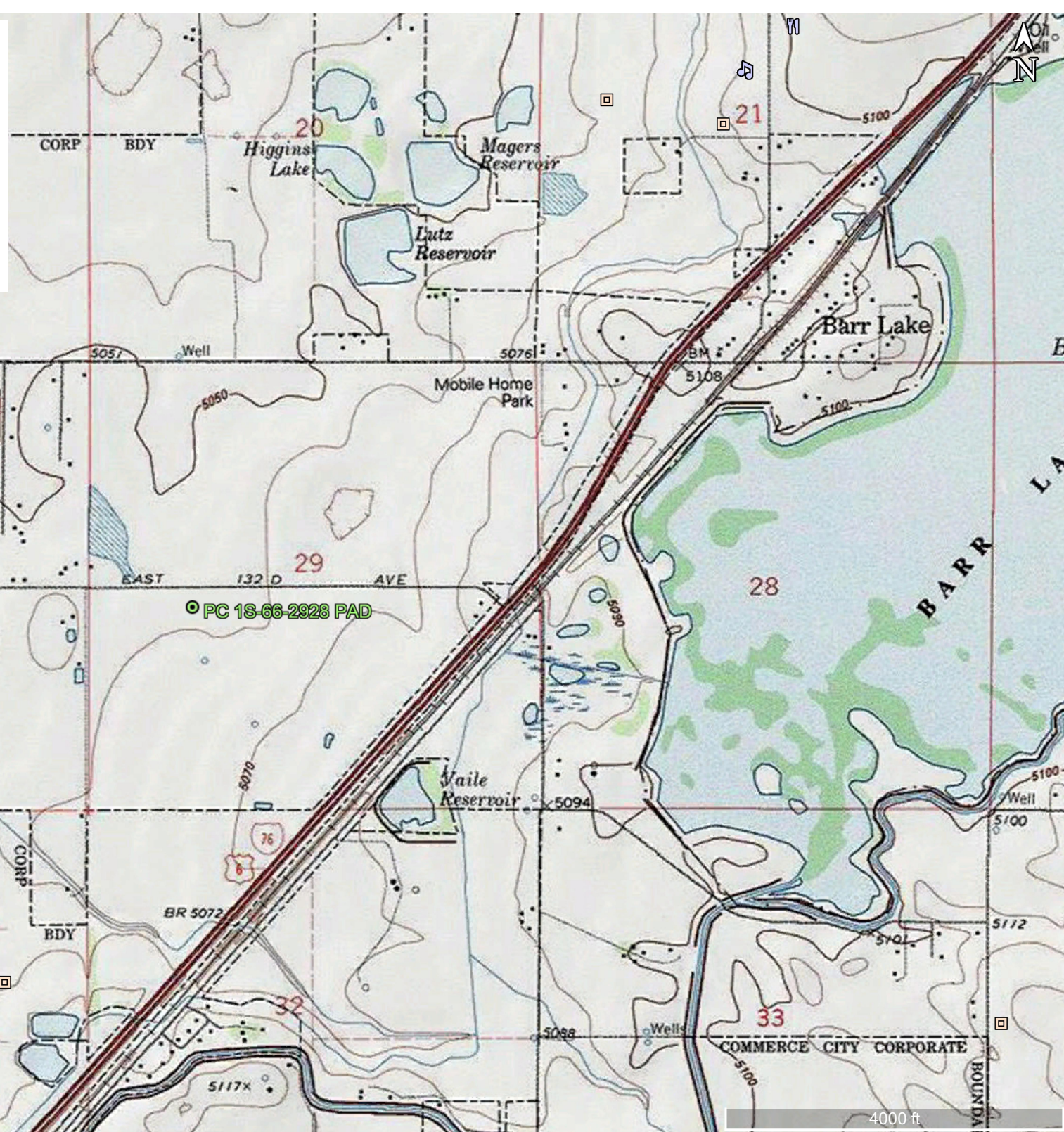




Topographic Location Map
PC 1S-66-2928 PAD
"PC 5"

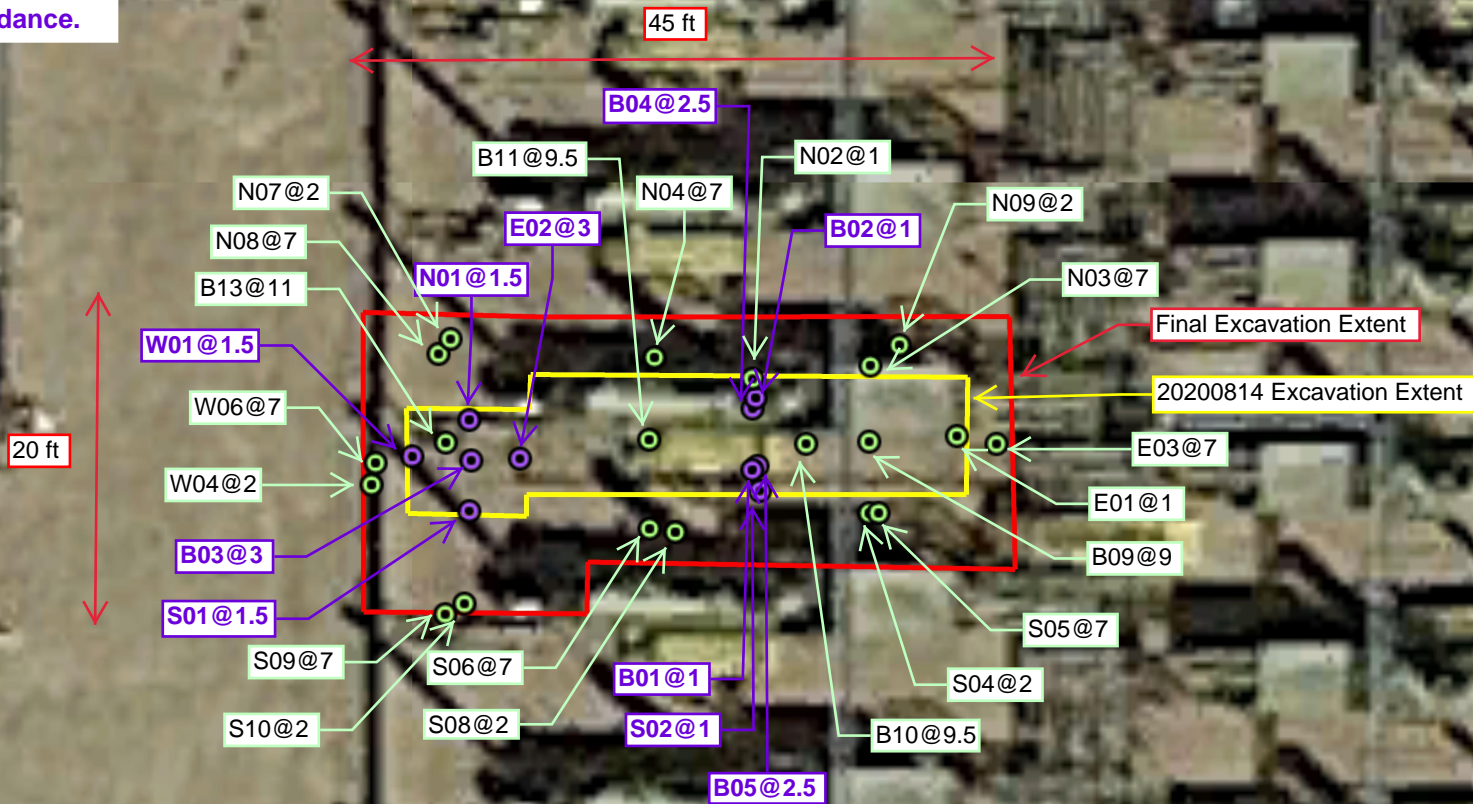


PC 1S-66-2928 PAD



PC 1S-66-2928 PAD
(Location ID: 450043)
"PC 5"

Purple font indicates COGCC
Table 910-1 exceedance.





Laboratory Results Summary Table - Soil PC 5

			Organics (mg/kg [ppm])					Inorganics		
COGCC Allowable Concentration (Soil) -->			500	0.17	85	100	175	4	12	(6-9)
Location	Sample Date	Sample ID	TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes - total (mg/kg)	EC (Specific Conductance) (<4 mmhos/cm or 2x background) (mmhos/cm)	SAR (Sodium Adsorption Ratio) (calculation)	pH (pH Units)
PC 5	8/14/2020	B01@1	20700	82	330	82	390	NA	NA	NA
PC 5	8/14/2020	B02@1	17500	38	250	68	330	NA	NA	NA
PC 5	8/14/2020	S01@1.5	20000	44	180	47	230	NA	NA	NA
PC 5	8/14/2020	W01@1.5	9400	7.9	67	14	67	NA	NA	NA
PC 5	8/14/2020	N01@1.5	16300	25	160	41	200	NA	NA	NA
PC 5	8/14/2020	B03@3	19300	50	230	58	280	0.388	0.292	8.67
PC 5	8/21/2020	B04@2.5	9800	3.6	39	18	79	NA	NA	NA
PC 5	8/21/2020	N02@1	0.93	0.025	0.029	<0.0050	0.022	NA	NA	NA
PC 5	8/21/2020	E01@1	170.53	0.029	0.041	0.0074	0.027	NA	NA	NA
PC 5	8/21/2020	S02@1	7000	0.64	6.1	5.5	30	NA	NA	NA
PC 5	8/21/2020	B05@2.5	4100	0.80	5.9	3.6	16	NA	NA	NA
PC 5	8/21/2020	E02@3	9400	15	80	32	130	NA	NA	NA
PC 5	9/1/2020	B09@9	1.9	0.066	0.062	0.26	0.089	NA	NA	NA
PC 5	9/1/2020	S04@2	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/4/2020	N03@7	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/4/2020	B10@9.5	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/4/2020	S05@7	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/4/2020	E03@7	57	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/8/2020	B11@9.5	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA

Orange Highlight - Exceedance

Yellow Highlight - TPH Detection

Grey Highlight - Below Detection Limit

NA - Not Analyzed

mg/kg - milligrams per kilogram

mmhos/cm - millimhos per centimeter



Laboratory Results Summary Table - Soil PC 5

			Organics (mg/kg [ppm])					Inorganics		
COGCC Allowable Concentration (Soil) -->			500	0.17	85	100	175	4	12	(6-9)
Location	Sample Date	Sample ID	TPH (total volatile and extractable petroleum hydrocarbons) (TPH-GRO + TPH-DRO) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes - total (mg/kg)	EC (Specific Conductance) (<4 mmhos/cm or 2x background) (mmhos/cm)	SAR (Sodium Adsorption Ratio) (calculation)	pH (pH Units)
PC 5	9/8/2020	N04@7	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/8/2020	S06@7	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/9/2020	B13@11	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/9/2020	N07@2	69	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/9/2020	S08@2	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/9/2020	W04@2	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/9/2020	N08@7	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/9/2020	S09@7	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/9/2020	W06@7	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/9/2020	N09@2	<50	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA
PC 5	9/9/2020	S10@2	1.3	<0.0020	<0.0050	<0.0050	<0.010	NA	NA	NA

Attachment A

Laboratory Analytical Report

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 17, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: PC 5

Work Order # 2008114

Enclosed are the results of analyses for samples received by Summit Scientific on 08/14/20 11:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury

President



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

Project: PC 5

Project Number: 744.2001.01-450043

Project Manager: Maggie Graham

Reported:
08/17/20 08:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B01@1	2008114-01	Soil	08/14/20 10:03	08/14/20 11:30
B02@1	2008114-02	Soil	08/14/20 10:04	08/14/20 11:30
S01@1.5	2008114-03	Soil	08/14/20 10:06	08/14/20 11:30
W01@1.5	2008114-04	Soil	08/14/20 10:07	08/14/20 11:30
N01@1.5	2008114-05	Soil	08/14/20 10:08	08/14/20 11:30
B03@3	2008114-06	Soil	08/14/20 10:10	08/14/20 11:30

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

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

2008184

Page

1 of 1

Client: APEX Companies, LLC

Address: 1746 Cole Blvd. Suite 250

City/State/Zip: Lakewood, Colorado 80101

Phone: 720-501-5065

Sampler Name: Sage Maher

Project Manager: Maggie Graham 720-501-5065; 907-538-7699c MaggieGraham@ApexCos.com

E-Mail: DenverRemediation@ApexCos.com

Project Name: PC 5

Project Number: 744.2001.01 - 450043

jeanlisu@Extraction01.com

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	PH	EC	SAR	same day	24-hr		
B01@1	8/14/20	1003	1			X			X				X	X					X	Call Maggie Graham with questions B03 on same day TAT all other samples on 24-hr turn *
B02@1		1004											X	X				X		
S01@1.5		1005											X	X				X		
N01@1.5		1007											X	X				X		
N01@1.5		1008											X	X				X		
B03@3		1010											X	X	X	X	X	X		
Relinquished by: <i>[Signature]</i>	Date/Time: 8/14/20 11:30	Received by: <i>Bill Gonzales</i>	Date/Time: 8-14-20 11:30	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 type="checkbox"/>				COGCC/CDPHE												
				48 Hours <input type="checkbox"/>																
Relinquished by:				Date/Time:				Received in Lab by:				Date/Time:								
								Sample Integrity:				Client Name:								
								Temperature Upon Receipt: 19.5°C												
								Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				XDV								

Sample Receipt Checklist

S2 Work Order 2008114

Client: Apex Co. LLC Client Project ID: PC 5

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

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

Temp (°C)	19.5 °C
-----------	---------

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

Additional Comments (if any):

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

BG
Custodian Printed Name or Initials

Bill Gonzales
Signature of Custodian

8-14-20 11:30 am
Date/Time



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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

B01@1
2008114-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	82	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	E
Toluene	330	0.50	"	"	"	"	"	"	E
Ethylbenzene	82	0.50	"	"	"	"	"	"	E
Xylenes (total)	390	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	6700	50	"	"	"	"	"	"	E

Date Sampled: **08/14/20 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		78.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		121 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		314 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	14000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		508 %	30-150		"	"	"	"	S-02

Summit Scientific

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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

B02@1
2008114-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	38	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	250	0.50	"	"	"	"	"	"	E
Ethylbenzene	68	0.50	"	"	"	"	"	"	E
Xylenes (total)	330	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	6500	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		117 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		121 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		310 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	11000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:04**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		308 %	30-150		"	"	"	"	S-02

Summit Scientific

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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

S01@1.5
2008114-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	44	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	180	0.50	"	"	"	"	"	"	E
Ethylbenzene	47	0.50	"	"	"	"	"	"	
Xylenes (total)	230	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	6000	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		210 %	23-173		"	"	"	"	S-02
<i>Surrogate: Toluene-d8</i>		123 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		259 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	14000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:06**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		416 %	30-150		"	"	"	"	S-02

Summit Scientific

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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

W01@1.5
2008114-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	7.9	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	67	0.50	"	"	"	"	"	"	E
Ethylbenzene	14	0.50	"	"	"	"	"	"	
Xylenes (total)	67	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2700	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		107 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		151 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		169 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	6700	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		178 %	30-150		"	"	"	"	S-02

Summit Scientific

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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

N01@1.5
2008114-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	25	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	160	0.50	"	"	"	"	"	"	E
Ethylbenzene	41	0.50	"	"	"	"	"	"	
Xylenes (total)	200	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	5300	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		156 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		124 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		258 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	11000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		186 %	30-150		"	"	"	"	S-02

Summit Scientific

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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

B03@3
2008114-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	50	0.20	mg/kg	100	2008152	08/14/20	08/14/20	EPA 8260B	
Toluene	230	0.50	"	"	"	"	"	"	E
Ethylbenzene	58	0.50	"	"	"	"	"	"	
Xylenes (total)	280	1.0	"	"	"	"	"	"	E
Gasoline Range Hydrocarbons	6300	50	"	"	"	"	"	"	

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		245 %	23-173		"	"	"	"	S-02
Surrogate: Toluene-d8		116 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		259 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	13000	50	mg/kg	1	2008153	08/14/20	08/14/20	EPA 8015M	

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: o-Terphenyl		245 %	30-150		"	"	"	"	S-02

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

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	9780	11.6	mg/kg dry	1	2008151	08/14/20	08/14/20	EPA 6020B	
Magnesium	704	5.78	"	"	"	"	"	"	
Sodium	111	5.78	"	"	"	"	"	"	

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: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

B03@3
2008114-06 (Soil)

Summit Scientific

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

Calculated Analysis

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Sodium Adsorption Ratio	0.292	0.100	units	1	2008157	08/17/20	08/17/20	Calculation	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
% Solids	86.5		%	1	2008140	08/14/20	08/17/20	Calculation	
pH	8.67		pH Units	"	2008141	"	08/14/20	EPA 9045D	

Specific Conductance by EPA Method 120.1

Date Sampled: **08/14/20 10:10**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Conductance (EC)	0.388	0.0100	mmhos/cm	1	2008142	"	08/14/20	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: PC 5

Project Number: 744.2001.01-450043

Project Manager: Maggie Graham

Reported:
08/17/20 08:55

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 2008152 - EPA 5030 Soil MS

Blank (2008152-BLK1)

Prepared & Analyzed: 08/14/20

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	0.0184		"	0.0400		46.0	23-173			
Surrogate: Toluene-d8	0.0434		"	0.0400		109	20-170			
Surrogate: 4-Bromofluorobenzene	0.0445		"	0.0400		111	21-167			

LCS (2008152-BS1)

Prepared & Analyzed: 08/14/20

Benzene	0.0845	0.0020	mg/kg	0.100		84.5	70-130			
Toluene	0.111	0.0050	"	0.100		111	70-130			
Ethylbenzene	0.0939	0.0050	"	0.100		93.9	70-130			
m,p-Xylene	0.192	0.010	"	0.200		95.9	70-130			
o-Xylene	0.0976	0.0050	"	0.100		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0176		"	0.0400		43.9	23-173			
Surrogate: Toluene-d8	0.0461		"	0.0400		115	20-170			
Surrogate: 4-Bromofluorobenzene	0.0448		"	0.0400		112	21-167			

Matrix Spike (2008152-MS1)

Source: 2007270-02

Prepared & Analyzed: 08/14/20

Benzene	0.0860	0.0020	mg/kg	0.100	ND	86.0	70-130			
Toluene	0.119	0.0050	"	0.100	ND	119	70-130			
Ethylbenzene	0.0928	0.0050	"	0.100	ND	92.8	70-130			
m,p-Xylene	0.182	0.010	"	0.200	ND	90.9	70-130			
o-Xylene	0.0962	0.0050	"	0.100	ND	96.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0169		"	0.0400		42.3	23-173			
Surrogate: Toluene-d8	0.0473		"	0.0400		118	20-170			
Surrogate: 4-Bromofluorobenzene	0.0458		"	0.0400		115	21-167			

Summit Scientific

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

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

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 2008152 - EPA 5030 Soil MS

Matrix Spike Dup (2008152-MSD1)		Source: 2007270-02			Prepared & Analyzed: 08/14/20					
Benzene	0.0893	0.0020	mg/kg	0.100	ND	89.3	70-130	3.83	30	
Toluene	0.108	0.0050	"	0.100	ND	108	70-130	9.81	30	
Ethylbenzene	0.0819	0.0050	"	0.100	ND	81.9	70-130	12.5	30	
m,p-Xylene	0.168	0.010	"	0.200	ND	84.0	70-130	7.85	30	
o-Xylene	0.0882	0.0050	"	0.100	ND	88.2	70-130	8.65	30	
Surrogate: 1,2-Dichloroethane-d4	0.0196		"	0.0400		49.0	23-173			
Surrogate: Toluene-d8	0.0454		"	0.0400		114	20-170			
Surrogate: 4-Bromofluorobenzene	0.0471		"	0.0400		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: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

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 2008153 - EPA 3550A

Blank (2008153-BLK1)

Prepared & Analyzed: 08/14/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2008153-BS1)

Prepared & Analyzed: 08/14/20

C10-C28 (DRO) 471 50 mg/kg 500 94.1 70-130

Matrix Spike (2008153-MS1)

Source: 2007270-02

Prepared & Analyzed: 08/14/20

C10-C28 (DRO) 496 50 mg/kg 500 34.8 92.2 70-130

Matrix Spike Dup (2008153-MSD1)

Source: 2007270-02

Prepared & Analyzed: 08/14/20

C10-C28 (DRO) 484 50 mg/kg 500 34.8 89.8 70-130 2.43 20

Summit Scientific

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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

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 2008151 - General Preparation

Blank (2008151-BLK1)

Prepared & Analyzed: 08/14/20

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

LCS (2008151-BS1)

Prepared & Analyzed: 08/14/20

Calcium	546	10.0	mg/kg wet	500	109	70-130
Magnesium	626	5.00	"	500	125	70-130
Sodium	561	5.00	"	500	112	70-130

Duplicate (2008151-DUP1)

Source: 2008114-06

Prepared & Analyzed: 08/14/20

Calcium	8830	11.6	mg/kg dry	9780	10.3	20
Magnesium	658	5.78	"	704	6.80	20
Sodium	93.8	5.78	"	111	16.5	20

Matrix Spike (2008151-MS1)

Source: 2008114-06

Prepared & Analyzed: 08/14/20

Calcium	10400	11.6	mg/kg dry	578	9780	115	70-130
Magnesium	1150	5.78	"	578	704	76.4	70-130
Sodium	662	5.78	"	578	111	95.4	70-130

Matrix Spike Dup (2008151-MSD1)

Source: 2008114-06

Prepared & Analyzed: 08/14/20

Calcium	10500	11.6	mg/kg dry	578	9780	117	70-130	0.151	25
Magnesium	1160	5.78	"	578	704	78.5	70-130	1.05	25
Sodium	659	5.78	"	578	111	94.8	70-130	0.479	25

Summit Scientific

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

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

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

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

Batch 2008140 - General Preparation

Duplicate (2008140-DUP1)		Source: 2008094-01			Prepared & Analyzed: 08/14/20					
% Solids	82.7		%		82.9			0.240	20	

Batch 2008141 - General Preparation

LCS (2008141-BS1)		Prepared & Analyzed: 08/14/20								
pH	9.11		pH Units	9.18		99.2	95-105			
Duplicate (2008141-DUP1)		Source: 2008094-01			Prepared & Analyzed: 08/14/20					
pH	8.07		pH Units		8.06			0.124	20	

Summit Scientific

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

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

Specific Conductance by EPA Method 120.1 - Quality Control
Summit Scientific

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

Batch 2008142 - General Preparation

Blank (2008142-BLK1)

Prepared & Analyzed: 08/14/20

Specific Conductance (EC) ND 0.0100 mmhos/cm

LCS (2008142-BS1)

Prepared & Analyzed: 08/14/20

Specific Conductance (EC) 0.791 0.0100 mmhos/cm 0.750 105 90-110

Duplicate (2008142-DUP1)

Source: 2008094-01

Prepared & Analyzed: 08/14/20

Specific Conductance (EC) 4.33 0.0100 mmhos/cm 4.31 0.370 20

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

Project: PC 5

Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
08/17/20 08:55

Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.
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 23, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: PC 5

Work Order # 2008201

Enclosed are the results of analyses for samples received by Summit Scientific on 08/21/20 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury

President



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

Project: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B04@2.5	2008201-01	Soil	08/21/20 09:03	08/21/20 15:00
N02@1	2008201-02	Soil	08/21/20 09:04	08/21/20 15:00
E01@1	2008201-03	Soil	08/21/20 09:05	08/21/20 15:00
S02@1	2008201-04	Soil	08/21/20 09:07	08/21/20 15:00
B05@2.5	2008201-05	Soil	08/21/20 09:08	08/21/20 15:00
E02@3	2008201-10	Soil	08/21/20 09:15	08/21/20 15:00

Summit Scientific

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2008201

Page

Sampler Name: Sage Maher

Project Number: 14-000001-041508 TBD

www.s2scientific.com

Sample Receipt Checklist

S2 Work Order 2008201

Client: Apex/XOG

Client Project ID: PC 5

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

☒ ☐ ☐ ☐ ☐

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

Temp (°C)	11.7
-----------	------

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"/>	<input type="checkbox"/>	<input type="checkbox"/>	On ice
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Same Day TAT
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 type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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

Signature of Custodian

8/21/20

Date/Time



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

Project: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

B04@2.5
2008201-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/21/20 09:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	3.6	0.20	mg/kg	100	2008230	08/21/20	08/21/20	EPA 8260B	
Toluene	39	0.50	"	"	"	"	"	"	
Ethylbenzene	18	0.50	"	"	"	"	"	"	
Xylenes (total)	79	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	2800	50	"	"	"	"	"	"	

Date Sampled: **08/21/20 09:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		106 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		153 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/21/20 09:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	7000	50	mg/kg	1	2008233	"	08/21/20	EPA 8015M	

Date Sampled: **08/21/20 09:03**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		199 %	30-150		"	"	"	"	S-02

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

N02@1
2008201-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/21/20 09:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	0.025	0.0020	mg/kg	1	2008230	08/21/20	08/21/20	EPA 8260B	
Toluene	0.029	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.022	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	0.93	0.50	"	"	"	"	"	"	

Date Sampled: **08/21/20 09:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		100 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		99.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/21/20 09:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2008233	"	08/21/20	EPA 8015M	

Date Sampled: **08/21/20 09:04**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		115 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

E01@1
2008201-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/21/20 09:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	0.029	0.0020	mg/kg	1	2008230	08/21/20	08/21/20	EPA 8260B	
Toluene	0.041	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.0074	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.027	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	0.53	0.50	"	"	"	"	"	"	

Date Sampled: **08/21/20 09:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
<i>Surrogate: 1,2-Dichloroethane-d4</i>		104 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/21/20 09:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	170	50	mg/kg	1	2008233	"	08/21/20	EPA 8015M	

Date Sampled: **08/21/20 09:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
<i>Surrogate: o-Terphenyl</i>		112 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

S02@1
2008201-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/21/20 09:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	0.64	0.20	mg/kg	100	2008230	08/21/20	08/21/20	EPA 8260B	
Toluene	6.1	0.50	"	"	"	"	"	"	
Ethylbenzene	5.5	0.50	"	"	"	"	"	"	
Xylenes (total)	30	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1600	50	"	"	"	"	"	"	

Date Sampled: **08/21/20 09:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		101 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		100 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		129 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/21/20 09:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	5400	50	mg/kg	1	2008233	"	08/21/20	EPA 8015M	

Date Sampled: **08/21/20 09:07**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		182 %	30-150		"	"	"	"	S-02

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

B05@2.5
2008201-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/21/20 09:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	0.80	0.20	mg/kg	100	2008230	08/21/20	08/21/20	EPA 8260B	
Toluene	5.9	0.50	"	"	"	"	"	"	
Ethylbenzene	3.6	0.50	"	"	"	"	"	"	
Xylenes (total)	16	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	800	50	"	"	"	"	"	"	

Date Sampled: **08/21/20 09:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		98.1 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		104 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		114 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/21/20 09:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	3300	50	mg/kg	1	2008233	"	08/21/20	EPA 8015M	

Date Sampled: **08/21/20 09:08**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		144 %	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: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

E02@3
2008201-10 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/21/20 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	15	0.20	mg/kg	100	2008230	08/21/20	08/21/20	EPA 8260B	
Toluene	80	0.50	"	"	"	"	"	"	
Ethylbenzene	32	0.50	"	"	"	"	"	"	
Xylenes (total)	130	1.0	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	4900	50	"	"	"	"	"	"	

Date Sampled: **08/21/20 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	23-173		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		102 %	20-170		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		169 %	21-167		"	"	"	"	S-02

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **08/21/20 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	4500	50	mg/kg	1	2008233	"	08/21/20	EPA 8015M	

Date Sampled: **08/21/20 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
<i>Surrogate: o-Terphenyl</i>		172 %	30-150		"	"	"	"	S-02

Summit Scientific

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

Project: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 2008230 - EPA 5030 Soil MS

Blank (2008230-BLK1)

Prepared & Analyzed: 08/21/20

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	0.0409		"	0.0400		102	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.8	20-170			
Surrogate: 4-Bromofluorobenzene	0.0400		"	0.0400		100	21-167			

LCS (2008230-BS1)

Prepared & Analyzed: 08/21/20

Benzene	0.123	0.0020	mg/kg	0.150		81.9	70-130			
Toluene	0.127	0.0050	"	0.150		84.9	70-130			
Ethylbenzene	0.140	0.0050	"	0.150		93.5	70-130			
m,p-Xylene	0.267	0.010	"	0.300		89.1	70-130			
o-Xylene	0.135	0.0050	"	0.150		89.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0400		"	0.0400		99.9	23-173			
Surrogate: Toluene-d8	0.0399		"	0.0400		99.7	20-170			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.4	21-167			

Matrix Spike (2008230-MS1)

Source: 2008173-01

Prepared & Analyzed: 08/21/20

Benzene	0.124	0.0020	mg/kg	0.150	ND	82.8	70-130			
Toluene	0.130	0.0050	"	0.150	ND	86.9	70-130			
Ethylbenzene	0.140	0.0050	"	0.150	ND	93.6	70-130			
m,p-Xylene	0.272	0.010	"	0.300	ND	90.7	70-130			
o-Xylene	0.133	0.0050	"	0.150	ND	88.7	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0412		"	0.0400		103	23-173			
Surrogate: Toluene-d8	0.0400		"	0.0400		100	20-170			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.4	21-167			

Summit Scientific

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

Project: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

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 2008230 - EPA 5030 Soil MS

Matrix Spike Dup (2008230-MSD1)		Source: 2008173-01			Prepared & Analyzed: 08/21/20					
Benzene	0.130	0.0020	mg/kg	0.150	ND	87.0	70-130	4.97	30	
Toluene	0.137	0.0050	"	0.150	ND	91.3	70-130	5.01	30	
Ethylbenzene	0.148	0.0050	"	0.150	ND	98.7	70-130	5.29	30	
m,p-Xylene	0.287	0.010	"	0.300	ND	95.6	70-130	5.27	30	
o-Xylene	0.141	0.0050	"	0.150	ND	93.7	70-130	5.57	30	
Surrogate: 1,2-Dichloroethane-d4	0.0402		"	0.0400		100	23-173			
Surrogate: Toluene-d8	0.0403		"	0.0400		101	20-170			
Surrogate: 4-Bromofluorobenzene	0.0388		"	0.0400		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: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

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 2008233 - EPA 3550A

Blank (2008233-BLK1)

Prepared & Analyzed: 08/21/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2008233-BS1)

Prepared & Analyzed: 08/21/20

C10-C28 (DRO) 483 50 mg/kg 500 96.7 70-130

Matrix Spike (2008233-MS1)

Source: 2008186-01

Prepared & Analyzed: 08/21/20

C10-C28 (DRO) 481 50 mg/kg 500 24.4 91.3 70-130

Matrix Spike Dup (2008233-MSD1)

Source: 2008186-01

Prepared & Analyzed: 08/21/20

C10-C28 (DRO) 547 50 mg/kg 500 24.4 105 70-130 13.0 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: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
08/23/20 22:56

Notes and Definitions

S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
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

September 04, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: PC 5

Work Order #2009016

Enclosed are the results of analyses for samples received by Summit Scientific on 09/01/20 17:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Paul Shrewsbury

President



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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
09/04/20 09:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B09@9	2009016-01	Soil	09/01/20 14:59	09/01/20 17:20
S04@2	2009016-02	Soil	09/01/20 15:10	09/01/20 17:20

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.

2009016

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

Page

of

Client: APEX Companies, LLC

Address: 1746 Cole Blvd. Suite 250

City/State/Zip: Lakewood, Colorado 80101

Phone: 720-501-5065

Sampler Name: Sage Maher

Project Manager: Maggie Graham 720-501-5065; 907-538-7699c MaggieGraham@ApexCos.com

E-Mail: DenverRemediation@ApexCos.com

Project Name: PC 5

Project Number: 744.2001.01-450043

				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 Call Maggie Graham with questions	
B0709	9/1/20	1459	1			X			X			TPH								
S0402	9/1/20	1500	1			X			X			XX	XX							
Relinquished by: <i>[Signature]</i> Date/Time: 9/1/20 1720				Received by: <i>[Signature]</i> Date/Time: 9-1-2008 1720				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"/>											Notes Circle applicable regulatory agency: <u>COGCC / CDPHE</u> Client Name: <u>XDV</u>	
Relinquished by: _____ Date/Time: _____				Received by: _____ Date/Time: _____				Sample Integrity: Temperature Upon Receipt: 14.6° Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>												
Relinquished by: _____ Date/Time: _____				Received in Lab by: _____ Date/Time: _____																

2009016

Sample Receipt Checklist

S2 Work Order _____

Client: Apex/KOG Client Project ID: PC5Shipped Via H.D. P.U./FedEx/UPS/USPS/Other _____ Airbill #: _____Matrix (check all that apply): _____ Air _____ ✓ Soil/Solid _____ Water _____ Other: _____
(Describe)

Temp (°C)	14.6
-----------	------

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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	on ice
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	48hr
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 type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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.

Custodian Printed Name or Initials

Signature of Custodian

Date/Time

AT



9.1.2020



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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
09/04/20 09:02

B09@9
2009016-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/01/20 14:59**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	0.066	0.0020	mg/kg	1	2009005	09/02/20	09/03/20	EPA 8260B	
Toluene	0.062	0.0050	"	"	"	"	"	"	
Ethylbenzene	0.026	0.0050	"	"	"	"	"	"	
Xylenes (total)	0.089	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.9	0.50	"	"	"	"	"	"	

Date Sampled: **09/01/20 14:59**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		115 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/01/20 14:59**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2009006	"	09/03/20	EPA 8015M	

Date Sampled: **09/01/20 14:59**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		122 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
09/04/20 09:02

S04@2
2009016-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/01/20 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009005	09/02/20	09/03/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/01/20 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		121 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		84.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.0 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/01/20 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009006	"	09/03/20	EPA 8015M	

Date Sampled: **09/01/20 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		115 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
09/04/20 09:02

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 2009005 - EPA 5030 Soil MS

Blank (2009005-BLK1)

Prepared & Analyzed: 09/02/20

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	0.0686		"	0.0400		172	23-173			
Surrogate: Toluene-d8	0.0356		"	0.0400		89.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0373		"	0.0400		93.2	21-167			

LCS (2009005-BS1)

Prepared & Analyzed: 09/02/20

Benzene	0.0741	0.0020	mg/kg	0.0750		98.8	70-130			
Toluene	0.0609	0.0050	"	0.0750		81.2	70-130			
Ethylbenzene	0.0872	0.0050	"	0.0750		116	70-130			
m,p-Xylene	0.162	0.010	"	0.150		108	70-130			
o-Xylene	0.0788	0.0050	"	0.0750		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0542		"	0.0400		136	23-173			
Surrogate: Toluene-d8	0.0341		"	0.0400		85.3	20-170			
Surrogate: 4-Bromofluorobenzene	0.0350		"	0.0400		87.4	21-167			

Matrix Spike (2009005-MS1)

Source: 2008290-04

Prepared & Analyzed: 09/02/20

Benzene	0.0654	0.0020	mg/kg	0.0750	ND	87.2	70-130			
Toluene	0.0819	0.0050	"	0.0750	ND	109	70-130			
Ethylbenzene	0.0735	0.0050	"	0.0750	ND	98.0	70-130			
m,p-Xylene	0.137	0.010	"	0.150	0.00486	88.2	70-130			
o-Xylene	0.0687	0.0050	"	0.0750	ND	91.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0578		"	0.0400		144	23-173			
Surrogate: Toluene-d8	0.0334		"	0.0400		83.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0333		"	0.0400		83.2	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: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
09/04/20 09:02

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 2009005 - EPA 5030 Soil MS

Matrix Spike Dup (2009005-MSD1)		Source: 2008290-04			Prepared & Analyzed: 09/02/20					
Benzene	0.0758	0.0020	mg/kg	0.0750	ND	101	70-130	14.8	30	
Toluene	0.0783	0.0050	"	0.0750	ND	104	70-130	4.46	30	
Ethylbenzene	0.0866	0.0050	"	0.0750	ND	115	70-130	16.4	30	
m,p-Xylene	0.161	0.010	"	0.150	0.00486	104	70-130	15.9	30	
o-Xylene	0.0796	0.0050	"	0.0750	ND	106	70-130	14.7	30	
Surrogate: 1,2-Dichloroethane-d4	0.0596		"	0.0400		149	23-173			
Surrogate: Toluene-d8	0.0329		"	0.0400		82.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0348		"	0.0400		86.9	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: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
09/04/20 09:02

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 2009006 - EPA 3550A

Blank (2009006-BLK1)

Prepared & Analyzed: 09/02/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2009006-BS1)

Prepared & Analyzed: 09/02/20

C10-C28 (DRO) 541 50 mg/kg 500 108 70-130

Matrix Spike (2009006-MS1)

Source: 2008301-01

Prepared & Analyzed: 09/02/20

C10-C28 (DRO) 559 50 mg/kg 500 ND 112 70-130

Matrix Spike Dup (2009006-MSD1)

Source: 2008301-01

Prepared & Analyzed: 09/02/20

C10-C28 (DRO) 519 50 mg/kg 500 ND 104 70-130 7.50 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: PC 5
Project Number: 744.2001.01-450043
Project Manager: Maggie Graham

Reported:
09/04/20 09:02

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

September 14, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: PC 5

Work Order #2009056

Enclosed are the results of analyses for samples received by Summit Scientific on 09/04/20 14:40. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premier", is displayed on a light purple rectangular background.

Muri Premier For Paul Shrewsbury
President



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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B10@9.5	2009056-01	Soil	09/04/20 12:35	09/04/20 14:40
N03@7	2009056-02	Soil	09/04/20 13:00	09/04/20 14:40
S05@7	2009056-03	Soil	09/04/20 13:05	09/04/20 14:40
E03@7	2009056-04	Soil	09/04/20 13:15	09/04/20 14:40

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.

Summit Scientific

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

2009055

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

E-Mail: DenverRemediation@ApexCos.onmicrosoft.com

Project Name: PC 5

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						Standard	RUSH	
B1009.5	9/4/20	1235	1			X			X			X	X					X		Call Maggie Graham with questions	
N0307	↓	1300	↓			X			X			↓	↓				X	X			
S0507	↓	1305	↓			X			X			↓	↓				X				
E0307	↓	1315	↓			X			X			↓	↓				X				
Relinquished by: <u>[Signature]</u> Date/Time: <u>9/4/20 14:45</u>				Received by: <u>[Signature]</u> Date/Time: <u>9/4/20 14:40</u>				Turn Around Time (Check)												Notes	
Relinquished by: <u> </u> Date/Time: <u> </u>				Received by: <u> </u> Date/Time: <u> </u>				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"/>												Circle applicable regulatory agency: <u>COGCC/CDPHE</u>	
Relinquished by: <u> </u> Date/Time: <u> </u>				Received in Lab by: <u> </u> Date/Time: <u> </u>				Sample Integrity: Temperature Upon Receipt: <u>14.4</u> Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>												Client Name: <u>XOG</u>	

Sample Receipt Checklist

S2 Work Order 2009056

Client: Apex Client Project ID: PC 5

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>18.4</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⁾ ?	✓			On ice
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⁾ ?	✓			
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?	✓			24 hr
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.

mc
Custodian Printed Name or Initials

mc
Signature of Custodian

9/4/20
Date/Time



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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

B10@9.5
2009056-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/04/20 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/10/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/04/20 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		129 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.2 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/04/20 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/11/20	EPA 8015M	

Date Sampled: **09/04/20 12:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
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: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

N03@7
2009056-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/04/20 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009052	09/04/20	09/04/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/04/20 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		121 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		113 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/04/20 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009053	09/04/20	09/05/20	EPA 8015M	

Date Sampled: **09/04/20 13:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		124 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

S05@7
2009056-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/04/20 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/04/20 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		137 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		86.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/04/20 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/11/20	EPA 8015M	

Date Sampled: **09/04/20 13:05**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		123 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

E03@7
2009056-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/04/20 13:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/04/20 13:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		152 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/04/20 13:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	57	50	mg/kg	1	2009126	09/10/20	09/11/20	EPA 8015M	

Date Sampled: **09/04/20 13:15**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		115 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

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 2009052 - EPA 5030 Soil MS

Blank (2009052-BLK1)

Prepared & Analyzed: 09/04/20

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	0.0472		"	0.0400		118	23-173			
Surrogate: Toluene-d8	0.0448		"	0.0400		112	20-170			
Surrogate: 4-Bromofluorobenzene	0.0393		"	0.0400		98.2	21-167			

LCS (2009052-BS1)

Prepared & Analyzed: 09/04/20

Benzene	0.0863	0.0020	mg/kg	0.100		86.3	70-130			
Toluene	0.101	0.0050	"	0.100		101	70-130			
Ethylbenzene	0.112	0.0050	"	0.100		112	70-130			
m,p-Xylene	0.220	0.010	"	0.200		110	70-130			
o-Xylene	0.105	0.0050	"	0.100		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0470		"	0.0400		118	23-173			
Surrogate: Toluene-d8	0.0443		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0394		"	0.0400		98.5	21-167			

Matrix Spike (2009052-MS1)

Source: 2009057-01

Prepared & Analyzed: 09/04/20

Benzene	0.0892	0.0020	mg/kg	0.100	ND	89.2	70-130			
Toluene	0.102	0.0050	"	0.100	0.00330	98.6	70-130			
Ethylbenzene	0.114	0.0050	"	0.100	ND	114	70-130			
m,p-Xylene	0.224	0.010	"	0.200	0.00516	109	70-130			
o-Xylene	0.110	0.0050	"	0.100	ND	110	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0483		"	0.0400		121	23-173			
Surrogate: Toluene-d8	0.0441		"	0.0400		110	20-170			
Surrogate: 4-Bromofluorobenzene	0.0391		"	0.0400		97.6	21-167			

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

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 2009052 - EPA 5030 Soil MS

Matrix Spike Dup (2009052-MSD1)

Source: 2009057-01

Prepared & Analyzed: 09/04/20

Benzene	0.0860	0.0020	mg/kg	0.100	ND	86.0	70-130	3.63	30	
Toluene	0.102	0.0050	"	0.100	0.00330	99.2	70-130	0.558	30	
Ethylbenzene	0.113	0.0050	"	0.100	ND	113	70-130	1.24	30	
m,p-Xylene	0.223	0.010	"	0.200	0.00516	109	70-130	0.524	30	
o-Xylene	0.108	0.0050	"	0.100	ND	108	70-130	1.79	30	
Surrogate: 1,2-Dichloroethane-d4	0.0481		"	0.0400		120	23-173			
Surrogate: Toluene-d8	0.0443		"	0.0400		111	20-170			
Surrogate: 4-Bromofluorobenzene	0.0399		"	0.0400		99.7	21-167			

Batch 2009125 - EPA 5030 Soil MS

Blank (2009125-BLK1)

Prepared & Analyzed: 09/10/20

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	0.0537		"	0.0400		134	23-173			
Surrogate: Toluene-d8	0.0348		"	0.0400		87.0	20-170			
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	21-167			

LCS (2009125-BS1)

Prepared & Analyzed: 09/10/20

Benzene	0.0637	0.0020	mg/kg	0.0750		85.0	70-130			
Toluene	0.0557	0.0050	"	0.0750		74.2	70-130			
Ethylbenzene	0.0808	0.0050	"	0.0750		108	70-130			
m,p-Xylene	0.152	0.010	"	0.150		101	70-130			
o-Xylene	0.0750	0.0050	"	0.0750		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.5	23-173			
Surrogate: Toluene-d8	0.0342		"	0.0400		85.4	20-170			
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		92.0	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: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

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 2009125 - EPA 5030 Soil MS

Matrix Spike (2009125-MS1)		Source: 2009061-01			Prepared & Analyzed: 09/10/20					
Benzene	0.0629	0.0020	mg/kg	0.0750	ND	83.9	70-130			
Toluene	0.0578	0.0050	"	0.0750	ND	77.0	70-130			
Ethylbenzene	0.0789	0.0050	"	0.0750	ND	105	70-130			
m,p-Xylene	0.150	0.010	"	0.150	ND	99.9	70-130			
o-Xylene	0.0744	0.0050	"	0.0750	ND	99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.0439		"	0.0400		110	23-173			
Surrogate: Toluene-d8	0.0350		"	0.0400		87.5	20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		91.1	21-167			
Matrix Spike Dup (2009125-MSD1)		Source: 2009061-01			Prepared & Analyzed: 09/10/20					
Benzene	0.0639	0.0020	mg/kg	0.0750	ND	85.2	70-130	1.56	30	
Toluene	0.0578	0.0050	"	0.0750	ND	77.0	70-130	0.0519	30	
Ethylbenzene	0.0810	0.0050	"	0.0750	ND	108	70-130	2.70	30	
m,p-Xylene	0.153	0.010	"	0.150	ND	102	70-130	2.20	30	
o-Xylene	0.0742	0.0050	"	0.0750	ND	99.0	70-130	0.242	30	
Surrogate: 1,2-Dichloroethane-d4	0.0424		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0348		"	0.0400		87.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		91.1	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: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 2009053 - EPA 3550A

Blank (2009053-BLK1)

Prepared & Analyzed: 09/04/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2009053-BS1)

Prepared & Analyzed: 09/04/20

C10-C28 (DRO) 597 50 mg/kg 500 119 70-130

Matrix Spike (2009053-MS1)

Source: 2009057-01

Prepared & Analyzed: 09/04/20

C10-C28 (DRO) 537 50 mg/kg 500 11.7 105 70-130

Matrix Spike Dup (2009053-MSD1)

Source: 2009057-01

Prepared & Analyzed: 09/04/20

C10-C28 (DRO) 522 50 mg/kg 500 11.7 102 70-130 2.74 20

Batch 2009126 - EPA 3550A

Blank (2009126-BLK1)

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2009126-BS1)

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) 535 50 mg/kg 500 107 70-130

Matrix Spike (2009126-MS1)

Source: 2009056-01

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) 520 50 mg/kg 500 12.3 101 70-130

Matrix Spike Dup (2009126-MSD1)

Source: 2009056-01

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) 493 50 mg/kg 500 12.3 96.1 70-130 5.28 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: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/14/20 12:30

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

September 15, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: PC 5

Work Order #2009077

Enclosed are the results of analyses for samples received by Summit Scientific on 09/08/20 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Muri Premer", is displayed on a light purple rectangular background.

Muri Premer For Paul Shrewsbury
President



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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/15/20 10:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B11@9.5	2009077-01	Soil	09/08/20 15:05	09/08/20 16:00
N04@7	2009077-02	Soil	09/08/20 15:07	09/08/20 16:00
S06@7	2009077-03	Soil	09/08/20 15:09	09/08/20 16:00

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.

2009077

Page 1 of 1

Sampler Name: Ryan Finley

Project Number: TBD

www.s2scientific.com

Sample Receipt Checklist

2009077

S2 Work Order

Client:

Arex/109

Client Project ID:

PLS

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

Airbill #:

Matrix (check all that apply):

Air

☒

Soil/Solid

Water

Other:

(Describe)

Temp (°C)

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

Custodian Printed Name or Initials

Signature of Custodian

Date/Time

9.8.2020



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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/15/20 10:20

B11@9.5
2009077-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/08/20 15:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/08/20 15:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		153 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/08/20 15:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/08/20 15:05**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		111 %	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: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/15/20 10:20

N04@7
2009077-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/08/20 15:07**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/08/20 15:07**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		153 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		89.9 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/08/20 15:07**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/08/20 15:07**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/15/20 10:20

S06@7
2009077-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/08/20 15:09**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/08/20 15:09**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		128 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.4 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.7 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/08/20 15:09**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/08/20 15:09**

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

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/15/20 10:20

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

Batch 2009125 - EPA 5030 Soil MS

Blank (2009125-BLK1)

Prepared & Analyzed: 09/10/20

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	0.0537		"	0.0400		134	23-173		
Surrogate: Toluene-d8	0.0348		"	0.0400		87.0	20-170		
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	21-167		

LCS (2009125-BS1)

Prepared & Analyzed: 09/10/20

Benzene	0.0637	0.0020	mg/kg	0.0750		85.0	70-130		
Toluene	0.0557	0.0050	"	0.0750		74.2	70-130		
Ethylbenzene	0.0808	0.0050	"	0.0750		108	70-130		
m,p-Xylene	0.152	0.010	"	0.150		101	70-130		
o-Xylene	0.0750	0.0050	"	0.0750		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.5	23-173		
Surrogate: Toluene-d8	0.0342		"	0.0400		85.4	20-170		
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		92.0	21-167		

Matrix Spike (2009125-MS1)

Source: 2009061-01

Prepared & Analyzed: 09/10/20

Benzene	0.0629	0.0020	mg/kg	0.0750	ND	83.9	70-130		
Toluene	0.0578	0.0050	"	0.0750	ND	77.0	70-130		
Ethylbenzene	0.0789	0.0050	"	0.0750	ND	105	70-130		
m,p-Xylene	0.150	0.010	"	0.150	ND	99.9	70-130		
o-Xylene	0.0744	0.0050	"	0.0750	ND	99.2	70-130		
Surrogate: 1,2-Dichloroethane-d4	0.0439		"	0.0400		110	23-173		
Surrogate: Toluene-d8	0.0350		"	0.0400		87.5	20-170		
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		91.1	21-167		

Summit Scientific

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

Project: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/15/20 10:20

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 2009125 - EPA 5030 Soil MS

Matrix Spike Dup (2009125-MSD1)		Source: 2009061-01			Prepared & Analyzed: 09/10/20					
Benzene	0.0639	0.0020	mg/kg	0.0750	ND	85.2	70-130	1.56	30	
Toluene	0.0578	0.0050	"	0.0750	ND	77.0	70-130	0.0519	30	
Ethylbenzene	0.0810	0.0050	"	0.0750	ND	108	70-130	2.70	30	
m,p-Xylene	0.153	0.010	"	0.150	ND	102	70-130	2.20	30	
o-Xylene	0.0742	0.0050	"	0.0750	ND	99.0	70-130	0.242	30	
Surrogate: 1,2-Dichloroethane-d4	0.0424		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0348		"	0.0400		87.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		91.1	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: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/15/20 10:20

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 2009126 - EPA 3550A

Blank (2009126-BLK1)

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2009126-BS1)

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) 535 50 mg/kg 500 107 70-130

Matrix Spike (2009126-MS1)

Source: 2009056-01

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) 520 50 mg/kg 500 12.3 101 70-130

Matrix Spike Dup (2009126-MSD1)

Source: 2009056-01

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) 493 50 mg/kg 500 12.3 96.1 70-130 5.28 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: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/15/20 10:20

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

September 16, 2020

Maggie Graham

Extraction Oil&Gas

370 17th Street Suite 5300

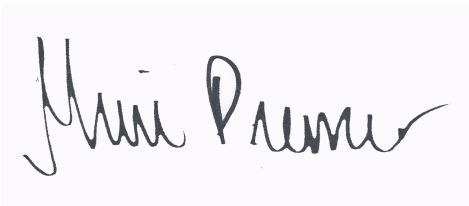
Denver, CO 80202

RE: PC 5

Work Order # 2009108

Enclosed are the results of analyses for samples received by Summit Scientific on 09/09/20 16:30. 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 Premier".

Muri Premier For Paul Shrewsbury

President



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

Project: PC 5

Project Number: [none]

Project Manager: Maggie Graham

Reported:
09/16/20 12:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B13@11	2009108-01	Soil	09/09/20 14:35	09/09/20 16:30
N07@2	2009108-02	Soil	09/09/20 14:14	09/09/20 16:30
S08@2	2009108-03	Soil	09/09/20 14:16	09/09/20 16:30
W04@2	2009108-04	Soil	09/09/20 14:18	09/09/20 16:30
N08@7	2009108-05	Soil	09/09/20 14:41	09/09/20 16:30
S09@7	2009108-06	Soil	09/09/20 14:43	09/09/20 16:30
W06@7	2009108-07	Soil	09/09/20 14:47	09/09/20 16:30
N09@2	2009108-08	Soil	09/09/20 15:08	09/09/20 16:30
S10@2	2009108-09	Soil	09/09/20 15:10	09/09/20 16:30

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

2009108

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

E-Mail: DenverRemediation@ApexCos.onmicrosoft.com

Project Name: PC 5

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											
B13@11	9/9/20	1435	1			X			X			X	X											Call Maggie Graham with questions
N07@2		1414																						
S08@2		1416																						
W04@2		1418																						
N08@7		1441																						
S09@7		1443																						
W06@7		1447																						
N09@2		1508																						
S10@2		1510																						
E04@2		1514																						
Relinquished by: <u>[Signature]</u>		Date/Time: <u>9/9/20 1630</u>		Received by: <u>[Signature]</u>		Date/Time: <u>9.9.20 1630</u>		Turn Around Time (Check)										Notes						
								Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/>										Circle applicable regulatory agency: <u>COGCC</u> CDPHE Client Name: <u>XOG</u>						
								24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>																
								48 Hours <input type="checkbox"/>																
Relinquished by:		Date/Time:		Received by:		Date/Time:		Sample Integrity:																
								Temperature Upon Receipt: <u>11.5°</u>																
								Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

Sample Receipt Checklist

S2 Work Order 2009108

Client: Apex/KOG Client Project ID: PC 5

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

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

Temp (°C)	<u>11.5</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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>on ice</u>
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 type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
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.				

MA
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

9.9.2020
Date/Time



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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

B13@11
2009108-01 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/09/20 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/09/20 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		150 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/09/20 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/13/20	EPA 8015M	

Date Sampled: **09/09/20 14:35**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: o-Terphenyl		122 %	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: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

N07@2
2009108-02 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/09/20 14:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/09/20 14:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		140 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.1 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/09/20 14:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	69	50	mg/kg	1	2009126	09/10/20	09/13/20	EPA 8015M	

Date Sampled: **09/09/20 14:14**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		121 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

S08@2
2009108-03 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/09/20 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/09/20 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		143 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		83.2 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/09/20 14:16**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/09/20 14:16**

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

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

W04@2
2009108-04 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/09/20 14:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/09/20 14:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		128 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		84.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.1 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/09/20 14:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/09/20 14:18**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

N08@7
2009108-05 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/09/20 14:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/09/20 14:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		136 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		84.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.9 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/09/20 14:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/09/20 14:41**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		120 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

S09@7
2009108-06 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/09/20 14:43**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/09/20 14:43**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		139 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		86.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.3 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/09/20 14:43**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/09/20 14:43**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		113 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

W06@7
2009108-07 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/09/20 14:47**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/09/20 14:47**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		130 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		86.6 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.4 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/09/20 14:47**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/09/20 14:47**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		111 %	30-150		"	"	"	"	

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

N09@2
2009108-08 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/09/20 15:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	ND	0.50	"	"	"	"	"	"	

Date Sampled: **09/09/20 15:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		146 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		87.3 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/09/20 15:08**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/09/20 15:08**

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

Summit Scientific

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

Project: PC 5
Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

S10@2
2009108-09 (Soil)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **09/09/20 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	0.0020	mg/kg	1	2009125	09/10/20	09/11/20	EPA 8260B	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	ND	0.010	"	"	"	"	"	"	
Gasoline Range Hydrocarbons	1.3	0.50	"	"	"	"	"	"	

Date Sampled: **09/09/20 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		146 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		88.0 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	21-167		"	"	"	"	

Extractable Petroleum Hydrocarbons by 8015

Date Sampled: **09/09/20 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
C10-C28 (DRO)	ND	50	mg/kg	1	2009126	09/10/20	09/12/20	EPA 8015M	

Date Sampled: **09/09/20 15:10**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: o-Terphenyl		112 %	30-150		"	"	"	"	

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

Project: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

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

Batch 2009125 - EPA 5030 Soil MS

Blank (2009125-BLK1)

Prepared & Analyzed: 09/10/20

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	0.0537		"	0.0400		134	23-173		
Surrogate: Toluene-d8	0.0348		"	0.0400		87.0	20-170		
Surrogate: 4-Bromofluorobenzene	0.0398		"	0.0400		99.4	21-167		

LCS (2009125-BS1)

Prepared & Analyzed: 09/10/20

Benzene	0.0637	0.0020	mg/kg	0.0750		85.0	70-130		
Toluene	0.0557	0.0050	"	0.0750		74.2	70-130		
Ethylbenzene	0.0808	0.0050	"	0.0750		108	70-130		
m,p-Xylene	0.152	0.010	"	0.150		101	70-130		
o-Xylene	0.0750	0.0050	"	0.0750		100	70-130		
Surrogate: 1,2-Dichloroethane-d4	0.0398		"	0.0400		99.5	23-173		
Surrogate: Toluene-d8	0.0342		"	0.0400		85.4	20-170		
Surrogate: 4-Bromofluorobenzene	0.0368		"	0.0400		92.0	21-167		

Matrix Spike (2009125-MS1)

Source: 2009061-01

Prepared & Analyzed: 09/10/20

Benzene	0.0629	0.0020	mg/kg	0.0750	ND	83.9	70-130		
Toluene	0.0578	0.0050	"	0.0750	ND	77.0	70-130		
Ethylbenzene	0.0789	0.0050	"	0.0750	ND	105	70-130		
m,p-Xylene	0.150	0.010	"	0.150	ND	99.9	70-130		
o-Xylene	0.0744	0.0050	"	0.0750	ND	99.2	70-130		
Surrogate: 1,2-Dichloroethane-d4	0.0439		"	0.0400		110	23-173		
Surrogate: Toluene-d8	0.0350		"	0.0400		87.5	20-170		
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		91.1	21-167		

Summit Scientific

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

Project: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

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 2009125 - EPA 5030 Soil MS

Matrix Spike Dup (2009125-MSD1)		Source: 2009061-01			Prepared & Analyzed: 09/10/20					
Benzene	0.0639	0.0020	mg/kg	0.0750	ND	85.2	70-130	1.56	30	
Toluene	0.0578	0.0050	"	0.0750	ND	77.0	70-130	0.0519	30	
Ethylbenzene	0.0810	0.0050	"	0.0750	ND	108	70-130	2.70	30	
m,p-Xylene	0.153	0.010	"	0.150	ND	102	70-130	2.20	30	
o-Xylene	0.0742	0.0050	"	0.0750	ND	99.0	70-130	0.242	30	
Surrogate: 1,2-Dichloroethane-d4	0.0424		"	0.0400		106	23-173			
Surrogate: Toluene-d8	0.0348		"	0.0400		87.1	20-170			
Surrogate: 4-Bromofluorobenzene	0.0364		"	0.0400		91.1	21-167			

Summit Scientific

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

Project: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

Extractable Petroleum Hydrocarbons by 8015 - Quality Control
Summit Scientific

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

Batch 2009126 - EPA 3550A

Blank (2009126-BLK1)

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) ND 50 mg/kg

LCS (2009126-BS1)

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) 535 50 mg/kg 500 107 70-130

Matrix Spike (2009126-MS1)

Source: 2009056-01

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) 520 50 mg/kg 500 12.3 101 70-130

Matrix Spike Dup (2009126-MSD1)

Source: 2009056-01

Prepared: 09/10/20 Analyzed: 09/11/20

C10-C28 (DRO) 493 50 mg/kg 500 12.3 96.1 70-130 5.28 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: PC 5

Project Number: [none]
Project Manager: Maggie Graham

Reported:
09/16/20 12:48

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