



Moffat County Mining, LLC
29515 RCR 27
Oak Creek, CO 80467

October 20, 2019

Robin Reilley
Colorado Division of Reclamation, Mining and Safety
1313 Sherman St., Room 215
Denver, CO 80203

RE: 3rd Quarter and Annual Pond Inspections – Williams Fork Mine (C 1981-044)

Ms. Reilley:

Enclosed are the 3rd quarter 2019 and Annual pond inspection reports for the Williams Fork Mine. Nicholas Aromando (P.E.) accompanied on the inspection and has provided a Professional Engineer's Statement on the following page of this letter to accompany the inspection reports. Please contact me if there are any questions or if you need any additional information.

Best Regards,

A handwritten signature in blue ink that reads "Miranda Kawcak".

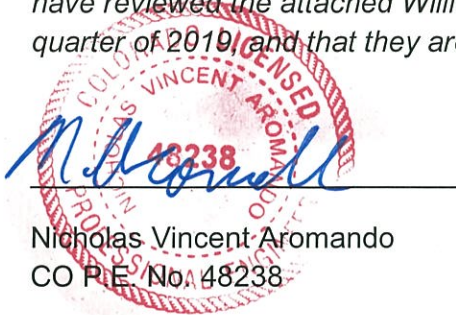
Miranda Kawcak
Environmental Manager
Peabody, Colorado Operations

Attachments:

Professional Engineer Certification (Nicholas Aromando, P.E.)
Inspection Reports

CERTIFICATION

I, Nicholas V. Aromando, a registered engineer in the State of Colorado do hereby certify that I have reviewed the attached Williams Fork Mine Sediment Pond Reports covering the third quarter of 2019, and that they are true and correct to the best of my knowledge and belief.



Nicholas Vincent Aromando
CO P.E. No. 48238

10/20/19
Date

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

1	2	3	4
Spoil Springs			
✓			

CDFS OUTFALL #

022 Site 1SP

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

~ 1' below discharge

Sediment level (% total storage):

< 5%

Outflow (cfs):

0

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways	✓		Wier is rusted w/ small hole
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other			
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>Wier to be bentonited or replaced fall 2019</u>			

NAME OF INSPECTOR: M. Kawcak

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

1	2	3	4
5-P1	5-P2	5-P3	
SED. POND ✓	SED. TRAP ✓	SED. TRAP ✓	

CDFS OUTFALL #

007

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

All Dry

Sediment level (% total storage):

< 10%

Outflow (cfs):

0 cfs

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other			
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>None</u>			

NAME OF INSPECTOR: M. Kawrak

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

1	2	3	4
5-P5	5-P6	5-P7	
SED. POND	SED. POND	SED. POND	

CDFS OUTFALL #

003

003

003

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

Reclaimed Oct 2018

Sediment level (% total storage):

Outflow (cfs):

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL Rills & Gullies on Embankment Inadequate Vegetation Outlet Channel Erosion Burrows Other		NA	
		1	
STRUCTURAL Differential Setting Cracks or slides Seepage Other			
APPURTENANT STRUCTURES Defective Spillways Dewatering Device Clogged Faulty Gates, Baffles, Pump Other			
		✓	
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED:			

NAME OF INSPECTOR: Mr. Kawcak

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

1	2	3	4
9A-P1	9A-P2	9A-P3	9A-P4
SED. POND	SED. POND	SED. POND	SED. POND
018	019	020	021

CDFS OUTFALL #

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

Sediment level (% total storage):

Outflow (cfs):

All Dry

45%

0 cfs

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other			
ADDITIONAL COMMENTS:			
<u>P2, P3, P4 to be transferred to stockpond for permanent retention</u>			
MAINTENANCE REQUIRED:			

NAME OF INSPECTOR: M. Kawcal

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

1	2	3	4
9-P1	9-P2	9-P3	9-P4
SED. POND	SED. POND	SED. POND	SED. POND
✓	✓	✓	✓
		024	014

CDFS OUTFALL #

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

Sediment level (% total storage):

Outflow (cfs):

All Dry
< 5%
0 cfs

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	Minor Animal Burrows
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other			
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>None</u>			

NAME OF INSPECTOR: M. Kawcak

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

1	2	3	4
9-P5	9-P6	9-P7	9-P8
SED. POND	SED. POND	SED. POND	SED. POND
✓	✓	✓	✓
017	015	013	016

CDFS OUTFALL #

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

Sediment level (% total storage):

Outflow (cfs):

All Dry
25%
0 cfs

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other			
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>None</u>			

NAME OF INSPECTOR: M. Kawcatz

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

1	2	3	4
HR-P1A	HR-P1B		
SED. POND ✓	SED. POND ✓		

CDFS OUTFALL #

004

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

All Dry

Sediment level (% total storage):

25%

Outflow (cfs):

0 cfs

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other			
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED: <u>None</u>			

NAME OF INSPECTOR: M. Kawrak

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

1	2	3	4
SH-P1	SH-P2		
SED. POND ✓	SED. POND ✓		

CDFS OUTFALL #

011

012

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

All Dry

Sediment level (% total storage):

55%

Outflow (cfs):

0 cfs

FEATURES	PROBLEM		COMMENTS	
	YES	NO		
EROSIONAL				
Rills & Gullies on Embankment		✓	Minor Animal Burrows	
Inadequate Vegetation		✓		
Outlet Channel Erosion		✓		
Burrows		✓		
Other		✓		
STRUCTURAL				
Differential Setting		✓		
Cracks or slides		✓		
Seepage		✓		
Other		✓		
APPURTENANT STRUCTURES				
Defective Spillways		✓		
Dewatering Device Clogged		✓		
Faulty Gates, Baffles, Pump		✓		
Other				
ADDITIONAL COMMENTS:				
MAINTENANCE REQUIRED: <u>None</u>				

NAME OF INSPECTOR: M. Kawcak

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

	1	2	3	4
5A-P1				
SED. POND ✓				

CDFS OUTFALL #

009

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

Dry

Sediment level (% total storage):

650/0

Outflow (cfs):

0 cfs

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		✓	
Inadequate Vegetation		✓	
Outlet Channel Erosion		✓	
Burrows		✓	
Other		✓	
STRUCTURAL			
Differential Setting		✓	
Cracks or slides		✓	
Seepage		✓	
Other		✓	
APPURTENANT STRUCTURES			
Defective Spillways		✓	
Dewatering Device Clogged		✓	
Faulty Gates, Baffles, Pump		✓	
Other			
ADDITIONAL COMMENTS: <u>surrounding reclamation to start fall 19' or spring 2020.</u>			
MAINTENANCE REQUIRED:			

NAME OF INSPECTOR: M. Kaurvack

OPERATOR: EMPIRE CORPORATION

MINE: EMPIRE NOS. 5 & 6 MINES

DATE OF INSPECTION: 9/26/19

POND INSPECTION

	1	2	3	4
WASTEWATER				
TREATMENT				

CDFS OUTFALL #

023

OPERATIONAL STATUS AT TIME OF INSPECTION

Approximate water level:

Sediment level (% total storage):

Outflow (cfs):

Reclaimed spring 2019

FEATURES	PROBLEM		COMMENTS
	YES	NO	
EROSIONAL			
Rills & Gullies on Embankment		NA	
Inadequate Vegetation			
Outlet Channel Erosion			
Burrows			
Other			
STRUCTURAL			
Differential Setting			
Cracks or slides			
Seepage			
Other			
APPURTENANT STRUCTURES			
Defective Spillways			
Dewatering Device Clogged			
Faulty Gates, Baffles, Pump			
Other		✓	
ADDITIONAL COMMENTS:			
MAINTENANCE REQUIRED:			

NAME OF INSPECTOR: M. Kawska

WILLIAMS FORK MINE WASTE PILE INSPECTION FORM

PILE I.D. NO. 1211-CO-09-01370-01 (SURFACE WASTE PILE)

PILE I.D. NO. 1211-CO-09-01370-02 (OLD NO. 9 EXCAVATION)

DATE/TIME: 9/26/19

INSPECTOR SIGNATURE: Manda Kaurati

INSPECTOR TITLE: Enviro Manager

This inspection was conducted to comply with DMG Rule 4.09.1(11).

This inspection was conducted to evaluate:

☒ A. Stability of fill (quarterly inspection)

☐ B. Critical construction periods:

☐ 1. Removal of all organic material/topsoil

☐ 2. Placement of underdrainage system

☐ 3. Installation of surface drainage system

☒ 4. Placement and compaction of fill materials

☐ 5. Revegetation

NOTES:

Reclamation continues cover material
to be spread out & top soil distributed
fall 2019.