

Seneca Coal Company Peabody Energy PO Box 670 Hayden, CO 81639

January 2, 2020

Robin Reilley Colorado Division of Reclamation, Mining and Safety 1313 Sherman Street Denver, CO 80203

RE: Yoast Mine, Permit C-94-082, 4Q19 IIR

Dear Robin:

In accordance with Rule 4.05.9(17), please find enclosed the Yoast Mine Impoundment Inspection Report (IIR) and Impoundment Inspection Log (IIL) for Ponds: Pond #010, Pond #011, Pond #011A, Pond #012, Pond #012A, Pond #013, Pond #014 and Stock Tank ST-1. Please contact me with any comments and/or questions.

Sincerely,

Miranda Kawcak Environmental Manager

Enclosure: Yoast IIR

Mining Area	Yoast Mine(Seneca Coal Co)	Facility C	onfiguration	Cross-\	/alley Pond					
Date Inspected	10/23/2019		st Inspected		.6/2019					
Impoundment	Pond #010		Location	-		Oua	Quarterly Impoundment Inspection Form			
NPDES ID No	CO-0000221 D.P. 010	Site 1	Location	, ,		Zuu	terig impoundation inspection i orm			
Owner's Rep	Miranda Kawcak	Ins	pector		n Herden					
				r Write in	Appropriate	Response:				
	FEATURE		PROBLEM				COMMENTS			
		YES (Ab	ove)	NO (Bel	ow)					
GENERAL										
Water Level (above or	below principal spillway)		Х				water level 0.1 feet above spillway			
Existing Embankment	Freeboard (10.1 ft)		10.1							
Outflow (gpm)			Х				7.2			
EROSION										
Rills & Gullies on Emb	oankment				Х					
Wave Erosion					Х					
Spillway Erosion					Х					
Burrows					Х					
Other					Х					
STRUCTURAL										
Differential Settling					Х					
Cracks or Slides					Х					
Seepage					Х					
Other					Х					
STRUCTURES										
Principal Spillway										
Clogged Orifice					Х					
Clogged or Damage			Х				Outlet culvert starting to rust out but still functionable			
Damaged Headgate					NA					
Emergency Spillway										
Erosion					Х					
Riprap					х					
Clogged or Damaged Culvert					Х					
Other					Х					
MAINTENACE										
Maintenance Required			х				See comment above			
Maintenance Performe	d				Х					
Additional Comments					Х					

Mining Area	Yoast Mine(Seneca Coal Co)	Facility C	Configuration	Cross	s-Vally Pond					
Date Inspected	10/24/2019				, /16/2019					
Impoundment	Pond #011		Location	NW¼ SW¼,	Sec. 16, T5N, R87W	Oua	rterly Impoundment Inspection Form			
NPDES ID No	CO-0000221 D.P.011	Site	Location		E of Hayden, CO	Zum				
Owner's Rep	Miranda Kawcak	Ins	spector		on Herden					
				or Write in	te in Appropriate Response:					
	FEATURE				DBLEM		COMMENTS			
			YES (Above) NO (Below)							
GENERAL										
Water Level (above or	below principal spillway)				Х		Water level 5.0 feet below spillway			
Existing Embankment	Freeboard (5.1 ft)		8.5							
Outflow (gpm)					Х					
EROSION										
Rills & Gullies on Em	bankment				Х					
Wave Erosion					Х					
Spillway Erosion				X						
Burrows					Х					
Other					Х					
STRUCTURAL										
Differential Settling					Х					
Cracks or Slides										
Seepage			X							
Other				Х						
STRUCTURES										
Principal Spillway										
Clogged Orifice					Х					
Clogged or Damage					Х					
Damaged Headgate	1				NA					
Emergency Spillway			1							
Erosion					Х					
Riprap					Х					
Clogged or Damaged Culvert				Х			•			
Other					Х					
MAINTENACE			1							
Maintenance Required					X					
Maintenance Performed				X						
Additional Comments					Х					

Mining Area	Yoast Mine(Seneca Coal Co)	Facility (onfiguration	Cross	-Vally Pond					
Date Inspected	10/23/2019		st Inspected	9/16/2019						
-			Location			0	starly Impoundment Inspection Form			
Impoundment NPDES ID No	Pond #011A				Sec. 16, T5N, R87W	Qua	rterly Impoundment Inspection Form			
	N/A		Location		of Hayden, CO					
Owner's Rep	Miranda Kawcak	Ins	pector		on Herden					
			Mark		n Appropriate F	Response:				
	FEATURE		N/E00 (41		BLEM	```	COMMENTS			
YES (Above) NO (Below)										
GENERAL										
	below principal spillway)				Х		Water level 2.3 feet below spillway			
Existing Embankment I	Freeboard (4.6 ft)		6							
Outflow (gpm)					Х					
EROSION			1							
Rills & Gullies on Emb	ankment				Х					
Wave Erosion					Х					
Spillway Erosion					Х					
Burrows					Х					
Other					Х					
STRUCTURAL			E							
Differential Settling					X					
Cracks or Slides										
Seepage					Х					
Other			Х							
STRUCTURES										
Principal Spillway										
Clogged Orifice					Х					
Clogged or Damage	d Culvert				Х					
Damaged Headgate					NA					
Emergency Spillway										
Erosion					Х					
Riprap					Х					
Clogged or Damaged	l Culvert			X						
Other				Х						
MAINTENACE										
Maintenance Required					Х		Sediment level 2.5 feet below top of pipe (OK)			
Maintenance Performed				X						
Additional Comments					Х		<u> </u>			

Top of Sediment Storage = 2.1 feet below top of pipe

Mining Area	Yoast Mine(Seneca Coal Co)	Facility C	onfiguration	Cross	-Vally Pond					
Date Inspected	10/23/2019		st Inspected	9/16/2019						
Impoundment	Pond #012	Pond	Location	NE¼ NW¼,Sec. 19, T5N, R87		Oua	rterly Impoundment Inspection Form			
NPDES ID No	CO-0000221 D.P. 012	Site 1	Location	8.5 mi SE	of Hayden, CO	~				
Owner's Rep	Miranda Kawcak	Ins	pector	Jasc	on Herden					
Mark or Write in Appropriate Response:										
	FEATURE				BLEM	•	COMMENTS			
			YES (At	oove)	NO (Belo	w)				
GENERAL										
Water Level (above or	below principal spillway)		Х				Water level 0.1 feet above spillway			
Existing Embankment	Freeboard (9.0 ft)		9							
Outflow (gpm)			Х				77.3			
EROSION										
Rills & Gullies on Emb	pankment				Х					
Wave Erosion					Х					
Spillway Erosion					Х					
Burrows					Х					
Other					Х					
STRUCTURAL										
Differential Settling					Х					
Cracks or Slides					Х					
Seepage					Х					
Other					Х					
STRUCTURES										
Principal Spillway										
Clogged Orifice					Х					
Clogged or Damage					Х					
Damaged Headgate					NA					
Emergency Spillway			1							
Erosion					Х					
Riprap					Х					
	Clogged or Damaged Culvert			Х Х						
Other				Х						
MAINTENACE			T							
Maintenance Required					Х					
Maintenance Performed			х							
Additional Comments					Х					

Mining Area	Yoast Mine(Seneca Coal Co)	acility Co	nfiguratio	Cross-	Vally Pond					
Date Inspected	10/23/2019		Inspected	9/16/2019						
Impoundment	Pond #012A		ocation	NE¼ NW¼,Sec. 19, T5N, R87W		Oua	rterly Impoundment Inspection Form			
NPDES ID No	N/A	Site Lo	ocation		8.5 mi SE of Hayden, CO		terry impoundment inspection i orm			
Owner's Rep	, Miranda Kawcak	Insp	ector		n Herden					
Mark or Write in Appropriate Response:										
	FEATURE				OBLEM	-	COMMENTS			
			YES (/	Above)	NO (Belo	ow)				
GENERAL										
Water Level (above or	below principal spillway)				Х		Water level 2.5 feet below spillway			
Existing Embankment	Freeboard (4.6 ft)		6	.6						
Outflow (gpm)					Х					
EROSION										
Rills & Gullies on Emb	oankment				Х					
Wave Erosion					Х					
Spillway Erosion					Х					
Burrows					Х					
Other					Х					
STRUCTURAL										
Differential Settling					Х					
Cracks or Slides					Х					
Seepage					Х					
Other					Х					
STRUCTURES										
Principal Spillway			1				l .			
Clogged Orifice					Х					
Clogged or Damage					Х					
Damaged Headgate					NA					
Emergency Spillway			1		[
Erosion					X					
Riprap	101				X					
Clogged or Damage	d Culvert				X					
Other		l		Х						
MAINTENACE										
Maintenance Required					X					
Maintenance Performe	a				X					
Additional Comments					Х					

Mining Area	Yoast Mine(Seneca Coal Co)	Facility (Configuration	Cross-	Vally Pond				
Date Inspected	10/23/2019	Date Last Inspected			16/2019				
Impoundment	Pond #013		Location		SE¼ NW¼, Sec. 19, T5N, R87W		rterly Impoundment Inspection Form		
NPDES ID No	CO-0000221 D.P. 013		Location	8.5 mi SE of Hayden, CO		Qua	rterry impoundment inspection rorm		
Owner's Rep	Miranda Kawcak		spector		n Herden				
owner skep	Win and a Rawcak	ma				Resnonse			
Mark or Write in Appropriate Response: FEATURE PROBLEM COMMENTS									
		YES (At	oove)	NO (Bel	ow)				
GENERAL									
Water Level (above or	below principal spillway)				Х		water level 1.5 feet below outlet		
Existing Embankment			5.5						
Outflow (gpm)					Х				
EROSION			•						
Rills & Gullies on Emb	pankment				Х				
Wave Erosion					Х				
Spillway Erosion					Х				
Burrows					Х				
Other					Х				
STRUCTURAL									
Differential Settling					Х		Seep below toe of dam on south side is from a native spring.		
Cracks or Slides				Х			Not affecting dam embankment		
Seepage					Х				
Other					Х				
STRUCTURES									
Principal Spillway									
Clogged Orifice					Х				
Clogged or Damage					Х				
Damaged Headgate					NA				
Emergency Spillway			T						
Erosion					Х				
Riprap					Х				
Clogged or Damaged Culvert			X						
	Other				Х				
MAINTENACE			I						
Maintenance Required					Х				
Maintenance Performe	d				X				
Additional Comments					Х				

Mining Area	Yoast Mine(Seneca Coal Co)	Facility C	Configuration	Cross-	Vally Pond					
Date Inspected	10/23/2019				6/2019					
Impoundment	Pond #014	Pond	Location	NE¼ SW¼, Sec. 19, T5N, R87W		Oua	rterly Impoundment Inspection Form			
NPDES ID No	CO-0000221 D.P. 014	Site	Location	8.5 mi SE d	of Hayden, CO					
Owner's Rep	Miranda Kawcak	Ins	pector	Jasor	n Herden					
	Mark or Write in Appropriate Response:									
	FEATURE			PROE			COMMENTS			
			YES (Ab	oove)	NO (Bel	ow)				
GENERAL										
Water Level (above or	below principal spillway)				Х		water level 1.5 feet below spillway			
Existing Embankment	Freeboard (6.8 ft)		8							
Outflow (gpm)					Х		0			
EROSION										
Rills & Gullies on Emb	ankment				Х					
Wave Erosion					Х					
Spillway Erosion					Х					
Burrows					Х					
Other					Х					
STRUCTURAL										
Differential Settling					Х					
Cracks or Slides				х						
Seepage					Х					
Other				Х						
STRUCTURES										
Principal Spillway			n							
Clogged Orifice					Х					
Clogged or Damage	d Culvert				Х					
Damaged Headgate					NA					
Emergency Spillway			I							
Erosion					Х					
Riprap					Х					
Clogged or Damaged Culvert			X							
Other					X					
MAINTENACE			I							
Maintenance Required				Х			4			
Maintenance Performe				X		4				
Additional Comments					Х					

Mining Area	Yoast Mine(Seneca Coal Co)	Facility Co	onfiguration	Sto	ockpond					
Date Inspected	10/23/2019	Date Last Inspected			16/2019					
Impoundment	Stock Tank ST-1		Location		. 20, T5N, R87W	Oua	rterly Impoundment Inspection Form			
NPDES ID No	N/A		ocation		8.5 mi SE of Hayden, CO		terry impoundment inspection form			
Owner's Rep	Miranda Kawcak		pector	Jason Herden						
owner step	Winding Rawcak	1115			Appropriate I	Response:				
	FEATURE				BLEM	tesponset	COMMENTS			
		-	YES (Ab	ove)	NO (Bel	ow)				
GENERAL										
Water Level (above or	below principal spillway)				Х		Water level 3.0 feet below spillway			
EROSION										
Rills & Gullies on Emb	oankment				Х					
Wave Erosion					Х					
Spillway Erosion					Х					
Burrows				Х						
Other			Х							
STRUCTURAL	STRUCTURAL									
Differential Settling					х					
Cracks or Slides				Х						
Seepage				Х						
Other				Х						
STRUCTURES										
Principal Spillway										
Clogged Orifice					NA					
Clogged or Damage					NA					
Damaged Headgate					NA					
Emergency Spillway										
Erosion		_			X					
Riprap	10.1	ŀ			X					
Clogged or Damaged Culvert				NA						
	Other X									
MAINTENACE		-								
Maintenance Required Maintenance Performe		F			X X					
Additional Comments				X						
Additional Comments					X					

IMPOUNDMENT INSPECTION LOG

JOB DATA

JOB NAME: PEC Hydrologic Support Services

CLIENT: Peabody

LOCATION: Routt County, CO

JOB(s): 2018-005 T1-SCC, 2018-006 T1-PSCM

FLOW DA	TA	1	<u></u>	1	r			
SITE ID	COMPANY	MINE	DATE	TIME	WATER LEVEL (FT)	OUTFLOW (GPM)	OBSERVATIONS	MAINTENANCE (Y/N)
002	Sage Creek	Sage Creek	10-23-17	08:50	0./J	33,7	Seeping under flume	N
003	Sage Creek	Sage Creek	10-22-19	diBa	.03	2,7	culvert flume broken	У
004	Sage Creek	Sage Creek	10-23-19	29:40	0.15	40.3		N
Lower Sump	Sage Creek	Sage Creek	10-24-19	10:00	.05	37		N
PECOCO	Sage Creek	Sage Creek	10-24-19	k:33	.06	58		N
Portal Sump 1	Sage Creek	Sage Creek	10-24-19	6:10	.02	2		N
Portal Sump 2	Sage Creek	Sage Creek	6-24-19			-	Notpumpins	N
Spill Control 2	Sage Creek	Sage Creek	6244		1	-	DIY	N
Truck Wash	Sage Creek	Sage Creek	10-24-Kg)	-	PIS	N
Upper Sump	Sage Creek	Sage Creek		10:45	105	50		N
001	Seneca	Hayden Gulch	10-24-19	07:25	-3.5	~	us Flow	N
002	Seneca	Hayden Gulch	10-24-19	07:40	~	-	Dig	N
005	Seneca	Seneca II West	10-23-19	16:10	- 2.0	-	spring Odem no impact	N
006	Seneca	Seneca II West	6-73-19	14:15	0.15	74,3	slufton 5, side, no impact	N
009	Seneca	Seneca II West	10-23-19	11:30	- 3.5	-	NO Flow	N
015	Seneca	Seneca li West	10-23-19	12:10	0.05	8.7	5	N
016	Seneca	Seneca II West	10-23-19	15:30	0,10	84.4	Snow Covered	N
017	Seneca	Seneca II West	10-74-19	10:15	0.10	3,7	armor working show coulled	N
T-1	Seneca	Seneca II West	10-23-19	16:30	-		DIS	N
T-18	Seneca	Seneca II West	10-23-4		-1.5	-	NO F/SW	N
T-2	Seneca	Seneca II West	6-23-19			~	Dry	\mathcal{N}
T-20	Seneca	Seneca II West			-3,0	-	NO Flow	N
T-22	Seneca	Seneca II West			~1.2	~	NOFION	N
T-24	Seneca	Seneca II West	· · ·		_	~	D/3	N
T-25	Seneca	Seneca II West			~	~	gone	N
T-26	Seneca	Seneca II West		the last	~2,0	-	NOFION	N

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P

10-23-19 10:00 .0 antlet pipe boken kennig V dan hill WWC ENGINEERING

IMPOUNDMENT INSPECTION LOG

SITE ID	COMPANY	IJNIW	DATE	TIME	WATER LEVEL (FT)	OUTFLOW (GPM)	OBSERVATIONS	MAINTENANCE (Y/N)
T-27	Seneca	Seneca II West	10-23-19	01;71	-1,7	1	NO Flow	
Т-3	Seneca	Seneca II West	10-23-19	16:50	-	~	Dry	
T-5	Seneca	Seneca II West	10-23-19	17:10	71.8	~	NOTION	
010	Seneca	Yoast	10-23-19	10:55	,05	7.7	outletpipe justed through	У
011	Seneca	Yoast	10-24-19	08:40	-5.0	-	NO FRW	N
011A	Seneca	Yoast	10-23-19	11:15	-2.3)	NO Fbw	N
012	Seneca	Yoast	10-23-19	13:00	• 1	77.3	cat tails in pond	N
012A	Seneca	Yoast	10-3-19	13:15	-2.5)	NO FLOW	N
013	Seneca	Yoast	10-23-19	13:25	-1.5	-	NO FLW	N
014	Seneca	Yoast	10-23-19	13:55	-1,5)	No Flow	N
ST-1	Seneca	Yoast	10.20-19	14:10	-3.0	~	NO Flow	N

CLIMATIC CONDITIONS:

FIELD PERSONNEL:

NOTES

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