# NEW ELK COAL COMPANY



February 28, 2020

Rob Zuber Division of Reclamation, Mining and Safety 1313 Sherman Street Rm. 215 Denver, Colorado 80203

RE: New Elk Mine
Permit C-1981-012
2017 and 2018 Annual Hydrology Report Review Response

Dear Mr. Zuber:

This letter is in response to the 2017 and 2018 AHR review sent from DRMS on May 15, 2019

#### Sampling Locations

Three other sampling locations are in the PAP text and the list of sites (Table 27), but no data is provided in the 2018 AHR: PRS-1a, PRS-4a, and PAW-1a. Please explain these omissions.

Per Ron Thompson. These water wells were permitted with the intent to increase monitoring for PR-3. PR-3 expanded the permit area, a new refuse area at the west portal and the Bates airshaft. With the temporary cessation of mining DRMS agreed that monitoring was not required. New Elk withdrew the PR and that eliminated the monitoring requirement.

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### Please explain the list of NPDES stations, with reference to the New Elk Mine CDPHE permit (CO-000906) as appropriate.

New Elk will submit a revision to DRMS to include NE-010 into Table 27 in the next few months. NE-080 should also be removed, because it is outdated.

#### List of Water Quality Parameters

# **Regarding Table 2 in the AHR (Field Data), it is unclear why water** levels are provided for surface sites. Please explain or omit in the future.

The water level for the surface site is the depth of the river at the time the measurement is taken. It will be omitted in future AHRs.

# Please explain why Total Dissolved Solids and hardness are not included in Table 3. These parameters are listed in Table 28.

An updated Table 3 is attached showing the Total Dissolved Solids and hardness.

#### Analysis of Surface Water Data

# Regarding the discussion of Site 010 on page 2 of the AHR, please explain how there was some flow (albeit minimal) but no discharge.

New Elk staff meant that there was minimal rainfall throughout the year leading there to be no flow through Site 010.

## <u>Analysis of Groundwater Data</u> I suggest you revise to match field and say "depth to water."

Water level does mean depth to water. New Elk will change Table 2 to match the field notes in future AHRs.

Regards,

Micholes Mason

Nicholas Mason

Table 3 Lab Analysis										
	Surface Water		Groundwater Wells						Mine Water	
	PRS-1	PRS-4	PAW-1	PAW-9	PAW-2	PAW-8	PAW-1	PAW-9	NEW-2	NEW-4
Date	5-Dec	5-Dec	25-Jun	25-Jun	26-Nov	26-Nov	25-Oct	25-Oct	28-Nov	28-Nov
Laboratory Analysis										
Total Suspended Solids (TSS) (mg/l)	<5	6	60.0	13.0	264.0	940.0	29.0	38.0	18	9.0
Carbonate (mg/l)	<2	<2	<2	<2	<2	<2	<2	<2	74.3	86.3
Bicarbonate (mg/l)	123	134	105	445	473	624	127.0	451.0	1030	1180
Chloride (mg/l)	8.8	3.3	10.4	20.8	33.3	48.0	12.8	21.4	14.7	19.5
Sulfate (mg/l)	35	37.4	6.4	76.5	102.0	212.0	26.2	83.6	240.0	36.3
Manganese total (Mn) (mg/l)	0.015	0.025	0.134	0.5	1.95	2.66	0.123	3.1	0.125	0.016
Manganese dissolved (Mn) (mg/l)	< 0.005	0.009	0.019	0.028	1.57	0.017	0.025	<0.005	0.08	0.007
Calcium (Ca) (mg/l)	47.6	47.1	15.9	67.4	123.0	143.0	21.3	71.8	14.3	4.9
Magnesium (Mg) (mg/l)	7.9	7.8	8.8	18.6	24.4	32.3	11.2	19.6	6.1	2.3
Potassium (K) (mg/l)	6.7	1.6	2	3.1	3.2	2.4	1.7	2.1	9.6	9.9
Sodium (Na) (mg/l)	10.9	7.5	16.7	123.0	103.0	210.0	18.1	128.0	534.0	524.0
Iron (Fe) (mg/I), Total Dissolved	0.02	0.02	0.26	0.1	1.16	<0.02	0.2	0.03	0.61	0.02
Iron (Fe) (mg/l), Total Recoverable	0.19	0.25	28.30	1.48	59.60	44.70	12.8	2.0	4.76	0.48
Sodium Absorption Rate (SAR)	0.39	0.27	0.84	3.50	2.20	4.20	0.8	3.5	30.00	50.00
Total Dissolved Solids (TDS) (mg/l)	190	190	96	566	684	1180	140	598	1520	1380
Hardness (Calculated) (mg/l)	151	150	76	245	408	490	99	260	61	22