



12150 E. Briarwood Ave. Suite 135, Centennial, CO 80112
T. (303) 862-3928

May 13, 2022

Colorado Department of Public Health and Environment
Water Quality Control Division / WQCD-B2-CAS
Compliance Assurance Section
Attention: Eric Mink
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Subject: March 2022 SW-AWD and SW-BPL Surface Monitoring Data for Sampling Stations,
Schwartzwalder Mine, Paragraph 26, WQCD Order Number: IO 100601-1, June 1, 2010,
Schwartzwalder Mine, Golden, Colorado

Dear Mr. Mink:

Pursuant to Paragraph 26 of the above referenced Order, please find enclosed data reports from contract laboratories as received by Ensero Solutions, Inc working on behalf of Colorado Legacy Land. This data originates from the analysis of the surface water sample collected in March 2022 at the Schwartzwalder Mine, monitoring station SW-AWD and SW-BPL. Review of the data indicates that the total and dissolved uranium concentrations at SW-AWD and SW-BPL were below 30 µg/L.

If you have any questions, please don't hesitate to contact me.

Sincerely,

Jim Harrington, Managing Director
COLORADO LEGACY LAND
jim@ColoradoLegacy.Land

Distribution List:

Dan Arnold, Denver Water, 1 electronic copy via weblink, Daniel.Arnold@DenverWater.org
Eric Mink, CDPHE, 1 electronic copy via weblink, Eric.Mink@state.co.us
Amy Eschberger, DRMS, 1 electronic copy via weblink and 1 hard copy via FedEx,
amy.eschberger@state.co.us
Billy Ray, Ensero Solutions, 1 electronic copy, bray@ensero.com
Brad Wyant, City of Arvada, 1 electronic copy, brwyant@arvada.org
Evelyn Rhodes, City of Arvada, 1 electronic copy, erhodes@arvada.org

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Jim Harrington, Managing Director
COLORADO LEGACY LAND



March 2022 Schwartzwalder Monthly Surface Water Report

Contents:

Sample Location	Sample Date	Analysis	Sample ID	Temp (°C)	Field pH (S.U.)	Conductivity (μS/cm)	DO (mg/L)	ORP (mV)
SW-BPL	03/02/2022	Sample Suite 2	L71749-01	3.3	8.29	222.0	11.39	80.4
SW-AWD	03/02/2022	Sample Suite 2	L71749-02	1.2	8.61	207.8	11.93	75.1

May 05, 2022

Report to:

Christie Brizinski
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

Bill to:

Pauline Wong
Ensero Solutions
131 E. Lincoln Ave Ste. 200
Fort Collins, CO 80524

cc: Ensero/Alexco Importer, Evan Valencia

Project ID: 3100-PO205

ACZ Project ID: L71749

Christie Brizinski:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on March 03, 2022. This project has been assigned to ACZ's project number, L71749. Please reference this number in all future inquiries.

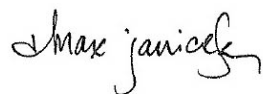
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L71749. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

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 04, 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.



Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

ACZ Sample ID: **L71749-01**

Date Sampled: 03/02/22 12:00

Date Received: 03/03/22

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation								03/04/22 9:10	bls
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								03/07/22 12:26	mrd/bls
Total Hot Plate Digestion	M200.2 ICP-MS								03/15/22 11:56	kja
Total Hot Plate Digestion	M200.2 ICP								03/16/22 14:36	aeH
Total Recoverable Digestion	M200.2 ICP-MS								03/10/22 10:00	mfm
Total Recoverable Digestion	M200.2 ICP								03/12/22 0:07	wtc

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total recoverable	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	03/11/22 16:11	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	03/16/22 17:23	mfm
Boron, total	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	03/17/22 22:47	jlw
Chromium, total recoverable	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	03/16/22 2:43	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	03/23/22 4:01	jlw
Molybdenum, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	03/23/22 4:01	jlw
Molybdenum, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	03/17/22 22:47	jlw
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	03/17/22 16:19	mfm
Thallium, total recoverable	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	03/11/22 16:11	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.00807			mg/L	0.0001	0.0005	03/17/22 16:19	mfm
Uranium, total	M200.8 ICP-MS	1	0.00787			mg/L	0.0001	0.0005	03/16/22 17:23	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	03/23/22 4:01	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	03/04/22 14:12	bls
Fluoride	SM4500F-C	1	0.32	B		mg/L	0.15	0.35	03/21/22 12:44	emk
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1	<0.02	U	*	mg/L	0.02	0.1	03/26/22 2:34	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	05/05/22 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	03/08/22 15:54	bls
Residue, Filterable (TDS) @180C	SM2540C	1	208			mg/L	20	40	03/03/22 16:03	anc
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	03/04/22 15:59	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	29.8			mg/L	1	5	03/18/22 8:51	mjj1

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

ACZ Sample ID: **L71749-02**

Date Sampled: 03/02/22 14:05

Date Received: 03/03/22

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation								03/09/22 18:49	bls
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								03/07/22 12:39	mrd/bls
Total Hot Plate Digestion	M200.2 ICP-MS								03/15/22 12:07	kja
Total Hot Plate Digestion	M200.2 ICP				*				03/16/22 14:52	aeH
Total Recoverable Digestion	M200.2 ICP-MS								03/10/22 10:00	mfm
Total Recoverable Digestion	M200.2 ICP								03/12/22 0:46	wtc

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Antimony, total recoverable	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	03/11/22 16:13	mfm
Arsenic, total	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	03/16/22 17:25	mfm
Boron, total	M200.7 ICP	2	<0.06	U		mg/L	0.06	0.2	03/17/22 22:51	jlw
Chromium, total recoverable	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	03/16/22 2:46	jlw
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	03/23/22 4:04	jlw
Molybdenum, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	03/23/22 4:04	jlw
Molybdenum, total	M200.7 ICP	2	<0.04	U		mg/L	0.04	0.2	03/17/22 22:51	jlw
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	03/17/22 16:28	mfm
Thallium, total recoverable	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	03/11/22 16:13	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.00231			mg/L	0.0001	0.0005	03/17/22 16:28	mfm
Uranium, total	M200.8 ICP-MS	1	0.00210			mg/L	0.0001	0.0005	03/16/22 17:25	mfm
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	03/23/22 4:04	jlw

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I,E- Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	03/10/22 13:15	bls
Fluoride	SM4500F-C	1	0.29	B		mg/L	0.15	0.35	03/21/22 13:04	emk
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1	<0.02	U	*	mg/L	0.02	0.1	03/26/22 2:36	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	05/05/22 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	03/08/22 15:55	bls
Residue, Filterable (TDS) @180C	SM2540C	1	202			mg/L	20	40	03/03/22 16:05	anc
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	03/04/22 16:01	anc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	26.9			mg/L	1	5	03/18/22 8:51	mjj1



Report Header Explanations

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

QC Sample Types

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

ENSERO

ACZ Project ID: **L71749**

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.

Antimony, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538164													
WG538164ICV	ICV	03/11/22 15:45	MS220125-1	.0201		.01982	mg/L	99	90	110			
WG538164ICB	ICB	03/11/22 15:46				.00056	mg/L		-0.0012	0.0012			
WG538022LRB	LRB	03/11/22 15:48				U	mg/L		-0.00088	0.00088			
WG538022LFB	LFB	03/11/22 15:50	MS220228-9	.01		.01144	mg/L	114	85	115			
L71748-01LFM	LFM	03/11/22 16:03	MS220228-9	.01	U	.01145	mg/L	115	70	130			
L71748-01LFMD	LFMD	03/11/22 16:05	MS220228-9	.01	U	.0116	mg/L	116	70	130	1	20	
WG538164CCV1	CCV	03/11/22 16:07	MS220228-3	.0125		.01216	mg/L	97	90	110			
WG538164CCB1	CCB	03/11/22 16:09				U	mg/L		-0.0012	0.0012			
WG538164CCV2	CCV	03/11/22 16:30	MS220228-3	.0125		.01223	mg/L	98	90	110			
WG538164CCB2	CCB	03/11/22 16:31				U	mg/L		-0.0012	0.0012			
WG538164CCV3	CCV	03/11/22 16:45	MS220228-3	.0125		.01258	mg/L	101	90	110			
WG538164CCB3	CCB	03/11/22 16:47				U	mg/L		-0.0012	0.0012			

Arsenic, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538390													
WG538390ICV	ICV	03/16/22 17:10	MS220125-1	.05		.05209	mg/L	104	90	110			
WG538390ICB	ICB	03/16/22 17:12				U	mg/L		-0.0006	0.0006			
WG538254LRB	LRB	03/16/22 17:14				U	mg/L		-0.00044	0.00044			
WG538254LFB	LFB	03/16/22 17:16	MS220228-9	.05005		.04526	mg/L	90	85	115			
L71750-01LFM	LFM	03/16/22 17:29	MS220228-9	.05005	U	.04986	mg/L	100	70	130			
L71750-01LFMD	LFMD	03/16/22 17:31	MS220228-9	.05005	U	.05471	mg/L	109	70	130	9	20	
WG538390CCV1	CCV	03/16/22 17:32	MS220228-3	.1001		.09471	mg/L	95	90	110			
WG538390CCB1	CCB	03/16/22 17:34				U	mg/L		-0.0006	0.0006			
WG538390CCV2	CCV	03/16/22 17:55	MS220228-3	.1001		.09518	mg/L	95	90	110			
WG538390CCB2	CCB	03/16/22 17:57				U	mg/L		-0.0006	0.0006			
WG538390CCV3	CCV	03/16/22 18:08	MS220228-3	.1001		.0996	mg/L	100	90	110			
WG538390CCB3	CCB	03/16/22 18:10				U	mg/L		-0.0006	0.0006			

Boron, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538447													
WG538447ICV	ICV	03/17/22 22:23	II220315-6	2		2.023	mg/L	101	95	105			
WG538447ICB	ICB	03/17/22 22:29				U	mg/L		-0.09	0.09			
WG538447PQV	PQV	03/17/22 22:32	II220228-2	.1001		.114	mg/L	114	70	130			
WG538447SIC	SIC	03/17/22 22:35	II220131-5	.1001		.107	mg/L	107	80	120			
WG538375LRB	LRB	03/17/22 22:41				U	mg/L		-0.066	0.066			
WG538375LFB	LFB	03/17/22 22:44	II220314-2	.5005		.522	mg/L	104	85	115			
L71895-01LFM	LFM	03/17/22 23:00	II220314-2	.5005	.453	.986	mg/L	106	70	130			
L71895-01LFMD	LFMD	03/17/22 23:03	II220314-2	.5005	.453	.969	mg/L	103	70	130	2	20	
WG538447CCV1	CCV	03/17/22 23:13	II220304-1	1		1.02	mg/L	102	90	110			
WG538447CCB1	CCB	03/17/22 23:16				U	mg/L		-0.09	0.09			
WG538447CCV2	CCV	03/17/22 23:51	II220304-1	1		1.018	mg/L	102	90	110			
WG538447CCB2	CCB	03/17/22 23:54				U	mg/L		-0.09	0.09			
WG538447CCV3	CCV	03/18/22 0:17	II220304-1	1		1.009	mg/L	101	90	110			
WG538447CCB3	CCB	03/18/22 0:20				U	mg/L		-0.09	0.09			

ENSERO

ACZ Project ID: **L71749**

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.

Chromium, total recoverable

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538287													
WG538287ICV	ICV	03/16/22 1:38	II220311-1	2		1.982	mg/L	99	95	105			
WG538287ICB	ICB	03/16/22 1:44				U	mg/L		-0.06	0.06			
WG538287PQV	PQV	03/16/22 1:47	II220228-2	.05005		.048	mg/L	96	70	130			
WG538287SIC	SIC	03/16/22 1:50	II220228-3	.1001		.097	mg/L	97	80	120			
WG538146LRB	LRB	03/16/22 1:59				U	mg/L		-0.044	0.044			
WG538146LFB	LFB	03/16/22 2:03	II220215-2	.5005		.511	mg/L	102	85	115			
WG538287CCV1	CCV	03/16/22 2:27	II220228-4	1		.994	mg/L	99	90	110			
WG538287CCB1	CCB	03/16/22 2:30				U	mg/L		-0.06	0.06			
L71728-02LFM	LFM	03/16/22 2:37	II220215-2	.5005	U	.505	mg/L	101	70	130			
L71728-02LFMD	LFMD	03/16/22 2:40	II220215-2	.5005	U	.502	mg/L	100	70	130	1	20	
WG538287CCV2	CCV	03/16/22 3:04	II220228-4	1		.992	mg/L	99	90	110			
WG538287CCB2	CCB	03/16/22 3:07				U	mg/L		-0.06	0.06			
WG538287CCV3	CCV	03/16/22 3:32	II220228-4	1		.988	mg/L	99	90	110			
WG538287CCB3	CCB	03/16/22 3:35				U	mg/L		-0.06	0.06			

Copper, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538660													
WG538660ICV	ICV	03/23/22 3:00	II220311-1	2		2.02	mg/L	101	95	105			
WG538660ICB	ICB	03/23/22 3:06				U	mg/L		-0.03	0.03			
WG538660PQV	PQV	03/23/22 3:09	II220228-2	.05		.054	mg/L	108	70	130			
WG538660SIC	SIC	03/23/22 3:12	II220228-3	.1		.099	mg/L	99	80	120			
WG538660LFB	LFB	03/23/22 3:18	II220314-2	.5		.535	mg/L	107	85	115			
WG538660CCV1	CCV	03/23/22 3:49	II220228-4	1		1.004	mg/L	100	90	110			
WG538660CCB1	CCB	03/23/22 3:52				U	mg/L		-0.03	0.03			
L71745-02AS	AS	03/23/22 3:55	II220314-2	.5	U	.544	mg/L	109	85	115			
L71745-02ASD	ASD	03/23/22 3:58	II220314-2	.5	U	.54	mg/L	108	85	115	1	20	
WG538660CCV2	CCV	03/23/22 4:26	II220228-4	1		1.007	mg/L	101	90	110			
WG538660CCB2	CCB	03/23/22 4:29				U	mg/L		-0.03	0.03			
L71902-02AS	AS	03/23/22 4:35	II220314-2	.5	U	.539	mg/L	108	85	115			
L71902-02ASD	ASD	03/23/22 4:38	II220314-2	.5	U	.541	mg/L	108	85	115	0	20	
WG538660CCV3	CCV	03/23/22 4:48	II220228-4	1		1.003	mg/L	100	90	110			
WG538660CCB3	CCB	03/23/22 4:51				U	mg/L		-0.03	0.03			

ENSERO

ACZ Project ID: **L71749**

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.

Cyanide, WAD

SM4500-CN I,E-Colorimetric w/ distillation

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537737													
WG537737ICV	ICV	03/04/22 14:04	WI220228-9	.3003		.3141	mg/L	105	90	110			
WG537737ICB	ICB	03/04/22 14:05				U	mg/L		-0.003	0.003			
WG537700LRB	LRB	03/04/22 14:05				U	mg/L		-0.003	0.003			
WG537700LFB	LFB	03/04/22 14:06	WI220228-2	.2002		.2076	mg/L	104	90	110			
WG537737CCV1	CCV	03/04/22 14:14	WI220228-10	.25		.2489	mg/L	100	90	110			
WG537737CCB1	CCB	03/04/22 14:15				U	mg/L		-0.003	0.003			
L71750-01DUP	DUP	03/04/22 14:17			U	U	mg/L				0	20	RA
WG537737CCV2	CCV	03/04/22 14:25	WI220228-10	.25		.2492	mg/L	100	90	110			
WG537737CCB2	CCB	03/04/22 14:26				U	mg/L		-0.003	0.003			
L71750-02LFM	LFM	03/04/22 14:31	WI220228-2	.2002	U	.2052	mg/L	102	90	110			
WG537737CCV3	CCV	03/04/22 14:39	WI220228-10	.25		.2496	mg/L	100	90	110			
WG537737CCB3	CCB	03/04/22 14:40				U	mg/L		-0.003	0.003			
WG538049													
WG538049ICV	ICV	03/10/22 13:12	WI220228-9	.3003		.3202	mg/L	107	90	110			
WG538049ICB	ICB	03/10/22 13:13				U	mg/L		-0.003	0.003			
WG538003LRB	LRB	03/10/22 13:13				U	mg/L		-0.003	0.003			
WG538003LFB	LFB	03/10/22 13:14	WI220228-2	.2002		.1992	mg/L	100	90	110			
WG538049CCV1	CCV	03/10/22 13:22	WI220228-10	.25		.2536	mg/L	101	90	110			
WG538049CCB1	CCB	03/10/22 13:23				U	mg/L		-0.003	0.003			
L71827-02DUP	DUP	03/10/22 13:31			U	U	mg/L				0	20	RA
WG538049CCV2	CCV	03/10/22 13:32	WI220228-10	.25		.2528	mg/L	101	90	110			
WG538049CCB2	CCB	03/10/22 13:33				U	mg/L		-0.003	0.003			
L71839-02LFM	LFM	03/10/22 13:36	WI220228-2	.2002	U	.2158	mg/L	108	90	110			
WG538049CCV3	CCV	03/10/22 13:41	WI220228-10	.25		.2542	mg/L	102	90	110			
WG538049CCB3	CCB	03/10/22 13:41				U	mg/L		-0.003	0.003			

Fluoride

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538615													
WG538615ICV	ICV	03/21/22 11:12	WC220314-1	2.008		1.98	mg/L	99	90	110			
WG538615ICB	ICB	03/21/22 11:20				U	mg/L		-0.3	0.3			
WG538615PQV	PQV	03/21/22 11:25	WC220304-2	.3514		.34	mg/L	97	70	130			
WG538615LFB	LFB	03/21/22 11:33	WC220104-2	5.02		5.05	mg/L	101	90	110			
L71720-02AS	AS	03/21/22 11:49	WC220104-2	5.02	1.68	6.42	mg/L	94	90	110			
L71720-02ASD	ASD	03/21/22 11:57	WC220104-2	5.02	1.68	6.24	mg/L	91	90	110	3	20	
WG538615CCV1	CCV	03/21/22 12:48	WC220314-1	2.008		2.02	mg/L	101	90	110			
WG538615CCB1	CCB	03/21/22 12:56				U	mg/L		-0.3	0.3			
WG538615CCV2	CCV	03/21/22 14:19	WC220314-1	2.008		2.03	mg/L	101	90	110			
WG538615CCB2	CCB	03/21/22 14:27				U	mg/L		-0.3	0.3			
WG538615CCV3	CCV	03/21/22 15:10	WC220314-1	2.008		2.04	mg/L	102	90	110			
WG538615CCB3	CCB	03/21/22 15:18				U	mg/L		-0.3	0.3			

ENSERO

ACZ Project ID: **L71749**

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.

Molybdenum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538660													
WG538660ICV	ICV	03/23/22 3:00	II220311-1	2		2.026	mg/L	101	95	105			
WG538660ICB	ICB	03/23/22 3:06				U	mg/L		-0.06	0.06			
WG538660PQV	PQV	03/23/22 3:09	II220228-2	.1002		.105	mg/L	105	70	130			
WG538660SIC	SIC	03/23/22 3:12	II220228-3	.1002		.091	mg/L	91	80	120			
WG538660LFB	LFB	03/23/22 3:18	II220314-2	.501		.521	mg/L	104	85	115			
WG538660CCV1	CCV	03/23/22 3:49	II220228-4	1		1.004	mg/L	100	90	110			
WG538660CCB1	CCB	03/23/22 3:52				U	mg/L		-0.06	0.06			
L71745-02AS	AS	03/23/22 3:55	II220314-2	.501	U	.524	mg/L	105	85	115			
L71745-02ASD	ASD	03/23/22 3:58	II220314-2	.501	U	.526	mg/L	105	85	115	0	20	
WG538660CCV2	CCV	03/23/22 4:26	II220228-4	1		1.003	mg/L	100	90	110			
WG538660CCB2	CCB	03/23/22 4:29				U	mg/L		-0.06	0.06			
L71902-02AS	AS	03/23/22 4:35	II220314-2	.501	U	.515	mg/L	103	85	115			
L71902-02ASD	ASD	03/23/22 4:38	II220314-2	.501	U	.526	mg/L	105	85	115	2	20	
WG538660CCV3	CCV	03/23/22 4:48	II220228-4	1		.995	mg/L	100	90	110			
WG538660CCB3	CCB	03/23/22 4:51				U	mg/L		-0.06	0.06			

Molybdenum, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538447													
WG538447ICV	ICV	03/17/22 22:23	II220315-6	2		2.011	mg/L	101	95	105			
WG538447ICB	ICB	03/17/22 22:29				U	mg/L		-0.06	0.06			
WG538447PQV	PQV	03/17/22 22:32	II220228-2	.1002		.099	mg/L	99	70	130			
WG538447SIC	SIC	03/17/22 22:35	II220131-5	.1002		.09	mg/L	90	80	120			
WG538375LRB	LRB	03/17/22 22:41				U	mg/L		-0.044	0.044			
WG538375LFB	LFB	03/17/22 22:44	II220314-2	.501		.506	mg/L	101	85	115			
L71895-01LFM	LFM	03/17/22 23:00	II220314-2	.501	U	.514	mg/L	103	70	130			
L71895-01LFMD	LFMD	03/17/22 23:03	II220314-2	.501	U	.512	mg/L	102	70	130	0	20	
WG538447CCV1	CCV	03/17/22 23:13	II220304-1	1		1.01	mg/L	101	90	110			
WG538447CCB1	CCB	03/17/22 23:16				U	mg/L		-0.06	0.06			
WG538447CCV2	CCV	03/17/22 23:51	II220304-1	1		1.01	mg/L	101	90	110			
WG538447CCB2	CCB	03/17/22 23:54				U	mg/L		-0.06	0.06			
WG538447CCV3	CCV	03/18/22 0:17	II220304-1	1		.998	mg/L	100	90	110			
WG538447CCB3	CCB	03/18/22 0:20				U	mg/L		-0.06	0.06			

ENSERO

ACZ Project ID: **L71749**

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.

Nitrate/Nitrite as N

M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG539048													
WG539048ICV	ICV	03/25/22 22:38	WI220301-7	2.4161		2.333	mg/L	97	90	110			
WG539048ICB	ICB	03/25/22 22:39				U	mg/L		-0.02	0.02			
WG539054													
WG539054CCV1	CCV	03/26/22 2:06	WI220321-3	2		1.991	mg/L	100	90	110			
WG539054CCB1	CCB	03/26/22 2:09				U	mg/L		-0.02	0.02			
WG539054LFB	LFB	03/26/22 2:10	WI211001-5	2		2.003	mg/L	100	90	110			
WG539054CCV2	CCV	03/26/22 2:23	WI220321-3	2		1.968	mg/L	98	90	110			
WG539054CCB2	CCB	03/26/22 2:26				U	mg/L		-0.02	0.02			
L66187-42AS	AS	03/26/22 2:32	WI211001-5	2	U	2.012	mg/L	101	90	110			
L71749-01DUP	DUP	03/26/22 2:35			U	U	mg/L				0	20	RA
WG539054CCV3	CCV	03/26/22 2:40	WI220321-3	2		1.953	mg/L	98	90	110			
WG539054CCB3	CCB	03/26/22 2:43				U	mg/L		-0.02	0.02			
WG539054CCV4	CCV	03/26/22 2:53	WI220321-3	2		1.942	mg/L	97	90	110			
WG539054CCB4	CCB	03/26/22 2:56				U	mg/L		-0.02	0.02			

Phosphorus, total

M365.1 - Auto Ascorbic Acid (digest)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537900													
WG537900ICV	ICV	03/08/22 15:47	WI220304-9	.65228		.652	mg/L	100	90	110			
WG537900ICB	ICB	03/08/22 15:49				U	mg/L		-0.01	0.01			
WG537790LRB	LRB	03/08/22 15:50				U	mg/L		-0.01	0.01			
WG537790LFB	LFB	03/08/22 15:52	WI220222-3	.5		.486	mg/L	97	90	110			
L71750-01LFM	LFM	03/08/22 15:57	WI220222-3	.5	U	.499	mg/L	100	90	110			
L71750-02DUP	DUP	03/08/22 15:59			U	U	mg/L				0	20	RA
WG537900CCV1	CCV	03/08/22 16:01	WI220304-10	.5		.488	mg/L	98	90	110			
WG537900CCB1	CCB	03/08/22 16:02				U	mg/L		-0.01	0.01			
WG537900CCV2	CCV	03/08/22 16:14	WI220304-10	.5		.488	mg/L	98	90	110			
WG537900CCB2	CCB	03/08/22 16:16				U	mg/L		-0.01	0.01			
WG537900CCV3	CCV	03/08/22 16:25	WI220304-10	.5		.49	mg/L	98	90	110			
WG537900CCB3	CCB	03/08/22 16:26				U	mg/L		-0.01	0.01			

Residue, Filterable (TDS) @180C

SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537686													
WG537686PBW	PBW	03/03/22 15:24				U	mg/L		-20	20			
WG537686LCSW	LCSW	03/03/22 15:26	PCN64722	1000		980	mg/L	98	80	120			
L71750-06DUP	DUP	03/03/22 16:24			206	200	mg/L				3	10	

Residue, Non-Filterable (TSS) @105C

SM2540D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG537750													
WG537750PBW	PBW	03/04/22 15:46				U	mg/L		-2	2			
WG537750LCSW	LCSW	03/04/22 15:48	PCN64711	100		91	mg/L	91	80	120			
L71750-05DUP	DUP	03/04/22 16:17			U	U	mg/L				0	10	RA

ENSERO

ACZ Project ID: **L71749**

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.

Silver, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538443													
WG538443ICV	ICV	03/17/22 15:38	MS220125-1	.02		.02152	mg/L	108	90	110			
WG538443ICB	ICB	03/17/22 15:40				U	mg/L		-0.00022	0.00022			
WG538443LFB	LFB	03/17/22 15:42	MS220228-9	.01		.00928	mg/L	93	85	115			
WG538443CCV1	CCV	03/17/22 16:00	MS220228-3	.025		.02398	mg/L	96	90	110			
WG538443CCB1	CCB	03/17/22 16:02				U	mg/L		-0.0003	0.0003			
L71749-01AS	AS	03/17/22 16:21	MS220228-9	.01	U	.00917	mg/L	92	70	130			
WG538443CCV2	CCV	03/17/22 16:23	MS220228-3	.025		.02342	mg/L	94	90	110			
WG538443CCB2	CCB	03/17/22 16:25				U	mg/L		-0.0003	0.0003			IA
L71749-01ASD	ASD	03/17/22 16:27	MS220228-9	.01	U	.00915	mg/L	92	70	130	0	20	
WG538443CCV3	CCV	03/17/22 16:36	MS220228-3	.025		.02258	mg/L	90	90	110			E6
WG538443CCB3	CCB	03/17/22 16:38				U	mg/L		-0.0003	0.0003			IA

Sulfate

D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538477													
WG538477ICV	ICV	03/18/22 6:41	WI220316-7	20.46		20.3	mg/L	99	90	110			
WG538477ICB	ICB	03/18/22 6:41				U	mg/L		-3	3			
WG538477CCV1	CCV	03/18/22 8:35	WI220316-6	24.875		25.4	mg/L	102	90	110			
WG538477CCB1	CCB	03/18/22 8:35				U	mg/L		-3	3			
WG538477CCV2	CCV	03/18/22 8:36	WI220316-6	24.875		25	mg/L	101	90	110			
WG538477CCB2	CCB	03/18/22 8:36				U	mg/L		-3	3			
WG538477CCV3	CCV	03/18/22 8:48	WI220316-6	24.875		24.9	mg/L	100	90	110			
WG538477CCB3	CCB	03/18/22 8:48				2.1	mg/L		-3	3			
WG538477LFB	LFB	03/18/22 8:51	WI211230-5	9.95		10.2	mg/L	103	90	110			
L71749-01DUP	DUP	03/18/22 8:51			29.8	30	mg/L				1	20	
L71749-02AS	AS	03/18/22 8:51	WI211230-5	9.95	26.9	36.2	mg/L	93	90	110			
WG538477CCV4	CCV	03/18/22 8:52	WI220316-6	24.875		24.5	mg/L	98	90	110			
WG538477CCB4	CCB	03/18/22 8:52				U	mg/L		-3	3			
WG538477CCV5	CCV	03/18/22 9:03	WI220316-6	24.875		25.1	mg/L	101	90	110			
WG538477CCB5	CCB	03/18/22 9:03				U	mg/L		-3	3			
WG538477CCV6	CCV	03/18/22 9:07	WI220316-6	24.875		24.8	mg/L	100	90	110			
WG538477CCB6	CCB	03/18/22 9:07				U	mg/L		-3	3			
WG538477CCV7	CCV	03/18/22 9:09	WI220316-6	24.875		25.6	mg/L	103	90	110			
WG538477CCB7	CCB	03/18/22 9:09				U	mg/L		-3	3			
WG538477CCV8	CCV	03/18/22 9:16	WI220316-6	24.875		25.5	mg/L	103	90	110			
WG538477CCB8	CCB	03/18/22 9:16				U	mg/L		-3	3			

ENSERO

ACZ Project ID: **L71749**

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.

Thallium, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538164													
WG538164ICV	ICV	03/11/22 15:45	MS220125-1	.05		.0514	mg/L	103	90	110			
WG538164ICB	ICB	03/11/22 15:46				U	mg/L		-0.0003	0.0003			
WG538022LRB	LRB	03/11/22 15:48				U	mg/L		-0.00022	0.00022			
WG538022LFB	LFB	03/11/22 15:50	MS220228-9	.05		.04848	mg/L	97	85	115			
L71748-01LFM	LFM	03/11/22 16:03	MS220228-9	.05	U	.05131	mg/L	103	70	130			
L71748-01LFMD	LFMD	03/11/22 16:05	MS220228-9	.05	U	.0519	mg/L	104	70	130	1	20	
WG538164CCV1	CCV	03/11/22 16:07	MS220228-3	.1		.10006	mg/L	100	90	110			
WG538164CCB1	CCB	03/11/22 16:09				U	mg/L		-0.0003	0.0003			
WG538164CCV2	CCV	03/11/22 16:30	MS220228-3	.1		.1016	mg/L	102	90	110			
WG538164CCB2	CCB	03/11/22 16:31				U	mg/L		-0.0003	0.0003			
WG538164CCV3	CCV	03/11/22 16:45	MS220228-3	.1		.10324	mg/L	103	90	110			
WG538164CCB3	CCB	03/11/22 16:47				U	mg/L		-0.0003	0.0003			

Uranium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538443													
WG538443ICV	ICV	03/17/22 15:38	MS220125-1	.05		.05392	mg/L	108	90	110			
WG538443ICB	ICB	03/17/22 15:40				U	mg/L		-0.00022	0.00022			
WG538443LFB	LFB	03/17/22 15:42	MS220228-9	.05		.0478	mg/L	96	85	115			
WG538443CCV1	CCV	03/17/22 16:00	MS220228-3	.1		.1	mg/L	100	90	110			
WG538443CCB1	CCB	03/17/22 16:02				U	mg/L		-0.0003	0.0003			
L71749-01AS	AS	03/17/22 16:21	MS220228-9	.05	.00807	.05803	mg/L	100	70	130			
WG538443CCV2	CCV	03/17/22 16:23	MS220228-3	.1		.09707	mg/L	97	90	110			E6
WG538443CCB2	CCB	03/17/22 16:25				.0002	mg/L		-0.0003	0.0003			E6
L71749-01ASD	ASD	03/17/22 16:27	MS220228-9	.05	.00807	.05746	mg/L	99	70	130	1	20	
WG538443CCV3	CCV	03/17/22 16:36	MS220228-3	.1		.09448	mg/L	94	90	110			
WG538443CCB3	CCB	03/17/22 16:38				U	mg/L		-0.0003	0.0003			

Uranium, total

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538390													
WG538390ICV	ICV	03/16/22 17:10	MS220125-1	.05		.05458	mg/L	109	90	110			
WG538390ICB	ICB	03/16/22 17:12				U	mg/L		-0.0003	0.0003			
WG538254LRB	LRB	03/16/22 17:14				U	mg/L		-0.00022	0.00022			
WG538254LFB	LFB	03/16/22 17:16	MS220228-9	.05		.0444	mg/L	89	85	115			
L71750-01LFM	LFM	03/16/22 17:29	MS220228-9	.05	.0167	.06323	mg/L	93	70	130			
L71750-01LFMD	LFMD	03/16/22 17:31	MS220228-9	.05	.0167	.06456	mg/L	96	70	130	2	20	
WG538390CCV1	CCV	03/16/22 17:32	MS220228-3	.1		.09692	mg/L	97	90	110			
WG538390CCB1	CCB	03/16/22 17:34				U	mg/L		-0.0003	0.0003			
WG538390CCV2	CCV	03/16/22 17:55	MS220228-3	.1		.09461	mg/L	95	90	110			
WG538390CCB2	CCB	03/16/22 17:57				U	mg/L		-0.0003	0.0003			
WG538390CCV3	CCV	03/16/22 18:08	MS220228-3	.1		.0955	mg/L	96	90	110			
WG538390CCB3	CCB	03/16/22 18:10				U	mg/L		-0.0003	0.0003			

ENSERO

ACZ Project ID: **L71749**

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.

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG538660													
WG538660ICV	ICV	03/23/22 3:00	II220311-1	2		1.959	mg/L	98	95	105			
WG538660ICB	ICB	03/23/22 3:06				U	mg/L		-0.06	0.06			
WG538660PQV	PQV	03/23/22 3:09	II220228-2	.05015		.048	mg/L	96	70	130			
WG538660SIC	SIC	03/23/22 3:12	II220228-3	.1003		.103	mg/L	103	80	120			
WG538660LFB	LFB	03/23/22 3:18	II220314-2	.50045		.52	mg/L	104	85	115			
WG538660CCV1	CCV	03/23/22 3:49	II220228-4	1		.968	mg/L	97	90	110			
WG538660CCB1	CCB	03/23/22 3:52				U	mg/L		-0.06	0.06			
L71745-02AS	AS	03/23/22 3:55	II220314-2	.50045	.353	.866	mg/L	103	85	115			
L71745-02ASD	ASD	03/23/22 3:58	II220314-2	.50045	.353	.869	mg/L	103	85	115	0	20	
WG538660CCV2	CCV	03/23/22 4:26	II220228-4	1		.967	mg/L	97	90	110			
WG538660CCB2	CCB	03/23/22 4:29				U	mg/L		-0.06	0.06			
L71902-02AS	AS	03/23/22 4:35	II220314-2	.50045	.125	.644	mg/L	104	85	115			
L71902-02ASD	ASD	03/23/22 4:38	II220314-2	.50045	.125	.647	mg/L	104	85	115	0	20	
WG538660CCV3	CCV	03/23/22 4:48	II220228-4	1		.957	mg/L	96	90	110			
WG538660CCB3	CCB	03/23/22 4:51				U	mg/L		-0.06	0.06			

Ensero Solutions

ACZ Project ID: **L71749**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L71749-01	WG537737	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539054	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG537900	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG537750	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
L71749-02	WG538049	Cyanide, WAD	SM4500-CN I,E-Colorimetric w/ distillation	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG539054	Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG537900	Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
	WG537750	Residue, Non-Filterable (TSS) @105C	SM2540D	RA	Relative Percent Difference (RPD) was not used for data validation because the concentration of the duplicated sample is too low for accurate evaluation (< 10x MDL).
			SM2540D	Z3	Sample volume yielded a residue less than 2.5 mg
	WG538375	Total Hot Plate Digestion	M200.2 ICP	DJ	Sample dilution required due to insufficient sample.

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-BPL

Locator:

ACZ Sample ID: **L71749-01**

Date Sampled: 03/02/22 12:00

Date Received: 03/03/22

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	05/05/22 11:11		0			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	04/07/22 0:36		9.6	3.3	7.1	pCi/L	*	ttg
Gross Beta	04/07/22 0:36		5.8	3.2	7.8	pCi/L	*	ttg

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	05/03/22 0:10		0.13	0.09	0.65	pCi/L	*	fdw

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	04/13/22 17:27		0.08	0.76	1.9	pCi/L	*	msm

Ensero Solutions

Project ID: 3100-PO205

Sample ID: SW-AWD

Locator:

ACZ Sample ID: **L71749-02**

Date Sampled: 03/02/22 14:05

Date Received: 03/03/22

Sample Matrix: Surface Water

Combined Radium (total)

Prep Method:

Calculation (RA226 + RA228)

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Combined Radium (total)	05/05/22 11:11		0			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	04/07/22 0:37		1.5	1.6	6.6	pCi/L	*	ttg
Gross Beta	04/07/22 0:37		0.39	3.1	9.5	pCi/L	*	ttg

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	05/03/22 0:11		0.01	0.09	0.54	pCi/L	*	fdw

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	04/13/22 17:27		-0.18	0.76	1.7	pCi/L	*	msm

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

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

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://aczk.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

ENSERO

ACZ Project ID: **L71749**

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.

Alpha		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG538989																
WG538989PBW	PBW	04/07/22						.38	0.7	0.85			1.7			
WG538989LCSWA	LCSW	04/07/22	PCN64375	100				120	9.6	1.1	120	67	144			
L71707-01DUP	DUP-RPD	04/07/22			25	7.5	11	35	8.8	14				33	20	RG
L71707-01DUP	DUP-RER	04/07/22			25	7.5	11	35	8.8	14				0.86	2	
L71707-04MSA	MS	04/07/22	PCN64375	175.44	260	29	51	330	34	29	40	67	144			M2
L71744-02DUP	DUP-RER	04/07/22			4	6.2	27	5.7	6.9	52				0.18	2	
L71744-02DUP	DUP-RPD	04/07/22			4	6.2	27	5.7	6.9	52				35	20	RG

Beta		M900.0										Units: pCi/L				
ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG538989																
WG538989PBW	PBW	04/07/22						.66	2	2.1			4.2			
WG538989LCSWB	LCSW	04/07/22	RC220302-11	100				98	6.6	2.7	98	82	122			
L71707-01DUP	DUP-RPD	04/07/22			9.3	3.9	12	6	3.8	9.2				43	20	RG
L71707-01DUP	DUP-RER	04/07/22			9.3	3.9	12	6	3.8	9.2				0.61	2	
L71707-05MSB	MS	04/07/22	RC220302-11	500	16	16	33	490	37	55	95	82	122			
L71744-02DUP	DUP-RPD	04/07/22			4.3	9.3	30	7.7	8.5	38				57	20	RG
L71744-02DUP	DUP-RER	04/07/22			4.3	9.3	30	7.7	8.5	38				0.27	2	

ENSERO

ACZ Project ID: **L71749**

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.

Radium 226, total

M903.1

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG541130																
WG541130LCSW	LCSW	05/03/22	PCN64374	20				13	0.44	0.56	65	43	148			
WG541130PBW	PBW	05/03/22						.1	0.1	0.63			1.26			
L71744-02DUP	DUP-RER	05/03/22			0.12	0.11	0.43	.27	0.16	0.75				0.77	2	
L71744-02DUP	DUP-RPD	05/03/22			0.12	0.11	0.43	.27	0.16	0.75				77	20	RG
L71745-02MS	MS	05/03/22	PCN64374	20	0.15	0.13	1.5	18	0.52	0.59	89	43	148			
L71833-01DUP	DUP-RER	05/03/22			0.23	0.16	0.96	.14	0.09	0.59				0.49	2	
L71833-01DUP	DUP-RPD	05/03/22			0.23	0.16	0.96	.14	0.09	0.59				49	20	RG

Radium 228, total

M904.0

Units: pCi/L

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG539479																
WG539479LCSW	LCSW	04/13/22	PCN64684	9.42				9.6	1.2	2.2	102	47	123			
WG539479PBW	PBW	04/13/22						.17	0.81	2			4			
L71707-05DUP	DUP-RPD	04/13/22			2.6	0.87	2	2.5	0.9	1.9				4	20	
L71748-01DUP	DUP-RPD	04/13/22			1.7	0.81	2	.59	0.83	2				97	20	RG
L71707-10MS	MS	04/13/22	PCN64684	9.41	0.68	0.73	1.9	9.8	1.2	2.1	97	47	123			
L71748-01DUP	DUP-RER	04/13/22			1.7	0.81	2	.59	0.83	2				0.96	2	

Ensero Solutions

ACZ Project ID: **L71749**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L71749-01	WG538989	Gross Alpha	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG541130	Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG539479	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
L71749-02	WG538989	Gross Alpha	M900.0	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
		Gross Beta	M900.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG541130	Radium 226, total	M903.1	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.
	WG539479	Radium 228, total	M904.0	RG	Sample concentration is less than 5x LLD; RPD was not used for data validation. Replicate Error Ratio (RER) is less than 2. Precision judged to be in control.

Ensero Solutions

ACZ Project ID: **L71749**

No certification qualifiers associated with this analysis

Ensero Solutions
3100-PO205

ACZ Project ID: L71749
Date Received: 03/03/2022 11:51
Received By:
Date Printed: 3/4/2022

Receipt Verification

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

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	☒	☐	☐
9) Are all labels on containers and are they intact and legible?	☒	☐	☐
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	☒	☐	☐
11) For preserved bottle types, was the pH checked and within limits? ¹	☒	☐	☐
12) Is there sufficient sample volume to perform all requested work?	☒	☐	☐
13) Is the custody seal intact on all containers?	☐	☐	☒
14) Are samples that require zero headspace acceptable?	☐	☐	☒
15) Are all sample containers appropriate for analytical requirements?	☒	☐	☐
16) Is there an Hg-1631 trip blank present?	☐	☐	☒
17) Is there a VOA trip blank present?	☐	☐	☒
18) Were all samples received within hold time?	☒	☐	☐

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?
-----	-----	-----	-----	-----
5195	3.2	<=6.0	15	N/A

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.

Ensero Solutions
3100-PO205

ACZ Project ID: L71749

Date Received: 03/03/2022 11:51

Received By:

Date Printed: 3/4/2022

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).

L71749



Laboratories, Inc.

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

CHAIN of CUSTODY

Report to:

Name: Christie Brizinski	Address: 131 E. Lincoln Ave Ste. 200
Company: Ensero Solutions	Fort Collins, CO 80524
E-mail: cbrizinski@ensero.com	Telephone: 867-668-6463, ext 229

Copy of Report to:

Name: Evan Valencia	E-mail: evalencia@ensero.com
Company: Ensero Solutions	Telephone: 818-688-1839

Invoice to:

Name: Pauline Wong	Address: 131 E. Lincoln Ave Ste. 200
Company: Ensero Solutions	Fort Collins, CO 80524
E-mail: ap@ensero.com	Telephone: 778-404-1182

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: EV, JW Sampler's Site Information State CO Zip code 80401 Time Zone MTN

*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

ANALYSES REQUESTED (attach list or use quote number)

Quote #: Ensero-2020	# of Containers	TSS	Sample suite #1	Sample suite #2	COD	LLHG trip blank	Sample suite #3	TDS	
PO#: 3100-PO205									
Reporting state for compliance testing: CO									
Check box if samples include NRC licensed material? ☐									
SAMPLE IDENTIFICATION	DATE:TIME	Matrix							
SW-BPL	3-2-2022: 12:00	SW	8	☐	☐	☒	☐	☐	☐
SW-AWD	3-2-2022: 14:05	SW	8	☐	☐	☒	☐	☐	☐
				☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐
				☐	☐	☐	☐	☐	☐

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

REMARKS

This COC accounts for 16 containers. Shipped 3/2/2022
Please also send reports to importer@alexco.ehsdata.com

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

RELINQUISHED BY:	DATE:TIME	RECEIVED BY:	DATE:TIME
E. Valencia	3/2/22 1500	<i>[Signature]</i>	3/2 11:51

FRMAD050.06.14.14

White - Return with sample. Yellow - Retain for your records.

L71749 Chain of Custody