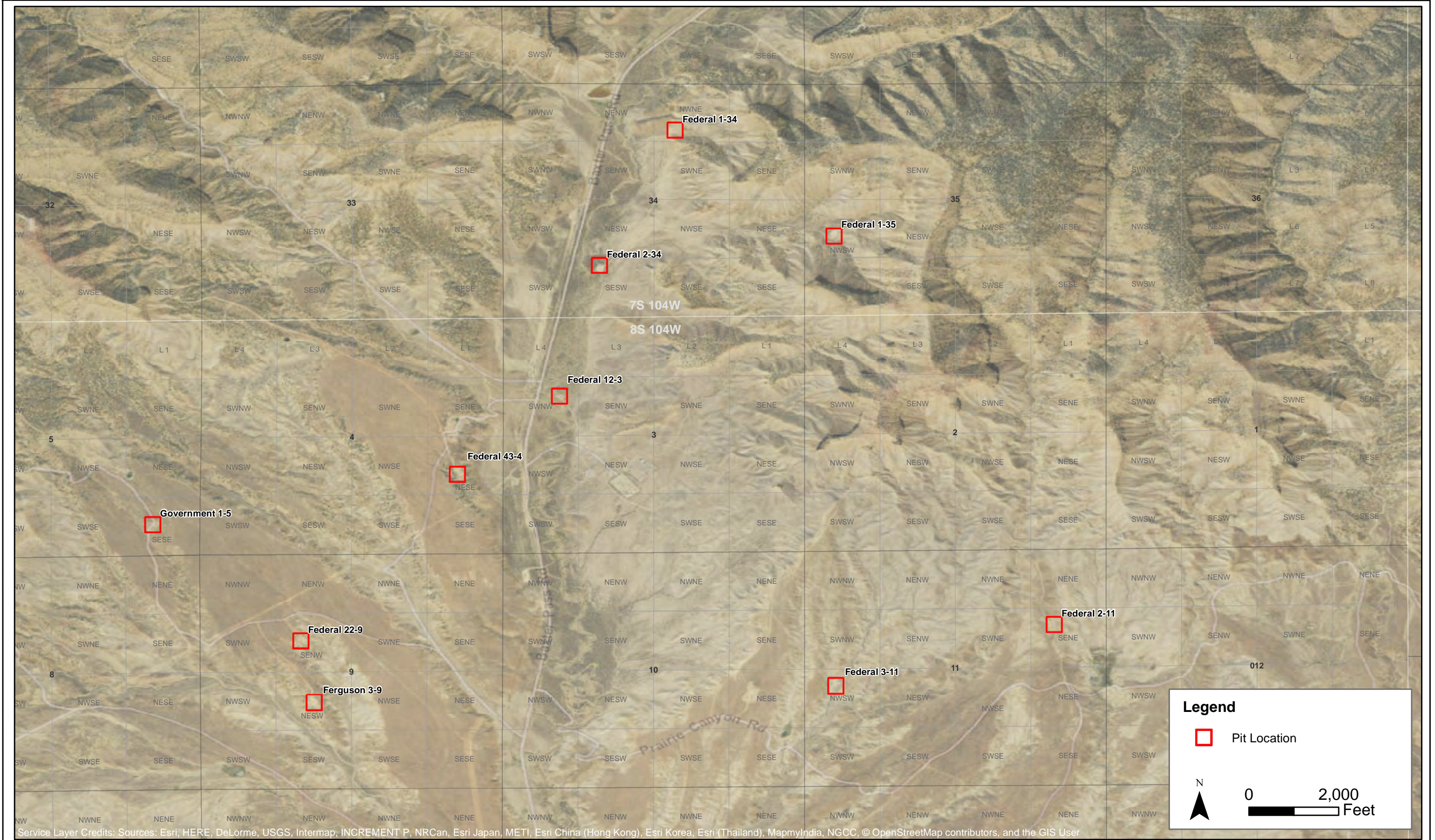


## **FIGURES**



Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User

DATE:	September 2016
DESIGNED BY:	R. Cornez
DRAWN BY:	D. Arnold



Tasman Geosciences, Inc.  
6899 Pecos Street - Unit C  
Denver, CO 80221

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

Site Locations Overview  
Map

Figure  
1



DATE:	January 4, 2017
DESIGNED BY:	R. Cornez
DRAWN BY:	D. Arnold



Foundation Energy Management, LLC  
Government 1-5  
SESE, Section 5, Township 8 South, Range 104 West  
Garfield County, Colorado

Soil Sample Location  
Map

FIGURE  
2

## **ANALYTICAL TABLE**

TABLE 1 Government 1-5 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)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(A)anthracene (mg/kg)	Benzo(B)fluoranthene (mg/kg)	Benzo(K)fluoranthene (mg/kg)	Benzo(A)pyrene (mg/kg)	Chrysene (mg/kg)	Dibenzo(A,H)anthracene (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	
Gov't 1-5: C@8'	12/03/2016	< 0.0020	< 0.0050	< 0.0050	< 0.0050	< 0.50	< 50	8.02	1.27	0.178	6.45 <sup>(2)</sup>	114	0.195	4.73	< 0.300	8.92	12.20	< 0.0503	11.4	0.619	< 0.113	50.5	< 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
Gov't 1-5: W@8'	12/03/2016	< 0.0020	0.0064	< 0.0050	0.0095	< 0.50	< 50	8.62	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gov't 1-5: E@10'	12/03/2016	< 0.0020	< 0.0050	< 0.0050	< 0.0050	< 0.50	< 50	8.75	1.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gov't 1-5: N@6'	12/03/2016	< 0.0020	< 0.0050	< 0.0050	0.0074	< 0.50	< 50	9.07 <sup>(1)</sup>	0.597	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gov't 1-5: S@10'	12/03/2016	< 0.0020	< 0.0050	< 0.0050	0.0094	< 0.50	< 50	8.27	2.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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 12:48. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

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 11:52

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Gov't 1-5:C @ 8'	1612036-01	Soil	12/03/16 14:48	12/05/16 12:48
Gov't 1-5:W @ 8'	1612036-02	Soil	12/03/16 15:13	12/05/16 12:48
Gov't 1-5:E @ 10'	1612036-03	Soil	12/03/16 15:40	12/05/16 12:48
Gov't 1-5:N @ 6'	1612036-04	Soil	12/03/16 15:41	12/05/16 12:48
Gov't 1-5:S @ 10'	1612036-05	Soil	12/03/16 16:06	12/05/16 12:48

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 11:52

# Summit Scientific

S<sub>2</sub>

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

1612086.1

Page 1 of 2  
5 of 8

Client: Foundation Energy / Tasman Project Manager: ZUC  
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	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	Full Table	GC-MS	TPH-D60	EC	pH	As-City	
1	Fert 3-9-4-10-1	07 Dec	08:44	1															
2	Fert 3-9-4-10-1		09:17	1															
3	Fert 22-9-4-10-4		10:20	2															
4	Fert 22-9-4-10-4		10:52	1															
5	Fert 22-9-4-10-4		12:08	1															
6	Fert 22-9-4-10-4		12:26	1															
7	Fert 22-9-4-10-4		13:09	1															
8	Fert 22-9-4-10-4		13:41	1															
9	Govt 1-5-10-4		14:43	2															
10	Southwest Comp		14:43	2															

Relinquished by: [Signature] Date/Time: 12/5/16 10:10 Received by: [Signature] Date/Time: 12-5-16 10:00 Turn Around Time (Check)  
Same Day — 72 hours  
24 hours — Standard X  
48 hours —  
Sample Integrity: 1.69C  
Temperature Upon Receipt: 1.69C  
Intact: Yes No

Notes: ol (imp) 12/5/16

www.s2scientific.com

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.

[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 11:52

# Summit Scientific

S<sub>2</sub>

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

1612036.2

2 of 2

Page A of A

Client: Foundation Energy Services Project Manager: Bob Cornez  
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	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	Full Table	GC/MS	IC/MS	EC	pH	As-only			
1	Govt 1-5-W@8'	03-Dec	1513	1						X					X	X	X	X		02	
2	Govt 1-5-E@10'		1540	1											X	X	X	X		03	
3	Govt 1-5-N@8'		1541	1											X	X	X	X		04	
4	Govt 1-5-S@10'		1606	1											X	X	X	X		05	
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: <u>[Signature]</u>	Date/Time: <u>12/5/16</u>	Received by: <u>[Signature]</u>	Date/Time: <u>12-5-16 10:10</u>	Turn Around Time (Check)	Notes:
				Same Day _____ 72 hours _____	
				24 hours _____ Standard <input checked="" type="checkbox"/>	
				48 hours _____	
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	Sample Integrity: _____	
				Temperature Upon Receipt: <u>1.6°C</u>	
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

www.s2scientific.com

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.

[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 11:52

### Sample Receipt Checklist

S2 Work Order: 1612036  
Client: Foundation/Tasman Client Project ID: Western Slope Pit Assessment (Gout 1-5)  
Shipped Via: Hand Airbill #: \_\_\_\_\_  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)  
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 1245  
Date/Time



Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment  
Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:52

**Gov't 1-5:C @ 8'**  
**1612036-01 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: 12/03/16 14:48									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612038	12/05/16	12/06/16	8015M	

Date Sampled: 12/03/16 14:48									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.6 %	30-150		"	"	"	"	

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

Date Sampled: 12/03/16 14:48									
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: 12/03/16 14:48									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		124 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	21-167		"	"	"	"	

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

Date Sampled: 12/03/16 14:48									
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 11:52

**Gov't 1-5:C @ 8'**  
**1612036-01 (Soil)**

**Summit Scientific**

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

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: **12/03/16 14:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 2-Methylnaphthalene-d10		63.9 %	30-150		"	"	"	"	
Surrogate: Fluoranthene-d10		98.4 %	30-150		"	"	"	"	

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

Date Sampled: **12/03/16 14:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Arsenic</b>	<b>6.45</b>	0.225	mg/kg dry	1	1612062	12/07/16	12/07/16	EPA 6020A	
<b>Barium</b>	<b>114</b>	0.451	"	"	"	"	"	"	
<b>Cadmium</b>	<b>0.195</b>	0.113	"	"	"	"	"	"	
<b>Chromium</b>	<b>4.73</b>	0.564	"	"	"	"	"	"	
<b>Copper</b>	<b>8.92</b>	0.564	"	"	"	"	"	"	
<b>Lead</b>	<b>12.2</b>	0.225	"	"	"	"	"	"	
<b>Nickel</b>	<b>11.4</b>	0.113	"	"	"	"	"	"	
<b>Selenium</b>	<b>0.619</b>	0.451	"	"	"	"	"	"	
Silver	ND	0.113	"	"	"	"	"	"	
<b>Zinc</b>	<b>50.5</b>	11.3	"	"	"	"	"	"	

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 11:52

**Gov't 1-5:C @ 8'**  
**1612036-01 (Soil)**

**Summit Scientific**

**Total Mercury by EPA Method 7471**

Date Sampled: **12/03/16 14:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Mercury	ND	0.0503	mg/kg dry	1	1612034	12/05/16	12/06/16	EPA 7471	

**Hexavalent Chromium by EPA 7196**

Date Sampled: **12/03/16 14:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Trivalent Chromium	ND	0.338	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: **12/03/16 14:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Calcium</b>	<b>1140</b>	11.3	mg/kg dry	1	1612063	12/07/16	12/08/16	EPA 6020/Mod. USDA60 6(2, 3A)	
<b>Magnesium</b>	<b>136</b>	5.64	"	"	"	"	"	"	
<b>Sodium</b>	<b>23.9</b>	5.64	"	"	"	"	"	"	
<b>Sodium Adsorption Ratio</b>	<b>0.178</b>		units	"	1612082	12/08/16	12/08/16	"	

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

Date Sampled: **12/03/16 14:48**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.02</b>	0.100	pH Units	1	1612096	12/09/16	12/09/16	EPA 9045	
<b>% Solids</b>	<b>88.7</b>		%	"	1612069	12/07/16	12/07/16	% calculation	

**Specific Conductance by EPA120.1**

Date Sampled: **12/03/16 14:48**

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 11:52

**Gov't 1-5:C @ 8'**  
**1612036-01 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

Specific Conductance (EC)	1.27	0.0100 mmhos/cm	1	1612098	12/09/16	12/09/16	EPA 120.1
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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 11:52

**Gov't 1-5:W @ 8'**  
**1612036-02 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/03/16 15:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612038	12/05/16	12/06/16	8015M	

Date Sampled: **12/03/16 15:13**

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

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

Date Sampled: **12/03/16 15:13**

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	
<b>Toluene</b>	<b>0.0064</b>	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>0.0095</b>	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **12/03/16 15:13**

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

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

Date Sampled: **12/03/16 15:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>8.62</b>	0.100	pH Units	1	1612096	12/09/16	12/09/16	EPA 9045	

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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 11:52

**Gov't 1-5:W @ 8'**  
**1612036-02 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

Date Sampled: **12/03/16 15:13**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>1.00</b>	0.0100	mmhos/cm	1	1612098	12/09/16	12/09/16	EPA 120.1	

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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 11:52

**Gov't 1-5:E @ 10'**  
**1612036-03 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/03/16 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612038	12/05/16	12/06/16	8015M	

Date Sampled: **12/03/16 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		92.5 %	30-150		"	"	"	"	

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

Date Sampled: **12/03/16 15:40**

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: **12/03/16 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		118 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	21-167		"	"	"	"	

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

Date Sampled: **12/03/16 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	8.75	0.100	pH Units	1	1612096	12/09/16	12/09/16	EPA 9045	

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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 11:52

**Gov't 1-5:E @ 10'**  
**1612036-03 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

Date Sampled: **12/03/16 15:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>1.07</b>	0.0100	mmhos/cm	1	1612098	12/09/16	12/09/16	EPA 120.1	

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6899 Pecos Street  
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Project: Western Slope Pit Assessment  
Project Number: [none]  
Project Manager: Bob Cornez

**Reported:**  
12/08/17 11:52

**Gov't 1-5:N @ 6'**  
**1612036-04 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/03/16 15:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612038	12/05/16	12/06/16	8015M	

Date Sampled: **12/03/16 15:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		95.8 %	30-150		"	"	"	"	

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

Date Sampled: **12/03/16 15:41**

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>0.0074</b>	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **12/03/16 15:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		119 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.1 %	21-167		"	"	"	"	

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

Date Sampled: **12/03/16 15:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>pH</b>	<b>9.07</b>	0.100	pH Units	1	1612096	12/09/16	12/09/16	EPA 9045	

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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 11:52

**Gov't 1-5:N @ 6'**  
**1612036-04 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

Date Sampled: **12/03/16 15:41**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	<b>0.597</b>	0.0100	mmhos/cm	1	1612098	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 11:52

**Gov't 1-5:S @ 10'**  
**1612036-05 (Soil)**

**Summit Scientific**

**Extractable Petroleum Hydrocarbons by 8015**

Date Sampled: **12/03/16 16:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1612038	12/05/16	12/06/16	8015M	

Date Sampled: **12/03/16 16:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		95.2 %	30-150		"	"	"	"	

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

Date Sampled: **12/03/16 16:06**

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)	<b>0.0094</b>	0.0050	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **12/03/16 16:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		126 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.2 %	21-167		"	"	"	"	

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

Date Sampled: **12/03/16 16:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	<b>8.27</b>	0.100	pH Units	1	1612096	12/09/16	12/09/16	EPA 9045	

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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 11:52

**Gov't 1-5:S @ 10'**  
**1612036-05 (Soil)**

**Summit Scientific**

**Specific Conductance by EPA120.1**

Date Sampled: **12/03/16 16:06**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.55	0.0100	mmhos/cm	1	1612098	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 11:52

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

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

**Batch 1612038 - EPA 3550A**

**Blank (1612038-BLK1)**

Prepared & Analyzed: 12/05/16

C10-C28 (DRO)	ND	50	mg/kg							
Surrogate: o-Terphenyl	12.0		"	12.5		95.7	30-150			

**LCS (1612038-BS1)**

Prepared & Analyzed: 12/05/16

C10-C28 (DRO)	452	50	mg/kg	499		90.6	73-134			
Surrogate: o-Terphenyl	14.9		"	12.5		119	30-150			

**Matrix Spike (1612038-MS1)**

Source: 1612009-01

Prepared & Analyzed: 12/05/16

C10-C28 (DRO)	465	50	mg/kg	499	14.3	90.3	50-148			
Surrogate: o-Terphenyl	15.3		"	12.5		122	30-150			

**Matrix Spike Dup (1612038-MSD1)**

Source: 1612009-01

Prepared & Analyzed: 12/05/16

C10-C28 (DRO)	500	50	mg/kg	499	14.3	97.4	50-148	7.28	20	
Surrogate: o-Terphenyl	15.1		"	12.5		121	30-150			

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6899 Pecos Street  
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Project: Western Slope Pit Assessment  
Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:52

**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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0481		"	0.0400		120	23-173			
Surrogate: Toluene-d8	0.0414		"	0.0400		104	20-170			
Surrogate: 4-Bromofluorobenzene	0.0413		"	0.0400		103	21-167			

**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			
Surrogate: 1,2-Dichloroethane-d4	0.0499		"	0.0400		125	23-173			
Surrogate: Toluene-d8	0.0408		"	0.0400		102	20-170			
Surrogate: 4-Bromofluorobenzene	0.0415		"	0.0400		104	21-167			

**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			
Surrogate: 1,2-Dichloroethane-d4	0.0507		"	0.0400		127	23-173			
Surrogate: Toluene-d8	0.0402		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	21-167			

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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 11:52

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

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

**Batch 1612089 - EPA 5030 Soil MS**

Matrix Spike Dup (1612089-MSD1)	Source: 1612033-01			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	
Surrogate: 1,2-Dichloroethane-d4	0.0501		"	0.0400		125	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0416		"	0.0400		104	21-167			

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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 11:52

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

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

**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	"

Surrogate: 2-Methylnaphthalene-d10	0.0227		"	0.0333	68.0	30-150
Surrogate: Fluoranthene-d10	0.0341		"	0.0333	102	30-150

**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

Surrogate: 2-Methylnaphthalene-d10	0.0272		"	0.0333	81.6	50-150
Surrogate: Fluoranthene-d10	0.0396		"	0.0333	119	50-150

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6899 Pecos Street  
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Project: Western Slope Pit Assessment  
Project Number: [none]  
Project Manager: Bob Cornez

Reported:  
12/08/17 11:52

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

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

**Batch 1612049 - EPA 5030 Soil MS**

Matrix Spike (1612049-MS1)				Source: 1612026-04		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			
Surrogate: 2-Methylnaphthalene-d10	0.0276		"	0.0333		82.9	50-150			
Surrogate: Fluoranthene-d10	0.0373		"	0.0333		112	50-150			

Matrix Spike Dup (1612049-MSD1)				Source: 1612026-04		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	
Surrogate: 2-Methylnaphthalene-d10	0.0322		"	0.0333		96.5	50-150			
Surrogate: Fluoranthene-d10	0.0365		"	0.0333		110	50-150			

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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 11:52

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

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

**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 11:52

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

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

**Batch 1612062 - EPA 3050B**

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			
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

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	
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 11:52

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

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

**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 11:52

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

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

### Batch 1612064 - 3060A Mod

#### Blank (1612064-BLK1)

Prepared: 12/07/16 Analyzed: 12/08/16

Chromium, Hexavalent ND 0.300 mg/kg wet

#### LCS (1612064-BS1)

Prepared: 12/07/16 Analyzed: 12/08/16

Chromium, Hexavalent 18.7 0.300 mg/kg wet 19.9 93.7 85-115

#### Duplicate (1612064-DUP1)

Source: 1612026-04

Prepared: 12/07/16 Analyzed: 12/08/16

Chromium, Hexavalent ND 0.300 mg/kg dry ND 20

#### Matrix Spike (1612064-MS1)

Source: 1612026-04

Prepared: 12/07/16 Analyzed: 12/08/16

Chromium, Hexavalent ND 0.300 mg/kg dry 23.9 ND 85-115

#### Matrix Spike (1612064-MS2)

Source: 1612036-01

Prepared: 12/07/16 Analyzed: 12/08/16

Chromium, Hexavalent 3.25 0.300 mg/kg dry 22.5 ND 14.4 85-115

#### Post Spike (1612064-PS1)

Source: 1612026-04

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 11:52

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

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

**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

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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 11:52

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

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

**Batch 1612069 - General Preparation**

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

**Batch 1612096 - General Preparation**

<b>LCS (1612096-BS1)</b>	Prepared & Analyzed: 12/09/16										
pH	8.02	0.100	pH Units	8.00		100	95-105				
<b>Duplicate (1612096-DUP1)</b>	<b>Source: 1612034-01</b>			Prepared & Analyzed: 12/09/16							
pH	7.82	0.100	pH Units		7.87			0.637		20	

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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 11:52

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

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

**Batch 1612098 - General Preparation**

**Blank (1612098-BLK1)**

Prepared & Analyzed: 12/09/16

Specific Conductance (EC) ND 0.0100 mmhos/cm

**LCS (1612098-BS1)**

Prepared & Analyzed: 12/09/16

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

**Duplicate (1612098-DUP1)**

**Source: 1612034-01**

Prepared & Analyzed: 12/09/16

Specific Conductance (EC) 4.04 0.0100 mmhos/cm 4.35 7.40 20

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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 11:52

### 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,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

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

A handwritten signature in black ink, appearing to be 'MSM'.

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Tasman Geosciences  
6899 Pecos Street  
Denver CO, 80221

Project: Western Slope Pit Assessment

Project Number: Comp  
Project Manager: Bob Corne

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 Corne Project Number: \_\_\_\_\_

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix		Analysis Requested						Special Instructions	
					HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	Full Table 910-1	GBTEX	TPH - DRC	EC		PH
1	Feet 1-34: EEB	12/5/16	08:28	1														
2	Feet 1-34: NEE	12/5/16	08:58	1														
3	Feet 1-34: SEF	12/5/16	09:21	1														
4	Feet 1-34: CEF	12/5/16	09:28	2														
5	Feet 1-34: NEF	12/5/16	09:53	1														
6	North Comp	12/5/16	15:18	1														
7	Feet 1-35: NES	12/5/16	11:13	1														
8	Feet 1-35: NEF	12/5/16	11:21	1														
9	Feet 1-35: SEF	12/5/16	11:29	1														
10	Feet 1-35: NEF	12/5/16	11:46	1														

Relinquished by: <u>[Signature]</u>	Date/Time: <u>12/5/16 10:10</u>	Received by: <u>[Signature]</u>	Date/Time: <u>12-5-16 10:10</u>	Turn Around Time (Check)	Notes:
				Same Day _____ 72 hours _____	
				24 hours _____ Standard <u>X</u>	
				48 hours _____	
				Sample Integrity:	
				Temperature Upon Receipt: <u>1.6°C</u>	
				Intact: <u>(Yes)</u> No	

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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.

[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

# Summit Scientific

S<sub>2</sub>

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1612027.2

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	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	Full Table	GC/MS	TPH-DRO	EC	PH	
1	Fed 3-11:50 02-02	1343	1															
2	Fed 2-11:00 02-02	1454	1															
3	Contest Comp	1530	1															
4	Fed 3-11:00 02-02	1527	1															
5	Fed 3-11:00 02-02	1557	1															
6	Fed 2-11:00 02-02	1638	1															
7	Fed 3-11:00 02-02	1657	1															
8	Fed 3-11:00 02-02	1746	2															
9	Fed 3-11:00 02-02	1804	1															
10	Fed 3-11:00 02-02	1838	1															

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 _____ 72 hours 24 hours _____ Standard <u>X</u> 48 hours _____	Notes: <u>1.6%</u>
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	Sample Integrity: _____	
Relinquished by: _____	Date/Time: _____	Received by: _____	Date/Time: _____	Temperature Upon Receipt: _____ 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

# Summit Scientific

S<sub>2</sub>

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1612027.3

3 3  
Page 5 of 8

Client: Foundation Energy / Tasman Project Manager: ZHC  
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	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air-Canister #	Other (Specify)	Full Toile	GBL	TPH	EC		pH
1	Fert 3-9-10 10' 07 20	0859		1						X			X	X	X	X		
2	Fert 3-9-10 16'	0917		1									X	X	X	X		
3	Fert 22-9-10 41'	1020	2										X	X	X	X		
4	Fert 22-9-10 41'	1052	1										X	X	X	X		
5	Fert 22-9-10 47'	1208	1										X	X	X	X		
6	Fert 22-9-10 6'	1226	1										X	X	X	X		
7	Fert 22-9-10 4'	1302	1										X	X	X	X		
8	Fert 22-9-10 5'	1501	1										X	X	X	X		
9	Sw 1-2-10 3'	1618	2										X	X	X	X		
10	Southwest Camp	1443																
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 10:00</u>		Turn Around Time (Check)		Same Day		72 hours		24 hours		Standard <u>X</u>		Notes:
Relinquished by:		Date/Time:		Received by:		Date/Time:		48 hours		Sample Integrity:		Temperature Upon Receipt: <u>1.6°C</u>		Intact: <u>Yes</u> No				
Relinquished by:		Date/Time:		Received by:		Date/Time:												

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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: 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)	<u>1.6</u>				

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> ?	<input checked="" type="checkbox"/>			
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> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact <sup>(1)</sup> ?			<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?			<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect			<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.			<input checked="" type="checkbox"/>	
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
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  
Date/Time



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
Arsenic	<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
% Solids	<b>90.1</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

**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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**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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**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	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

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

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

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

**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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**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

TABLE 1 Government 1-5 Pit Soil Sample Analytical Results Foundation Energy Management																																			
Sample ID	Date Sampled	BTEX				TPH		pH	EC (mmhos/c m)	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 nthracene (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
Gov't 1-5: C@8'	12/03/2016	< 0.0020	< 0.0050	< 0.0050	< 0.0050	< 0.50	< 50	8.02	1.27	0.178	6.45 <sup>(2)</sup>	114	0.195	4.73	< 0.300	8.92	12.20	< 0.0503	11.4	0.619	< 0.113	50.5	< 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
Gov't 1-5: W@8'	12/03/2016	< 0.0020	0.0064	< 0.0050	0.0095	< 0.50	< 50	8.62	1.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gov't 1-5: E@10'	12/03/2016	< 0.0020	< 0.0050	< 0.0050	< 0.0050	< 0.50	< 50	8.75	1.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gov't 1-5: N@6'	12/03/2016	< 0.0020	< 0.0050	< 0.0050	0.0074	< 0.50	< 50	9.07 <sup>(1)</sup>	0.597	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Gov't 1-5: S@10'	12/03/2016	< 0.0020	< 0.0050	< 0.0050	0.0094	< 0.50	< 50	8.27	2.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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