

Jessica Wilczek, P.E. Manager of Engineering and Environmental Affairs Main: (970) 929-2308 jwilczek@archrsc.com

October 9, 2024

Mr. Leigh Simmons Colorado Division of Reclamation, Mining and Safety Office of Mined Land Reclamation 1313 Sherman Street, Room 215 Denver, CO 80203

Re: Mountain Coal Company, LLC - West Elk Mine, CDRMS Permit No. C-1980-007: Pond and Mine Site Quarterly Self-Inspection Reports – 3rd Quarter 2024

Dear Mr. Simmons:

Attached are Mountain Coal Company, LLC's (MCC) Pond, Outfalls, Refuse Pile and Mine Site quarterly selfinspection reports for the 3rd Quarter 2024.

Should you have questions or require additional information, please contact me at (970) 929-2308.

Sincerely,

Jossica Wilczek

Jessica Wilczek, P.E. Manager of Engineering and Environmental Affairs Mountain Coal Company, L.L.C – West Elk Mine

Mountain Coal Company, L.L.C. A subsidiary of Arch Resources, Inc. West Elk Mine 5174 Highway 133 Somerset, CO 81434 (970) 929-2200 archrsc.com

9/10/2024

Quarter/Year

C. Hiatt

Inspector

3rd Quarter

Date

Surface Material Storage (under C-1)

Location

Features	Prob	lems	Mainte	enance	Rep	airs	Comments
Erosion:	Yes	No	Yes	No	Yes	No	
Rills and Gullies		Х		Х		Х	
Vegetation		Х		Х		Х	
Other		Х		Х		Х	
Drainage:	Yes	No	Yes	No	Yes	No	
Ditches and Channels		Х		Х		Х	
Berms		Х		Х		Х	
Linings		Х		Х		Х	
BMPs		Х		Х		Х	
Culverts		Х		Х		Х	
Other		Х		Х		Х	
Structural:	Yes	No	Yes	No	Yes	No	
Side slopes and Stability		х		х		х	
Cracks or Settling		Х		Х		Х	
Seepage		Х		Х		Х	
Other		Х		Х		Х	
Reclamation:	Yes	No	Yes	No	Yes	No	
Seedbed Material		Х		Х		Х	
Subsoil		Х		Х		Х	
Vegetation		Х		Х		Х	
Mulch		Х		Х		Х	
Other		Х		Х		Х	
General Compliance & Miscellaneous	Yes	No	Yes	No	Yes	No	
Signs and Markers		Х		Х		Х	
Roads		Х		Х		Х	
Other		Х		Х		Х	
Additional Comments:							·
Action Required or Need	ed:						

Date

Location

Mountain Coal Company, LLC- West Elk Mine Quarterly Self Mine Site Inspection Report

o/	10	/2024	í i
97	TO	/ ZUZ4	Ł

Topsoil pile by ST 1-3

_	3rd
Quarter/Year	
C. Hiatt	

Quarter

Inspector

 Yes Yes Yes Yes Yes Yes 	No X	Yes	No X X No X	
	X X NO X		X X No X X X X X X X No X	
	X No X		X No X X X X X X X No X	
	NoXXXXXXXXXXXX		No X X X X X X X No X	
	X X		X X X X X X No X	
y Yes	X X X X X X X X X X X X X X X X X X X X	Yes	X X X X X No X	
yes	X X X X No X X X X X	Yes	X X X X No X	
yes	X X X No X X X X	Yes	X X X No X	
yes	X X No X X X X	Yes	X X No X	
Yes	X No X X X X	Yes	X No X	
Yes	No X X X X	Yes	No X	
Yes	x x x	Yes	х	
	X X			
	Х		Х	
			· · ·	
			Х	
	Х		Х	
	Х		Х	
Yes	No	Yes	No	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
	Х		Х	
Yes	No	Yes	No	
	Х		Х	
	Х		Х	
,	Yes	X X X X Yes X X	X X X X Yes X X	XXXXXXXXYesNoXXXX

C. Hiatt

Inspector

9/10/2024		

	3rd Quarter
Quarter/Year	

Date

General Mine Site

Location

Features	Prob	lems	Mainte	enance	Rep	airs	Comments
Erosion:	Yes	No	Yes	No	Yes	No	
Rills and Gullies		Х		Х		Х	
Vegetation		Х		Х		Х	
Other		Х		Х		Х	
Drainage:	Yes	No	Yes	No	Yes	No	
Ditches and Channels		Х		Х		Х	
Berms		Х		Х		Х	
Linings		Х		Х		Х	
BMPs		Х		Х		Х	
Culverts		Х		Х		Х	
Other		Х		Х		Х	
Structural:	Yes	No	Yes	No	Yes	No	
Side slopes and Stability		х		х		х	
Cracks or Settling		Х		Х		Х	
Seepage		Х		Х		Х	
Monitoring-Survey		Х		Х		Х	
Other		Х		Х		Х	
Reclamation:	Yes	No	Yes	No	Yes	No	
Seedbed Material		Х		Х		Х	
Subsoil		Х		Х		Х	
Vegetation		Х		Х		Х	
Mulch		Х		Х		Х	
Other		Х		Х		Х	
Miscellaneous	Yes	No	Yes	No	Yes	No	
Signs and Markers		Х		Х		Х	
Spontaneous Combustion		Х		Х		Х	
Roads		Х		Х		Х	
Other		Х		Х		Х	
Additional Comments:							
Action Required or Need	ed:						

3rd Quarter Quarter/Year

Date

Material Storage Bench, Topsoil Pile #5 Location

C.	Hiatt
In	spector

		Ivianice	enance	Rep	bairs	Comments
Yes	No	Yes	No	Yes	No	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
Yes	No	Yes	No	Yes	No	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
Yes	No	Yes	No	Yes	No	
	х		х		х	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
Yes	No	Yes	No	Yes	No	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
Yes	No	Yes	No	Yes	No	
	Х		Х		Х	
	Х		Х		Х	
	Х		Х		Х	
led:						
	Yes	X Yes No X X X X X X X X X X X X Yes No X X Yes No X X Yes No X X X X Yes No X X Yes No X X Yes No X X Yes X X X X X X X X X X X X X	XXXXYesNoYesXXXXXXXXXXXXXXXYesNoYesYesNoYesXXXYesNoYesXXXYesNoYesXXXYesNoYesYesNoYesYesXXYesXXYesNoYesXXXXXXXXXYesNoYesXXXYesNoYesXXXYesNoYesXXXYesNoYesXXXYesNoYes	XXXXYesNoYesNoXXXXXXXXXXXXXXXXXXXXXXXXXXXXYesNoXX <td>XXXXXXYesNoYesXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXYesNoYesYesNoYesXXXYesNoYesXXXXXXXXXYesNoYesXXXYesNoYesXXXYesNoYesYesNoYesXXXYesNoYesXXXYesNoYesXXXXXXXXXXXXYesNoYesXXXXXXYesNoYesXXXXXXYesXXYesXXYesXXYesXXYesXXYesXXYesXXYesXXYesXXYesXX</td> <td>XXXXXXXXYesNoYesNoXXYesNoYesNoXXXXXXXXYesNoYesNoXXXXYesNoYesNoYesNoYesNoXXXXXXXXYesNoYesNoXX</td>	XXXXXXYesNoYesXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXYesNoYesYesNoYesXXXYesNoYesXXXXXXXXXYesNoYesXXXYesNoYesXXXYesNoYesYesNoYesXXXYesNoYesXXXYesNoYesXXXXXXXXXXXXYesNoYesXXXXXXYesNoYesXXXXXXYesXXYesXXYesXXYesXXYesXXYesXXYesXXYesXXYesXXYesXX	XXXXXXXXYesNoYesNoXXYesNoYesNoXXXXXXXXYesNoYesNoXXXXYesNoYesNoYesNoYesNoXXXXXXXXYesNoYesNoXX

9/2/2024	3rd Quarter				
Date	Quarter/Year				
RPE & RPEE	C. Hiatt				
Location	Inspector				

No X	Yes Yes Yes Yes Yes Yes	No X	Yes Yes Yes	No X	
X No X		X X No X X X X X X X X X X X X X X X		X X NO X X X X X X NO X X X X	
X No X		X No X X X X X X X X X X X X X X		X No X X X X X X X X X X X X	
No X		NoXXXXXXXXXXXXXXXXXX		NoXXXXXXXXXXXXXX	
X X		X X		X X	
X X X X X X No X X X X X X X X X X X	Yes	X X X X X No X X X X X X X	Yes	X X X X X No X X X X	
X X X X No X	Yes	X X X X No X X X X X X X	Yes	X X X X No X X X X X	
X X X No X X X X X X X X X	Yes	X X X No X X X X X X	Yes	X X X No X X X X	
X X No X X X X X X X X	Yes	X X No X X X X X X	Yes	X X No X X X X	
X No X X X X X X X X	Yes	X No X X X X X	Yes	X No X X X X	
No X X X X X X X X X X X	Yes	NoXXXXXX	Yes	No X X X X	
X X X X X X	Yes	x x x x x	Yes	x x x	
X X X X X		X X X		X X	
X X X		X X		Х	
X X		Х			
Х				Х	
		Х	1		
X				Х	
		Х		Х	
Х		Х		Х	
No	Yes	No	Yes	No	
Х		Х		Х	
Х		Х		Х	
Х		Х		Х	
Х		Х		Х	
Х		Х		Х	
No	Yes	No	Yes	No	
Х		Х		Х	
х		х		х	
Х		Х		Х	
		X	x x	X X	X X X X

9/26/	2024
-------	------

	3rd Quarter
Quarter/Year	
C. Hiatt	

Inspector

Date

Sylvester Gulch Facilities Area

Location

Features	Prob	lems	Mainte	enance	Rep	oairs	Comments
Erosion:	Yes	No	Yes	No	Yes	No	
Rills and Gullies		Х		Х		Х	
Vegetation		Х		Х		Х	
Other		Х		Х		Х	
Drainage:	Yes	No	Yes	No	Yes	No	
Ditches and Channels		Х		Х		Х	
Berms		Х		Х		Х	
Linings		Х		Х		Х	
BMPs		Х		Х		Х	
Culverts		Х		Х		Х	
Other		Х		Х		Х	
Structural:	Yes	No	Yes	No	Yes	No	
Side slopes and Stability	Х		х		Х		See comments
Cracks or Settling		Х		Х		Х	
Seepage		Х		Х		Х	
Monitoring-Survey		Х		Х		Х	
Other		Х		Х		Х	
Reclamation:	Yes	No	Yes	No	Yes	No	
Seedbed Material		Х		Х		Х	
Subsoil		Х		Х		Х	
Vegetation		Х		Х		Х	
Mulch		Х		Х		Х	
Other		Х		Х		Х	
General Compliance & Miscellaneous	Yes	No	Yes	No	Yes	No	
Signs and Markers		Х		Х		Х	
Roads		Х		Х		Х	
Other		Х		Х		Х	
Additional Comments:			•	4	<u>.</u>		<u>+</u>
Surveyors have been monitoring the slide							
Action Required or Need	led:						
1							

9/26/2024

3rd O

Date

North Soils Storage Area (NSSA)

Location

	3rd Quarter
Quarter/Year	
C. Hiatt	
Inspector	

Features	Prob	lems	Mainte	enance	Rep	airs	Comments
Erosion:	Yes	No	Yes	No	Yes	No	
Rills and Gullies		Х		Х		Х	
Vegetation		Х		Х		Х	
Other		Х		Х		Х	
Drainage:	Yes	No	Yes	No	Yes	No	
Ditches and Channels		Х		Х		Х	
Berms		Х		Х		Х	
Linings		Х		Х		Х	
BMPs		Х		Х		Х	
Culverts		Х		Х		Х	
Other		Х		Х		Х	
Structural:	Yes	No	Yes	No	Yes	No	
Side slopes and Stability		х		х		х	
Cracks or Settling		Х		Х		х	
Seepage		Х		Х		Х	
Other		Х		Х		Х	
Reclamation:	Yes	No	Yes	No	Yes	No	
Seedbed Material		Х		Х		Х	
Subsoil		Х		Х		Х	
Vegetation		Х		Х		Х	
Mulch		Х		Х		Х	
Other		Х		Х		Х	
General Compliance & Miscellaneous	Yes	No	Yes	No	Yes	No	
Signs and Markers		Х		Х		Х	
Roads		Х		Х		Х	
Other		Х		Х		Х	
			•				

Quarter/Year

C. Hiatt

9/26/2024

Date

Lower Refuse Pile (Prep Plant)

Location	Inspector						
Features	Prob	lems	Mainte	enance	Rep	airs	Comments
Erosion:	Yes	No	Yes	No	Yes	No	
Rills and Gullies		Х		Х		Х	
Vegetation		Х		Х		Х	
Other		Х		Х		Х	
Drainage:	Yes	No	Yes	No	Yes	No	
Ditches and Channels		Х		Х		Х	
Berms		Х		Х		Х	
Linings		Х		Х		Х	
BMPs		Х		Х		Х	
Culverts		Х		Х		Х	
Other		Х		Х		Х	
Structural:	Yes	No	Yes	No	Yes	No	
Side slopes and Stability		Х		х		Х	
Compaction		Х		Х		Х	
Underdrains		Х		Х		Х	
Cracks or Settling		Х		Х		Х	
Seepage		Х		Х		Х	
Monitoring-Survey		Х		Х		Х	
Other		Х		Х		Х	
Reclamation:	Yes	No	Yes	No	Yes	No	
Seedbed Material		Х		Х		Х	
Subsoil		Х		Х		Х	
Vegetation		Х		Х		Х	
Mulch		Х		Х		Х	
Other		Х		Х		Х	
General Compliance & Miscellaneous	Yes	No	Yes	No	Yes	No	
Signs and Markers		Х		Х		Х	
Spontaneous Combustion		х		х		Х	
Roads		Х		Х		Х	
Other		Х		Х		Х	
Additional Comments:							

Action Required or Needed:

Date

Location

Mountain Coal Company, LLC- West Elk Mine Quarterly Self Mine Site Inspection Report

Upper Sly Gulch Road

	3rd Quarter
Quarter/Year	
C. Hiatt	
Inspector	

Features	Prob	lems	Mainte	Maintenance Repairs		airs	Comments		
Erosion:	Yes	No	Yes	No	Yes	No			
Rills and Gullies		Х		Х		Х			
Vegetation		Х		Х		Х			
Other		Х		Х		Х			
Drainage:	Yes	No	Yes	No	Yes	No			
Ditches and Channels		Х		Х		Х			
Berms		Х		Х		Х			
Linings		Х		Х		Х			
BMPs		Х		Х		Х			
Culverts		Х		Х		Х			
Other		Х		Х		Х			
Structural:	Yes	No	Yes	No	Yes	No			
Side slopes and		х		х		х			
Stability		~		^		^			
Cracks or Settling		Х		Х		Х			
Seepage		Х		Х		Х			
Monitoring-Survey		Х		Х		Х			
Other		Х		Х		Х			
Reclamation:	Yes	No	Yes	No	Yes	No			
Seedbed Material		Х		Х		Х			
Subsoil		Х		Х		Х			
Vegetation		Х		Х		Х			
Mulch		Х		Х		Х			
Other		Х		Х		Х			
General Compliance & Miscellaneous	Yes	No	Yes	No	Yes	No			
Signs and Markers		Х		Х		Х			
Roads		Х		Х		Х			
Other		Х		Х		Х			
Additional Comments:							•		
Road is in good condition	n to hea	d into w	vinter						
Action Required or Need	ed:								

9/26/2024	3rd 2023
Date	Quarter/Year
Deer Creek Shaft & Monument Dam Borrow Area	C. Hiatt
Location	Inspector

Features	Prob	lems	Mainte	enance	Rep	oairs	Comments
Erosion:	Yes	No	Yes	No	Yes	No	
Rills and Gullies		Х		Х		Х	
Vegetation		Х		Х		Х	
Other		Х		Х		Х	
Drainage:	Yes	No	Yes	No	Yes	No	
Ditches and Channels		Х		Х		Х	
Berms		Х		Х		Х	
Linings		Х		Х		Х	
BMPs		Х		Х		Х	
Culverts		Х		Х		Х	
Other		Х		Х		Х	
Structural:	Yes	No	Yes	No	Yes	No	
Side slopes and Stability		х		х		х	
Cracks or Settling		Х		Х		Х	
Seepage		Х		Х		Х	
Monitoring-Survey		Х		Х		Х	
Other		Х		Х		Х	
Reclamation:	Yes	No	Yes	No	Yes	No	
Seedbed Material		Х		Х		Х	
Subsoil		Х		Х		Х	
Vegetation		Х		Х		Х	
Mulch		Х		Х		Х	
Other		Х		Х		Х	
Miscellaneous	Yes	No	Yes	No	Yes	No	
Signs and Markers		Х		Х		Х	
Roads		Х		Х		Х	
Other		Х		Х		Х	
Additional Comments:							
Lot of road matinance do	one this	summe	er				
Action Required or Need	ed:						

9/26/2024

Date

2rd	2024
310	2024

C.Hiatt Inspector

Quarter/Year

Pond ID	FW-1	SG-1	RPE West	RPE East	NSSA	Deepwell
	Fresh Water	Sediment	Sediment	Sediment	Sediment	Fault
Pond Type	TTEST Water	Sediment	Seament	Seument	Seument	Water
Sediment Level %	N/A	5%	<15%	<5%	0	<5%
Water Level (Approx.)	90%	10%	10%	5%	0	20%
Discharge? Y/N	N/A	N	N	N	Ν	N

Features	Proble	ems?*	Mainte	enance?*	Repairs?*		Commments	
* If Yes add comments		-						
Erosional:	Yes	No	Yes	No	Yes	No		
Rill & Gullies		Х		Х		Х		
Inadequate Vegetation		Х		Х		Х		
Outlet Channel Erosion		Х		Х		Х		
Burrows		Х		Х		Х		
Other		х		Х		Х		
Structural:								
Differental Settling		х		Х		х		
Cracks and Slides		Х		Х		Х		
Seepage		Х		Х		Х		
Other		Х		Х		Х		
Appurtenant Structures								
Defective Spillways		Х		Х		Х		
De-Watering Device clogged		х		х		х		
Faulty Gates, Baffles, Pumps		х		х		х		
Other		Х		х		Х		
Additional Comments:	Water is recycled from the sediment ponds for use as dust control on roadways, as well as pumped to the CPP (as needed) and/or into the sealed area of the mine for storage and later use per MCC's adjudicated water storage right							
Action Needed:	RPE Ea	RPE East has been cleaned						

9/26/2024

Date

2rd	2024
Siu	2024

C.Hiatt Inspector

Quarter/Year

Pond ID	FW-2 North	FW-2 South	MB-3	MB-4	MB-5 North	MB-5 South
Pond Type	Fresh Water	Fresh Water	Sediment	Sediment	Sediment	Sediment
Sediment Level %	N/A	N/A	<5%	<5%	<10%	<5%
Water Level (Approx.)	Full	Full	5%	25%	15%	5%
Discharge? Y/N	N/A	N/A	N	Ν	N	Ν

Features	Probl	ems?*	Mainte	enance?*	Rep	airs?*	Commments
* If Yes add comments		_					
Erosional:	Yes	No	Yes	No	Yes	No	
Rill & Gullies		Х		х		Х	
Inadequate Vegetation		Х		Х		Х	
Outlet Channel Erosion		Х		Х		Х	
Burrows		Х		Х		Х	
Other		Х		Х		Х	
Structural:							
Differental Settling		Х		Х		Х	
Cracks and Slides		Х		Х		Х	
Seepage		Х		Х		Х	
Other		Х		Х		Х	
Appurtenant Structures							
Defective Spillways		Х		Х		Х	
De-Watering Device clogged		х		х		х	
Faulty Gates, Baffles, Pumps		х		х		х	
Other		Х		Х		Х	
Additional Comments:	Water is recycled from the sediment ponds for use as dust control on roadways, as well as pumped to the CPP (as needed) and/or into the sealed area of the mine for storage and later use per MCC's adjudicated water storage right						
Action Needed:	MB-3	and MB	-5 have	e been cle	eaned		

REFUSE PILE EXPANSION EAST CERTIFICATION

I, Jessica A. Wilczek, Colorado Registered P.E. No. 39802, hereby certify to the best of my knowledge and belief, the preparation of the Refuse Pile Expansion East (RPEE), including topsoil and subsoil salvage, underdrain and drainage ditch construction, and placement and compaction of fill lifts, was completed during the 3rd Quarter of 2024 in accordance with the approved designs for the Refuse Pile Expansion East (RPEE), see the state of the compaction test results.

ssira Wilcut

Jessica A. Wilczek, Colorado P.E. No. 39802



PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: July 2, 2024

LOCATION: Somerset, CO

ENGINEERING TECHNICIAN: SZ

CLIENT: Mountain Coal Company

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
15			6	88.0	16.5	96.7	10.5	100+	Coal gob, black, RPEE East
16			6	88.0	16.5	88.8	14.4	100	Coal gob, black, RPEE East
17			6	94.5	15.0	96.7	16.0	100	Coal gob, black, RPEE Upper

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.



PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: July 9, 2024

LOCATION: Somerset, CO

ENGINEERING TECHNICIAN: SZ

CLIENT: Mountain Coal Company

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
18			4	97.0	15.0	94.1	10.2	97	Coal gob, black, RPEE Middle
19			8	97.0	15.0	90.9	10.8	94	Coal gob, black, RPEE Middle
20			8	97.0	15.0	101.6	12.5	100+	Coal gob, black, RPEE Middle
21			8	97.0	15.0	96.5	7.0	100	Coal gob, black, RPEE Middle

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

Lambert and Associates

PROJECT: West Elk

PROJECT NUMBER: M24039MT

DATE: 7-16-24

LOCATION: Somerset

ENGINEERING TECHNICIAN: SZ

CLIENT: Wells Excavation

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
22			6	97.0	15.0	104.1	9.4	100+	Coal gob black, RPE middle
23			6	97.0	15.0	94.9	11.8	98	Coal gob black, RPE middle
24			8	97.0	15.0	94.3	13.8	97	Coal gob black, RPE middle
25			6	97.0	15.0	98.3	9.8	100+	Coal gob black, RPE middle
26			6	97.0	15.0	99.4	11.9	100+	Coal gob black, RPE middle

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

Lambert and Associates

PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: 7-23-24

LOCATION: Somerset

ENGINEERING TECHNICIAN: SZ

CLIENT:

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
27			6	97.0	15	97.3	10.7	100+	Coal gob black, RPE middle
28			6	97.0	15	106.5	11.2	100+	Coal gob black, RPE middle
29			6	97.0	15	98.8	13.4	100+	Coal gob black, RPE middle
30			6	97.0	15	92.4	12.3	95	Coal gob black, RPE middle

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

Lambert and Associates

PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: August 13, 2024

LOCATION: Somerset

ENGINEERING TECHNICIAN: SZ

CLIENT: Mountain Coal Company

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
45			8	97.0	15.0	91.8	11.6	95	Coal Gob Black
46			4	97.0	15.0	100.7	12.1	100	Coal Gob Black
47			4	97.0	15.0	101.0	12.6	100	Coal Gob Black
48			6	97.0	15.0	99.5	16.3	100	Coal Gob Black
49			4	97.0	15.0	93.4	15.7	96	Coal Gob Black

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

Lambert and Associates

PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: August 20, 2024

LOCATION: Somerset

ENGINEERING TECHNICIAN: SZ

CLIENT: Mountain Coal Company

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
50			6	97.0	15.0	100.1	12.6	100	RPEE Middle, Coal Gob, Black
51			6	97.0	15.0	102.3	14.4	100	RPEE Middle, Coal Gob, Black
52			6	97.0	15.0	99.6	12.6	100	RPEE Middle, Coal Gob, Black
53			6	97.0	15.0	91.8	10.7	95	RPEE Middle, Coal Gob, Black
54			6	90.0	16.0	90.2	14.8	100	RPEE North, Coal Gob, Black

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

Lambert and Associates

PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: August 29, 2024

LOCATION: Somerset

ENGINEERING TECHNICIAN: SZ

CLIENT: Mountain Coal Company

NUCLEAR GAUGE USED: 14

APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
		6	97.0	15.0	102.8	10.0	100	Coal Gob, Black
		6	97.0	15.0	95.5	13.4	98	Coal Gob, Black
		2	97.0	15.0	104.5	12.3	100	Coal Gob, Black
		4	97.0	15.0	96.8	10.5	100	Coal Gob, Black
		4	97.0	15.0	97.9	9.0	100	Coal Gob, Black
		6	90.0	16.0	91.9	9.8	100	Coal Gob, Black
			TEST LOCATIONELEVATIONDEPTH (IN)66244	APPROXIMATE TEST LOCATIONDEPTH OR ELEVATIONPROBE DEPTH (IN)PROCTOR DENSITY (PCF)697.0697.0297.0497.0497.0	APPROXIMATE TEST LOCATIONDEPTH OR ELEVATIONPROBE DEPTH (IN)PROCTOR DENSITY (PCF)MOISTURE CONTENT (%)697.015.0697.015.0297.015.0497.015.0497.015.0	APPROXIMATE TEST LOCATION DEPTH OR ELEVATION PROBE DEPTH (IN) PROCTOR DENSITY (PCF) MOISTURE CONTENT (%) DRY DENSITY (PCF) 6 97.0 15.0 102.8 6 97.0 15.0 95.5 2 97.0 15.0 104.5 4 97.0 15.0 96.8 4 97.0 15.0 97.9	APPROXIMATE TEST LOCATION DEPTH OR ELEVATION PROBE DEPTH (IN) PROCTOR DENSITY (PCF) MOISTURE CONTENT (%) DRY DENSITY (PCF) MOISTURE CONTENT (%) 6 97.0 15.0 102.8 10.0 6 97.0 15.0 102.8 10.0 6 97.0 15.0 104.5 12.3 4 97.0 15.0 96.8 10.5 4 97.0 15.0 97.9 9.0	APPROXIMATE TEST LOCATION DEPTH OR ELEVATION PROBE DEPTH (IN) PROCTOR DENTY (VCF) MOISTURE CONTENT (%) DRS ITY CONTENT (%) MOISTURE CONTENT (%) RELATIVE COMPACTION (%) 6 97.0 15.0 102.8 10.0 100 6 97.0 15.0 95.5 13.4 98 2 97.0 15.0 104.5 12.3 100 4 97.0 15.0 96.8 10.5 100 4 97.0 15.0 96.8 10.5 100

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

Lambert and Associates

PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: September 3, 2024

LOCATION: Somerset

ENGINEERING TECHNICIAN: SZ

CLIENT: Mountain Coal Company

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
61			4	97.0	15.0	97.5	12.7	100	Coal Gob, Black
62			4	97.0	15.0	95.1	10.8	98	Coal Gob, Black
63			4	97.0	15.0	96.5	13.0	100	Coal Gob, Black
64			4	97.0	15.0	104.3	10.6	100	Coal Gob, Black
65			4	90.0	16.0	90.3	12.6	100	Coal Gob, Black

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

Lambert and Associates

PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: 9-10-24

LOCATION: Somerset, CO

ENGINEERING TECHNICIAN: SZ

CLIENT: Mountain Coal Company

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
66			6"	97.0	15.0	99.6	11.8	100	Coal gob black
67			6"	97.0	15.0	99.6	15.4	100	Coal gob black
68			6"	97.0	15.0	99.1	9.4	100	Coal gob black
69			4"	97.0	15.0	94.6	9.5	98	Coal gob black

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

15.0 Lambert and Associates

PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: September 17, 2024

LOCATION: Somerset, CO

ENGINEERING TECHNICIAN: SZ

CLIENT: Mountain Coal Company

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
70			6	97.0	16.0	100.3	14.7	100	Coal gob black
71			4	97.0	16.0	93.7	12.9	97	Coal gob black
72			6	90.0	16.0	87.2	15.0	97	Coal gob black

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.



PROJECT: West Elk Mine

PROJECT NUMBER: M24039MT

DATE: 9-24-24

LOCATION: Somerset, CO

ENGINEERING TECHNICIAN: SZ

CLIENT: Mountain Coal Company

NUCLEAR GAUGE USED: 14

TEST NO.	APPROXIMATE TEST LOCATION	DEPTH OR ELEVATION	PROBE DEPTH (IN)	LABORATORY PROCTOR DENSITY (PCF)	OPTIMUM MOISTURE CONTENT (%)	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	RELATIVE COMPACTION (%)	SOIL TYPE
73			4"	97.0	15.0	91.4	11.1	94	Coal gob black R PE
74			BS	97.0	15.0	94.2	12.6	97	Coal gob black R PE
75			6"	97.0	15.0	93.6	15.7	96	Coal gob black R PE
76			8"	97.0	15.0	100	13.5	100	Coal gob black R PE

REMARKS: The test results indicate only the density and moisture content for the location and elevation tested only.

