

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 12, 2020

Max Knop

K.P. Kauffman

1675 Broadway

Denver, CO 80202

RE: UPRR 43 PAN AM G Groundwater

Work Order #2010052

Enclosed are the results of analyses for samples received by Summit Scientific on 10/05/20 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

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

Muri Premier For Paul Shrewsbury
President



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: UPRR 43 PAN AM G Groundwater

Project Number: [none]
Project Manager: Max Knop

Reported:
10/12/20 18:34

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW	2010052-01	Water	10/02/20 09:45	10/05/20 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

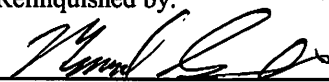

2010052

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 1

Client: KP Kauffman
Address: 1675 Broadway, Suite 2800
City/State/Zip: Denver, CO 80202
Phone: 303-825-4822 Fax: 303-825-4825
Sampler Name: Max Knop

Project Manager: Max Knop
E-Mail: mknop@kpk.com
Project Name: UPRR 43 PAN AM G Groundwater
Project Number:

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)	BTEX																	
GW	10/2/2020	9:45	2	X				X					X																
Relinquished by: 				Date/Time: 10-2-20 16:38				Received by: 				Date/Time: 10-2-20 16:38				Turn Around Time (Check)												Notes:	
Relinquished by:				Date/Time:				Received by:				Date/Time:				Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/>													
																24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/>													
Relinquished by:				Date/Time:				Received by:				Date/Time:				48 Hours <input type="checkbox"/>													
Relinquished by:				Date/Time:				Received in Lab by:				Date/Time:				Sample Integrity:													
																Temperature Upon Receipt: 3.4													
																Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>													

Sample Receipt Checklist

S2 Work Order 2010052

Client: KP Kauffman Client Project ID: UPRR 43 Pan Am G Grndwater

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

☐ ☒ ☐ ☐ ☐

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

Temp (°C)	3.4
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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⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.				
Were all samples received intact ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Was adequate sample volume provided ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
If custody seals are present, are they intact ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Are samples with holding times due within 48 hours sample due within 48 hours present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?	<input type="checkbox"/>	<input type="checkbox"/>	<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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Additional Comments (if any):

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

MP

Custodian Printed Name or Initials



Signature of Custodian

10/2/20

Date/Time



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: UPRR 43 PAN AM G Groundwater

Project Number: [none]
Project Manager: Max Knop

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10/12/20 18:34

GW
2010052-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **10/02/20 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	BDJ0058	10/07/20	10/09/20	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **10/02/20 09:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		59.7 %	23-173		"	"	"	"	
Surrogate: Toluene-d8		102 %	20-170		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %	21-167		"	"	"	"	

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Denver CO, 80202

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Reported:
10/12/20 18:34

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 BDJ0058 - EPA 5030 Water MS

LCS (BDJ0058-BS1)

Prepared & Analyzed: 10/07/20

Benzene	38.3	1.0	ug/l	33.3		115	51-132			
Toluene	39.9	1.0	"	33.3		120	51-138			
Ethylbenzene	38.9	1.0	"	33.3		117	58-146			
m,p-Xylene	76.2	2.0	"	66.7		114	57-144			
o-Xylene	37.1	1.0	"	33.3		111	53-146			
Surrogate: 1,2-Dichloroethane-d4	19.2		"	13.3		144	23-173			
Surrogate: Toluene-d8	20.5		"	13.3		154	20-170			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.9	21-167			

Matrix Spike (BDJ0058-MS1)

Source: 2010020-01

Prepared & Analyzed: 10/07/20

Benzene	34.4	1.0	ug/l	33.3	ND	103	34-141			
Toluene	28.6	1.0	"	33.3	ND	85.9	27-151			
Ethylbenzene	39.7	1.0	"	33.3	ND	119	29-160			
m,p-Xylene	78.1	2.0	"	66.7	1.51	115	20-166			
o-Xylene	38.7	1.0	"	33.3	ND	116	33-159			
Surrogate: 1,2-Dichloroethane-d4	15.7		"	13.3		118	23-173			
Surrogate: Toluene-d8	11.5		"	13.3		86.4	20-170			
Surrogate: 4-Bromofluorobenzene	13.4		"	13.3		100	21-167			

Matrix Spike Dup (BDJ0058-MSD1)

Source: 2010020-01

Prepared & Analyzed: 10/07/20

Benzene	34.7	1.0	ug/l	33.3	ND	104	34-141	0.811	30	
Toluene	32.3	1.0	"	33.3	ND	97.0	27-151	12.1	30	
Ethylbenzene	41.3	1.0	"	33.3	ND	124	29-160	3.95	30	
m,p-Xylene	84.3	2.0	"	66.7	1.51	124	20-166	7.69	30	
o-Xylene	36.4	1.0	"	33.3	ND	109	33-159	6.29	30	
Surrogate: 1,2-Dichloroethane-d4	18.6		"	13.3		140	23-173			
Surrogate: Toluene-d8	12.8		"	13.3		95.9	20-170			
Surrogate: 4-Bromofluorobenzene	19.2		"	13.3		144	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