ACZ Laboratories, Inc.
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Analytical Report

May 11, 2022

Report to:
Tanner Banks
Trout Unlimited Inc
1103 S 3rd St.
Montrose, CO 81401

cc: Kendra Fuller

Bill to:
Tanner Banks
Trout Unlimited Inc
1103 S 3rd St.
Montrose, CO 81401

Project ID:
ACZ Project ID: L72716

Tanner Banks:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on April 22, 2022. This project has been assigned to ACZ's project number, L72716. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L72716. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after June 10, 2022. If the samples are determined to be hazardous, additional charges apply for disposal (typically $11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.

Max Janicek has reviewed and approved this report.

Trout Unlimited Inc
Project ID:
Sample ID: MAINSTEM 3

ACZ Sample ID: ***L72716-01***
Date Sampled: *04/20/22 11:44*
Date Received: *04/22/22*
Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								04/26/22 9:45	mlh
Total Hot Plate Digestion	M200.2 ICP								05/03/22 17:47	keh1/ae

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, dissolved	M200.7 ICP	1	52.8			mg/L	0.1	0.5	05/09/22 18:32	keh1/ae
Calcium, total	M200.7 ICP	1	53.5		*	mg/L	0.1	0.5	05/06/22 14:41	wtc
Magnesium, dissolved	M200.7 ICP	1	7.31			mg/L	0.2	1	05/09/22 18:32	keh1/ae
Magnesium, total	M200.7 ICP	1	7.89			mg/L	0.2	1	05/06/22 14:41	wtc
Sodium, dissolved	M200.7 ICP	1	21.1			mg/L	0.2	1	05/09/22 18:32	keh1/ae
Sodium, total	M200.7 ICP	1	22.2			mg/L	0.2	1	05/06/22 14:41	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	44.4			mg/L	2	20	04/27/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Total Alkalinity		1	44.4			mg/L	2	20	04/27/22 0:00	jck
Chloride	SM4500Cl-E	1	47.0			mg/L	0.5	2	04/29/22 14:39	bls
Conductivity @25C	SM2510B	1	460			umhos/cm	1	10	04/27/22 4:14	jck
Hardness as CaCO3 (total)	SM2340B - Calculation		166			mg/L	0.2	5	05/11/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							04/27/22 8:28	mlh
pH (lab)	SM4500H+ B									
pH		1	8.0	H		units	0.1	0.1	04/27/22 0:00	jck
pH measured at		1	21.7			C	0.1	0.1	04/27/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	270			mg/L	20	40	04/26/22 16:57	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	108		*	mg/L	5	25	05/04/22 10:30	mjj1

Trout Unlimited Inc
Project ID:
Sample ID: MAINSTEM 2

ACZ Sample ID: ***L72716-02***
Date Sampled: *04/20/22 13:28*
Date Received: *04/22/22*
Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								04/26/22 9:45	mlh
Total Hot Plate Digestion	M200.2 ICP								05/03/22 18:02	keh1/ae

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, dissolved	M200.7 ICP	1	55.6			mg/L	0.1	0.5	05/09/22 18:35	keh1/ae
Calcium, total	M200.7 ICP	1	58.7		*	mg/L	0.1	0.5	05/06/22 14:44	wtc
Magnesium, dissolved	M200.7 ICP	1	6.89			mg/L	0.2	1	05/09/22 18:35	keh1/ae
Magnesium, total	M200.7 ICP	1	7.36			mg/L	0.2	1	05/06/22 14:44	wtc
Sodium, dissolved	M200.7 ICP	1	10.2			mg/L	0.2	1	05/09/22 18:35	keh1/ae
Sodium, total	M200.7 ICP	1	10.4			mg/L	0.2	1	05/06/22 14:44	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46.8			mg/L	2	20	04/27/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Total Alkalinity		1	46.8			mg/L	2	20	04/27/22 0:00	jck
Chloride	SM4500Cl-E	1	15.5			mg/L	0.5	2	04/29/22 14:39	bls
Conductivity @25C	SM2510B	1	420			umhos/cm	1	10	04/27/22 4:22	jck
Hardness as CaCO3 (total)	SM2340B - Calculation		177			mg/L	0.2	5	05/11/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							04/27/22 8:31	mlh
pH (lab)	SM4500H+ B									
pH		1	8.0	H		units	0.1	0.1	04/27/22 0:00	jck
pH measured at		1	21.8			C	0.1	0.1	04/27/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	262			mg/L	20	40	04/26/22 16:59	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	135		*	mg/L	5	25	05/04/22 10:30	mjj1

Trout Unlimited Inc
Project ID:
Sample ID: MAINSTEM 1

ACZ Sample ID: ***L72716-03***
Date Sampled: *04/20/22 14:17*
Date Received: *04/22/22*
Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								04/26/22 9:45	mlh
Total Hot Plate Digestion	M200.2 ICP								05/03/22 18:17	keh1/ae

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, dissolved	M200.7 ICP	1	53.9			mg/L	0.1	0.5	05/09/22 18:38	keh1/ae
Calcium, total	M200.7 ICP	1	57.9			mg/L	0.1	0.5	05/06/22 14:47	wtc
Magnesium, dissolved	M200.7 ICP	1	6.69			mg/L	0.2	1	05/09/22 18:38	keh1/ae
Magnesium, total	M200.7 ICP	1	7.12			mg/L	0.2	1	05/06/22 14:47	wtc
Sodium, dissolved	M200.7 ICP	1	8.11			mg/L	0.2	1	05/09/22 18:38	keh1/ae
Sodium, total	M200.7 ICP	1	8.48			mg/L	0.2	1	05/06/22 14:47	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46.7			mg/L	2	20	04/27/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Total Alkalinity		1	46.7			mg/L	2	20	04/27/22 0:00	jck
Chloride	SM4500Cl-E	1	11.2			mg/L	0.5	2	04/29/22 14:39	bls
Conductivity @25C	SM2510B	1	408			umhos/cm	1	10	04/27/22 4:31	jck
Hardness as CaCO3 (total)	SM2340B - Calculation		174			mg/L	0.2	5	05/11/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							04/27/22 8:34	mlh
pH (lab)	SM4500H+ B									
pH		1	8.0	H		units	0.1	0.1	04/27/22 0:00	jck
pH measured at		1	21.8			C	0.1	0.1	04/27/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	258			mg/L	20	40	04/26/22 17:01	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	136		*	mg/L	5	25	05/04/22 10:30	mjj1

Trout Unlimited Inc
Project ID:
Sample ID: STRAIGHT CREEK

ACZ Sample ID: ***L72716-04***
Date Sampled: *04/20/22 15:17*
Date Received: *04/22/22*
Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								04/26/22 9:45	mlh
Total Hot Plate Digestion	M200.2 ICP								05/03/22 18:32	keh1/ae

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, dissolved	M200.7 ICP	1	44.0			mg/L	0.1	0.5	05/09/22 18:47	keh1/ae
Calcium, total	M200.7 ICP	1	47.1			mg/L	0.1	0.5	05/06/22 14:50	wtc
Magnesium, dissolved	M200.7 ICP	1	14.0			mg/L	0.2	1	05/09/22 18:47	keh1/ae
Magnesium, total	M200.7 ICP	1	14.9			mg/L	0.2	1	05/06/22 14:50	wtc
Sodium, dissolved	M200.7 ICP	1	125			mg/L	0.2	1	05/09/22 18:47	keh1/ae
Sodium, total	M200.7 ICP	1	130			mg/L	0.2	1	05/06/22 14:50	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	46.5			mg/L	2	20	04/27/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Total Alkalinity		1	46.5			mg/L	2	20	04/27/22 0:00	jck
Chloride	SM4500Cl-E	5	326			mg/L	2.5	10	04/29/22 15:02	bls
Conductivity @25C	SM2510B	1	1070			umhos/cm	1	10	04/27/22 4:38	jck
Hardness as CaCO3 (total)	SM2340B - Calculation		179			mg/L	0.2	5	05/11/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							04/27/22 8:37	mlh
pH (lab)	SM4500H+ B									
pH		1	8.0	H		units	0.1	0.1	04/27/22 0:00	jck
pH measured at		1	21.8			C	0.1	0.1	04/27/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	584			mg/L	20	40	04/26/22 17:03	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	14.4		*	mg/L	1	5	05/03/22 17:30	mjj1

Trout Unlimited Inc
Project ID:
Sample ID: UBR

ACZ Sample ID: ***L72716-05***
Date Sampled: *04/20/22 16:12*
Date Received: *04/22/22*
Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								04/26/22 9:45	mlh
Total Hot Plate Digestion	M200.2 ICP								05/03/22 18:46	keh1/ae

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, dissolved	M200.7 ICP	1	24.4			mg/L	0.1	0.5	05/09/22 18:50	keh1/ae
Calcium, total	M200.7 ICP	1	26.4			mg/L	0.1	0.5	05/06/22 14:53	wtc
Magnesium, dissolved	M200.7 ICP	1	4.82			mg/L	0.2	1	05/09/22 18:50	keh1/ae
Magnesium, total	M200.7 ICP	1	5.16			mg/L	0.2	1	05/06/22 14:53	wtc
Sodium, dissolved	M200.7 ICP	1	5.45			mg/L	0.2	1	05/09/22 18:50	keh1/ae
Sodium, total	M200.7 ICP	1	5.78			mg/L	0.2	1	05/06/22 14:53	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	61.8			mg/L	2	20	04/27/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Total Alkalinity		1	61.8			mg/L	2	20	04/27/22 0:00	jck
Chloride	SM4500Cl-E	1	11.6			mg/L	0.5	2	04/29/22 14:41	bls
Conductivity @25C	SM2510B	1	205			umhos/cm	1	10	04/27/22 4:47	jck
Hardness as CaCO3 (total)	SM2340B - Calculation		87			mg/L	0.2	5	05/11/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							04/27/22 8:40	mlh
pH (lab)	SM4500H+ B									
pH		1	8.2	H		units	0.1	0.1	04/27/22 0:00	jck
pH measured at		1	21.7			C	0.1	0.1	04/27/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	116			mg/L	20	40	04/26/22 17:05	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	24.4		*	mg/L	1	5	05/03/22 17:30	mjj1

Trout Unlimited Inc
Project ID:
Sample ID: BLUE AT FRENCH

ACZ Sample ID: ***L72716-06***
Date Sampled: *04/20/22 16:56*
Date Received: *04/22/22*
Sample Matrix: *Surface Water*

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								04/26/22 9:45	mlh
Total Hot Plate Digestion	M200.2 ICP								05/03/22 19:01	keh1/ae

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Calcium, dissolved	M200.7 ICP	1	37.7			mg/L	0.1	0.5	05/09/22 18:59	keh1/ae
Calcium, total	M200.7 ICP	1	40.7			mg/L	0.1	0.5	05/06/22 14:56	wtc
Magnesium, dissolved	M200.7 ICP	1	6.23			mg/L	0.2	1	05/09/22 18:59	keh1/ae
Magnesium, total	M200.7 ICP	1	7.01			mg/L	0.2	1	05/06/22 14:56	wtc
Sodium, dissolved	M200.7 ICP	1	8.97			mg/L	0.2	1	05/09/22 18:59	keh1/ae
Sodium, total	M200.7 ICP	1	9.46			mg/L	0.2	1	05/06/22 14:56	wtc

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO3	SM2320B - Titration									
Bicarbonate as CaCO3		1	50.8			mg/L	2	20	04/27/22 0:00	jck
Carbonate as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Hydroxide as CaCO3		1	<2	U		mg/L	2	20	04/27/22 0:00	jck
Total Alkalinity		1	50.8			mg/L	2	20	04/27/22 0:00	jck
Chloride	SM4500Cl-E	1	8.70			mg/L	0.5	2	04/29/22 14:42	bls
Conductivity @25C	SM2510B	1	307			umhos/cm	1	10	04/27/22 4:55	jck
Hardness as CaCO3 (total)	SM2340B - Calculation		130			mg/L	0.2	5	05/11/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							04/27/22 8:43	mlh
pH (lab)	SM4500H+ B									
pH		1	8.1	H		units	0.1	0.1	04/27/22 0:00	jck
pH measured at		1	21.8			C	0.1	0.1	04/27/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	190			mg/L	20	40	04/26/22 17:07	emk
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	86.0		*	mg/L	5	25	05/04/22 10:30	mjj1

Report Header Explanations

Batch	A distinct set of samples analyzed at a specific time
Found	Value of the QC Type of interest
Limit	Upper limit for RPD, in %.
Lower	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
MDL	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
PCN/SCN	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
PQL	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
QC	True Value of the Control Sample or the amount added to the Spike
Rec	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
RPD	Relative Percent Difference, calculation used for Duplicate QC Types
Upper	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
Sample	Value of the Sample of interest

QC Sample Types

AS	Analytical Spike (Post Digestion)	*LCSWD*	Laboratory Control Sample - Water Duplicate
ASD	Analytical Spike (Post Digestion) Duplicate	*LFB*	Laboratory Fortified Blank
CCB	Continuing Calibration Blank	*LFM*	Laboratory Fortified Matrix
CCV	Continuing Calibration Verification standard	*LFMD*	Laboratory Fortified Matrix Duplicate
DUP	Sample Duplicate	*LRB*	Laboratory Reagent Blank
ICB	Initial Calibration Blank	*MS*	Matrix Spike
ICV	Initial Calibration Verification standard	*MSD*	Matrix Spike Duplicate
ICSAB	Inter-element Correction Standard - A plus B solutions	*PBS*	Prep Blank - Soil
LCSS	Laboratory Control Sample - Soil	*PBW*	Prep Blank - Water
LCSSD	Laboratory Control Sample - Soil Duplicate	*PQV*	Practical Quantitation Verification standard
LCSW	Laboratory Control Sample - Water	*SDL*	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

(1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
(2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
(3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
(4) EPA SW-846. Test Methods for Evaluating Solid Waste.
(5) Standard Methods for the Examination of Water and Wastewater.

Comments

(1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
(2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
(3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
(4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
(5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:
https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf

REP001.03.15.02

TROUTUNL ACZ Project ID: ***L72716***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Alkalinity as CaCO3 SM2320B - Titration

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541025													
WG541025PBW1	PBW	04/26/22 18:57				2.2	mg/L		-20	20			
WG541025LCSW3	LCSW	04/26/22 19:17	WC220415-10	820.0001		826.3	mg/L	101	90	110			
WG541025LCSW6	LCSW	04/26/22 22:39	WC220415-10	820.0001		827.3	mg/L	101	90	110			
WG541025PBW2	PBW	04/26/22 22:45				4.2	mg/L		-20	20			
WG541025LCSW9	LCSW	04/27/22 2:08	WC220415-10	820.0001		835.3	mg/L	102	90	110			
WG541025PBW3	PBW	04/27/22 2:14				6.1	mg/L		-20	20			
L72721-02DUP	DUP	04/27/22 5:32			80.3	79.4	mg/L				1	20	
WG541025LCSW12	LCSW	04/27/22 5:51	WC220415-10	820.0001		841.8	mg/L	103	90	110			
WG541025PBW4	PBW	04/27/22 5:57				6.1	mg/L		-20	20			
WG541025LCSW15	LCSW	04/27/22 8:38	WC220415-10	820.0001		851	mg/L	104	90	110			

Calcium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541568													
WG541568ICV	ICV	05/09/22 17:15	II220427-2	100		99.96	mg/L	100	95	105			
WG541568ICB	ICB	05/09/22 17:21				U	mg/L		-0.3	0.3			
WG541568LFB	LFB	05/09/22 17:34	II220502-2	67.9908		68.37	mg/L	101	85	115			
L72716-05AS	AS	05/09/22 18:53	II220502-2	67.9908	24.4	94.8	mg/L	104	85	115			
L72716-05ASD	ASD	05/09/22 18:56	II220502-2	67.9908	24.4	93.01	mg/L	101	85	115	2	20	

Calcium, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541592													
WG541592ICV	ICV	05/06/22 13:40	II220408-5	100		99.35	mg/L	99	95	105			
WG541592ICB	ICB	05/06/22 13:45				U	mg/L		-0.3	0.3			
WG541401LRB	LRB	05/06/22 13:58				U	mg/L		-0.22	0.22			
WG541401LFB	LFB	05/06/22 14:01	II220502-2	67.9908		69.33	mg/L	102	85	115			
L72573-02LFM	LFM	05/06/22 14:13	II220502-2	67.9908	466	516.3	mg/L	74	70	130			
L72573-02LFMD	LFMD	05/06/22 14:17	II220502-2	67.9908	466	506.3	mg/L	59	70	130	2	20	M3
L72726-04LFM	LFM	05/06/22 15:18	II220502-2	67.9908	110	178.7	mg/L	101	70	130			
L72726-04LFMD	LFMD	05/06/22 15:21	II220502-2	67.9908	110	176.7	mg/L	98	70	130	1	20	

Chloride SM4500Cl-E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541147													
WG541147ICV	ICV	04/29/22 14:22	WI210503-1	54.89		58.31	mg/L	106	90	110			
WG541147ICB	ICB	04/29/22 14:22				U	mg/L		-1.5	1.5			
WG541147LFB1	LFB	04/29/22 14:23	WI220328-1	29.97		31.31	mg/L	104	90	110			
WG541147LFB2	LFB	04/29/22 14:38	WI220328-1	29.97		30.95	mg/L	103	90	110			
L72716-05AS	AS	04/29/22 14:42	WI220328-1	29.97	11.6	42.9	mg/L	104	90	110			
L72716-06DUP	DUP	04/29/22 14:43			8.7	8.56	mg/L				2	20	

TROUTUNL ACZ Project ID: ***L72716***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Conductivity @25C SM2510B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541025													
WG541025LCSW2	LCSW	04/26/22 19:04	PCN65231	1409		1431	umhos/cm	102	90	110			
WG541025LCSW5	LCSW	04/26/22 22:26	PCN65231	1409		1424	umhos/cm	101	90	110			
WG541025LCSW8	LCSW	04/27/22 1:54	PCN65231	1409		1417	umhos/cm	101	90	110			
L72721-02DUP	DUP	04/27/22 5:32			427	429	umhos/cm				0	20	
WG541025LCSW11	LCSW	04/27/22 5:38	PCN65231	1409		1410	umhos/cm	100	90	110			
WG541025LCSW14	LCSW	04/27/22 8:25	PCN65231	1409		1402	umhos/cm	100	90	110			

Magnesium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541568													
WG541568ICV	ICV	05/09/22 17:15	II220427-2	100		96.34	mg/L	96	95	105			
WG541568ICB	ICB	05/09/22 17:21				U	mg/L		-0.6	0.6			
WG541568LFB	LFB	05/09/22 17:34	II220502-2	49.99922		47.86	mg/L	96	85	115			
L72716-05AS	AS	05/09/22 18:53	II220502-2	49.99922	4.82	55.06	mg/L	100	85	115			
L72716-05ASD	ASD	05/09/22 18:56	II220502-2	49.99922	4.82	53.57	mg/L	98	85	115	3	20	

Magnesium, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541592													
WG541592ICV	ICV	05/06/22 13:40	II220408-5	100		95.34	mg/L	95	95	105			
WG541592ICB	ICB	05/06/22 13:45				U	mg/L		-0.6	0.6			
WG541401LRB	LRB	05/06/22 13:58				U	mg/L		-0.44	0.44			
WG541401LFB	LFB	05/06/22 14:01	II220502-2	49.99922		48.74	mg/L	97	85	115			
L72573-02LFM	LFM	05/06/22 14:13	II220502-2	49.99922	.69	48.85	mg/L	96	70	130			
L72573-02LFMD	LFMD	05/06/22 14:17	II220502-2	49.99922	.69	48.81	mg/L	96	70	130	0	20	
L72726-04LFM	LFM	05/06/22 15:18	II220502-2	49.99922	37.6	86.42	mg/L	98	70	130			
L72726-04LFMD	LFMD	05/06/22 15:21	II220502-2	49.99922	37.6	85.43	mg/L	96	70	130	1	20	

pH (lab) SM4500H+ B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541025													
WG541025LCSW1	LCSW	04/26/22 19:02	PCN64057	6		6.1	units	102	5.9	6.1			
WG541025LCSW4	LCSW	04/26/22 22:24	PCN64057	6		6.1	units	102	5.9	6.1			
WG541025LCSW7	LCSW	04/27/22 1:53	PCN64057	6		6.1	units	102	5.9	6.1			
L72721-02DUP	DUP	04/27/22 5:32			7.8	7.8	units				0	20	
WG541025LCSW10	LCSW	04/27/22 5:36	PCN64057	6		6.1	units	102	5.9	6.1			
WG541025LCSW13	LCSW	04/27/22 8:23	PCN64057	6		6.1	units	102	5.9	6.1			

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541020													
WG541020PBW	PBW	04/26/22 16:30				U	mg/L		-20	20			
WG541020LCSW	LCSW	04/26/22 16:31	PCN63848	1000		988	mg/L	99	80	120			
L72727-03DUP	DUP	04/26/22 17:14			2820	2814	mg/L				0	10	

TROUTUNL ACZ Project ID: ***L72716***

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541568													
WG541568ICV	ICV	05/09/22 17:15	II220427-2	100		99.72	mg/L	100	95	105			
WG541568ICB	ICB	05/09/22 17:21				U	mg/L		-0.6	0.6			
WG541568LFB	LFB	05/09/22 17:34	II220502-2	100.0282		98.74	mg/L	99	85	115			
L72716-05AS	AS	05/09/22 18:53	II220502-2	100.0282	5.45	110.3	mg/L	105	85	115			
L72716-05ASD	ASD	05/09/22 18:56	II220502-2	100.0282	5.45	107.3	mg/L	102	85	115	3	20	

Sodium, total M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541592													
WG541592ICV	ICV	05/06/22 13:40	II220408-5	100		99.05	mg/L	99	95	105			
WG541592ICB	ICB	05/06/22 13:45				U	mg/L		-0.6	0.6			
WG541401LRB	LRB	05/06/22 13:58				U	mg/L		-0.44	0.44			
WG541401LFB	LFB	05/06/22 14:01	II220502-2	100.0282		99.83	mg/L	100	85	115			
L72573-02LFM	LFM	05/06/22 14:13	II220502-2	100.0282	113	210.6	mg/L	98	70	130			
L72573-02LFMD	LFMD	05/06/22 14:17	II220502-2	100.0282	113	208.2	mg/L	95	70	130	1	20	
L72726-04LFM	LFM	05/06/22 15:18	II220502-2	100.0282	86.4	186.4	mg/L	100	70	130			
L72726-04LFMD	LFMD	05/06/22 15:21	II220502-2	100.0282	86.4	184.9	mg/L	98	70	130	1	20	

Sulfate D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG541416													
WG541416ICB	ICB	05/03/22 10:12				U	mg/L		-3	3			
WG541416ICV	ICV	05/03/22 10:12	WI220502-4	20.46		19.3	mg/L	94	90	110			
WG541416LFB	LFB	05/03/22 17:26	WI220415-3	9.95		10	mg/L	101	90	110			
L72707-01DUP	DUP	05/03/22 18:51			575	571	mg/L				1	20	
L72712-01AS	AS	05/03/22 18:52	SO4TURB25X	50	2870	2868.1	mg/L	-4	90	110			M3
WG541460													
WG541460ICB	ICB	05/04/22 9:01				U	mg/L		-3	3			
WG541460ICV	ICV	05/04/22 9:01	WI220502-4	20.46		19.5	mg/L	95	90	110			
WG541460LFB	LFB	05/04/22 9:46	WI220415-3	9.95		10.4	mg/L	105	90	110			
L72719-01DUP	DUP	05/04/22 9:48			10.4	10.1	mg/L				3	20	
L72721-01AS	AS	05/04/22 10:30	SO4TURB5X	10	79.3	92.4	mg/L	131	90	110			M3
L72625-01DUP	DUP	05/04/22 10:52			284	286.1	mg/L				1	20	
L72627-01AS	AS	05/04/22 10:52	SO4TURB75X	9.9999975	1070	1062.7	mg/L	-73	90	110			M3

Trout Unlimited Inc

ACZ Project ID: ***L72716***

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L72716-01	WG541592	Calcium, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG541460	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L72716-02	WG541592	Calcium, total	M200.7 ICP	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
	WG541460	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L72716-03	WG541460	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L72716-04	WG541416	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L72716-05	WG541416	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.
L72716-06	WG541460	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The recovery of the associated control sample (LCS or LFB) was acceptable.

Certification Qualifiers

Trout Unlimited Inc

ACZ Project ID: ***L72716***

No certification qualifiers associated with this analysis

ACZ Laboratories, Inc.
2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Sample Receipt

Trout Unlimited Inc

ACZ Project ID: L72716
Date Received: 04/22/2022 11:01
Received By:
Date Printed: 4/25/2022

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?			X
2) Is the Chain of Custody form or other directive shipping papers present?	X		
3) Does this project require special handling procedures such as CLP protocol?		X	
4) Are any samples NRC licensable material?			X
5) If samples are received past hold time, proceed with requested short hold time analyses?	X		
6) Is the Chain of Custody form complete and accurate?	X		
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	X		

A change was made in the The relenquished date was corrected. section prior to ACZ custody.

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Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	X		
9) Are all labels on containers and are they intact and legible?	X		
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	X		
11) For preserved bottle types, was the pH checked and within limits? [1]	X		
12) Is there sufficient sample volume to perform all requested work?	X		
13) Is the custody seal intact on all containers?			X
14) Are samples that require zero headspace acceptable?			X
15) Are all sample containers appropriate for analytical requirements?		X	

L72716-01 : A green container not received and a new container created from the raw .

L72716-02 : A green container not received and a new container created from the raw .

L72716-03 : A green container not received and a new container

Trout Unlimited Inc

ACZ Project ID: L72716
Date Received: 04/22/2022 11:01
Received By:
Date Printed: 4/25/2022

created from the raw .

L72716-04 : A green container not received and a new container created from the raw .

L72716-05 : A green container not received and a new container created from the raw .

L72716-06 : A green container not received and a new container created from the raw .

16) Is there an Hg-1631 trip blank present?			X
17) Is there a VOA trip blank present?			X
18) Were all samples received within hold time?	X		

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp(°C)	Temp Criteria(°C)	Rad(µR/Hr)	Custody Seal Intact?
7213	2.3	<=6.0	15	Yes

Was ice present in the shipment container(s)?

Yes - Wet ice was present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

[1] The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na2S2O3 preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).

ACZ Laboratories, Inc. L72716

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

CHAIN of CUSTODY

Report to:

Name: Tanner Banks	Address: 642 S 10th St
Company: Trout Unlimited	Montrose, CO 81401
E-mail: tanner.banks@tu.org	Telephone: 970.390.9492

Copy of Report to:

Name: Kendra Fuller	E-mail: info@blueriverwatershed.org
Company: Blue River Watershed Group	Telephone: 719-838-1525

Invoice to:

Name: Tanner Banks	Address: 642 S 10th St.
Company: Trout Unlimited	Montrose, CO 81401
E-mail: tanner.banks@tu.org	Telephone: 970.390.9492

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses? YES ☐ NO ☐

If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified

Are samples for SDWA Compliance Monitoring? Yes ☐ No ☑

If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: Tanner Banks **Sampler's Site Information** State CO Zip code 81498 Time Zone MST

***Sampler's Signature:** [signature]

*I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

Quote #: WQ-ROAD-DEICER

PO#:

Reporting state for compliance testing:

Check box if samples include NRC licensed material?

ANALYSES REQUESTED *(attach list or use quote number)*

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers	Filtered
Mainstem 3	4/20/22: 11:44am		3	
Main Stem 2	4/20/22: 1:28pm		3	
Main Stem 1	" " : 2:17pm		3	
Straight Creek	" " : 3:17pm		3	
UBR	: 4:12 pm		3	
Blue at French	4/21/22: 4:56pm		3	

Matrix: SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Field work was completed after shipping ~~tours~~ on 4/20. Samples were kept overnight in a refridgerator, ice packs refrozen. Sample cooler sent out first thing 4/21/2022.

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
Tanner Banks	4/21/22:	[signature]	4/22/22 15:48

L72716 Chain of Custod

ACZ Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Bottle Order Packing List

Account: TROUTUNL/Trout Unlimited Inc
Bottle Order: BO48988
Internal Note:

Bill to Account: Bill to ACZ
Ship Date Requested: 02/16/2022
Request Placed at: 02/14/2022 13:24
Service Requested: UPS Ground

Sampling supplies

PACK	Qty	ACZ ID	Type	Description
		TRIP HG		
X	1	COC	Chain of Custody	Chain of Custody, 1 for 10 samples.
X	2	SEAL	Custody Seal	Custody seals for cooler, two for each cooler.
X	1	RETURN	Return Address	Return Address label, one for each cooler.
X	~~30~~	LABELS	Sample Labels	ACZ supplied labels for sample containers

ACZ Coolers

PACK	Qty	ACZ ID	Size	Weight	UPS Tracking Number
	1	7213	Large	11	

Quote number: WQ-ROAD-DEICER
2022 Water Quality Samples - Road Deicer

Sample Quantity: ~~10~~ 6 [6]

FILT products in quote. A FILT sticker affixed to a sample container indicates the laboratory will perform filtration.

PACK	Qty	Type	Size	Filter/Raw/Preserve	Instructions
	1	RAW	500 ML	Raw	Wet Chemistry (analyses that do not require preservative or filtration) - Completely fill container.
	1	WHITE	250 ML	Filtered	Wet chemistry (dissolved) - Filter sample with .45 micron filter. Completely fill container.
	1	RED	250 ML	Raw/Nitric	Metals (total except ICPMS) - Do not overfill as there is Nitric Acid in the bottle.

Prepared By/Date: _____

mjj