

Attachment A

Laboratory Analytical Report

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

June 11, 2019

Ryan Finley

Extraction Oil&Gas

370 17th Street Suite 5300

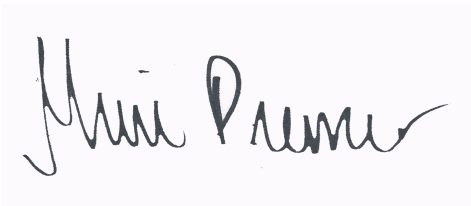
Denver, CO 80202

RE: Hiner 36 Pad

Work Order # 1906110

Enclosed are the results of analyses for samples received by Summit Scientific on 06/10/19 16:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is written in a cursive style and appears to read "Muri Premer".

Muri Premer For Ben Shrewsbury

Laboratory Manager



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

Project: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01@4'	1906110-01	Soil	06/10/19 09:20	06/10/19 16:55
BH01@13.5-14'	1906110-02	Soil	06/10/19 11:20	06/10/19 16:55
BH02@4'	1906110-03	Soil	06/10/19 09:40	06/10/19 16:55
BH02@8-8.5'	1906110-04	Soil	06/10/19 11:40	06/10/19 16:55
BH03@4'	1906110-05	Soil	06/10/19 10:30	06/10/19 16:55
BH03@13.5-14'	1906110-06	Soil	06/10/19 12:15	06/10/19 16:55
BH04@6-8'	1906110-07	Soil	06/10/19 12:30	06/10/19 16:55
BH01 GW	1906110-08	Water	06/10/19 15:00	06/10/19 16:55
BH02 GW	1906110-09	Water	06/10/19 14:20	06/10/19 16:55
BH03 GW	1906110-10	Water	06/10/19 14:00	06/10/19 16:55
BH04 GW	1906110-11	Water	06/10/19 14:40	06/10/19 16:55

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.

ORIGINS

LABORATORY, INC

www.originslaboratory.com

1906110

page 1 of 1

Q XOG

Client: Apex Companies

Address: Lakewood, CO

Telephone Number: 720 8379818

Email Address: dprichie@apexcos.com

Project Manager: Ryan Finley

Project Name: Hiner 36 PAP

Project Number: 744.1902.01-446538

Samples Collected By: David Prichie

Sample ID Description	Date Sampled	Time Sampled	# of Containers	Preservative				Matrix				Analysis					Sample Instructions		
				Unpreserved	HCl	HNO ₃	Other	Groundwater	Soil	Air Summa Canister #	Other	BTEX	TPH	EC	SAR	pH			
BH01 @ 4'	0920	6/10/19	1	X					X					X	X				1
BH01 @ 13.5-14'	1120	6/10/19	1											X	X				2
BH02 @ 4'	6/10/19	0940	1											X	X				3
BH02 @ 8-8.5'		1140	1											X	X				4
BH03 @ 4'		1030	1											X	X	X	X	X	5
BH03 @ 13.5-14'		1215	1											X	X				6
BH04 @ 6-8'		1230	1											X	X				7
BH01 GW		1500	1		X			X						X					8
BH02 GW		1420	1											X					9
BH03 GW		1400	1											X					10
BH04 GW		1440	1											X					

Relinquished By: <u>[Signature]</u>	Date: <u>6/10/19</u>	Time: <u>1655</u>	Received By: <u>[Signature]</u>	Date: <u>6-10-19</u>	Time: <u>16:55</u>	Turnaround Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	Same Day <input type="checkbox"/>	24 Hr <input checked="" type="checkbox"/>
						48 Hr <input type="checkbox"/>	72 Hr <input type="checkbox"/>
						Standard <input type="checkbox"/>	

Temp Received- 6.1

Date Results Needed



Sample Receipt Checklist

S2 Work Order 1706110

Client: Apex / XOG Client Project ID: Hiner 36 Pad

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>6.1</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.	<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"/>			24 hr
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"/>			HCl
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

6-10-19 14:55
Date/Time



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

Project: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH01@4'
1906110-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 09:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1906123	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/10/19 09:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		70.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		86.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/10/19 09:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1906124	06/10/19	06/11/19	EPA 8015M	

Date Sampled: **06/10/19 09:20**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		99.2 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH01@13.5-14'
1906110-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1906123	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/10/19 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		69.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		85.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/10/19 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1906124	06/10/19	06/11/19	EPA 8015M	

Date Sampled: **06/10/19 11:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		102 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH02@4'
1906110-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1906123	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/10/19 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		79.2 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/10/19 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1906124	06/10/19	06/11/19	EPA 8015M	

Date Sampled: **06/10/19 09:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		103 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH02@8-8.5'
1906110-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1906123	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/10/19 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		69.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		85.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		86.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/10/19 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1906124	06/10/19	06/11/19	EPA 8015M	

Date Sampled: **06/10/19 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH03@4'
1906110-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1906123	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.023	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.5	0.50	"	"	"	"	"	"	

Date Sampled: **06/10/19 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		71.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.7 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/10/19 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1906124	06/10/19	06/11/19	EPA 8015M	

Date Sampled: **06/10/19 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		98.5 %	30-150		"	"	"	"	

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

Date Sampled: **06/10/19 10:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Calcium	4930	11.9	mg/kg dry	1	1906118	06/10/19	06/10/19	EPA 6020B	
Magnesium	555	5.97	"	"	"	"	"	"	
Sodium	113	5.97	"	"	"	"	"	"	

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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH03@4'
1906110-05 (Soil)

Summit Scientific

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

Calculated Analysis

Date Sampled: **06/10/19 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.407	0.100	units	1	1906125	06/11/19	06/11/19	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/10/19 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	83.8		%	1	1906115	06/10/19	06/11/19	Calculation	
pH	8.09		pH Units	"	1906117	06/10/19	06/10/19	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **06/10/19 10:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.566	0.0100	mmhos/cm	1	1906116	06/10/19	06/10/19	EPA 120.1	

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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH03@13.5-14'
1906110-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1906123	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	23	0.50	"	"	"	"	"	"	

Date Sampled: **06/10/19 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		70.9 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		81.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		134 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/10/19 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1906124	06/10/19	06/11/19	EPA 8015M	

Date Sampled: **06/10/19 12:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		98.9 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH04@6-8'
1906110-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1906123	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **06/10/19 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		70.6 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		86.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		87.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **06/10/19 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1906124	06/10/19	06/11/19	EPA 8015M	

Date Sampled: **06/10/19 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		105 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH01 GW
1906110-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	160	1.0		ug/l	1	1906114	06/10/19	06/11/19	EPA 8260B	
Toluene	11	1.0		"	"	"	"	"	"	
Ethylbenzene	39	1.0		"	"	"	"	"	"	
Xylenes (total)	150	2.0		"	"	"	"	"	"	

Date Sampled: **06/10/19 15:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		105 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		87.2 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH02 GW
1906110-09 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1906114	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **06/10/19 14:20**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		97.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		94.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH03 GW
1906110-10 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	1.9	1.0		ug/l	1	1906114	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	1.8	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **06/10/19 14:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		97.8 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		95.1 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		118 %		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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

BH04 GW
1906110-11 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **06/10/19 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	280	100		ug/l	100	1906114	06/10/19	06/11/19	EPA 8260B	
Toluene	ND	1.0		"	1	"	"	06/11/19	"	
Ethylbenzene	9.3	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **06/10/19 14:40**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		98.9 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		97.9 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.3 %		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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1906114 - EPA 5030 Water MS

Blank (1906114-BLK1)

Prepared: 06/10/19 Analyzed: 06/11/19

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	9.30		"	13.3		69.8	23-173			
Surrogate: Toluene-d8	11.5		"	13.3		86.5	20-170			
Surrogate: 4-Bromofluorobenzene	11.6		"	13.3		87.0	21-167			

LCS (1906114-BS1)

Prepared: 06/10/19 Analyzed: 06/11/19

Benzene	41.5	1.0	ug/l	50.0		83.0	70-130			
Toluene	42.1	1.0	"	50.0		84.1	70-130			
Ethylbenzene	41.6	1.0	"	50.0		83.1	70-130			
m,p-Xylene	93.5	2.0	"	100		93.5	70-130			
o-Xylene	45.9	1.0	"	50.0		91.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	9.34		"	13.3		70.1	23-173			
Surrogate: Toluene-d8	11.4		"	13.3		85.8	20-170			
Surrogate: 4-Bromofluorobenzene	11.6		"	13.3		86.6	21-167			

Matrix Spike (1906114-MS1)

Source: 1906103-01

Prepared: 06/10/19 Analyzed: 06/11/19

Benzene	45.6	1.0	ug/l	50.0	ND	91.2	70-130			
Toluene	46.8	1.0	"	50.0	ND	93.6	70-130			
Ethylbenzene	48.1	1.0	"	50.0	1.48	93.2	70-130			
m,p-Xylene	106	2.0	"	100	ND	106	70-130			
o-Xylene	48.6	1.0	"	50.0	ND	97.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	8.47		"	13.3		63.5	23-173			
Surrogate: Toluene-d8	11.6		"	13.3		86.9	20-170			
Surrogate: 4-Bromofluorobenzene	11.5		"	13.3		86.6	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

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

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

Batch 1906114 - EPA 5030 Water MS

Matrix Spike Dup (1906114-MSD1)

Source: 1906103-01

Prepared: 06/10/19 Analyzed: 06/11/19

Benzene	47.1	1.0	ug/l	50.0	ND	94.2	70-130	3.28	30	
Toluene	48.5	1.0	"	50.0	ND	97.0	70-130	3.57	30	
Ethylbenzene	48.7	1.0	"	50.0	1.48	94.5	70-130	1.30	30	
m,p-Xylene	106	2.0	"	100	ND	106	70-130	0.463	30	
o-Xylene	48.7	1.0	"	50.0	ND	97.4	70-130	0.0822	30	
Surrogate: 1,2-Dichloroethane-d4	8.66		"	13.3		65.0	23-173			
Surrogate: Toluene-d8	11.7		"	13.3		87.5	20-170			
Surrogate: 4-Bromofluorobenzene	11.4		"	13.3		85.4	21-167			

Batch 1906123 - EPA 5030 Soil MS

Blank (1906123-BLK1)

Prepared: 06/10/19 Analyzed: 06/11/19

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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0298		"	0.0400		74.6	23-173			
Surrogate: Toluene-d8	0.0374		"	0.0400		93.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0356		"	0.0400		88.9	21-167			

LCS (1906123-BS1)

Prepared: 06/10/19 Analyzed: 06/11/19

Benzene	0.112	0.0020	mg/kg	0.100		112	70-130			
Toluene	0.116	0.0050	"	0.100		116	70-130			
Ethylbenzene	0.125	0.0050	"	0.100		125	70-130			
m,p-Xylene	0.250	0.010	"	0.200		125	70-130			
o-Xylene	0.125	0.0050	"	0.100		125	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0312		"	0.0400		78.0	23-173			
Surrogate: Toluene-d8	0.0381		"	0.0400		95.2	20-170			
Surrogate: 4-Bromofluorobenzene	0.0366		"	0.0400		91.5	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

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

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

Batch 1906123 - EPA 5030 Soil MS

Matrix Spike (1906123-MS1)		Source: 1906111-01			Prepared: 06/10/19		Analyzed: 06/11/19			
Benzene	0.102	0.0020	mg/kg	0.100	ND	102	70-130			
Toluene	0.106	0.0050	"	0.100	ND	106	70-130			
Ethylbenzene	0.116	0.0050	"	0.100	ND	116	70-130			
m,p-Xylene	0.233	0.010	"	0.200	ND	116	70-130			
o-Xylene	0.117	0.0050	"	0.100	ND	117	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0302		"	0.0400		75.4	23-173			
Surrogate: Toluene-d8	0.0377		"	0.0400		94.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		92.0	21-167			
Matrix Spike Dup (1906123-MSD1)		Source: 1906111-01			Prepared: 06/10/19		Analyzed: 06/11/19			
Benzene	0.0973	0.0020	mg/kg	0.100	ND	97.3	70-130	4.76	30	
Toluene	0.101	0.0050	"	0.100	ND	101	70-130	4.41	30	
Ethylbenzene	0.109	0.0050	"	0.100	ND	109	70-130	6.38	30	
m,p-Xylene	0.221	0.010	"	0.200	ND	111	70-130	5.17	30	
o-Xylene	0.111	0.0050	"	0.100	ND	111	70-130	5.46	30	
Surrogate: 1,2-Dichloroethane-d4	0.0311		"	0.0400		77.8	23-173			
Surrogate: Toluene-d8	0.0372		"	0.0400		93.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0360		"	0.0400		90.0	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1906124 - EPA 3550A

Blank (1906124-BLK1)

Prepared: 06/10/19 Analyzed: 06/11/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1906124-BS1)

Prepared: 06/10/19 Analyzed: 06/11/19

C10-C28 (DRO) 402 50 mg/kg 500 80.3 70-130

Matrix Spike (1906124-MS1)

Source: 1906111-01

Prepared: 06/10/19 Analyzed: 06/11/19

C10-C28 (DRO) 437 50 mg/kg 500 25.0 82.4 70-130

Matrix Spike Dup (1906124-MSD1)

Source: 1906111-01

Prepared: 06/10/19 Analyzed: 06/11/19

C10-C28 (DRO) 399 50 mg/kg 500 25.0 74.7 70-130 9.23 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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

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

Summit Scientific

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

Batch 1906118 - General Preparation

Blank (1906118-BLK1)

Prepared & Analyzed: 06/10/19

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

LCS (1906118-BS1)

Prepared & Analyzed: 06/10/19

Calcium	492	10.0	mg/kg wet	500	98.4	70-130
Magnesium	462	5.00	"	500	92.3	70-130
Sodium	437	5.00	"	500	87.4	70-130

Duplicate (1906118-DUP1)

Source: 1906107-02

Prepared & Analyzed: 06/10/19

Calcium	11000	12.2	mg/kg dry	10500	5.14	20
Magnesium	1760	6.08	"	1930	8.98	20
Sodium	151	6.08	"	180	17.6	20

Matrix Spike (1906118-MS1)

Source: 1906107-02

Prepared & Analyzed: 06/10/19

Calcium	11100	12.2	mg/kg dry	608	10500	97.6	70-130
Magnesium	2390	6.08	"	608	1930	75.6	70-130
Sodium	622	6.08	"	608	180	72.7	70-130

Matrix Spike Dup (1906118-MSD1)

Source: 1906107-02

Prepared & Analyzed: 06/10/19

Calcium	11100	12.2	mg/kg dry	608	10500	108	70-130	0.559	25
Magnesium	2390	6.08	"	608	1930	76.4	70-130	0.206	25
Sodium	619	6.08	"	608	180	72.1	70-130	0.599	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.



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

Project: Hiner 36 Pad

Project Number: 744.1902.01-446538

Project Manager: Ryan Finley

Reported:
06/11/19 16:41

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 1906115 - General Preparation

Duplicate (1906115-DUP1)

Source: 1906102-01

Prepared: 06/10/19 Analyzed: 06/11/19

% Solids	88.9	%		83.7		6.03	20
----------	------	---	--	------	--	------	----

Batch 1906117 - General Preparation

LCS (1906117-BS1)

Prepared & Analyzed: 06/10/19

pH	9.46	pH Units	9.23	102	95-105
----	------	----------	------	-----	--------

Duplicate (1906117-DUP1)

Source: 1906107-02

Prepared & Analyzed: 06/10/19

pH	8.33	pH Units	8.27	0.723	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Ryan Finley

Reported:
06/11/19 16:41

Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch 1906116 - General Preparation

Blank (1906116-BLK1)

Prepared & Analyzed: 06/10/19

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (1906116-BS1)

Prepared & Analyzed: 06/10/19

Specific Conductance (EC) 0.810 0.0100 mmhos/cm 0.750 108 90-110

Duplicate (1906116-DUP1)

Source: 1906107-02

Prepared & Analyzed: 06/10/19

Specific Conductance (EC) 0.381 0.0100 mmhos/cm 0.381 0.118 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: Hiner 36 Pad

Project Number: 744.1902.01-446538

Project Manager: Ryan Finley

Reported:
06/11/19 16:41

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 17, 2019

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

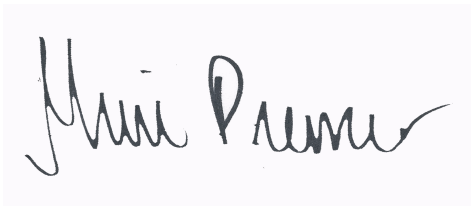
Denver, CO 80202

RE: Hiner 36 Pad

Work Order # 1907096

Enclosed are the results of analyses for samples received by Summit Scientific on 07/10/19 11:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is written in a cursive style and appears to read "Muri Premer".

Muri Premer For Ben Shrewsbury

Laboratory Manager



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

Project: Hiner 36 Pad

Project Number: 744.1902.01-446538

Project Manager: Maggie Graham

Reported:
07/17/19 15:11

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH05@13.5-14.0'	1907096-01	Soil	07/09/19 13:15	07/10/19 11:50
BH06@2'	1907096-02	Soil	07/09/19 12:30	07/10/19 11:50
BH07@7.5-8.0'	1907096-03	Soil	07/09/19 13:25	07/10/19 11:50
BH05 GW	1907096-04	Water	07/09/19 16:00	07/10/19 11:50
BH06 GW	1907096-05	Water	07/09/19 15:30	07/10/19 11:50
BH07 GW	1907096-06	Water	07/09/19 15:15	07/10/19 11:50

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.

XDG

Summit Scientific

S₂

1907096

4653 Table Mountain Drive ♦ Golden, Colorado 80403

303-277-9310

Page 1 of 1

Client: Apex Companies

Project Manager: Maggie Graham

Address: Lakewood CO

E-Mail: maggie.graham@apexcos.com

City/State/Zip:

Phone: 720 501 5065

Project Name: Hiner 36 Pad

Sampler Name: David Puchrik

Project Number: 744.1902.01-446538

					Preservative				Matrix				Analysis Requested								Special Instructions
ID	Sample Description	Date Sampled	Time Sampled	# of containers	HCl	HNO ₃	None	Other	Water	Soil	Air-Canister #	Other	TPH	BTEX							
1	BH05 @ 13.5-14.0'	7/9/19	1315	1			X			X			X	X							
2	BH06 @ 2'		1230	1			X			X			X	X							
3	BH07 @ 7.5-8.0'		1325	1			X			X			X	X							
4	BH05 GW		1600	3	X				X					X							
5	BH06 GW		1530	3	X				X					X							
6	BH07 GW		1515	3	X				X					X							
7																					
8																					
9																					
10																					

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time	(Check)	Notes:
<i>David Puchrik</i>	7/10/19 1150	<i>[Signature]</i>	7-10-19 11:50	Same Day	72 hours	
Relinquished by:	Date/Time:	Received by:	Date/Time:	24 hours	Standard	
Relinquished by:	Date/Time:	Received by:	Date/Time:	48 hours		
				Sample Integrity:		
				Temperature Upon Receipt:		1.6
				Samples Intact:		Yes No

Sample Receipt Checklist

S2 Work Order 1907096

Client: Apex/XOG

Client Project ID: Hlner 36 Pad

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

Airbill #: _____

☒ ☐ ☐ ☐ ☐

Matrix (check all that apply):

☐ Air

☒ Soil/Solid

☒ Water

☐ Other:

(Describe)

Temp (°C)	1.6
-----------	-----

Thermometer ID: 61857155-K

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

Additional Comments (if any):

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

MP

Custodian Printed Name or Initials

Muri Premer

Signature of Custodian

7/10/19

Date/Time



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

Project: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

BH05@13.5-14.0'
1907096-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/19 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	1907151	07/11/19	07/11/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/09/19 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		103 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		109 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/09/19 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	1907152	"	07/12/19	EPA 8015M	

Date Sampled: **07/09/19 13:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		97.0 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

BH06@2'
1907096-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/19 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	1907151	07/11/19	07/12/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/09/19 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		99.4 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		118 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/09/19 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1907152	"	07/12/19	EPA 8015M	

Date Sampled: **07/09/19 12:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		98.8 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

BH07@7.5-8.0'
1907096-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/19 13:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	0.0055	0.0020	mg/kg	1	1907151	07/11/19	07/12/19	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **07/09/19 13:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		97.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		103 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **07/09/19 13:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	1907152	"	07/12/19	EPA 8015M	

Date Sampled: **07/09/19 13:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		99.6 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

BH05 GW
1907096-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/19 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	38	1.0		ug/l	1	1907144	07/11/19	07/12/19	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **07/09/19 16:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		112 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		95.5 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		88.9 %		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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

BH06 GW
1907096-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/19 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1907144	07/11/19	07/12/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/19 15:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		93.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.5 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

BH07 GW
1907096-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **07/09/19 15:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1907144	07/11/19	07/12/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **07/09/19 15:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		106 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1907144 - EPA 5030 Water MS

Blank (1907144-BLK1)

Prepared & Analyzed: 07/11/19

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.9		"	13.3		104	23-173			
Surrogate: Toluene-d8	12.7		"	13.3		95.5	20-170			
Surrogate: 4-Bromofluorobenzene	12.2		"	13.3		91.4	21-167			

LCS (1907144-BS1)

Prepared & Analyzed: 07/11/19

Benzene	43.6	1.0	ug/l	33.3		131	51-132			
Toluene	42.4	1.0	"	33.3		127	51-138			
Ethylbenzene	45.0	1.0	"	33.3		135	58-146			
m,p-Xylene	85.1	2.0	"	66.7		128	57-144			
o-Xylene	44.2	1.0	"	33.3		133	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3		105	23-173			
Surrogate: Toluene-d8	12.9		"	13.3		96.9	20-170			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.1	21-167			

Matrix Spike (1907144-MS1)

Source: 1907088-01

Prepared & Analyzed: 07/11/19

Benzene	39.5	1.0	ug/l	33.3	ND	119	34-141			
Toluene	42.7	1.0	"	33.3	ND	128	27-151			
Ethylbenzene	47.1	1.0	"	33.3	ND	141	29-160			
m,p-Xylene	89.4	2.0	"	66.7	ND	134	20-166			
o-Xylene	46.4	1.0	"	33.3	ND	139	33-159			
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.3		100	23-173			
Surrogate: Toluene-d8	12.8		"	13.3		95.8	20-170			
Surrogate: 4-Bromofluorobenzene	14.3		"	13.3		107	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

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

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

Batch 1907144 - EPA 5030 Water MS

Matrix Spike Dup (1907144-MSD1)				Source: 1907088-01		Prepared & Analyzed: 07/11/19				
Benzene	38.4	1.0	ug/l	33.3	ND	115	34-141	2.77	30	
Toluene	42.9	1.0	"	33.3	ND	129	27-151	0.397	30	
Ethylbenzene	46.6	1.0	"	33.3	ND	140	29-160	1.13	30	
m,p-Xylene	85.9	2.0	"	66.7	ND	129	20-166	3.98	30	
o-Xylene	43.7	1.0	"	33.3	ND	131	33-159	5.84	30	
Surrogate: 1,2-Dichloroethane-d4	13.1		"	13.3		98.1	23-173			
Surrogate: Toluene-d8	12.9		"	13.3		96.5	20-170			
Surrogate: 4-Bromofluorobenzene	13.6		"	13.3		102	21-167			

Batch 1907151 - EPA 5030 Soil MS

Blank (1907151-BLK1)				Prepared: 07/11/19 Analyzed: 07/12/19						
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	"							
Surrogate: 1,2-Dichloroethane-d4	0.0439		"	0.0400		110	23-173			
Surrogate: Toluene-d8	0.0457		"	0.0400		114	20-170			
Surrogate: 4-Bromofluorobenzene	0.0381		"	0.0400		95.2	21-167			

LCS (1907151-BS1)				Prepared & Analyzed: 07/11/19						
Benzene	0.118	0.0020	mg/kg	0.150		78.7	70-130			
Toluene	0.129	0.0050	"	0.150		86.0	70-130			
Ethylbenzene	0.140	0.0050	"	0.150		93.5	70-130			
m,p-Xylene	0.266	0.010	"	0.300		88.6	70-130			
o-Xylene	0.131	0.0050	"	0.150		87.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0370		"	0.0400		92.4	23-173			
Surrogate: Toluene-d8	0.0390		"	0.0400		97.6	20-170			
Surrogate: 4-Bromofluorobenzene	0.0378		"	0.0400		94.6	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

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

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

Batch 1907151 - EPA 5030 Soil MS

Matrix Spike (1907151-MS1)		Source: 1907096-01			Prepared & Analyzed: 07/11/19					
Benzene	0.131	0.0020	mg/kg	0.150	ND	87.5	70-130			
Toluene	0.132	0.0050	"	0.150	ND	87.7	70-130			
Ethylbenzene	0.146	0.0050	"	0.150	ND	97.3	70-130			
m,p-Xylene	0.279	0.010	"	0.300	ND	93.0	70-130			
o-Xylene	0.137	0.0050	"	0.150	ND	91.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0424		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0390		"	0.0400		97.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0384		"	0.0400		96.1	21-167			
Matrix Spike Dup (1907151-MSD1)		Source: 1907096-01			Prepared & Analyzed: 07/11/19					
Benzene	0.127	0.0020	mg/kg	0.150	ND	84.4	70-130	3.61	30	
Toluene	0.151	0.0050	"	0.150	ND	101	70-130	13.9	30	
Ethylbenzene	0.146	0.0050	"	0.150	ND	97.1	70-130	0.226	30	
m,p-Xylene	0.279	0.010	"	0.300	ND	92.9	70-130	0.161	30	
o-Xylene	0.137	0.0050	"	0.150	ND	91.5	70-130	0.153	30	
Surrogate: 1,2-Dichloroethane-d4	0.0418		"	0.0400		104	23-173			
Surrogate: Toluene-d8	0.0443		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0376		"	0.0400		93.9	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: Hiner 36 Pad
Project Number: 744.1902.01-446538
Project Manager: Maggie Graham

Reported:
07/17/19 15:11

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 1907152 - EPA 3550A

Blank (1907152-BLK1)

Prepared & Analyzed: 07/11/19

C10-C28 (DRO) ND 50 mg/kg

LCS (1907152-BS1)

Prepared: 07/11/19 Analyzed: 07/12/19

C10-C28 (DRO) 478 50 mg/kg 500 95.7 70-130

Matrix Spike (1907152-MS1)

Source: 1907096-01

Prepared: 07/11/19 Analyzed: 07/12/19

C10-C28 (DRO) 472 50 mg/kg 500 31.9 88.0 70-130

Matrix Spike Dup (1907152-MSD1)

Source: 1907096-01

Prepared: 07/11/19 Analyzed: 07/12/19

C10-C28 (DRO) 500 50 mg/kg 500 31.9 93.5 70-130 5.67 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: Hiner 36 Pad

Project Number: 744.1902.01-446538

Project Manager: Maggie Graham

Reported:
07/17/19 15:11

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

August 12, 2019

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: Hiner 36

Work Order # 1908073

Enclosed are the results of analyses for samples received by Summit Scientific on 08/08/19 15:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury For Ben Shrewsbury

Laboratory Manager



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

Project: Hiner 36

Project Number: [none]

Project Manager: Maggie Graham

Reported:
08/12/19 06:16

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SW01	1908073-01	Water	08/08/19 11:20	08/08/19 15:53
SW02	1908073-02	Water	08/08/19 11:30	08/08/19 15:53
SW03	1908073-03	Water	08/08/19 11:40	08/08/19 15:53

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

Page 1 of 1

Sampler Name: Ryan Finley

Project Number: T B D

				Preservative				Matrix				Analyze For:									
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)									Special Instructions	
SWØ1	8/8/19	1120	3	X				X			BTEX	X									Call Maggie Graham with questions
SWØ2		1130	1	X				X				X									
SWØ3		1140	✓	X				X				X									
SWØ2@1		1130				X			X									X			
SWØ2@3		1140				X			X									X			
Relinquished by: [Signature] Date/Time: 8/8/19 1553				Received by: [Signature] Date/Time: 8/8/19 1553				Turn Around Time (Check) Same Day <input checked="" type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input 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>3.6</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 1908073

Client: Alex Companies, LLC Client Project ID: Hinez 36

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

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

Temp (°C)	<u>3.6</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>X</u>			
Were all samples received intact ⁽¹⁾ ?	<u>X</u>			
Was adequate sample volume provided ⁽¹⁾ ?	<u>X</u>			
If custody seals are present, are they intact ⁽¹⁾ ?			<u>X</u>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<u>X</u>			
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<u>X</u>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<u>X</u>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<u>X</u>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<u>X</u>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		<u>X</u>		
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<u>X</u>			<u>HCl</u>
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			<u>X</u>	
If dissolved metals are requested, were samples field filtered?			<u>X</u>	

Additional Comments (if any):

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

KE
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

8/8/19
Date/Time JS



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

Project: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:16

SW01
1908073-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **08/08/19 11:20**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		111 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %		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: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:16

SW02
1908073-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/08/19 11:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.1 %	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: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:16

SW03
1908073-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/08/19 11:40**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		114 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.1 %	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: Hiner 36

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:16

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1908114 - EPA 5030 Water MS

Blank (1908114-BLK1)

Prepared: 08/08/19 Analyzed: 08/09/19

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.4		"	13.3		92.6	23-173			
Surrogate: Toluene-d8	13.6		"	13.3		102	20-170			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.2	21-167			

LCS (1908114-BS1)

Prepared: 08/08/19 Analyzed: 08/09/19

Benzene	25.5	1.0	ug/l	33.3		76.4	51-132			
Toluene	27.3	1.0	"	33.3		81.9	51-138			
Ethylbenzene	24.9	1.0	"	33.3		74.8	58-146			
m,p-Xylene	47.0	2.0	"	66.7		70.4	57-144			
o-Xylene	25.4	1.0	"	33.3		76.2	53-146			
Surrogate: 1,2-Dichloroethane-d4	12.9		"	13.3		97.1	23-173			
Surrogate: Toluene-d8	15.0		"	13.3		113	20-170			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.5	21-167			

Matrix Spike (1908114-MS1)

Source: 1908073-01

Prepared: 08/08/19 Analyzed: 08/09/19

Benzene	26.7	1.0	ug/l	33.3	ND	80.1	34-141			
Toluene	29.0	1.0	"	33.3	ND	87.0	27-151			
Ethylbenzene	28.0	1.0	"	33.3	ND	84.1	29-160			
m,p-Xylene	52.2	2.0	"	66.7	ND	78.2	20-166			
o-Xylene	28.2	1.0	"	33.3	ND	84.5	33-159			
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3		102	23-173			
Surrogate: Toluene-d8	14.0		"	13.3		105	20-170			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.4	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: Hiner 36

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:16

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

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

Batch 1908114 - EPA 5030 Water MS

Matrix Spike Dup (1908114-MSD1)		Source: 1908073-01			Prepared: 08/08/19 Analyzed: 08/09/19					
Benzene	27.0	1.0	ug/l	33.3	ND	81.2	34-141	1.34	30	
Toluene	31.0	1.0	"	33.3	ND	93.1	27-151	6.80	30	
Ethylbenzene	29.5	1.0	"	33.3	ND	88.4	29-160	4.94	30	
m,p-Xylene	56.4	2.0	"	66.7	ND	84.6	20-166	7.79	30	
o-Xylene	29.7	1.0	"	33.3	ND	89.0	33-159	5.26	30	
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3		102	23-173			
Surrogate: Toluene-d8	14.1		"	13.3		106	20-170			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.8	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: Hiner 36

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:16

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

August 12, 2019

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: Hiner 36

Work Order # 1908074

Enclosed are the results of analyses for samples received by Summit Scientific on 08/08/19 15:53. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury For Ben Shrewsbury

Laboratory Manager



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

Project: Hiner 36

Project Number: [none]

Project Manager: Maggie Graham

Reported:
08/12/19 06:17

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	1908074-01	Water	08/08/19 14:35	08/08/19 15:53
BH02	1908074-02	Water	08/08/19 13:25	08/08/19 15:53
BH03	1908074-03	Water	08/08/19 13:00	08/08/19 15:53
BH04	1908074-04	Water	08/08/19 14:30	08/08/19 15:53
BH05	1908074-05	Water	08/08/19 13:48	08/08/19 15:53
BH06	1908074-06	Water	08/08/19 13:35	08/08/19 15:53
BH07	1908074-07	Water	08/08/19 13:50	08/08/19 15:53

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.

1908074

Page 1 of 1

Sampler Name: Andrew Bowser

Project Number: TBD

www.s2scientific.com

Sample Receipt Checklist

S2 Work Order 1908074

Client: Apex Companies LLC Client Project ID: Hiner 36

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

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

Temp (°C)	<u>3.6</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>X</u>			
Were all samples received intact ⁽¹⁾ ?	<u>X</u>			
Was adequate sample volume provided ⁽¹⁾ ?	<u>X</u>			
If custody seals are present, are they intact ⁽¹⁾ ?			<u>X</u>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<u>X</u>			
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<u>X</u>			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<u>X</u>			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<u>X</u>			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<u>X</u>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		<u>X</u>		
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<u>X</u>			<u>HCl</u>
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.			<u>X</u>	
If dissolved metals are requested, were samples field filtered?			<u>X</u>	

Additional Comments (if any):

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

VB
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

8/8/19
Date/Time 1554



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

Project: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

BH01
1908074-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 14:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	29	1.0		ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **08/08/19 14:35**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		113 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.5 %		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: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

BH02
1908074-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 13:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/08/19 13:25**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		111 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		104 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %	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: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

BH03
1908074-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	7.6	1.0		ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **08/08/19 13:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		107 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %		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: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

BH04
1908074-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 14:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/08/19 14:30**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		107 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		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: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

BH05
1908074-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 13:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/08/19 13:48**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		108 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		100 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %	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: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

BH06
1908074-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 13:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/08/19 13:35**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.4 %	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: Hiner 36
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

BH07
1908074-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/08/19 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	7.9	1.0	ug/l	1	1908114	08/08/19	08/09/19	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/08/19 13:50**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		110 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		98.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %	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: Hiner 36

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 1908114 - EPA 5030 Water MS

Blank (1908114-BLK1)

Prepared: 08/08/19 Analyzed: 08/09/19

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	12.4		"	13.3		92.6	23-173			
Surrogate: Toluene-d8	13.6		"	13.3		102	20-170			
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.2	21-167			

LCS (1908114-BS1)

Prepared: 08/08/19 Analyzed: 08/09/19

Benzene	25.5	1.0	ug/l	33.3		76.4	51-132			
Toluene	27.3	1.0	"	33.3		81.9	51-138			
Ethylbenzene	24.9	1.0	"	33.3		74.8	58-146			
m,p-Xylene	47.0	2.0	"	66.7		70.4	57-144			
o-Xylene	25.4	1.0	"	33.3		76.2	53-146			
Surrogate: 1,2-Dichloroethane-d4	12.9		"	13.3		97.1	23-173			
Surrogate: Toluene-d8	15.0		"	13.3		113	20-170			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.5	21-167			

Matrix Spike (1908114-MS1)

Source: 1908073-01

Prepared: 08/08/19 Analyzed: 08/09/19

Benzene	26.7	1.0	ug/l	33.3	ND	80.1	34-141			
Toluene	29.0	1.0	"	33.3	ND	87.0	27-151			
Ethylbenzene	28.0	1.0	"	33.3	ND	84.1	29-160			
m,p-Xylene	52.2	2.0	"	66.7	ND	78.2	20-166			
o-Xylene	28.2	1.0	"	33.3	ND	84.5	33-159			
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3		102	23-173			
Surrogate: Toluene-d8	14.0		"	13.3		105	20-170			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.4	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: Hiner 36

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

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

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

Batch 1908114 - EPA 5030 Water MS

Matrix Spike Dup (1908114-MSD1)		Source: 1908073-01			Prepared: 08/08/19 Analyzed: 08/09/19					
Benzene	27.0	1.0	ug/l	33.3	ND	81.2	34-141	1.34	30	
Toluene	31.0	1.0	"	33.3	ND	93.1	27-151	6.80	30	
Ethylbenzene	29.5	1.0	"	33.3	ND	88.4	29-160	4.94	30	
m,p-Xylene	56.4	2.0	"	66.7	ND	84.6	20-166	7.79	30	
o-Xylene	29.7	1.0	"	33.3	ND	89.0	33-159	5.26	30	
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3		102	23-173			
Surrogate: Toluene-d8	14.1		"	13.3		106	20-170			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		95.8	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: Hiner 36

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/12/19 06:17

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