016 17:23
SS03 @ 1.5'	X606281-03	Soil	June 23, 2016 14:16	06/23/2016 17:23
SS04 @ 1.5'	X606281-04	Soil	June 23, 2016 14:18	06/23/2016 17:23
SS05 @ 1.5'	X606281-05	Soil	June 23, 2016 14:17	06/23/2016 17:23
SS06 @ 1.5'	X606281-06	Soil	June 23, 2016 14:20	06/23/2016 17:23
SS07 @ 1.5'	X606281-07	Soil	June 23, 2016 14:22	06/23/2016 17:23
SS08 @ 1.5'	X606281-08	Soil	June 23, 2016 14:24	06/23/2016 17:23
SS09 @ 1.5'	X606281-09	Soil	June 23, 2016 14:26	06/23/2016 17:23
SS10 @ 1.5'	X606281-10	Soil	June 23, 2016 14:28	06/23/2016 17:23

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.*

Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

### CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS11 @ 1.5'	X606281-11	Soil	June 23, 2016 14:30	06/23/2016 17:23
SS12 @ 1.5'	X606281-12	Soil	June 23, 2016 14:32	06/23/2016 17:23
SS13 @ 1.5'	X606281-13	Soil	June 23, 2016 14:34	06/23/2016 17:23
SS14 @ 1.5'	X606281-14	Soil	June 23, 2016 14:36	06/23/2016 17:23
SS15 @ 1.5'	X606281-15	Soil	June 23, 2016 14:38	06/23/2016 17:23
SS16 @ 1.5'	X606281-16	Soil	June 23, 2016 14:40	06/23/2016 17:23
SS17 @ 2'	X606281-17	Soil	June 23, 2016 14:42	06/23/2016 17:23
SS18 @ 2'	X606281-18	Soil	June 23, 2016 14:44	06/23/2016 17:23
SS19 @ 2'	X606281-19	Soil	June 23, 2016 14:46	06/23/2016 17:23
SS20 @ 2'	X606281-20	Soil	June 23, 2016 14:48	06/23/2016 17:23

Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Carter 10-32

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS21 @ 2'	X606281-21	Soil	June 23, 2016 14:50	06/23/2016 17:23
SS22 @ 2'	X606281-22	Soil	June 23, 2016 14:52	06/23/2016 17:23

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

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X606281

**ORIGINS**  
LABORATORY, INC

Client: Tasman Geosciences  
Address:  
Telephone Number: (352) 262-9910  
Email Address: CORNEZ@TASMAN-GEO.COM

Project Manager: Bob Cornez  
Project Name: Carter 10-32  
Project Number:  
Samples Collected By: Kate Foussanik

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa #			Other
SS012 1.5'	6/23/16	1412	2	X				X					1
SS022 1.5'	6/23/16	1414	2	X				X					2
SS032 1.5'	6/23/16	1416	2	X				X					3
SS042 1.5'	6/23/16	1418	2	X				X					4
SS052 1.5'	6/23/16	1417	2	X				X					5
SS062 1.5'	6/23/16	1420	2	X				X					6
SS072 1.5'	6/23/16	1422	2	X				X					7
SS082 1.5'	6/23/16	1424	2	X				X					8
SS092 1.5'	6/23/16	1426	2	X				X					9
SS102 1.5'	6/23/16	1428	2	X				X					10

Analysis: GUTEX 82600, TPH-DIOLKRO 805, EC, pH, SAR, (RE), (H<sub>2</sub>O)

Relinquished By: [Signature] Date: 6/23/16 Time: 1655  
Relinquished By: [Signature] Date: 6/23/16 Time: 1723

Received By: [Signature] Date: 6/23/16 Time: 1723  
Received By: [Signature] Date: 6/23/16 Time: 1723

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

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

Date Results Needed: 4.1.1

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.





Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**ORIGINS**  
LABORATORY, INC

X-066281

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page 3 of 3

Client: Tasman Geosciences  
Address: \_\_\_\_\_  
Project Manager: Bob Cornez  
Project Name: Carter 10-32  
Project Number: \_\_\_\_\_  
Samples Collected By: Kate Forman  
Telephone Number: 352 262 9910  
Email Address: COA.ND@tasmangeo.com

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Sampling			Other
SS22021	6/23/16	1450	2	X				X			X	1	
SS22022	6/23/16	1452	2	X				X			X	2	
Blank - fluid	6/23/16	1510	1	X				X			X	3	
												4	
												5	
												6	
												7	
												8	
												9	
												10	

  

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
<u>[Signature]</u>	6/23/16	1655	<u>[Signature]</u>	6/23/16	1723	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:	

Date Results Needed

Temp Received: 4/6

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.

Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: X606281

Client: Tasman

Client Project ID: Carter 10-32

Checklist Completed by: Jeff Smith

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

Date/time completed: 6/23/16

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 46 °C 1 / \_\_\_\_\_ °C 1 / \_\_\_\_\_ °C (Describe)

Thermometer ID: T003

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

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

JM  
Reviewed by (Project Manager)

6/23/16  
Date/Time Reviewed

Origins Laboratory, Inc.

*Jen 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.

Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS01 @ 1.5'  
6/23/2016 2:12:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 69.8 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B6F2305	06/23/2016	06/23/2016	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 115 % 70-130 " " "  
Surrogate: Toluene-d8 97.7 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 92.4 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.80	pH Units	1	B6F2307	06/23/2016	06/23/2016
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0607	mmhos/cm	"	B6F2308	06/23/2016	06/23/2016
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS02 @ 1.5'  
6/23/2016 2:14:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-02 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 80.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/23/2016	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 112 % 70-130 " " "  
Surrogate: Toluene-d8 101 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.5 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.61	pH Units	1	B6F2307	06/23/2016	06/23/2016
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0838	mmhos/cm	"	B6F2308	06/23/2016	06/23/2016
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**SS03 @ 1.5'**  
**6/23/2016 2:16:00PM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-03 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	81.4	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 72.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	19.9	5.00	mg/kg	25	B6F2305	06/23/2016	06/23/2016	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	ND	0.050	"	"	"	"	"	U
Xylenes, total	0.056	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 116 % 70-130 " " "  
Surrogate: Toluene-d8 103 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 93.8 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.64		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0944		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS04 @ 1.5'  
6/23/2016 2:18:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-04 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 82.1 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/23/2016	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 113 % 70-130 " " "  
Surrogate: Toluene-d8 102 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 91.4 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.80		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0886		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS05 @ 1.5'  
6/23/2016 2:17:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-05 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 73.2 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/23/2016	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 115 % 70-130 " " "  
Surrogate: Toluene-d8 99.2 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.4 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	9.02		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.104		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS06 @ 1.5'  
6/23/2016 2:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-06 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	51.9	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	67.0 %	59-131			"	"	"	
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**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/23/2016	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	117 %	70-130			"	"	"	
Surrogate: Toluene-d8	99.0 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	94.8 %	70-130			"	"	"	

**pH in Soil by EPA 9045D**

pH	8.86		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.163		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS07 @ 1.5'  
6/23/2016 2:22:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-07 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	180	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 81.0 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 119 % 70-130 " " "  
Surrogate: Toluene-d8 102 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 94.5 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.72		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.169		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS08 @ 1.5'  
6/23/2016 2:24:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-08 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 77.2 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/23/2016	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 115 % 70-130 " " "  
Surrogate: Toluene-d8 100 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 96.4 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	9.04		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.154		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS09 @ 1.5'  
6/23/2016 2:26:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-09 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 78.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/23/2016	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 116 % 70-130 " " "  
Surrogate: Toluene-d8 100 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.1 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	9.05		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.101		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS10 @ 1.5'  
6/23/2016 2:28:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-10 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 78.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/23/2016	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 117 % 70-130 " " "  
Surrogate: Toluene-d8 102 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 96.7 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.88	pH Units	1	B6F2307	06/23/2016	06/23/2016
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0678	mmhos/cm	"	B6F2308	06/23/2016	06/23/2016
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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS11 @ 1.5'  
6/23/2016 2:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-11 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 83.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 118 % 70-130 " " "  
Surrogate: Toluene-d8 103 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 98.3 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	9.27		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.128		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS12 @ 1.5'  
6/23/2016 2:32:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-12 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 76.8 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 117 % 70-130 " " "  
Surrogate: Toluene-d8 103 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 93.7 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.93		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0436		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS13 @ 1.5'  
6/23/2016 2:34:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-13 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	178	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	
Residual Range Organics (C28-C40)	126	100	"	"	"	"	"	

Surrogate: o-Terphenyl	84.5 %	59-131			"	"	"	
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**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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	118 %	70-130			"	"	"	
Surrogate: Toluene-d8	104 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	93.4 %	70-130			"	"	"	

**pH in Soil by EPA 9045D**

pH	8.53		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0783		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Origins Laboratory, Inc.



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6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS14 @ 1.5'  
6/23/2016 2:36:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-14 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 73.5 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 117 % 70-130 " " "  
Surrogate: Toluene-d8 102 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.9 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	7.80	pH Units	1	B6F2307	06/23/2016	06/23/2016
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.134	mmhos/cm	"	B6F2308	06/23/2016	06/23/2016
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Origins Laboratory, Inc.



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6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS15 @ 1.5'  
6/23/2016 2:38:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-15 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 77.7 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 117 % 70-130 " " "  
Surrogate: Toluene-d8 103 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.2 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.71	pH Units	1	B6F2307	06/23/2016	06/23/2016
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0716	mmhos/cm	"	B6F2308	06/23/2016	06/23/2016
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS16 @ 1.5'  
6/23/2016 2:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-16 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 77.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 114 % 70-130 " " "  
Surrogate: Toluene-d8 101 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 96.9 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.53	pH Units	1	B6F2307	06/23/2016	06/23/2016
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.199	mmhos/cm	"	B6F2308	06/23/2016	06/23/2016
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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS17 @ 2'  
6/23/2016 2:42:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-17 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 78.7 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 115 % 70-130 " " "  
Surrogate: Toluene-d8 103 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 94.3 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.69		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.162		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS18 @ 2'  
6/23/2016 2:44:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-18 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 67.6 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 117 % 70-130 " " "  
Surrogate: Toluene-d8 103 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 93.6 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.58		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.196		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS19 @ 2'  
6/23/2016 2:46:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-19 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 74.8 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 116 % 70-130 " " "  
Surrogate: Toluene-d8 102 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 95.1 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.22		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.196		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS20 @ 2'  
6/23/2016 2:48:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-20 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 75.7 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 119 % 70-130 " " "  
Surrogate: Toluene-d8 101 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 91.6 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.70	pH Units	1	B6F2307	06/23/2016	06/23/2016
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.201	mmhos/cm	"	B6F2308	06/23/2016	06/23/2016
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS21 @ 2'  
6/23/2016 2:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.  
X606281-21 (Soil)

## DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 78.9 % 59-131 " " "

## GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 117 % 70-130 " " "  
Surrogate: Toluene-d8 101 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 92.2 % 70-130 " " "

## pH in Soil by EPA 9045D

pH	8.74		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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## Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.0508		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

SS22 @ 2'  
6/23/2016 2:52:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**X606281-22 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B6F2306	06/23/2016	06/24/2016	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 75.9 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B6F2305	06/23/2016	06/24/2016	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 121 % 70-130 " " "  
Surrogate: Toluene-d8 102 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 92.5 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	8.61		pH Units	1	B6F2307	06/23/2016	06/23/2016	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.0625		mmhos/cm	"	B6F2308	06/23/2016	06/23/2016	
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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6F2305 - EPA 5030 (soil)</b>										
<b>Blank (B6F2305-BLK1)</b>					Prepared: 06/23/2016 Analyzed: 06/23/2016					
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		ug/kg	62.5		105	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.5	70-130			
Surrogate: 4-Bromofluorobenzene	69		"	62.5		110	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6F2305 - EPA 5030 (soil)</b>										
<b>Blank (B6F2305-BLK2)</b>					Prepared: 06/23/2016 Analyzed: 06/23/2016					
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	71		ug/kg	62.5		113	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.2	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6F2305 - EPA 5030 (soil)</b>										
<b>LCS (B6F2305-BS1)</b>					Prepared: 06/23/2016 Analyzed: 06/23/2016					
Benzene	0.115	0.002	mg/kg	0.100		115	77.1-124			
Toluene	0.107	0.002	"	0.100		107	74.5-128			
Ethylbenzene	0.108	0.002	"	0.100		108	66.4-127			
m,p-Xylene	0.223	0.004	"	0.200		111	76.6-124			
o-Xylene	0.111	0.002	"	0.100		111	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	59		"	62.5		94.8	70-130			
Surrogate: 4-Bromofluorobenzene	67		"	62.5		107	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6F2305 - EPA 5030 (soil)</b>										
<b>LCS (B6F2305-BS2)</b>					Prepared: 06/23/2016 Analyzed: 06/23/2016					
Benzene	0.098	0.002	mg/kg	0.100		98.3	77.1-124			
Toluene	0.117	0.002	"	0.100		117	74.5-128			
Ethylbenzene	0.110	0.002	"	0.100		110	66.4-127			
m,p-Xylene	0.220	0.004	"	0.200		110	76.6-124			
o-Xylene	0.105	0.002	"	0.100		105	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	71		ug/kg	62.5		114	70-130			
Surrogate: Toluene-d8	68		"	62.5		109	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.8	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6F2305 - EPA 5030 (soil)**

Matrix Spike (B6F2305-MS1)		Source: X606277-01			Prepared: 06/23/2016 Analyzed: 06/23/2016					
Benzene	0.322	0.002	mg/kg	0.100	0.119	203	71.8-126			QM-07
Toluene	0.398	0.002	"	0.100	0.165	232	65.1-130			QM-07
Ethylbenzene	0.114	0.002	"	0.100	0.005	109	62.2-130			
m,p-Xylene	0.331	0.004	"	0.200	0.061	135	46.5-137			
o-Xylene	0.132	0.002	"	0.100	0.014	118	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.6	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		105	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6F2305 - EPA 5030 (soil)**

Matrix Spike (B6F2305-MS2)		Source: X606281-01			Prepared: 06/23/2016 Analyzed: 06/23/2016					
Benzene	0.207	0.002	mg/kg	0.200	ND	103	71.8-126			
Toluene	0.239	0.002	"	0.200	ND	119	65.1-130			
Ethylbenzene	0.230	0.002	"	0.200	ND	115	62.2-130			
m,p-Xylene	0.466	0.004	"	0.400	ND	117	46.5-137			
o-Xylene	0.247	0.002	"	0.200	ND	123	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	72		ug/kg	62.5		115	70-130			
Surrogate: Toluene-d8	66		"	62.5		106	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.1	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch B6F2305 - EPA 5030 (soil)**

Matrix Spike Dup (B6F2305-MSD1)		Source: X606277-01			Prepared: 06/23/2016 Analyzed: 06/23/2016					
Benzene	0.228	0.002	mg/kg	0.100	0.119	110	71.8-126	33.9	11.3	QR-03
Toluene	0.272	0.002	"	0.100	0.165	106	65.1-130	37.6	15.4	QR-03
Ethylbenzene	0.116	0.002	"	0.100	0.005	111	62.2-130	1.81	19.6	
m,p-Xylene	0.300	0.004	"	0.200	0.061	119	46.5-137	9.88	19.2	
o-Xylene	0.129	0.002	"	0.100	0.014	114	54.2-134	2.47	17.9	
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		109	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.1	70-130			
Surrogate: 4-Bromofluorobenzene	68		"	62.5		109	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6F2305 - EPA 5030 (soil)</b>										
<b>Matrix Spike Dup (B6F2305-MSD2)</b>		<b>Source: X606281-01</b>			Prepared: 06/23/2016 Analyzed: 06/23/2016					
Benzene	0.198	0.002	mg/kg	0.200	ND	99.0	71.8-126	4.39	11.3	
Toluene	0.234	0.002	"	0.200	ND	117	65.1-130	2.13	15.4	
Ethylbenzene	0.225	0.002	"	0.200	ND	112	62.2-130	2.46	19.6	
m,p-Xylene	0.448	0.004	"	0.400	ND	112	46.5-137	3.87	19.2	
o-Xylene	0.233	0.002	"	0.200	ND	116	54.2-134	5.87	17.9	
Surrogate: 1,2-Dichloroethane-d4	71		ug/kg	62.5		114	70-130			
Surrogate: Toluene-d8	67		"	62.5		107	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.7	70-130			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

## Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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## Extractable Petroleum Hydrocarbons by 8015C - Quality Control

### Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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#### Batch B6F2306 - EPA 3580

#### Blank (B6F2306-BLK1)

Prepared: 06/23/2016 Analyzed: 06/23/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	44		"	50.0		88.5	59-131			

#### Blank (B6F2306-BLK2)

Prepared: 06/23/2016 Analyzed: 06/23/2016

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	42		"	50.0		83.5	59-131			

#### LCS (B6F2306-BS1)

Prepared: 06/23/2016 Analyzed: 06/23/2016

Diesel (C10-C28)	838	50.0	mg/kg	1000		83.8	64-121			
Residual Range Organics (C28-C40)	940	200	"	1000		94.0	58-124			
Surrogate: o-Terphenyl	44		"	50.0		87.4	59-131			

#### LCS (B6F2306-BS2)

Prepared: 06/23/2016 Analyzed: 06/23/2016

Diesel (C10-C28)	768	50.0	mg/kg	1000		76.8	64-121			
Residual Range Organics (C28-C40)	826	200	"	1000		82.6	58-124			
Surrogate: o-Terphenyl	38		"	50.0		76.5	59-131			

#### Matrix Spike (B6F2306-MS1)

Source: X606277-01

Prepared: 06/23/2016 Analyzed: 06/23/2016

Diesel (C10-C28)	871	50.0	mg/kg	1000	ND	87.1	53-125			
Residual Range Organics (C28-C40)	963	200	"	1000	40.1	92.3	47-133			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

## 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
<b>Batch B6F2306 - EPA 3580</b>										
<b>Matrix Spike (B6F2306-MS1)</b>		<b>Source: X606277-01</b>			Prepared: 06/23/2016 Analyzed: 06/23/2016					
Surrogate: o-Terphenyl	43		mg/kg	50.0		85.5	59-131			
<b>Matrix Spike (B6F2306-MS2)</b>		<b>Source: X606281-01</b>			Prepared: 06/23/2016 Analyzed: 06/23/2016					
Diesel (C10-C28)	915	50.0	mg/kg	1000	ND	91.5	53-125			
Residual Range Organics (C28-C40)	997	200	"	1000	40.3	95.7	47-133			
Surrogate: o-Terphenyl	49		"	50.0		97.6	59-131			
<b>Matrix Spike Dup (B6F2306-MSD1)</b>		<b>Source: X606277-01</b>			Prepared: 06/23/2016 Analyzed: 06/23/2016					
Diesel (C10-C28)	877	50.0	mg/kg	1000	ND	87.7	53-125	0.701	20	
Residual Range Organics (C28-C40)	1000	200	"	1000	40.1	96.0	47-133	3.95	20	
Surrogate: o-Terphenyl	44		"	50.0		88.7	59-131			
<b>Matrix Spike Dup (B6F2306-MSD2)</b>		<b>Source: X606281-01</b>			Prepared: 06/23/2016 Analyzed: 06/24/2016					
Diesel (C10-C28)	865	50.0	mg/kg	1000	ND	86.5	53-125	5.60	20	
Residual Range Organics (C28-C40)	950	200	"	1000	40.3	91.0	47-133	5.01	20	
Surrogate: o-Terphenyl	43		"	50.0		86.6	59-131			

Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

## Classical Chemistry Parameters - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B6F2307 - NO PREP</b>										
<b>Duplicate (B6F2307-DUP1)</b>	<b>Source: X606277-01</b>				Prepared: 06/23/2016 Analyzed: 06/23/2016					
pH	9.14		pH Units		9.13			0.109	25	
<b>Duplicate (B6F2307-DUP2)</b>	<b>Source: X606281-01</b>				Prepared: 06/23/2016 Analyzed: 06/23/2016					
pH	8.83		pH Units		8.80			0.340	25	
<b>Batch B6F2308 - NO PREP</b>										
<b>Blank (B6F2308-BLK1)</b>	Prepared: 06/23/2016 Analyzed: 06/23/2016									
Specific Conductance (EC)	0.00300		mmhos/cm							
<b>Blank (B6F2308-BLK2)</b>	Prepared: 06/23/2016 Analyzed: 06/23/2016									
Specific Conductance (EC)	0.00230		mmhos/cm							
<b>Duplicate (B6F2308-DUP1)</b>	<b>Source: X606277-01</b>				Prepared: 06/23/2016 Analyzed: 06/23/2016					
Specific Conductance (EC)	0.451		mmhos/cm		0.446			1.11	25	
<b>Duplicate (B6F2308-DUP2)</b>	<b>Source: X606281-01</b>				Prepared: 06/23/2016 Analyzed: 06/23/2016					
Specific Conductance (EC)	0.0579		mmhos/cm		0.0607			4.72	25	

Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Carter 10-32

## Notes and Definitions

U Sample is Non-Detect.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

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.*



June 27, 2016

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

**Project Name - KMG - Carter 10-32**

**Project Number - [none]**

Attached are your analytical results for KMG - Carter 10-32 received by Origins Laboratory, Inc. June 24, 2016. This project is associated with Origins project number X606299-01.

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

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Carter 10-32

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS05 @ 3'	X606299-01	Soil	June 24, 2016 12:15	06/24/2016 15:57
SS08 @ 3'	X606299-02	Soil	June 24, 2016 12:20	06/24/2016 15:57
SS09 @ 3'	X606299-03	Soil	June 24, 2016 12:25	06/24/2016 15:57
SS11 @ 3'	X606299-04	Soil	June 24, 2016 12:30	06/24/2016 15:57

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.*

Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

www.originslaboratory.com

X606299

ORIGINS  
LABORATORY, INC

Client: Tasman Geosciences  
Address:  
Telephone Number: (352) 262-9910  
Email Address: carter@tasmangeo.com

Project Manager: Bob Cornez  
Project Name: Carter 10-32  
Project Number:  
Samples Collected By: Kate Toomay

page 1 of 1

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summ #		
SS0503'	6/24/16	1215	21	X				X			pH	1
SS0803'	6/24/16	1220	1	X				X				2
SS0903'	6/24/16	1225	1	X				X				3
SS1103'	6/24/16	1230	1	X				X				4
												5
												6
												7
												8
												9
												10

  

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
Kate Toomay	6/24/16	1325	[Signature]	6/24/16	1557	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"/>

Date Results Needed

1.3

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.



Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: X606299

Client: Tasman

Client Project ID: Carter 10-32

Checklist Completed by: Jeff Smith

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

Date/time completed: 6/24/16

Airbill #: DA

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

Cooler Number/Temperature: 1 / 1.3 °C        /        °C        /        °C (Describe)

Thermometer ID: T003

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

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

Jeff Smith  
Reviewed by (Project Manager)

6/24/16  
Date/Time Reviewed

Origins Laboratory, Inc.

*Jeff 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.

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Carter 10-32

SS05 @ 3'

6/24/2016 12:15:00PM

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit						

Origins Laboratory, Inc.

X606299-01 (Soil)

## pH in Soil by EPA 9045D

pH	9.31	pH Units	1	B6F2401	06/24/2016	06/24/2016
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Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Carter 10-32

SS08 @ 3'

6/24/2016 12:20:00PM

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit						

Origins Laboratory, Inc.

X606299-02 (Soil)

## pH in Soil by EPA 9045D

pH	9.26	pH Units	1	B6F2401	06/24/2016	06/24/2016
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Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Carter 10-32

SS09 @ 3'

6/24/2016 12:25:00PM

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit						

Origins Laboratory, Inc.

X606299-03 (Soil)

## pH in Soil by EPA 9045D

pH	9.32	pH Units	1	B6F2401	06/24/2016	06/24/2016
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Origins Laboratory, Inc.



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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Carter 10-32

SS11 @ 3'

6/24/2016 12:30:00PM

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit						

Origins Laboratory, Inc.

X606299-04 (Soil)

## pH in Soil by EPA 9045D

pH	9.51	pH Units	1	B6F2401	06/24/2016	06/24/2016
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Origins Laboratory, Inc.



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Tasman Geosciences  
6899 Pecos Street, Unit C  
Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Carter 10-32

**Classical Chemistry Parameters - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B6F2401 - NO PREP

Duplicate (B6F2401-DUP1)			Source: X606281-23		Prepared: 06/24/2016 Analyzed: 06/24/2016					
pH	7.83		pH Units		7.93			1.27	25	

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - Carter 10-32

### Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President