

May 21, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

**Project Name - KMG - Ale Partnership Federal  
W24-9J1**

**Project Number - [none]**

Attached are your analytical results for KMG - Ale Partnership Federal W24-9J1 received by Origins Laboratory, Inc. May 18, 2018. This project is associated with Origins project number Y805290-01.

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 - Ale Partnership Federal W24-9J1

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS01@2-3"	Y805290-01	Soil	May 18, 2018 13:45	05/18/2018 16:55

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 - Ale Partnership Federal W24-9J1

www.originslaboratory.com

1405290

**ORIGINS**  
LABORATORY, INC

Client: APC  
Address: 6899 Pecos St, Unit C  
Telephone Number: 970-927-0393  
Email Address: bcornez@tasman-geo.com

Project Manager: Robert Cornez  
Project Name: Ale Partnership Federal W24-9J1  
Project Number: [blank]  
Samples Collected By: M. B. [blank]

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix			Analysis			Sample Instructions	
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #	Other	GB/EK	PH		EC
SS01 @ 2-3"	05/16/18	1345	2	X					X				X	X	Build Turn
Relinquished By: [Signature]	Date: 05/18/18	Time: 1600		Received By: [Signature]	Date: 5/18/18	Time: 1655		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: [Signature]	Date: [blank]	Time: [blank]		Received By: [Signature]	Date: [blank]	Time: [blank]									

4,9 Date Results Needed

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

Origins Laboratory, Inc.

*Jefe Pellegrini*

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Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Ale Partnership Federal W24-9J1

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: Y805290

Client: Tasman

Client Project ID: KMG-Ale Partnership Federal

Checklist Completed by: JG

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

Date/time completed: 5/18/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 4.9 °C \_\_\_\_\_ / \_\_\_\_\_ °C \_\_\_\_\_ / \_\_\_\_\_ °C \_\_\_\_\_ / \_\_\_\_\_ °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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH <2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH >10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

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

Reviewed by (Project Manager)

Date/Time Reviewed

Origins Laboratory, Inc.

*Jefe Pellegrini*

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Denver CO 80211

Bob Cornez  
Project Number: [none]  
Project: KMG - Ale Partnership Federal W24-9J1

SS01@2-3"

5/18/2018 1:45:00PM

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Notes
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**Origins Laboratory, Inc.**  
**Y805290-01 (Soil)**

**DRO/RRO by EPA8015C**

Diesel (C10-C28)	ND	25.0	mg/kg	1	B8E1802	05/18/2018	05/19/2018	U
Residual Range Organics (C28-C40)	ND	100	"	"	"	"	"	U

Surrogate: o-Terphenyl 88.4 % 59-131 " " "

**GBTEX by EPA 8260C**

Gasoline Range Hydrocarbons	ND	0.200	mg/kg	1	B8E1805	05/18/2018	05/19/2018	U
Benzene	ND	0.002	"	"	"	"	"	U
Toluene	ND	0.002	"	"	"	"	"	U
Ethylbenzene	ND	0.002	"	"	"	"	"	U
Xylenes, total	ND	0.002	"	"	"	"	"	U

Surrogate: 1,2-Dichloroethane-d4 116 % 70-130 " " "  
Surrogate: Toluene-d8 98.4 % 70-130 " " "  
Surrogate: 4-Bromofluorobenzene 102 % 70-130 " " "

**pH in Soil by EPA 9045D**

pH	9.18		pH Units	1	B8E1806	05/18/2018	05/18/2018	
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**Specific Conductance by Modified 9050A**

Specific Conductance (EC)	0.105		mmhos/cm	"	B8E1807	05/18/2018	"	
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**Volatile Organic Compounds by GC/MS SW846 8260C - Quality Control**  
**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8E1805 - EPA 5030 (soil)</b>										
<b>Blank (B8E1805-BLK1)</b>					Prepared: 05/18/2018 Analyzed: 05/18/2018					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	61		"	62.5		98.0	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		100	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8E1805 - EPA 5030 (soil)</b>										
<b>Blank (B8E1805-BLK2)</b>					Prepared: 05/18/2018 Analyzed: 05/18/2018					
Gasoline Range Hydrocarbons	ND	0.200	mg/kg							U
Benzene	ND	0.002	"							U
Toluene	ND	0.002	"							U
Ethylbenzene	ND	0.002	"							U
Xylenes, total	ND	0.002	"							U
Surrogate: 1,2-Dichloroethane-d4	67		ug/kg	62.5		107	70-130			
Surrogate: Toluene-d8	62		"	62.5		99.7	70-130			
Surrogate: 4-Bromofluorobenzene	63		"	62.5		101	70-130			

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**Origins Laboratory, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8E1805 - EPA 5030 (soil)</b>										
<b>LCS (B8E1805-BS1)</b>					Prepared: 05/18/2018 Analyzed: 05/18/2018					
Benzene	0.109	0.002	mg/kg	0.100		109	77.1-124			
Toluene	0.103	0.002	"	0.100		103	74.5-128			
Ethylbenzene	0.106	0.002	"	0.100		106	66.4-127			
m,p-Xylene	0.214	0.004	"	0.200		107	76.6-124			
o-Xylene	0.104	0.002	"	0.100		104	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	66		ug/kg	62.5		106	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	65		"	62.5		104	70-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8E1805 - EPA 5030 (soil)</b>										
<b>LCS (B8E1805-BS2)</b>					Prepared: 05/18/2018 Analyzed: 05/18/2018					
Benzene	0.107	0.002	mg/kg	0.100		107	77.1-124			
Toluene	0.101	0.002	"	0.100		101	74.5-128			
Ethylbenzene	0.104	0.002	"	0.100		104	66.4-127			
m,p-Xylene	0.205	0.004	"	0.200		103	76.6-124			
o-Xylene	0.102	0.002	"	0.100		102	76.6-124			
Surrogate: 1,2-Dichloroethane-d4	63		ug/kg	62.5		101	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.8	70-130			
Surrogate: 4-Bromofluorobenzene	62		"	62.5		99.9	70-130			

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**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 B8E1805 - EPA 5030 (soil)**

Matrix Spike (B8E1805-MS1)		Source: Y805245-01			Prepared: 05/18/2018 Analyzed: 05/18/2018					
Benzene	0.106	0.002	mg/kg	0.100	ND	106	71.8-126			
Toluene	0.098	0.002	"	0.100	ND	98.0	65.1-130			
Ethylbenzene	0.095	0.002	"	0.100	ND	95.4	62.2-130			
m,p-Xylene	0.197	0.004	"	0.200	ND	98.4	46.5-137			
o-Xylene	0.096	0.002	"	0.100	ND	96.1	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	79		ug/kg	62.5		127	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.8	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

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**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 B8E1805 - EPA 5030 (soil)**

Matrix Spike (B8E1805-MS2)		Source: Y805282-01			Prepared: 05/18/2018 Analyzed: 05/18/2018					
Benzene	0.097	0.002	mg/kg	0.100	0.001	95.6	71.8-126			
Toluene	0.088	0.002	"	0.100	0.001	86.9	65.1-130			
Ethylbenzene	0.091	0.002	"	0.100	0.0006	90.7	62.2-130			
m,p-Xylene	0.183	0.004	"	0.200	0.003	90.2	46.5-137			
o-Xylene	0.090	0.002	"	0.100	0.0006	89.3	54.2-134			
Surrogate: 1,2-Dichloroethane-d4	68		ug/kg	62.5		109	70-130			
Surrogate: Toluene-d8	60		"	62.5		96.4	70-130			
Surrogate: 4-Bromofluorobenzene	85		"	62.5		136	70-130			S-DUP

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**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 B8E1805 - EPA 5030 (soil)**

Matrix Spike Dup (B8E1805-MSD1)		Source: Y805245-01			Prepared: 05/18/2018 Analyzed: 05/20/2018					
Benzene	0.104	0.002	mg/kg	0.100	ND	104	71.8-126	1.89	11.3	
Toluene	0.097	0.002	"	0.100	ND	96.7	65.1-130	1.34	15.4	
Ethylbenzene	0.101	0.002	"	0.100	ND	101	62.2-130	6.11	19.6	
m,p-Xylene	0.203	0.004	"	0.200	ND	101	46.5-137	2.95	19.2	
o-Xylene	0.101	0.002	"	0.100	ND	101	54.2-134	4.85	17.9	
Surrogate: 1,2-Dichloroethane-d4	65		ug/kg	62.5		104	70-130			
Surrogate: Toluene-d8	62		"	62.5		98.5	70-130			
Surrogate: 4-Bromofluorobenzene	64		"	62.5		103	70-130			

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**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 B8E1805 - EPA 5030 (soil)**

Matrix Spike Dup (B8E1805-MSD2)		Source: Y805282-01			Prepared: 05/18/2018 Analyzed: 05/18/2018					
Benzene	0.091	0.002	mg/kg	0.100	0.001	89.6	71.8-126	6.40	11.3	
Toluene	0.083	0.002	"	0.100	0.001	82.0	65.1-130	5.68	15.4	
Ethylbenzene	0.084	0.002	"	0.100	0.0006	83.7	62.2-130	7.92	19.6	
m,p-Xylene	0.170	0.004	"	0.200	0.003	83.6	46.5-137	7.46	19.2	
o-Xylene	0.083	0.002	"	0.100	0.0006	82.7	54.2-134	7.64	17.9	
Surrogate: 1,2-Dichloroethane-d4	64		ug/kg	62.5		102	70-130			
Surrogate: Toluene-d8	61		"	62.5		97.0	70-130			
Surrogate: 4-Bromofluorobenzene	72		"	62.5		116	70-130			

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Bob Cornez  
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Project: KMG - Ale Partnership Federal W24-9J1

## 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 B8E1802 - EPA 3550B

##### Blank (B8E1802-BLK1)

Prepared: 05/18/2018 Analyzed: 05/18/2018

Diesel (C10-C28)	ND	50.0	mg/kg							U
Residual Range Organics (C28-C40)	ND	200	"							U
Surrogate: o-Terphenyl	43		"	50.0		85.8	59-131			

##### Blank (B8E1802-BLK2)

Prepared: 05/18/2018 Analyzed: 05/18/2018

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 (B8E1802-BS1)

Prepared: 05/18/2018 Analyzed: 05/18/2018

Diesel (C10-C28)	1180	50.0	mg/kg	1000		118	64-121			
Residual Range Organics (C28-C40)	1060	200	"	1000		106	58-124			
Surrogate: o-Terphenyl	56		"	50.0		112	59-131			

##### LCS (B8E1802-BS2)

Prepared: 05/18/2018 Analyzed: 05/18/2018

Diesel (C10-C28)	1170	50.0	mg/kg	1000		117	64-121			
Residual Range Organics (C28-C40)	1010	200	"	1000		101	58-124			
Surrogate: o-Terphenyl	57		"	50.0		113	59-131			

##### Matrix Spike (B8E1802-MS1)

Source: Y805255-03

Prepared: 05/18/2018 Analyzed: 05/18/2018

Diesel (C10-C28)	1100	50.0	mg/kg	1000	ND	110	53-125			
Residual Range Organics (C28-C40)	970	200	"	1000	8.26	96.2	47-133			

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Bob Cornez  
Project Number: [none]  
Project: KMG - Ale Partnership Federal W24-9J1

## Extractable Petroleum Hydrocarbons by 8015C - Quality Control Origins Laboratory, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8E1802 - EPA 3550B</b>										
<b>Matrix Spike (B8E1802-MS1)</b>		<b>Source: Y805255-03</b>			Prepared: 05/18/2018 Analyzed: 05/18/2018					
Surrogate: o-Terphenyl	49		mg/kg	50.0		97.5	59-131			
<b>Matrix Spike (B8E1802-MS2)</b>		<b>Source: Y805282-01</b>			Prepared: 05/18/2018 Analyzed: 05/18/2018					
Diesel (C10-C28)	1260	50.0	mg/kg	1000	ND	126	53-125			QM-07
Residual Range Organics (C28-C40)	1050	200	"	1000	8.42	104	47-133			
Surrogate: o-Terphenyl	58		"	50.0		115	59-131			
<b>Matrix Spike Dup (B8E1802-MSD1)</b>		<b>Source: Y805255-03</b>			Prepared: 05/18/2018 Analyzed: 05/18/2018					
Diesel (C10-C28)	1070	50.0	mg/kg	1000	ND	107	53-125	2.68	20	
Residual Range Organics (C28-C40)	949	200	"	1000	8.26	94.1	47-133	2.26	20	
Surrogate: o-Terphenyl	50		"	50.0		99.5	59-131			
<b>Matrix Spike Dup (B8E1802-MSD2)</b>		<b>Source: Y805282-01</b>			Prepared: 05/18/2018 Analyzed: 05/18/2018					
Diesel (C10-C28)	1190	50.0	mg/kg	1000	ND	119	53-125	5.79	20	
Residual Range Organics (C28-C40)	1020	200	"	1000	8.42	101	47-133	3.10	20	
Surrogate: o-Terphenyl	57		"	50.0		114	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 - Ale Partnership Federal W24-9J1

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch B8E1806 - EPA 1311</b>										
<b>Duplicate (B8E1806-DUP1)</b>		<b>Source: Y805245-01</b>			Prepared: 05/18/2018 Analyzed: 05/18/2018					
pH	7.95		pH Units		8.91			11.4	25	
<b>Batch B8E1807 - EPA 1311</b>										
<b>Blank (B8E1807-BLK1)</b>		Prepared: 05/18/2018 Analyzed: 05/18/2018								
Specific Conductance (EC)	0.00270		mmhos/cm							
<b>Duplicate (B8E1807-DUP1)</b>		<b>Source: Y805245-01</b>			Prepared: 05/18/2018 Analyzed: 05/18/2018					
Specific Conductance (EC)	0.0659		mmhos/cm		0.0540			19.8	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 - Ale Partnership Federal W24-9J1

### Notes and Definitions

U Sample is Non-Detect.

S-DUP Duplicate analysis confirmed surrogate failure due to matrix effects.

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.*



May 24, 2018

Tasman Geosciences

Bob Cornez

6899 Pecos Street, Unit C

Denver

CO 80211

**Project Name - KMG - Ale Partnership Federal  
W29-9JI**

**Project Number - [none]**

Attached are your analytical results for KMG - Ale Partnership Federal W29-9JI received by Origins Laboratory, Inc. May 23, 2018. This project is associated with Origins project number Y805359-01.

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 - Ale Partnership Federal W29-9JI

## CROSS REFERENCE REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SS02@3-6"	Y805359-01	Soil	May 23, 2018 15:01	05/23/2018 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 - Ale Partnership Federal W29-9JI

www.originslaboratory.com

1905359

page 1 of 1

ORIGINS LABORATORY, INC

Client: APC

Project Manager/Send Report To: Robert Cornez

Email Address: rcornez@tasmangeo.com

Project Name/Number: Ale Partnership Federal W29-9JI

Telephone Number:

Samples Collected By: BDL

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/Method	Sample Instructions
				Unpreserved	HCl	HNO <sub>3</sub>	Other	Groundwater	Soil	Air Summa Canister #		
35025826	5-23-18	1501	2X						X		PH	1
												2
												3
												4
												5
												6
												7
												8
												9
												10

  

Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Turnaround Time:
BDL	5-23-18		Robert Cornez	5/23/18	1700	Same Day <input checked="" type="checkbox"/> 24 Hr <input type="checkbox"/>
						48 Hr <input type="checkbox"/> 72 Hr <input type="checkbox"/>

1725 Elk Place, Denver, CO 80211

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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 - Ale Partnership Federal W29-9J1

Origins Laboratory

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

## Sample Receipt Checklist

Origins Work Order: Y405359

Client: Tasman

Client Project ID: KMG - Ale Partnership Federal W29

Checklist Completed by: JG

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

Date/time completed: 5/23/2018

Airbill #: N/A

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

Cooler Number/Temperature: 1 / 1.3 °C        /        °C        /        °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 <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is there ice present (document if blue ice is used)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on cooler? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are custody seals present on each sample container? (if so, document in comments if they are signed and dated, broken or intact)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present <sup>(1)</sup> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client with date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace (> ¼ inch bubble) present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation and was it checked <sup>(1)</sup> ? (note ID of confirmation instrument used in comments) / (preservation is not confirmed for subcontracted analyses in order to insure sample integrity)/(pH < 2 for samples preserved with HNO <sub>3</sub> , HCL, H <sub>2</sub> SO <sub>4</sub> ) / (pH > 10 for samples preserved with NaAsO <sub>2</sub> +NaOH, ZnAc+NaOH)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup>If NO, then contact the client before proceeding with analyses 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]

5/23/18  
Date/Time Reviewed

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 - Ale Partnership Federal W29-9JI

SS02@3-6"

5/23/2018 3:01:00PM

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Notes
		Limit						

Origins Laboratory, Inc.

Y805359-01 (Soil)

## pH in Soil by EPA 9045D

pH	8.28	pH Units	1	B8E2304	05/23/2018	05/23/2018
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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 - Ale Partnership Federal W29-9JI

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B8E2304 - EPA 1311

Duplicate (B8E2304-DUP1)		Source: Y805334-01			Prepared: 05/23/2018 Analyzed: 05/23/2018					
pH	6.98		pH Units		8.26			16.8	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 - Ale Partnership Federal W29-9JI

### Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit

RPD Relative Percent Difference

All soil results are reported at a wet weight basis.

Origins Laboratory, Inc.



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