

# Summit Scientific

---

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

August 07, 2020

Heather Shideman

Extraction Oil&Gas

370 17th Street Suite 5300

Denver, CO 80202

RE: Trip\_Blank/GWA\_Coyote\_Trails

Work Order #2007311

Enclosed are the results of analyses for samples received by Summit Scientific on 07/30/20 14:40. 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 reads "Muri Premer" in a cursive, flowing script.

Muri Premer For Paul Shrewsbury

President



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

Project: Trip\_Blank/GWA\_Coyote\_Trails

Project Number: AFE#17031 Code 961.15 Fac ID 75391  
Project Manager: Heather Shideman

**Reported:**  
08/07/20 12:49

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BW_Waste_Connections_Landfill_1830_WCR_5_Tr	2007311-01	Water	07/30/20 13:22	07/30/20 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

2007311

S<sub>2</sub>

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.Carlisle@apexcos.com, Heather.Shideman@apexcos.com, Kolbi.Olson@apexcos.com  
**City/State/Zip:** Greeley, CO 80634    **cc:** jcarlisle@extractionog.com  
**Phone:** (970) 576-3446    **Project Name:** Trip\_Blank/GWA\_Coyote\_Trails  
**Sampler Name:** *Kolbi Madayoff*    **Project No.:** AFE # 17031; Code 961.15    **Facility ID** 753910

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_Waste_Connections_Landfill_1830_WCR_5_Trip_Blank	<i>20/07/30</i>	<i>1322</i>	2					X					X					Sample Frequency: 1SUB
Relinquished by: <i>[Signature]</i>		Date/Time: <i>20/07/30/1440</i>		Received by: <i>[Signature]</i>		Date/Time: <i>07:30-20 14:40</i>		Turn Around Time (Check)				Notes:							
Relinquished by:		Date/Time:		Received by:		Date/Time:		Same Day ___ 72 hours ___				Standard <u>X</u>							
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: <u>3.6</u>							
Relinquished by:		Date/Time:		Received by:		Date/Time:		Intact: <u>Yes</u> No											

2007311

Sample Receipt Checklist

S2 Work Order \_\_\_\_\_

Client: Apex Companies, LLC Client Project ID: Trip Blank/GWA Coyote TRAILS

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

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

Temp (°C) 3.6

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C <sup>(1)</sup> ? 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"/>	
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact <sup>(1)</sup> ?	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? <b>If yes, contact client and note in narrative.</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ? 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 <sup>(1)</sup> ? 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):

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

BB  
Custodian Printed Name or Initials

[Signature]  
Signature of Custodian

07/30/2020  
Date/Time



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

Project: Trip\_Blank/GWA\_Coyote\_Trails

Project Number: AFE#17031 Code 961.15 Fac ID 75391  
Project Manager: Heather Shideman

**Reported:**  
08/07/20 12:49

**BW\_Waste\_Connections\_Landfill\_1830\_WCR\_5\_Trip\_Blank**  
**2007311-01 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **07/30/20 13:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	2007345	07/31/20	08/04/20	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: **07/30/20 13:22**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		108 %		23-173		"	"	"	"	
Surrogate: Toluene-d8		96.5 %		20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.9 %		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: Trip\_Blank/GWA\_Coyote\_Trails

Project Number: AFE#17031 Code 961.15 Fac ID 75391  
Project Manager: Heather Shideman

**Reported:**  
08/07/20 12:49

### Volatile Organic Compounds by EPA Method 8260B - Quality Control

#### Summit Scientific

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

#### Batch 2007345 - EPA 5030 Water MS

##### Blank (2007345-BLK1)

Prepared: 07/31/20 Analyzed: 08/03/20

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	13.3		"	13.3		100		23-173			
Surrogate: Toluene-d8	13.4		"	13.3		101		20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100		21-167			

##### LCS (2007345-BS1)

Prepared: 07/31/20 Analyzed: 08/03/20

Benzene	48.6	1.0	ug/l	50.0		97.3		51-132			
Toluene	45.7	1.0	"	50.0		91.5		51-138			
Ethylbenzene	53.8	1.0	"	50.0		108		58-146			
m,p-Xylene	92.0	2.0	"	100		92.0		57-144			
o-Xylene	45.1	1.0	"	50.0		90.1		53-146			
Surrogate: 1,2-Dichloroethane-d4	13.4		"	13.3		100		23-173			
Surrogate: Toluene-d8	13.6		"	13.3		102		20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.2		21-167			

##### Matrix Spike (2007345-MS1)

Source: 2007285-01

Prepared: 07/31/20 Analyzed: 08/03/20

Benzene	47.1	1.0	ug/l	50.0	ND	94.3		34-141			
Toluene	44.2	1.0	"	50.0	ND	88.3		27-151			
Ethylbenzene	53.4	1.0	"	50.0	ND	107		29-160			
m,p-Xylene	90.8	2.0	"	100	ND	90.8		20-166			
o-Xylene	43.7	1.0	"	50.0	ND	87.3		33-159			
Surrogate: 1,2-Dichloroethane-d4	12.0		"	13.3		90.1		23-173			
Surrogate: Toluene-d8	13.5		"	13.3		101		20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.9		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: Trip\_Blank/GWA\_Coyote\_Trails

Project Number: AFE#17031 Code 961.15 Fac ID 75391  
Project Manager: Heather Shideman

**Reported:**  
08/07/20 12:49

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

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

**Batch 2007345 - EPA 5030 Water MS**

**Matrix Spike Dup (2007345-MSD1)**

Source: 2007285-01

Prepared: 07/31/20 Analyzed: 08/03/20

Benzene	49.1	1.0	ug/l	50.0	ND	98.1	34-141	4.01	32	
Toluene	45.9	1.0	"	50.0	ND	91.8	27-151	3.84	25	
Ethylbenzene	55.7	1.0	"	50.0	ND	111	29-160	4.07	50	
m,p-Xylene	95.5	2.0	"	100	ND	95.5	20-166	5.07	36	
o-Xylene	45.9	1.0	"	50.0	ND	91.8	33-159	4.98	26	
Surrogate: 1,2-Dichloroethane-d4	12.0		"	13.3		90.2	23-173			
Surrogate: Toluene-d8	13.5		"	13.3		102	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		99.2	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: Trip\_Blank/GWA\_Coyote\_Trails  
Project Number: AFE#17031 Code 961.15 Fac ID 75391  
Project Manager: Heather Shideman

**Reported:**  
08/07/20 12:49

### 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