

September 21, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. September 20, 2017. This project is associated with Origins project number Y709268-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@11'	Y709268-01	Soil	September 20, 2017 14:50	09/20/2017 16:30
N01@10'	Y709268-02	Soil	September 20, 2017 14:55	09/20/2017 16:30
S01@10'	Y709268-03	Soil	September 20, 2017 15:00	09/20/2017 16:30
E01@10'	Y709268-04	Soil	September 20, 2017 15:05	09/20/2017 16:30
W01@10'	Y709268-05	Soil	September 20, 2017 15:10	09/20/2017 16:30

Per the email from Mike on 9/21/17, the project name was changed to CPC 31-10.

Per the email from Mike on 9/21/17, the project name was changed to CPC 42-10.

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

www.originslaboratory.com

page 1 of 1

ORIGINS
LABORATORY, INC

4709268

Client: APC
Address: 6899 Pecos St. Denver, Unit C
Telephone Number: 303 810 2414
Email Address: rcornez@tasmangeo.com

Project Manager: Bob Cornez
Project Name: Champlain 31-10
Project Number:
Samples Collected By: Matt P.

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 ₃	Other	Groundwater	Soil	Air Summa Canister #		
B01@11'	9/20/17	14:50	2	X					X		X	1
N01@10'		14:55	2	X					X		X	2
S01@10'		15:00	2	X					X		X	3
B01@10'		15:05	2	X					X		X	4
W01@10'		15:10	2	X					X		X	5
B01		15:20	2	X					X		X	6
									ON Hold			7
												8
												9
												10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
[Signature]	9/20/17	1630	[Signature]	9/20/17	1630	24 Hr <input type="checkbox"/>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	48 Hr <input type="checkbox"/>
				9/20/17	1630	72 Hr <input type="checkbox"/>
						Standard <input checked="" type="checkbox"/>

Date Results Needed

Origins Laboratory, Inc.

Jefe Pellegrini

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1709268

Client: Tasman
Client Project ID: Champlain 31-10

Checklist Completed by: Joe Henderson

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

Date/time completed: 9/20/17 1724

Airbill #: NA

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

Cooler Number/Temperature: 1 / 3.7 °C ☐ / _____ °C ☐ / _____ °C ☐ / _____ °C (Describe)

Thermometer ID: T603

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 9/20/17

Origins Laboratory, Inc.

[Signature]

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

B01@11'
9/20/2017 2:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709268-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	198	25.0	mg/kg	1	B7I2002	09/20/2017	09/21/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	113 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	5.07	5.00	mg/kg	25	B7I2001	09/20/2017	09/20/2017	
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	90.7 %	70-130			"	"	"	
Surrogate: Toluene-d8	98.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	100 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.97		pH Units	1	B7I2003	09/20/2017	09/20/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.79		mmhos/cm	"	B7I2004	"	09/20/2017	
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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

N01@10'
9/20/2017 2:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709268-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	389	25.0	mg/kg	1	B7I2002	09/20/2017	09/21/2017	
Residual Range Organics (C28-C40)	107	100	"	"	"	"	"	

Surrogate: o-Terphenyl	92.7 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	150	5.00	mg/kg	25	B7I2001	09/20/2017	09/21/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.586	0.050	"	"	"	"	"	
Xylenes, total	0.354	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	92.7 %	70-130			"	"	"	
Surrogate: Toluene-d8	77.3 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	112 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.33		pH Units	1	B7I2003	09/20/2017	09/20/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.467		mmhos/cm	"	B7I2004	"	09/20/2017	
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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

S01@10'
9/20/2017 3:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709268-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	668	25.0	mg/kg	1	B7I2002	09/20/2017	09/21/2017	
Residual Range Organics (C28-C40)	200	100	"	"	"	"	"	

Surrogate: o-Terphenyl	123 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	112	5.00	mg/kg	25	B7I2001	09/20/2017	09/21/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.594	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	90.8 %	70-130			"	"	"	
Surrogate: Toluene-d8	106 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	124 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.84		pH Units	1	B7I2003	09/20/2017	09/20/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.61		mmhos/cm	"	B7I2004	"	09/20/2017	
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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

E01@10'
9/20/2017 3:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709268-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	491	25.0	mg/kg	1	B7I2002	09/20/2017	09/21/2017	
Residual Range Organics (C28-C40)	122	100	"	"	"	"	"	

Surrogate: o-Terphenyl	110 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	178	5.00	mg/kg	25	B7I2001	09/20/2017	09/20/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.288	0.050	"	"	"	"	"	
Xylenes, total	1.28	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	92.7 %	70-130			"	"	"	
Surrogate: Toluene-d8	76.4 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	115 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.91		pH Units	1	B7I2003	09/20/2017	09/20/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.724		mmhos/cm	"	B7I2004	"	09/20/2017	
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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

W01@10'
9/20/2017 3:10:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709268-05 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	410	25.0	mg/kg	1	B7I2002	09/20/2017	09/21/2017	
Residual Range Organics (C28-C40)	153	100	"	"	"	"	"	

Surrogate: o-Terphenyl	78.2 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	126	5.00	mg/kg	25	B7I2001	09/20/2017	09/20/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.640	0.050	"	"	"	"	"	
Xylenes, total	0.226	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	90.4 %	70-130			"	"	"	
Surrogate: Toluene-d8	102 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	120 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.46		pH Units	1	B7I2003	09/20/2017	09/20/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.10		mmhos/cm	"	B7I2004	"	09/20/2017	
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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2001 - EPA 5030 (soil)										
Blank (B7I2001-BLK1)					Prepared: 09/20/2017 Analyzed: 09/20/2017					
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	59		ug/kg	62.5		94.3	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.3	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2001 - EPA 5030 (soil)										
Blank (B7I2001-BLK2)					Prepared: 09/20/2017 Analyzed: 09/20/2017					
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	61		ug/kg	62.5		97.3	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.1	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2001 - EPA 5030 (soil)										
LCS (B7I2001-BS1)					Prepared: 09/20/2017 Analyzed: 09/20/2017					
Benzene	0.105	0.002	mg/kg	0.100		105	77.1-124			
Toluene	0.099	0.002	"	0.100		99.1	74.5-128			
Ethylbenzene	0.092	0.002	"	0.100		92.3	66.4-127			
m,p-Xylene	0.178	0.004	"	0.200		88.9	76.6-124			
o-Xylene	0.089	0.002	"	0.100		88.8	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	56		ug/kg	62.5		89.3	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	70-130			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2001 - EPA 5030 (soil)										
LCS (B7I2001-BS2)					Prepared: 09/20/2017 Analyzed: 09/20/2017					
Benzene	0.107	0.002	mg/kg	0.100		107	77.1-124			
Toluene	0.100	0.002	"	0.100		100	74.5-128			
Ethylbenzene	0.096	0.002	"	0.100		96.5	66.4-127			
m,p-Xylene	0.186	0.004	"	0.200		93.1	76.6-124			
o-Xylene	0.092	0.002	"	0.100		92.0	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		93.1	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.2	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2001 - EPA 5030 (soil)

Matrix Spike (B7I2001-MS1)		Source: Y709248-05			Prepared: 09/20/2017 Analyzed: 09/20/2017					
Benzene	0.100	0.002	mg/kg	0.100	ND	100	71.8-126			
Toluene	0.094	0.002	"	0.100	ND	94.5	65.1-130			
Ethylbenzene	0.092	0.002	"	0.100	ND	91.7	62.2-130			
m,p-Xylene	0.176	0.004	"	0.200	ND	87.8	46.5-137			
o-Xylene	0.088	0.002	"	0.100	ND	88.0	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		92.1	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.1	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 - CPC 42-10

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 B7I2001 - EPA 5030 (soil)

Matrix Spike (B7I2001-MS2)		Source: Y709263-01			Prepared: 09/20/2017 Analyzed: 09/20/2017					
Benzene	0.100	0.002	mg/kg	0.100	ND	100	71.8-126			
Toluene	0.093	0.002	"	0.100	ND	93.5	65.1-130			
Ethylbenzene	0.092	0.002	"	0.100	ND	91.6	62.2-130			
m,p-Xylene	0.178	0.004	"	0.200	ND	88.9	46.5-137			
o-Xylene	0.089	0.002	"	0.100	ND	88.9	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		95.1	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.3	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.3	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2001 - EPA 5030 (soil)										
Matrix Spike Dup (B7I2001-MSD1)		Source: Y709248-05			Prepared: 09/20/2017 Analyzed: 09/20/2017					
Benzene	0.102	0.002	mg/kg	0.100	ND	102	71.8-126	1.64	11.3	
Toluene	0.096	0.002	"	0.100	ND	95.9	65.1-130	1.49	15.4	
Ethylbenzene	0.095	0.002	"	0.100	ND	94.6	62.2-130	3.14	19.6	
m,p-Xylene	0.182	0.004	"	0.200	ND	90.9	46.5-137	3.56	19.2	
o-Xylene	0.090	0.002	"	0.100	ND	90.3	54.2-134	2.56	17.9	
Surrogate: 1,2-Dichloroethane-d4	56		ug/kg	62.5		89.7	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.8	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.8	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B712001 - EPA 5030 (soil)										
Matrix Spike Dup (B712001-MSD2)	Source: Y709263-01				Prepared: 09/20/2017 Analyzed: 09/20/2017					
Benzene	0.093	0.002	mg/kg	0.100	ND	92.8	71.8-126	7.85	11.3	
Toluene	0.088	0.002	"	0.100	ND	88.0	65.1-130	5.99	15.4	
Ethylbenzene	0.086	0.002	"	0.100	ND	85.9	62.2-130	6.40	19.6	
m,p-Xylene	0.166	0.004	"	0.200	ND	82.8	46.5-137	7.18	19.2	
o-Xylene	0.083	0.002	"	0.100	ND	83.3	54.2-134	6.50	17.9	
Surrogate: 1,2-Dichloroethane-d4	56		ug/kg	62.5		90.0	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.1	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.0	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 - CPC 42-10

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 B7I2002 - EPA 3580

Blank (B7I2002-BLK1)

Prepared: 09/20/2017 Analyzed: 09/20/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	57		"	50.0		114	59-131			

LCS (B7I2002-BS1)

Prepared: 09/20/2017 Analyzed: 09/21/2017

Diesel (C10-C28)	1090	50.0	mg/kg	1000		109	64-121			
Residual Range Organics (C28-C40)	922	200	"	1000		92.2	58-124			
Surrogate: o-Terphenyl	55		"	50.0		110	59-131			

LCS (B7I2002-BS2)

Prepared: 09/20/2017 Analyzed: 09/21/2017

Diesel (C10-C28)	1100	50.0	mg/kg	1000		110	64-121			
Residual Range Organics (C28-C40)	948	200	"	1000		94.8	58-124			
Surrogate: o-Terphenyl	56		"	50.0		112	59-131			

Matrix Spike (B7I2002-MS1)

Source: Y709248-05

Prepared: 09/20/2017 Analyzed: 09/20/2017

Diesel (C10-C28)	1410	50.0	mg/kg	1000	ND	141	53-125			QM-07
Residual Range Organics (C28-C40)	1030	200	"	1000	12.9	102	47-133			
Surrogate: o-Terphenyl	62		"	50.0		123	59-131			

Matrix Spike Dup (B7I2002-MSD1)

Source: Y709248-05

Prepared: 09/20/2017 Analyzed: 09/20/2017

Diesel (C10-C28)	1360	50.0	mg/kg	1000	ND	136	53-125	4.11	20	QM-07
Residual Range Organics (C28-C40)	1170	200	"	1000	12.9	115	47-133	12.7	20	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2002 - EPA 3580

Matrix Spike Dup (B7I2002-MSD1)

Source: Y709248-05

Prepared: 09/20/2017 Analyzed: 09/20/2017

Surrogate: o-Terphenyl	62		mg/kg	50.0		123	59-131			
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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 - CPC 42-10

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 B7I2003 - NO PREP										
Duplicate (B7I2003-DUP1)		Source: Y709248-05			Prepared: 09/20/2017 Analyzed: 09/20/2017					
pH	7.23		pH Units		7.21			0.277	25	
Batch B7I2004 - NO PREP										
Blank (B7I2004-BLK1)		Prepared: 09/20/2017 Analyzed: 09/20/2017								
Specific Conductance (EC)	0.00530		mmhos/cm							
Duplicate (B7I2004-DUP1)		Source: Y709248-05			Prepared: 09/20/2017 Analyzed: 09/20/2017					
Specific Conductance (EC)	0.0176		mmhos/cm		0.0194			9.73	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 - CPC 42-10

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.



September 28, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. September 27, 2017. This project is associated with Origins project number Y709380-01.

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 - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B02@12'	Y709380-01	Soil	September 27, 2017 14:53	09/27/2017 16:46
N02@10'	Y709380-02	Soil	September 27, 2017 14:59	09/27/2017 16:46

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 - CPC 42-10

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page 1 of 1

ORIGINS LABORATORY, INC

Client: Tasman / APC
Address: 6899 Pecos St., Unit C
Telephone Number: 303-810-2414
Email Address: rcornez@tasman-geo.com

Project Manager: Bob Cornez
Project Name: CPC 42-10
Project Number:
Samples Collected By: Matt P.

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Aluminum		
BOTE 12	9/27/17	14:53	2	2								1
NZ 10	↓	14:59	2	2								2
												3
												4
												5
												6
												7
												8
												9
												10

Relinquished By:

Relinquished By:

Date: 9/27/17

Date: 9/27/17

Time: 14:10

Time: 14:16

Received By:

Received By:

Date: 9/27/17

Date: 9/27/17

Time: 14:16

Time: 14:16

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

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 - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4708320 Client: Tasman
Client Project ID: KMG - CPC 42-10
Checklist Completed by: DM Shipped Via: Hand Pick-up
Date/time completed: 9-27-11 1716 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
Airbill #: 12
Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☒ Water ☐ Other: _____
Cooler Number/Temperature: 1141 °C 1 °C 1 °C (Describe)
Thermometer ID: 1002

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

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

Reviewed by (Signature) (Project Manager)

Date/Time Reviewed 9-27-11 1717

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 - CPC 42-10

B02@12'

9/27/2017 2:53:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709380-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	35.9	25.0	mg/kg	1	B7I2708	09/27/2017	09/27/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	84.6 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	8.40	0.200	mg/kg	1	B7I2701	"	09/27/2017	
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	0.020	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.9 %	70-130			"	"	"	
Surrogate: Toluene-d8	94.6 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	126 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.73		pH Units	1	B7I2710	09/27/2017	09/27/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.532		mmhos/cm	"	B7I2711	09/27/2017	"	
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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 - CPC 42-10

N02@10'

9/27/2017 2:59:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709380-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	277	25.0	mg/kg	1	B7I2708	09/27/2017	09/27/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 84.3 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	51.6	5.00	mg/kg	25	B7I2701	"	09/27/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.133	0.050	"	"	"	"	"	
Xylenes, total	0.120	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 88.8 % 70-130 " " "
Surrogate: Toluene-d8 92.0 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

pH in Soil by EPA 9045D

pH	7.68		pH Units	1	B7I2710	09/27/2017	09/27/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.531		mmhos/cm	"	B7I2711	09/27/2017	"	
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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 - CPC 42-10

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 B7I2701 - EPA 5030 (soil)										
Blank (B7I2701-BLK1)					Prepared: 09/27/2017 Analyzed: 09/27/2017					
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	62		ug/kg	62.5		99.8	70-130			
Surrogate: Toluene-d8	59		"	62.5		94.6	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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 - CPC 42-10

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 B7I2701 - EPA 5030 (soil)										
LCS (B7I2701-BS1)					Prepared: 09/27/2017 Analyzed: 09/27/2017					
Benzene	0.104	0.002	mg/kg	0.100		104	77.1-124			
Toluene	0.092	0.002	"	0.100		92.3	74.5-128			
Ethylbenzene	0.086	0.002	"	0.100		86.4	66.4-127			
m,p-Xylene	0.166	0.004	"	0.200		83.2	76.6-124			
o-Xylene	0.083	0.002	"	0.100		82.8	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		95.8	70-130			
Surrogate: Toluene-d8	58		"	62.5		93.6	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.4	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 - CPC 42-10

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 B7I2701 - EPA 5030 (soil)

Matrix Spike (B7I2701-MS1)		Source: Y709290-01			Prepared: 09/27/2017 Analyzed: 09/27/2017					
Benzene	0.107	0.002	mg/kg	0.100	ND	107	71.8-126			
Toluene	0.096	0.002	"	0.100	ND	95.9	65.1-130			
Ethylbenzene	0.094	0.002	"	0.100	ND	94.2	62.2-130			
m,p-Xylene	0.179	0.004	"	0.200	ND	89.3	46.5-137			
o-Xylene	0.089	0.002	"	0.100	ND	89.0	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	56		ug/kg	62.5		89.7	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.6	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2701 - EPA 5030 (soil)

Matrix Spike Dup (B7I2701-MSD1)		Source: Y709290-01			Prepared: 09/27/2017 Analyzed: 09/27/2017					
Benzene	0.107	0.002	mg/kg	0.100	ND	107	71.8-126	0.487	11.3	
Toluene	0.096	0.002	"	0.100	ND	96.1	65.1-130	0.146	15.4	
Ethylbenzene	0.092	0.002	"	0.100	ND	91.8	62.2-130	2.54	19.6	
m,p-Xylene	0.176	0.004	"	0.200	ND	87.8	46.5-137	1.73	19.2	
o-Xylene	0.087	0.002	"	0.100	ND	87.4	54.2-134	1.86	17.9	
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		92.0	70-130			
Surrogate: Toluene-d8	61		"	62.5		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.2	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B712708 - EPA 3550B

Blank (B712708-BLK1)

Prepared: 09/27/2017 Analyzed: 09/27/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	40		"	50.0		80.6	59-131			

LCS (B712708-BS1)

Prepared: 09/27/2017 Analyzed: 09/27/2017

Diesel (C10-C28)	952	50.0	mg/kg	1000		95.2	64-121			
Residual Range Organics (C28-C40)	1060	200	"	1000		106	58-124			
Surrogate: o-Terphenyl	45		"	50.0		90.8	59-131			

Matrix Spike (B712708-MS1)

Source: Y709372-01

Prepared: 09/27/2017 Analyzed: 09/27/2017

Diesel (C10-C28)	1000	50.0	mg/kg	1000	14.8	98.5	53-125			
Residual Range Organics (C28-C40)	1070	200	"	1000	26.3	105	47-133			
Surrogate: o-Terphenyl	43		"	50.0		86.9	59-131			

Matrix Spike Dup (B712708-MSD1)

Source: Y709372-01

Prepared: 09/27/2017 Analyzed: 09/27/2017

Diesel (C10-C28)	908	50.0	mg/kg	1000	14.8	89.4	53-125	9.72	20	
Residual Range Organics (C28-C40)	1140	200	"	1000	26.3	111	47-133	5.89	20	
Surrogate: o-Terphenyl	42		"	50.0		84.9	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2710 - NO PREP										
Duplicate (B7I2710-DUP1)		Source: Y709379-02			Prepared: 09/27/2017 Analyzed: 09/27/2017					
pH	7.67		pH Units		7.55			1.58	25	
Batch B7I2711 - NO PREP										
Blank (B7I2711-BLK1)		Prepared: 09/27/2017 Analyzed: 09/27/2017								
Specific Conductance (EC)	0.00270		mmhos/cm							
Duplicate (B7I2711-DUP1)		Source: Y709379-02			Prepared: 09/27/2017 Analyzed: 09/27/2017					
Specific Conductance (EC)	0.162		mmhos/cm		0.140			14.4	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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



October 02, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. September 29, 2017. This project is associated with Origins project number Y709405-01.

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 - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E02@10'	Y709405-01	Soil	September 29, 2017 9:15	09/29/2017 12:40
S02@10'	Y709405-02	Soil	September 29, 2017 9:25	09/29/2017 12:40
B03@6'	Y709405-03	Soil	September 29, 2017 9:40	09/29/2017 12:40
B04@6'	Y709405-04	Soil	September 29, 2017 9:50	09/29/2017 12:40
E03@5'	Y709405-05	Soil	September 29, 2017 10:03	09/29/2017 12:40
S03@5'	Y709405-06	Soil	September 29, 2017 10:08	09/29/2017 12:40

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 - CPC 42-10

www.originslaboratory.com

Y109405

ORIGINS
LABORATORY, INC

page 1 of 1

Client: APC
Address: 6899 Pecos St. Denver, Unit C
Telephone Number: 303 810 2414
Email Address: [Cornez@tasman-geo.com]

Project Manager: Bob Cornez
Project Name: CPC 42-10
Project Number:
Samples Collected By: Matt P.

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis		Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	At Summa Canister #	Other	GC/MS	
E02E10'	9-25-11	9:15	2	X					X			X	1
S02E10'		9:25	2									X	2
B03E6'		9:40	2									X	3
B04E6'		9:50	2									X	4
E03E5'		10:03	2									X	5
S03E5'		10:08	2									X	6
S01E5'		10:10	2									ON Hold	7
B05E6'		10:15	2									ON Hold	8
													9
													10

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
[Signature]	9/25/11	12:40	[Signature]	9-25-11	1240	Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	

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

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 - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y709405

Client: Tasman Geosciences

Client Project ID: CPC 42-10

Checklist Completed by: Joe Henderson

Shipped Via: H/D

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

Date/time completed: 9/29/17 1425

Airbill #: DA

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

Cooler Number/Temperature: 1 / 5.4 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: T003

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

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

Reviewed by (Project Manager)

9/29/17
Date/Time Reviewed

Origins Laboratory, Inc.

Joe 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 - CPC 42-10

E02@10'
9/29/2017 9:15:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709405-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7I2902	09/29/2017	09/29/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 70.1 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7I2901	"	09/29/2017	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 99.1 % 70-130 " " "
Surrogate: Toluene-d8 93.3 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 97.5 % 70-130 " " "

pH in Soil by EPA 9045D

pH	6.93		pH Units	1	B7I2903	09/29/2017	09/29/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.87		mmhos/cm	"	B7I2904	09/29/2017	09/29/2017	
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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 - CPC 42-10

S02@10'

9/29/2017 9:25:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709405-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	556	25.0	mg/kg	1	B7I2902	09/29/2017	09/29/2017	
Residual Range Organics (C28-C40)	217	100	"	"	"	"	"	

Surrogate: o-Terphenyl	103 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	136	5.00	mg/kg	25	B7I2901	"	09/29/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.404	0.050	"	"	"	"	"	
Xylenes, total	0.516	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	88.1 %	70-130			"	"	"	
Surrogate: Toluene-d8	81.0 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	109 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.68		pH Units	1	B7I2903	09/29/2017	09/29/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.510		mmhos/cm	"	B7I2904	09/29/2017	09/29/2017	
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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 - CPC 42-10

B03@6'

9/29/2017 9:40:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709405-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7I2902	09/29/2017	09/29/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 81.7 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7I2901	"	09/29/2017	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 98.6 % 70-130 " " "
Surrogate: Toluene-d8 94.6 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 99.8 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.00		pH Units	1	B7I2903	09/29/2017	09/29/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.311		mmhos/cm	"	B7I2904	09/29/2017	09/29/2017	
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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 - CPC 42-10

B04@6'

9/29/2017 9:50:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709405-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7I2902	09/29/2017	09/29/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	77.9 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	0.317	0.200	mg/kg	1	B7I2901	"	09/29/2017	
Benzene	0.010	0.002	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	0.005	0.002	"	"	"	"	"	
Xylenes, total	0.006	0.002	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	95.4 %	70-130			"	"	"	
Surrogate: Toluene-d8	93.0 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.5 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.94		pH Units	1	B7I2903	09/29/2017	09/29/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.350		mmhos/cm	"	B7I2904	09/29/2017	09/29/2017	
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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 - CPC 42-10

E03@5'

9/29/2017 10:03:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709405-05 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7I2902	09/29/2017	09/29/2017	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	B7I2901	"	09/29/2017	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 87.6 % 70-130 " " "
Surrogate: Toluene-d8 96.9 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 95.2 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.29		pH Units	1	B7I2903	09/29/2017	09/29/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.382		mmhos/cm	"	B7I2904	09/29/2017	"	
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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 - CPC 42-10

S03@5'

9/29/2017 10:08:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709405-06 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7I2902	09/29/2017	09/29/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	74.8 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	5.00	mg/kg	25	B7I2901	"	09/29/2017	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	87.8 %	70-130			"	"	"	
Surrogate: Toluene-d8	95.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.3 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.28		pH Units	1	B7I2903	09/29/2017	09/29/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.466		mmhos/cm	"	B7I2904	09/29/2017	"	
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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 - CPC 42-10

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 B712901 - EPA 5030 (soil)										
Blank (B712901-BLK1)					Prepared: 09/29/2017 Analyzed: 09/29/2017					
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	57		ug/kg	62.5		90.8	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.9	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2901 - EPA 5030 (soil)										
LCS (B7I2901-BS1)					Prepared: 09/29/2017 Analyzed: 09/29/2017					
Benzene	0.111	0.002	mg/kg	0.100		111	77.1-124			
Toluene	0.099	0.002	"	0.100		99.2	74.5-128			
Ethylbenzene	0.090	0.002	"	0.100		90.0	66.4-127			
m,p-Xylene	0.170	0.004	"	0.200		85.2	76.6-124			
o-Xylene	0.085	0.002	"	0.100		85.0	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	53		ug/kg	62.5		85.2	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.8	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B712901 - EPA 5030 (soil)

Matrix Spike (B712901-MS1)		Source: Y709404-01			Prepared: 09/29/2017 Analyzed: 09/29/2017					
Benzene	0.116	0.002	mg/kg	0.100	ND	116	71.8-126			
Toluene	0.105	0.002	"	0.100	ND	105	65.1-130			
Ethylbenzene	0.096	0.002	"	0.100	ND	96.4	62.2-130			
m,p-Xylene	0.184	0.004	"	0.200	ND	91.9	46.5-137			
o-Xylene	0.091	0.002	"	0.100	ND	90.6	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	54		ug/kg	62.5		86.4	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.6	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.1	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 - CPC 42-10

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 B712901 - EPA 5030 (soil)

Matrix Spike Dup (B712901-MSD1)		Source: Y709404-01			Prepared: 09/29/2017 Analyzed: 09/29/2017					
Benzene	0.110	0.002	mg/kg	0.100	ND	110	71.8-126	5.49	11.3	
Toluene	0.099	0.002	"	0.100	ND	98.7	65.1-130	6.53	15.4	
Ethylbenzene	0.093	0.002	"	0.100	ND	92.8	62.2-130	3.81	19.6	
m,p-Xylene	0.176	0.004	"	0.200	ND	87.9	46.5-137	4.47	19.2	
o-Xylene	0.087	0.002	"	0.100	ND	87.4	54.2-134	3.60	17.9	
Surrogate: 1,2-Dichloroethane-d4	54		ug/kg	62.5		85.7	70-130			
Surrogate: Toluene-d8	60		"	62.5		95.6	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.5	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 - CPC 42-10

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 B7I2902 - EPA 3550B

Blank (B7I2902-BLK1)

Prepared: 09/29/2017 Analyzed: 09/29/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	54		"	50.0		107	59-131			

LCS (B7I2902-BS1)

Prepared: 09/29/2017 Analyzed: 09/29/2017

Diesel (C10-C28)	1140	50.0	mg/kg	1000		114	64-121			
Residual Range Organics (C28-C40)	1220	200	"	1000		122	58-124			
Surrogate: o-Terphenyl	55		"	50.0		110	59-131			

Matrix Spike (B7I2902-MS1)

Source: Y709404-01

Prepared: 09/29/2017 Analyzed: 09/29/2017

Diesel (C10-C28)	960	50.0	mg/kg	1000	ND	96.0	53-125			
Residual Range Organics (C28-C40)	994	200	"	1000	13.0	98.1	47-133			
Surrogate: o-Terphenyl	46		"	50.0		91.8	59-131			

Matrix Spike Dup (B7I2902-MSD1)

Source: Y709404-01

Prepared: 09/29/2017 Analyzed: 09/29/2017

Diesel (C10-C28)	938	50.0	mg/kg	1000	ND	93.8	53-125	2.35	20	
Residual Range Organics (C28-C40)	987	200	"	1000	13.0	97.4	47-133	0.785	20	
Surrogate: o-Terphenyl	43		"	50.0		85.9	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 - CPC 42-10

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 B7I2903 - NO PREP										
Duplicate (B7I2903-DUP1)	Source: Y709404-01				Prepared: 09/29/2017 Analyzed: 09/29/2017					
pH	6.86		pH Units		7.19			4.70	25	
Batch B7I2904 - NO PREP										
Blank (B7I2904-BLK1)	Prepared: 09/29/2017 Analyzed: 09/29/2017									
Specific Conductance (EC)	0.00250		mmhos/cm							
Duplicate (B7I2904-DUP1)	Source: Y709404-01				Prepared: 09/29/2017 Analyzed: 09/29/2017					
Specific Conductance (EC)	0.0277		mmhos/cm		0.0246			11.9	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 - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President



October 02, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. September 29, 2017. This project is associated with Origins project number Y709408-01.

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 - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N03@10'	Y709408-01	Soil	September 29, 2017 14:15	09/29/2017 15:35
W02@10'	Y709408-02	Soil	September 29, 2017 14:20	09/29/2017 15:35

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.

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

ORIGINS

LABORATORY, INC

www.originslaboratory.com

Y709402

page 1 of 1

Client: APC
Address: 6849 Pecos St., Denver, Unit C
Telephone Number: 303 810 2414
Email Address: [Corne@originslab.com]

Project Manager: Bob Cornez
Project Name: CPC YZ-10
Project Number:
Samples Collected By: Matt P.

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Sampling Container #		
N03@10'	9/29/17	14:15	2	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>		GFA DRA PCA SAR (Asid)	1
W02@10'	9/29/17	14:20	2	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>		X X X X	2
												3
												4
												5
												6
												7
												8
												9
												10
Relinquished By:	Date: 9/29/17	Time: 15:35	Received By:	Time: 15:35	Date: 9-29-17	Time: 15:35	Turnaround Time: Same Day (X) 24 Hr () 48 Hr () 72 Hr () Standard (X)					
Relinquished By:	Date:	Time:	Received By:	Time:	Date:	Time:						

Date Results Needed

4.8°C

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

Origins Laboratory, Inc.

Jeff Pellipini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1709402

Client: Tasman

Client Project ID: KMG - CPC 42-10

Checklist Completed by: Phu Lu
Date/time completed: 9-29-17 1546

Shipped Via: 410
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
Airbill #: WJ

Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____
(Describe)
Cooler Number/Temperature: 1 / 4.5 °C 1 / _____ °C 1 / _____ °C 1 / _____ °C
Thermometer ID: 1203

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

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

Reviewed by: [Signature] (Project Manager)

9-29-17 1546
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

N03@10'
9/29/2017 2:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709408-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	332	25.0	mg/kg	1	B7I2902	09/29/2017	09/29/2017	
Residual Range Organics (C28-C40)	117	100	"	"	"	"	"	

Surrogate: o-Terphenyl	85.3 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	152	5.00	mg/kg	25	B7I2901	"	09/29/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.516	0.050	"	"	"	"	"	
Xylenes, total	0.750	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	86.7 %	70-130			"	"	"	
Surrogate: Toluene-d8	71.6 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	114 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.76		pH Units	1	B7I2903	09/29/2017	09/29/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.192		mmhos/cm	"	B7I2904	09/29/2017	"	
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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 - CPC 42-10

W02@10'
9/29/2017 2:20:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y709408-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	304	25.0	mg/kg	1	B7I2902	09/29/2017	09/29/2017	
Residual Range Organics (C28-C40)	125	100	"	"	"	"	"	

Surrogate: o-Terphenyl	88.1 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	40.8	5.00	mg/kg	25	B7I2901	"	09/29/2017	
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	87.4 %	70-130			"	"	"	
Surrogate: Toluene-d8	97.7 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	110 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.52		pH Units	1	B7I2903	09/29/2017	09/29/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.332		mmhos/cm	"	B7I2904	09/29/2017	"	
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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 - CPC 42-10

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 B7I2901 - EPA 5030 (soil)										
Blank (B7I2901-BLK1)					Prepared: 09/29/2017 Analyzed: 09/29/2017					
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	57		ug/kg	62.5		90.8	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.9	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 - CPC 42-10

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 B7I2901 - EPA 5030 (soil)										
LCS (B7I2901-BS1)					Prepared: 09/29/2017 Analyzed: 09/29/2017					
Benzene	0.111	0.002	mg/kg	0.100		111	77.1-124			
Toluene	0.099	0.002	"	0.100		99.2	74.5-128			
Ethylbenzene	0.090	0.002	"	0.100		90.0	66.4-127			
m,p-Xylene	0.170	0.004	"	0.200		85.2	76.6-124			
o-Xylene	0.085	0.002	"	0.100		85.0	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	53		ug/kg	62.5		85.2	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.8	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 - CPC 42-10

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 B712901 - EPA 5030 (soil)

Matrix Spike (B712901-MS1)		Source: Y709404-01			Prepared: 09/29/2017 Analyzed: 09/29/2017					
Benzene	0.116	0.002	mg/kg	0.100	ND	116	71.8-126			
Toluene	0.105	0.002	"	0.100	ND	105	65.1-130			
Ethylbenzene	0.096	0.002	"	0.100	ND	96.4	62.2-130			
m,p-Xylene	0.184	0.004	"	0.200	ND	91.9	46.5-137			
o-Xylene	0.091	0.002	"	0.100	ND	90.6	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	54		ug/kg	62.5		86.4	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.6	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.1	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 - CPC 42-10

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 B712901 - EPA 5030 (soil)

Matrix Spike Dup (B712901-MSD1)		Source: Y709404-01			Prepared: 09/29/2017 Analyzed: 09/29/2017					
Benzene	0.110	0.002	mg/kg	0.100	ND	110	71.8-126	5.49	11.3	
Toluene	0.099	0.002	"	0.100	ND	98.7	65.1-130	6.53	15.4	
Ethylbenzene	0.093	0.002	"	0.100	ND	92.8	62.2-130	3.81	19.6	
m,p-Xylene	0.176	0.004	"	0.200	ND	87.9	46.5-137	4.47	19.2	
o-Xylene	0.087	0.002	"	0.100	ND	87.4	54.2-134	3.60	17.9	
Surrogate: 1,2-Dichloroethane-d4	54		ug/kg	62.5		85.7	70-130			
Surrogate: Toluene-d8	60		"	62.5		95.6	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.5	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 - CPC 42-10

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 B7I2902 - EPA 3550B

Blank (B7I2902-BLK1)

Prepared: 09/29/2017 Analyzed: 09/29/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	54		"	50.0		107	59-131			

LCS (B7I2902-BS1)

Prepared: 09/29/2017 Analyzed: 09/29/2017

Diesel (C10-C28)	1140	50.0	mg/kg	1000		114	64-121			
Residual Range Organics (C28-C40)	1220	200	"	1000		122	58-124			
Surrogate: o-Terphenyl	55		"	50.0		110	59-131			

Matrix Spike (B7I2902-MS1)

Source: Y709404-01

Prepared: 09/29/2017 Analyzed: 09/29/2017

Diesel (C10-C28)	960	50.0	mg/kg	1000	ND	96.0	53-125			
Residual Range Organics (C28-C40)	994	200	"	1000	13.0	98.1	47-133			
Surrogate: o-Terphenyl	46		"	50.0		91.8	59-131			

Matrix Spike Dup (B7I2902-MSD1)

Source: Y709404-01

Prepared: 09/29/2017 Analyzed: 09/29/2017

Diesel (C10-C28)	938	50.0	mg/kg	1000	ND	93.8	53-125	2.35	20	
Residual Range Organics (C28-C40)	987	200	"	1000	13.0	97.4	47-133	0.785	20	
Surrogate: o-Terphenyl	43		"	50.0		85.9	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7I2903 - NO PREP										
Duplicate (B7I2903-DUP1)	Source: Y709404-01				Prepared: 09/29/2017 Analyzed: 09/29/2017					
pH	6.86		pH Units		7.19			4.70	25	
Batch B7I2904 - NO PREP										
Blank (B7I2904-BLK1)	Prepared: 09/29/2017 Analyzed: 09/29/2017									
Specific Conductance (EC)	0.00250		mmhos/cm							
Duplicate (B7I2904-DUP1)	Source: Y709404-01				Prepared: 09/29/2017 Analyzed: 09/29/2017					
Specific Conductance (EC)	0.0277		mmhos/cm		0.0246			11.9	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.

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President



October 05, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. October 04, 2017. This project is associated with Origins project number Y710073-01.

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 - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N04@10'	Y710073-01	Soil	October 4, 2017 14:35	10/04/2017 17:17
E04@10'	Y710073-02	Soil	October 4, 2017 14:55	10/04/2017 17:17

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Corneze
Project Number: [none]
Project: KMG - CPC 42-10

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page ☐ of ☐

ORIGINS
LABORATORY, INC

Client: APC

Address: 6899 Pecos St. Denver, Unit C

Telephone Number: 303 8102414

Email Address: rcorneze@tasman-geo.com

Project Manager: Bob Corneze

Project Name: CPC 42-10

Project Number:

Samples Collected By: Matt P.

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

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 ₃	Other	Groundwater	Soil	Al/Summa			Other
N04Q10'	11/4/17	14:35	2	X					X		X	1	
E04Q10'	11/4/17	14:55	2	X					X		X	2	
												3	
												4	
												5	
												6	
												7	
												8	
												9	
												10	

Relinquished By: *[Signature]*

Relinquished By: *[Signature]*

Date: 10/4/17

Date: 10/4/17

Time: 17:17

Time: 17:17

Received By: *[Signature]*

Received By: *[Signature]*

Date: 10/4/17

Date: 10/4/17

Time: 17:17

Time: 17:17

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

Date Results Needed: 5.70

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1710673

Client: Tasman

Client Project ID: KMG CPC 42-10

Checklist Completed by: Don Lu

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

Date/time completed: 10-4-12 1731

Airbill #: ND

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

Cooler Number/Temperature: 1 / 5.7 °C 1 / _____ °C 1 / _____ °C (Describe)

Thermometer ID: R03

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

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

Reviewed by (Project Manager) [Signature]

10-4-12 1731
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

N04@10'
10/4/2017 2:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710073-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	300	25.0	mg/kg	1	B7J0407	10/04/2017	10/04/2017	
Residual Range Organics (C28-C40)	105	100	"	"	"	"	"	

Surrogate: o-Terphenyl	83.1 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	301	5.00	mg/kg	25	B7J0406	10/04/2017	10/04/2017	
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	88.1 %	70-130			"	"	"	
Surrogate: Toluene-d8	107 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	131 %	70-130			"	"	" S-04	

pH in Soil by EPA 9045D

pH	7.89		pH Units	1	B7J0408	10/04/2017	10/04/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.279		mmhos/cm	"	B7J0409	10/04/2017	"	
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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 - CPC 42-10

E04@10'
10/4/2017 2:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710073-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	320	25.0	mg/kg	1	B7J0407	10/04/2017	10/04/2017	
Residual Range Organics (C28-C40)	127	100	"	"	"	"	"	

Surrogate: o-Terphenyl	83.1 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	51.7	5.00	mg/kg	25	B7J0406	10/04/2017	10/04/2017	
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	88.4 %	70-130			"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	108 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.14		pH Units	1	B7J0408	10/04/2017	10/04/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.715		mmhos/cm	"	B7J0409	10/04/2017	"	
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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 - CPC 42-10

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 B7J0406 - EPA 5030 (soil)										
Blank (B7J0406-BLK1)					Prepared: 10/04/2017 Analyzed: 10/04/2017					
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	57		ug/kg	62.5		90.4	70-130			
Surrogate: Toluene-d8	65		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J0406 - EPA 5030 (soil)										
LCS (B7J0406-BS1)					Prepared: 10/04/2017 Analyzed: 10/04/2017					
Benzene	0.090	0.002	mg/kg	0.100		89.7	77.1-124			
Toluene	0.093	0.002	"	0.100		93.2	74.5-128			
Ethylbenzene	0.101	0.002	"	0.100		101	66.4-127			
m,p-Xylene	0.210	0.004	"	0.200		105	76.6-124			
o-Xylene	0.098	0.002	"	0.100		98.5	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	55		ug/kg	62.5		87.4	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.0	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J0406 - EPA 5030 (soil)

Matrix Spike (B7J0406-MS1)		Source: Y710072-02			Prepared: 10/04/2017 Analyzed: 10/04/2017					
Benzene	0.085	0.002	mg/kg	0.100	ND	85.3	71.8-126			
Toluene	0.089	0.002	"	0.100	ND	89.1	65.1-130			
Ethylbenzene	0.098	0.002	"	0.100	ND	97.6	62.2-130			
m,p-Xylene	0.199	0.004	"	0.200	ND	99.6	46.5-137			
o-Xylene	0.095	0.002	"	0.100	ND	95.0	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	55		ug/kg	62.5		88.7	70-130			
Surrogate: Toluene-d8	65		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.0	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J0406 - EPA 5030 (soil)										
Matrix Spike Dup (B7J0406-MSD1)		Source: Y710072-02			Prepared: 10/04/2017 Analyzed: 10/04/2017					
Benzene	0.081	0.002	mg/kg	0.100	ND	80.9	71.8-126	5.37	11.3	
Toluene	0.082	0.002	"	0.100	ND	82.4	65.1-130	7.82	15.4	
Ethylbenzene	0.092	0.002	"	0.100	ND	92.1	62.2-130	5.86	19.6	
m,p-Xylene	0.187	0.004	"	0.200	ND	93.6	46.5-137	6.20	19.2	
o-Xylene	0.088	0.002	"	0.100	ND	88.4	54.2-134	7.26	17.9	
Surrogate: 1,2-Dichloroethane-d4	57		ug/kg	62.5		90.7	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.8	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J0407 - EPA 3550B

Blank (B7J0407-BLK1)

Prepared: 10/04/2017 Analyzed: 10/04/2017

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

LCS (B7J0407-BS1)

Prepared: 10/04/2017 Analyzed: 10/04/2017

Diesel (C10-C28)	1040	50.0	mg/kg	1000		104	64-121			
Residual Range Organics (C28-C40)	991	200	"	1000		99.1	58-124			
Surrogate: o-Terphenyl	47		"	50.0		93.4	59-131			

Matrix Spike (B7J0407-MS1)

Source: Y710072-02

Prepared: 10/04/2017 Analyzed: 10/04/2017

Diesel (C10-C28)	1120	50.0	mg/kg	1000	ND	112	53-125			
Residual Range Organics (C28-C40)	1070	200	"	1000	23.0	105	47-133			
Surrogate: o-Terphenyl	52		"	50.0		104	59-131			

Matrix Spike Dup (B7J0407-MSD1)

Source: Y710072-02

Prepared: 10/04/2017 Analyzed: 10/04/2017

Diesel (C10-C28)	898	50.0	mg/kg	1000	ND	89.8	53-125	22.5	20	QR-02
Residual Range Organics (C28-C40)	950	200	"	1000	23.0	92.7	47-133	12.4	20	
Surrogate: o-Terphenyl	43		"	50.0		85.9	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J0408 - NO PREP										
Duplicate (B7J0408-DUP1)		Source: Y710072-01			Prepared: 10/04/2017 Analyzed: 10/04/2017					
pH	7.95		pH Units		8.02			0.877	25	
Batch B7J0409 - NO PREP										
Blank (B7J0409-BLK1)		Prepared: 10/04/2017 Analyzed: 10/04/2017								
Specific Conductance (EC)	0.00200		mmhos/cm							
Duplicate (B7J0409-DUP1)		Source: Y710072-01			Prepared: 10/04/2017 Analyzed: 10/04/2017					
Specific Conductance (EC)	0.264		mmhos/cm		0.222			17.2	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.

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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.

October 06, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. October 05, 2017. This project is associated with Origins project number Y710093-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N05@10'	Y710093-01	Soil	October 5, 2017 15:05	10/05/2017 17:00
W03@9'	Y710093-02	Soil	October 5, 2017 15:15	10/05/2017 17:00
B06@11'	Y710093-03	Soil	October 5, 2017 15:30	10/05/2017 17:00

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

www.originslaboratory.com

page 1 of 1

716693

ORIGINS
LABORATORY, INC

Client: APC
Address: 6899 Pecos St. Denver, Unit C
Telephone Number: 303 810 2414
Email Address: BCornez@tasman-geo.com

Project Manager: Bob Cornez
Project Name: CPC 42-10
Project Number:
Samples Collected By: Matt P. & Zander H

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #			Other
N05@10'	10/5/17	15:05	2	X				X			X	SAE (K ₂ SiO ₃) JF PC Doyle Boyle Boyle	SAME DAY TURNAROUND 1
W03@9'	10/5/17	15:15	2	X				X			X		SAME DAY TURNAROUND 2
B06@11'	10/5/17	15:30	2	X				X			X		SAME DAY TURNAROUND 3
													4
													5
													6
													7
													8
													9
													10

Relinquished By: Zander H

Date: 10/5/17

Time: 1700

Received By: Guy

Date: 10/5/17

Time: 1700

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1710093

Client: KMG

Client Project ID: KMG CPC 42-10

Checklist Completed by: DM

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

Date/time completed: 10-5-12 1725

Airbill #: 1725

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

Cooler Number/Temperature: 1 / 1.8 °C 1 / _____ °C 1 / _____ °C (Describe)

Thermometer ID: 1003

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 10-5-12 1725

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 - CPC 42-10

N05@10'
10/5/2017 3:05:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710093-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	40.2	25.0	mg/kg	1	B7J0505	10/05/2017	10/05/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	81.4 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	15.3	5.00	mg/kg	25	B7J0501	10/05/2017	10/06/2017	
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	103 %	70-130			"	"	"	
Surrogate: Toluene-d8	98.8 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.1 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.47		pH Units	1	B7J0507	10/05/2017	10/05/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.321		mmhos/cm	"	B7J0508	10/05/2017	"	
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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 - CPC 42-10

W03@9'
10/5/2017 3:15:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710093-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	180	25.0	mg/kg	1	B7J0505	10/05/2017	10/05/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	73.7 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	35.4	5.00	mg/kg	25	B7J0501	10/05/2017	10/06/2017	
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	105 %	70-130			"	"	"	
Surrogate: Toluene-d8	99.9 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.8 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.05		pH Units	1	B7J0507	10/05/2017	10/05/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.170		mmhos/cm	"	B7J0508	10/05/2017	"	
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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 - CPC 42-10

B06@11'
10/5/2017 3:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710093-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7J0505	10/05/2017	10/05/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 68.9 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7J0501	10/05/2017	10/06/2017	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 113 % 70-130 " " "
Surrogate: Toluene-d8 97.7 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 98.4 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.03		pH Units	1	B7J0507	10/05/2017	10/05/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.523		mmhos/cm	"	B7J0508	10/05/2017	"	
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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 - CPC 42-10

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 B7J0501 - EPA 5030 (soil)										
Blank (B7J0501-BLK1)					Prepared: 10/05/2017 Analyzed: 10/05/2017					
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	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		98.1	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 - CPC 42-10

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 B7J0501 - EPA 5030 (soil)										
Blank (B7J0501-BLK2)					Prepared: 10/05/2017 Analyzed: 10/05/2017					
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	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	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 - CPC 42-10

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 B7J0501 - EPA 5030 (soil)										
LCS (B7J0501-BS1)					Prepared: 10/05/2017 Analyzed: 10/05/2017					
Benzene	0.097	0.002	mg/kg	0.100		96.5	77.1-124			
Toluene	0.098	0.002	"	0.100		98.2	74.5-128			
Ethylbenzene	0.098	0.002	"	0.100		98.0	66.4-127			
m,p-Xylene	0.194	0.004	"	0.200		96.8	76.6-124			
o-Xylene	0.098	0.002	"	0.100		98.1	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	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 - CPC 42-10

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 B7J0501 - EPA 5030 (soil)										
LCS (B7J0501-BS2)					Prepared: 10/05/2017 Analyzed: 10/05/2017					
Benzene	0.097	0.002	mg/kg	0.100		96.8	77.1-124			
Toluene	0.101	0.002	"	0.100		101	74.5-128			
Ethylbenzene	0.099	0.002	"	0.100		99.4	66.4-127			
m,p-Xylene	0.199	0.004	"	0.200		99.5	76.6-124			
o-Xylene	0.100	0.002	"	0.100		100	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	63		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.8	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 - CPC 42-10

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 B7J0501 - EPA 5030 (soil)

Matrix Spike (B7J0501-MS1)		Source: Y710012-01			Prepared: 10/05/2017 Analyzed: 10/05/2017					
Benzene	0.092	0.002	mg/kg	0.100	ND	92.1	71.8-126			
Toluene	0.094	0.002	"	0.100	ND	93.6	65.1-130			
Ethylbenzene	0.093	0.002	"	0.100	ND	92.5	62.2-130			
m,p-Xylene	0.179	0.004	"	0.200	ND	89.3	46.5-137			
o-Xylene	0.092	0.002	"	0.100	ND	92.2	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	70		ug/kg	62.5		112	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.4	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 - CPC 42-10

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 B7J0501 - EPA 5030 (soil)

Matrix Spike (B7J0501-MS2)		Source: Y710012-02			Prepared: 10/05/2017 Analyzed: 10/05/2017					
Benzene	0.088	0.002	mg/kg	0.100	ND	88.2	71.8-126			
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130			
Ethylbenzene	0.086	0.002	"	0.100	ND	85.9	62.2-130			
m,p-Xylene	0.191	0.004	"	0.200	ND	95.6	46.5-137			
o-Xylene	0.093	0.002	"	0.100	ND	92.7	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	70		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	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 - CPC 42-10

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 B7J0501 - EPA 5030 (soil)										
Matrix Spike Dup (B7J0501-MSD1)										
					Source: Y710012-01					
										Prepared: 10/05/2017 Analyzed: 10/05/2017
Benzene	0.090	0.002	mg/kg	0.100	ND	90.4	71.8-126	1.95	11.3	
Toluene	0.092	0.002	"	0.100	ND	91.7	65.1-130	2.03	15.4	
Ethylbenzene	0.089	0.002	"	0.100	ND	89.5	62.2-130	3.38	19.6	
m,p-Xylene	0.178	0.004	"	0.200	ND	88.9	46.5-137	0.527	19.2	
o-Xylene	0.090	0.002	"	0.100	ND	90.2	54.2-134	2.13	17.9	
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		111	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.4	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 - CPC 42-10

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 B7J0501 - EPA 5030 (soil)

Matrix Spike Dup (B7J0501-MSD2)		Source: Y710012-02			Prepared: 10/05/2017 Analyzed: 10/05/2017					
Benzene	0.086	0.002	mg/kg	0.100	ND	85.8	71.8-126	2.69	11.3	
Toluene	0.102	0.002	"	0.100	ND	102	65.1-130	1.61	15.4	
Ethylbenzene	0.083	0.002	"	0.100	ND	82.6	62.2-130	3.99	19.6	
m,p-Xylene	0.183	0.004	"	0.200	ND	91.4	46.5-137	4.50	19.2	
o-Xylene	0.087	0.002	"	0.100	ND	87.4	54.2-134	5.89	17.9	
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		110	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.6	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 - CPC 42-10

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 B7J0505 - EPA 3550B

Blank (B7J0505-BLK1)

Prepared: 10/05/2017 Analyzed: 10/05/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	47		"	50.0		93.9	59-131			

LCS (B7J0505-BS1)

Prepared: 10/05/2017 Analyzed: 10/05/2017

Diesel (C10-C28)	1070	50.0	mg/kg	1000		107	64-121			
Residual Range Organics (C28-C40)	1090	200	"	1000		109	58-124			
Surrogate: o-Terphenyl	50		"	50.0		101	59-131			

Matrix Spike (B7J0505-MS1)

Source: Y710013-01

Prepared: 10/05/2017 Analyzed: 10/05/2017

Diesel (C10-C28)	999	50.0	mg/kg	1000	ND	99.9	53-125			
Residual Range Organics (C28-C40)	1090	200	"	1000	22.3	107	47-133			
Surrogate: o-Terphenyl	45		"	50.0		90.5	59-131			

Matrix Spike Dup (B7J0505-MSD1)

Source: Y710013-01

Prepared: 10/05/2017 Analyzed: 10/05/2017

Diesel (C10-C28)	954	50.0	mg/kg	1000	ND	95.4	53-125	4.63	20	
Residual Range Organics (C28-C40)	1050	200	"	1000	22.3	103	47-133	4.34	20	
Surrogate: o-Terphenyl	46		"	50.0		92.4	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J0507 - NO PREP										
Duplicate (B7J0507-DUP1)		Source: Y710090-02			Prepared: 10/05/2017 Analyzed: 10/05/2017					
pH	6.60		pH Units		6.79			2.84	25	
Batch B7J0508 - NO PREP										
Blank (B7J0508-BLK1)		Prepared: 10/05/2017 Analyzed: 10/05/2017								
Specific Conductance (EC)	0.00200		mmhos/cm							
Duplicate (B7J0508-DUP1)		Source: Y710090-02			Prepared: 10/05/2017 Analyzed: 10/05/2017					
Specific Conductance (EC)	0.214		mmhos/cm		0.236			9.54	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.

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President



October 19, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. October 16, 2017. This project is associated with Origins project number Y710235-01.

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 - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S04@9'	Y710235-01	Soil	October 16, 2017 15:45	10/16/2017 16:54
S05@10'	Y710235-02	Soil	October 16, 2017 15:50	10/16/2017 16:54

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

ORIGINS
LABORATORY, INC

www.originslaboratory.com

1710235 page 1 of 1

Client: APL
Address: _____
Telephone Number: _____
Email Address: Cornez@tasman-geo.com
Project Manager: Bob Cornez
Project Name: CPC 42-10
Project Number: _____
Samples Collected By: Allen Chapin

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

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summation		
50429'	10/16/17	1545	2									1
505610'	↓	1550	2									2
												3
												4
												5
												6
												7
												8
												9
												10

Relinquished By: <u>Mr. [Signature]</u>	Date: <u>10/16/17</u>	Time: <u>1654</u>	Received By: <u>[Signature]</u>	Date: <u>10/16/17</u>	Time: <u>1654</u>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

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

Temp Received: 4.2 Date Results Needed: _____

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 - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1710235 Client: Tasman
Client Project ID: KMG - CPC 42-10
Checklist Completed by: [Signature] Shipped Via: Pick-up
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
Date/time completed: 10-16-17 18:01 Airbill #: N/A
Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____
Cooler Number/Temperature: 1 4.2 °C 1 °C 1 °C (Describe)
Thermometer ID: 1603

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 10-16-17 18:01

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 - CPC 42-10

S04@9'

10/16/2017 3:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710235-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	594	25.0	mg/kg	1	B7J1604	10/16/2017	10/17/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	73.8 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	730	50.0	mg/kg	250	B7J1603	10/16/2017	10/17/2017	
Benzene	ND	0.050	"	25	"	"	10/16/2017	U
Toluene	ND	0.002	"	1	"	"	10/19/2017	U
Ethylbenzene	1.30	0.050	"	25	"	"	10/16/2017	
Xylenes, total	2.78	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	96.5 %	70-130			"	"	"	
Surrogate: Toluene-d8	115 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	108 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.32		pH Units	1	B7J1605	10/16/2017	10/16/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.470		mmhos/cm	"	B7J1606	10/16/2017	"	
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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 - CPC 42-10

S05@10'

10/16/2017 3:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710235-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7J1604	10/16/2017	10/17/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 80.3 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7J1603	10/16/2017	10/17/2017	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	10/19/2017	U
Ethylbenzene	ND	0.002	"	"	"	"	10/17/2017	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 103 % 70-130 " " "
Surrogate: Toluene-d8 95.7 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 91.9 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.86		pH Units	1	B7J1605	10/16/2017	10/16/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.281		mmhos/cm	"	B7J1606	10/16/2017	"	
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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1603 - EPA 5030 (soil)										
Blank (B7J1603-BLK1)					Prepared: 10/16/2017 Analyzed: 10/16/2017					
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	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		102	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 - CPC 42-10

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 B7J1603 - EPA 5030 (soil)										
Blank (B7J1603-BLK2)					Prepared: 10/16/2017 Analyzed: 10/16/2017					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	0.008	0.002	"							O-01
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	56		ug/kg	62.5		89.0	70-130			
Surrogate: Toluene-d8	58		"	62.5		93.6	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1603 - EPA 5030 (soil)										
LCS (B7J1603-BS1)					Prepared: 10/16/2017 Analyzed: 10/16/2017					
Benzene	0.099	0.002	mg/kg	0.100		99.4	77.1-124			
Toluene	0.096	0.002	"	0.100		96.0	74.5-128			
Ethylbenzene	0.094	0.002	"	0.100		93.9	66.4-127			
m,p-Xylene	0.191	0.004	"	0.200		95.5	76.6-124			
o-Xylene	0.095	0.002	"	0.100		95.4	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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 - CPC 42-10

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 B7J1603 - EPA 5030 (soil)										
LCS (B7J1603-BS2)					Prepared: 10/16/2017 Analyzed: 10/16/2017					
Benzene	0.091	0.002	mg/kg	0.100		91.0	77.1-124			
Toluene	0.096	0.002	"	0.100		96.2	74.5-128			
Ethylbenzene	0.096	0.002	"	0.100		95.5	66.4-127			
m,p-Xylene	0.191	0.004	"	0.200		95.5	76.6-124			
o-Xylene	0.091	0.002	"	0.100		91.3	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	54		ug/kg	62.5		85.7	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		95.0	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1603 - EPA 5030 (soil)

Matrix Spike (B7J1603-MS1)		Source: Y710210-02			Prepared: 10/16/2017 Analyzed: 10/16/2017					
Benzene	2.45	0.050	mg/kg	2.50	ND	97.9	71.8-126			
Toluene	2.40	0.050	"	2.50	ND	95.8	65.1-130			
Ethylbenzene	2.36	0.050	"	2.50	ND	94.4	62.2-130			
m,p-Xylene	4.72	0.100	"	5.00	ND	94.3	46.5-137			
o-Xylene	2.38	0.050	"	2.50	ND	95.2	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		94.4	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1603 - EPA 5030 (soil)

Matrix Spike (B7J1603-MS2)		Source: Y710227-01			Prepared: 10/16/2017 Analyzed: 10/16/2017					
Benzene	0.095	0.002	mg/kg	0.100	ND	94.9	71.8-126			
Toluene	0.105	0.002	"	0.100	ND	105	65.1-130			
Ethylbenzene	0.100	0.002	"	0.100	ND	99.9	62.2-130			
m,p-Xylene	0.191	0.004	"	0.200	ND	95.7	46.5-137			
o-Xylene	0.088	0.002	"	0.100	ND	87.7	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	56		ug/kg	62.5		89.2	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	51		"	62.5		82.0	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1603 - EPA 5030 (soil)										
Matrix Spike Dup (B7J1603-MSD1)		Source: Y710210-02			Prepared: 10/16/2017 Analyzed: 10/16/2017					
Benzene	2.56	0.050	mg/kg	2.50	ND	102	71.8-126	4.53	11.3	
Toluene	2.47	0.050	"	2.50	ND	98.7	65.1-130	3.00	15.4	
Ethylbenzene	2.45	0.050	"	2.50	ND	98.1	62.2-130	3.80	19.6	
m,p-Xylene	4.95	0.100	"	5.00	ND	99.0	46.5-137	4.83	19.2	
o-Xylene	2.49	0.050	"	2.50	ND	99.5	54.2-134	4.42	17.9	
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		105	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.2	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1603 - EPA 5030 (soil)

Matrix Spike Dup (B7J1603-MSD2)		Source: Y710227-01			Prepared: 10/16/2017 Analyzed: 10/16/2017					
Benzene	0.089	0.002	mg/kg	0.100	ND	89.0	71.8-126	6.39	11.3	
Toluene	0.103	0.002	"	0.100	ND	103	65.1-130	2.21	15.4	
Ethylbenzene	0.094	0.002	"	0.100	ND	93.5	62.2-130	6.62	19.6	
m,p-Xylene	0.187	0.004	"	0.200	ND	93.6	46.5-137	2.24	19.2	
o-Xylene	0.090	0.002	"	0.100	ND	90.2	54.2-134	2.86	17.9	
Surrogate: 1,2-Dichloroethane-d4	54		ug/kg	62.5		87.2	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.5	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1604 - EPA 3550B

Blank (B7J1604-BLK1)

Prepared: 10/16/2017 Analyzed: 10/16/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	39		"	50.0		77.9	59-131			

Blank (B7J1604-BLK2)

Prepared: 10/16/2017 Analyzed: 10/16/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	44		"	50.0		87.2	59-131			

LCS (B7J1604-BS1)

Prepared: 10/16/2017 Analyzed: 10/16/2017

Diesel (C10-C28)	1080	50.0	mg/kg	1000		108	64-121			
Residual Range Organics (C28-C40)	1110	200	"	1000		111	58-124			
Surrogate: o-Terphenyl	56		"	50.0		111	59-131			

LCS (B7J1604-BS2)

Prepared: 10/16/2017 Analyzed: 10/16/2017

Diesel (C10-C28)	897	50.0	mg/kg	1000		89.7	64-121			
Residual Range Organics (C28-C40)	1030	200	"	1000		103	58-124			
Surrogate: o-Terphenyl	48		"	50.0		95.5	59-131			

Matrix Spike (B7J1604-MS1)

Source: Y710210-02

Prepared: 10/16/2017 Analyzed: 10/16/2017

Diesel (C10-C28)	1040	50.0	mg/kg	1000	ND	104	53-125			
Residual Range Organics (C28-C40)	1010	200	"	1000	ND	101	47-133			

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 - CPC 42-10

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 B7J1604 - EPA 3550B										
Matrix Spike (B7J1604-MS1)		Source: Y710210-02			Prepared: 10/16/2017 Analyzed: 10/16/2017					
Surrogate: o-Terphenyl	55		mg/kg	50.0		109	59-131			
Matrix Spike (B7J1604-MS2)		Source: Y710134-01			Prepared: 10/16/2017 Analyzed: 10/16/2017					
Diesel (C10-C28)	945	50.0	mg/kg	1000	19.8	92.6	53-125			
Residual Range Organics (C28-C40)	887	200	"	1000	ND	88.7	47-133			
Surrogate: o-Terphenyl	45		"	50.0		90.1	59-131			
Matrix Spike Dup (B7J1604-MSD1)		Source: Y710210-02			Prepared: 10/16/2017 Analyzed: 10/16/2017					
Diesel (C10-C28)	801	50.0	mg/kg	1000	ND	80.1	53-125	26.2	20	QR-02
Residual Range Organics (C28-C40)	597	200	"	1000	ND	59.7	47-133	51.4	20	QR-02
Surrogate: o-Terphenyl	41		"	50.0		81.2	59-131			
Matrix Spike Dup (B7J1604-MSD2)		Source: Y710134-01			Prepared: 10/16/2017 Analyzed: 10/16/2017					
Diesel (C10-C28)	881	50.0	mg/kg	1000	19.8	86.1	53-125	7.17	20	
Residual Range Organics (C28-C40)	928	200	"	1000	ND	92.8	47-133	4.54	20	
Surrogate: o-Terphenyl	46		"	50.0		92.5	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1605 - NO PREP										
Duplicate (B7J1605-DUP1)	Source: Y710210-02				Prepared: 10/16/2017 Analyzed: 10/16/2017					
pH	7.73		pH Units		8.02			3.68	25	
Duplicate (B7J1605-DUP2)	Source: Y710227-01				Prepared: 10/16/2017 Analyzed: 10/16/2017					
pH	7.36		pH Units		7.47			1.48	25	
Batch B7J1606 - NO PREP										
Blank (B7J1606-BLK1)	Prepared: 10/16/2017 Analyzed: 10/16/2017									
Specific Conductance (EC)	0.00420		mmhos/cm							
Blank (B7J1606-BLK2)	Prepared: 10/16/2017 Analyzed: 10/16/2017									
Specific Conductance (EC)	0.00230		mmhos/cm							
Duplicate (B7J1606-DUP1)	Source: Y710210-02				Prepared: 10/16/2017 Analyzed: 10/16/2017					
Specific Conductance (EC)	0.149		mmhos/cm		0.146			2.10	25	
Duplicate (B7J1606-DUP2)	Source: Y710227-01				Prepared: 10/16/2017 Analyzed: 10/16/2017					
Specific Conductance (EC)	0.398		mmhos/cm		0.393			1.29	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.

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

O-01 This compound is a common laboratory contaminant.

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.

October 18, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. October 17, 2017. This project is associated with Origins project number Y710255-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E05@10'	Y710255-01	Soil	October 17, 2017 15:00	10/17/2017 16:49
W04@10'	Y710255-02	Soil	October 17, 2017 15:04	10/17/2017 16:49
S06@8'	Y710255-03	Soil	October 17, 2017 15:06	10/17/2017 16:49
B07@11'	Y710255-04	Soil	October 17, 2017 15:08	10/17/2017 16:49

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

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

ORIGINS

LABORATORY, INC

www.originslaboratory.com

171055

page ☐ of ☐

Client:

APC

Address:

6899 Peas St. Denver, Unit C

Project Manager:

Bob Cornezz

Project Name:

CPG-42-10

Project Number:

Telephone Number:

303 810 2414

Email Address:

[Cornezz@tasman-geo.com]

Samples Collected By:

~~Bob~~ Zander H

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions			
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa #			Other		
E05 @ 10'	10/17/17	15:00	2	X					X		X	X	Y	Q17K TUSW	1
W04 @ 10'	10/17/17	15:04	2	X					X		X	X	Y		2
S06 @ 8'	10/17/17	15:06	2	X					X		X	X	Y		3
B07 @ 11'	10/17/17	15:08	2	X					X		X	X	Y		4
															5
															6
															7
															8
															9
															10
Relinquished By:	Alexander Hamilton	Date:	10/17/17	Time:	15:15	Received By:		Date:		Time:		Turnaround Time:	Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input checked="" type="checkbox"/>		
Relinquished By:		Date:		Time:		Received By:		Date:	10/17/17	Time:	1649				

Date Results Needed

29

Origins Laboratory, Inc.

Jeff Pellipini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: Y710 255

Client: Tasman

Client Project ID: KMG - CPC - 42 - 10

Checklist Completed by: D. Cornez

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

Date/time completed: 10-17-17 1703

Airbill #: 28

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

Cooler Number/Temperature: 1 / 2.9 °C 1 / _____ °C 1 / _____ °C (Describe)

Thermometer ID: 9003

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

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

Reviewed by (Project Manager) [Signature]

10-17-17 1703
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

E05@10'

10/17/2017 3:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710255-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	681	25.0	mg/kg	1	B7J1702	10/17/2017	10/17/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	95.5 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	676	50.0	mg/kg	250	B7J1701	10/17/2017	10/18/2017	
Benzene	0.516	0.050	"	25	"	"	"	
Toluene	0.098	0.050	"	"	"	"	"	
Ethylbenzene	6.02	0.050	"	"	"	"	"	
Xylenes, total	4.88	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	94.3 %	70-130			"	"	"	
Surrogate: Toluene-d8	90.9 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	130 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.16		pH Units	1	B7J1703	10/17/2017	10/17/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.08		mmhos/cm	"	B7J1704	10/17/2017	10/17/2017	
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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 - CPC 42-10

W04@10'

10/17/2017 3:04:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710255-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	54.2	25.0	mg/kg	1	B7J1702	10/17/2017	10/17/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	80.2 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	5.94	5.00	mg/kg	25	B7J1701	10/17/2017	10/17/2017	
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	90.1 %	70-130			"	"	"	
Surrogate: Toluene-d8	97.8 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	98.1 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.33		pH Units	1	B7J1703	10/17/2017	10/17/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.56		mmhos/cm	"	B7J1704	10/17/2017	10/17/2017	
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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 - CPC 42-10

S06@8'

10/17/2017 3:06:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710255-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	354	25.0	mg/kg	1	B7J1702	10/17/2017	10/17/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	88.2 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	69.7	5.00	mg/kg	25	B7J1701	10/17/2017	10/18/2017	
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	86.3 %	70-130			"	"	"	
Surrogate: Toluene-d8	94.4 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	96.1 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.80		pH Units	1	B7J1703	10/17/2017	10/17/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.501		mmhos/cm	"	B7J1704	10/17/2017	10/17/2017	
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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 - CPC 42-10

B07@11'

10/17/2017 3:08:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710255-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7J1702	10/17/2017	10/17/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 71.6 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7J1701	10/17/2017	10/17/2017	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 99.0 % 70-130 " " "
Surrogate: Toluene-d8 95.0 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 97.6 % 70-130 " " "

pH in Soil by EPA 9045D

pH	7.62	pH Units	1	B7J1703	10/17/2017	10/17/2017
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.798	mmhos/cm	"	B7J1704	10/17/2017	10/17/2017
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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 - CPC 42-10

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 B7J1701 - EPA 5030 (soil)										
Blank (B7J1701-BLK1)					Prepared: 10/17/2017 Analyzed: 10/17/2017					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	0.002	0.002	"							
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		99.8	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.9	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1701 - EPA 5030 (soil)										
LCS (B7J1701-BS1)					Prepared: 10/17/2017 Analyzed: 10/17/2017					
Benzene	0.100	0.002	mg/kg	0.100		99.6	77.1-124			
Toluene	0.109	0.002	"	0.100		109	74.5-128			
Ethylbenzene	0.096	0.002	"	0.100		96.2	66.4-127			
m,p-Xylene	0.186	0.004	"	0.200		92.9	76.6-124			
o-Xylene	0.095	0.002	"	0.100		95.2	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	60		"	62.5		95.2	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.1	70-130			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1701 - EPA 5030 (soil)

Matrix Spike (B7J1701-MS1)		Source: Y710161-01			Prepared: 10/17/2017 Analyzed: 10/17/2017					
Benzene	0.103	0.002	mg/kg	0.100	ND	103	71.8-126			
Toluene	0.100	0.002	"	0.100	ND	99.6	65.1-130			
Ethylbenzene	0.100	0.002	"	0.100	ND	100	62.2-130			
m,p-Xylene	0.195	0.004	"	0.200	ND	97.4	46.5-137			
o-Xylene	0.098	0.002	"	0.100	ND	98.2	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	71		ug/kg	62.5		114	70-130			
Surrogate: Toluene-d8	59		"	62.5		95.1	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		95.0	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 - CPC 42-10

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 B7J1701 - EPA 5030 (soil)

Matrix Spike Dup (B7J1701-MSD1)		Source: Y710161-01			Prepared: 10/17/2017 Analyzed: 10/17/2017					
Benzene	0.098	0.002	mg/kg	0.100	ND	98.2	71.8-126	5.28	11.3	
Toluene	0.097	0.002	"	0.100	ND	97.1	65.1-130	2.52	15.4	
Ethylbenzene	0.092	0.002	"	0.100	ND	91.7	62.2-130	8.91	19.6	
m,p-Xylene	0.181	0.004	"	0.200	ND	90.3	46.5-137	7.56	19.2	
o-Xylene	0.094	0.002	"	0.100	ND	93.5	54.2-134	4.92	17.9	
Surrogate: 1,2-Dichloroethane-d4	71		ug/kg	62.5		113	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		96.9	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 - CPC 42-10

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 B7J1702 - EPA 3550B

Blank (B7J1702-BLK1)

Prepared: 10/17/2017 Analyzed: 10/17/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	37		"	50.0		74.3	59-131			

LCS (B7J1702-BS1)

Prepared: 10/17/2017 Analyzed: 10/17/2017

Diesel (C10-C28)	1190	50.0	mg/kg	1000		119	64-121			
Residual Range Organics (C28-C40)	1050	200	"	1000		105	58-124			
Surrogate: o-Terphenyl	55		"	50.0		111	59-131			

Matrix Spike (B7J1702-MS1)

Source: Y710256-01

Prepared: 10/17/2017 Analyzed: 10/17/2017

Diesel (C10-C28)	1080	50.0	mg/kg	1000	17.6	106	53-125			
Residual Range Organics (C28-C40)	895	200	"	1000	ND	89.5	47-133			
Surrogate: o-Terphenyl	49		"	50.0		98.8	59-131			

Matrix Spike Dup (B7J1702-MSD1)

Source: Y710256-01

Prepared: 10/17/2017 Analyzed: 10/17/2017

Diesel (C10-C28)	968	50.0	mg/kg	1000	17.6	95.0	53-125	11.0	20	
Residual Range Organics (C28-C40)	667	200	"	1000	ND	66.7	47-133	29.2	20	QR-02
Surrogate: o-Terphenyl	46		"	50.0		92.4	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 - CPC 42-10

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 B7J1703 - NO PREP										
Duplicate (B7J1703-DUP1)		Source: Y710253-01			Prepared: 10/17/2017 Analyzed: 10/17/2017					
pH	6.75		pH Units		6.86			1.62	25	
Batch B7J1704 - NO PREP										
Blank (B7J1704-BLK1)		Prepared: 10/17/2017 Analyzed: 10/17/2017								
Specific Conductance (EC)	0.00270		mmhos/cm							
Duplicate (B7J1704-DUP1)		Source: Y710253-01			Prepared: 10/17/2017 Analyzed: 10/17/2017					
Specific Conductance (EC)	0.162		mmhos/cm		0.146			10.3	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 - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

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.

October 19, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. October 18, 2017. This project is associated with Origins project number Y710272-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
E06@10'	Y710272-01	Soil	October 18, 2017 13:00	10/18/2017 17:03

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

www.originslaboratory.com

page 1 of 1

710272

ORIGINS
LABORATORY, INC

Client: APC
Address: _____
Telephone Number: _____
Email Address: RCornez@tasman-geo.com
Project Manager: Bob Cornez
Project Name: CPC 42-10
Project Number: _____
Samples Collected By: APC

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Continer #			
206 e 10'	10/18/17	1300	2										1
													2
													3
													4
													5
													6
													7
													8
													9
													10

Relinquished By: <u>APC</u>	Date:	10/18/17	Time:	1303	Received By: <u>APC</u>	Date:	10-18-17	Time:	1703	Turnaround Time: 24 Hr <input type="checkbox"/> 48 Hr <input checked="" type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>
	Date:		Time:			Date:		Time:		

Temp Received: 10°C Date Results Needed

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 - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4710272

Client: Tasman

Client Project ID: KMG CPC 42-10

Checklist Completed by: Don Lu

Shipped Via: 110
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Date/time completed: 10-18-12 12:15

Airbill #: NA

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

Cooler Number/Temperature: 1 1.6 °C 1 °C 1 °C (Describe) 1 °C

Thermometer ID: 7003

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

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

Reviewed by (Project Manager) Don Lu

10-18-12 12:20
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

E06@10'

10/18/2017 1:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710272-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	30.6	25.0	mg/kg	1	B7J1806	10/18/2017	10/18/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	83.7 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	24.9	5.00	mg/kg	25	B7J1802	10/18/2017	10/18/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.165	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	94.1 %	70-130			"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	97.1 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	7.96		pH Units	1	B7J1807	10/18/2017	10/18/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.425		mmhos/cm	"	B7J1808	"	"	
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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 - CPC 42-10

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 B7J1802 - EPA 5030 (soil)										
Blank (B7J1802-BLK1)					Prepared: 10/18/2017 Analyzed: 10/18/2017					
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	59		ug/kg	62.5		95.2	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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 - CPC 42-10

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 B7J1802 - EPA 5030 (soil)										
LCS (B7J1802-BS1)					Prepared: 10/18/2017 Analyzed: 10/18/2017					
Benzene	0.099	0.002	mg/kg	0.100		99.4	77.1-124			
Toluene	0.100	0.002	"	0.100		100	74.5-128			
Ethylbenzene	0.111	0.002	"	0.100		111	66.4-127			
m,p-Xylene	0.232	0.004	"	0.200		116	76.6-124			
o-Xylene	0.112	0.002	"	0.100		112	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		110	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	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 - CPC 42-10

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 B7J1802 - EPA 5030 (soil)

Matrix Spike (B7J1802-MS1)		Source: Y710148-01			Prepared: 10/18/2017 Analyzed: 10/18/2017					
Benzene	0.092	0.002	mg/kg	0.100	ND	92.2	71.8-126			
Toluene	0.113	0.002	"	0.100	ND	113	65.1-130			
Ethylbenzene	0.079	0.002	"	0.100	ND	78.8	62.2-130			
m,p-Xylene	0.162	0.004	"	0.200	ND	81.1	46.5-137			
o-Xylene	0.081	0.002	"	0.100	ND	81.1	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	62		ug/kg	62.5		100	70-130			
Surrogate: Toluene-d8	69		"	62.5		110	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.8	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 - CPC 42-10

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 B7J1802 - EPA 5030 (soil)										
Matrix Spike Dup (B7J1802-MSD1)										
					Source: Y710148-01					
										Prepared: 10/18/2017 Analyzed: 10/18/2017
Benzene	0.100	0.002	mg/kg	0.100	ND	99.5	71.8-126	7.59	11.3	
Toluene	0.108	0.002	"	0.100	ND	108	65.1-130	4.89	15.4	
Ethylbenzene	0.094	0.002	"	0.100	ND	93.8	62.2-130	17.3	19.6	
m,p-Xylene	0.187	0.004	"	0.200	ND	93.3	46.5-137	13.9	19.2	
o-Xylene	0.094	0.002	"	0.100	ND	94.5	54.2-134	15.3	17.9	
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		96.4	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.6	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 - CPC 42-10

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 B7J1806 - EPA 3550B

Blank (B7J1806-BLK1)

Prepared: 10/18/2017 Analyzed: 10/19/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	33		"	50.0		66.3	59-131			

LCS (B7J1806-BS1)

Prepared: 10/18/2017 Analyzed: 10/18/2017

Diesel (C10-C28)	1130	50.0	mg/kg	1000		113	64-121			
Residual Range Organics (C28-C40)	942	200	"	1000		94.2	58-124			
Surrogate: o-Terphenyl	52		"	50.0		104	59-131			

Matrix Spike (B7J1806-MS1)

Source: Y710268-01

Prepared: 10/18/2017 Analyzed: 10/18/2017

Diesel (C10-C28)	1030	50.0	mg/kg	1000	ND	103	53-125			
Residual Range Organics (C28-C40)	816	200	"	1000	ND	81.6	47-133			
Surrogate: o-Terphenyl	47		"	50.0		93.5	59-131			

Matrix Spike Dup (B7J1806-MSD1)

Source: Y710268-01

Prepared: 10/18/2017 Analyzed: 10/18/2017

Diesel (C10-C28)	1140	50.0	mg/kg	1000	ND	114	53-125	9.77	20	
Residual Range Organics (C28-C40)	1040	200	"	1000	ND	104	47-133	24.1	20	QR-02
Surrogate: o-Terphenyl	54		"	50.0		108	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 - CPC 42-10

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 B7J1807 - NO PREP										
Duplicate (B7J1807-DUP1)		Source: Y710271-01			Prepared: 10/18/2017 Analyzed: 10/18/2017					
pH	8.62		pH Units		9.34			8.02	25	
Batch B7J1808 - NO PREP										
Blank (B7J1808-BLK1)		Prepared: 10/18/2017 Analyzed: 10/18/2017								
Specific Conductance (EC)	0.00190		mmhos/cm							
Duplicate (B7J1808-DUP1)		Source: Y710271-01			Prepared: 10/18/2017 Analyzed: 10/18/2017					
Specific Conductance (EC)	0.148		mmhos/cm		0.159			7.28	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.

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President

October 20, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. October 19, 2017. This project is associated with Origins project number Y710290-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B08@11'	Y710290-01	Soil	October 19, 2017 16:25	10/19/2017 17:34
S07@10'	Y710290-02	Soil	October 19, 2017 16:31	10/19/2017 17:34
W05@10'	Y710290-03	Soil	October 19, 2017 16:40	10/19/2017 17:34
E07@9'	Y710290-04	Soil	October 19, 2017 16:47	10/19/2017 17:34

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

www.originslaboratory.com

page 1 of 1

710240

ORIGINS
LABORATORY, INC

Client: APC
Address: 6899 Pecos St. Denver, Unit C
Telephone Number: 303 810 2414
Email Address: rcornez@tasman-geo.com

Project Manager: Bob Cornez
Project Name: CPC 42-10
Project Number:
Samples Collected By: M.H.P.

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis	Sample Instructions	
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa			Other
POB011	10/19/17	16:25	2									1	
SAT010	10/19/17	16:31	2									2	
W05010	10/19/17	16:40	2									3	
EX0001	10/19/17	16:47	2									4	
												5	
												6	
												7	
												8	
												9	
												10	

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
[Signature]	10/19/17	17:34	[Signature]	10-19-17	17:34	24 Hr <input checked="" type="checkbox"/> Same Day <input checked="" 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: 1/9

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4710290

Client: Tasman

Client Project ID: KMG - CPC 42-10

Checklist Completed by: Dr. L
Date/time completed: 10-26-12 1754

Shipped Via: 487
(UPS, FedEx, Hand Delivered, Pick-up, etc.)
Airbill #: 487

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

Cooler Number/Temperature: 1 / 1.8 °C 1 / _____ °C 1 / _____ °C (Describe)

Thermometer ID: 603

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

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

Reviewed by (Project Manager) [Signature]

Date/Time Reviewed 10-26-12 1754

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 - CPC 42-10

B08@11'

10/19/2017 4:25:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710290-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7J1902	10/19/2017	10/19/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 72.8 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7J1901	"	10/19/2017	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 99.0 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 104 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.11		pH Units	1	B7J1903	10/19/2017	10/19/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.524		mmhos/cm	"	B7J1904	10/19/2017	"	
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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 - CPC 42-10

S07@10'

10/19/2017 4:31:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710290-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	116	25.0	mg/kg	1	B7J1902	10/19/2017	10/20/2017	
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	65.8	5.00	mg/kg	25	B7J1901	"	10/19/2017	
Benzene	0.051	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.362	0.050	"	"	"	"	"	
Xylenes, total	0.236	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.5 %	70-130			"	"	"	
Surrogate: Toluene-d8	103 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	95.4 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.74		pH Units	1	B7J1903	10/19/2017	10/19/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.747		mmhos/cm	"	B7J1904	10/19/2017	"	
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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 - CPC 42-10

W05@10'

10/19/2017 4:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710290-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	310	25.0	mg/kg	1	B7J1902	10/19/2017	10/20/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	67.2 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	238	5.00	mg/kg	25	B7J1901	"	10/19/2017	
Benzene	0.385	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	1.25	0.050	"	"	"	"	"	
Xylenes, total	4.33	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	97.8 %	70-130			"	"	"	
Surrogate: Toluene-d8	120 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	102 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	9.03		pH Units	1	B7J1903	10/19/2017	10/19/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.865		mmhos/cm	"	B7J1904	10/19/2017	"	
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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 - CPC 42-10

E07@9'

10/19/2017 4:47:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710290-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	957	25.0	mg/kg	1	B7J1902	10/19/2017	10/20/2017
Residual Range Organics (C28-C40)	141	100	"	"	"	"	"

Surrogate: o-Terphenyl	92.1 %	59-131			"	"	"
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	727	50.0	mg/kg	250	B7J1901	"	10/19/2017
Benzene	0.343	0.050	"	25	"	"	10/20/2017
Toluene	ND	0.050	"	"	"	"	" U
Ethylbenzene	3.16	0.498	"	250	"	"	10/19/2017
Xylenes, total	3.14	0.050	"	25	"	"	10/20/2017

Surrogate: 1,2-Dichloroethane-d4	99.5 %	70-130			"	"	10/19/2017
Surrogate: Toluene-d8	106 %	70-130			"	"	"
Surrogate: 4-Bromofluorobenzene	96.5 %	70-130			"	"	"

pH in Soil by EPA 9045D

pH	8.97		pH Units	1	B7J1903	10/19/2017	10/19/2017
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.627		mmhos/cm	"	B7J1904	10/19/2017	"
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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 - CPC 42-10

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 B7J1901 - EPA 5030 (soil)										
Blank (B7J1901-BLK1)					Prepared: 10/19/2017 Analyzed: 10/19/2017					
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	65		"	62.5		104	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1901 - EPA 5030 (soil)										
LCS (B7J1901-BS1)					Prepared: 10/19/2017 Analyzed: 10/19/2017					
Benzene	0.112	0.002	mg/kg	0.100		112	77.1-124			
Toluene	0.098	0.002	"	0.100		98.2	74.5-128			
Ethylbenzene	0.111	0.002	"	0.100		111	66.4-127			
m,p-Xylene	0.216	0.004	"	0.200		108	76.6-124			
o-Xylene	0.109	0.002	"	0.100		109	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	59		ug/kg	62.5		94.2	70-130			
Surrogate: Toluene-d8	55		"	62.5		87.7	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	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 - CPC 42-10

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 B7J1901 - EPA 5030 (soil)

Matrix Spike (B7J1901-MS1)		Source: Y710246-01			Prepared: 10/19/2017 Analyzed: 10/19/2017					
Benzene	0.111	0.002	mg/kg	0.100	ND	111	71.8-126			
Toluene	0.120	0.002	"	0.100	0.001	119	65.1-130			
Ethylbenzene	0.110	0.002	"	0.100	ND	110	62.2-130			
m,p-Xylene	0.213	0.004	"	0.200	ND	106	46.5-137			
o-Xylene	0.108	0.002	"	0.100	ND	108	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	61		ug/kg	62.5		97.6	70-130			
Surrogate: Toluene-d8	65		"	62.5		104	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	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 - CPC 42-10

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 B7J1901 - EPA 5030 (soil)										
Matrix Spike Dup (B7J1901-MSD1)		Source: Y710246-01			Prepared: 10/19/2017 Analyzed: 10/19/2017					
Benzene	0.122	0.002	mg/kg	0.100	ND	122	71.8-126	9.81	11.3	
Toluene	0.118	0.002	"	0.100	0.001	117	65.1-130	1.83	15.4	
Ethylbenzene	0.107	0.002	"	0.100	ND	107	62.2-130	2.55	19.6	
m,p-Xylene	0.209	0.004	"	0.200	ND	104	46.5-137	1.91	19.2	
o-Xylene	0.105	0.002	"	0.100	ND	105	54.2-134	2.14	17.9	
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		109	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	53		"	62.5		84.7	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1902 - EPA 3550B

Blank (B7J1902-BLK2)

Prepared: 10/19/2017 Analyzed: 10/19/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	46		"	50.0		91.2	59-131			

Blank (B7J1902-BLK3)

Prepared: 10/19/2017 Analyzed: 10/20/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	45		"	50.0		89.8	59-131			

LCS (B7J1902-BS2)

Prepared: 10/19/2017 Analyzed: 10/19/2017

Diesel (C10-C28)	991	50.0	mg/kg	1000		99.1	64-121			
Residual Range Organics (C28-C40)	985	200	"	1000		98.5	58-124			
Surrogate: o-Terphenyl	45		"	50.0		89.6	59-131			

LCS (B7J1902-BS3)

Prepared: 10/19/2017 Analyzed: 10/20/2017

Diesel (C10-C28)	1030	50.0	mg/kg	1000		103	64-121			
Residual Range Organics (C28-C40)	744	200	"	1000		74.4	58-124			
Surrogate: o-Terphenyl	45		"	50.0		90.2	59-131			

Matrix Spike (B7J1902-MS2)

Source: Y710284-05

Prepared: 10/19/2017 Analyzed: 10/19/2017

Diesel (C10-C28)	1100	50.0	mg/kg	1000	16.4	109	53-125			
Residual Range Organics (C28-C40)	1800	200	"	1000	ND	180	47-133			QM-07

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 - CPC 42-10

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 B7J1902 - EPA 3550B										
Matrix Spike (B7J1902-MS2)		Source: Y710284-05			Prepared: 10/19/2017 Analyzed: 10/19/2017					
Surrogate: o-Terphenyl	40		mg/kg	50.0		79.4	59-131			
Matrix Spike (B7J1902-MS3)		Source: Y710290-01			Prepared: 10/19/2017 Analyzed: 10/20/2017					
Diesel (C10-C28)	995	50.0	mg/kg	1000	20.5	97.5	53-125			
Residual Range Organics (C28-C40)	674	200	"	1000	ND	67.4	47-133			
Surrogate: o-Terphenyl	44		"	50.0		88.4	59-131			
Matrix Spike Dup (B7J1902-MSD2)		Source: Y710284-05			Prepared: 10/19/2017 Analyzed: 10/19/2017					
Diesel (C10-C28)	1130	50.0	mg/kg	1000	16.4	111	53-125	2.56	20	
Residual Range Organics (C28-C40)	1730	200	"	1000	ND	173	47-133	4.05	20	QM-07
Surrogate: o-Terphenyl	43		"	50.0		85.4	59-131			
Matrix Spike Dup (B7J1902-MSD3)		Source: Y710290-01			Prepared: 10/19/2017 Analyzed: 10/20/2017					
Diesel (C10-C28)	984	50.0	mg/kg	1000	20.5	96.4	53-125	1.15	20	
Residual Range Organics (C28-C40)	671	200	"	1000	ND	67.1	47-133	0.436	20	
Surrogate: o-Terphenyl	44		"	50.0		87.8	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J1903 - NO PREP										
Duplicate (B7J1903-DUP1)		Source: Y710186-01			Prepared: 10/19/2017 Analyzed: 10/19/2017					
pH	7.22		pH Units		7.35			1.78	25	
Batch B7J1904 - NO PREP										
Blank (B7J1904-BLK1)		Prepared: 10/19/2017 Analyzed: 10/19/2017								
Specific Conductance (EC)	0.00190		mmhos/cm							
Duplicate (B7J1904-DUP1)		Source: Y710186-01			Prepared: 10/19/2017 Analyzed: 10/19/2017					
Specific Conductance (EC)	0.494		mmhos/cm		0.399			21.3	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.

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

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

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President

November 01, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. October 31, 2017. This project is associated with Origins project number Y710466-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S06@12'	Y710466-01	Soil	October 31, 2017 16:00	10/31/2017 17:22
B09@13'	Y710466-02	Soil	October 31, 2017 16:02	10/31/2017 17:22
W06@6'	Y710466-03	Soil	October 31, 2017 16:04	10/31/2017 17:22
W07@12'	Y710466-04	Soil	October 31, 2017 16:06	10/31/2017 17:22

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 - CPC 42-10

www.originslaboratory.com

page 1 of 1

ORIGINS LABORATORY, INC

Client: APL Project Manager/Send Report To: Bob Cornez

Address: _____ Email Address: Cornez@tasman-geo.com

Telephone Number: _____ Project Name/Number: CPL 42-10

_____ Samples Collected By: Alex G.

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative	Matrix	Analysis/Method	Sample Instructions
S06e 12'	10/31/17	1600	2	Unpreserved	Soil	6078x 8260 8015 72C #1 5.0m (U/V Hold)	1
D04e 13'	10/31/17	1602	2	Unpreserved	Soil	6078x 8260 8015 72C #1 5.0m (U/V Hold)	2
W06e 6'	10/31/17	1604	2	Unpreserved	Soil	6078x 8260 8015 72C #1 5.0m (U/V Hold)	3
W07e 12'	10/31/17	1606	2	Unpreserved	Soil	6078x 8260 8015 72C #1 5.0m (U/V Hold)	4
							5
							6
							7
							8
							9
							10
Relinquished By: <u>Wm Lgn</u>	Date: <u>10/31/17</u>	Time: <u>1722</u>	Received By: <u>[Signature]</u>	Date: <u>10-31-17</u>	Time: <u>1722</u>	Turnaround Time: <u>Same Day</u>	
Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____	24 Hr <input type="checkbox"/>	
						48 Hr <input type="checkbox"/>	
						Standard <input type="checkbox"/>	

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

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 - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 710466

Client: Tasman

Client Project ID: KMG CPC 42-10

Checklist Completed by: Dan

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

Date/time completed: 10-31-17 1735

Airbill #: NA

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

Cooler Number/Temperature: ☒ 3.7 °C ☐ °C ☐ °C (Describe) _____ °C

Thermometer ID: C003

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

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

Reviewed by (Project Manager) [Signature]

10-31-17 1736
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

S06@12'

10/31/2017 4:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710466-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	112	25.0	mg/kg	1	B7J3104	10/31/2017	10/31/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	65.6 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	81.1	5.00	mg/kg	25	B7J3103	10/31/2017	11/01/2017	
Benzene	0.300	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.472	0.050	"	"	"	"	"	
Xylenes, total	0.487	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	108 %	70-130			"	"	"	
Surrogate: Toluene-d8	78.9 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	111 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.12		pH Units	1	B7J3105	10/31/2017	10/31/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.835		mmhos/cm	"	B7J3106	10/31/2017	"	
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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 - CPC 42-10

B09@13'

10/31/2017 4:02:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710466-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	233	25.0	mg/kg	1	B7J3104	10/31/2017	10/31/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	83.8 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	65.9	5.00	mg/kg	25	B7J3103	10/31/2017	11/01/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.192	0.050	"	"	"	"	"	
Xylenes, total	0.118	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"	
Surrogate: Toluene-d8	89.2 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	109 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.82		pH Units	1	B7J3105	10/31/2017	10/31/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.723		mmhos/cm	"	B7J3106	10/31/2017	"	
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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 - CPC 42-10

W06@6'

10/31/2017 4:04:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710466-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7J3104	10/31/2017	10/31/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 73.9 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	40.7	5.00	mg/kg	25	B7J3103	10/31/2017	11/01/2017	
Benzene	0.070	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.164	0.050	"	"	"	"	"	
Xylenes, total	0.414	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4 101 % 70-130 " " "
Surrogate: Toluene-d8 90.1 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 106 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.60		pH Units	1	B7J3105	10/31/2017	10/31/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.559		mmhos/cm	"	B7J3106	10/31/2017	"	
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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 - CPC 42-10

W07@12'

10/31/2017 4:06:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y710466-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	296	25.0	mg/kg	1	B7J3104	10/31/2017	10/31/2017	
Residual Range Organics (C28-C40)	115	100	"	"	"	"	"	

Surrogate: o-Terphenyl	79.5 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	106	5.00	mg/kg	25	B7J3103	10/31/2017	11/01/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.152	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	99.6 %	70-130			"	"	"	
Surrogate: Toluene-d8	79.3 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	115 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.64		pH Units	1	B7J3105	10/31/2017	10/31/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.540		mmhos/cm	"	B7J3106	10/31/2017	"	
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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 - CPC 42-10

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 B7J3103 - EPA 5030 (soil)										
Blank (B7J3103-BLK1)					Prepared: 10/31/2017 Analyzed: 10/31/2017					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							O-01, U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	77		ug/kg	62.5		123	70-130			
Surrogate: Toluene-d8	59		"	62.5		95.1	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		102	70-130			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J3103 - EPA 5030 (soil)										
LCS (B7J3103-BS1)					Prepared: 10/31/2017 Analyzed: 10/31/2017					
Benzene	0.097	0.002	mg/kg	0.100		97.1	77.1-124			
Toluene	0.091	0.002	"	0.100		91.0	74.5-128			
Ethylbenzene	0.097	0.002	"	0.100		96.7	66.4-127			
m,p-Xylene	0.198	0.004	"	0.200		99.1	76.6-124			
o-Xylene	0.100	0.002	"	0.100		99.6	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	73		ug/kg	62.5		117	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.8	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J3103 - EPA 5030 (soil)

Matrix Spike (B7J3103-MS1)		Source: Y710386-01			Prepared: 10/31/2017 Analyzed: 10/31/2017					
Benzene	0.093	0.002	mg/kg	0.100		93.0	71.8-126			
Toluene	0.084	0.002	"	0.100		83.7	65.1-130			
Ethylbenzene	0.084	0.002	"	0.100		83.8	62.2-130			
m,p-Xylene	0.166	0.004	"	0.200		83.2	46.5-137			
o-Xylene	0.084	0.002	"	0.100		83.6	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.6	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J3103 - EPA 5030 (soil)										
Matrix Spike Dup (B7J3103-MSD1)		Source: Y710386-01			Prepared: 10/31/2017 Analyzed: 10/31/2017					
Benzene	0.098	0.002	mg/kg	0.100		97.9	71.8-126	5.11	11.3	
Toluene	0.089	0.002	"	0.100		89.4	65.1-130	6.68	15.4	
Ethylbenzene	0.087	0.002	"	0.100		86.9	62.2-130	3.61	19.6	
m,p-Xylene	0.174	0.004	"	0.200		87.0	46.5-137	4.49	19.2	
o-Xylene	0.088	0.002	"	0.100		88.4	54.2-134	5.58	17.9	
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.3	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		103	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J3104 - EPA 3550B

Blank (B7J3104-BLK1)

Prepared: 10/31/2017 Analyzed: 11/01/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	33		"	50.0		66.8	59-131			

LCS (B7J3104-BS1)

Prepared: 10/31/2017 Analyzed: 10/31/2017

Diesel (C10-C28)	834	50.0	mg/kg	1000		83.4	64-121			
Residual Range Organics (C28-C40)	858	200	"	1000		85.8	58-124			
Surrogate: o-Terphenyl	47		"	50.0		93.7	59-131			

Matrix Spike (B7J3104-MS1)

Source: Y710362-01

Prepared: 10/31/2017 Analyzed: 10/31/2017

Diesel (C10-C28)	818	50.0	mg/kg	1000	ND	81.8	53-125			
Residual Range Organics (C28-C40)	901	200	"	1000	15.8	88.6	47-133			
Surrogate: o-Terphenyl	46		"	50.0		91.5	59-131			

Matrix Spike Dup (B7J3104-MSD1)

Source: Y710362-01

Prepared: 10/31/2017 Analyzed: 10/31/2017

Diesel (C10-C28)	769	50.0	mg/kg	1000	ND	76.9	53-125	6.28	20	
Residual Range Organics (C28-C40)	806	200	"	1000	15.8	79.0	47-133	11.4	20	
Surrogate: o-Terphenyl	44		"	50.0		88.9	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7J3105 - NO PREP										
Duplicate (B7J3105-DUP1)		Source: Y710386-01			Prepared: 10/31/2017 Analyzed: 10/31/2017					
pH	8.93		pH Units		9.49			6.08	25	
Batch B7J3106 - NO PREP										
Blank (B7J3106-BLK1)		Prepared: 10/31/2017 Analyzed: 10/31/2017								
Specific Conductance (EC)	0.00590		mmhos/cm							
Duplicate (B7J3106-DUP1)		Source: Y710386-01			Prepared: 10/31/2017 Analyzed: 10/31/2017					
Specific Conductance (EC)	0.493		mmhos/cm		0.551			11.1	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.

Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

O-01 This compound is a common laboratory contaminant.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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

Jen Pellegrini For Noelle Doyle Mathis, President



November 03, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. November 02, 2017. This project is associated with Origins project number Y711038-01.

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 - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
W08@12'	Y711038-01	Soil	November 2, 2017 14:30	11/02/2017 17:05
W09@12'	Y711038-02	Soil	November 2, 2017 14:35	11/02/2017 17:05
S07@12'	Y711038-03	Soil	November 2, 2017 14:40	11/02/2017 17:05
S08@12'	Y711038-04	Soil	November 2, 2017 14:50	11/02/2017 17:05
B10@13'	Y711038-05	Soil	November 2, 2017 14:55	11/02/2017 17:05
N06@12'	Y711038-06	Soil	November 2, 2017 15:00	11/02/2017 17:05

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.

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

ORIGINS

LABORATORY, INC

www.originslaboratory.com

Y71038

page of

Client: APC
Address:

Project Manager: Robert Corneiz
Project Name: CPC 42-10
Project Number:
Samples Collected By: Zander H

Telephone Number:
Email Address: RCorneiz@Tasman-geo.com

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 ₃	Other	Groundwater	Soil	Air Summa Canister #	Other	24hrs BTEX (mL)	20% Dioxane	pH/ec	
W08@12'	11/2/17	2:30	2	X					X			X	X	Quick	1
W09@12'		2:35	2	X					X			X	X	turn,	2
S07@12'		2:40	2	X					X			X	X	SAR on	3
S08@12'		2:50	2	X					X			X	X	hold	4
B10@13'		2:55	2	X					X			X	X		5
N06@12'		3:00	2	X					X			X	X		6
															7
															8
															9
															10

Relinquished By: <i>Alexander Hamilton</i>	Date:	11-2-17	<i>[Signature]</i>	Received By:	11/2/17	Time:	17:05
	Relinquished By:			Received By:		Time:	

Turnaround Time:	Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/>
	48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/>
	Standard <input type="checkbox"/>

Date Results Needed

0.5

Origins Laboratory, Inc.

Jeff Pellgrini

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 - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 1711036 Client: Tasman
Client Project ID: KMG - CPC 42-10
Checklist Completed by: D. Kelly Shipped Via: US Pile-up
Date/time completed: 11-2-17 1730 (UPS, FedEx, Hand Delivered, Pick-up, etc.)
Airbill #: UD
Matrix(s) Received: (Check all that apply): ☒ Soil/Solid ☐ Water ☐ Other: _____
Cooler Number/Temperature: 1 0.5 °C 1 °C 1 °C (Describe)
Thermometer ID: 1603

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

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

Reviewed by (Project Manager) [Signature]

11-2-17 1730
Date/Time Reviewed

Origins Laboratory, Inc.

Jefe Pellegrini

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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

W08@12'
11/2/2017 2:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711038-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	175	25.0	mg/kg	1	B7K0204	11/02/2017	11/02/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	75.6 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	389	5.00	mg/kg	25	B7K0203	"	11/02/2017	
Benzene	0.174	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	2.01	0.050	"	"	"	"	"	
Xylenes, total	0.298	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	99.0 %	70-130			"	"	"	
Surrogate: Toluene-d8	117 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	108 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.43		pH Units	1	B7K0206	11/02/2017	11/02/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.04		mmhos/cm	"	B7K0207	11/02/2017	"	
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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 - CPC 42-10

W09@12'
11/2/2017 2:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711038-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	106	25.0	mg/kg	1	B7K0204	11/02/2017	11/02/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	81.9 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	274	5.00	mg/kg	25	B7K0203	"	11/02/2017	
Benzene	0.163	0.050	"	"	"	"	"	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	1.14	0.050	"	"	"	"	"	
Xylenes, total	1.49	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130			"	"	"	
Surrogate: Toluene-d8	110 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	105 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.12		pH Units	1	B7K0206	11/02/2017	11/02/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.60		mmhos/cm	"	B7K0207	11/02/2017	"	
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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 - CPC 42-10

S07@12'
11/2/2017 2:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711038-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	690	25.0	mg/kg	1	B7K0204	11/02/2017	11/02/2017	
Residual Range Organics (C28-C40)	253	100	"	"	"	"	"	

Surrogate: o-Terphenyl	107 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	569	50.0	mg/kg	250	B7K0203	"	11/02/2017	
Benzene	0.270	0.050	"	25	"	"	11/02/2017	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	2.17	0.050	"	"	"	"	"	
Xylenes, total	7.14	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	101 %	70-130			"	"	"	
Surrogate: Toluene-d8	123 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	122 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.81		pH Units	1	B7K0206	11/02/2017	11/02/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.23		mmhos/cm	"	B7K0207	11/02/2017	"	
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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 - CPC 42-10

S08@12'
11/2/2017 2:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711038-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	136	25.0	mg/kg	1	B7K0204	11/02/2017	11/02/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	75.0 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	470	50.0	mg/kg	250	B7K0203	"	11/02/2017	
Benzene	0.346	0.050	"	25	"	"	11/03/2017	
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.948	0.050	"	"	"	"	"	
Xylenes, total	1.14	0.050	"	"	"	"	"	

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"	
Surrogate: Toluene-d8	104 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.4 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.64		pH Units	1	B7K0206	11/02/2017	11/02/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.48		mmhos/cm	"	B7K0207	11/02/2017	"	
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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 - CPC 42-10

B10@13'
11/2/2017 2:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711038-05 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	78.4	25.0	mg/kg	1	B7K0204	11/02/2017	11/02/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	80.5 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	60.7	5.00	mg/kg	25	B7K0203	"	11/02/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.118	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	102 %	70-130			"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	101 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.64		pH Units	1	B7K0206	11/02/2017	11/02/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.866		mmhos/cm	"	B7K0207	11/02/2017	"	
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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 - CPC 42-10

N06@12'
11/2/2017 3:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711038-06 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7K0204	11/02/2017	11/02/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 73.6 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	88.4	5.00	mg/kg	25	B7K0203	"	11/02/2017	
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 104 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 100 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.97		pH Units	1	B7K0206	11/02/2017	11/02/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.644		mmhos/cm	"	B7K0207	11/02/2017	"	
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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 - CPC 42-10

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 B7K0203 - EPA 5030 (soil)										
Blank (B7K0203-BLK1)					Prepared: 11/02/2017 Analyzed: 11/02/2017					
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	80		ug/kg	62.5		127	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	70		"	62.5		112	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)										
Blank (B7K0203-BLK2)					Prepared: 11/02/2017 Analyzed: 11/02/2017					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	0.002	0.002	"							
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	70		ug/kg	62.5		113	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	66		"	62.5		106	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)										
Blank (B7K0203-BLK3)					Prepared: 11/02/2017 Analyzed: 11/03/2017					
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	72		ug/kg	62.5		115	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	69		"	62.5		110	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)										
LCS (B7K0203-BS1)					Prepared: 11/02/2017 Analyzed: 11/02/2017					
Benzene	0.093	0.002	mg/kg	0.100		93.4	77.1-124			
Toluene	0.097	0.002	"	0.100		96.8	74.5-128			
Ethylbenzene	0.115	0.002	"	0.100		115	66.4-127			
m,p-Xylene	0.236	0.004	"	0.200		118	76.6-124			
o-Xylene	0.117	0.002	"	0.100		117	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	73		ug/kg	62.5		117	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)										
LCS (B7K0203-BS2)					Prepared: 11/02/2017 Analyzed: 11/02/2017					
Benzene	0.092	0.002	mg/kg	0.100		91.9	77.1-124			
Toluene	0.097	0.002	"	0.100		97.2	74.5-128			
Ethylbenzene	0.110	0.002	"	0.100		110	66.4-127			
m,p-Xylene	0.223	0.004	"	0.200		112	76.6-124			
o-Xylene	0.110	0.002	"	0.100		110	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.5	70-130			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)										
LCS (B7K0203-BS3)					Prepared: 11/02/2017 Analyzed: 11/02/2017					
Benzene	0.089	0.002	mg/kg	0.100		89.0	77.1-124			
Toluene	0.095	0.002	"	0.100		94.9	74.5-128			
Ethylbenzene	0.094	0.002	"	0.100		94.2	66.4-127			
m,p-Xylene	0.191	0.004	"	0.200		95.4	76.6-124			
o-Xylene	0.094	0.002	"	0.100		94.0	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		105	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	54		"	62.5		87.0	70-130			

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Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)

Matrix Spike (B7K0203-MS1)		Source: Y711037-03			Prepared: 11/02/2017 Analyzed: 11/02/2017					
Benzene	0.095	0.002	mg/kg	0.100	ND	94.6	71.8-126			
Toluene	0.098	0.002	"	0.100	ND	97.8	65.1-130			
Ethylbenzene	0.111	0.002	"	0.100	ND	111	62.2-130			
m,p-Xylene	0.223	0.004	"	0.200	ND	112	46.5-137			
o-Xylene	0.112	0.002	"	0.100	ND	112	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	69		ug/kg	62.5		110	70-130			
Surrogate: Toluene-d8	63		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)

Matrix Spike (B7K0203-MS2)		Source: Y711037-05			Prepared: 11/02/2017 Analyzed: 11/02/2017					
Benzene	0.079	0.002	mg/kg	0.100	ND	78.5	71.8-126			
Toluene	0.080	0.002	"	0.100	ND	80.5	65.1-130			
Ethylbenzene	0.090	0.002	"	0.100	ND	89.9	62.2-130			
m,p-Xylene	0.181	0.004	"	0.200	ND	90.6	46.5-137			
o-Xylene	0.091	0.002	"	0.100	ND	90.7	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		105	70-130			
Surrogate: Toluene-d8	65		"	62.5		104	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)

Matrix Spike (B7K0203-MS3)		Source: Y711037-01			Prepared: 11/02/2017 Analyzed: 11/02/2017					
Benzene	0.093	0.002	mg/kg	0.100	ND	92.6	71.8-126			
Toluene	0.099	0.002	"	0.100	ND	98.8	65.1-130			
Ethylbenzene	0.108	0.002	"	0.100	ND	108	62.2-130			
m,p-Xylene	0.218	0.004	"	0.200	ND	109	46.5-137			
o-Xylene	0.108	0.002	"	0.100	ND	108	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)										
Matrix Spike Dup (B7K0203-MSD1)	Source: Y711037-03				Prepared: 11/02/2017 Analyzed: 11/02/2017					
Benzene	0.090	0.002	mg/kg	0.100	ND	90.3	71.8-126	4.65	11.3	
Toluene	0.092	0.002	"	0.100	ND	91.6	65.1-130	6.55	15.4	
Ethylbenzene	0.106	0.002	"	0.100	ND	106	62.2-130	4.78	19.6	
m,p-Xylene	0.217	0.004	"	0.200	ND	108	46.5-137	3.06	19.2	
o-Xylene	0.108	0.002	"	0.100	ND	108	54.2-134	3.57	17.9	
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		108	70-130			
Surrogate: Toluene-d8	65		"	62.5		104	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		98.9	70-130			

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)										
Matrix Spike Dup (B7K0203-MSD2)	Source: Y711037-05				Prepared: 11/02/2017 Analyzed: 11/02/2017					
Benzene	0.089	0.002	mg/kg	0.100	ND	88.6	71.8-126	12.1	11.3	QR-02
Toluene	0.090	0.002	"	0.100	ND	90.0	65.1-130	11.1	15.4	
Ethylbenzene	0.101	0.002	"	0.100	ND	101	62.2-130	11.7	19.6	
m,p-Xylene	0.206	0.004	"	0.200	ND	103	46.5-137	12.7	19.2	
o-Xylene	0.104	0.002	"	0.100	ND	104	54.2-134	13.6	17.9	
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0203 - EPA 5030 (soil)										
Matrix Spike Dup (B7K0203-MSD3)		Source: Y711037-01			Prepared: 11/02/2017 Analyzed: 11/02/2017					
Benzene	0.089	0.002	mg/kg	0.100	ND	89.3	71.8-126	3.65	11.3	
Toluene	0.094	0.002	"	0.100	ND	93.9	65.1-130	5.02	15.4	
Ethylbenzene	0.081	0.002	"	0.100	ND	80.9	62.2-130	28.7	19.6	QR-02
m,p-Xylene	0.164	0.004	"	0.200	ND	81.8	46.5-137	28.3	19.2	QR-02
o-Xylene	0.082	0.002	"	0.100	ND	82.2	54.2-134	26.9	17.9	QR-02
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		103	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	49		"	62.5		78.8	70-130			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0204 - EPA 3550B

Blank (B7K0204-BLK1)

Prepared: 11/02/2017 Analyzed: 11/02/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	46		"	50.0		92.7	59-131			

Blank (B7K0204-BLK3)

Prepared: 11/02/2017 Analyzed: 11/02/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	40		"	50.0		80.9	59-131			

LCS (B7K0204-BS1)

Prepared: 11/02/2017 Analyzed: 11/02/2017

Diesel (C10-C28)	892	50.0	mg/kg	1000		89.2	64-121			
Residual Range Organics (C28-C40)	916	200	"	1000		91.6	58-124			
Surrogate: o-Terphenyl	49		"	50.0		98.4	59-131			

LCS (B7K0204-BS3)

Prepared: 11/02/2017 Analyzed: 11/02/2017

Diesel (C10-C28)	818	50.0	mg/kg	1000		81.8	64-121			
Residual Range Organics (C28-C40)	835	200	"	1000		83.5	58-124			
Surrogate: o-Terphenyl	50		"	50.0		99.2	59-131			

Matrix Spike (B7K0204-MS1)

Source: Y710457-01

Prepared: 11/02/2017 Analyzed: 11/02/2017

Diesel (C10-C28)	784	50.0	mg/kg	1000	ND	78.4	53-125			
Residual Range Organics (C28-C40)	779	200	"	1000	17.1	76.2	47-133			

Origins Laboratory, Inc.



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Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0204 - EPA 3550B										
Matrix Spike (B7K0204-MS1)		Source: Y710457-01			Prepared: 11/02/2017 Analyzed: 11/02/2017					
Surrogate: o-Terphenyl	43		mg/kg	50.0		86.8	59-131			
Matrix Spike (B7K0204-MS3)		Source: Y711037-01			Prepared: 11/02/2017 Analyzed: 11/02/2017					
Diesel (C10-C28)	751	50.0	mg/kg	1000	ND	75.1	53-125			
Residual Range Organics (C28-C40)	778	200	"	1000	17.9	76.0	47-133			
Surrogate: o-Terphenyl	44		"	50.0		87.1	59-131			
Matrix Spike Dup (B7K0204-MSD1)		Source: Y710457-01			Prepared: 11/02/2017 Analyzed: 11/02/2017					
Diesel (C10-C28)	774	50.0	mg/kg	1000	ND	77.4	53-125	1.25	20	
Residual Range Organics (C28-C40)	828	200	"	1000	17.1	81.1	47-133	6.22	20	
Surrogate: o-Terphenyl	44		"	50.0		87.4	59-131			
Matrix Spike Dup (B7K0204-MSD3)		Source: Y711037-01			Prepared: 11/02/2017 Analyzed: 11/02/2017					
Diesel (C10-C28)	755	50.0	mg/kg	1000	ND	75.5	53-125	0.473	20	
Residual Range Organics (C28-C40)	745	200	"	1000	17.9	72.7	47-133	4.38	20	
Surrogate: o-Terphenyl	46		"	50.0		91.2	59-131			

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Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0206 - NO PREP										
Duplicate (B7K0206-DUP1)	Source: Y711034-01				Prepared: 11/02/2017 Analyzed: 11/02/2017					
pH	8.40		pH Units		8.54			1.65	25	
Duplicate (B7K0206-DUP2)	Source: Y711039-01				Prepared: 11/02/2017 Analyzed: 11/02/2017					
pH	8.50		pH Units		8.29			2.50	25	
Batch B7K0207 - NO PREP										
Blank (B7K0207-BLK1)	Prepared: 11/02/2017 Analyzed: 11/02/2017									
Specific Conductance (EC)	0.00590		mmhos/cm							
Duplicate (B7K0207-DUP1)	Source: Y711034-01				Prepared: 11/02/2017 Analyzed: 11/02/2017					
Specific Conductance (EC)	0.0755		mmhos/cm		0.0832			9.70	25	
Duplicate (B7K0207-DUP2)	Source: Y711039-01				Prepared: 11/02/2017 Analyzed: 11/02/2017					
Specific Conductance (EC)	1.66		mmhos/cm		1.67			0.668	25	

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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

QR-02 The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

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Jen Pellegrini For Noelle Doyle Mathis, President

November 07, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10**Project Number - [none]**

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. November 06, 2017. This project is associated with Origins project number Y711093-01.

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



Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B11@13'	Y711093-01	Soil	November 6, 2017 15:30	11/06/2017 17:55
B12@13'	Y711093-02	Soil	November 6, 2017 15:35	11/06/2017 17:55
B13@13'	Y711093-03	Soil	November 6, 2017 15:40	11/06/2017 17:55
W10@12'	Y711093-04	Soil	November 6, 2017 15:45	11/06/2017 17:55
W11@12'	Y711093-05	Soil	November 6, 2017 15:50	11/06/2017 17:55
S09@12'	Y711093-06	Soil	November 6, 2017 15:55	11/06/2017 17:55
E08@12'	Y711093-07	Soil	November 6, 2017 16:00	11/06/2017 17:55
GW01	Y711093-08	Water	November 6, 2017 10:00	11/06/2017 17:55

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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page ☐ of ☐

171003

ORIGINS
LABORATORY, INC

Client: APC
Address:
Telephone Number:
Email Address: RCornez@Tasman-Geo.com

Project Manager: Robert Cornez
Project Name: CPC 42-10
Project Number:
Samples Collected By: Zander H

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
B11@13'	11/6/17	15:30	2	Unpreserved	Soil	2.26g BTEX (mL) 2015 Dioxane PH/EC SAR (mL) View Blank mL	1 Quick
B12@13'		15:35	2				2
B13@13'		15:40	2				3
W10@12'		15:45	2				4
W11@12'		15:50	2				5
S08@12'		15:55	2				6
E08@12'		16:00	2				7
GW01		10:00	3				8
							9
							10
Relinquished By: Alexander H	Date: 11/6/17	Time: 5:50	Received By: [Signature]	Date: 11-6-17	Time: 1:55	Turnaround Time: Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/> Standard <input type="checkbox"/>	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:		

Date Results Needed

7.4

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 - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 771093

Client: Tasman

Client Project ID: KMG - CPC - 42 - 10

Checklist Completed by: Deke

Shipped Via: HO

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

Date/time completed: 11-6-17 1804

Airbill #: PA

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

Cooler Number/Temperature: ☒ 17.4 °C ☐ _____ °C ☐ _____ °C (Describe)

Thermometer ID: 1003

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

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

Reviewed by (Project Manager) Deke

Date/Time Reviewed 11-6-17 1804

Origins Laboratory, Inc.

Jefe Pellegrini

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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

B11@13'
11/6/2017 3:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711093-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7K0604	11/06/2017	11/06/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl	75.2 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7K0603	11/06/2017	11/06/2017	U
Benzene	0.003	0.002	"	"	"	"	"	
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	103 %	70-130			"	"	"	
Surrogate: Toluene-d8	102 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	99.1 %	70-130			"	"	"	

pH in Soil by EPA 9045D

pH	8.42		pH Units	1	B7K0601	11/06/2017	11/06/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.539		mmhos/cm	"	B7K0602	11/06/2017	"	
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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 - CPC 42-10

B12@13'
11/6/2017 3:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711093-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7K0604	11/06/2017	11/06/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 80.3 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7K0603	11/06/2017	11/06/2017	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	0.002	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 107 % 70-130 " " "
Surrogate: Toluene-d8 99.6 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 101 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.96		pH Units	1	B7K0601	11/06/2017	11/06/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.560		mmhos/cm	"	B7K0602	11/06/2017	"	
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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 - CPC 42-10

B13@13'
11/6/2017 3:40:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711093-03 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	136	25.0	mg/kg	1	B7K0604	11/06/2017	11/06/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 78.4 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	129	5.00	mg/kg	25	B7K0603	11/06/2017	11/06/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.542	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 96.8 % 70-130 " " "
Surrogate: Toluene-d8 80.6 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 112 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.05		pH Units	1	B7K0601	11/06/2017	11/06/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.00		mmhos/cm	"	B7K0602	11/06/2017	"	
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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 - CPC 42-10

W10@12'
11/6/2017 3:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711093-04 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	224	25.0	mg/kg	1	B7K0604	11/06/2017	11/06/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 84.2 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	19.7	0.200	mg/kg	1	B7K0603	11/06/2017	11/06/2017	
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	0.146	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 106 % 70-130 " " "
Surrogate: Toluene-d8 71.6 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 158 % 70-130 " " " S-04

pH in Soil by EPA 9045D

pH	7.75		pH Units	1	B7K0601	11/06/2017	11/06/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.81		mmhos/cm	"	B7K0602	11/06/2017	"	
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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 - CPC 42-10

W11@12'
11/6/2017 3:50:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711093-05 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	101	25.0	mg/kg	1	B7K0604	11/06/2017	11/07/2017	
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 74.0 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	86.1	5.00	mg/kg	25	B7K0603	11/06/2017	11/06/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.472	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 92.4 % 70-130 " " "
Surrogate: Toluene-d8 108 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 112 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.76		pH Units	1	B7K0601	11/06/2017	11/06/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.738		mmhos/cm	"	B7K0602	11/06/2017	"	
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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 - CPC 42-10

S09@12'
11/6/2017 3:55:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711093-06 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	538	25.0	mg/kg	1	B7K0604	11/06/2017	11/07/2017	
Residual Range Organics (C28-C40)	215	100	"	"	"	"	"	

Surrogate: o-Terphenyl	87.2 %	59-131			"	"	"	
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GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	329	5.00	mg/kg	25	B7K0603	11/06/2017	11/06/2017	
Benzene	ND	0.050	"	"	"	"	"	U
Toluene	ND	0.050	"	"	"	"	"	U
Ethylbenzene	0.350	0.050	"	"	"	"	"	
Xylenes, total	ND	0.050	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4	89.3 %	70-130			"	"	"	
Surrogate: Toluene-d8	76.3 %	70-130			"	"	"	
Surrogate: 4-Bromofluorobenzene	156 %	70-130			"	"	" S-04	

pH in Soil by EPA 9045D

pH	8.43		pH Units	1	B7K0601	11/06/2017	11/06/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.42		mmhos/cm	"	B7K0602	11/06/2017	"	
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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 - CPC 42-10

E08@12'
11/6/2017 4:00:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711093-07 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7K0604	11/06/2017	11/07/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 77.4 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	7.98	0.200	mg/kg	1	B7K0603	11/06/2017	11/06/2017	
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	0.049	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 99.9 % 70-130 " " "
Surrogate: Toluene-d8 99.1 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 122 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.23		pH Units	1	B7K0601	11/06/2017	11/06/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	1.27		mmhos/cm	"	B7K0602	11/06/2017	11/06/2017	
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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 - CPC 42-10

GW01

11/6/2017 10:00:00AM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711093-08 (Water)

BTEX by EPA 8260C

Benzene	29.1	4.00	ug/L	4	B7K0609	11/06/2017	11/06/2017	
Toluene	ND	4.00	"	"	"	"	"	U
Ethylbenzene	48.7	4.00	"	"	"	"	"	
Xylenes, total	27.8	4.00	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	103 %	84-121			"	"	"	
Surrogate: Toluene-d8	100 %	85-115			"	"	"	
Surrogate: 4-Bromofluorobenzene	103 %	84-114			"	"	"	

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0603 - EPA 5030 (soil)										
Blank (B7K0603-BLK1)					Prepared: 11/06/2017 Analyzed: 11/06/2017					
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		106	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.4	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 - CPC 42-10

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 B7K0603 - EPA 5030 (soil)										
Blank (B7K0603-BLK2)					Prepared: 11/06/2017 Analyzed: 11/06/2017					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	64		"	62.5		103	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

Origins Laboratory, Inc.



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

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0603 - EPA 5030 (soil)										
LCS (B7K0603-BS1)					Prepared: 11/06/2017 Analyzed: 11/06/2017					
Benzene	0.089	0.002	mg/kg	0.100		88.7	77.1-124			
Toluene	0.092	0.002	"	0.100		92.2	74.5-128			
Ethylbenzene	0.092	0.002	"	0.100		92.4	66.4-127			
m,p-Xylene	0.186	0.004	"	0.200		92.8	76.6-124			
o-Xylene	0.098	0.002	"	0.100		98.1	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		92.5	70-130			
Surrogate: Toluene-d8	63		"	62.5		100	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0603 - EPA 5030 (soil)										
LCS (B7K0603-BS2)					Prepared: 11/06/2017 Analyzed: 11/06/2017					
Benzene	0.096	0.002	mg/kg	0.100		96.4	77.1-124			
Toluene	0.094	0.002	"	0.100		93.7	74.5-128			
Ethylbenzene	0.102	0.002	"	0.100		102	66.4-127			
m,p-Xylene	0.208	0.004	"	0.200		104	76.6-124			
o-Xylene	0.100	0.002	"	0.100		99.6	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	61		ug/kg	62.5		97.1	70-130			
Surrogate: Toluene-d8	64		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		95.6	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0603 - EPA 5030 (soil)

Matrix Spike (B7K0603-MS1)		Source: Y711062-02			Prepared: 11/06/2017 Analyzed: 11/06/2017					
Benzene	2.46	0.050	mg/kg	2.50	ND	98.5	71.8-126			
Toluene	2.62	0.050	"	2.50	ND	105	65.1-130			
Ethylbenzene	2.66	0.050	"	2.50	ND	106	62.2-130			
m,p-Xylene	5.34	0.100	"	5.00	ND	107	46.5-137			
o-Xylene	2.68	0.050	"	2.50	ND	107	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0603 - EPA 5030 (soil)

Matrix Spike (B7K0603-MS2)		Source: Y711074-02			Prepared: 11/06/2017 Analyzed: 11/07/2017					
Benzene	2.31	0.050	mg/kg	2.50	ND	92.3	71.8-126			
Toluene	2.08	0.050	"	2.50	ND	83.2	65.1-130			
Ethylbenzene	2.15	0.050	"	2.50	ND	86.1	62.2-130			
m,p-Xylene	4.37	0.100	"	5.00	ND	87.4	46.5-137			
o-Xylene	2.09	0.050	"	2.50	ND	83.5	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.6	70-130			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.7	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.

Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0603 - EPA 5030 (soil)

Matrix Spike Dup (B7K0603-MSD1)		Source: Y711062-02			Prepared: 11/06/2017 Analyzed: 11/06/2017					
Benzene	2.40	0.050	mg/kg	2.50	ND	96.2	71.8-126	2.40	11.3	
Toluene	2.51	0.050	"	2.50	ND	100	65.1-130	4.30	15.4	
Ethylbenzene	2.59	0.050	"	2.50	ND	104	62.2-130	2.46	19.6	
m,p-Xylene	5.18	0.100	"	5.00	ND	104	46.5-137	3.19	19.2	
o-Xylene	2.62	0.050	"	2.50	ND	105	54.2-134	2.13	17.9	
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		92.3	70-130			
Surrogate: Toluene-d8	63		"	62.5		101	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.3	70-130			

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 - CPC 42-10

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 B7K0603 - EPA 5030 (soil)

Matrix Spike Dup (B7K0603-MSD2)		Source: Y711074-02			Prepared: 11/06/2017 Analyzed: 11/07/2017					
Benzene	2.35	0.050	mg/kg	2.50	ND	93.9	71.8-126	1.63	11.3	
Toluene	2.19	0.050	"	2.50	ND	87.4	65.1-130	4.92	15.4	
Ethylbenzene	2.26	0.050	"	2.50	ND	90.3	62.2-130	4.72	19.6	
m,p-Xylene	4.58	0.100	"	5.00	ND	91.7	46.5-137	4.80	19.2	
o-Xylene	2.19	0.050	"	2.50	ND	87.6	54.2-134	4.72	17.9	
Surrogate: 1,2-Dichloroethane-d4	60		ug/kg	62.5		95.5	70-130			
Surrogate: Toluene-d8	63		"	62.5		102	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.4	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 - CPC 42-10

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 B7K0609 - EPA 5030B (Water)

Blank (B7K0609-BLK1)

Prepared: 11/06/2017 Analyzed: 11/06/2017

Benzene	ND	1.00	ug/L							U
Toluene	ND	1.00	"							U
Ethylbenzene	ND	1.00	"							U
Xylenes, total	ND	1.00	"							U
Surrogate: 1,2-Dichloroethane-d4	68		"	62.5	108		84-121			
Surrogate: Toluene-d8	62		"	62.5	99.9		85-115			
Surrogate: 4-Bromofluorobenzene	65		"	62.5	104		84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0609 - EPA 5030B (Water)

LCS (B7K0609-BS1)

Prepared: 11/06/2017 Analyzed: 11/06/2017

Benzene	45.6	1.00	ug/L	50.0		91.2	73.3-129			
Toluene	45.3	1.00	"	50.0		90.6	76.2-123			
Ethylbenzene	49.1	1.00	"	50.0		98.2	73.6-130			
m,p-Xylene	102	2.00	"	100		102	76.1-126			
o-Xylene	48.2	1.00	"	50.0		96.3	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	64		"	62.5		102	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	60		"	62.5		96.5	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0609 - EPA 5030B (Water)

Matrix Spike (B7K0609-MS1)		Source: Y711049-01			Prepared: 11/06/2017 Analyzed: 11/07/2017					
Benzene	51.9	1.00	ug/L	50.0	ND	104	74-130			
Toluene	52.3	1.00	"	50.0	ND	105	73-131			
Ethylbenzene	54.8	1.00	"	50.0	ND	110	76-132			
m,p-Xylene	113	2.00	"	100	ND	113	69-139			
o-Xylene	54.4	1.00	"	50.0	ND	109	74-131			
Surrogate: 1,2-Dichloroethane-d4	60		"	62.5		95.7	84-121			
Surrogate: Toluene-d8	64		"	62.5		102	85-115			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.8	84-114			

Origins Laboratory, Inc.



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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0609 - EPA 5030B (Water)

Matrix Spike Dup (B7K0609-MSD1)		Source: Y711049-01			Prepared: 11/06/2017 Analyzed: 11/07/2017					
Benzene	55.1	1.00	ug/L	50.0	ND	110	74-130	5.97	20	
Toluene	54.5	1.00	"	50.0	ND	109	73-131	4.12	20	
Ethylbenzene	58.2	1.00	"	50.0	ND	116	76-132	6.16	20	
m,p-Xylene	120	2.00	"	100	ND	120	69-139	5.69	20	
o-Xylene	57.7	1.00	"	50.0	ND	115	74-131	5.76	20	
Surrogate: 1,2-Dichloroethane-d4	56		"	62.5		89.6	84-121			
Surrogate: Toluene-d8	63		"	62.5		101	85-115			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.7	84-114			

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 - CPC 42-10

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 B7K0604 - EPA 3550B

Blank (B7K0604-BLK1)

Prepared: 11/06/2017 Analyzed: 11/06/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	44		"	50.0		87.7	59-131			

Blank (B7K0604-BLK2)

Prepared: 11/06/2017 Analyzed: 11/07/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	45		"	50.0		89.7	59-131			

LCS (B7K0604-BS1)

Prepared: 11/06/2017 Analyzed: 11/06/2017

Diesel (C10-C28)	794	50.0	mg/kg	1000		79.4	64-121			
Residual Range Organics (C28-C40)	790	200	"	1000		79.0	58-124			
Surrogate: o-Terphenyl	47		"	50.0		94.8	59-131			

LCS (B7K0604-BS2)

Prepared: 11/06/2017 Analyzed: 11/07/2017

Diesel (C10-C28)	778	50.0	mg/kg	1000		77.8	64-121			
Residual Range Organics (C28-C40)	761	200	"	1000		76.1	58-124			
Surrogate: o-Terphenyl	46		"	50.0		92.4	59-131			

Matrix Spike (B7K0604-MS1)

Source: Y711062-02

Prepared: 11/06/2017 Analyzed: 11/06/2017

Diesel (C10-C28)	891	50.0	mg/kg	1000	ND	89.1	53-125			
Residual Range Organics (C28-C40)	884	200	"	1000	27.8	85.6	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 - CPC 42-10

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 B7K0604 - EPA 3550B										
Matrix Spike (B7K0604-MS1)		Source: Y711062-02			Prepared: 11/06/2017 Analyzed: 11/06/2017					
Surrogate: o-Terphenyl	51		mg/kg	50.0		101	59-131			
Matrix Spike (B7K0604-MS2)		Source: Y711074-01			Prepared: 11/06/2017 Analyzed: 11/07/2017					
Diesel (C10-C28)	762	50.0	mg/kg	1000	ND	76.2	53-125			
Residual Range Organics (C28-C40)	748	200	"	1000	48.9	69.9	47-133			
Surrogate: o-Terphenyl	44		"	50.0		87.0	59-131			
Matrix Spike Dup (B7K0604-MSD1)		Source: Y711062-02			Prepared: 11/06/2017 Analyzed: 11/06/2017					
Diesel (C10-C28)	822	50.0	mg/kg	1000	ND	82.2	53-125	8.16	20	
Residual Range Organics (C28-C40)	790	200	"	1000	27.8	76.2	47-133	11.6	20	
Surrogate: o-Terphenyl	48		"	50.0		95.3	59-131			
Matrix Spike Dup (B7K0604-MSD2)		Source: Y711074-01			Prepared: 11/06/2017 Analyzed: 11/07/2017					
Diesel (C10-C28)	811	50.0	mg/kg	1000	ND	81.1	53-125	6.25	20	
Residual Range Organics (C28-C40)	829	200	"	1000	48.9	78.1	47-133	11.0	20	
Surrogate: o-Terphenyl	49		"	50.0		97.8	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 - CPC 42-10

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 B7K0601 - NO PREP										
Duplicate (B7K0601-DUP1)		Source: Y711015-06			Prepared: 11/06/2017 Analyzed: 11/06/2017					
pH	7.30		pH Units		7.41			1.50	25	
Batch B7K0602 - NO PREP										
Blank (B7K0602-BLK1)		Prepared: 11/06/2017 Analyzed: 11/06/2017								
Specific Conductance (EC)	0.00480		mmhos/cm							
Duplicate (B7K0602-DUP1)		Source: Y711062-02			Prepared: 11/06/2017 Analyzed: 11/06/2017					
Specific Conductance (EC)	0.116		mmhos/cm		0.123			5.36	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 - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

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.



November 10, 2017

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

Project Name - KMG - CPC 42-10

Project Number - [none]

Attached are your analytical results for KMG - CPC 42-10 received by Origins Laboratory, Inc. November 09, 2017. This project is associated with Origins project number Y711150-01.

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 - CPC 42-10

CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B14@13'	Y711150-01	Soil	November 9, 2017 15:30	11/09/2017 17:00
S10@12'	Y711150-02	Soil	November 9, 2017 15:35	11/09/2017 17:00

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 - CPC 42-10

www.originslaboratory.com

page ☐ of ☐

ORIGINS
LABORATORY, INC

Client: APC
Address: Robert Cornez
Telephone Number: CPC 42-10
Email Address: Project Number: Zander H
Cornez @ Tasman-geo.com

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis				Sample Instructions
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa	Other	2400 BTEX (mL)	PH/EC	SAE (mL)	
B14@15'	11/4/17	3:10	2	X					X				X		Quick turn, hold SAE 1
S10@12'	11/4/17	3:35	2	X					X				X		↓ ↓ ↓ ↓
Relinquished By: <u>[Signature]</u>	Date: <u>11/4/17</u>	Time: <u>1700</u>	Received By: <u>[Signature]</u>	Date: <u>11/9/17</u>	Time: <u>17:00</u>	Turnaround Time: <input checked="" type="checkbox"/> Same Day <input type="checkbox"/> 24 Hr <input type="checkbox"/> 48 Hr <input type="checkbox"/> 72 Hr									
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Standard <input type="checkbox"/>									

Date Results Needed

2.0

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 - CPC 42-10

Origins Laboratory

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

Sample Receipt Checklist

Origins Work Order: 4711150

Client: Tasman

Client Project ID: KMG CPC 42-10

Checklist Completed by: DMC

Shipped Via: Hand Delivered

Date/time completed: 11-9-17 1718

Airbill #: NA

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

Cooler Number/Temperature: 1 2.0 °C 1 °C 1 °C 1 °C

Thermometer ID: 7003

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

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

Reviewed by: (Project Manager)

Date/Time Reviewed: 11-9-17 1718

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 - CPC 42-10

B14@13'
11/9/2017 3:30:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711150-01 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7K0905	11/09/2017	11/09/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 83.0 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B7K0902	"	11/09/2017	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 105 % 70-130 " " "
Surrogate: Toluene-d8 100 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 103 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.57	pH Units	1	B7K0906	11/09/2017	11/09/2017
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.626	mmhos/cm	"	B7K0907	"	"
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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 - CPC 42-10

S10@12'
11/9/2017 3:35:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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Origins Laboratory, Inc.
Y711150-02 (Soil)

DRO/RRO by EPA8015C

Diesel (C10-C28)	ND	25.0	mg/kg	1	B7K0905	11/09/2017	11/09/2017	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 69.5 % 59-131 " " "

GBTEX by EPA 8260C

Gasoline Range Hydrocarbons	2.39	0.200	mg/kg	1	B7K0902	"	11/09/2017	
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	0.015	0.002	"	"	"	"	"	
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 105 % 70-130 " " "
Surrogate: Toluene-d8 97.0 % 70-130 " " "
Surrogate: 4-Bromofluorobenzene 107 % 70-130 " " "

pH in Soil by EPA 9045D

pH	8.09		pH Units	1	B7K0906	11/09/2017	11/09/2017	
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Specific Conductance by Modified 9050A

Specific Conductance (EC)	0.657		mmhos/cm	"	B7K0907	"	11/09/2017	
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Tasman Geosciences
6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0902 - EPA 5030 (soil)										
Blank (B7K0902-BLK1)					Prepared: 11/09/2017 Analyzed: 11/09/2017					
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	55		ug/kg	62.5		87.4	70-130			
Surrogate: Toluene-d8	65		"	62.5		104	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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Bob Cornez
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Project: KMG - CPC 42-10

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 B7K0902 - EPA 5030 (soil)										
LCS (B7K0902-BS1)					Prepared: 11/09/2017 Analyzed: 11/09/2017					
Benzene	0.112	0.002	mg/kg	0.100		112	77.1-124			
Toluene	0.107	0.002	"	0.100		107	74.5-128			
Ethylbenzene	0.114	0.002	"	0.100		114	66.4-127			
m,p-Xylene	0.208	0.004	"	0.200		104	76.6-124			
o-Xylene	0.110	0.002	"	0.100		110	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	58		ug/kg	62.5		92.4	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	59		"	62.5		94.8	70-130			

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Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0902 - EPA 5030 (soil)

Matrix Spike (B7K0902-MS1)		Source: Y711126-01			Prepared: 11/09/2017 Analyzed: 11/09/2017					
Benzene	0.106	0.002	mg/kg	0.100	ND	106	71.8-126			
Toluene	0.104	0.002	"	0.100	ND	104	65.1-130			
Ethylbenzene	0.106	0.002	"	0.100	ND	106	62.2-130			
m,p-Xylene	0.191	0.004	"	0.200	0.001	95.0	46.5-137			
o-Xylene	0.102	0.002	"	0.100	ND	102	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	61		ug/kg	62.5		97.5	70-130			
Surrogate: Toluene-d8	65		"	62.5		104	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.7	70-130			

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6899 Pecos Street, Unit C
Denver CO 80211

Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0902 - EPA 5030 (soil)

Matrix Spike Dup (B7K0902-MSD1)		Source: Y711126-01			Prepared: 11/09/2017 Analyzed: 11/09/2017					
Benzene	0.113	0.002	mg/kg	0.100	ND	113	71.8-126	6.08	11.3	
Toluene	0.105	0.002	"	0.100	ND	105	65.1-130	0.382	15.4	
Ethylbenzene	0.110	0.002	"	0.100	ND	110	62.2-130	4.04	19.6	
m,p-Xylene	0.201	0.004	"	0.200	0.001	99.9	46.5-137	4.97	19.2	
o-Xylene	0.107	0.002	"	0.100	ND	107	54.2-134	4.32	17.9	
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.1	70-130			
Surrogate: 4-Bromofluorobenzene	61		"	62.5		97.2	70-130			

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6899 Pecos Street, Unit C
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Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0905 - EPA 3550B

Blank (B7K0905-BLK1)

Prepared: 11/09/2017 Analyzed: 11/09/2017

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	46		"	50.0		92.1	59-131			

LCS (B7K0905-BS1)

Prepared: 11/09/2017 Analyzed: 11/09/2017

Diesel (C10-C28)	883	50.0	mg/kg	1000		88.3	64-121			
Residual Range Organics (C28-C40)	920	200	"	1000		92.0	58-124			
Surrogate: o-Terphenyl	51		"	50.0		103	59-131			

Matrix Spike (B7K0905-MS1)

Source: Y711121-01

Prepared: 11/09/2017 Analyzed: 11/09/2017

Diesel (C10-C28)	980	50.0	mg/kg	1000	ND	98.0	53-125			
Residual Range Organics (C28-C40)	913	200	"	1000	17.5	89.6	47-133			
Surrogate: o-Terphenyl	57		"	50.0		115	59-131			

Matrix Spike Dup (B7K0905-MSD1)

Source: Y711121-01

Prepared: 11/09/2017 Analyzed: 11/09/2017

Diesel (C10-C28)	911	50.0	mg/kg	1000	ND	91.1	53-125	7.29	20	
Residual Range Organics (C28-C40)	872	200	"	1000	17.5	85.5	47-133	4.68	20	
Surrogate: o-Terphenyl	52		"	50.0		104	59-131			

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Bob Cornez
Project Number: [none]
Project: KMG - CPC 42-10

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 B7K0906 - NO PREP										
Duplicate (B7K0906-DUP1)		Source: Y711121-01			Prepared: 11/09/2017 Analyzed: 11/09/2017					
pH	7.59		pH Units		8.05			5.88	25	
Batch B7K0907 - NO PREP										
Blank (B7K0907-BLK1)		Prepared: 11/09/2017 Analyzed: 11/09/2017								
Specific Conductance (EC)	0.00270		mmhos/cm							
Duplicate (B7K0907-DUP1)		Source: Y711121-01			Prepared: 11/09/2017 Analyzed: 11/09/2017					
Specific Conductance (EC)	0.102		mmhos/cm		0.0953			6.60	25	

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Tasman Geosciences

6899 Pecos Street, Unit C

Denver CO 80211

Bob Cornez

Project Number: [none]

Project: KMG - CPC 42-10

Notes and Definitions

U Sample is Non-Detect.

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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Jen Pellegrini For Noelle Doyle Mathis, President