

Summit Scientific

4653 Table Mountain Drive, Golden, Colorado 80403

303.277.9310

October 12, 2018

Susana Lara-Mesa

K.P. Kauffman

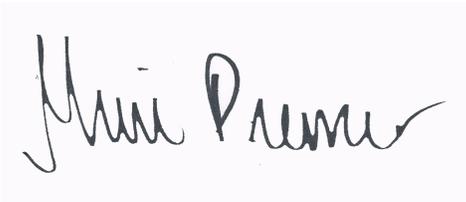
1675 Broadway

Denver, CO 80202

RE: McMallum

Enclosed are the results of analyses for samples received by Summit Scientific on 10/05/18 13:00. 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



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McMallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
McCallum #100	1810096-01	Water	10/04/18 09:00	10/05/18 13:00
McCallum #85	1810096-02	Water	10/04/18 10:15	10/05/18 13:00
McCallum #81	1810096-03	Water	10/04/18 11:00	10/05/18 13:00
McCallum #120	1810096-04	Water	10/04/18 11:15	10/05/18 13:00
McCallum #65	1810096-05	Water	10/04/18 09:15	10/05/18 13:00
McCallum #63	1810096-06	Water	10/04/18 10:00	10/05/18 13:00
McCallum #94	1810096-07	Water	10/04/18 10:45	10/05/18 13:00
McCallum #119	1810096-08	Water	10/04/18 11:30	10/05/18 13:00
McCallum #178	1810096-09	Water	10/04/18 09:45	10/05/18 13:00
McCallum #45	1810096-10	Water	10/04/18 09:30	10/05/18 13:00
McCallum #43	1810096-11	Water	10/04/18 10:30	10/05/18 13:00
McCallum #118	1810096-12	Water	10/04/18 11:45	10/05/18 13:00

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.

Summit Scientific

1810096.1

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

Client: KP Kauffman
Address: 1675 Broadway
City/State/Zip: Denver, CO 80202
Phone: 303-825-4822 Fax: 303-825-4825
Sampler Name: Susana Lara-Mesa

Project Manager: Susana Lara-Mesa
E-Mail: slaramesa@kpk.com
Project Name: McCallum
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)	TDS	Major Anions	Major Cations		TPH-ORO			
McCallum #100	10/4/2018	9am	2					x					x	x	x				
McCallum #85	10/4/2018	10:15am	2					x					x	x	x				
McCallum #81	10/4/2018	11am	2					x					x	x	x				
McCallum #120	10/4/2018	11:15am	2					x					x	x	x				
McCallum #65	10/4/2018	9:15am	2					x					x	x	x				
McCallum #63	10/4/2018	10am	2					x					x	x	x				
McCallum #94	10/4/2018	10:45am	2					x					x	x	x				
McCallum #119	10/4/2018	11:30am	2					x					x	x	x				
McCallum #178	10/4/2018	9:45am	2					x					x	x	x				
McCallum #45	10/4/2018	9:30am	2					x					x	x	x				
Relinquished by: <i>V. Lopez</i>		Date/Time: <u>10/5/18 17:00</u>		Received by: <i>[Signature]</i>		Date/Time: <u>10.5.18 1300</u>		Turn Around Time (Check)				Notes:							
		Date/Time:		Received by:		Date/Time:		Same Day <input type="checkbox"/>				72 Hours <input type="checkbox"/>							
		Date/Time:		Received by:		Date/Time:		24 Hours <input type="checkbox"/>				Standard <input checked="" type="checkbox"/>							
		Date/Time:		Received in Lab by:		Date/Time:		48 Hours <input type="checkbox"/>				Sample Integrity:							
		Date/Time:		Received in Lab by:		Date/Time:		Temperature Upon Receipt: <u>12.6</u>				Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>							

Summit Scientific

1810096.2

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

Page 2 of 2

Client: KP Kauffman
Address: 1675 Broadway
City/State/Zip: Denver, CO 80202
Phone: 303-825-4822 Fax: 303-825-4825
Sampler Name: Susana Lara-Mesa

Project Manager: Susana Lara-Mesa
E-Mail: slaramesa@kpk.com
Project Name: McCallum
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)	TDS	Major Anions	Major Cations		TPH-ORO		
McCallum #43	10/4/2018	10:30am	2					x										
McCallum #118	10/4/2018	11:45am	2					x										
Relinquished by: <i>N. Robue</i>		Date/Time: 10/5/18 1300	Received by: <i>[Signature]</i>		Date/Time: 10.5.18 1300	Turn Around Time (Check)				Notes:								
		Date/Time:	Received by:		Date/Time:	Same Day <input type="checkbox"/>				72 Hours <input type="checkbox"/>								
		Date/Time:	Received by:		Date/Time:	24 Hours <input type="checkbox"/>				Standard <input checked="" type="checkbox"/>								
		Date/Time:	Received in Lab by:		Date/Time:	48 Hours <input type="checkbox"/>				Sample Integrity:								
		Date/Time:	Received in Lab by:		Date/Time:	Temperature Upon Receipt: 12.6				Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								

Sample Receipt Checklist

S2 Work Order 1810096

Client: KP Kauffman Client Project ID: McCallum

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

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

Temp (°C)	12.6
-----------	------

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.				
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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HNO3 - Not enough
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ? Record the pH in Comments.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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.

UP
Custodian Printed Name or Initials

[Signature]
Signature of Custodian

10.5.18 1840
Date/Time



K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #100
1810096-01 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	20.9	0.0500	mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	16.1	0.0500	"	"	"	"	"	"	
Potassium	17.3	0.0500	"	"	"	"	"	"	
Sodium	3160	0.0500	"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Bromide	ND	1.00	mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	R-01
Chloride	1360	100	"	"	"	"	"	"	
Fluoride	ND	9.00	"	"	"	"	"	"	R-01
Nitrate as N	ND	4.00	"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00	"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00	"	"	"	"	"	"	R-01
Sulfate	ND	100	"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 09:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	6800	10.0	mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #85
1810096-02 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	20.1	0.0500	mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	14.8	0.0500	"	"	"	"	"	"	
Potassium	15.8	0.0500	"	"	"	"	"	"	
Sodium	2880	0.0500	"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Bromide	ND	1.00	mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	R-01
Chloride	1460	200	"	200	"	"	"	"	
Fluoride	ND	9.00	"	100	"	"	"	"	R-01
Nitrate as N	ND	4.00	"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00	"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00	"	"	"	"	"	"	R-01
Sulfate	ND	100	"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 10:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	6790	10.0	mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #81
1810096-03 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	19.5	0.0500		mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	13.9	0.0500		"	"	"	"	"	"	
Potassium	14.8	0.0500		"	"	"	"	"	"	
Sodium	2720	0.0500		"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Bromide	ND	1.00		mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	R-01
Chloride	1510	200		"	200	"	"	"	"	R-01
Fluoride	ND	9.00		"	100	"	"	"	"	R-01
Nitrate as N	ND	4.00		"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00		"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00		"	"	"	"	"	"	R-01
Sulfate	ND	100		"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 11:00**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	6770	10.0		mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #120
1810096-04 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 11:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	20.1	0.0500	mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	14.1	0.0500	"	"	"	"	"	"	
Potassium	15.1	0.0500	"	"	"	"	"	"	
Sodium	2750	0.0500	"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 11:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Bromide	9.50	1.00	mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	R-01
Chloride	1360	200	"	200	"	"	"	"	
Fluoride	ND	9.00	"	100	"	"	"	"	R-01
Nitrate as N	ND	4.00	"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00	"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00	"	"	"	"	"	"	R-01
Sulfate	ND	100	"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 11:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	6780	10.0	mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #65
1810096-05 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	22.6	0.0500	mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	15.4	0.0500	"	"	"	"	"	"	
Potassium	16.4	0.0500	"	"	"	"	"	"	
Sodium	2990	0.0500	"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Bromide	10.1	1.00	mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	R-01
Chloride	1180	200	"	200	"	"	"	"	
Fluoride	ND	9.00	"	100	"	"	"	"	R-01
Nitrate as N	ND	4.00	"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00	"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00	"	"	"	"	"	"	R-01
Sulfate	773	100	"	"	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 09:15**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	6790	10.0	mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #63
1810096-06 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	19.9	0.0500	mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	13.6	0.0500	"	"	"	"	"	"	
Potassium	14.5	0.0500	"	"	"	"	"	"	
Sodium	2640	0.0500	"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Bromide	9.30	1.00	mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	R-01
Chloride	1470	200	"	200	"	"	"	"	
Fluoride	ND	9.00	"	100	"	"	"	"	R-01
Nitrate as N	ND	4.00	"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00	"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00	"	"	"	"	"	"	R-01
Sulfate	ND	100	"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 10:00**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	6760	10.0	mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #94
1810096-07 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 10:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	20.6	0.0500	mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	14.9	0.0500	"	"	"	"	"	"	
Potassium	16.1	0.0500	"	"	"	"	"	"	
Sodium	2890	0.0500	"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 10:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Bromide	ND	1.00	mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	R-01
Chloride	1430	200	"	200	"	"	"	"	
Fluoride	ND	9.00	"	100	"	"	"	"	R-01
Nitrate as N	ND	4.00	"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00	"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00	"	"	"	"	"	"	R-01
Sulfate	ND	100	"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 10:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	6800	10.0	mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #119
1810096-08 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	18.6	0.0500	mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	13.3	0.0500	"	"	"	"	"	"	
Potassium	14.3	0.0500	"	"	"	"	"	"	
Sodium	2570	0.0500	"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Bromide	7.90	1.00	mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	
Chloride	631	200	"	200	"	"	"	"	
Fluoride	ND	9.00	"	100	"	"	"	"	R-01
Nitrate as N	ND	4.00	"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00	"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00	"	"	"	"	"	"	R-01
Sulfate	2800	200	"	200	"	"	"	"	

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 11:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	6790	10.0	mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #178
1810096-09 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	20.0	0.0500		mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	13.7	0.0500		"	"	"	"	"	"	
Potassium	14.7	0.0500		"	"	"	"	"	"	
Sodium	2660	0.0500		"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Bromide	ND	1.00		mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	R-01
Chloride	730	100		"	"	"	"	"	"	
Fluoride	ND	9.00		"	"	"	"	"	"	R-01
Nitrate as N	ND	4.00		"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00		"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00		"	"	"	"	"	"	R-01
Sulfate	ND	100		"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 09:45**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	6770	10.0		mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #45
1810096-10 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	21.2	0.0500	mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	14.5	0.0500	"	"	"	"	"	"	
Potassium	15.5	0.0500	"	"	"	"	"	"	
Sodium	2810	0.0500	"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Bromide	11.3	1.00	mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	
Chloride	1160	200	"	200	"	"	"	"	
Fluoride	ND	9.00	"	100	"	"	"	"	R-01
Nitrate as N	ND	4.00	"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00	"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00	"	"	"	"	"	"	R-01
Sulfate	ND	100	"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 09:30**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	6740	10.0	mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #43
1810096-11 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Calcium	19.5	0.0500		mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	14.0	0.0500		"	"	"	"	"	"	
Potassium	15.2	0.0500		"	"	"	"	"	"	
Sodium	2700	0.0500		"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Bromide	ND	1.00		mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	R-01
Chloride	1310	100		"	"	"	"	"	"	
Fluoride	ND	9.00		"	"	"	"	"	"	R-01
Nitrate as N	ND	4.00		"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00		"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00		"	"	"	"	"	"	R-01
Sulfate	ND	100		"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 10:30**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Total Dissolved Solids	6800	10.0		mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McCallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

McCallum #118
1810096-12 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **10/04/18 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Calcium	23.4	0.0500	mg/L	1	1810157	10/11/18	10/12/18	EPA 200.8	
Magnesium	16.0	0.0500	"	"	"	"	"	"	
Potassium	17.3	0.0500	"	"	"	"	"	"	
Sodium	3090	0.0500	"	"	"	"	"	"	

Anions by EPA Method 300.0

Date Sampled: **10/04/18 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Bromide	10.3	1.00	mg/L	100	1810106	10/08/18	10/08/18	EPA 300.0	
Chloride	1420	100	"	"	"	"	"	"	
Fluoride	ND	9.00	"	"	"	"	"	"	R-01
Nitrate as N	ND	4.00	"	"	"	"	"	"	I-02, R-01
Nitrite as N	ND	2.00	"	"	"	"	"	"	I-02, R-01
Orthophosphate as P	ND	5.00	"	"	"	"	"	"	R-01
Sulfate	ND	100	"	"	"	"	"	"	R-01

Total Dissolved Solids by SM2540C

Date Sampled: **10/04/18 11:45**

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Total Dissolved Solids	6770	10.0	mg/L	1	1810129	10/09/18	10/11/18	SM2540C	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McMallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

Total Metals by EPA Method 200.8 - Quality Control

Summit Scientific

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

Batch 1810157 - EPA 200.8

Blank (1810157-BLK1)

Prepared & Analyzed: 10/11/18

Calcium	ND	0.0500	mg/L							
Magnesium	ND	0.0500	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0500	"							

LCS (1810157-BS1)

Prepared & Analyzed: 10/11/18

Calcium	5.07	0.0500	mg/L	5.00		101	80-120			
Magnesium	5.40	0.0500	"	5.00		108	80-120			
Potassium	5.36	0.0500	"	5.00		107	80-120			
Sodium	5.17	0.0500	"	5.00		103	80-120			

Duplicate (1810157-DUP1)

Source: 1810116-01

Prepared & Analyzed: 10/11/18

Calcium	108	0.0500	mg/L		110			2.12	20	
Magnesium	23.6	0.0500	"		20.6			13.8	20	
Potassium	36.1	0.0500	"		32.5			10.5	20	
Sodium	110	0.0500	"		96.9			13.1	20	

Matrix Spike (1810157-MS1)

Source: 1810116-01

Prepared & Analyzed: 10/11/18

Calcium	115	0.0500	mg/L	5.00	110	89.7	75-125			
Magnesium	25.9	0.0500	"	5.00	20.6	107	75-125			
Potassium	37.9	0.0500	"	5.00	32.5	109	75-125			
Sodium	101	0.0500	"	5.00	96.9	90.2	75-125			

Matrix Spike Dup (1810157-MSD1)

Source: 1810116-01

Prepared & Analyzed: 10/11/18

Calcium	115	0.0500	mg/L	5.00	110	95.4	75-125	0.248	25	
Magnesium	25.8	0.0500	"	5.00	20.6	104	75-125	0.746	25	
Potassium	37.8	0.0500	"	5.00	32.5	107	75-125	0.152	25	
Sodium	102	0.0500	"	5.00	96.9	103	75-125	0.643	25	

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McMallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

Anions by EPA Method 300.0 - Quality Control
Summit Scientific

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

Batch 1810106 - General Preparation

Blank (1810106-BLK1)

Prepared & Analyzed: 10/08/18

Bromide	ND	0.0100	mg/L							
Chloride	ND	1.00	"							
Fluoride	ND	0.0900	"							
Nitrate as N	ND	0.0400	"							
Nitrite as N	ND	0.0200	"							
Orthophosphate as P	ND	0.0500	"							
Sulfate	ND	1.00	"							

LCS (1810106-BS1)

Prepared & Analyzed: 10/08/18

Bromide	10.2	0.0100	mg/L	10.0		102	90-110			
Chloride	3.19	1.00	"	3.00		106	90-110			
Fluoride	2.14	0.0900	"	2.00		107	90-110			
Nitrate as N	3.24	0.0400	"	3.00		108	90-110			
Nitrite as N	3.09	0.0200	"	3.00		103	90-110			
Orthophosphate as P	5.43	0.0500	"	5.00		109	90-110			
Sulfate	15.1	1.00	"	15.0		101	90-110			

Duplicate (1810106-DUP1)

Source: 1810096-01

Prepared & Analyzed: 10/08/18

Bromide	7.90	1.00	mg/L		ND					200
Chloride	1330	100	"		1360			2.10		200
Fluoride	ND	9.00	"		ND					200
Nitrate as N	ND	4.00	"		ND					200
Nitrite as N	ND	2.00	"		ND					200
Orthophosphate as P	ND	5.00	"		ND					200
Sulfate	ND	100	"		ND					200

Matrix Spike (1810106-MS1)

Source: 1810096-01

Prepared & Analyzed: 10/08/18

Bromide	828	1.00	mg/L	1000	ND	82.8	80-120			
Chloride	1660	100	"	300	1360	99.5	80-120			
Fluoride	189	9.00	"	200	ND	94.4	80-120			
Nitrate as N	281	4.00	"	300	ND	93.8	80-120			
Nitrite as N	283	2.00	"	300	ND	94.4	80-120			
Orthophosphate as P	508	5.00	"	500	ND	102	80-120			
Sulfate	1590	100	"	1500	ND	106	80-120			

Summit Scientific

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K.P. Kauffman
 1675 Broadway
 Denver CO, 80202

Project: McMallum

Project Number: [none]
 Project Manager: Susana Lara-Mesa

Reported:
 10/12/18 16:18

Total Dissolved Solids by SM2540C - Quality Control
Summit Scientific

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

Batch 1810129 - General Preparation

Blank (1810129-BLK1)

Prepared: 10/08/18 Analyzed: 10/09/18

Total Dissolved Solids ND 10.0 mg/L

Duplicate (1810129-DUP1)

Source: 1810068-01

Prepared: 10/08/18 Analyzed: 10/09/18

Total Dissolved Solids 20700 10.0 mg/L 20800 0.289 200

Summit Scientific

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K.P. Kauffman
1675 Broadway
Denver CO, 80202

Project: McMallum

Project Number: [none]
Project Manager: Susana Lara-Mesa

Reported:
10/12/18 16:18

Notes and Definitions

- R-01 The Reporting Limit for this analyte has been raised to account for matrix interference.
- I-02 This sample was analyzed outside of the recommended holding time.
- 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