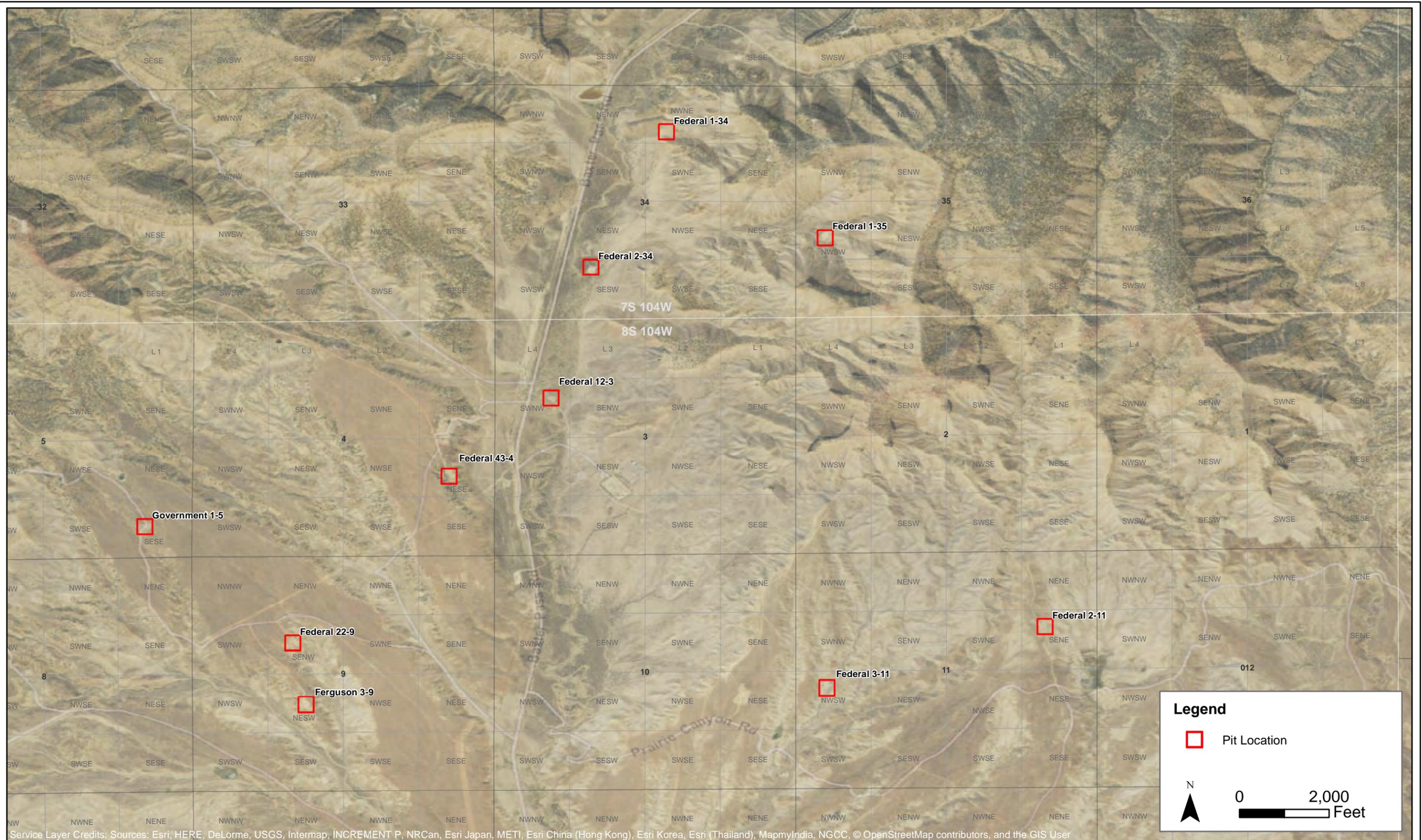


## **FIGURES**



DATE:  
September 2016

DESIGNED BY:  
R. Cornez

DRAWN BY:  
D. Arnold



**Foundation Energy Management, LLC**  
**Western Slope Pit Assessment**  
Garfield County, Colorado

Site Locations Overview  
Map

Figure  
1



**N@8'**  
 B < 0.0020 mg/kg  
 TPH < 50 mg/kg  
 EC = 5.52\*  
 pH = 8.12

**W@6'**  
 B < 0.0020 mg/kg  
 TPH < 50 mg/kg  
 EC = 4.35\*  
 pH = 7.92

**E@2'**  
 B < 0.0020 mg/kg  
 TPH < 50 mg/kg  
 EC = 0.560  
 pH = 8.93

**S@2'**  
 B < 0.0020 mg/kg  
 TPH < 50 mg/kg  
 EC = 0.424  
 pH = 8.72

**C@2'**  
 B < 0.0020 mg/kg  
 TPH < 50 mg/kg  
 SVOC < Stds  
 Metals < Stds ex. AS  
 SAR = 0.0580  
 EC = 0.992  
 pH = 8.29

**Legend**

⊕ Soil sample location

**Notes**

B – Benzene  
 TPH – Total Petroleum Hydrocarbons  
 EC – Electrical Conductivity  
 SVOC - Semivolatle Organic Compounds  
 SAR – Sodium Adsorption Ratio  
 mg/kg – Milligrams Per Kilogram

All locations are approximate unless otherwise noted.

\* Soil sample collected below designated root zone

< Stds = Below Table 910-1 soil standards

< Stds ex. AS = Below Table 910-1 soil standards with the exception of arsenic

**RED** text indicates an exceedance of COGCC Table 910-1 standards

0 ft. 20 ft. 40 ft.

Image Source: Google Earth 2015

DATE:	December 27, 2016
DESIGNED BY:	R. Cornez
DRAWN BY:	D. Arnold



**Foundation Energy Management, LLC**  
**Federal 2-11**  
 SENE, Section 11, Township 8 South, Range 104 West  
 Garfield County, Colorado

Soil Sample Location  
 Map

FIGURE  
 2

## **ANALYTICAL TABLE**

TABLE 1  
Federal 2-11 Pit Soil Sample Analytical Results  
Foundation Energy Management

Sample ID	Date Sampled	BTEX				TPH		pH	EC (mmhos/cm)	SAR	Metals												PAHs													
		Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Xylenes (mg/kg)	GRO (mg/kg)	DRO (mg/kg)				Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium III (mg/kg)	Chromium VI (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Zinc (mg/kg)	Acenaphthe ne (mg/kg)	Anthracene (mg/kg)	Benzo(A)an thracene (mg/kg)	Benzo(B)fl uoranthene (mg/kg)	Benzo(K)fluor anthene (mg/kg)	Benzo(A) pyrene (mg/kg)	Chrysene (mg/kg)	Dibenzo(A,H)a ntracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3,C,D) pyrene (mg/kg)	Naphthalene (mg/kg)	Pyrene (mg/kg)	
Table 910-1 Allowable Concentrations		0.17	85	100	175	500		6-9	<4	<12	0.39	15,000	70	120,000	23	3,100	400	23	1,600	390	390	23,000	1000	1000	0.22	0.22	2.2	0.022	22	0.022	1000	1000	0.22	23	1000	
Fed 2-11: C@2'	12/02/2016	<0.0020	<0.0050	<0.0050	<0.0050	<0.50	<50	8.29	0.992	0.0580	7.49 <sup>(1)</sup>	199	0.192	8.21	<0.300	12.4	13.3	<0.0576	14.8	0.726	<0.115	67.5	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Fed 2-11: W@6'	12/02/2016	<0.0020	<0.0050	<0.0050	<0.0050	<0.50	<50	7.92	4.35 <sup>(1)</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fed 2-11: S@2'	12/02/2016	<0.0020	<0.0050	<0.0050	<0.0050	<0.50	<50	8.72	0.424	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fed 2-11: N@8'	12/02/2016	<0.0020	<0.0050	<0.0050	<0.0050	<0.50	<50	8.12	5.52 <sup>(1)</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fed 2-11: E@2'	12/02/2016	<0.0020	<0.0050	<0.0050	0.019	<0.50	<50	8.93	0.560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
North Comp	12/1/2016	-	-	-	-	-	-	-	-	-	9.58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Southeast Comp	12/1/2016	-	-	-	-	-	-	-	-	-	7.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Southwest Comp	12/1/2016	-	-	-	-	-	-	-	-	-	5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Red Text = Constituent concentration exceeds COGCC Table 910-1 standard  
 < = Constituent concentration less than the listed laboratory reporting limit  
 (1) = Sample collected below the designated root zone.  
 (2) = Analytical result below regional background concentration.  
 - = Constituent not analyzed mg/kg = Milligram per Kilogram  
 mg/kg = milligram per Kilogram  
 TPH = Total Petroleum Hydrocarbons  
 GRO = Gasoline Range Organics  
 DRO = Diesel Range Organics  
 EC = Electrical Conductivity  
 mmhos/cm = millimhos per centimeter  
 SAR = Sodium Absorption Ratio mmhos/cm - millimhos per centimeter

**ATTACHMENT A  
LABORATORY  
ANALYTICAL REPORTS**

# Summit Scientific

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 08, 2017

Bob Cornez

Tasman Geosciences

6899 Pecos Street

Denver, CO 80221

RE: Western Slope Pit Assessment

Enclosed are the results of analyses for samples received by Summit Scientific on 12/05/16 12:28. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury  
President



Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Fed 2-11: C @ 2'	1612033-01	Soil	12/02/16 14:59	12/05/16 12:28
Fed 12-11: W @ 6'	1612033-02	Soil	12/02/16 15:57	12/05/16 12:28
Fed 2-11: S @ 2'	1612033-03	Soil	12/02/16 16:38	12/05/16 12:28
Fed 2-11: N @ 8'	1612033-04	Soil	12/02/16 16:38	12/05/16 12:28
Fed 2-11: E @ 2'	1612033-05	Soil	12/02/16 16:57	12/05/16 12:28

Summit Scientific

*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  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

# Summit Scientific

1612033

S<sub>2</sub>

741 Corporate Circle, Suite J ♦ Golden, Colorado 80401  
303-277-9310 ♦ 303-374-5933

Page 4 of 8

Client: Foundation Energy / Tasman Project Manager: RUC  
Address: \_\_\_\_\_ E-Mail: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Project Name: Western Slope Pit Assessment  
Sampler Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested					Special Instructions			
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	Foil Table	GC/MS	TPH-DRC	EC		PH	AS-Only	
1	Fed 2-11: E@6'	02-Dec	1343	1						X				X	X	X	X			
2	Fed 2-11: C@2'		1459	2										X					D1	
3	Contaminant Comp		1530	1																
4	Fed 2-11: W@6'		1527	1										X	X	X	X		O2	
5	Fed 2-11: S@2'		1557	1										X	X	X	X		O3	
6	Fed 2-11: N@8'		1638	1										X	X	X	X		O4	
7	Fed 2-11: E@2'		1657	1										X	X	X	X		O5	
8	Fed 2-9: C@8'	03-Dec	0916	2										X	X	X	X			
9	Fed 2-9: N@8'		0904	1										X	X	X	X			
10	Fed 2-9: E@10'		0838	1										X	X	X	X			
Relinquished by:		Date/Time: 12/5/16 10:00	Received by:		Date/Time: 12-5-16 10:00		Turn Around Time (Check)		Same Day		72 hours		24 hours		Standard		48 hours		Notes:	
Relinquished by:		Date/Time:	Received by:		Date/Time:		Sample Integrity:		Temperature Upon Receipt: 1.6°C		Intact: Yes		No							

www.s2scientific.com



Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Sample Receipt Checklist**

S2 Work Order: 1612033  
 Client: Foundation/Tasman Client Project ID: Western Slope Pit Assessment (Fed 2-1)  
 Shipped Via: Hand (UPS, FedEx, Hand Delivered, Pick-up, etc.) Airbill #: \_\_\_\_\_  
 Matrix (check all that apply):  Air  Soil/Solid  Water  Other: \_\_\_\_\_ (Describe)

Cooler ID					
Temp (°C)	1.6				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C <sup>(1)</sup> ?	✓			
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact <sup>(1)</sup> ?	✓			
Was adequate sample volume provided <sup>(1)</sup> ?	✓			
If custody seals are present, are they intact <sup>(1)</sup> ?			✓	
Are short holding time analytes or samples with HTs due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	✓			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	✓			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			✓	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ?			✓	
Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

Nakita  
Custodian Printed Name

[Signature]  
Signature or Initials of Custodian

12/5/16 1235  
Date/Time

[Signature]



Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Fed 2-11: C @ 2'**  
**1612033-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612067	12/07/16	12/08/16	8015M	

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		95.1 %	30-150		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1612089	12/08/16	12/09/16	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		119 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Acenaphthene	ND	0.00500	mg/kg	1	1612049	12/06/16	12/08/16	EPA 8270D SIM	
Anthracene	ND	0.00500	"	"	"	"	"	"	

Summit Scientific

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  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Fed 2-11: C @ 2'**  
**1612033-01 (Soil)**

**Summit Scientific**

**Semivolatile Organic Compounds by EPA Method 8270D SIM**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzo (a) anthracene	ND	0.00500	mg/kg	1	1612049	12/06/16	12/08/16	EPA 8270D SIM	
Benzo (b) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.00500	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.00500	"	"	"	"	"	"	
Chrysene	ND	0.00500	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.00500	"	"	"	"	"	"	
Fluoranthene	ND	0.00500	"	"	"	"	"	"	
Fluorene	ND	0.00500	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.00500	"	"	"	"	"	"	
Naphthalene	ND	0.00500	"	"	"	"	"	"	
Pyrene	ND	0.00500	"	"	"	"	"	"	

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		62.8 %	30-150		"	"	"	"	
Surrogate: Fluoranthene-d10		93.2 %	30-150		"	"	"	"	

**Total Metals by EPA Method 6020 - Dry Weight Basis**

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>7.49</b>	0.230	mg/kg dry	1	1612062	12/07/16	12/07/16	EPA 6020A	
<b>Barium</b>	<b>199</b>	0.461	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.192</b>	0.115	"	"	"	"	"	"	
<b>Chromium</b>	<b>8.21</b>	0.576	"	"	"	"	"	"	
<b>Copper</b>	<b>12.4</b>	0.576	"	"	"	"	"	"	
<b>Lead</b>	<b>13.3</b>	0.230	"	"	"	"	"	"	
<b>Nickel</b>	<b>14.8</b>	0.115	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.726</b>	0.461	"	"	"	"	"	"	
Silver	ND	0.115	"	"	"	"	"	"	
<b>Zinc</b>	<b>67.5</b>	11.5	"	"	"	"	"	"	

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Fed 2-11: C @ 2'**  
**1612033-01 (Soil)**

**Summit Scientific**

**Total Mercury by EPA Method 7471**

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0576	mg/kg dry	1	1612034	12/05/16	12/06/16	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Trivalent Chromium	ND	0.346	mg/kg dry	1	[CALC]	12/07/16	12/08/16	EPA 7196/3060A	
Chromium, Hexavalent	ND	0.300	"	"	1612064	"	"	EPA 7196	

**Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis**

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	13800	11.5	mg/kg dry	1	1612063	12/07/16	12/07/16	EPA 6020/Mod. USDA60 6(2, 3A)	
Magnesium	947	5.76	"	"	"	"	"	"	
Sodium	26.1	5.76	"	"	"	"	"	"	
Sodium Adsorption Ratio	0.0580		units	"	1612082	12/08/16	12/08/16	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.29	0.100	pH Units	1	1612095	12/06/16	12/06/16	EPA 9045	
% Solids	86.8		%	"	1612069	12/07/16	12/07/16	% calculation	

**Specific Conductance by EPA120.1**

Date Sampled: **12/02/16 14:59**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Summit Scientific

*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  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

**Fed 2-11: C @ 2'**  
**1612033-01 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

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Specific Conductance (EC)	0.992	0.0100 mmhos/cm	1	1612097	12/09/16	12/09/16	EPA 120.1
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Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Fed 12-11: W @ 6'**  
**1612033-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/02/16 15:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612067	12/07/16	12/08/16	8015M	

Date Sampled: **12/02/16 15:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		93.6 %	30-150		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **12/02/16 15:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1612089	12/08/16	12/09/16	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **12/02/16 15:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		123 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/02/16 15:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>7.92</b>	0.100	pH Units	1	1612095	12/06/16	12/06/16	EPA 9045	

Summit Scientific

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Tasman Geosciences  
 6899 Pecos Street  
 Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
 Project Manager: Bob Cornez

**Reported:**  
 12/08/17 11:51

**Fed 12-11: W @ 6'**  
**1612033-02 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

Date Sampled: **12/02/16 15:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	4.35	0.0100	mmhos/cm	1	1612097	12/09/16	12/09/16	EPA 120.1	

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

**Fed 2-11: S @ 2'**  
**1612033-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612067	12/07/16	12/08/16	8015M	

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		93.5 %	30-150		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1612089	12/08/16	12/09/16	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		121 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.9 %	21-167		"	"	"	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.72</b>	0.100	pH Units	1	1612095	12/06/16	12/06/16	EPA 9045	

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 Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
 Project Manager: Bob Cornez

**Reported:**  
 12/08/17 11:51

**Fed 2-11: S @ 2'**  
**1612033-03 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.424</b>	0.0100	mmhos/cm	1	1612097	12/09/16	12/09/16	EPA 120.1	

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Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Fed 2-11: N @ 8'**  
**1612033-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612067	12/07/16	12/08/16	8015M	

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		92.3 %	30-150		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1612089	12/08/16	12/09/16	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		123 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.5 %	21-167		"	"	"	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.12</b>	0.100	pH Units	1	1612095	12/06/16	12/06/16	EPA 9045	

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Project: Western Slope Pit Assessment

Project Number: [none]  
 Project Manager: Bob Cornez

**Reported:**  
 12/08/17 11:51

**Fed 2-11: N @ 8'**  
**1612033-04 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

Date Sampled: **12/02/16 16:38**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.52	0.0100	mmhos/cm	1	1612097	12/09/16	12/09/16	EPA 120.1	

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Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Fed 2-11: E @ 2'**  
**1612033-05 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/02/16 16:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612067	12/07/16	12/08/16	8015M	

Date Sampled: **12/02/16 16:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: <i>o</i> -Terphenyl		94.0 %	30-150		"	"	"	"	

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **12/02/16 16:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1612089	12/08/16	12/09/16	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.019</b>	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **12/02/16 16:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		131 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	21-167		"	"	"	"	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/02/16 16:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.93</b>	0.100	pH Units	1	1612095	12/06/16	12/06/16	EPA 9045	

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Project: Western Slope Pit Assessment

Project Number: [none]  
 Project Manager: Bob Cornez

**Reported:**  
 12/08/17 11:51

**Fed 2-11: E @ 2'**  
**1612033-05 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

Date Sampled: **12/02/16 16:57**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.560</b>	0.0100	mmhos/cm	1	1612097	12/09/16	12/09/16	EPA 120.1	

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Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

**Extractable Petroleum Hydrocarbons by 8015 - Quality Control**  
**Summit Scientific**

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

**Batch 1612067 - EPA 3550A**

<b>Blank (1612067-BLK1)</b>				Prepared: 12/07/16 Analyzed: 12/08/16							
C10-C28 (DRO)	ND	50	mg/kg								
Surrogate: <i>o</i> -Terphenyl	11.8		"	12.5		94.2	30-150				
<b>LCS (1612067-BS1)</b>				Prepared: 12/07/16 Analyzed: 12/08/16							
C10-C28 (DRO)	458	50	mg/kg	499		91.7	73-134				
Surrogate: <i>o</i> -Terphenyl	14.1		"	12.5		113	30-150				
<b>Matrix Spike (1612067-MS1)</b>				<b>Source: 1612031-01</b>		Prepared: 12/07/16 Analyzed: 12/08/16					
C10-C28 (DRO)	5780	50	mg/kg	499	5510	54.7	50-148				
Surrogate: <i>o</i> -Terphenyl	15.6		"	12.5		125	30-150				
<b>Matrix Spike Dup (1612067-MSD1)</b>				<b>Source: 1612031-01</b>		Prepared: 12/07/16 Analyzed: 12/08/16					
C10-C28 (DRO)	6380	50	mg/kg	499	5510	174	50-148	9.81	20		QM-07
Surrogate: <i>o</i> -Terphenyl	16.4		"	12.5		131	30-150				

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Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

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

**Batch 1612089 - EPA 5030 Soil MS**

**Blank (1612089-BLK1)**

Prepared & Analyzed: 12/08/16

Benzene	ND	0.0020	mg/kg							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Gasoline Range Hydrocarbons	ND	0.50	"							
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0481</i>		<i>"</i>	<i>0.0400</i>		<i>120</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0414</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0413</i>		<i>"</i>	<i>0.0400</i>		<i>103</i>	<i>21-167</i>			

**LCS (1612089-BS1)**

Prepared & Analyzed: 12/08/16

Benzene	0.0861	0.0020	mg/kg	0.100		86.1	58-130			
Toluene	0.0954	0.0050	"	0.100		95.4	61-134			
Ethylbenzene	0.120	0.0050	"	0.0992		121	74-139			
m,p-Xylene	0.217	0.010	"	0.200		109	73-137			
o-Xylene	0.112	0.0050	"	0.0980		115	73-141			
Xylenes (total)	0.330	0.0050	"				30-150			
Gasoline Range Hydrocarbons	3.07	0.50	"				30-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0499</i>		<i>"</i>	<i>0.0400</i>		<i>125</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0408</i>		<i>"</i>	<i>0.0400</i>		<i>102</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0415</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>21-167</i>			

**Matrix Spike (1612089-MS1)**

Source: 1612033-01

Prepared: 12/08/16 Analyzed: 12/09/16

Benzene	0.0834	0.0020	mg/kg	0.100	ND	83.4	30-131			
Toluene	0.0954	0.0050	"	0.100	ND	95.4	30-134			
Ethylbenzene	0.119	0.0050	"	0.0992	ND	120	22-153			
m,p-Xylene	0.218	0.010	"	0.200	ND	109	10-159			
o-Xylene	0.112	0.0050	"	0.0980	ND	114	31-151			
Xylenes (total)	0.330	0.0050	"		ND		30-150			
Gasoline Range Hydrocarbons	3.10	0.50	"		ND		30-150			
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0507</i>		<i>"</i>	<i>0.0400</i>		<i>127</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0402</i>		<i>"</i>	<i>0.0400</i>		<i>100</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0392</i>		<i>"</i>	<i>0.0400</i>		<i>98.0</i>	<i>21-167</i>			

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6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Volatile Organic Compounds by EPA Method 8260B - Quality Control**  
**Summit Scientific**

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

**Batch 1612089 - EPA 5030 Soil MS**

<b>Matrix Spike Dup (1612089-MSD1)</b>	<b>Source: 1612033-01</b>			Prepared: 12/08/16		Analyzed: 12/09/16				
Benzene	0.0839	0.0020	mg/kg	0.100	ND	83.9	30-131	0.609	34	
Toluene	0.0951	0.0050	"	0.100	ND	95.1	30-134	0.346	30	
Ethylbenzene	0.120	0.0050	"	0.0992	ND	121	22-153	1.21	24	
m,p-Xylene	0.219	0.010	"	0.200	ND	110	10-159	0.741	68	
o-Xylene	0.112	0.0050	"	0.0980	ND	114	31-151	0.00	38	
Xylenes (total)	0.331	0.0050	"		ND		30-150	0.490	20	
Gasoline Range Hydrocarbons	3.12	0.50	"		ND		30-150	0.787	20	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0501</i>		<i>"</i>	<i>0.0400</i>		<i>125</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>0.0405</i>		<i>"</i>	<i>0.0400</i>		<i>101</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0416</i>		<i>"</i>	<i>0.0400</i>		<i>104</i>	<i>21-167</i>			

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Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1612049 - EPA 5030 Soil MS**

**Blank (1612049-BLK1)**

Prepared: 12/06/16 Analyzed: 12/08/16

Acenaphthene	ND	0.00500	mg/kg							
Anthracene	ND	0.00500	"							
Benzo (a) anthracene	ND	0.00500	"							
Benzo (b) fluoranthene	ND	0.00500	"							
Benzo (k) fluoranthene	ND	0.00500	"							
Benzo (a) pyrene	ND	0.00500	"							
Chrysene	ND	0.00500	"							
Dibenz (a,h) anthracene	ND	0.00500	"							
Fluoranthene	ND	0.00500	"							
Fluorene	ND	0.00500	"							
Indeno (1,2,3-cd) pyrene	ND	0.00500	"							
Naphthalene	ND	0.00500	"							
Pyrene	ND	0.00500	"							
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0227</i>		<i>"</i>	<i>0.0333</i>		<i>68.0</i>	<i>30-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0341</i>		<i>"</i>	<i>0.0333</i>		<i>102</i>	<i>30-150</i>			

**LCS (1612049-BS1)**

Prepared: 12/06/16 Analyzed: 12/08/16

Acenaphthene	0.0338	0.00500	mg/kg	0.0333		101	48-131			
Anthracene	0.0382	0.00500	"				48-135			
Benzo (a) anthracene	0.0376	0.00500	"				37-142			
Benzo (b) fluoranthene	0.0386	0.00500	"				35-139			
Benzo (k) fluoranthene	0.0337	0.00500	"				30-139			
Benzo (a) pyrene	0.0370	0.00500	"				41-132			
Chrysene	0.0324	0.00500	"				30-136			
Dibenz (a,h) anthracene	0.0345	0.00500	"				24-127			
Fluoranthene	0.0346	0.00500	"				50-139			
Fluorene	0.0358	0.00500	"				50-130			
Indeno (1,2,3-cd) pyrene	0.0304	0.00500	"				26-139			
Naphthalene	0.0321	0.00500	"				40-135			
Pyrene	0.0342	0.00500	"	0.0333		103	39-141			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0272</i>		<i>"</i>	<i>0.0333</i>		<i>81.6</i>	<i>50-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0396</i>		<i>"</i>	<i>0.0333</i>		<i>119</i>	<i>50-150</i>			

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6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Semivolatile Organic Compounds by EPA Method 8270D SIM - Quality Control**  
**Summit Scientific**

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

**Batch 1612049 - EPA 5030 Soil MS**

<b>Matrix Spike (1612049-MS1)</b>	<b>Source: 1612026-04</b>			Prepared: 12/06/16		Analyzed: 12/08/16				
Acenaphthene	0.0600	0.00500	mg/kg	0.0333	ND	180	27-140			QM-07
Anthracene	0.0389	0.00500	"		ND		23-144			
Benzo (a) anthracene	0.0364	0.00500	"		ND		12-168			
Benzo (b) fluoranthene	0.0438	0.00500	"		ND		10-170			
Benzo (k) fluoranthene	0.0355	0.00500	"		ND		11-150			
Benzo (a) pyrene	0.0379	0.00500	"		ND		11-162			
Chrysene	0.0393	0.00500	"		0.00974		10-167			
Dibenz (a,h) anthracene	0.0291	0.00500	"		ND		10-128			
Fluoranthene	0.0391	0.00500	"		ND		18-157			
Fluorene	0.0692	0.00500	"		0.0432		37-133			
Indeno (1,2,3-cd) pyrene	0.0255	0.00500	"		ND		10-161			
Naphthalene	ND	0.00500	"		ND		10-157			
Pyrene	0.0366	0.00500	"	0.0333	0.00168	105	10-166			
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0276</i>		"	<i>0.0333</i>		<i>82.9</i>	<i>50-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0373</i>		"	<i>0.0333</i>		<i>112</i>	<i>50-150</i>			

<b>Matrix Spike Dup (1612049-MSD1)</b>	<b>Source: 1612026-04</b>			Prepared: 12/06/16		Analyzed: 12/08/16				
Acenaphthene	0.0611	0.00500	mg/kg	0.0333	ND	183	27-140	1.76	15	QM-07
Anthracene	0.0396	0.00500	"		ND		23-144	1.68	29	
Benzo (a) anthracene	0.0384	0.00500	"		ND		12-168	5.33	65	
Benzo (b) fluoranthene	0.0462	0.00500	"		ND		10-170	5.25	18	
Benzo (k) fluoranthene	0.0370	0.00500	"		ND		11-150	4.33	32	
Benzo (a) pyrene	0.0400	0.00500	"		ND		11-162	5.49	27	
Chrysene	0.0389	0.00500	"		0.00974		10-167	1.08	88	
Dibenz (a,h) anthracene	0.0298	0.00500	"		ND		10-128	2.36	20	
Fluoranthene	0.0393	0.00500	"		ND		18-157	0.502	31	
Fluorene	0.0750	0.00500	"		0.0432		37-133	8.05	16	
Indeno (1,2,3-cd) pyrene	0.0274	0.00500	"		ND		10-161	6.97	22	
Naphthalene	ND	0.00500	"		ND		10-157		24	
Pyrene	0.0373	0.00500	"	0.0333	0.00168	107	10-166	1.84	57	
<i>Surrogate: 2-Methylnaphthalene-d10</i>	<i>0.0322</i>		"	<i>0.0333</i>		<i>96.5</i>	<i>50-150</i>			
<i>Surrogate: Fluoranthene-d10</i>	<i>0.0365</i>		"	<i>0.0333</i>		<i>110</i>	<i>50-150</i>			

Summit Scientific

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  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

**Total Metals by EPA Method 6020 - Dry Weight Basis - Quality Control**  
**Summit Scientific**

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

**Batch 1612062 - EPA 3050B**

**Blank (1612062-BLK1)**

Prepared & Analyzed: 12/07/16

Arsenic	ND	0.200	mg/kg wet							
Barium	ND	0.400	"							
Cadmium	ND	0.100	"							
Chromium	ND	0.500	"							
Copper	ND	0.500	"							
Lead	ND	0.200	"							
Nickel	ND	0.100	"							
Selenium	ND	0.400	"							
Silver	ND	0.100	"							
Zinc	ND	10.0	"							

**LCS (1612062-BS1)**

Prepared & Analyzed: 12/07/16

Arsenic	127	0.500	mg/kg wet	132	96.5	82.6-117
Barium	183	1.00	"	228	80.3	72.8-127
Cadmium	118	0.250	"	122	96.7	80.3-120
Chromium	56.4	1.25	"	63.2	89.3	74.7-125
Copper	195	1.25	"	212	91.9	85.4-115
Lead	94.7	0.500	"	108	87.7	81.1-119
Nickel	264	0.250	"	284	92.8	88-112
Selenium	72.0	1.00	"	80.5	89.4	73.7-127
Silver	55.6	0.250	"	73.5	75.6	69.8-130
Zinc	195	25.0	"	203	96.1	77.8-122

**Duplicate (1612062-DUP1)**

Source: 1612006-04

Prepared & Analyzed: 12/07/16

Arsenic	1.02	0.207	mg/kg dry	0.898	12.6	20	
Barium	26.7	0.415	"	21.8	20.1	20	QR-03
Cadmium	0.131	0.104	"	0.0802	48.4	20	QR-03
Chromium	2.31	0.518	"	1.76	26.8	20	QR-03
Copper	2.83	0.518	"	2.29	21.0	20	QR-03
Lead	12.0	0.207	"	9.99	18.5	20	
Nickel	2.48	0.104	"	2.01	21.1	20	QR-03
Selenium	0.313	0.415	"	0.302	3.61	20	
Silver	0.0280	0.104	"	0.0250	11.2	20	
Zinc	15.1	10.4	"	9.58	44.9	20	QR-03

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Total Metals by EPA Method 6020 - Dry Weight Basis - Quality Control**  
**Summit Scientific**

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

**Batch 1612062 - EPA 3050B**

<b>Matrix Spike (1612062-MS1)</b>	<b>Source: 1612006-04</b>			<b>Prepared &amp; Analyzed: 12/07/16</b>							
Arsenic	39.2	0.207	mg/kg dry	39.0	0.898	98.3	75-125				
Barium	58.7	0.415	"	39.0	21.8	94.6	75-125				
Cadmium	2.17	0.104	"	1.95	0.0802	107	75-125				
Chromium	38.5	0.518	"	39.0	1.76	94.4	75-125				
Copper	38.9	0.518	"	39.0	2.29	94.0	75-125				
Lead	31.8	0.207	"	19.5	9.99	112	75-125				
Nickel	37.7	0.104	"	39.0	2.01	91.6	75-125				
Selenium	3.95	0.415	"	3.90	0.302	93.5	75-125				
Silver	1.83	0.104	"	1.95	0.0250	92.5	75-125				
Zinc	83.4	10.4	"	39.0	9.58	189	75-125				QM-07

<b>Matrix Spike Dup (1612062-MSD1)</b>	<b>Source: 1612006-04</b>			<b>Prepared &amp; Analyzed: 12/07/16</b>							
Arsenic	42.6	0.207	mg/kg dry	40.5	0.898	103	75-125	8.37	25		
Barium	64.2	0.415	"	40.5	21.8	105	75-125	8.98	25		
Cadmium	2.21	0.104	"	2.02	0.0802	105	75-125	1.66	25		
Chromium	42.3	0.518	"	40.5	1.76	100	75-125	9.44	25		
Copper	41.5	0.518	"	40.5	2.29	96.8	75-125	6.39	25		
Lead	33.4	0.207	"	20.2	9.99	116	75-125	4.91	25		
Nickel	41.4	0.104	"	40.5	2.01	97.3	75-125	9.36	25		
Selenium	4.29	0.415	"	4.05	0.302	98.6	75-125	8.46	25		
Silver	1.97	0.104	"	2.02	0.0250	96.2	75-125	7.66	25		
Zinc	59.7	10.4	"	40.5	9.58	124	75-125	33.0	25		QM-07

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

**Total Mercury by EPA Method 7471 - Quality Control**  
**Summit Scientific**

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

**Batch 1612034 - EPA 7471A**

**Blank (1612034-BLK1)**

Prepared: 12/05/16 Analyzed: 12/06/16

Mercury ND 0.0500 mg/kg wet

**LCS (1612034-BS1)**

Prepared: 12/05/16 Analyzed: 12/06/16

Mercury 0.525 0.0500 mg/kg wet 0.500 105 80-120

**Duplicate (1612034-DUP1)**

**Source: 1612006-01**

Prepared: 12/05/16 Analyzed: 12/06/16

Mercury 0.00401 0.0460 mg/kg dry 0.00399 0.564 20

**Matrix Spike (1612034-MS1)**

**Source: 1612006-01**

Prepared: 12/05/16 Analyzed: 12/06/16

Mercury 0.474 0.0460 mg/kg dry 0.460 0.00399 102 80-120

**Matrix Spike Dup (1612034-MSD1)**

**Source: 1612006-01**

Prepared: 12/05/16 Analyzed: 12/06/16

Mercury 0.455 0.0444 mg/kg dry 0.444 0.00399 102 80-120 4.00 20

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

**Hexavalent Chromium by EPA 7196 - Quality Control**  
**Summit Scientific**

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

**Batch 1612064 - 3060A Mod**

<b>Blank (1612064-BLK1)</b>			Prepared: 12/07/16 Analyzed: 12/08/16								
Chromium, Hexavalent	ND	0.300	mg/kg wet								
<b>LCS (1612064-BS1)</b>			Prepared: 12/07/16 Analyzed: 12/08/16								
Chromium, Hexavalent	18.7	0.300	mg/kg wet	19.9		93.7	85-115				
<b>Duplicate (1612064-DUP1)</b>			<b>Source: 1612026-04</b>		Prepared: 12/07/16 Analyzed: 12/08/16						
Chromium, Hexavalent	ND	0.300	mg/kg dry		ND					20	
<b>Matrix Spike (1612064-MS1)</b>			<b>Source: 1612026-04</b>		Prepared: 12/07/16 Analyzed: 12/08/16						
Chromium, Hexavalent	ND	0.300	mg/kg dry	23.9	ND		85-115				
<b>Matrix Spike (1612064-MS2)</b>			<b>Source: 1612036-01</b>		Prepared: 12/07/16 Analyzed: 12/08/16						
Chromium, Hexavalent	3.25	0.300	mg/kg dry	22.5	ND	14.4	85-115				
<b>Post Spike (1612064-PS1)</b>			<b>Source: 1612026-04</b>		Prepared: 12/07/16 Analyzed: 12/08/16						
Chromium, Hexavalent	0.00400		mg/kg	0.498	0.00	0.802	85-115				

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:51

**Soluble Nutrients by EPA 6020/Mod. USDA60 6(2, 3A) - Dry Weight Basis - Quality Control**  
**Summit Scientific**

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

**Batch 1612063 - General Preparation**

**Blank (1612063-BLK1)**

Prepared & Analyzed: 12/07/16

Calcium	ND	10.0	mg/kg wet						
Magnesium	ND	5.00	"						
Sodium	ND	5.00	"						

**LCS (1612063-BS1)**

Prepared & Analyzed: 12/07/16

Calcium	590	10.0	mg/kg wet	500	118	82.9-118			
Magnesium	610	5.00	"	500	122	77.1-123			
Sodium	588	5.00	"	500	118	71-129			

**Duplicate (1612063-DUP1)**

Source: 1612026-04

Prepared & Analyzed: 12/07/16

Calcium	1440	12.0	mg/kg dry	1370			4.57	200	
Magnesium	192	6.00	"	190			0.644	200	
Sodium	59.9	6.00	"	47.8			22.5	200	

**Matrix Spike (1612063-MS1)**

Source: 1612026-04

Prepared & Analyzed: 12/07/16

Calcium	2060	12.0	mg/kg dry	600	1370	115	75-125		
Magnesium	902	6.00	"	600	190	119	75-125		
Sodium	688	6.00	"	600	47.8	107	75-125		

**Matrix Spike Dup (1612063-MSD1)**

Source: 1612026-04

Prepared & Analyzed: 12/07/16

Calcium	2040	12.0	mg/kg dry	600	1370	112	75-125	0.803	25
Magnesium	921	6.00	"	600	190	122	75-125	2.12	25
Sodium	705	6.00	"	600	47.8	110	75-125	2.31	25

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Summit Scientific**

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

**Batch 1612069 - General Preparation**

Duplicate (1612069-DUP1)	Source: 1612014-01			Prepared & Analyzed: 12/07/16							
% Solids	92.3		%		93.0				0.756	20	

**Batch 1612095 - General Preparation**

LCS (1612095-BS1)				Prepared & Analyzed: 12/06/16							
pH	8.02	0.100	pH Units	8.00		100	95-105				
Duplicate (1612095-DUP1)	Source: 1612029-01			Prepared & Analyzed: 12/06/16							
pH	8.39	0.100	pH Units	8.31					0.958	20	

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

**Specific Conductance by EPA120.1 - Quality Control**  
**Summit Scientific**

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

**Batch 1612097 - General Preparation**

**Blank (1612097-BLK1)**

Prepared & Analyzed: 12/09/16

Specific Conductance (EC)                      ND                      0.0100 mmhos/cm

**LCS (1612097-BS1)**

Prepared & Analyzed: 12/09/16

Specific Conductance (EC)                      0.744                      0.0100 mmhos/cm                      0.750                      99.2                      90-110

**Duplicate (1612097-DUP1)**

**Source: 1612029-01**

Prepared & Analyzed: 12/09/16

Specific Conductance (EC)                      11.7                      0.0100 mmhos/cm                      12.7                      7.75                      20

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:51

### Notes and Definitions

- QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS/LCSD recovery.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

# Summit Scientific

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741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

December 09, 2016

Bob Cornez  
Tasman Geosciences  
6899 Pecos Street  
Denver, CO 80221  
RE: Western Slope Pit Assessment

Enclosed are the results of analyses for samples received by Summit Scientific on 12/05/16 11:31. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury  
President



Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornez

**Reported:**  
12/09/16 10:47

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North Comp	1612027-01	Soil	12/01/16 15:18	12/05/16 11:31
Southeast Comp	1612027-02	Soil	12/01/16 15:30	12/05/16 11:31
Southwest Comp	1612027-03	Soil	12/01/16 14:42	12/05/16 11:31

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornezz

Reported:  
12/09/16 10:47

# Summit Scientific

S<sub>2</sub>

1612027.1

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303-277-9310 • 303-374-5933

Page 1 of 3

Client: Foundation Energy / Tasman Project Manager: ZMC  
Address: \_\_\_\_\_ E-Mail: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Project Name: Western Slope Pit Assessment  
Sampler Name: Bob Cornezz Project Number: \_\_\_\_\_

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Analysis Requested					Special Instructions		
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	Full Table 910-1	GBTEX	TPH - DRC		EC	PH
1	Feet 1-34: EEB'	12/15/16	08:28	1						X			X	X	X	X		
2	Feet 1-34: NEE'	12/15/16	08:58	1									X	X	X	X		
3	Feet 1-34: SEE'	12/15/16	09:21	1									X	X	X	X		
4	Feet 1-34: COE'	12/15/16	09:08	2									X	X	X	X		
5	Feet 1-34: WOE'	12/15/16	09:53	1									X	X	X	X		
6	North Camp		15:18	1									X	X	X	X		01
7	Feet 1-35: NES'	12/15/16	11:13	1									X	X	X	X		
8	Feet 1-35: WOE'	12/15/16	11:21	1									X	X	X	X		
9	Feet 1-35: SEE'	12/15/16	11:39	1									X	X	X	X		
10	Feet 1-35: LOE'	12/15/16	11:46	1									X	X	X	X		
Relinquished by: _____		Date/Time: _____	Received by: _____		Date/Time: _____	Turn Around Time (Check)		Notes:										
_____		12/15/16 10:10	_____		12-5-16 10:10	Same Day _____ 72 hours _____												
Relinquished by: _____		Date/Time: _____	Received by: _____		Date/Time: _____	24 hours _____ Standard <input checked="" type="checkbox"/>												
_____		_____	_____		_____	48 hours _____												
Relinquished by: _____		Date/Time: _____	Received by: _____		Date/Time: _____	Sample Integrity:												
_____		_____	_____		_____	Temperature Upon Receipt: 1.6°C												
_____		_____	_____		_____	Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornez

Reported:  
12/09/16 10:47

# Summit Scientific

1612027.2

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Page 2 of 3

Client: Foundation Energy / Tasman Project Manager: RUC  
Address: \_\_\_\_\_ E-Mail: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Project Name: Western Slope Pit Assessment  
Sampler Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested					Special Instructions		
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	Full Table 110-1	GISTEX	TPH-DRO	EC		PH	AS-Only
1	Fed 3-11: E@6'	02-Dec	1343	1					X				X	X	X	X	X		<u>Amplify</u>
2	Fed 2-11: C@2'		1459	1									X					X	<u>OZ</u>
3	South East Comp		1530	1									X	X	X	X	X		
4	Fed 2-11: W@6'		1527	1									X	X	X	X	X		
5	Fed 2-11: S@2'		1857	1									X	X	X	X	X		
6	Fed 2-11: N@8'		1638	1									X	X	X	X	X		
7	Fed 2-11: E@2'		1657	1									X	X	X	X	X		<u>AMPLIFY 12/15/16</u>
8	Fed 3-4: C@8'	03-Dec	0746	2									X	X	X	X	X		
9	Fed 2-9: N@8'		0804	1									X	X	X	X	X		
10	Fed 2-9: E@10'		0838	1									X	X	X	X	X		
Relinquished by: <u>[Signature]</u>		Date/Time: <u>12/5/16 10:00</u>	Received by: <u>[Signature]</u>		Date/Time: <u>12-5-16 10:10</u>	Turn Around Time (Check)		Same Day <input type="checkbox"/>		72 hours <input type="checkbox"/>		24 hours <input type="checkbox"/>		Standard <input checked="" type="checkbox"/>		48 hours <input type="checkbox"/>		Notes:	
Relinquished by: _____		Date/Time: _____	Received by: _____		Date/Time: _____	Sample Integrity: <u>1.6%</u>		Temperature Upon Receipt: _____		Intact: <input checked="" type="checkbox"/>		Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>					

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Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornez

Reported:  
12/09/16 10:47

# Summit Scientific

1612027.3

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3 3  
Page 5 of 8

Client: Foundation Energy / Tasman Project Manager: ZMC  
Address: \_\_\_\_\_ E-Mail: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_ Project Name: Western Slope Pit Assessment  
Sampler Name: \_\_\_\_\_ Project Number: \_\_\_\_\_

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix			Analysis Requested					Special Instructions		
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	Full Table	GBL	TPH-DRO	EC		pH	AS-Caly
1	Ferg 3-9-2010	07 Dec	0859	1						X				X	X	X	X		
2	Ferg 3-9-We 16'		0917	1										X	X	X	X		
3	Fed 22-9-1041		1020	2										X	X	X	X		
4	Fed 22-9-5041		1052	1										X	X	X	X		
5	Fed 22-9-504071		1208	1										X	X	X	X		
6	Fed 22-9-1ve 8'		1226	1										X	X	X	X		
7	Fed 22-9-104		1309	1										X	X	X	X		
8	Fed 22-9-103		1341	1										X	X	X	X		
9	Sw 1-10-103		1443	2										X	X	X	X		
10	Southwest Camp		1443	2										X	X	X	X		
Relinquished by:		Date/Time: 12/5/16 1000	Received by:		Date/Time: 12-5-16 1000	Turn Around Time (Check)		Same Day		72 hours		24 hours		Standard		48 hours		Notes:	
Relinquished by:		Date/Time:	Received by:		Date/Time:	Sample Integrity:		Temperature Upon Receipt: 1.6°C		Intact: Yes		No							

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornez

Reported:  
12/09/16 10:47

**Sample Receipt Checklist**

S2 Work Order: 1612027  
 Client: Foundation/Tasman Client Project ID: Western Slope Pit Assessment (Comp)  
 Shipped Via: Hand (UPS, FedEx, Hand Delivered, Pick-up, etc.) Airbill #: \_\_\_\_\_  
 Matrix (check all that apply):  Air  Soil/Solid  Water  Other: \_\_\_\_\_ (Describe)

Cooler ID					
Temp (°C)	1.6				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C <sup>(1)</sup> ?	✓			
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact <sup>(1)</sup> ?	✓			
Was adequate sample volume provided <sup>(1)</sup> ?	✓			
If custody seals are present, are they intact <sup>(1)</sup> ?			✓	
Are short holding time analytes or samples with HTs due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	✓			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	✓			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			✓	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ?			✓	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

Makita  
Custodian Printed Name

[Signature]  
Signature or Initials of Custodian

12/5/16  
Date/Time

[Signature]



Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornez

**Reported:**  
12/09/16 10:47

**North Comp**  
**1612027-01 (Soil)**

**Summit Scientific**

**Total Metals by EPA Method 6020 - Dry Weight Basis**

Date Sampled: **12/01/16 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>9.58</b>	0.222	mg/kg dry	1	1612062	12/07/16	12/07/16	EPA 6020A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/01/16 15:18**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>% Solids</b>	<b>90.1</b>		%	1	1612069	12/07/16	12/07/16	% calculation	

Summit Scientific

*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  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornez

**Reported:**  
12/09/16 10:47

**Southeast Comp  
1612027-02 (Soil)**

**Summit Scientific**

**Total Metals by EPA Method 6020 - Dry Weight Basis**

Date Sampled: **12/01/16 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>7.54</b>	0.224	mg/kg dry	1	1612062	12/07/16	12/07/16	EPA 6020A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/01/16 15:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>89.1</b>		%	1	1612069	12/07/16	12/07/16	% calculation	

Summit Scientific

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornez

**Reported:**  
12/09/16 10:47

**Southwest Comp  
1612027-03 (Soil)**

**Summit Scientific**

**Total Metals by EPA Method 6020 - Dry Weight Basis**

Date Sampled: **12/01/16 14:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Arsenic	<b>5.60</b>	0.222	mg/kg dry	1	1612062	12/07/16	12/07/16	EPA 6020A	

**Physical Parameters by APHA/ASTM/EPA Methods**

Date Sampled: **12/01/16 14:42**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	<b>90.2</b>		%	1	1612069	12/07/16	12/07/16	% calculation	

Summit Scientific

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6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornez

**Reported:**  
12/09/16 10:47

**Total Metals by EPA Method 6020 - Dry Weight Basis - Quality Control**

**Summit Scientific**

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

**Batch 1612062 - EPA 3050B**

**Blank (1612062-BLK1)**

Prepared & Analyzed: 12/07/16

Arsenic ND 0.200 mg/kg wet

**LCS (1612062-BS1)**

Prepared & Analyzed: 12/07/16

Arsenic 127 0.500 mg/kg wet 132 96.5 82.6-117

**Duplicate (1612062-DUP1)**

**Source: 1612006-04**

Prepared & Analyzed: 12/07/16

Arsenic 1.02 0.207 mg/kg dry 0.898 12.6 20

**Matrix Spike (1612062-MS1)**

**Source: 1612006-04**

Prepared & Analyzed: 12/07/16

Arsenic 39.2 0.207 mg/kg dry 39.0 0.898 98.3 75-125

**Matrix Spike Dup (1612062-MSD1)**

**Source: 1612006-04**

Prepared & Analyzed: 12/07/16

Arsenic 42.6 0.207 mg/kg dry 40.5 0.898 103 75-125 8.37 25

Summit Scientific

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6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

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**Reported:**  
12/09/16 10:47

**Physical Parameters by APHA/ASTM/EPA Methods - Quality Control**  
**Summit Scientific**

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

**Batch 1612069 - General Preparation**

<b>Duplicate (1612069-DUP1)</b>		<b>Source: 1612014-01</b>		<b>Prepared &amp; Analyzed: 12/07/16</b>	
% Solids	92.3	%		93.0	0.756 20
<b>Duplicate (1612069-DUP2)</b>		<b>Source: 1612014-01</b>		<b>Prepared &amp; Analyzed: 12/07/16</b>	
% Solids	92.3	%		93.0	0.756 20

Summit Scientific

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Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Cornez

**Reported:**  
12/09/16 10:47

### Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference