

July 21, 2023

Report to:

Nicholas Mason
New Elk Coal Co. , LLC
12250 Hwy. 12
Weston, CO 81091

Bill to:

Accounts Payable
New Elk Coal Co. , LLC
12250 Highway 12
Weston, CO 81091

Project ID:

ACZ Project ID: L81422

Nicholas Mason:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on June 27, 2023. This project has been assigned to ACZ's project number, L81422. 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 L81422. 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 20, 2023. 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.

Mark McNeal

Mark McNeal has reviewed
and approved this report.



New Elk Coal Co. , LLC

Project ID:

Sample ID: PAW 1

ACZ Sample ID: **L81422-01**

Date Sampled: 06/26/23 10:58

Date Received: 06/27/23

Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acidify and filter (Potentially Dissolved)	Colorado 5 CCR 1002-31.5.31 (2009)								06/30/23 11:41	scp
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/05/23 9:10	mlh
Total Hot Plate Digestion	M200.2 ICP								07/05/23 10:13	smw/ae h
Total Recoverable Digestion	M200.2 ICP-MS				*				07/05/23 18:57	jrj
Total Recoverable Digestion	M200.2 ICP								07/05/23 10:13	smw/ae h

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, total recoverable	M200.8 ICP-MS	2	0.00208			mg/L	0.0004	0.002	07/07/23 13:05	jrj
Boron, total	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	07/07/23 22:12	wtc
Cadmium, potentially dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.025	07/07/23 13:32	wtc
Calcium, dissolved	M200.7 ICP	1	14.4			mg/L	0.1	0.5	07/11/23 18:22	ae h
Chromium, total recoverable	M200.8 ICP-MS	2	0.00108	B		mg/L	0.001	0.004	07/07/23 13:05	jrj
Copper, potentially dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/07/23 13:32	wtc
Iron, dissolved	M200.7 ICP	1	0.351			mg/L	0.06	0.15	07/11/23 18:22	ae h
Iron, total	M200.7 ICP	1	31.5			mg/L	0.06	0.15	07/11/23 12:03	wtc
Iron, total recoverable	M200.7 ICP	1	31.1			mg/L	0.06	0.15	07/07/23 17:56	ae h
Magnesium, dissolved	M200.7 ICP	1	8.97			mg/L	0.2	1	07/11/23 18:22	ae h
Manganese, dissolved	M200.7 ICP	1	0.016	B		mg/L	0.01	0.05	07/11/23 18:22	ae h
Manganese, potentially dissolved	M200.7 ICP	1	0.039	B		mg/L	0.01	0.05	07/07/23 13:32	wtc
Manganese, total	M200.7 ICP	1	0.068			mg/L	0.01	0.05	07/07/23 22:12	wtc
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	06/29/23 15:29	mlh
Potassium, dissolved	M200.7 ICP	1	2.83			mg/L	0.2	1	07/11/23 18:22	ae h
Sodium, dissolved	M200.7 ICP	1	19.2			mg/L	0.2	1	07/12/23 14:09	wtc
Zinc, potentially dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/07/23 13:32	wtc

New Elk Coal Co. , LLC

Project ID:

Sample ID: PAW 1

ACZ Sample ID: **L81422-01**

Date Sampled: 06/26/23 10:58

Date Received: 06/27/23

Sample Matrix: Groundwater

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	97.0		*	mg/L	2	20	07/08/23 0:00	jck
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	07/08/23 0:00	jck
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	07/08/23 0:00	jck
Total Alkalinity		1	97.0		*	mg/L	2	20	07/08/23 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			0.0			%			07/20/23 0:00	calc
Sum of Anions			2.4			meq/L			07/20/23 0:00	calc
Sum of Cations			2.4			meq/L			07/20/23 0:00	calc
Chloride	SM4500Cl-E	1	11.4		*	mg/L	1	2	07/11/23 12:53	aps
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		73			mg/L	0.2	5	07/20/23 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/05/23 11:19	smr
Residue, Filterable (TDS) @180C	SM2540C	1	126		*	mg/L	20	40	07/03/23 15:01	smr
Residue, Non-Filterable (TSS) @105C	SM2540D	2	72.0		*	mg/L	10	40	06/29/23 13:58	pcj
Sodium Adsorption Ratio in Water	USGS - 11738-78		0.99						07/20/23 0:00	calc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	5.2		*	mg/L	1	5	07/18/23 10:41	gkk

New Elk Coal Co. , LLC

Project ID:

Sample ID: PAW 9

ACZ Sample ID: **L81422-02**

Date Sampled: 06/26/23 11:21

Date Received: 06/27/23

Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acidify and filter (Potentially Dissolved)	Colorado 5 CCR 1002- 31.5.31 (2009)								06/30/23 11:47	scp
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/05/23 9:10	mlh
Total Hot Plate Digestion	M200.2 ICP								07/05/23 10:27	smw/ae h
Total Recoverable Digestion	M200.2 ICP								07/05/23 10:27	smw/ae h
Total Recoverable Digestion	M200.2 ICP-MS								07/05/23 19:08	jrj

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, total recoverable	M200.8 ICP-MS	1	<0.0002	U		mg/L	0.0002	0.001	07/07/23 13:06	jrj
Boron, total	M200.7 ICP	1	<0.03	U		mg/L	0.03	0.1	07/07/23 22:15	wtc
Cadmium, potentially dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.025	07/07/23 13:36	wtc
Calcium, dissolved	M200.7 ICP	1	73.0			mg/L	0.1	0.5	07/11/23 18:26	ae h
Chromium, total recoverable	M200.8 ICP-MS	1	0.00077	B		mg/L	0.0005	0.002	07/07/23 13:06	jrj
Copper, potentially dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/07/23 13:36	wtc
Iron, dissolved	M200.7 ICP	1	<0.06	U		mg/L	0.06	0.15	07/11/23 18:26	ae h
Iron, total	M200.7 ICP	1	0.562			mg/L	0.06	0.15	07/11/23 12:06	wtc
Iron, total recoverable	M200.7 ICP	1	0.618			mg/L	0.06	0.15	07/07/23 17:59	ae h
Magnesium, dissolved	M200.7 ICP	1	19.6			mg/L	0.2	1	07/11/23 18:26	ae h
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/11/23 18:26	ae h
Manganese, potentially dissolved	M200.7 ICP	1	0.010	B		mg/L	0.01	0.05	07/07/23 13:36	wtc
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/07/23 22:15	wtc
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	06/29/23 15:30	mlh
Potassium, dissolved	M200.7 ICP	1	2.58			mg/L	0.2	1	07/11/23 18:26	ae h
Sodium, dissolved	M200.7 ICP	1	128			mg/L	0.2	1	07/12/23 14:18	wtc
Zinc, potentially dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/07/23 13:36	wtc

New Elk Coal Co. , LLC

Project ID:

Sample ID: PAW 9

ACZ Sample ID: **L81422-02**

Date Sampled: 06/26/23 11:21

Date Received: 06/27/23

Sample Matrix: Groundwater

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	459		*	mg/L	2	20	07/08/23 0:00	jck
Carbonate as CaCO ₃		1	<2	U	*	mg/L	2	20	07/08/23 0:00	jck
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	07/08/23 0:00	jck
Total Alkalinity		1	459		*	mg/L	2	20	07/08/23 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-4.3			%			07/20/23 0:00	calc
Sum of Anions			12			meq/L			07/20/23 0:00	calc
Sum of Cations			11.0			meq/L			07/20/23 0:00	calc
Chloride	SM4500Cl-E	1	33.9		*	mg/L	1	2	07/11/23 12:54	aps
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		263			mg/L	0.2	5	07/20/23 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/05/23 11:22	smr
Residue, Filterable (TDS) @180C	SM2540C	1	598		*	mg/L	20	40	07/03/23 15:04	smr
Residue, Non-Filterable (TSS) @105C	SM2540D	1	20.0		*	mg/L	5	20	06/29/23 14:00	pcj
Sodium Adsorption Ratio in Water	USGS - 11738-78		3.5						07/20/23 0:00	calc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	5	74.0		*	mg/L	5	25	07/18/23 10:43	gkk

New Elk Coal Co. , LLC

Project ID:

Sample ID: NE-6-10A

ACZ Sample ID: **L81422-03**

Date Sampled: 06/26/23 09:50

Date Received: 06/27/23

Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acidify and filter (Potentially Dissolved)	Colorado 5 CCR 1002-31.5.31 (2009)								06/30/23 11:53	scp
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/05/23 9:10	mlh
Total Hot Plate Digestion	M200.2 ICP								07/05/23 10:41	smw/ae h
Total Recoverable Digestion	M200.2 ICP-MS								07/05/23 19:20	jrj
Total Recoverable Digestion	M200.2 ICP								07/05/23 10:41	smw/ae h

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, total recoverable	M200.8 ICP-MS	1	0.00043	B		mg/L	0.0002	0.001	07/07/23 13:08	jrj
Boron, total	M200.7 ICP	1	0.054	B		mg/L	0.03	0.1	07/07/23 22:18	wtc
Cadmium, potentially dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.025	07/07/23 13:39	wtc
Calcium, dissolved	M200.7 ICP	1	3.36			mg/L	0.1	0.5	07/11/23 18:29	ae h
Chromium, total recoverable	M200.8 ICP-MS	1	0.00176	B		mg/L	0.0005	0.002	07/07/23 13:08	jrj
Copper, potentially dissolved	M200.7 ICP	1	0.012	B		mg/L	0.01	0.05	07/07/23 13:39	wtc
Iron, dissolved	M200.7 ICP	1	0.136	B		mg/L	0.06	0.15	07/11/23 18:29	ae h
Iron, total	M200.7 ICP	1	0.524			mg/L	0.06	0.15	07/11/23 12:09	wtc
Iron, total recoverable	M200.7 ICP	1	0.504			mg/L	0.06	0.15	07/07/23 18:02	ae h
Magnesium, dissolved	M200.7 ICP	1	0.86	B		mg/L	0.2	1	07/11/23 18:29	ae h
Manganese, dissolved	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/11/23 18:29	ae h
Manganese, potentially dissolved	M200.7 ICP	1	0.012	B		mg/L	0.01	0.05	07/07/23 13:39	wtc
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/07/23 22:18	wtc
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	06/29/23 15:31	mlh
Potassium, dissolved	M200.7 ICP	1	3.21			mg/L	0.2	1	07/11/23 18:29	ae h
Sodium, dissolved	M200.7 ICP	1	414			mg/L	0.2	1	07/12/23 14:21	wtc
Zinc, potentially dissolved	M200.7 ICP	1	<0.02	U		mg/L	0.02	0.05	07/07/23 13:39	wtc

New Elk Coal Co. , LLC

Project ID:

Sample ID: NE-6-10A

ACZ Sample ID: **L81422-03**

Date Sampled: 06/26/23 09:50

Date Received: 06/27/23

Sample Matrix: Groundwater

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	909		*	mg/L	2	20	07/08/23 0:00	jck
Carbonate as CaCO ₃		1	108		*	mg/L	2	20	07/08/23 0:00	jck
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	07/08/23 0:00	jck
Total Alkalinity		1	1020		*	mg/L	2	20	07/08/23 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-5.0			%			07/20/23 0:00	calc
Sum of Anions			21			meq/L			07/20/23 0:00	calc
Sum of Cations			19			meq/L			07/20/23 0:00	calc
Chloride	SM4500Cl-E	1	5.23		*	mg/L	1	2	07/11/23 12:55	aps
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		12			mg/L	0.2	5	07/20/23 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/05/23 11:26	smr
Residue, Filterable (TDS) @180C	SM2540C	1	1050		*	mg/L	20	40	07/03/23 15:06	smr
Residue, Non-Filterable (TSS) @105C	SM2540D	1	24.0		*	mg/L	5	20	06/29/23 14:02	pcj
Sodium Adsorption Ratio in Water	USGS - 11738-78		53						07/20/23 0:00	calc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	<1	U	*	mg/L	1	5	07/18/23 10:41	gkk

New Elk Coal Co. , LLC

Project ID:

Sample ID: NE-6-10B

ACZ Sample ID: **L81422-04**

Date Sampled: 06/26/23 10:20

Date Received: 06/27/23

Sample Matrix: Groundwater

Inorganic Prep

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Acidify and filter (Potentially Dissolved)	Colorado 5 CCR 1002-31.5.31 (2009)								06/30/23 12:00	scp
Lab Filtration (0.45um) & Acidification	M200.7/200.8/3005A								07/05/23 9:10	mlh
Total Hot Plate Digestion	M200.2 ICP								07/05/23 10:56	smw/ae h
Total Recoverable Digestion	M200.2 ICP-MS								07/06/23 13:04	kja
Total Recoverable Digestion	M200.2 ICP								07/05/23 10:56	smw/ae h

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Arsenic, total recoverable	M200.8 ICP-MS	1	0.00218			mg/L	0.0002	0.001	07/07/23 14:12	kja
Boron, total	M200.7 ICP	1	0.037	B		mg/L	0.03	0.1	07/07/23 22:21	wtc
Cadmium, potentially dissolved	M200.7 ICP	1	<0.008	U		mg/L	0.008	0.025	07/07/23 13:48	wtc
Calcium, dissolved	M200.7 ICP	1	2.59			mg/L	0.1	0.5	07/11/23 18:32	ae h
Chromium, total recoverable	M200.8 ICP-MS	1	0.00120	B		mg/L	0.0005	0.002	07/07/23 14:12	kja
Copper, potentially dissolved	M200.7 ICP	1	0.017	B		mg/L	0.01	0.05	07/07/23 13:48	wtc
Iron, dissolved	M200.7 ICP	1	0.201			mg/L	0.06	0.15	07/11/23 18:32	ae h
Iron, total	M200.7 ICP	1	0.748			mg/L	0.06	0.15	07/11/23 12:13	wtc
Iron, total recoverable	M200.7 ICP	1	0.822			mg/L	0.06	0.15	07/07/23 18:05	ae h
Magnesium, dissolved	M200.7 ICP	1	0.30	B		mg/L	0.2	1	07/11/23 18:32	ae h
Manganese, dissolved	M200.7 ICP	1	0.011	B		mg/L	0.01	0.05	07/11/23 18:32	ae h
Manganese, potentially dissolved	M200.7 ICP	1	0.019	B		mg/L	0.01	0.05	07/07/23 13:48	wtc
Manganese, total	M200.7 ICP	1	<0.01	U		mg/L	0.01	0.05	07/07/23 22:21	wtc
Mercury, total	M245.1 CVAA	1	<0.0002	U		mg/L	0.0002	0.001	06/29/23 15:32	mlh
Potassium, dissolved	M200.7 ICP	1	1.88			mg/L	0.2	1	07/11/23 18:32	ae h
Sodium, dissolved	M200.7 ICP	1	186			mg/L	0.2	1	07/12/23 14:24	wtc
Zinc, potentially dissolved	M200.7 ICP	1	0.024	B		mg/L	0.02	0.05	07/07/23 13:48	wtc

New Elk Coal Co. , LLC

Project ID:

Sample ID: NE-6-10B

ACZ Sample ID: **L81422-04**

Date Sampled: 06/26/23 10:20

Date Received: 06/27/23

Sample Matrix: Groundwater

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	403		*	mg/L	2	20	07/08/23 0:00	jck
Carbonate as CaCO ₃		1	28.4		*	mg/L	2	20	07/08/23 0:00	jck
Hydroxide as CaCO ₃		1	<2	U	*	mg/L	2	20	07/08/23 0:00	jck
Total Alkalinity		1	431		*	mg/L	2	20	07/08/23 0:00	jck
Cation-Anion Balance	Calculation									
Cation-Anion Balance			-2.3			%			07/20/23 0:00	calc
Sum of Anions			8.8			meq/L			07/20/23 0:00	calc
Sum of Cations			8.4			meq/L			07/20/23 0:00	calc
Chloride	SM4500Cl-E	1	5.58		*	mg/L	1	2	07/11/23 12:55	aps
Hardness as CaCO ₃ (dissolved)	SM2340B - Calculation		7.7			mg/L	0.2	5	07/20/23 0:00	calc
Lab Filtration (0.45um filter)	SOPWC050	1							07/05/23 11:29	smr
Residue, Filterable (TDS) @180C	SM2540C	1	478		*	mg/L	20	40	07/03/23 15:12	smr
Residue, Non-Filterable (TSS) @105C	SM2540D	1	16.0	B	*	mg/L	5	20	06/29/23 14:04	pcj
Sodium Adsorption Ratio in Water	USGS - 11738-78		29						07/20/23 0:00	calc
Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	1	<1	U	*	mg/L	1	5	07/18/23 10:04	gkk

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>

New Elk Coal Co. , LLC

ACZ Project ID: **L81422**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L81422-01	WG569923	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG570092	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG569923	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG569618	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG569418	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			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	Z5	Oven temperature observed out of range. Sample and Quality Control attained a consistent weight and all Quality controls were within limits. Reanalyze at client request
	WG570504	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG569923	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
			SM2320B - Titration	ZW	Method deviation. The sample was centrifuged prior to analysis due to high solid content.
	WG569666	Total Recoverable Digestion	M200.2 ICP-MS	DD	Sample required dilution due to matrix color or odor.
			M200.2 ICP-MS	DF	Sample required dilution due to high sediment.
L81422-02	WG569923	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG570092	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG569923	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG569618	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG569418	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			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
			SM2540D	Z5	Oven temperature observed out of range. Sample and Quality Control attained a consistent weight and all Quality controls were within limits. Reanalyze at client request
	WG570504	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG569923	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.
L81422-03	WG569923	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG570092	Chloride	SM4500Cl-E	Q6	Sample was received above recommended temperature.
	WG569923	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG569618	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG569418	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			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
			SM2540D	Z5	Oven temperature observed out of range. Sample and Quality Control attained a consistent weight and all Quality controls were within limits. Reanalyze at client request
	WG570504	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG569923	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

New Elk Coal Co. , LLC

ACZ Project ID: **L81422**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L81422-04	WG569923	Bicarbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
		Carbonate as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG570092	Chloride	SM4500CI-E	Q6	Sample was received above recommended temperature.
	WG569923	Hydroxide as CaCO ₃	SM2320B - Titration	Q6	Sample was received above recommended temperature.
	WG569618	Residue, Filterable (TDS) @180C	SM2540C	Q6	Sample was received above recommended temperature.
	WG569418	Residue, Non-Filterable (TSS) @105C	SM2540D	Q6	Sample was received above recommended temperature.
			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
			SM2540D	Z5	Oven temperature observed out of range. Sample and Quality Control attained a consistent weight and all Quality controls were within limits. Reanalyze at client request
	WG570504	Sulfate	D516-02/-07/-11 - TURBIDIMETRIC	Q6	Sample was received above recommended temperature.
	WG569923	Total Alkalinity	SM2320B - Titration	Q6	Sample was received above recommended temperature.

New Elk Coal Co. , LLC

ACZ Project ID: **L81422**

No certification qualifiers associated with this analysis

New Elk Coal Co. , LLC

ACZ Project ID: L81422

Date Received: 06/27/2023 12:57

Received By:

Date Printed: 6/28/2023

Receipt Verification

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

Samples/Containers

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

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?
-----	-----	-----	-----	-----
6942	12.8	<=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.

New Elk Coal Co. , LLC

ACZ Project ID: L81422

Date Received: 06/27/2023 12:57

Received By:

Date Printed: 6/28/2023

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

L81422

CHAIN of CUSTODY

Report to:

Name: Nicholas Mason
Company: New Elk Coal Company
E-mail: nmason@newelkcoal.com

Address: 12250 State Hwy 12
Weston, CO 81091
Telephone: 719-631-6146

Copy of Report to:

Name: _____
Company: _____

E-mail: _____
Telephone: _____

Invoice to:

Name: Melissa Cruz
Company: New Elk Coal Company
E-mail: mcruz@newelkcoal.com

Address: 12250 State Hwy 12
Weston CO 81091
Telephone: 719-631-6141

Copy of Invoice to:

Name: _____
Company: _____
E-mail: _____

Address: _____
Telephone: _____

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: Mick Mason Sampler's Site Information State CO Zip code 81091 Time Zone MT

*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 #: Table - 28 - GW - QTR			# of Containers	Table - 28 - GW - QTR
PO#:				
Reporting state for compliance testing:				
Check box if samples include NRC licensed material?				
SAMPLE IDENTIFICATION		DATE:TIME	Matrix	
Paw 1	6/26/23 10:58	GW	6	
Paw 9	6/26/23 11:21	GW	6	
NE-6-10a 7m	?			
NE-6-10a	6/26/23 7:50	GW	6	
NE-6-10b	6/26/23 10:20	GW	6	

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

REMARKS

Please Return: Cooler
Ice Containers
All Paperwork
Sample Bottles

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

RELINQUISHED BY:

DATE:TIME

RECEIVED BY:

DATE:TIME

[Signature] 6/27/23 1257