

July 22, 2022

Report to:

Jake Wilkinson
CRG Mining, LLC
510 S Wisconsin St
Gunnison, CO 80231

Bill to:

Jake Wilkinson
CRG Mining, LLC
510 S Wisconsin St
Gunnison, CO 80231

Project ID:

ACZ Project ID: L74339

Jake Wilkinson:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 06, 2022. This project has been assigned to ACZ's project number, L74339. Please reference this number in all future inquiries.

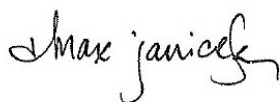
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L74339. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

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 August 21, 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.



CRG Mining, LLC

July 22, 2022

Project ID:

ACZ Project ID: L74339

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 4 miscellaneous samples from CRG Mining, LLC on July 6, 2022. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L74339. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both the ACZ invoice and the analytical reports. The extended qualifier reports may contain footnotes qualifying specific elements due to QC failures. In addition, the following has been noted with this specific project:

The below is from WG546045

Qualifier: N1

Applies to:

L74339-01/TOTAL DISSOLVED SOLIDS

L74339-02/TOTAL DISSOLVED SOLIDS

L74339-03/TOTAL DISSOLVED SOLIDS

L74339-04/TOTAL DISSOLVED SOLIDS

Oven range is 80 C to 91 C. Over the weekend, the oven had a minor high/low temperature out of range. When the oven temperature was checked on Monday 7/11/22, the max temp read at 93.4 C and low at 69.0 C. The WG was removed from the oven on 7/11/22 when the oven was back in range. The WG was examined and there was no splattering of samples.

REPAD.03.06.05.01

CRG Mining, LLC
Project ID:
Sample ID: RM3

ACZ Sample ID: **L74339-01**
Date Sampled: 07/05/22 11:20
Date Received: 07/06/22
Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								07/15/22 13:22	bls
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/08/22 9:00	mlh

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/22/22 0:15	keh1
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	07/12/22 14:53	kja
Arsenic, dissolved	M200.8 ICP-MS	1	0.00060	B		mg/L	0.0002	0.001	07/12/22 14:53	kja
Barium, dissolved	M200.7 ICP	1	0.0197	B		mg/L	0.009	0.035	07/22/22 0:15	keh1
Beryllium, dissolved	M200.8 ICP-MS	1	<0.00008	U		mg/L	0.00008	0.00025	07/12/22 14:53	kja
Cadmium, dissolved	M200.8 ICP-MS	1	0.000116	B		mg/L	0.00005	0.00025	07/12/22 14:53	kja
Calcium, dissolved	M200.7 ICP	1	15.9			mg/L	0.1	0.5	07/22/22 0:15	keh1
Chromium, dissolved	M200.8 ICP-MS	1	<0.0005	U		mg/L	0.0005	0.002	07/12/22 14:53	kja
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/22/22 0:15	keh1
Copper, dissolved	M200.7 ICP	1	0.010	B		mg/L	0.01	0.05	07/22/22 0:15	keh1
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/22/22 0:15	keh1
Lead, dissolved	M200.8 ICP-MS	1	0.00016	B		mg/L	0.0001	0.0005	07/12/22 14:53	kja
Magnesium, dissolved	M200.7 ICP	1	5.28			mg/L	0.2	1	07/22/22 0:15	keh1
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/22/22 0:15	keh1
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/11/22 11:30	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	07/22/22 0:15	keh1
Potassium, dissolved	M200.7 ICP	1	0.58	B		mg/L	0.2	1	07/22/22 0:15	keh1
Sodium, dissolved	M200.7 ICP	1	1.47			mg/L	0.2	1	07/22/22 0:15	keh1
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	07/22/22 0:15	keh1
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/22/22 0:15	keh1

CRG Mining, LLC
Project ID:
Sample ID: RM3

ACZ Sample ID: **L74339-01**
Date Sampled: 07/05/22 11:20
Date Received: 07/06/22
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	58.6			mg/L	2	20	07/08/22 0:00	jck
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/08/22 0:00	jck
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/08/22 0:00	jck
Total Alkalinity		1	58.6			mg/L	2	20	07/08/22 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			07/22/22 0:00	calc
Sum of Anions			1.3			meq/L			07/22/22 0:00	calc
Sum of Cations			1.3			meq/L			07/22/22 0:00	calc
Chloride	SM4500Cl-E	1	0.86	B	*	mg/L	0.5	2	07/11/22 16:43	bls
Conductivity @25C	SM2510B	1	128			umhos/cm	1	10	07/08/22 7:53	jck
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	07/17/22 17:21	bls
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		61			mg/L	0.2	5	07/22/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/10/22 8:58	mlh
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.140			mg/L	0.02	0.1	07/22/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.140		*	mg/L	0.02	0.1	07/07/22 2:38	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	07/07/22 2:38	pjb
pH (lab)	SM4500H+ B									
pH		1	7.8	H		units	0.1	0.1	07/08/22 0:00	jck
pH measured at		1	22.4			C	0.1	0.1	07/08/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	68		*	mg/L	20	40	07/08/22 12:21	pcj
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	4.9	B	*	mg/L	1	5	07/14/22 12:20	mjj1

CRG Mining, LLC
Project ID:
Sample ID: CM1

ACZ Sample ID: **L74339-02**
Date Sampled: 07/05/22 11:35
Date Received: 07/06/22
Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								07/15/22 13:30	bls
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/08/22 9:00	mlh

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/22/22 0:18	keh1
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	07/12/22 14:55	kja
Arsenic, dissolved	M200.8 ICP-MS	1	0.00054	B		mg/L	0.0002	0.001	07/12/22 14:55	kja
Barium, dissolved	M200.7 ICP	1	0.0196	B		mg/L	0.009	0.035	07/22/22 0:18	keh1
Beryllium, dissolved	M200.8 ICP-MS	1	<0.00008	U		mg/L	0.00008	0.00025	07/12/22 14:55	kja
Cadmium, dissolved	M200.8 ICP-MS	1	0.000129	B		mg/L	0.00005	0.00025	07/12/22 14:55	kja
Calcium, dissolved	M200.7 ICP	1	15.8			mg/L	0.1	0.5	07/22/22 0:18	keh1
Chromium, dissolved	M200.8 ICP-MS	1	<0.0005	U		mg/L	0.0005	0.002	07/12/22 14:55	kja
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/22/22 0:18	keh1
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/22/22 0:18	keh1
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/22/22 0:18	keh1
Lead, dissolved	M200.8 ICP-MS	1	0.00016	B		mg/L	0.0001	0.0005	07/12/22 14:55	kja
Magnesium, dissolved	M200.7 ICP	1	5.22			mg/L	0.2	1	07/22/22 0:18	keh1
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/22/22 0:18	keh1
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/11/22 11:31	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	07/22/22 0:18	keh1
Potassium, dissolved	M200.7 ICP	1	0.53	B		mg/L	0.2	1	07/22/22 0:18	keh1
Sodium, dissolved	M200.7 ICP	1	1.49			mg/L	0.2	1	07/22/22 0:18	keh1
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	07/22/22 0:18	keh1
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/22/22 0:18	keh1

CRG Mining, LLC
Project ID:
Sample ID: CM1

ACZ Sample ID: **L74339-02**
Date Sampled: 07/05/22 11:35
Date Received: 07/06/22
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	58.8			mg/L	2	20	07/08/22 0:00	jck
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/08/22 0:00	jck
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/08/22 0:00	jck
Total Alkalinity		1	58.8			mg/L	2	20	07/08/22 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			07/22/22 0:00	calc
Sum of Anions			1.3			meq/L			07/22/22 0:00	calc
Sum of Cations			1.3			meq/L			07/22/22 0:00	calc
Chloride	SM4500Cl-E	1	0.97	B	*	mg/L	0.5	2	07/11/22 16:44	bls
Conductivity @25C	SM2510B	1	129			umhos/cm	1	10	07/08/22 8:02	jck
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	07/17/22 17:24	bls
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		61			mg/L	0.2	5	07/22/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/10/22 9:08	mlh
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.146			mg/L	0.02	0.1	07/22/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.146		*	mg/L	0.02	0.1	07/07/22 2:43	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	07/07/22 2:43	pjb
pH (lab)	SM4500H+ B									
pH		1	7.8	H		units	0.1	0.1	07/08/22 0:00	jck
pH measured at		1	22.2			C	0.1	0.1	07/08/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	70		*	mg/L	20	40	07/08/22 12:23	pcj
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	5.4		*	mg/L	1	5	07/14/22 12:20	mjj1

CRG Mining, LLC
 Project ID:
 Sample ID: CM2

ACZ Sample ID: **L74339-03**
 Date Sampled: 07/05/22 11:45
 Date Received: 07/06/22
 Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								07/15/22 13:38	bls
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/08/22 9:00	mlh

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/22/22 0:28	keh1
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	07/12/22 14:57	kja
Arsenic, dissolved	M200.8 ICP-MS	1	0.00194			mg/L	0.0002	0.001	07/12/22 14:57	kja
Barium, dissolved	M200.7 ICP	1	0.0195	B		mg/L	0.009	0.035	07/22/22 0:28	keh1
Beryllium, dissolved	M200.8 ICP-MS	1	<0.00008	U		mg/L	0.00008	0.00025	07/12/22 14:57	kja
Cadmium, dissolved	M200.8 ICP-MS	1	0.000092	B		mg/L	0.00005	0.00025	07/12/22 14:57	kja
Calcium, dissolved	M200.7 ICP	1	17.3			mg/L	0.1	0.5	07/22/22 0:28	keh1
Chromium, dissolved	M200.8 ICP-MS	1	<0.0005	U		mg/L	0.0005	0.002	07/12/22 14:57	kja
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/22/22 0:28	keh1
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/22/22 0:28	keh1
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/22/22 0:28	keh1
Lead, dissolved	M200.8 ICP-MS	1	<0.0001	U		mg/L	0.0001	0.0005	07/12/22 14:57	kja
Magnesium, dissolved	M200.7 ICP	1	3.31			mg/L	0.2	1	07/22/22 0:28	keh1
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/22/22 0:28	keh1
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/11/22 11:32	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	07/22/22 0:28	keh1
Potassium, dissolved	M200.7 ICP	1	0.59	B		mg/L	0.2	1	07/22/22 0:28	keh1
Sodium, dissolved	M200.7 ICP	1	6.02			mg/L	0.2	1	07/22/22 0:28	keh1
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	07/22/22 0:28	keh1
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/22/22 0:28	keh1

CRG Mining, LLC
Project ID:
Sample ID: CM2

ACZ Sample ID: **L74339-03**
Date Sampled: 07/05/22 11:45
Date Received: 07/06/22
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	50.2			mg/L	2	20	07/08/22 0:00	jck
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/08/22 0:00	jck
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/08/22 0:00	jck
Total Alkalinity		1	50.2			mg/L	2	20	07/08/22 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-3.4			%			07/22/22 0:00	calc
Sum of Anions			1.5			meq/L			07/22/22 0:00	calc
Sum of Cations			1.4			meq/L			07/22/22 0:00	calc
Chloride	SM4500Cl-E	1	0.81	B	*	mg/L	0.5	2	07/11/22 16:44	bls
Conductivity @25C	SM2510B	1	142			umhos/cm	1	10	07/08/22 8:10	jck
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	07/17/22 17:25	bls
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		57			mg/L	0.2	5	07/22/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/10/22 9:19	mlh
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.020	B		mg/L	0.02	0.1	07/22/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.020	B	*	mg/L	0.02	0.1	07/07/22 2:45	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	07/07/22 2:45	pjb
pH (lab)	SM4500H+ B									
pH		1	7.7	H		units	0.1	0.1	07/08/22 0:00	jck
pH measured at		1	22.0			C	0.1	0.1	07/08/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	82		*	mg/L	20	40	07/08/22 12:26	pcj
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	22.0		*	mg/L	1	5	07/14/22 11:43	mjj1

CRG Mining, LLC
Project ID:
Sample ID: CM3

ACZ Sample ID: **L74339-04**
Date Sampled: 07/05/22 11:55
Date Received: 07/06/22
Sample Matrix: Surface Water

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Cyanide, total	M335.4 - Manual Distillation								07/15/22 13:46	bls
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/08/22 9:00	mlh

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Aluminum, dissolved	M200.7 ICP	1	<0.05	U		mg/L	0.05	0.25	07/22/22 0:31	keh1
Antimony, dissolved	M200.8 ICP-MS	1	<0.0004	U		mg/L	0.0004	0.002	07/12/22 14:59	kja
Arsenic, dissolved	M200.8 ICP-MS	1	0.00065	B		mg/L	0.0002	0.001	07/12/22 14:59	kja
Barium, dissolved	M200.7 ICP	1	0.0200	B		mg/L	0.009	0.035	07/22/22 0:31	keh1
Beryllium, dissolved	M200.8 ICP-MS	1	<0.00008	U		mg/L	0.00008	0.00025	07/12/22 14:59	kja
Cadmium, dissolved	M200.8 ICP-MS	1	0.000117	B		mg/L	0.00005	0.00025	07/12/22 14:59	kja
Calcium, dissolved	M200.7 ICP	1	16.2			mg/L	0.1	0.5	07/22/22 0:31	keh1
Chromium, dissolved	M200.8 ICP-MS	1	<0.0005	U		mg/L	0.0005	0.002	07/12/22 14:59	kja
Cobalt, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/22/22 0:31	keh1
Copper, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/22/22 0:31	keh1
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/22/22 0:31	keh1
Lead, dissolved	M200.8 ICP-MS	1	0.00019	B		mg/L	0.0001	0.0005	07/12/22 14:59	kja
Magnesium, dissolved	M200.7 ICP	1	5.25			mg/L	0.2	1	07/22/22 0:31	keh1
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/22/22 0:31	keh1
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	07/11/22 11:58	mlh
Nickel, dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.04	07/22/22 0:31	keh1
Potassium, dissolved	M200.7 ICP	1	0.57	B		mg/L	0.2	1	07/22/22 0:31	keh1
Sodium, dissolved	M200.7 ICP	1	1.64			mg/L	0.2	1	07/22/22 0:31	keh1
Vanadium, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.025	07/22/22 0:31	keh1
Zinc, dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/22/22 0:31	keh1

CRG Mining, LLC
Project ID:
Sample ID: CM3

ACZ Sample ID: **L74339-04**
Date Sampled: 07/05/22 11:55
Date Received: 07/06/22
Sample Matrix: Surface Water

Wet Chemistry

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Alkalinity as CaCO ₃	SM2320B - Titration									
Bicarbonate as CaCO ₃		1	59.3			mg/L	2	20	07/08/22 0:00	jck
Carbonate as CaCO ₃		1	<2	U		mg/L	2	20	07/08/22 0:00	jck
Hydroxide as CaCO ₃		1	<2	U		mg/L	2	20	07/08/22 0:00	jck
Total Alkalinity		1	59.3			mg/L	2	20	07/08/22 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			07/22/22 0:00	calc
Sum of Anions			1.3			meq/L			07/22/22 0:00	calc
Sum of Cations			1.3			meq/L			07/22/22 0:00	calc
Chloride	SM4500Cl-E	1	<0.5	U	*	mg/L	0.5	2	07/11/22 16:45	bls
Conductivity @25C	SM2510B	1	130			umhos/cm	1	10	07/08/22 8:19	jck
Cyanide, total	M335.4 - Colorimetric w/ distillation	0.5	<0.003	U	*	mg/L	0.003	0.01	07/17/22 17:25	bls
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		62			mg/L	0.2	5	07/22/22 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/10/22 9:29	mlh
Nitrate as N, dissolved	Calculation: NO ₃ NO ₂ minus NO ₂		0.130			mg/L	0.02	0.1	07/22/22 0:00	calc
Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	0.130		*	mg/L	0.02	0.1	07/07/22 2:46	pjb
Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	1	<0.01	U	*	mg/L	0.01	0.05	07/07/22 2:46	pjb
pH (lab)	SM4500H+ B									
pH		1	7.8	H		units	0.1	0.1	07/08/22 0:00	jck
pH measured at		1	22.5			C	0.1	0.1	07/08/22 0:00	jck
Residue, Filterable (TDS) @180C	SM2540C	1	68		*	mg/L	20	40	07/08/22 12:29	pcj
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	6.1		*	mg/L	1	5	07/14/22 11:43	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>

CRG

ACZ Project ID: **L74339**

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
WG545956													
WG545956PBW1	PBW	07/07/22 20:30				8.7	mg/L		-20	20			
WG545956LCSW3	LCSW	07/07/22 20:47	WC220701-2	820.0001		761.1	mg/L	93	90	110			
WG545956LCSW6	LCSW	07/08/22 0:22	WC220701-2	820.0001		779.1	mg/L	95	90	110			
WG545956PBW2	PBW	07/08/22 0:32				4.2	mg/L		-20	20			
WG545956LCSW9	LCSW	07/08/22 4:04	WC220701-2	820.0001		768.5	mg/L	94	90	110			
WG545956PBW3	PBW	07/08/22 4:14				4.4	mg/L		-20	20			
WG545956LCSW12	LCSW	07/08/22 7:18	WC220701-2	820.0001		787.3	mg/L	96	90	110			
WG545956PBW4	PBW	07/08/22 7:28				4.3	mg/L		-20	20			
L74340-04DUP	DUP	07/08/22 9:56			84.8	84	mg/L				1	20	
WG545956LCSW15	LCSW	07/08/22 11:39	WC220701-2	820.0001		789.4	mg/L	96	90	110			

Aluminum, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	2		1.994	mg/L	100	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.15	0.15			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	1.0008		1.063	mg/L	106	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	1.0008	U	1.074	mg/L	107	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	1.0008	U	1.073	mg/L	107	85	115	0	20	

Antimony, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546271													
WG546271ICV	ICV	07/12/22 14:24	MS220701-3	.0201		.01935	mg/L	96	90	110			
WG546271ICB	ICB	07/12/22 14:26				U	mg/L		-0.00088	0.00088			
WG546271LFB	LFB	07/12/22 14:28	MS220627-2	.01		.00969	mg/L	97	85	115			
L74338-01AS	AS	07/12/22 14:39	MS220627-2	.01	U	.00879	mg/L	88	70	130			
L74338-01ASD	ASD	07/12/22 14:41	MS220627-2	.01	U	.00903	mg/L	90	70	130	3	20	
L74346-02AS	AS	07/12/22 15:14	MS220627-2	.01	U	.00915	mg/L	92	70	130			
L74346-02ASD	ASD	07/12/22 15:15	MS220627-2	.01	U	.0089	mg/L	89	70	130	3	20	

Arsenic, dissolved

M200.8 ICP-MS

WG546271

WG546271ICV	ICV	07/12/22 14:24	MS220701-3	.05		.0508	mg/L	102	90	110			
WG546271ICB	ICB	07/12/22 14:26				U	mg/L		-0.00044	0.00044			
WG546271LFB	LFB	07/12/22 14:28	MS220627-2	.05005		.05036	mg/L	101	85	115			
L74338-01AS	AS	07/12/22 14:39	MS220627-2	.05005	U	.05209	mg/L	104	70	130			
L74338-01ASD	ASD	07/12/22 14:41	MS220627-2	.05005	U	.05356	mg/L	107	70	130	3	20	
L74346-02AS	AS	07/12/22 15:14	MS220627-2	.05005	.00127	.05313	mg/L	104	70	130			
L74346-02ASD	ASD	07/12/22 15:15	MS220627-2	.05005	.00127	.05313	mg/L	104	70	130	0	20	

CRG

ACZ Project ID: **L74339**

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.

Barium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	2		2.0077	mg/L	100	95	105			
WG546832ICB	ICB	07/21/22 23:37				.009	mg/L		-0.027	0.027			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	.502		.5222	mg/L	104	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	.502	.0194	.5305	mg/L	102	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	.502	.0194	.5359	mg/L	103	85	115	1	20	

Beryllium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546271													
WG546271ICV	ICV	07/12/22 14:24	MS220701-3	.05		.049922	mg/L	100	90	110			
WG546271ICB	ICB	07/12/22 14:26				U	mg/L		-0.000176	0.000176			
WG546271LFB	LFB	07/12/22 14:28	MS220627-2	.05005		.049842	mg/L	100	85	115			
L74338-01AS	AS	07/12/22 14:39	MS220627-2	.05005	U	.04981	mg/L	100	70	130			
L74338-01ASD	ASD	07/12/22 14:41	MS220627-2	.05005	U	.051315	mg/L	103	70	130	3	20	
L74346-02AS	AS	07/12/22 15:14	MS220627-2	.05005	U	.044526	mg/L	89	70	130			
L74346-02ASD	ASD	07/12/22 15:15	MS220627-2	.05005	U	.043037	mg/L	86	70	130	3	20	

Cadmium, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546271													
WG546271ICV	ICV	07/12/22 14:24	MS220701-3	.05		.050831	mg/L	102	90	110			
WG546271ICB	ICB	07/12/22 14:26				U	mg/L		-0.00011	0.00011			
WG546271LFB	LFB	07/12/22 14:28	MS220627-2	.05005		.049778	mg/L	99	85	115			
L74338-01AS	AS	07/12/22 14:39	MS220627-2	.05005	U	.049603	mg/L	99	70	130			
L74338-01ASD	ASD	07/12/22 14:41	MS220627-2	.05005	U	.051469	mg/L	103	70	130	4	20	
L74346-02AS	AS	07/12/22 15:14	MS220627-2	.05005	.000355	.051261	mg/L	102	70	130			
L74346-02ASD	ASD	07/12/22 15:15	MS220627-2	.05005	.000355	.049562	mg/L	98	70	130	3	20	

Calcium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	100		100.59	mg/L	101	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.3	0.3			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	67.98862		70.1	mg/L	103	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	67.98862	11.8	80.41	mg/L	101	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	67.98862	11.8	80.51	mg/L	101	85	115	0	20	

Chloride

SM4500Cl-E

WG546181

WG546181ICV	ICV	07/11/22 16:30	WI220502-12	54.945		56.17	mg/L	102	90	110			
WG546181ICB	ICB	07/11/22 16:30				.92	mg/L		-1.5	1.5			
WG546181LFB	LFB	07/11/22 16:31	WI220328-1	29.97		32.16	mg/L	107	90	110			
L74184-02DUP	DUP	07/11/22 16:36			12.1	11.68	mg/L				4	20	
L74330-04AS	AS	07/11/22 16:41	WI220328-1	29.97	51	76.64	mg/L	86	90	110			M2

CRG

ACZ Project ID: **L74339**

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, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546271													
WG546271ICV	ICV	07/12/22 14:24	MS220701-3	.05		.05132	mg/L	103	90	110			
WG546271ICB	ICB	07/12/22 14:26				U	mg/L		-0.0011	0.0011			
WG546271LFB	LFB	07/12/22 14:28	MS220627-2	.0501		.04971	mg/L	99	85	115			
L74338-01AS	AS	07/12/22 14:39	MS220627-2	.0501	U	.05079	mg/L	101	70	130			
L74338-01ASD	ASD	07/12/22 14:41	MS220627-2	.0501	U	.05205	mg/L	104	70	130	2	20	
L74346-02AS	AS	07/12/22 15:14	MS220627-2	.0501	U	.04906	mg/L	98	70	130			
L74346-02ASD	ASD	07/12/22 15:15	MS220627-2	.0501	U	.04929	mg/L	98	70	130	0	20	

Cobalt, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	2.01		2.003	mg/L	100	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.06	0.06			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	.5005		.512	mg/L	102	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	.5005	U	.509	mg/L	102	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	.5005	U	.517	mg/L	103	85	115	2	20	

Conductivity @25C

SM2510B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG545956													
WG545956LCSW2	LCSW	07/07/22 20:35	PCN65647	1409		1387	umhos/cm	98	90	110			
WG545956LCSW5	LCSW	07/08/22 0:08	PCN65647	1409		1381	umhos/cm	98	90	110			
WG545956LCSW8	LCSW	07/08/22 3:52	PCN65647	1409		1382	umhos/cm	98	90	110			
WG545956LCSW11	LCSW	07/08/22 7:04	PCN65647	1409		1374	umhos/cm	98	90	110			
L74340-04DUP	DUP	07/08/22 9:56			195	194	umhos/cm				1	20	
WG545956LCSW14	LCSW	07/08/22 11:26	PCN65647	1409		1369	umhos/cm	97	90	110			

Copper, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	2		1.988	mg/L	99	95	105			
WG546832ICB	ICB	07/21/22 23:37				.012	mg/L		-0.03	0.03			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	.5005		.521	mg/L	104	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	.5005	U	.514	mg/L	103	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	.5005	U	.519	mg/L	104	85	115	1	20	

Cyanide, total

M335.4 - Colorimetric w/ distillation

WG546618

WG546618ICV	ICV	07/17/22 17:02	WI220711-1	.3003		.2844	mg/L	95	90	110			
WG546618ICB	ICB	07/17/22 17:03				U	mg/L		-0.003	0.003			
WG546524LRB	LRB	07/17/22 17:04				U	mg/L		-0.003	0.003			
WG546524LFB	LFB	07/17/22 17:04	WI220708-10	.2		.1919	mg/L	96	90	110			
L74338-03DUP	DUP	07/17/22 17:18			U	U	mg/L				0	20	RA
L74338-04LFM	LFM	07/17/22 17:20	WI220708-10	.2	U	.2018	mg/L	101	90	110			

CRG

ACZ Project ID: **L74339**

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.

Iron, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	2		2.049	mg/L	102	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.18	0.18			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	1.0013		1.061	mg/L	106	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	1.0013	U	1.066	mg/L	106	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	1.0013	U	1.073	mg/L	107	85	115	1	20	

Lead, dissolved

M200.8 ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546271													
WG546271ICV	ICV	07/12/22 14:24	MS220701-3	.05		.05059	mg/L	101	90	110			
WG546271ICB	ICB	07/12/22 14:26				U	mg/L		-0.00022	0.00022			
WG546271LFB	LFB	07/12/22 14:28	MS220627-2	.0501		.0497	mg/L	99	85	115			
L74338-01AS	AS	07/12/22 14:39	MS220627-2	.0501	U	.04959	mg/L	99	70	130			
L74338-01ASD	ASD	07/12/22 14:41	MS220627-2	.0501	U	.05116	mg/L	102	70	130	3	20	
L74346-02AS	AS	07/12/22 15:14	MS220627-2	.0501	U	.05212	mg/L	104	70	130			
L74346-02ASD	ASD	07/12/22 15:15	MS220627-2	.0501	U	.05118	mg/L	102	70	130	2	20	

Magnesium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	100		97.01	mg/L	97	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.6	0.6			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	49.99809		48.67	mg/L	97	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	49.99809	4.36	52.39	mg/L	96	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	49.99809	4.36	52.56	mg/L	96	85	115	0	20	

Manganese, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	2		1.975	mg/L	99	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.03	0.03			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	.499		.517	mg/L	104	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	.499	U	.515	mg/L	103	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	.499	U	.521	mg/L	104	85	115	1	20	

CRG

ACZ Project ID: **L74339**

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.

Mercury, total

M245.1 CVAA

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546101													
WG546101ICV	ICV	07/11/22 10:23	HG220705-3	.005005		.00506	mg/L	101	95	105			
WG546101ICB	ICB	07/11/22 10:24				U	mg/L		-0.0002	0.0002			
WG546102													
WG546102LRB	LRB	07/11/22 11:05				U	mg/L		-0.00044	0.00044			
WG546102LFB	LFB	07/11/22 11:06	HG220705-6	.002002		.00202	mg/L	101	85	115			
L74338-02LFB	LFB	07/11/22 11:24	HG220705-6	.002002	U	.0019	mg/L	95	85	115			
L74338-02LFMD	LFMD	07/11/22 11:24	HG220705-6	.002002	U	.00185	mg/L	92	85	115	3	20	
WG546103													
WG546103LRB	LRB	07/11/22 11:51				U	mg/L		-0.00044	0.00044			
WG546103LFB	LFB	07/11/22 11:52	HG220705-6	.002002		.00203	mg/L	101	85	115			
L74247-01LFB	LFB	07/11/22 11:54	HG220705-6	.002002	U	.00195	mg/L	97	85	115			
L74247-01LFMD	LFMD	07/11/22 11:55	HG220705-6	.002002	U	.00183	mg/L	91	85	115	6	20	

Nickel, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II20719-1	2		1.9985	mg/L	100	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.024	0.024			
WG546832LFB	LFB	07/21/22 23:50	II20628-3	.502		.5245	mg/L	104	85	115			
L74338-01AS	AS	07/21/22 23:56	II20628-3	.502	U	.5237	mg/L	104	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II20628-3	.502	U	.5311	mg/L	106	85	115	1	20	

Nitrate/Nitrite as N, dissolved

M353.2 - Automated Cadmium Reduction

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG545886													
WG545886ICV	ICV	07/07/22 1:09	W1220602-3	2.4161		2.45	mg/L	101	90	110			
WG545886ICB	ICB	07/07/22 1:10				U	mg/L		-0.02	0.02			
WG545888													
WG545888LFB	LFB	07/07/22 2:26	W1220630-7	2		2.015	mg/L	101	90	110			
L74338-01DUP	DUP	07/07/22 2:31			.028	.026	mg/L				7	20	RA
L74334-01AS	AS	07/07/22 2:48	W1220630-7	6	3.1	9.268	mg/L	103	90	110			

Nitrite as N, dissolved

M353.2 - Automated Cadmium Reduction

WG545886

WG545886ICV	ICV	07/07/22 1:09	W1220602-3	.6089		.624	mg/L	102	90	110			
WG545886ICB	ICB	07/07/22 1:10				U	mg/L		-0.01	0.01			
WG545888													
WG545888LFB	LFB	07/07/22 2:26	W1220630-7	1		1.003	mg/L	100	90	110			
L74334-01AS	AS	07/07/22 2:29	W1220630-7	1	U	1.096	mg/L	110	90	110			
L74338-01DUP	DUP	07/07/22 2:31			U	U	mg/L				0	20	RA

CRG

ACZ Project ID: **L74339**

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.

pH (lab) SM4500H+ B

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG545956													
WG545956LCSW1	LCSW	07/07/22 20:33	PCN64057	6		6	units	100	5.9	6.1			
WG545956LCSW4	LCSW	07/08/22 0:06	PCN64057	6		6	units	100	5.9	6.1			
WG545956LCSW7	LCSW	07/08/22 3:50	PCN64057	6		6	units	100	5.9	6.1			
WG545956LCSW10	LCSW	07/08/22 7:02	PCN64057	6		6	units	100	5.9	6.1			
L74340-04DUP	DUP	07/08/22 9:56			8	8	units				0	20	
WG545956LCSW13	LCSW	07/08/22 11:24	PCN64057	6		6	units	100	5.9	6.1			

Potassium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	20		19.93	mg/L	100	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.6	0.6			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	99.95798		99.24	mg/L	99	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	99.95798	.41	98.62	mg/L	98	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	99.95798	.41	98.43	mg/L	98	85	115	0	20	

Residue, Filterable (TDS) @180C SM2540C

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546045													
WG546045PBW	PBW	07/08/22 11:55				U	mg/L		-20	20			
WG546045LCSW	LCSW	07/08/22 11:57	PCN65844	1000		972	mg/L	97	80	120			
L74339-04DUP	DUP	07/08/22 12:31			68	62	mg/L				9	10	RA
L74388-04DUP	DUP	07/08/22 12:49			2460	2452	mg/L				0	10	

Sodium, dissolved M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	100		100.33	mg/L	100	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.6	0.6			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	100.0023		100.6	mg/L	101	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	100.0023	1.51	101.3	mg/L	100	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	100.0023	1.51	101.2	mg/L	100	85	115	0	20	

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

WG546425

WG546425ICB	ICB	07/14/22 10:28				U	mg/L		-3	3			
WG546425ICV	ICV	07/14/22 10:28	WI220714-1	19.54		19.6	mg/L	100	90	110			
WG546425LFB1	LFB	07/14/22 11:34	WI220415-3	9.95		9.9	mg/L	99	90	110			
WG546425LFB2	LFB	07/14/22 12:19	WI220415-3	9.95		10	mg/L	101	90	110			
L74338-03DUP	DUP	07/14/22 12:19			4.2	4.1	mg/L				2	20	RA
L74338-04AS	AS	07/14/22 12:19	WI220415-3	9.95	4.2	14.9	mg/L	108	90	110			

CRG

ACZ Project ID: **L74339**

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.

Vanadium, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	2		2.042	mg/L	102	95	105			
WG546832ICB	ICB	07/21/22 23:37				.0051	mg/L		-0.015	0.015			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	.5005		.5256	mg/L	105	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	.5005	U	.5239	mg/L	105	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	.5005	U	.517	mg/L	103	85	115	1	20	

Zinc, dissolved

M200.7 ICP

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG546832													
WG546832ICV	ICV	07/21/22 23:31	II220719-1	2		2.013	mg/L	101	95	105			
WG546832ICB	ICB	07/21/22 23:37				U	mg/L		-0.06	0.06			
WG546832LFB	LFB	07/21/22 23:50	II220628-3	.50045		.537	mg/L	107	85	115			
L74338-01AS	AS	07/21/22 23:56	II220628-3	.50045	U	.537	mg/L	107	85	115			
L74338-01ASD	ASD	07/21/22 23:59	II220628-3	.50045	U	.536	mg/L	107	85	115	0	20	

CRG Mining, LLC

ACZ Project ID: **L74339**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L74339-01	WG546181	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG546618	Cyanide, total	M335.4 - 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).
	WG545888	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	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).
			M353.2 - Automated Cadmium Reduction	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	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).
			M353.2 - Automated Cadmium Reduction	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG546045	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
			SM2540C	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).
	WG546425	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	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).
L74339-02	WG546181	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG546618	Cyanide, total	M335.4 - 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).
	WG545888	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	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).
			M353.2 - Automated Cadmium Reduction	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	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).
			M353.2 - Automated Cadmium Reduction	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG546045	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG546425	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	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).

REPAD.15.06.05.01

CRG Mining, LLC

ACZ Project ID: **L74339**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L74339-03	WG546181	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG546618	Cyanide, total	M335.4 - 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).
	WG545888	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	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).
			M353.2 - Automated Cadmium Reduction	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	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).
			M353.2 - Automated Cadmium Reduction	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG546045	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
	WG546425	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	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).
L74339-04	WG546181	Chloride	SM4500Cl-E	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
	WG546618	Cyanide, total	M335.4 - 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).
	WG545888	Nitrate/Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	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).
			M353.2 - Automated Cadmium Reduction	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
		Nitrite as N, dissolved	M353.2 - Automated Cadmium Reduction	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).
			M353.2 - Automated Cadmium Reduction	ZU	Analysis date/time preceeds filter date/time. A portion of sample was filtered and analyzed prior to the creation of a Filter workgroup.
	WG546045	Residue, Filterable (TDS) @180C	SM2540C	N1	See Case Narrative.
			SM2540C	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).
	WG546425	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	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).

REPAD.15.06.05.01

CRG Mining, LLC

ACZ Project ID: **L74339**

No certification qualifiers associated with this analysis

REPAD.05.06.05.01

CRG Mining, LLC

ACZ Project ID: L74339

Date Received: 07/06/2022 11:39

Received By: mjj

Date Printed: 7/7/2022

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?
-----	-----	-----	-----	-----
4483	5.3	<=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.

CRG Mining, LLC

ACZ Project ID: L74339

Date Received: 07/06/2022 11:39

Received By: mjj

Date Printed: 7/7/2022

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).



Accredited
Environmental
Testing

2773 Downhill Drive
Steamboat Springs, CO 80487
(970) 879-6590

L74339

CHAIN of CUSTODY

Report to:

Name: SAKE WILKINSON
Company: CRG MINING LLC
E-mail: SWILKINSON@CRGMININGLLC.COM

Address: 510 S. WISCONSIN ST
GUNNISON, CO 81230
Telephone: 970-417-3311

Copy of Report to:

Name: 11
Company: 11

E-mail: 11
Telephone: 11

Invoice to:

Name: 11
Company: 11
E-mail: 11

Address: 11
Telephone: 11

Copy of Invoice to:

Name: 11
Company: 11
E-mail: 11

Address: 11
Telephone: 11

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: Sake Wilkinson Sampler's Site Information State CO Zip code 81230 Time Zone MS

*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 #:
PO#:
Reporting state for compliance testing:
Check box if samples include NRC licensed material? ☐

SAMPLE IDENTIFICATION

DATE:TIME

Matrix

of Containers

SAMPLE IDENTIFICATION	DATE:TIME	Matrix	# of Containers
<u>PM3</u>	<u>11:20 AM 7/5/22</u>	<u>SW</u>	<u>5</u>
<u>CM1</u>	<u>7/5/22 11:35 AM</u>	<u>SW</u>	<u>5</u>
<u>CM2</u>	<u>7/5/22 11:45 AM</u>	<u>SW</u>	<u>5</u>
<u>CM3</u>	<u>7/5/22 11:55 AM</u>	<u>SW</u>	<u>5</u>

Matrix

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

REMARKS

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

RELINQUISHED BY:

DATE:TIME

RECEIVED BY:

DATE:TIME

[Signature]

7/5/22 12:30

[Signature]

7/6/22 11:39



L74339 Chain of Custody