

STATE OF
COLORADO

Eschberger - DNR, Amy <amy.eschberger@state.co.us>

August 2021 Schwartzwalder Surface Water Report

Evan Valencia <evalencia@ensero.com>

Thu, Oct 21, 2021 at 9:23 AM

To: "Eschberger - DNR, Amy" <amy.eschberger@state.co.us>, "daniel.arnold@denverwater.org" <daniel.arnold@denverwater.org>, Evelyn Rhodes <erhodes@arvada.org>, "eric.mink@state.co.us" <eric.mink@state.co.us>, "bwyant@arvada.org" <bwyant@arvada.org>
Cc: Jim Harrington <jimharrington@ensero.com>, Elizabeth Busby <ebusby@ensero.com>, Billy Ray <bray@ensero.com>

Ms. Eschberger, Mr. Mink, Mr. Arnold, Mr. Wyant, and Ms. Rhodes,

Please find attached a transmittal letter, report, and electronic deliverable (EDD) for surface water data collected in August 2021 from the Schwartzwalder Mine in Golden, Colorado.

Best,

Evan Valencia, EIT

Environmental Engineer I



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October 21, 2021

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: August 2021 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 August 2021 at the Schwartzwalder Mine, monitoring station SW-BPL. Review of the data indicates that the total and dissolved uranium concentrations at SW-BPL were below 30 µg/L. Ralston Creek was dry at monitoring station SW-AWD.

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

Sincerely,

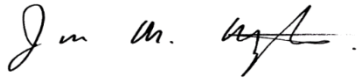
Jim Harrington, Managing Director
COLORADO LEGACY LAND
jim@ColoradoLegacy.Land

Distribution List:

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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



August 2021 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	8/18/2021	Sample Suite 2	L67912-01	18.9	7.57	204.1	7.78	181.0

October 14, 2021

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: L67912

Christie Brizinski:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on August 19, 2021. This project has been assigned to ACZ's project number, L67912. Please reference this number in all future inquiries.

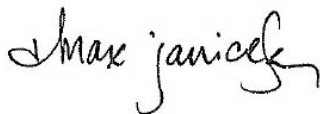
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L67912. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

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 November 13, 2021. 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: **L67912-01**

Date Sampled: 08/18/21 09:50

Date Received: 08/19/21

Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, WAD	SM4500-CN I- distillation								08/24/21 10:01	mjj1
Phosphorus, total	M365.1 - Auto Ascorbic Acid Digestion								08/23/21 12:31	bls
Total Hot Plate Digestion	M200.2 ICP-MS								08/31/21 8:35	mfm
Total Hot Plate Digestion	M200.2 ICP								08/22/21 19:27	kja
Total Recoverable Digestion	M200.2 ICP-MS								08/30/21 9:35	mfm
Total Recoverable Digestion	M200.2 ICP								08/25/21 16:24	jlw

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	08/31/21 12:03	mfm
Arsenic, total	M200.8 ICP-MS	1	0.00259			mg/L	0.0002	0.001	08/31/21 19:20	bsu
Boron, total	M200.7 ICP	1	0.159			mg/L	0.03	0.1	08/23/21 12:17	jlw
Chromium, total recoverable	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/26/21 17:09	kja
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	08/25/21 14:26	kja
Molybdenum, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	08/25/21 14:26	kja
Molybdenum, total	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.1	08/23/21 12:17	jlw
Silver, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/31/21 16:58	bsu
Thallium, total recoverable	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	08/31/21 12:03	mfm
Uranium, dissolved	M200.8 ICP-MS	1	0.0161			mg/L	0.0001	0.0005	08/31/21 16:58	bsu
Uranium, total	M200.8 ICP-MS	1	0.0158			mg/L	0.0001	0.0005	08/31/21 19:20	bsu
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	08/25/21 14:26	kja

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	08/25/21 0:00	pjb
Fluoride	SM4500F-C	1	<0.15	U		mg/L	0.15	0.35	09/03/21 13:26	emk
Nitrate/Nitrite as N	M353.2 - H2SO4 preserved	1	0.034	B	*	mg/L	0.02	0.1	09/04/21 2:36	pjb
Phosphate, total	Calculation based on total Phosphorus		<0.03	U		mg/L	0.03	0.2	10/14/21 0:00	calc
Phosphorus, total	M365.1 - Auto Ascorbic Acid (digest)	1	<0.01	U	*	mg/L	0.01	0.05	08/24/21 17:01	mjj1
Residue, Filterable (TDS) @180C	SM2540C	1	134			mg/L	20	40	08/24/21 16:58	scd
Residue, Non-Filterable (TSS) @105C	SM2540D	1	<5	U	*	mg/L	5	20	08/23/21 16:29	scd
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	<1	U	*	mg/L	1	5	09/03/21 14:18	wtc

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>

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ACZ Project ID: **L67912**

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
WG526277													
WG526277ICV	ICV	08/31/21 11:50	MS210727-2	.0201		.02076	mg/L	103	90	110			
WG526277ICB	ICB	08/31/21 11:52				.00058	mg/L		-0.0012	0.0012			
WG526143LRB	LRB	08/31/21 11:54				U	mg/L		-0.00088	0.00088			
WG526143LFB	LFB	08/31/21 11:56	MS210827-2	.01		.01071	mg/L	107	85	115			
L67947-01LFM	LFM	08/31/21 12:06	MS210827-2	.01	U	.01095	mg/L	110	70	130			
L67947-01LFMD	LFMD	08/31/21 12:08	MS210827-2	.01	U	.0109	mg/L	109	70	130	0	20	
WG526277CCV1	CCV	08/31/21 12:12	MS210820-2	.0125		.01257	mg/L	101	90	110			
WG526277CCB1	CCB	08/31/21 12:14				U	mg/L		-0.0012	0.0012			
WG526277CCV2	CCV	08/31/21 12:32	MS210820-2	.0125		.01253	mg/L	100	90	110			
WG526277CCB2	CCB	08/31/21 12:34				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
WG526319													
WG526319ICV	ICV	08/31/21 19:13	MS210727-2	.05		.04836	mg/L	97	90	110			
WG526319ICB	ICB	08/31/21 19:14				U	mg/L		-0.0006	0.0006			
WG526237LRB	LRB	08/31/21 19:16				U	mg/L		-0.00044	0.00044			
WG526237LFB	LFB	08/31/21 19:18	MS210827-2	.05005		.04514	mg/L	90	85	115			
WG526319CCV1	CCV	08/31/21 19:31	MS210820-2	.1001		.10026	mg/L	100	90	110			
WG526319CCB1	CCB	08/31/21 19:33				U	mg/L		-0.0006	0.0006			
WG526319CCV2	CCV	08/31/21 19:46	MS210820-2	.1001		.09473	mg/L	95	90	110			
WG526319CCB2	CCB	08/31/21 19:47				U	mg/L		-0.0006	0.0006			
L68041-02LFM	LFM	08/31/21 19:53	MS210827-2	.05005	.00028	.04631	mg/L	92	70	130			
L68041-02LFMD	LFMD	08/31/21 19:55	MS210827-2	.05005	.00028	.04632	mg/L	92	70	130	0	20	
WG526319CCV3	CCV	08/31/21 20:08	MS210820-2	.1001		.1002	mg/L	100	90	110			
WG526319CCB3	CCB	08/31/21 20:09				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
WG525752													
WG525752ICV	ICV	08/23/21 10:39	II210801-1	2		1.957	mg/L	98	95	105			
WG525752ICB	ICB	08/23/21 10:45				U	mg/L		-0.09	0.09			
WG525752PQV	PQV	08/23/21 10:48	II210804-2	.1001		.109	mg/L	109	70	130			
WG525752SIC	SIC	08/23/21 10:51	II210809-2	.1001		.109	mg/L	109	80	120			
WG525733LRB	LRB	08/23/21 10:58				U	mg/L		-0.066	0.066			
WG525733LFB	LFB	08/23/21 11:01	II210810-2	.5005		.513	mg/L	102	85	115			
WG525752CCV1	CCV	08/23/21 11:31	II210809-1	1		.966	mg/L	97	90	110			
WG525752CCB1	CCB	08/23/21 11:34				U	mg/L		-0.09	0.09			
WG525752CCV2	CCV	08/23/21 12:10	II210809-1	1		.988	mg/L	99	90	110			
WG525752CCB2	CCB	08/23/21 12:13				U	mg/L		-0.09	0.09			
L67920-01LFM	LFM	08/23/21 12:23	II210810-2	.5005	4.21	4.658	mg/L	90	70	130			
L67920-01LFMD	LFMD	08/23/21 12:26	II210810-2	.5005	4.21	4.787	mg/L	115	70	130	3	20	
WG525752CCV3	CCV	08/23/21 12:36	II210809-1	1		.983	mg/L	98	90	110			
WG525752CCB3	CCB	08/23/21 12:39				U	mg/L		-0.09	0.09			

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ACZ Project ID: **L67912**

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
WG526017													
WG526017ICV	ICV	08/26/21 16:13	II210803-4	2		2.014	mg/L	101	95	105			
WG526017ICB	ICB	08/26/21 16:19				U	mg/L		-0.06	0.06			
WG526017PQV	PQV	08/26/21 16:23	II210804-2	.0502		.046	mg/L	92	70	130			
WG526017SIC	SIC	08/26/21 16:26	II210804-4	.1004		.096	mg/L	96	80	120			
WG525899LRB	LRB	08/26/21 16:35				U	mg/L		-0.044	0.044			
WG525899LFB	LFB	08/26/21 16:38	II210810-2	.502		.488	mg/L	97	85	115			
L67887-13LFM	LFM	08/26/21 16:56	II2XWATER	.996	U	.987	mg/L	99	70	130			
L67887-13LFMD	LFMD	08/26/21 16:59	II2XWATER	.996	U	1.004	mg/L	101	70	130	2	20	
WG526017CCV1	CCV	08/26/21 17:02	II210803-5	1		1.008	mg/L	101	90	110			
WG526017CCB1	CCB	08/26/21 17:05				U	mg/L		-0.06	0.06			
WG526017CCV2	CCV	08/26/21 17:15	II210803-5	1		.993	mg/L	99	90	110			
WG526017CCB2	CCB	08/26/21 17:18				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
WG525910													
WG525910ICV	ICV	08/25/21 13:59	II210803-4	2		1.935	mg/L	97	95	105			
WG525910ICB	ICB	08/25/21 14:04				U	mg/L		-0.03	0.03			
WG525910PQV	PQV	08/25/21 14:08	II210804-2	.0502		.051	mg/L	102	70	130			
WG525910SIC	SIC	08/25/21 14:11	II210804-4	.1004		.096	mg/L	96	80	120			
WG525910LFB	LFB	08/25/21 14:17	II210810-2	.5		.492	mg/L	98	85	115			
L67915-01AS	AS	08/25/21 14:35	II210810-2	.5	U	.505	mg/L	101	85	115			
L67915-01ASD	ASD	08/25/21 14:38	II210810-2	.5	U	.506	mg/L	101	85	115	0	20	
WG525910CCV1	CCV	08/25/21 14:48	II210803-5	1		.96	mg/L	96	90	110			
WG525910CCB1	CCB	08/25/21 14:51				U	mg/L		-0.03	0.03			
WG525910CCV2	CCV	08/25/21 15:25	II210803-5	1		.958	mg/L	96	90	110			
WG525910CCB2	CCB	08/25/21 15:28				U	mg/L		-0.03	0.03			
WG525910CCV3	CCV	08/25/21 15:46	II210803-5	1		.956	mg/L	96	90	110			
WG525910CCB3	CCB	08/25/21 15:49				U	mg/L		-0.03	0.03			

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
WG525872													
WG525872ICV	ICV	08/24/21 22:13	WI210817-7	.3		.2896	mg/L	97	90	110			
WG525872ICB	ICB	08/24/21 22:14				U	mg/L		-0.003	0.003			
WG525875													
WG525875CCV1	CCV	08/24/21 23:52	WI210817-6	.25		.2371	mg/L	95	90	110			
WG525875CCB1	CCB	08/24/21 23:53				U	mg/L		-0.003	0.003			
WG525807LRB	LRB	08/24/21 23:53				U	mg/L		-0.003	0.003			
WG525807LFB	LFB	08/24/21 23:54	WI210816-4	.2		.1886	mg/L	94	90	110			
L67912-01DUP	DUP	08/25/21 0:01			U	U	mg/L				0	20	RA
WG525875CCV2	CCV	08/25/21 0:02	WI210817-6	.25		.2344	mg/L	94	90	110			
WG525875CCB2	CCB	08/25/21 0:03				U	mg/L		-0.003	0.003			
L67934-06LFM	LFM	08/25/21 0:05	WI210816-4	.2	U	.1847	mg/L	92	90	110			
WG525875CCV3	CCV	08/25/21 0:13	WI210817-6	.25		.2369	mg/L	95	90	110			
WG525875CCB3	CCB	08/25/21 0:14				U	mg/L		-0.003	0.003			
WG525875CCV4	CCV	08/25/21 0:22	WI210817-6	.25		.2366	mg/L	95	90	110			
WG525875CCB4	CCB	08/25/21 0:23				U	mg/L		-0.003	0.003			

ENSERO

ACZ Project ID: **L67912**

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.

Fluoride

SM4500F-C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526544													
WG526544ICV	ICV	09/03/21 10:04	WC210819-7	2.002		2.05	mg/L	102	90	110			
WG526544ICB	ICB	09/03/21 10:09				U	mg/L		-0.3	0.3			
WG526544PQV	PQV	09/03/21 10:13	WC210803-3	.3514		.37	mg/L	105	70	130			
WG526544LFB1	LFB	09/03/21 10:17	WC210803-9	5.02		5.24	mg/L	104	90	110			
WG526544CCV1	CCV	09/03/21 11:22	WC210819-7	2.002		1.85	mg/L	92	90	110			
WG526544CCB1	CCB	09/03/21 11:26				U	mg/L		-0.3	0.3			
L67842-01AS	AS	09/03/21 12:06	WC210803-9	5.02	1.07	5.95	mg/L	97	90	110			
L67842-01ASD	ASD	09/03/21 12:14	WC210803-9	5.02	1.07	6.04	mg/L	99	90	110	2	20	
WG526544CCV2	CCV	09/03/21 12:50	WC210819-7	2.002		2.13	mg/L	106	90	110			
WG526544CCB2	CCB	09/03/21 12:57				U	mg/L		-0.3	0.3			
WG526544LFB2	LFB	09/03/21 13:38	WC210803-9	5.02		5.32	mg/L	106	90	110			
WG526544CCV3	CCV	09/03/21 14:08	WC210819-7	2.002		2.03	mg/L	101	90	110			
WG526544CCB3	CCB	09/03/21 14:16				U	mg/L		-0.3	0.3			
WG526544CCV4	CCV	09/03/21 15:54	WC210903-1	2.002		1.97	mg/L	98	90	110			
WG526544CCB4	CCB	09/03/21 15:59				U	mg/L		-0.3	0.3			
WG526544CCV5	CCV	09/03/21 18:00	WC210903-1	2.002		1.93	mg/L	96	90	110			
WG526544CCB5	CCB	09/03/21 18:07				U	mg/L		-0.3	0.3			

Molybdenum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525910													
WG525910ICV	ICV	08/25/21 13:59	II210803-4	2		1.997	mg/L	100	95	105			
WG525910ICB	ICB	08/25/21 14:04				U	mg/L		-0.06	0.06			
WG525910PQV	PQV	08/25/21 14:08	II210804-2	.1002		.1	mg/L	100	70	130			
WG525910SIC	SIC	08/25/21 14:11	II210804-4	.1002		.095	mg/L	95	80	120			
WG525910LFB	LFB	08/25/21 14:17	II210810-2	.501		.513	mg/L	102	85	115			
L67915-01AS	AS	08/25/21 14:35	II210810-2	.501	U	.501	mg/L	100	85	115			
L67915-01ASD	ASD	08/25/21 14:38	II210810-2	.501	U	.5	mg/L	100	85	115	0	20	
WG525910CCV1	CCV	08/25/21 14:48	II210803-5	1		.991	mg/L	99	90	110			
WG525910CCB1	CCB	08/25/21 14:51				U	mg/L		-0.06	0.06			
WG525910CCV2	CCV	08/25/21 15:25	II210803-5	1		.983	mg/L	98	90	110			
WG525910CCB2	CCB	08/25/21 15:28				U	mg/L		-0.06	0.06			
WG525910CCV3	CCV	08/25/21 15:46	II210803-5	1		.99	mg/L	99	90	110			
WG525910CCB3	CCB	08/25/21 15:49				U	mg/L		-0.06	0.06			

ENSERO

ACZ Project ID: **L67912**

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, total

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525752													
WG525752ICV	ICV	08/23/21 10:39	II210801-1	2		1.991	mg/L	100	95	105			
WG525752ICB	ICB	08/23/21 10:45				U	mg/L		-0.06	0.06			
WG525752PQV	PQV	08/23/21 10:48	II210804-2	.1002		.106	mg/L	106	70	130			
WG525752SIC	SIC	08/23/21 10:51	II210809-2	.1002		.096	mg/L	96	80	120			
WG525733LRB	LRB	08/23/21 10:58				U	mg/L		-0.044	0.044			
WG525733LFB	LFB	08/23/21 11:01	II210810-2	.501		.516	mg/L	103	85	115			
WG525752CCV1	CCV	08/23/21 11:31	II210809-1	1		1.007	mg/L	101	90	110			
WG525752CCB1	CCB	08/23/21 11:34				U	mg/L		-0.06	0.06			
WG525752CCV2	CCV	08/23/21 12:10	II210809-1	1		1.02	mg/L	102	90	110			
WG525752CCB2	CCB	08/23/21 12:13				U	mg/L		-0.06	0.06			
L67920-01LFM	LFM	08/23/21 12:23	II210810-2	.501	U	.532	mg/L	106	70	130			
L67920-01LFMD	LFMD	08/23/21 12:26	II210810-2	.501	U	.539	mg/L	108	70	130	1	20	
WG525752CCV3	CCV	08/23/21 12:36	II210809-1	1		1.028	mg/L	103	90	110			
WG525752CCB3	CCB	08/23/21 12:39				U	mg/L		-0.06	0.06			

Nitrate/Nitrite as N

M353.2 - H2SO4 preserved

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526605													
WG526605ICV	ICV	09/04/21 1:17	WI210603-7	2.416		2.328	mg/L	96	90	110			
WG526605ICB	ICB	09/04/21 1:19				U	mg/L		-0.02	0.02			
WG526608													
WG526608CCV1	CCV	09/04/21 2:21	WI210828-1	2		2.012	mg/L	101	90	110			
WG526608CCB1	CCB	09/04/21 2:24				U	mg/L		-0.02	0.02			
WG526608LFB	LFB	09/04/21 2:26	WI210331-13	2		1.989	mg/L	99	90	110			
L67903-01DUP	DUP	09/04/21 2:31			U	U	mg/L				0	20	RA
WG526608CCV2	CCV	09/04/21 2:38	WI210828-1	2		2.014	mg/L	101	90	110			
WG526608CCB2	CCB	09/04/21 2:42				U	mg/L		-0.02	0.02			
WG526608CCV3	CCV	09/04/21 2:56	WI210828-1	2		2.009	mg/L	100	90	110			
WG526608CCB3	CCB	09/04/21 2:59				U	mg/L		-0.02	0.02			
L67899-01AS	AS	09/04/21 3:07	WI210331-13	6	2.87	8.979	mg/L	102	90	110			
WG526608CCV4	CCV	09/04/21 3:10	WI210828-1	2		2.003	mg/L	100	90	110			
WG526608CCB4	CCB	09/04/21 3:14				U	mg/L		-0.02	0.02			

ENSERO

ACZ Project ID: **L67912**

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.

Phosphorus, total M365.1 - Auto Ascorbic Acid (digest)

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525861													
WG525861ICV	ICV	08/24/21 15:10	WI210805-5	.65228		.673	mg/L	103	90	110			
WG525861ICB	ICB	08/24/21 15:12				U	mg/L		-0.01	0.01			
WG525864													
WG525864CCV1	CCV	08/24/21 16:37	WI210805-4	.5		.478	mg/L	96	90	110			
WG525864CCB1	CCB	08/24/21 16:38				U	mg/L		-0.01	0.01			
WG525740LRB	LRB	08/24/21 16:39				U	mg/L		-0.01	0.01			
WG525740LFB	LFB	08/24/21 16:40	WI210821-3	.5		.455	mg/L	91	90	110			
WG525864CCV2	CCV	08/24/21 16:50	WI210805-4	.5		.48	mg/L	96	90	110			
WG525864CCB2	CCB	08/24/21 16:51				U	mg/L		-0.01	0.01			
L67898-05LFM	LFM	08/24/21 16:57	WI210821-3	.5	.017	.489	mg/L	94	90	110			
L67904-01DUP	DUP	08/24/21 17:00			U	U	mg/L				0	20	RA
WG525864CCV3	CCV	08/24/21 17:03	WI210805-4	.5		.477	mg/L	95	90	110			
WG525864CCB3	CCB	08/24/21 17:04				U	mg/L		-0.01	0.01			
WG525864CCV4	CCV	08/24/21 17:17	WI210805-4	.5		.476	mg/L	95	90	110			
WG525864CCB4	CCB	08/24/21 17:18				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
WG525869													
WG525869PBW	PBW	08/24/21 16:45				U	mg/L		-20	20			
WG525869LCSW	LCSW	08/24/21 16:46	PCN64124	1000		996	mg/L	100	80	120			
WG525869PQV	PQV	08/24/21 16:48	WC210427-2	40		46	mg/L	115	50	150			
L67929-05DUP	DUP	08/24/21 17:10			204	200	mg/L				2	10	

Residue, Non-Filterable (TSS) @105C SM2540D

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525794													
WG525794PBW	PBW	08/23/21 16:05				U	mg/L		-2	2			
WG525794LCSW	LCSW	08/23/21 16:06	PCN64126	100		93	mg/L	93	80	120			
L67968-01DUP	DUP	08/23/21 16:44			U	U	mg/L				0	10	RA

Silver, dissolved M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526316													
WG526316ICV	ICV	08/31/21 16:53	MS210727-2	.02		.01952	mg/L	98	90	110			
WG526316ICB	ICB	08/31/21 16:55				U	mg/L		-0.00022	0.00022			
WG526316LFB	LFB	08/31/21 17:11	MS210827-2	.01002		.01091	mg/L	109	85	115			
WG526316CCV1	CCV	08/31/21 17:18	MS210820-2	.02505		.02465	mg/L	98	90	110			
WG526316CCB1	CCB	08/31/21 17:20				U	mg/L		-0.0003	0.0003			
L68044-01AS	AS	08/31/21 17:26	MS210827-2	.01002	U	.00991	mg/L	99	70	130			
L68044-01ASD	ASD	08/31/21 17:28	MS210827-2	.01002	U	.01027	mg/L	102	70	130	4	20	
WG526316CCV2	CCV	08/31/21 17:42	MS210820-2	.02505		.0246	mg/L	98	90	110			
WG526316CCB2	CCB	08/31/21 17:44				U	mg/L		-0.0003	0.0003			

ENSERO

ACZ Project ID: **L67912**

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.

Sulfate

D516-02/-07/-11 - TURBIDIMETRIC

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526557													
WG526557ICB	ICB	09/03/21 9:34				U	mg/L		-3	3			
WG526557ICV	ICV	09/03/21 9:34	WI210902-5	20.46		19.7	mg/L	96	90	110			
WG526557CCV1	CCV	09/03/21 14:16	WI210903-8	25		25.8	mg/L	103	90	110			
WG526557CCB1	CCB	09/03/21 14:16				U	mg/L		-3	3			
WG526557LFB	LFB	09/03/21 14:16	WI210105-3	10		9.9	mg/L	99	90	110			
WG526557CCV2	CCV	09/03/21 14:18	WI210903-8	25		25.6	mg/L	102	90	110			
WG526557CCB2	CCB	09/03/21 14:18				U	mg/L		-3	3			
WG526557CCV3	CCV	09/03/21 14:19	WI210903-8	25		25.7	mg/L	103	90	110			
WG526557CCB3	CCB	09/03/21 14:19				U	mg/L		-3	3			
WG526557CCV4	CCV	09/03/21 14:21	WI210903-8	25		25.3	mg/L	101	90	110			
WG526557CCB4	CCB	09/03/21 14:21				U	mg/L		-3	3			
WG526557CCV5	CCV	09/03/21 14:55	WI210903-8	25		25.5	mg/L	102	90	110			
WG526557CCB5	CCB	09/03/21 14:55				U	mg/L		-3	3			
WG526557CCV6	CCV	09/03/21 14:57	WI210903-8	25		25.8	mg/L	103	90	110			
WG526557CCB6	CCB	09/03/21 14:57				U	mg/L		-3	3			
WG526557CCV7	CCV	09/03/21 15:01	WI210903-8	25		25.3	mg/L	101	90	110			
WG526557CCB7	CCB	09/03/21 15:01				U	mg/L		-3	3			
WG526557CCV8	CCV	09/03/21 15:02	WI210903-8	25		25.3	mg/L	101	90	110			
WG526557CCB8	CCB	09/03/21 15:02				U	mg/L		-3	3			
WG526557CCV9	CCV	09/03/21 15:25	WI210903-8	25		25.6	mg/L	102	90	110			
WG526557CCB9	CCB	09/03/21 15:25				U	mg/L		-3	3			
L67848-02DUP	DUP	09/03/21 15:25			1900	1873.7	mg/L				1	20	
L67868-01AS	AS	09/03/21 15:27	SO4TURB	10	2230	2214.2	mg/L	-158	90	110			M3
WG526557CCV10	CCV	09/03/21 15:27	WI210903-8	25		25.1	mg/L	100	90	110			
WG526557CCB10	CCB	09/03/21 15:27				U	mg/L		-3	3			
WG526557CCV11	CCV	09/03/21 15:29	WI210903-8	25		25.1	mg/L	100	90	110			
WG526557CCB11	CCB	09/03/21 15:29				U	mg/L		-3	3			

Thallium, total recoverable

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526277													
WG526277ICV	ICV	08/31/21 11:50	MS210727-2	.05		.05136	mg/L	103	90	110			
WG526277ICB	ICB	08/31/21 11:52				U	mg/L		-0.0003	0.0003			
WG526143LRB	LRB	08/31/21 11:54				U	mg/L		-0.00022	0.00022			
WG526143LFB	LFB	08/31/21 11:56	MS210827-2	.05		.0456	mg/L	91	85	115			
L67947-01LFM	LFM	08/31/21 12:06	MS210827-2	.05	U	.05	mg/L	100	70	130			
L67947-01LFMD	LFMD	08/31/21 12:08	MS210827-2	.05	U	.04924	mg/L	98	70	130	2	20	
WG526277CCV1	CCV	08/31/21 12:12	MS210820-2	.1		.09498	mg/L	95	90	110			
WG526277CCB1	CCB	08/31/21 12:14				U	mg/L		-0.0003	0.0003			
WG526277CCV2	CCV	08/31/21 12:32	MS210820-2	.1		.09572	mg/L	96	90	110			
WG526277CCB2	CCB	08/31/21 12:34				U	mg/L		-0.0003	0.0003			

ENSERO

ACZ Project ID: **L67912**

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.

Uranium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG526316													
WG526316ICV	ICV	08/31/21 16:53	MS210727-2	.05		.05205	mg/L	104	90	110			
WG526316ICB	ICB	08/31/21 16:55				U	mg/L		-0.00022	0.00022			
WG526316LFB	LFB	08/31/21 17:11	MS210827-2	.05		.05041	mg/L	101	85	115			
WG526316CCV1	CCV	08/31/21 17:18	MS210820-2	.1		.10017	mg/L	100	90	110			
WG526316CCB1	CCB	08/31/21 17:20				U	mg/L		-0.0003	0.0003			
L68044-01AS	AS	08/31/21 17:26	MS210827-2	.05	U	.05164	mg/L	103	70	130			
L68044-01ASD	ASD	08/31/21 17:28	MS210827-2	.05	U	.0507	mg/L	101	70	130	2	20	
WG526316CCV2	CCV	08/31/21 17:42	MS210820-2	.1		.10306	mg/L	103	90	110			
WG526316CCB2	CCB	08/31/21 17:44				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
WG526319													
WG526319ICV	ICV	08/31/21 19:13	MS210727-2	.05		.04958	mg/L	99	90	110			
WG526319ICB	ICB	08/31/21 19:14				U	mg/L		-0.0003	0.0003			
WG526237LRB	LRB	08/31/21 19:16				U	mg/L		-0.00022	0.00022			
WG526237LFB	LFB	08/31/21 19:18	MS210827-2	.05		.0457	mg/L	91	85	115			
WG526319CCV1	CCV	08/31/21 19:31	MS210820-2	.1		.10115	mg/L	101	90	110			
WG526319CCB1	CCB	08/31/21 19:33				U	mg/L		-0.0003	0.0003			
WG526319CCV2	CCV	08/31/21 19:46	MS210820-2	.1		.10005	mg/L	100	90	110			
WG526319CCB2	CCB	08/31/21 19:47				U	mg/L		-0.0003	0.0003			
L68041-02LFM	LFM	08/31/21 19:53	MS210827-2	.05	.00193	.04996	mg/L	96	70	130			
L68041-02LFMD	LFMD	08/31/21 19:55	MS210827-2	.05	.00193	.05046	mg/L	97	70	130	1	20	
WG526319CCV3	CCV	08/31/21 20:08	MS210820-2	.1		.09972	mg/L	100	90	110			
WG526319CCB3	CCB	08/31/21 20:09				U	mg/L		-0.0003	0.0003			

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG525910													
WG525910ICV	ICV	08/25/21 13:59	II210803-4	2		1.95	mg/L	98	95	105			
WG525910ICB	ICB	08/25/21 14:04				U	mg/L		-0.06	0.06			
WG525910PQV	PQV	08/25/21 14:08	II210804-2	.05015		.055	mg/L	110	70	130			
WG525910SIC	SIC	08/25/21 14:11	II210804-4	.1003		.106	mg/L	106	80	120			
WG525910LFB	LFB	08/25/21 14:17	II210810-2	.50045		.523	mg/L	105	85	115			
L67915-01AS	AS	08/25/21 14:35	II210810-2	.50045	.033	.547	mg/L	103	85	115			
L67915-01ASD	ASD	08/25/21 14:38	II210810-2	.50045	.033	.542	mg/L	102	85	115	1	20	
WG525910CCV1	CCV	08/25/21 14:48	II210803-5	1		.952	mg/L	95	90	110			
WG525910CCB1	CCB	08/25/21 14:51				U	mg/L		-0.06	0.06			
WG525910CCV2	CCV	08/25/21 15:25	II210803-5	1		.947	mg/L	95	90	110			
WG525910CCB2	CCB	08/25/21 15:28				U	mg/L		-0.06	0.06			
WG525910CCV3	CCV	08/25/21 15:46	II210803-5	1		.945	mg/L	95	90	110			
WG525910CCB3	CCB	08/25/21 15:49				U	mg/L		-0.06	0.06			

Ensero SolutionsACZ Project ID: **L67912**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67912-01	WG525875	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).
	WG526608	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).
	WG525864	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).
	WG525794	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
	WG526557	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.

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Project ID: 3100-PO205

Sample ID: SW-BPL

Locator:

ACZ Sample ID: **L67912-01**

Date Sampled: 08/18/21 9:50

Date Received: 08/19/21

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)	10/14/21 9:20		0.18			pCi/L		calc

Gross Alpha & Beta, total

Prep Method:

M900.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Gross Alpha	09/01/21 0:23		7.9	3	5.8	pCi/L		fdw
Gross Beta	09/01/21 0:23		6.2	2.8	5.2	pCi/L	*	fdw

Radium 226, total

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226, total	10/05/21 0:02		0.18	0.07	0.1	pCi/L		djc

Radium 228, total

Prep Method:

M904.0

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 228, total	10/11/21 16:43		0.57	0.85	2.1	pCi/L		slc

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>

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ACZ Project ID: **L67912**

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
WG525859																
WG525859PBW	PBW	09/01/21						.43	0.71	0.83			1.66			
WG525859LCSWA	LCSW	09/01/21	PCN62436	66.67				67	5.7	0.9	101	67	144			
L67835-01DUP	DUP-RPD	09/01/21			2.8	2.1	1.9	2.6	1.8	1.5				7	20	
L67948-01MSA	MS	09/01/21	PCN62436	66.67	1.7	1.7	1.7	50	6.7	1.6	72	67	144			
L67951-01DUP	DUP-RPD	09/01/21			17	4	1.8	15	3.7	1.4				13	20	

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
WG525859																
WG525859PBW	PBW	09/01/21						.58	1.7	1.8			3.6			
WG525859LCSWB	LCSW	09/01/21	RC210621-11	33.27				34	3.2	1.7	102	82	122			
L67835-01DUP	DUP-RPD	09/01/21			1.9	1.9	1.9	3.3	2	2				54	20	RG
L67835-01DUP	DUP-RER	09/01/21			1.9	1.9	1.9	3.3	2	2				0.51	2	
L67948-01MSB	MS	09/01/21	RC210621-11	33.27	2.2	1.8	1.8	33	3.3	1.8	93	82	122			
L67951-01DUP	DUP-RPD	09/01/21			9	2.3	1.9	7	2.3	2				25	20	RG
L67951-01DUP	DUP-RER	09/01/21			9	2.3	1.9	7	2.3	2				0.61	2	

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
WG527566																
WG527566PBW	PBW	10/05/21						.06	0.08	0.09			0.18			
WG527566LCSW	LCSW	10/05/21	PCN62879	20				18	0.57	0.13	90	43	148			
L67912-01DUP1	DUP-RPD	10/05/21			0.18	0.07	0.1	.19	0.21	0.35				5	20	
L67947-01MS	MS	10/05/21	PCN62879	40	0.17	0.11	0.19	32	1	0.33	80	43	148			
L68015-01DUP2	DUP-RPD	10/05/21			0.58	0.11	0.09	.6	0.24	0.4				3	20	

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ACZ Project ID: **L67912**

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 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
WG527549																
WG527549LCSW	LCSW	10/11/21	PCN63356	9.37				7.5	1.2	0.89	80	47	123			
WG527549PBW	PBW	10/11/21						.08	0.43	0.44			0.88			
L67947-01DUP	DUP-RPD	10/11/21			-0.41	0.86	2.1	-.46	0.91	2.1				11	20	
L68014-01DUP	DUP-RPD	10/11/21			-0.15	1.4	3.5	-.28	1.3	3.3				60	20	RG
L68014-01DUP	DUP-RER	10/11/21			-0.15	1.4	3.5	-.28	1.3	3.3				0.07	2	
L68014-04MS	MS	10/11/21	PCN63356	12.5	0.2	0.83	1.9	12	1.5	1.1	94	47	123			

Ensero SolutionsACZ Project ID: **L67912**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67912-01	WG525859	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.

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ACZ Project ID: **L67912**

No certification qualifiers associated with this analysis