

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

April 17, 2019

Alyssa Beard
Foundation Energy
1801 Broadway, Suite 1500
Denver, CO 80202
RE: Gov't 1-8

Enclosed are the results of analyses for samples received by Summit Scientific on 04/10/19 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Muri Premer". The signature is written in a cursive style with a large initial "M".

Muri Premer For Ben Shrewsbury
Laboratory Manager



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
N @3'	1904140-01	Soil	04/07/19 00:00	04/10/19 16:00
W @3'	1904140-02	Soil	04/07/19 00:00	04/10/19 16:00
S @3'	1904140-03	Soil	04/07/19 00:00	04/10/19 16:00
E @3'	1904140-04	Soil	04/07/19 00:00	04/10/19 16:00
Base @4'	1904140-05	Soil	04/07/19 00:00	04/10/19 16:00

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1904140

Summit Scientific

S₂

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310

Page 1 of 1

Client: Foundation Energy Project Manager: Alyssa Beard
 Address: 1801 Broadway, Suite 1500 E-Mail: abeard@foundationenergy.com
 City/State/Zip: Denver, CO 80202
 Phone: 303.844.2114 720 257 2302 Project Name: Gov't 1-8
 Sampler Name: Alyssa Beard Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested					Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	GBTEX	DRO	PH	EC	SAR		
1	N @ 3'	4/7/19		1						X				X	X	X	X	X	
2	W @ 3'	4/7/19		1						X				↓	↓	↓	↓	↓	
3	S @ 3'	4/7/19		1						X				↓	↓	↓	↓	↓	
4	E @ 3'	4/7/19		1						X				↓	↓	↓	↓	↓	
5	Base @ 4'	4/7/19		1						X				↓	↓	↓	↓	↓	
6																			
7																			
8																			
9																			
10																			

Relinquished by: <u>[Signature]</u> Date/Time: <u>4/10/19 1600</u>	Received by: _____ Date/Time: _____	Turn Around Time (Check) Same Day _____ 72 hours _____ 24 hours _____ Standard <u>X</u> 48 hours _____	Notes: <u>on loc</u>
Relinquished by: _____ Date/Time: _____	Received by: _____ Date/Time: _____	Sample Integrity: Temperature Upon Receipt: <u>S-2</u> Samples Intact: <u>Yes</u> No	
Relinquished by: _____ Date/Time: _____	Received by: <u>[Signature]</u> Date/Time: <u>4-10-19 1600</u>		

Sample Receipt Checklist

S2 Work Order 1904140

Client: Foundation Client Project ID: GOV't 1-8

Shipped Via: H.D./P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____

Matrix (check all that apply): _____ Air Soil/Solid _____ Water _____ Other: _____
(Describe)

Temp (°C)	<u>5.2</u>
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Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ? NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	<input checked="" type="checkbox"/>			<u>on ice</u>
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact ⁽¹⁾ ?			<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?		<input checked="" type="checkbox"/>		
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<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) ⁽¹⁾ ? 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 ⁽¹⁾ ? 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):

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

Custodian Printed Name or Initials

Signature of Custodian

4-10-19 1606
Date/Time



Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

N @3'
1904140-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1904177	04/11/19	04/12/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		76.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		83.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1904175	04/11/19	04/12/19	EPA 8015M	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		78.9 %	30-150		"	"	"	"	

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

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	3390	12.3	mg/kg dry	1	1904183	04/11/19	04/11/19	EPA 6020B	
Magnesium	1860	6.13	"	"	"	"	"	"	

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Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

N @3'
1904140-01 (Soil)

Summit Scientific

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

Sodium	89.8	6.13	mg/kg dry	1	1904183	04/11/19	04/11/19	EPA 6020B
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Calculated Analysis

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.308	0.100	units	1	1904261	04/16/19	04/16/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	81.6		%	1	1904197	04/12/19	04/12/19	Calculation	
pH	7.42		pH Units	"	1904199	04/12/19	04/12/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	2.42	0.0100	mmhos/cm	1	1904198	04/12/19	04/12/19	EPA 120.1	

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Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

W @3'
1904140-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1904177	04/11/19	04/12/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		76.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		83.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1904175	04/11/19	04/12/19	EPA 8015M	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		84.5 %	30-150		"	"	"	"	

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

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	3090	12.4	mg/kg dry	1	1904183	04/11/19	04/11/19	EPA 6020B	
Magnesium	1410	6.19	"	"	"	"	"	"	
Sodium	101	6.19	"	"	"	"	"	"	

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1801 Broadway, Suite 1500
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Project: Gov't 1-8
Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

W @3'
1904140-02 (Soil)

Summit Scientific

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

Calculated Analysis

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.378	0.100	units	1	1904261	04/16/19	04/16/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.7		%	1	1904197	04/12/19	04/12/19	Calculation	
pH	7.44		pH Units	"	1904199	04/12/19	04/12/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	5.08	0.0100	mmhos/cm	1	1904198	04/12/19	04/12/19	EPA 120.1	

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1801 Broadway, Suite 1500
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Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

S @3'
1904140-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1904177	04/11/19	04/12/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		76.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1904175	04/11/19	04/12/19	EPA 8015M	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		77.5 %	30-150		"	"	"	"	

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

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	3870	12.5	mg/kg dry	1	1904183	04/11/19	04/11/19	EPA 6020B	
Magnesium	1580	6.24	"	"	"	"	"	"	
Sodium	87.0	6.24	"	"	"	"	"	"	

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Project: Gov't 1-8
Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

S @3'
1904140-03 (Soil)

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

Calculated Analysis

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.298	0.100	units	1	1904261	04/16/19	04/16/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.1		%	1	1904197	04/12/19	04/12/19	Calculation	
pH	7.69		pH Units	"	1904199	04/12/19	04/12/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	6.38	0.0100	mmhos/cm	1	1904198	04/12/19	04/12/19	EPA 120.1	

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1801 Broadway, Suite 1500
Denver CO, 80202

Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

E @3'
1904140-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1904177	04/11/19	04/12/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		74.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		82.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1904175	04/11/19	04/12/19	EPA 8015M	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		78.0 %	30-150		"	"	"	"	

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

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	3610	12.7	mg/kg dry	1	1904183	04/11/19	04/11/19	EPA 6020B	
Magnesium	1820	6.33	"	"	"	"	"	"	
Sodium	119	6.33	"	"	"	"	"	"	

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

E @3'
1904140-04 (Soil)

Summit Scientific

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

Calculated Analysis

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.403	0.100	units	1	1904261	04/16/19	04/16/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	79.0		%	1	1904197	04/12/19	04/12/19	Calculation	
pH	7.71		pH Units	"	1904199	04/12/19	04/12/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	3.01	0.0100	mmhos/cm	1	1904198	04/12/19	04/12/19	EPA 120.1	

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

Base @4'
1904140-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	1904177	04/11/19	04/12/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		75.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		84.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	1904175	04/11/19	04/12/19	EPA 8015M	

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		79.8 %	30-150		"	"	"	"	

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

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	4640	12.5	mg/kg dry	1	1904183	04/11/19	04/11/19	EPA 6020B	
Magnesium	1650	6.24	"	"	"	"	"	"	
Sodium	158	6.24	"	"	"	"	"	"	

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Gov't 1-8
Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

Base @4'
1904140-05 (Soil)

Summit Scientific

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

Calculated Analysis

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.507	0.100	units	1	1904261	04/16/19	04/16/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	80.1		%	1	1904197	04/12/19	04/12/19	Calculation	
pH	7.84		pH Units	"	1904199	04/12/19	04/12/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **04/07/19 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	7.71	0.0100	mmhos/cm	1	1904198	04/12/19	04/12/19	EPA 120.1	

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Foundation Energy
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Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1904177 - EPA 5030 Soil MS

Blank (1904177-BLK1)

Prepared & Analyzed: 04/11/19

Benzene	ND	0.0020	mg/kg								
Toluene	ND	0.0050	"								
Ethylbenzene	ND	0.0050	"								
Xylenes (total)	ND	0.010	"								
Gasoline Range Hydrocarbons	ND	0.50	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0277</i>		<i>"</i>	<i>0.0400</i>		<i>69.3</i>	<i>23-173</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0346</i>		<i>"</i>	<i>0.0400</i>		<i>86.5</i>	<i>20-170</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0335</i>		<i>"</i>	<i>0.0400</i>		<i>83.7</i>	<i>21-167</i>				

LCS (1904177-BS1)

Prepared & Analyzed: 04/11/19

Benzene	0.0893	0.0020	mg/kg	0.100		89.3	70-130				
Toluene	0.0982	0.0050	"	0.100		98.2	70-130				
Ethylbenzene	0.104	0.0050	"	0.100		104	70-130				
m,p-Xylene	0.222	0.010	"	0.200		111	70-130				
o-Xylene	0.106	0.0050	"	0.100		106	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0288</i>		<i>"</i>	<i>0.0400</i>		<i>72.0</i>	<i>23-173</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0357</i>		<i>"</i>	<i>0.0400</i>		<i>89.2</i>	<i>20-170</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0341</i>		<i>"</i>	<i>0.0400</i>		<i>85.4</i>	<i>21-167</i>				

Matrix Spike (1904177-MS1)

Source: 1904136-01

Prepared & Analyzed: 04/11/19

Benzene	0.0918	0.0020	mg/kg	0.100	ND	91.8	70-130				
Toluene	0.103	0.0050	"	0.100	ND	103	70-130				
Ethylbenzene	0.104	0.0050	"	0.100	ND	104	70-130				
m,p-Xylene	0.234	0.010	"	0.200	0.0123	111	70-130				
o-Xylene	0.108	0.0050	"	0.100	0.00411	104	70-130				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>0.0298</i>		<i>"</i>	<i>0.0400</i>		<i>74.4</i>	<i>23-173</i>				
<i>Surrogate: Toluene-d8</i>	<i>0.0360</i>		<i>"</i>	<i>0.0400</i>		<i>90.0</i>	<i>20-170</i>				
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>0.0343</i>		<i>"</i>	<i>0.0400</i>		<i>85.8</i>	<i>21-167</i>				

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Foundation Energy
1801 Broadway, Suite 1500
Denver CO, 80202

Project: Gov't 1-8

Project Number: [none]
Project Manager: Alyssa Beard

Reported:
04/17/19 14:08

Volatile Organic Compounds by EPA Method 8260B - Quality Control

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

Batch 1904177 - EPA 5030 Soil MS

Matrix Spike Dup (1904177-MSD1)

Source: 1904136-01

Prepared & Analyzed: 04/11/19

Benzene	0.0893	0.0020	mg/kg	0.100	ND	89.3	70-130	2.82	30	
Toluene	0.100	0.0050	"	0.100	ND	100	70-130	3.07	30	
Ethylbenzene	0.100	0.0050	"	0.100	ND	100	70-130	4.23	30	
m,p-Xylene	0.219	0.010	"	0.200	0.0123	103	70-130	6.88	30	
o-Xylene	0.103	0.0050	"	0.100	0.00411	98.8	70-130	4.83	30	
Surrogate: 1,2-Dichloroethane-d4	0.0309		"	0.0400		77.2	23-173			
Surrogate: Toluene-d8	0.0358		"	0.0400		89.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0343		"	0.0400		85.8	21-167			

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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 1904175 - EPA 3550A

Blank (1904175-BLK1)

Prepared & Analyzed: 04/11/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1904175-BS1)

Prepared & Analyzed: 04/11/19

C10-C28 (DRO) 424 50 mg/kg 500 84.9 70-130

Matrix Spike (1904175-MS1)

Source: 1904136-01

Prepared & Analyzed: 04/11/19

C10-C28 (DRO) 484 50 mg/kg 500 22.7 92.4 70-130

Matrix Spike Dup (1904175-MSD1)

Source: 1904136-01

Prepared & Analyzed: 04/11/19

C10-C28 (DRO) 485 50 mg/kg 500 22.7 92.4 70-130 0.0491 20

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

Summit Scientific

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

Batch 1904183 - General Preparation

Blank (1904183-BLK1)

Prepared & Analyzed: 04/11/19

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

LCS (1904183-BS1)

Prepared & Analyzed: 04/11/19

Calcium	561	10.0	mg/kg wet	500		112	70-130			
Magnesium	554	5.00	"	500		111	70-130			
Sodium	547	5.00	"	500		109	70-130			

Duplicate (1904183-DUP1)

Source: 1904137-01

Prepared & Analyzed: 04/11/19

Calcium	930	11.3	mg/kg dry		1120			18.2	20	
Magnesium	277	5.63	"		299			7.67	20	
Sodium	49.2	5.63	"		52.9			7.31	20	

Matrix Spike (1904183-MS1)

Source: 1904137-01

Prepared & Analyzed: 04/11/19

Calcium	1620	11.3	mg/kg dry	563	1120	89.8	70-130			
Magnesium	908	5.63	"	563	299	108	70-130			
Sodium	666	5.63	"	563	52.9	109	70-130			

Matrix Spike Dup (1904183-MSD1)

Source: 1904137-01

Prepared & Analyzed: 04/11/19

Calcium	1520	11.3	mg/kg dry	563	1120	71.3	70-130	6.65	25	
Magnesium	831	5.63	"	563	299	94.6	70-130	8.83	25	
Sodium	611	5.63	"	563	52.9	99.0	70-130	8.62	25	

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

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

Batch 1904197 - General Preparation

Duplicate (1904197-DUP1)		Source: 1904137-01			Prepared & Analyzed: 04/12/19					
% Solids	88.8		%		88.8			0.00	20	

Batch 1904199 - General Preparation

LCS (1904199-BS1)		Prepared & Analyzed: 04/12/19								
pH	9.32		pH Units	9.23		101	95-105			
Duplicate (1904199-DUP1)		Source: 1904136-01			Prepared & Analyzed: 04/12/19					
pH	8.01		pH Units	7.90			1.38	20		

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Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch 1904198 - General Preparation

Blank (1904198-BLK1)

Prepared & Analyzed: 04/12/19

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (1904198-BS1)

Prepared & Analyzed: 04/12/19

Specific Conductance (EC) 0.743 0.0100 mmhos/cm 0.750 99.1 90-110

Duplicate (1904198-DUP1)

Source: 1904136-01

Prepared & Analyzed: 04/12/19

Specific Conductance (EC) 0.229 0.0100 mmhos/cm 0.239 4.10 20

Summit Scientific



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04/17/19 14:08

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