COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY
COAL PROGRAM INSPECTION REPORT

PERMIT INFORMATION

Permit Number: C-1980-007 **Mine Name:** West Elk Mine **Operator:** Mountain Coal Company, LLC **Operator Address:** Ms Kathleen G Welt P.O. Box 591 Somerset, CO 81434	**County:** Delta, Gunnison **Operation Type:** Underground **Permit Status:** Active **Ownership:** Federal
	Operator Representative Present: Kathy Welt and Jessica Loveland
Operator Representative Signature: (Field Issuance Only) N/A – Issued from Denver Office	

INSPECTION INFORMATION

Inspection Start Date: August 19, 2013 **Inspection Start Time:** 08:00 **Inspection End Date:** August 22, 2013 **Inspection End Time:** 19:30	**Inspection Type:** Coal Partial Inspection **Inspection Reason:** Normal I&E Program **Weather:** Cloudy
Joint Inspection Agency: None	**Joint Inspection Contacts:** None
Post Inspection Agency: None	**Post Inspection Contacts:** None

Inspector(s):	**Inspector's Signature:**	**Signature Date:**
James R. Stark		19 September 2013

Inspection Topic Summary
NOTE: **Y**=Inspected **N**=Not Inspected **R**=Comments Noted **V**=Violation Issued **NA**=Not Applicable

N - Air Resource Protection
N - Availability of Records
N - Backfill & Grading
N - Excess Spoil and Dev. Waste
N - Explosives
N - Fish & Wildlife
R - Hydrologic Balance
N - Gen. Compliance With Mine Plan
N - Other
R - Processing Waste
N - Roads
N - Reclamation Success
N - Revegetation
N - Subsidence
N - Slides and Other Damage
N - Support Facilities On-site
N - Signs and Markers
N - Support Facilities Not On-site
N - Special Categories Of Mining
N - Topsoil

COMMENTS

This was a partial inspection of the West Elk Mine conducted by Jim Stark of the Colorado Division of Reclamation, Mining and Safety. Kathy Welt was present for portions of the inspection in the office and Jessica Loveland was present for some portions of the inspection in the field (the portions that were on the mine disturbed areas). Also accompanying me on the inspection were Paul Holder and Drew Holbrook of HydroGeo, Inc. HydroGeo is a consultant that performs the water sampling and monitoring at the West Elk Mine. The main focus of this inspection was to accompany the guys from HydroGeo to determine if locations of the water sampling sites (both ground and surface) are shown correctly on the map in the permit. the majority of the sites we sampled were springs in drainages that are or will be affected by mining. More details are given in the "Hydrologic Balance" section below. The weather over the four day inspection was a mix from hot and sunny to cool and overcast to raining. Similarly, the ground was a mix of dry, wet and muddy, depending on the time of day and location.

HYDROLOGIC BALANCE - Rule 4.05 Drainage Control 4.05.1, 4.05.2, 4.05.3; Siltation Structures 4.05.5, 4.05.6; Discharge Structures 4.05.7, 4.05.10; Diversions 4.05.4; Effluent Limits 4.05.2; Ground Water Monitoring 4.05.13; Surface Water Monitoring 4.05.13; Drainage – Acid and Toxic Materials 4.05.8; Impoundments 4.05.6, 4.05.9; Stream Buffer Zones 4.05.18:
- The following chart (following the inspection report) lists all of the sites we visited. The list includes surface (stream and spring/seep) and ground water samples. The chart includes the site name, type (surface or ground water) whether there was flow and what samples were taken. All samples were grab samples. Surface water sites were taken with a plastic measuring cup that was rinsed three times prior to taking the samples. Ground water samples were taken but the well was not bailed out (due to the small amount of flow in the well). The samples were taken half way between the screened interval. All of the ground water sampling equipment was washed with Alconox (a lab grade soap) and distilled water prior to use. A duplicate sample was taken every 10 samples or, at a minimum, one for every different set of parameters. These duplicate samples are sent in blind, with a different site number and sample time/date (the real information is recorded in the field notebook). he samples were packed on ice, in coolers, and the coolers were sealed with custody tape in sent to the lab via UPS overnight service. The lab HydroGeo uses is ACZ Labs in Steamboat Springs. Based on my laboratory experience, I believe that HydroGeo is following good sampling protocol and performed the analysis of the field parameters correctly.
- The RPE pond east cell contained a small amount of water and the west cell was basically dry. Water was

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flowing into both cells but there was no discharge at the time of the inspection. The pond cells are basically incised ponds. Both pond cells are lined but the area around the pond cells was well vegetated and stable and no erosional problems were noted.
- Both cells of pond MB-5E contained water and were not discharging at the time of the inspection. There was water flowing into the north cell of the pond but not the south cell (flow can be regulated to allow for one or both cells to fill). he pond cells are basically incised but the inslopes of the cells and the areas around the ponds are well vegetated. There were no erosional problems noted in either cell pond. The emergency spillway is a large, riprapped open channel that was stable.
- Both fresh water ponds (FW-1 and FW-2) contained water but were not at the overflow level at the time of the inspection. The freshwater ponds are lined but the areas around the ponds were well vegetated and stable. No erosional problems were noted.
- Pond SG-1 contained a small pool of water but was basically dry at the time of the inspection. The pond embankment was well vegetated and stable and no erosional problems were noted. The emergency spillway is an open channel. The spillway was stable.

PROCESSING WASTE/COAL MINE WASTE PILES – Rule 4.10 and 4.11 Drainage Control; Surface Stabilization; Placement:
- The operator was working on dressing the outslopes of the RPE. Later this summer or early fall they will place the cover and topsoil on these areas of the pile and reseed them. The pile itself was well graded and stable and no erosional problems were seen. The reclaimed portions of the pile were well vegetated and stable.

DOCUMENTS RECEIVED: None

This concludes the 19-22 August 2013 partial inspection report for the West Elk Mine.

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ENFORCEMENT ACTIONS/COMPLIANCE

There are no outstanding enforcement actions at the West Elk Mine and none were issued as a result of the 19-22 August 2013 partial inspection.

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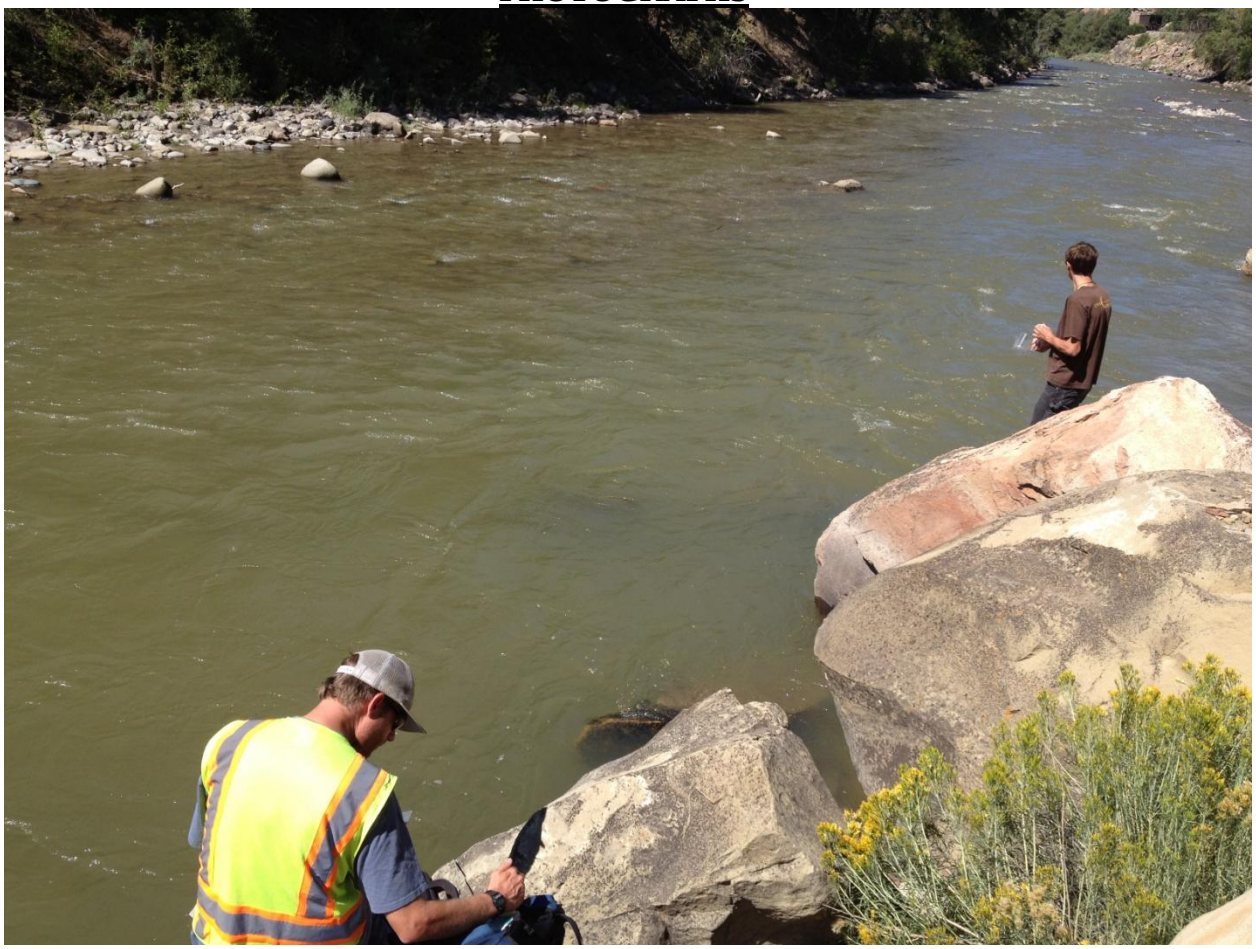
PHOTOGRAPHS



Surface water sampling – Lower North Fork

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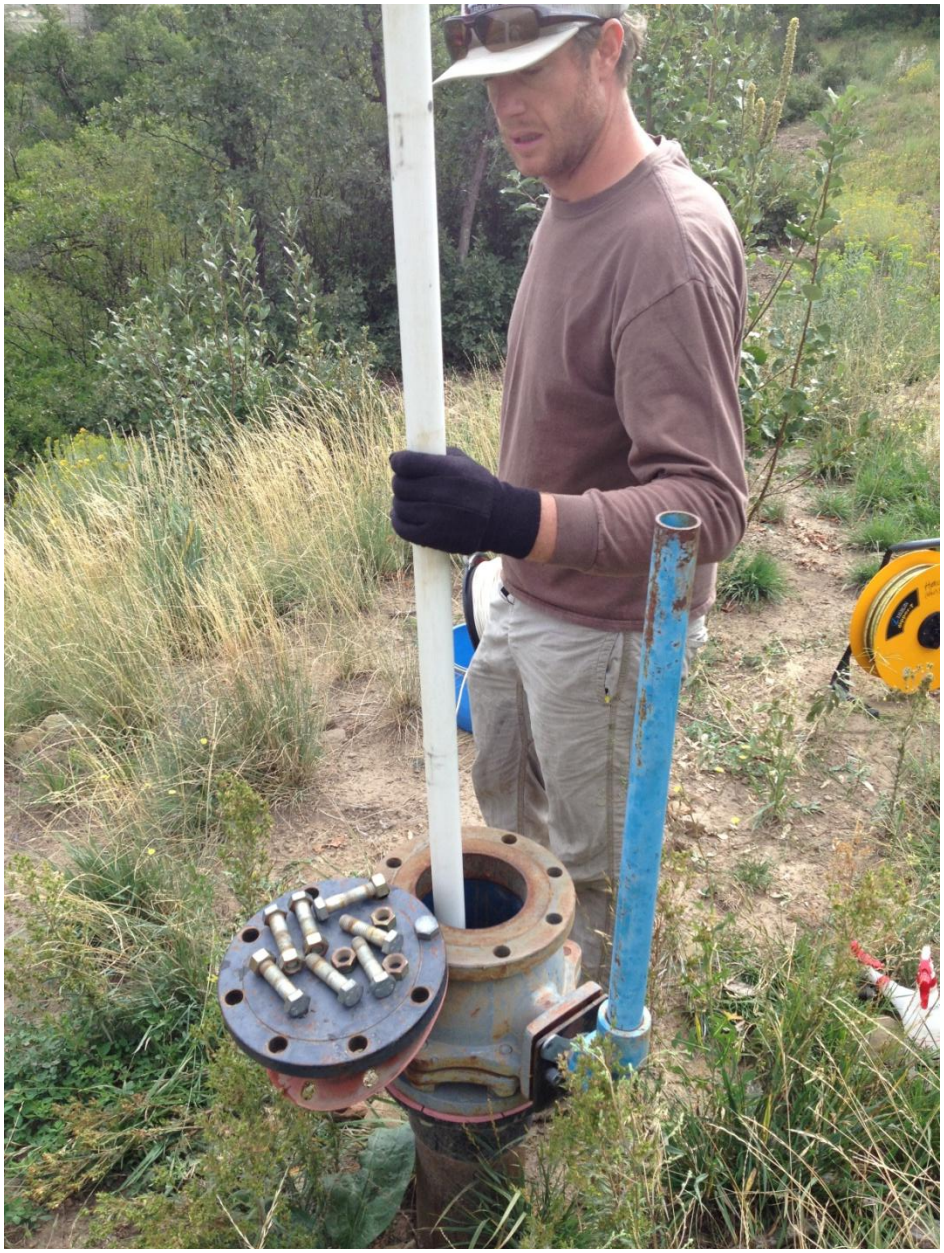

Groundwater Sampling – Well 01-11-1

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Site Name	Type	Flow	FS	LFS	As	Field	Temp
Lower Sylvester Gulch	S	N	NA		NA	NA	
Upper North Fork	S	Y	X		X	X	
NF-1	S	Y			X	X	
NF-BD	S	Y			X	X	
CC-2	S	Y			X	X	
CC-AC	S	Y			X	X	
CC-1	S	Y			X	X	
MC	S	Y			X	X	
CTC	S	N			NA	NA	
TC	S	N			NA	NA	
HC	S	N			NA	NA	
CG	S	N			NA	NA	
NF-3	S	Y			X	X	
NFG-2	S	Y					X
NFG-3	S	Y					X
LNF	S	Y	X			X	
SC	S	N			NA	NA	
EC	S	Y			X	X	
BC	S	N			NA	NA	
HUC	S	Y			X	X	
TEC	S	Y			X	X	
NF-5	S	Y			X	X	
GG	S	N			NA	NA	
LP	S	N			NA	NA	
NF-4	S	Y			X	X	
MB-5E-S	S	Y			X	X	
MB-5E-N	S	Y			X	X	
MD-1	S	Y			X	X	
MI	S	Y			X	X	
FWP-1	S	Y			X	X	
FWP-2S	S	Y			X	X	
FW-2N	S	Y			X	X	
SG-2	S	Y			X	X	
Spring G-20	S	Y	X		X	X	
SG-3	S	N			NA	NA	
SG-4	S	Y			X	X	
Spring G-1A	S	N	NA		X	X	
Spring G-22	S	Y	X		X	X	

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Site Name	Type	Flow	FS	LFS	As	Field	Temp
SG-7	S	Y			X	X	
MS-SG-2	S	Y			X	X	X
MG-SC-4	S	Y			X	X	X
Spring SGS-1	S	Y			X	X	
MC-SG-1	S	N					NA
SG-8	S	Y			X	X	
SG-10	S	Y			X	X	
SG-13	S	N			NA	NA	
Spring 13-1	S	Y	X			X	
Spring 13-2	S	Y	X			X	
Spring 13-3	S	Y	X			X	
Spring 13-4	S	Y	X			X	
Spring 24-3	S	Y	X			X	
Upper Raven Gulch	S	Y	X			X	
Lower Raven Gulch	S	Y	X		X	X	
Seep 15-1	S	Y	X		X	X	
TG	S	N			NA	NA	
RPE-E	S	Y			X	X	
RPE-W	S	Y			X	X	
SG-12	S	Y			X	X	
Spring G-16	S	Y	X		X	X	
SG-1 Pond	S	Y			X	X	
Spring G-14	S	Y	X		X	X	
Spring G-24	S	Y	X		X	X	
SG-10	S	Y			X	X	
SG-11	S	Y			X		
SG-14	S	N	NA		NA	NA	
Spring 27-1	S	Y	X			X	
Spring G-49	S	Y	X			X	
Deep Creek 2 Spring	S	Y	X			X	
Upper Deep Creek	S	Y	X			X	
Spring 35-3	S	Y	X			X	
Spring 26-1	S	Y	X			X	
Lower Deep Creek	S	Y	X			X	
Deep Creek Trail Spring	S	Y	X			X	
Spring 2012-4	S	Y	X			X	
Spring 2012-3	S	Y	X			X	
Spring 2012-2	S	N	NA			NA	

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Site Name	Type	Flow	FS	LFS	As	Field	Temp
Spring 2012-1	S	N	NA			NA	
Spring 96-2-2	S	Y	X			X	
Lower North Fork	S	Y	X			X	
Upper North Fork	S	Y	X			X	
Well - Panel 18 B-Seam	G	Y					
RPE Underdrain Grate	S	Y			Y	Y	
RPE-7 Well	G	N			NA	NA	
MCSG-5	S	N					NA
RPE-1 Well	G	N	NA			NA	
RAV-4B Well	G	Y	X			X	
LRP Seep	S	N	NA			NA	
Well GP-3	G	N	NA			NA	
Well GP-4	G	N	NA			NA	
Well GP-6	G	Y	X			X	
Well GP-7	G	Y	X			X	
Middle Sylvester Gulch	S	N	NA			NA	NA
Well SOM-80	G	Y		X		X	
Spring G-7	S	Y	X			X	
Well SOM-45-H2	G	Y	X			X	
Type - Surface or ground water (S or G)							
Flow - Was there flow at the site or water in the well (Y or N)							
FS - Full Suite Analysis							
LFS - Limited Full Suite Analysis							
As - West Elk Arsenic Study							
Field - Field Parameters Only							
Temp - Temperature only							
NA - Indicates the type of sample required but not taken because there was no flow.							

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