

Attachment A

Laboratory Analytical Report

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 31, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

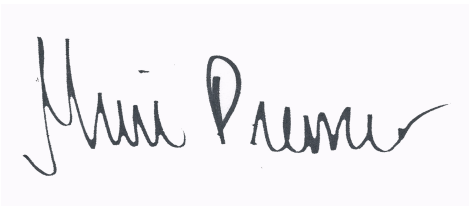
Denver, CO 80202

RE: Rinn Valley Production Facility

Work Order #2007239

Enclosed are the results of analyses for samples received by Summit Scientific on 07/24/20 16:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light gray background. The signature reads "Muri Premer" in a cursive, flowing script.

Muri Premer For Paul Shrewsbury

President



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]

Project Manager: Maggie Graham

Reported:
07/31/20 17:03

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GB08@8"	2007239-01	Soil	07/24/20 14:30	07/24/20 16:50
GB09@8"	2007239-02	Soil	07/24/20 14:35	07/24/20 16:50
GB10@8"	2007239-03	Soil	07/24/20 14:40	07/24/20 16:50
GB14@1'	2007239-04	Soil	07/24/20 15:10	07/24/20 16:50
GB15@1'	2007239-05	Soil	07/24/20 15:15	07/24/20 16:50

Summit Scientific

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Summit Scientific

2007239

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: APEX Companies, LLC
Address: 176 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80101
Phone: 720-501-5065 Fax:
Sampler Name: Ryan Finley

Project Manager: Maggie Graham 720-501-5065; 907-538-7699c
E-Mail: DenverRemediation@ApexCos.onmicrosoft.com
Project Name: Rinn Valley Production Facility
Project Number:

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:							Special Instructions		
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	TPH	BTEX	EC	SAR	pH	Rush			
GB08 @ 8"	7/24/20	1430	1			X		X				X	X							Call Maggie Graham with questions Remaining results by Thurs 7/30/20
GB09 @ 8"	↓	1435	↓																	
GB10 @ 8"	↓	1440	↓																	
GB14 @ 1"	↓	1510	↓										X	X	X				X	
GB15 @ 1"	↓	1515	↓																	
Relinquished by: <u>Ryan Finley</u> Date/Time: <u>7/24/20 1650</u>				Received by:				Date/Time:				Turn Around Time (Check)							Notes	
Relinquished by:				Date/Time:				Received by:				Date/Time:				Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/>			Circle applicable regulatory agency:	
Relinquished by:				Date/Time:				Received in Lab by: <u>[Signature]</u> Date/Time: <u>7-24-20 1650</u>				48 Hours <input type="checkbox"/>				Standard <input checked="" type="checkbox"/>			COGCC/CDPHE	
Relinquished by:				Date/Time:				Received in Lab by:				Date/Time:				Sample Integrity:			Client Name:	
Relinquished by:				Date/Time:				Received in Lab by:				Date/Time:				Temperature Upon Receipt: <u>20.1</u>			XOG	
Relinquished by:				Date/Time:				Received in Lab by:				Date/Time:				Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Sample Receipt Checklist

S2 Work Order # 2007239

Client: Apex / X09

Client Project ID: Rim Valley Production Fac

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>20.1</u>
-----------	-------------

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.	✓			<u>on ice</u>
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?	✓			<u>Rush</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? 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 ⁽¹⁾ ? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	

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

7-24-20 1650
Date/Time



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

GB08@8"
2007239-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/20 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2007313	07/29/20	07/29/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/24/20 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		62.1 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		79.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		122 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/24/20 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2007288	07/28/20	07/29/20	EPA 8015M	

Date Sampled: **07/24/20 14:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		101 %	30-150		"	"	"	"	

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

GB09@8"
2007239-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/20 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2007313	07/29/20	07/29/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/24/20 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		59.0 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		79.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/24/20 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2007288	07/28/20	07/29/20	EPA 8015M	

Date Sampled: **07/24/20 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		98.7 %	30-150		"	"	"	"	

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370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

GB10@8"
2007239-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/20 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2007313	07/29/20	07/29/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/24/20 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		56.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		76.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/24/20 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2007288	07/28/20	07/29/20	EPA 8015M	

Date Sampled: **07/24/20 14:40**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		103 %	30-150		"	"	"	"	

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370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

GB14@1'
2007239-04 (Soil)

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Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/20 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	2007270	07/24/20	07/24/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	0.88	0.50		"	"	"	"	"	"	

Date Sampled: **07/24/20 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		121 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		111 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/24/20 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	88	50		mg/kg	1	2007271	07/24/20	07/24/20	EPA 8015M	

Date Sampled: **07/24/20 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		110 %		30-150		"	"	"	"	

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

Date Sampled: **07/24/20 15:10**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	742	11.4		mg/kg dry	1	2007277	07/27/20	07/27/20	EPA 6020B	
Magnesium	1000	5.69		"	"	"	"	"	"	
Sodium	155	5.69		"	"	"	"	"	"	

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Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

GB14@1'
2007239-04 (Soil)

Summit Scientific

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

Calculated Analysis

Date Sampled: **07/24/20 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.873	0.100	units	1	2007284	07/27/20	07/27/20	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **07/24/20 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	87.8		%	1	2007282	07/27/20	07/27/20	Calculation	
pH	7.72		pH Units	"	2007263	07/24/20	07/24/20	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **07/24/20 15:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.599	0.0100	mmhos/cm	1	2007264	"	07/24/20	EPA 120.1	

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Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

GB15@1'
2007239-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/24/20 15:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2007313	07/29/20	07/29/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/24/20 15:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		58.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		80.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/24/20 15:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2007288	07/28/20	07/29/20	EPA 8015M	

Date Sampled: **07/24/20 15:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		109 %	30-150		"	"	"	"	

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

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 2007270 - EPA 5030 Soil MS

Blank (2007270-BLK1)

Prepared & Analyzed: 07/24/20

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	"								
Surrogate: 1,2-Dichloroethane-d4	0.0456		"	0.0400		114	23-173				
Surrogate: Toluene-d8	0.0442		"	0.0400		110	20-170				
Surrogate: 4-Bromofluorobenzene	0.0438		"	0.0400		109	21-167				

LCS (2007270-BS1)

Prepared & Analyzed: 07/24/20

Benzene	0.0816	0.0020	mg/kg	0.0750		109	70-130				
Toluene	0.0722	0.0050	"	0.0750		96.2	70-130				
Ethylbenzene	0.0895	0.0050	"	0.0750		119	70-130				
m,p-Xylene	0.162	0.010	"	0.150		108	70-130				
o-Xylene	0.0787	0.0050	"	0.0750		105	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0464		"	0.0400		116	23-173				
Surrogate: Toluene-d8	0.0440		"	0.0400		110	20-170				
Surrogate: 4-Bromofluorobenzene	0.0423		"	0.0400		106	21-167				

Matrix Spike (2007270-MS1)

Source: 2007239-04

Prepared & Analyzed: 07/24/20

Benzene	0.0810	0.0020	mg/kg	0.0750	ND	108	70-130				
Toluene	0.0730	0.0050	"	0.0750	ND	97.3	70-130				
Ethylbenzene	0.0904	0.0050	"	0.0750	ND	121	70-130				
m,p-Xylene	0.165	0.010	"	0.150	ND	110	70-130				
o-Xylene	0.0809	0.0050	"	0.0750	ND	108	70-130				
Surrogate: 1,2-Dichloroethane-d4	0.0480		"	0.0400		120	23-173				
Surrogate: Toluene-d8	0.0444		"	0.0400		111	20-170				
Surrogate: 4-Bromofluorobenzene	0.0436		"	0.0400		109	21-167				

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370 17th Street Suite 5300
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Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

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 2007270 - EPA 5030 Soil MS

Matrix Spike Dup (2007270-MSD1)

Source: 2007239-04

Prepared & Analyzed: 07/24/20

Benzene	0.0798	0.0020	mg/kg	0.0750	ND	106	70-130	1.53	30	
Toluene	0.0721	0.0050	"	0.0750	ND	96.2	70-130	1.20	30	
Ethylbenzene	0.0899	0.0050	"	0.0750	ND	120	70-130	0.566	30	
m,p-Xylene	0.163	0.010	"	0.150	ND	108	70-130	1.41	30	
o-Xylene	0.0797	0.0050	"	0.0750	ND	106	70-130	1.49	30	
Surrogate: 1,2-Dichloroethane-d4	0.0466		"	0.0400		117	23-173			
Surrogate: Toluene-d8	0.0444		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0428		"	0.0400		107	21-167			

Batch 2007313 - EPA 5030 Soil MS

Blank (2007313-BLK1)

Prepared & Analyzed: 07/29/20

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0218		"	0.0400		54.4	23-173			
Surrogate: Toluene-d8	0.0312		"	0.0400		78.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167			

LCS (2007313-BS1)

Prepared & Analyzed: 07/29/20

Benzene	0.0705	0.0020	mg/kg	0.0750		94.0	70-130			
Toluene	0.0810	0.0050	"	0.0750		108	70-130			
Ethylbenzene	0.0651	0.0050	"	0.0750		86.8	70-130			
m,p-Xylene	0.127	0.010	"	0.150		84.9	70-130			
o-Xylene	0.0663	0.0050	"	0.0750		88.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0175		"	0.0400		43.6	23-173			
Surrogate: Toluene-d8	0.0328		"	0.0400		81.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	21-167			

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

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 2007313 - EPA 5030 Soil MS

Matrix Spike (2007313-MS1)	Source: 2007255-02			Prepared & Analyzed: 07/29/20						
Benzene	0.0726	0.0020	mg/kg	0.0750	ND	96.8	70-130			
Toluene	0.0669	0.0050	"	0.0750	ND	89.2	70-130			
Ethylbenzene	0.0706	0.0050	"	0.0750	ND	94.1	70-130			
m,p-Xylene	0.140	0.010	"	0.150	ND	93.3	70-130			
o-Xylene	0.0745	0.0050	"	0.0750	ND	99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0213		"	0.0400		53.2	23-173			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0434		"	0.0400		109	21-167			

Matrix Spike Dup (2007313-MSD1)	Source: 2007255-02			Prepared & Analyzed: 07/29/20						
Benzene	0.0722	0.0020	mg/kg	0.0750	ND	96.2	70-130	0.580	30	
Toluene	0.0658	0.0050	"	0.0750	ND	87.8	70-130	1.54	30	
Ethylbenzene	0.0712	0.0050	"	0.0750	ND	94.9	70-130	0.889	30	
m,p-Xylene	0.138	0.010	"	0.150	ND	92.0	70-130	1.49	30	
o-Xylene	0.0724	0.0050	"	0.0750	ND	96.6	70-130	2.82	30	
Surrogate: 1,2-Dichloroethane-d4	0.0218		"	0.0400		54.4	23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0456		"	0.0400		114	21-167			

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

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 2007271 - EPA 3550A

Blank (2007271-BLK1)

Prepared & Analyzed: 07/24/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2007271-BS1)

Prepared & Analyzed: 07/24/20

C10-C28 (DRO) 445 50 mg/kg 500 89.1 70-130

Matrix Spike (2007271-MS1)

Source: 2007239-04

Prepared & Analyzed: 07/24/20

C10-C28 (DRO) 490 50 mg/kg 500 88.4 80.3 70-130

Matrix Spike Dup (2007271-MSD1)

Source: 2007239-04

Prepared & Analyzed: 07/24/20

C10-C28 (DRO) 498 50 mg/kg 500 88.4 82.0 70-130 1.69 20

Batch 2007288 - EPA 3550A

Blank (2007288-BLK1)

Prepared: 07/28/20 Analyzed: 07/29/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2007288-BS1)

Prepared: 07/28/20 Analyzed: 07/29/20

C10-C28 (DRO) 425 50 mg/kg 500 85.0 70-130

Matrix Spike (2007288-MS1)

Source: 2007239-01

Prepared: 07/28/20 Analyzed: 07/29/20

C10-C28 (DRO) 458 50 mg/kg 500 26.4 86.3 70-130

Matrix Spike Dup (2007288-MSD1)

Source: 2007239-01

Prepared: 07/28/20 Analyzed: 07/29/20

C10-C28 (DRO) 429 50 mg/kg 500 26.4 80.6 70-130 6.39 20

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

Soluble Nutrients by EPA 6020/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 2007277 - General Preparation

Blank (2007277-BLK1)

Prepared & Analyzed: 07/27/20

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

LCS (2007277-BS1)

Prepared & Analyzed: 07/27/20

Calcium	547	10.0	mg/kg wet	500		109	70-130			
Magnesium	542	5.00	"	500		108	70-130			
Sodium	507	5.00	"	500		101	70-130			

Duplicate (2007277-DUP1)

Source: 2007239-04

Prepared & Analyzed: 07/27/20

Calcium	761	11.4	mg/kg dry		742			2.56	20	
Magnesium	945	5.69	"		1000			5.75	20	
Sodium	153	5.69	"		155			1.27	20	

Matrix Spike (2007277-MS1)

Source: 2007239-04

Prepared & Analyzed: 07/27/20

Calcium	1240	11.4	mg/kg dry	569	742	87.4	70-130			
Magnesium	1430	5.69	"	569	1000	75.2	70-130			
Sodium	659	5.69	"	569	155	88.7	70-130			

Matrix Spike Dup (2007277-MSD1)

Source: 2007239-04

Prepared & Analyzed: 07/27/20

Calcium	1160	11.4	mg/kg dry	569	742	73.2	70-130	6.79	25	
Magnesium	1650	5.69	"	569	1000	113	70-130	14.0	25	
Sodium	681	5.69	"	569	155	92.5	70-130	3.19	25	

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

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 2007263 - General Preparation

LCS (2007263-BS1)

Prepared & Analyzed: 07/24/20

pH 9.22 pH Units 9.18 100 95-105

Duplicate (2007263-DUP1)

Source: 2007229-04

Prepared & Analyzed: 07/24/20

pH 8.43 pH Units 8.42 0.119 20

Batch 2007282 - General Preparation

Duplicate (2007282-DUP1)

Source: 2007239-04

Prepared & Analyzed: 07/27/20

% Solids 88.1 % 87.8 0.330 20

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch 2007264 - General Preparation

Blank (2007264-BLK1)

Prepared & Analyzed: 07/24/20

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (2007264-BS1)

Prepared & Analyzed: 07/24/20

Specific Conductance (EC) 0.802 0.0100 mmhos/cm 0.750 107 90-110

Duplicate (2007264-DUP1)

Source: 2007229-04

Prepared & Analyzed: 07/24/20

Specific Conductance (EC) 3.94 0.0100 mmhos/cm 3.95 0.165 20

Summit Scientific



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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/31/20 17:03

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

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 29, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: Rinn Valley Production Facility

Work Order #2007255

Enclosed are the results of analyses for samples received by Summit Scientific on 07/28/20 12:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury

President



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]

Project Manager: Maggie Graham

Reported:
07/29/20 22:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GB18@2'	2007255-01	Soil	07/28/20 10:55	07/28/20 12:40
GB19@6"	2007255-02	Soil	07/28/20 11:15	07/28/20 12:40

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.

2007255

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: APEX Companies, LLC
Address: 176 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80101
Phone: 720-501-5065 Fax:
Sampler Name: Ryan Finley

Project Manager: Maggie Graham 720-501-5065; 907-538-7699c
E-Mail: DenverRemediation@ApexCos.onmicrosoft.com
Project Name: Runn Valley production Facility
Project Number: TBD

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:						Special Instructions			
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	TPH	BTEX						Rush	Standard
GB18@2'	7/28/20	1055	1			X			X				X	X				X	X	Call Maggie Graham with questions
GB19@6"	7/28/20	1115	1			X			X				X	X				X	X	
Relinquished by: <u>Ryan Finley</u>	Date/Time: <u>7/28/20 12:40</u>	Received by: <u>E. Smith</u>	Date/Time: <u>7-28-20 12:40</u>	Turn Around Time (Check)				Notes												
				Same Day	<input checked="" type="checkbox"/>	72 Hours	<input type="checkbox"/>	Circle applicable regulatory agency:												
				24 Hours	<input type="checkbox"/>	Standard	<input checked="" type="checkbox"/>	COGCC/ CDPHE												
				48 Hours	<input type="checkbox"/>			Client Name: <u>onice</u>												
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:	Sample Integrity:																
				Temperature Upon Receipt:	<u>17°C</u>															
				Intact:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>														

Sample Receipt Checklist

S2 Work Order 2007255

Client: Apex Co

Client Project ID: Rinn Valley Production Facility

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>17°C</u>
-----------	-------------

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.	✓			<u>on ice</u>
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?		✓		
Are samples with holding times due within 48 hours sample due within 48 hours present?	✓			<u>same day TAT</u>
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? 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 ⁽¹⁾ ? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				
⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.				

Eric H.
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

7-28-2020 12:40
Date/Time



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/29/20 22:07

GB18@2'
2007255-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/28/20 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	2007295	07/28/20	07/28/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	29	0.50		"	"	"	07/28/20	"	"	

Date Sampled: **07/28/20 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		51.2 %		23-173		"	07/28/20	"	"	
Surrogate: Toluene-d8		146 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		132 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/28/20 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	830	50		mg/kg	1	2007296	07/28/20	07/28/20	EPA 8015M	

Date Sampled: **07/28/20 10:55**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		107 %		30-150		"	"	"	"	

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/29/20 22:07

GB19@6"
2007255-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/28/20 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2007313	07/29/20	07/29/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	15	0.50	"	"	"	"	"	"	

Date Sampled: **07/28/20 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		51.8 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/28/20 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	580	50	mg/kg	1	2007314	07/29/20	07/29/20	EPA 8015M	

Date Sampled: **07/28/20 11:15**

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

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/29/20 22:07

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 2007295 - EPA 5030 Soil MS

Blank (2007295-BLK1)

Prepared & Analyzed: 07/28/20

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0154		"	0.0400		38.6	23-173			
Surrogate: 1,2-Dichloroethane-d4	0.0154		"	0.0400		38.6	23-173			
Surrogate: Toluene-d8	0.0470		"	0.0400		118	20-170			
Surrogate: Toluene-d8	0.0470		"	0.0400		118	20-170			
Surrogate: 4-Bromofluorobenzene	0.0424		"	0.0400		106	21-167			
Surrogate: 4-Bromofluorobenzene	0.0424		"	0.0400		106	21-167			

LCS (2007295-BS1)

Prepared & Analyzed: 07/28/20

Benzene	0.102	0.0020	mg/kg	0.100		102	70-130			
Toluene	0.0784	0.0050	"	0.100		78.4	70-130			
Ethylbenzene	0.0887	0.0050	"	0.100		88.7	70-130			
m,p-Xylene	0.151	0.010	"	0.200		75.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0126		"	0.0400		31.6	23-173			
Surrogate: 1,2-Dichloroethane-d4	0.0126		"	0.0400		31.6	23-173			
Surrogate: Toluene-d8	0.0496		"	0.0400		124	20-170			
Surrogate: Toluene-d8	0.0496		"	0.0400		124	20-170			
Surrogate: 4-Bromofluorobenzene	0.0456		"	0.0400		114	21-167			
Surrogate: 4-Bromofluorobenzene	0.0456		"	0.0400		114	21-167			

Matrix Spike (2007295-MS1)

Source: 2007255-01

Prepared & Analyzed: 07/28/20

Benzene	0.101	0.0020	mg/kg	0.100	ND	101	70-130			
Toluene	0.0989	0.0050	"	0.100	ND	98.9	70-130			
Ethylbenzene	0.0849	0.0050	"	0.100	ND	84.9	70-130			
m,p-Xylene	0.147	0.010	"	0.200	ND	73.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0148		"	0.0400		37.1	23-173			
Surrogate: 1,2-Dichloroethane-d4	0.0148		"	0.0400		37.1	23-173			
Surrogate: Toluene-d8	0.0585		"	0.0400		146	20-170			
Surrogate: Toluene-d8	0.0585		"	0.0400		146	20-170			
Surrogate: 4-Bromofluorobenzene	0.0581		"	0.0400		145	21-167			
Surrogate: 4-Bromofluorobenzene	0.0581		"	0.0400		145	21-167			

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/29/20 22:07

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 2007295 - EPA 5030 Soil MS

Matrix Spike Dup (2007295-MSD1)

Source: 2007255-01

Prepared & Analyzed: 07/28/20

Benzene	0.0997	0.0020	mg/kg	0.100	ND	99.7	70-130	1.17	30	
Toluene	0.0928	0.0050	"	0.100	ND	92.8	70-130	6.39	30	
Ethylbenzene	0.0859	0.0050	"	0.100	ND	85.9	70-130	1.19	30	
m,p-Xylene	0.166	0.010	"	0.200	ND	83.1	70-130	11.9	30	
Surrogate: 1,2-Dichloroethane-d4	0.0141		"	0.0400		35.2	23-173			
Surrogate: 1,2-Dichloroethane-d4	0.0141		"	0.0400		35.2	23-173			
Surrogate: Toluene-d8	0.0594		"	0.0400		148	20-170			
Surrogate: Toluene-d8	0.0594		"	0.0400		148	20-170			
Surrogate: 4-Bromofluorobenzene	0.0546		"	0.0400		136	21-167			
Surrogate: 4-Bromofluorobenzene	0.0546		"	0.0400		136	21-167			

Batch 2007313 - EPA 5030 Soil MS

Blank (2007313-BLK1)

Prepared & Analyzed: 07/29/20

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0218		"	0.0400		54.4	23-173			
Surrogate: Toluene-d8	0.0312		"	0.0400		78.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167			

LCS (2007313-BS1)

Prepared & Analyzed: 07/29/20

Benzene	0.0705	0.0020	mg/kg	0.0750		94.0	70-130			
Toluene	0.0810	0.0050	"	0.0750		108	70-130			
Ethylbenzene	0.0651	0.0050	"	0.0750		86.8	70-130			
m,p-Xylene	0.127	0.010	"	0.150		84.9	70-130			
o-Xylene	0.0663	0.0050	"	0.0750		88.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0175		"	0.0400		43.6	23-173			
Surrogate: Toluene-d8	0.0328		"	0.0400		81.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	21-167			

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/29/20 22:07

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 2007313 - EPA 5030 Soil MS

Matrix Spike (2007313-MS1)	Source: 2007255-02			Prepared & Analyzed: 07/29/20						
Benzene	0.0726	0.0020	mg/kg	0.0750	ND	96.8	70-130			
Toluene	0.0669	0.0050	"	0.0750	ND	89.2	70-130			
Ethylbenzene	0.0706	0.0050	"	0.0750	ND	94.1	70-130			
m,p-Xylene	0.140	0.010	"	0.150	ND	93.3	70-130			
o-Xylene	0.0745	0.0050	"	0.0750	ND	99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0213		"	0.0400		53.2	23-173			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0434		"	0.0400		109	21-167			

Matrix Spike Dup (2007313-MSD1)	Source: 2007255-02			Prepared & Analyzed: 07/29/20						
Benzene	0.0722	0.0020	mg/kg	0.0750	ND	96.2	70-130	0.580	30	
Toluene	0.0658	0.0050	"	0.0750	ND	87.8	70-130	1.54	30	
Ethylbenzene	0.0712	0.0050	"	0.0750	ND	94.9	70-130	0.889	30	
m,p-Xylene	0.138	0.010	"	0.150	ND	92.0	70-130	1.49	30	
o-Xylene	0.0724	0.0050	"	0.0750	ND	96.6	70-130	2.82	30	
Surrogate: 1,2-Dichloroethane-d4	0.0218		"	0.0400		54.4	23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0456		"	0.0400		114	21-167			

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/29/20 22:07

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 2007296 - EPA 3550A

Blank (2007296-BLK1)

Prepared & Analyzed: 07/28/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2007296-BS1)

Prepared & Analyzed: 07/28/20

C10-C28 (DRO) 440 50 mg/kg 500 88.0 70-130

Matrix Spike (2007296-MS1)

Source: 2007255-01

Prepared & Analyzed: 07/28/20

C10-C28 (DRO) 1030 50 mg/kg 500 835 38.7 70-130 QM-07

Matrix Spike Dup (2007296-MSD1)

Source: 2007255-01

Prepared & Analyzed: 07/28/20

C10-C28 (DRO) 1020 50 mg/kg 500 835 36.3 70-130 1.17 20 QM-07

Batch 2007314 - EPA 3550A

Blank (2007314-BLK1)

Prepared & Analyzed: 07/29/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2007314-BS1)

Prepared & Analyzed: 07/29/20

C10-C28 (DRO) 430 50 mg/kg 500 86.1 70-130

Matrix Spike (2007314-MS1)

Source: 2007255-02

Prepared & Analyzed: 07/29/20

C10-C28 (DRO) 764 50 mg/kg 500 579 36.9 70-130 QM-07

Matrix Spike Dup (2007314-MSD1)

Source: 2007255-02

Prepared & Analyzed: 07/29/20

C10-C28 (DRO) 729 50 mg/kg 500 579 30.0 70-130 4.66 20 QM-07

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/29/20 22:07

Notes and Definitions

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

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

July 30, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: Rinn Valley Production Facility

Work Order #2007269

Enclosed are the results of analyses for samples received by Summit Scientific on 07/29/20 16:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Paul Shrewsbury

President



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]

Project Manager: Maggie Graham

Reported:
07/30/20 20:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GB22@4'	2007269-01	Soil	07/29/20 11:30	07/29/20 16:25
GB24@3'	2007269-02	Soil	07/29/20 11:43	07/29/20 16:25
GB26@2.5'	2007269-03	Soil	07/29/20 11:57	07/29/20 16:25
GB28@3"	2007269-04	Soil	07/29/20 12:08	07/29/20 16:25

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.

2007 269

Summit Scientific

4653 Table Mountain Drive ♦ Golden, Colorado 80403
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: APEX Companies, LLC
Address: 176 Cole Blvd. Suite 250
City/State/Zip: Lakewood, Colorado 80101
Phone: 720-501-5065 Fax: _____
Sampler Name: Ryan Finley

Project Manager: Maggie Graham 720-501-5065; 907-538-7699c
E-Mail: DenverRemediation@ApexCos.onmicrosoft.com
Project Name: Rinn valley production Facility
Project Number: TBD

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:							Special Instructions				
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	TPH	BTEX									Rush
GB22@4'	7/29/20	1130	1			X			X				X	X							X	Call Maggie Graham with questions
GB24@3'	↓	1143	↓			↓			↓				↓	↓								
GB26@2.5'	↓	1157	↓			↓			↓				↓	↓								
GB28@3"	↓	1208	↓			↓			↓				↓	↓								
Relinquished by: <u>[Signature]</u> Date/Time: <u>7/29/20 1625</u>				Received by: <u>[Signature]</u> Date/Time: <u>7-29-2020 1625</u>				Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>							Notes Circle applicable regulatory agency: <u>COGCC/CDPHE</u> Client Name: <u>XOG</u>							
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: <u>18.5</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____																		

Sample Receipt Checklist

S2 Work Order 2007269

Client: Apex/XOG Client Project ID: Rinn Valley Production Facility

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>18.5</u>
-----------	-------------

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"/>			on ice
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"/>			Same Day
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.

AT
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

7-29-2020
Date/Time



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/30/20 20:51

GB22@4'
2007269-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/29/20 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	2007313	07/29/20	07/29/20	EPA 8260B	
Toluene	0.012	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	0.11	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	3.0	0.50		"	"	"	"	"	"	

Date Sampled: **07/29/20 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		67.5 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		92.5 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		137 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/29/20 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	2007314	07/29/20	07/29/20	EPA 8015M	

Date Sampled: **07/29/20 11:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		94.5 %		30-150		"	"	"	"	

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/30/20 20:51

GB24@3'
2007269-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/29/20 11:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2007329	07/30/20	07/30/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/29/20 11:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		104 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/29/20 11:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2007328	07/30/20	07/30/20	EPA 8015M	

Date Sampled: **07/29/20 11:43**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/30/20 20:51

GB26@2.5'
2007269-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/29/20 11:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	2007329	07/30/20	07/30/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **07/29/20 11:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		105 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		98.6 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/29/20 11:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	2007328	07/30/20	07/30/20	EPA 8015M	

Date Sampled: **07/29/20 11:57**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		114 %		30-150		"	"	"	"	

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/30/20 20:51

GB28@3"
2007269-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/29/20 12:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2007329	07/30/20	07/30/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/29/20 12:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/29/20 12:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2007328	07/30/20	07/30/20	EPA 8015M	

Date Sampled: **07/29/20 12:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		106 %	30-150		"	"	"	"	

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/30/20 20:51

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 2007313 - EPA 5030 Soil MS

Blank (2007313-BLK1)

Prepared & Analyzed: 07/29/20

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0218		"	0.0400		54.4	23-173			
Surrogate: Toluene-d8	0.0312		"	0.0400		78.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0403		"	0.0400		101	21-167			

LCS (2007313-BS1)

Prepared & Analyzed: 07/29/20

Benzene	0.0705	0.0020	mg/kg	0.0750		94.0	70-130			
Toluene	0.0810	0.0050	"	0.0750		108	70-130			
Ethylbenzene	0.0651	0.0050	"	0.0750		86.8	70-130			
m,p-Xylene	0.127	0.010	"	0.150		84.9	70-130			
o-Xylene	0.0663	0.0050	"	0.0750		88.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0175		"	0.0400		43.6	23-173			
Surrogate: Toluene-d8	0.0328		"	0.0400		81.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0401		"	0.0400		100	21-167			

Matrix Spike (2007313-MS1)

Source: 2007255-02

Prepared & Analyzed: 07/29/20

Benzene	0.0726	0.0020	mg/kg	0.0750	ND	96.8	70-130			
Toluene	0.0669	0.0050	"	0.0750	ND	89.2	70-130			
Ethylbenzene	0.0706	0.0050	"	0.0750	ND	94.1	70-130			
m,p-Xylene	0.140	0.010	"	0.150	ND	93.3	70-130			
o-Xylene	0.0745	0.0050	"	0.0750	ND	99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0213		"	0.0400		53.2	23-173			
Surrogate: Toluene-d8	0.0383		"	0.0400		95.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0434		"	0.0400		109	21-167			

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/30/20 20:51

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 2007313 - EPA 5030 Soil MS

Matrix Spike Dup (2007313-MSD1)

Source: 2007255-02

Prepared & Analyzed: 07/29/20

Benzene	0.0722	0.0020	mg/kg	0.0750	ND	96.2	70-130	0.580	30	
Toluene	0.0658	0.0050	"	0.0750	ND	87.8	70-130	1.54	30	
Ethylbenzene	0.0712	0.0050	"	0.0750	ND	94.9	70-130	0.889	30	
m,p-Xylene	0.138	0.010	"	0.150	ND	92.0	70-130	1.49	30	
o-Xylene	0.0724	0.0050	"	0.0750	ND	96.6	70-130	2.82	30	
Surrogate: 1,2-Dichloroethane-d4	0.0218		"	0.0400		54.4	23-173			
Surrogate: Toluene-d8	0.0395		"	0.0400		98.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0456		"	0.0400		114	21-167			

Batch 2007329 - EPA 5030 Soil MS

Blank (2007329-BLK1)

Prepared & Analyzed: 07/30/20

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0400		99.7	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	21-167			

LCS (2007329-BS1)

Prepared & Analyzed: 07/30/20

Benzene	0.255	0.0020	mg/kg	0.200		127	70-130			
Toluene	0.253	0.0050	"	0.200		126	70-130			
Ethylbenzene	0.259	0.0050	"	0.200		129	70-130			
m,p-Xylene	0.508	0.010	"	0.400		127	70-130			
o-Xylene	0.258	0.0050	"	0.200		129	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0424		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0	21-167			

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/30/20 20:51

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 2007329 - EPA 5030 Soil MS

Matrix Spike (2007329-MS1)		Source: 2007269-02			Prepared & Analyzed: 07/30/20					
Benzene	0.186	0.0020	mg/kg	0.200	ND	93.0	70-130			
Toluene	0.182	0.0050	"	0.200	ND	91.0	70-130			
Ethylbenzene	0.208	0.0050	"	0.200	ND	104	70-130			
m,p-Xylene	0.366	0.010	"	0.400	ND	91.6	70-130			
o-Xylene	0.186	0.0050	"	0.200	ND	93.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0427		"	0.0400		107	23-173			
Surrogate: Toluene-d8	0.0396		"	0.0400		98.9	20-170			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		98.9	21-167			
Matrix Spike Dup (2007329-MSD1)		Source: 2007269-02			Prepared & Analyzed: 07/30/20					
Benzene	0.189	0.0020	mg/kg	0.200	ND	94.6	70-130	1.77	30	
Toluene	0.185	0.0050	"	0.200	ND	92.4	70-130	1.55	30	
Ethylbenzene	0.197	0.0050	"	0.200	ND	98.3	70-130	5.82	30	
m,p-Xylene	0.494	0.010	"	0.400	ND	123	70-130	29.5	30	
o-Xylene	0.189	0.0050	"	0.200	ND	94.5	70-130	1.36	30	
Surrogate: 1,2-Dichloroethane-d4	0.0419		"	0.0400		105	23-173			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	21-167			

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
07/30/20 20:51

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 2007314 - EPA 3550A

Blank (2007314-BLK1)		Prepared & Analyzed: 07/29/20									
C10-C28 (DRO)	ND	50	mg/kg								
LCS (2007314-BS1)		Prepared & Analyzed: 07/29/20									
C10-C28 (DRO)	430	50	mg/kg	500	86.1	70-130					
Matrix Spike (2007314-MS1)		Source: 2007255-02		Prepared & Analyzed: 07/29/20							
C10-C28 (DRO)	764	50	mg/kg	500	579	36.9	70-130				QM-07
Matrix Spike Dup (2007314-MSD1)		Source: 2007255-02		Prepared & Analyzed: 07/29/20							
C10-C28 (DRO)	729	50	mg/kg	500	579	30.0	70-130	4.66	20		QM-07

Batch 2007328 - EPA 3550A

Blank (2007328-BLK1)		Prepared & Analyzed: 07/30/20									
C10-C28 (DRO)	ND	50	mg/kg								
LCS (2007328-BS1)		Prepared & Analyzed: 07/30/20									
C10-C28 (DRO)	433	50	mg/kg	500	86.6	70-130					
Matrix Spike (2007328-MS1)		Source: 2007269-02		Prepared & Analyzed: 07/30/20							
C10-C28 (DRO)	453	50	mg/kg	500	23.0	86.0	70-130				
Matrix Spike Dup (2007328-MSD1)		Source: 2007269-02		Prepared & Analyzed: 07/30/20							
C10-C28 (DRO)	460	50	mg/kg	500	23.0	87.3	70-130	1.40	20		

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]

Project Manager: Maggie Graham

Reported:
07/30/20 20:51

Notes and Definitions

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

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 03, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

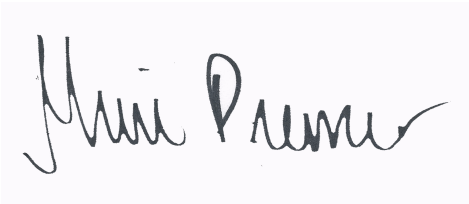
Denver, CO 80202

RE: Rinn Valley Production Facility

Work Order # 2007280

Enclosed are the results of analyses for samples received by Summit Scientific on 07/30/20 16:16. 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, stylized 'M' and 'P'.

Muri Premer For Paul Shrewsbury

President



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GB29@10	2007280-01	Soil	07/30/20 12:45	07/30/20 16:16
GB30@6	2007280-02	Soil	07/30/20 12:50	07/30/20 16:16
GB31@9	2007280-03	Soil	07/30/20 12:55	07/30/20 16:16
GB32@6	2007280-04	Soil	07/30/20 13:20	07/30/20 16:16
GB33@5	2007280-05	Soil	07/30/20 14:00	07/30/20 16:16
GB34@5	2007280-06	Soil	07/30/20 14:03	07/30/20 16:16
GB35@5	2007280-07	Soil	07/30/20 14:05	07/30/20 16:16
GB36@5	2007280-08	Soil	07/30/20 14:07	07/30/20 16:16
GB37@5	2007280-09	Soil	07/30/20 14:15	07/30/20 16:16
GB38@5	2007280-10	Soil	07/30/20 14:18	07/30/20 16:16
GB39@5	2007280-11	Soil	07/30/20 14:22	07/30/20 16:16
GB40@5	2007280-12	Soil	07/30/20 14:26	07/30/20 16:16

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.

Summit Scientific

S₂

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

Client: Apex Companies LLC

Project Manager: Maggie Graham 907-538-7699

Address: ON File

E-Mail: Denver Remediation@Apexcos.onmicrosoft.com

City/State/Zip: ON File

Josh Carlisle

Phone: 720-501-5065

Project Name: Rinn Valley production facility

Sampler Name: Ryan Finley

Project Number: T80

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions	
					HCl	HNO3	None	Other	Water	Soil	Air-Canister #	Other	TPH	BTEX				
1	GB29@10	7/30/20	1245	1			X			X				X	X			X
2	GB30@6		1250															
3	GB31@9		1255															X
4	GB32@6		1320															
5	GB33@5		1400															
6	GB34@5		1403															
7	GB35@5		1405															
8	GB36@5		1407															
9	GB37@5		1415															
10	GB38@5		1418															

Relinquished by: Ryan Finley	Date/Time: 7/30/20 1615	Received by: [Signature]	Date/Time: 7.30.2020 1615	Turn Around Time (Check)	Notes: XOG
Relinquished by:	Date/Time:	Received by:	Date/Time:	Same Day <input checked="" type="checkbox"/> 72 hours	COGCC
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours <input type="checkbox"/> Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours <input checked="" type="checkbox"/>	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity:	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Temperature Upon Receipt: 19.2°	
Relinquished by:	Date/Time:	Received by:	Date/Time:	Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	

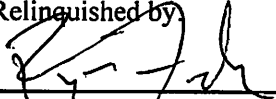
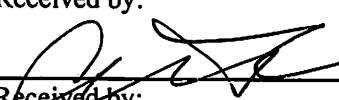
Summit Scientific

S₂

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

Client: Apey Companies LLC Project Manager: Maggie Graham
 Address: ON FILE E-Mail: ON FILE
 City/State/Zip: ON FILE
 Phone: 720-561-5065 Project Name: Rinn Valley Production Facility
 Sampler Name: Ryan Finley 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	TPH	BTEX							
1	GB3905	7/30/20	1422	1			X			X				X	X						
2	GB4005	↓	1426	1			X			X				X	X						
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

Relinquished by: 	Date/Time: 7/30/20 1615	Received by: 	Date/Time: 7.30.200 1615	Turn Around Time (Check) Same Day <input type="checkbox"/> 72 hours <input type="checkbox"/> 24 hours <input type="checkbox"/> Standard <input type="checkbox"/> 48 hours <input checked="" type="checkbox"/> Sample Integrity: Temperature Upon Receipt: 19.2° Samples Intact: <input checked="" type="radio"/> Yes <input type="radio"/> No	Notes:
Relinquished by:	Date/Time:	Received by:	Date/Time:		
Relinquished by:	Date/Time:	Received by:	Date/Time:		

Sample Receipt Checklist

S2 Work Order 2007280

Client: Agex/COG Client Project ID: Kinn Valley Production Facility

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

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

Temp (°C)	19.2
-----------	------

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.	✓			on ice
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are samples with holding times due within 48 hours sample due within 48 hours present?	✓			Same Day, 48hr
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.			✓	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? 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 ⁽¹⁾ ? Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	

Additional Comments (if any):

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

AT
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

7-30-2020
Date/Time



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB29@10
2007280-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	2007329	07/30/20	07/30/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **07/30/20 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		62.0 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		118 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	2007328	07/30/20	07/30/20	EPA 8015M	

Date Sampled: **07/30/20 12:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		104 %		30-150		"	"	"	"	

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB30@6
2007280-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **07/30/20 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		132 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		107 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 12:50**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		97.7 %		30-150		"	"	"	"	

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB31@9
2007280-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2007329	07/30/20	07/30/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/20 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		65.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		121 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		118 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2007328	07/30/20	07/30/20	EPA 8015M	

Date Sampled: **07/30/20 12:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		105 %	30-150		"	"	"	"	

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB32@6
2007280-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **07/30/20 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		134 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 13:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		101 %		30-150		"	"	"	"	

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB33@5
2007280-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/20 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		130 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 14:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		96.5 %	30-150		"	"	"	"	

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB34@5
2007280-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 14:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/20 14:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		139 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		108 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 14:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 14:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		96.5 %	30-150		"	"	"	"	

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.



Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB35@5
2007280-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/20 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		123 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 14:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		97.8 %	30-150		"	"	"	"	

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB36@5
2007280-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 14:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/20 14:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		109 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		90.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 14:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 14:07**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		96.4 %	30-150		"	"	"	"	

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB37@5
2007280-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 14:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **07/30/20 14:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		157 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		111 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 14:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 14:15**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		96.5 %		30-150		"	"	"	"	

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB38@5
2007280-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 14:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/20 14:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		139 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		110 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 14:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 14:18**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		98.1 %	30-150		"	"	"	"	

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB39@5
2007280-11 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	0.0020		mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050		"	"	"	"	"	"	
Ethylbenzene	ND	0.0050		"	"	"	"	"	"	
Xylenes (total)	ND	0.010		"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50		"	"	"	"	"	"	

Date Sampled: **07/30/20 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		143 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		105 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %		21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
C10-C28 (DRO)	ND	50		mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 14:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: o-Terphenyl		94.8 %		30-150		"	"	"	"	

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

GB40@5
2007280-12 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/30/20 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2007343	07/31/20	07/31/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/30/20 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		137 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		106 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/30/20 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2007344	07/31/20	07/31/20	EPA 8015M	

Date Sampled: **07/30/20 14:26**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		94.2 %	30-150		"	"	"	"	

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

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 2007329 - EPA 5030 Soil MS

Blank (2007329-BLK1)

Prepared & Analyzed: 07/30/20

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	"								
Surrogate: 1,2-Dichloroethane-d4	0.0399		"	0.0400		99.7		23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7		20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0		21-167			

LCS (2007329-BS1)

Prepared & Analyzed: 07/30/20

Benzene	0.255	0.0020	mg/kg	0.200		127		70-130			
Toluene	0.253	0.0050	"	0.200		126		70-130			
Ethylbenzene	0.259	0.0050	"	0.200		129		70-130			
m,p-Xylene	0.508	0.010	"	0.400		127		70-130			
o-Xylene	0.258	0.0050	"	0.200		129		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0424		"	0.0400		106		23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101		20-170			
Surrogate: 4-Bromofluorobenzene	0.0392		"	0.0400		98.0		21-167			

Matrix Spike (2007329-MS1)

Source: 2007269-02

Prepared & Analyzed: 07/30/20

Benzene	0.186	0.0020	mg/kg	0.200	ND	93.0		70-130			
Toluene	0.182	0.0050	"	0.200	ND	91.0		70-130			
Ethylbenzene	0.208	0.0050	"	0.200	ND	104		70-130			
m,p-Xylene	0.366	0.010	"	0.400	ND	91.6		70-130			
o-Xylene	0.186	0.0050	"	0.200	ND	93.2		70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0427		"	0.0400		107		23-173			
Surrogate: Toluene-d8	0.0396		"	0.0400		98.9		20-170			
Surrogate: 4-Bromofluorobenzene	0.0396		"	0.0400		98.9		21-167			

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

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 2007329 - EPA 5030 Soil MS

Matrix Spike Dup (2007329-MSD1)

Source: 2007269-02

Prepared & Analyzed: 07/30/20

Benzene	0.189	0.0020	mg/kg	0.200	ND	94.6	70-130	1.77	30	
Toluene	0.185	0.0050	"	0.200	ND	92.4	70-130	1.55	30	
Ethylbenzene	0.197	0.0050	"	0.200	ND	98.3	70-130	5.82	30	
m,p-Xylene	0.494	0.010	"	0.400	ND	123	70-130	29.5	30	
o-Xylene	0.189	0.0050	"	0.200	ND	94.5	70-130	1.36	30	
Surrogate: 1,2-Dichloroethane-d4	0.0419		"	0.0400		105	23-173			
Surrogate: Toluene-d8	0.0398		"	0.0400		99.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0395		"	0.0400		98.8	21-167			

Batch 2007343 - EPA 5030 Soil MS

Blank (2007343-BLK1)

Prepared & Analyzed: 07/31/20

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0506		"	0.0400		127	23-173			
Surrogate: Toluene-d8	0.0432		"	0.0400		108	20-170			
Surrogate: 4-Bromofluorobenzene	0.0415		"	0.0400		104	21-167			

LCS (2007343-BS1)

Prepared & Analyzed: 07/31/20

Benzene	0.0776	0.0020	mg/kg	0.100		77.6	70-130			
Toluene	0.0955	0.0050	"	0.100		95.5	70-130			
Ethylbenzene	0.0922	0.0050	"	0.100		92.2	70-130			
m,p-Xylene	0.168	0.010	"	0.200		84.2	70-130			
o-Xylene	0.0875	0.0050	"	0.100		87.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0385		"	0.0400		96.3	23-173			
Surrogate: Toluene-d8	0.0396		"	0.0400		99.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0405		"	0.0400		101	21-167			

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

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 2007343 - EPA 5030 Soil MS

Matrix Spike (2007343-MS1)	Source: 2007280-02			Prepared & Analyzed: 07/31/20						
Benzene	0.0850	0.0020	mg/kg	0.100	ND	85.0	70-130			
Toluene	0.0964	0.0050	"	0.100	ND	96.4	70-130			
Ethylbenzene	0.0938	0.0050	"	0.100	ND	93.8	70-130			
m,p-Xylene	0.177	0.010	"	0.200	ND	88.5	70-130			
o-Xylene	0.0909	0.0050	"	0.100	ND	90.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0440		"	0.0400		110	23-173			
Surrogate: Toluene-d8	0.0397		"	0.0400		99.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	21-167			

Matrix Spike Dup (2007343-MSD1)	Source: 2007280-02			Prepared & Analyzed: 07/31/20						
Benzene	0.0847	0.0020	mg/kg	0.100	ND	84.7	70-130	0.354	30	
Toluene	0.0990	0.0050	"	0.100	ND	99.0	70-130	2.70	30	
Ethylbenzene	0.0934	0.0050	"	0.100	ND	93.4	70-130	0.449	30	
m,p-Xylene	0.177	0.010	"	0.200	ND	88.5	70-130	0.0169	30	
o-Xylene	0.0924	0.0050	"	0.100	ND	92.4	70-130	1.57	30	
Surrogate: 1,2-Dichloroethane-d4	0.0439		"	0.0400		110	23-173			
Surrogate: Toluene-d8	0.0405		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0406		"	0.0400		102	21-167			

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 2007328 - EPA 3550A

Blank (2007328-BLK1)

Prepared & Analyzed: 07/30/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2007328-BS1)

Prepared & Analyzed: 07/30/20

C10-C28 (DRO) 433 50 mg/kg 500 86.6 70-130

Matrix Spike (2007328-MS1)

Source: 2007269-02

Prepared & Analyzed: 07/30/20

C10-C28 (DRO) 453 50 mg/kg 500 23.0 86.0 70-130

Matrix Spike Dup (2007328-MSD1)

Source: 2007269-02

Prepared & Analyzed: 07/30/20

C10-C28 (DRO) 460 50 mg/kg 500 23.0 87.3 70-130 1.40 20

Batch 2007344 - EPA 3550A

Blank (2007344-BLK1)

Prepared & Analyzed: 07/31/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2007344-BS1)

Prepared & Analyzed: 07/31/20

C10-C28 (DRO) 432 50 mg/kg 500 86.4 70-130

Matrix Spike (2007344-MS1)

Source: 2007280-02

Prepared & Analyzed: 07/31/20

C10-C28 (DRO) 432 50 mg/kg 500 22.6 82.0 70-130

Matrix Spike Dup (2007344-MSD1)

Source: 2007280-02

Prepared & Analyzed: 07/31/20

C10-C28 (DRO) 449 50 mg/kg 500 22.6 85.3 70-130 3.79 20

Summit Scientific

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Extraction Oil&Gas
370 17th Street Suite 5300
Denver CO, 80202

Project: Rinn Valley Production Facility

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/03/20 16:40

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