

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 # 2004358

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 11:21

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BW_Joyner_92694_Trip_Blank	2004358-01	Water	04/27/20 12:19	04/27/20 13:55

Summit Scientific

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Sample Receipt Checklist

S2 Work Order 2004357

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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BW_Joyner_92694_Trip_Blank

2004358-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **04/27/20 12:19**

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 12:19**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		74.8 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		101 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.6 %		21-167		"	"	"	"	

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Reported:
05/05/20 11:21

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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Volatile Organic Compounds by EPA Method 8260B - Quality Control
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Analyte	Result	Reporting		Spike Level	Source		%REC		RPD		Notes
		Limit	Units		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		
Surrogate: 1,2-Dichloroethane-d4	12.3		"	13.3		92.5	23-173				
Surrogate: Toluene-d8	13.0		"	13.3		97.8	20-170				
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3		97.4	21-167				

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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