

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

May 05, 2020

Heather Shideman

Extraction Oil&Gas

370 17th Street Suite 5300

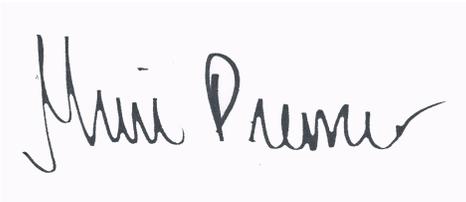
Denver, CO 80202

RE: Trip_Blank/GWA_United_Pad

Work Order # 2004356

Enclosed are the results of analyses for samples received by Summit Scientific on 04/27/20 13:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Muri Premer For Paul Shrewsbury

President



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

Project: Trip_Blank/GWA_United_Pad

Project Number: ALLOC-733,962,32

Project Manager: Heather Shideman

Reported:
05/05/20 10:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BW_Avery_99967_Trip_Blank	2004356-01	Water	04/27/20 10:06	04/27/20 13:55

Summit Scientific

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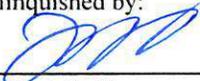
2004356

Summit Scientific

S₂

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

Client: Extraction Oil and Gas (XOG)	Report to: Apex Companies, LLC	Project Manager: Heather Shideman
Address: 2234 117th Ave, Ste 106		E-Mail: Rochelle.Carlsle@apexcos.com, Heather.Shideman@apexcos.com
City/State/Zip: Greeley, CO 80634		cc: bford@extractionog.com
Phone: (970) 576-3446		Project Name: Trip_Blank/GWA_United_Pad
Sampler Name: Jeff Griggs	Project No.: ALLOC-733, 962, 32	Facility ID: 760087

ID	Field ID / Point of Collection	Date Sampled	Time Sampled	# of containers	Preservative				Matrix				Analysis Requested				Special Instructions		
					HCl	HNO3	None	Other (Specify)	Groundwater	Soil	Air-Canister Serial #	Other (Specify)	BTEX						
1	BW_Avery_99967_Trip_Blank	04/27/2020	1006	2					X					X					Sample Frequency: IN
Relinquished by: 		Date/Time: 04/27/2020 13:55		Received by: 		Date/Time: 04-27-2020 13:55		Turn Around Time (Check)				Notes: ON ICE							
Relinquished by:		Date/Time:		Received by:		Date/Time:		Same Day ___ 72 hours ___				Standard <input checked="" type="checkbox"/>							
Relinquished by:		Date/Time:		Received by:		Date/Time:		24 hours ___				48 hours ___							
Relinquished by:		Date/Time:		Received by:		Date/Time:		Sample Integrity:				Temperature Upon Receipt: 6.7							
Relinquished by:		Date/Time:		Received by:		Date/Time:		Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											

Sample Receipt Checklist

S2 Work Order 2004356

Client: Apex/XOG Client Project ID: Trip-Blank / GWA - United - Pad

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

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

Temp (°C)	6.7
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Thermometer ID: 61857155-K

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

Muri Premer
Signature of Custodian

4/27/20
Date/Time



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 Denver CO, 80202

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 Project Manager: Heather Shideman

Reported:
 05/05/20 10:05

BW_Avery_99967_Trip_Blank

2004356-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/27/20 10:06**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	2004338	04/28/20	04/29/20	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
m,p-Xylene	ND	2.0		"	"	"	"	"	"	
o-Xylene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	2.0		"	"	"	"	"	"	

Date Sampled: **04/27/20 10:06**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		73.8 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %		21-167		"	"	"	"	

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Project: Trip_Blank/GWA_United_Pad

Project Number: ALLOC-733,962,32
Project Manager: Heather Shideman

Reported:
05/05/20 10:05

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

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

Batch 2004338 - EPA 5030 Water MS

Blank (2004338-BLK1)

Prepared & Analyzed: 04/28/20

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
m,p-Xylene	ND	2.0	"							
o-Xylene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	10.3		"	13.3		77.6		23-173		
Surrogate: Toluene-d8	13.8		"	13.3		103		20-170		
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.5		21-167		

LCS (2004338-BS1)

Prepared & Analyzed: 04/28/20

Benzene	24.6	1.0	ug/l	33.3		73.7		51-132		
Toluene	24.5	1.0	"	33.3		73.6		51-138		
Ethylbenzene	30.1	1.0	"	33.3		90.3		58-146		
m,p-Xylene	57.2	2.0	"	66.7		85.8		57-144		
o-Xylene	29.4	1.0	"	33.3		88.2		53-146		
Surrogate: 1,2-Dichloroethane-d4	9.64		"	13.3		72.3		23-173		
Surrogate: Toluene-d8	13.2		"	13.3		98.9		20-170		
Surrogate: 4-Bromofluorobenzene	12.7		"	13.3		95.3		21-167		

Matrix Spike (2004338-MS1)

Source: 2004354-01

Prepared & Analyzed: 04/28/20

Benzene	25.6	1.0	ug/l	33.3	1.30	72.9		34-141		
Toluene	24.4	1.0	"	33.3	ND	73.1		27-151		
Ethylbenzene	32.4	1.0	"	33.3	1.39	93.2		29-160		
m,p-Xylene	63.2	2.0	"	66.7	5.18	87.1		20-166		
o-Xylene	32.9	1.0	"	33.3	1.83	93.2		33-159		
Surrogate: 1,2-Dichloroethane-d4	8.99		"	13.3		67.4		23-173		
Surrogate: Toluene-d8	12.6		"	13.3		94.9		20-170		
Surrogate: 4-Bromofluorobenzene	12.6		"	13.3		94.4		21-167		

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05/05/20 10:05

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 2004338 - EPA 5030 Water MS

Matrix Spike Dup (2004338-MSD1)	Source: 2004354-01			Prepared & Analyzed: 04/28/20						
Benzene	25.0	1.0	ug/l	33.3	1.30	71.2	34-141	2.29	32	
Toluene	24.7	1.0	"	33.3	ND	74.1	27-151	1.39	25	
Ethylbenzene	29.1	1.0	"	33.3	1.39	83.0	29-160	11.0	50	
m,p-Xylene	55.6	2.0	"	66.7	5.18	75.6	20-166	12.9	36	
o-Xylene	29.6	1.0	"	33.3	1.83	83.3	33-159	10.5	26	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	<i>12.3</i>		<i>"</i>	<i>13.3</i>		<i>92.5</i>	<i>23-173</i>			
<i>Surrogate: Toluene-d8</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.8</i>	<i>20-170</i>			
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>13.0</i>		<i>"</i>	<i>13.3</i>		<i>97.4</i>	<i>21-167</i>			

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05/05/20 10:05

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