

Seneca Coal Company

January 2, 2020

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

RE: Seneca II W Mine, Permit C-82-057, 4Q19 IIR

Dear Robin:

In accordance with Rule 4.05.9(17), please find enclosed the Seneca II West Mine Impoundment Inspection Reports (IIR) and Impoundment Inspection Log (IIL) for Ponds:

• Pond #005, Pond #006, Pond #009, Pond #015, Pond #016, Pond #017

and Stock Tanks:

• Stock Tank T-2, Stock Tank T-3, Stock Tank T-5, Stock Tank T-18, Stock Tank T-20, Stock Tank T-22, Stock Tank T-24, Stock Tank T-25, Stock Tank T-26 and Stock Tank T-27.

Please contact me with any comments and/or questions.

Sincerely,

Miranda Kawcak Environmental Manager

Enclosure: Seneca II W IIR

Mining Area	Seneca II West Mine	Facility Co	onfiguration	Cross	s-Vally Pond		
Date Inspected	10/23/2019	Date Las	t Inspected	9/	19/2019		
Impoundment	Pond #005	Pond 1	Location NW¼ SW¾, Sec. 10, T5N, R88W		Qua	rterly Impoundment Inspection Form	
NPDES ID No	CMLRD Permit No. C-82-057	Site L	ocation	8 mi. S	of Hayden, CO	_	
Owner's Rep	Miranda Kawcak	Insp	pector	Jaso	on Herden		
			Mark	or Write	in Appropriate	Response	:
	FEATURE				BLEM		COMMENTS
			YES (At	oove)	NO (Belo	w)	
GENERAL							
	below principal spillway)				X		Water level 2 feet below spillway
Existing Embankment	Freeboard (7.4 ft)		8.4				
Outflow (gpm)					X		0
EROSION					1		
Rills & Gullies on Em	bankment				Х		_
Wave Erosion					Х		_
Spillway Erosion		-			Х		
Burrows		-			X		
Other					X		
STRUCTURAL							
Differential Settling		ŀ			X		-
Cracks or Slides		-			X		-
Seepage Other					X X		-
STRUCTURES					^		
Principal Spillway							
Clogged Orifice					Х		
Clogged or Damage	ed Culvert				X		-
Damaged Headgate		-			NA NA		1
Emergency Spillway	•	l.			I IVA		<u> </u>
Erosion		[Х		
Riprap		ļ			X		†
Clogged or Damage	d Culvert	ţ			Х		1
Other		ļ			Х		1
MAINTENACE							
Maintenance Required					Х		Spring below dam, no impact on pond, will continue to monitor
Maintenance Performe	ed	ļ			Х]
Additional Comments			X				

Mining Area	Seneca II West Mine	Facility C	'onfiguration	Cross	-Vally Pond		
Date Inspected	10/23/2019		st Inspected		19/2019		
Impoundment	Pond #006		•		4 NW¼, Sec. 22, T5N, R88W		rterly Impoundment Inspection Form
NPDES ID No	CO-0000221 D.P. 006		Location		of Hayden, CO	Qua	recity impoundment inspection form
Owner's Rep	Miranda Kawcak		pector		son Herden		
Owner steep	Will dildd Rawcak	1113			e in Appropriat	e Resnons	χρ•
	FEATURE		14141		BLEM	c respons	COMMENTS
			YES (Al	oove)	NO (Belo	ow)	
GENERAL			`	<u>, </u>	,		
Water Level (above o	r below principal spillw	ay)	Х				water level 0.15 feet above spillway
Existing Embankment		• /	7.5				' '
Outflow (gpm)	. ,		Х				74.3gpm
EROSION							<u>. </u>
Rills & Gullies on Em	nbankment				Х		
Wave Erosion					Х		
Spillway Erosion					X		
Burrows					X		
Other					X		
STRUCTURAL							
Differential Settling					Х		
Cracks or Slides					X		
Seepage					Х		
Other					Х		
STRUCTURES							
Principal Spillway					T		
Clogged Orifice					Х		
Clogged or Damag					Х		
Damaged Headgat	e				NA		
Emergency Spillway			1		T		
Erosion					Х		
Riprap	101				X		
Clogged or Damage	ed Culvert				X		
Other					X		
MAINTENACE	,		ı				
Maintenance Required					X		Sluff on south side above pond on hill, currently not affecting
Maintenance Perform					X		pond. Will continue to monitor.
Additional Comments	3		X				

Mining Area	Seneca II West Mine	Facility C	Configuration	Cross-	Vally Pond		
Date Inspected	10/23/2019		st Inspected		.9/2019		
Impoundment	Pond #009		Location	SE¼ SW¼, Se	SE¼ SW¼, Sec. 11, T5N, R88W		rterly Impoundment Inspection Form
NPDES ID No	CO-0000221 D.P. 009	Site 1	Location	8 mi. S o	f Hayden, CO	Z	- vo y p v v v p v v v v
Owner's Rep	Miranda Kawcak	Ins	pector		n Herden		
			1	or Write	in Appropriat	e Respons	se:
	FEATURE				BLEM	•	COMMENTS
			YES (At	oove)	NO (Belo	ow)	
GENERAL							
Water Level (above or	r below principal spillwa	ay)			Х		Water level 3.5 feet below top of pipe
Existing Embankment	t Freeboard (6.9 ft)		10.4	ļ			
Outflow (gpm)					X		0
EROSION							
Rills & Gullies on Em	bankment				X		
Wave Erosion					X		
Spillway Erosion					X		
Burrows					X		
Other				X			
STRUCTURAL							
Differential Settling					Х		
Cracks or Slides					X X		
Seepage							
Other					X		
STRUCTURES							
Principal Spillway			1	1			
Clogged Orifice					X		
Clogged or Damag					Х		
Damaged Headgate	e				NA		
Emergency Spillway			T			1	
Erosion					X		
Riprap	101						
Clogged or Damage	ed Culvert			X			
Other			l		X		
MAINTENACE	•		1	1			
Maintenance Required					X		
Maintenance Perform					X		
Additional Comments	\$				Х		

Mining Area	Seneca II West Mine	Facility C	Configuration	Cross-	-Vally Pond		
Date Inspected	10/23/2019	Date La	st Inspected 9/		19/2019		
Impoundment	Pond #015		Location	NE¼ SE¼, Se	ec. 23, T5N, R88W	Oua	rterly Impoundment Inspection Form
NPDES ID No	CO-0000221 D.P. 015	Site 1	Location		mi. S of Hayden, CO		Titoriy impoundment inspection i orm
Owner's Rep	Miranda Kawcak	Ins	spector		n Herden		
				or Write	in Appropriat	e Respons	se:
	FEATURE				BLEM	•	COMMENTS
			YES (Ab	ove)	NO (Bel	ow)	
GENERAL			•				
Water Level (above or	below principal spillwa	ay)	Х				water level 0.05 feet above spillway
Existing Embankment	Freeboard (4.0 ft)		4.0				
Outflow (gpm)			X				5.7
EROSION							
Rills & Gullies on Em	bankment				Х		
Wave Erosion					Х		
Spillway Erosion					Х		
Burrows					Х		
Other				X			
STRUCTURAL							
Differential Settling					X		
Cracks or Slides					Х		
Seepage			X				
Other					Х		
STRUCTURES							
Principal Spillway			1	1			
Clogged Orifice					Х		
Clogged or Damag					X NA		
Damaged Headgate	2						
Emergency Spillway			1				
Erosion					X		
Riprap	101				X		
Clogged or Damage	ed Culvert				X		
Other			<u> </u>		Х		
MAINTENACE	1		1				
Maintenance Required					X		
Maintenance Performe					X		
Additional Comments					Х		

Mining Area	Seneca II West Mine		_		ally Pond		
Date Inspected	10/23/2019	Date La	st Inspected	ected 9/19/2019		_	
Impoundment	Pond #016	Pond	Location	NE¼ SE¼, Sec	c. 27, T5N, R88W	Quai	rterly Impoundment Inspection Form
NPDES ID No	CO-0000221 D.P. 016	Site	Location	8 mi. S of	Hayden, CO		•
Owner's Rep	Miranda Kawcak	Ins	spector	Jason	Herden		
			Mark	or Write i	n Appropria	te Respor	nse:
	FEATURE			PROB	LEM		COMMENTS
			YES (Al	oove)	NO (Be	elow)	
GENERAL							
	r below principal spillw	vay)	X				water level 0.1 feet above spillway
Existing Embankment	t Freeboard (6.8 ft)		6.8				
Outflow (gpm)			X				84.4
EROSION							
Rills & Gullies on Em	bankment				Х		
Wave Erosion					X		
Spillway Erosion					Х		
Burrows					Х		
Other					Х		
STRUCTURAL							
Differential Settling					Х		
Cracks or Slides					Х		
Seepage					Х		
Other				X			
STRUCTURES							
Principal Spillway							
Clogged Orifice					Х		
Clogged or Damag					Х		
Damaged Headgat	e				NA		
Emergency Spillway					,		
Erosion					Х		
Riprap					Х		
C1 1 D	101		i				

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Clogged or Damaged Culvert

Other

MAINTENACE

Maintenance Required

Maintenance Performed Additional Comments

Date Last Inspected Impoundment Pond 4017 Pond Location Site Location Inspector Pond 4017 Pond Location Site Location Inspector Pond 4017 Pond Location Site Location Inspector Pond 4017 Pond Location Pond 4017 Po	Mining Area	Seneca II West Mine	Facility C	Configuration	Cross	-Vally Pond									
NPDES ID No CO-0000221 D.P. 0.17 Site Location Inspector Jason Herdred	Date Inspected	10/24/2019	Date La	st Inspected	9/:	19/2019									
NPDES ID No CO-0000221 D.P. 0.17 Site Location Inspector Jason Herdred	Impoundment	Pond #017	Pond	Location	n SW¼ NE¼, Sec. 34, T5N, R88W		Quai	rterly Impoundment Inspection Form							
Mark or Write in Appropriate Response:	NPDES ID No	CO-0000221 D.P. 017	Site 1	Location	8 mi. S c	of Hayden, CO									
FEATURE	Owner's Rep	Miranda Kawcak	Ins	pector	Jaso	n Herden									
VES (Above) NO (Below) Selection Sel															
Water Level (above or below principal spillway)		FEATURE						COMMENTS							
Water Level (above or below principal spillway) X				YES (Ab	ove)	NO (Belo	ow)								
Existing Embankment Freeboard (3.1 ft) Outflow (gpm)															
Outflow (gpm) X 3.7 EROSION X Rills & Gullies on Embankment X Wave Erosion X Spillway Erosion X Burrows X Other X STRUCTURAL Differential Settling X Cracks or Slides X Scepage X Other X Principal Spillway STRUCTURES Principal Spillway X Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway Erosion Riprap X Clogged or Damaged Culvert X Other X Maintenance Required X Maintenance Performed X	,		ay)					water level 0.1 feet above spillway							
Rills & Gullies on Embankment		Freeboard (3.1 ft)													
Rills & Gullies on Embankment X Wave Erosion X Burrows X Other X STRUCTURAL Differential Settling X Cracks or Slides X Seepage X Other X STRUCTURES Principal Spillway Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert X Other X Maintenance Required X Maintenance Performed X				X				3.7							
Wave Erosion X Spillway Erosion X Burrows X Other X STRUCTURAL Differential Settling X Cracks or Slides X Seepage X Other X STRUCTURES Principal Spillway Clogged orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X						ı									
Spillway Erosion X Burrows X Other X STRUCTURAL *** Differential Settling X Cracks or Slides X Seepage X Other X STRUCTURES Principal Spillway Clogged orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway ** Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE ** Maintenance Required X Maintenance Performed X		bankment													
Structural															
Other X STRUCTURAL Differential Settling X Cracks or Slides X Seepage X Other X STRUCTURES Principal Spillway Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X															
STRUCTURAL															
X						X									
Cracks or Slides X Seepage X Other X STRUCTURES Principal Spillway Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X															
Seepage X Other X STRUCTURES Principal Spillway X Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X															
Other X STRUCTURES Principal Spillway X Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X															
STRUCTURES Principal Spillway X Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X															
Principal Spillway X Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X															
Clogged Orifice X Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X															
Clogged or Damaged Culvert X Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X	1 1 7														
Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X		ed Culvert													
Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X															
Erosion X Riprap X Clogged or Damaged Culvert X Other X MAINTENACE Maintenance Required X Maintenance Performed X						I INA									
Riprap X Clogged or Damaged Culvert X Other X MAINTENACE X Maintenance Required X Maintenance Performed X						X									
Clogged or Damaged Culvert															
Other X MAINTENACE X Maintenance Required X Maintenance Performed X	* *	ed Culvert													
MAINTENACE Maintenance Required Maintenance Performed X X															
Maintenance Required X Maintenance Performed X	MAINTENACE														
Maintenance Performed X		ł				Х									
Additional Comments X	Additional Comments					Х									

Mining Area	Seneca II West Mine			Sto	ockpond		
Date Inspected	10/23/2019	Date La	Date Last Inspected		19/2019		
Impoundment	Stock Tank T-2	Pond	Location	NW¼SW¼, Sec 22, T5N, R88W		Qua	rterly Impoundment Inspection Form
NPDES ID No	N/A	Site	Location	8 mi S of	8 mi S of Hayden, CO		v i
Owner's Rep	Miranda Kawcak	Ins	pector	Jaso	n Herden		
			Marl	or Write	in Appropriat	e Respons	e:
	FEATURE				BLEM		COMMENTS
			YES (Ab	ove)	NO (Bel	ow)	
GENERAL							
	below principal spillwa	ay)			X		Dry
EROSION							
Rills & Gullies on Em	bankment				X		
Wave Erosion					X		
Spillway Erosion					X		
Burrows					X		
Other				X			
STRUCTURAL							
Differential Settling					X		
Cracks or Slides					X		
Seepage				X			
Other					Х		
STRUCTURES							
Principal Spillway			T	1		-	
Clogged Orifice				NA			
Clogged or Damage				NA			
Damaged Headgate	;				NA		
Emergency Spillway			1	1			
Erosion					X		
Riprap	101				X		
Clogged or Damage	d Culvert		NA				
Other					Х		
MAINTENACE			I	-			
Maintenance Required	1			X			
Maintenance Performe	ea			X			
Additional Comments				ļ	Х		

Mining Area	Seneca II West Mine	Facility C	Configuration	Sto	ckpond		
Date Inspected	10/23/2019		st Inspected		9/19/2019		
Impoundment	Stock Tank T-3	-1	Location	NW¼SE¼, S	ec 22, T5N, R88W	Quai	rterly Impoundment Inspection Form
NPDES ID No	N/A	Site	Location		f Hayden, CO	Zum	terry impoundment inspection 1 or in
Owner's Rep	Miranda Kawcak	Ins	spector		n Herden		
		l .		or Write	in Appropriat	e Respons	se:
	FEATURE				BLEM	•	COMMENTS
			YES (At	ove)	NO (Bel	ow)	
GENERAL							
Water Level (above or	below principal spillw	ay)			Х		Dry
EROSION							
Rills & Gullies on Em	bankment				X		
Wave Erosion					Х		
Spillway Erosion					Х		
Burrows					Х		
Other					Х		
STRUCTURAL			T				
Differential Settling					Х		
Cracks or Slides				X			
Seepage			X				
Other					Х		
STRUCTURES							
Principal Spillway Clogged Orifice			1		NA		
Clogged or Damage	ad Culvert				NA NA		
Damaged Headgate					NA NA		
Emergency Spillway	,		1	INA			
Erosion Erosion				X			
Riprap					X		
Clogged or Damage	d Culvert			NA NA			
Other					Х		
MAINTENACE			,				
Maintenance Required					Х		
Maintenance Performe	ed				Х		
Additional Comments					Х		

Mining Area	Seneca II West Mine	Facility C	Configuration	Stock	kpond		
Date Inspected	10/23/2019	Date La	st Inspected	9/19	/2019		
Impoundment	Stock Tank T-5	Pond	Location	NE¼ Sec 22	NE¼ Sec 22, T5N, R88W Qu 2		rterly Impoundment Inspection Form
NPDES ID No	N/A	Site l	Location	8 mi S of H	Hayden, CO		v i
Owner's Rep	Miranda Kawcak	Ins	pector	Jason	Herden		
			Mark	or Write in	n Appropri	ate Respo	nse:
	FEATURE			PROB	LEM		COMMENTS
			YES (Al	oove)	NO (B	elow)	
GENERAL							
Water Level (above or	r below principal spillw	ay)			Х		Water level 1.8 feet below spillway
EROSION							
Rills & Gullies on Em	bankment				Х		
Wave Erosion					Х		
Spillway Erosion					Х		
Burrows					Х		
Other			X				
STRUCTURAL							
Differential Settling					Х		
Cracks or Slides					Х		
Seepage			X				
Other					Х		
STRUCTURES							
Principal Spillway			1				
Clogged Orifice					N/		
Clogged or Damag					N/		
Damaged Headgate	e				N/	١	
Emergency Spillway			1				
Erosion					X		
Riprap	101				Х		
Clogged or Damage	ed Culvert				N/		
Other			L		Х		
MAINTENACE			ı				
Maintenance Required					X		
Maintenance Perform					X		
Additional Comments	<u> </u>				Х		

Mining Area	Seneca II West Mine	Facility Con	nfiguration	Sto	ckpond								
Date Inspected	10/23/2019	Date Last			9/19/2019								
Impoundment	Stock Tank T-18		ocation	NW¼NE¼, Se	ec 15, T5N, R88W	Ouar	rterly Impoundment Inspection Form						
NPDES ID No	N/A	Site Lo	ocation		Hayden, CO	~um	terry impoundment inspection form						
Owner's Rep	Miranda Kawcak	Inspe	ector		n Herden								
				or Write	in Appropriat	e Respons	e:						
	FEATURE				BLEM	•	COMMENTS						
			YES (Ab	oove)	NO (Bel	ow)							
GENERAL													
Water Level (above or	below principal spillw	ay)			Х		Water level 1.5 feet below spillway						
EROSION													
Rills & Gullies on Em	bankment				X								
Wave Erosion					Х								
Spillway Erosion					X								
Burrows					X								
Other					X								
STRUCTURAL				ı		1							
	Differential Settling				X								
Cracks or Slides				X									
Seepage		_	X										
Other					X								
STRUCTURES													
Principal Spillway				ı	NI A								
Clogged Orifice	- 1 C1				NA NA								
Clogged or Damage Damaged Headgate		_			NA NA								
Emergency Spillway	;				NA								
Erosion					Х								
Riprap					X								
Clogged or Damage	d Culvert	 			X NA								
Other	a carrer	-			X								
MAINTENACE													
Maintenance Required					Х								
Maintenance Performe	aintenance Performed				X								
Additional Comments					Х								

Date Inspected Inpoundment Stock Tank T-20 No No Stock Tank T-20 No No No No No No No N	Mining Area	Seneca II West Mine	Facility C	onfiguration	Sto	ckpond		
Impoundment NPDES ID No Owner's Rep Miranda Rawcak NE NE NO (Below) Site Location Inspector Inspector				Ü	9/19/2019			
NPDES ID No							Onai	rterly Impoundment Inspection Form
Name		N/A	Site 1	Location			Quu	terry impoundment inspection form
FEATURE		· · · · · · · · · · · · · · · · · · ·	Ins	nector				
PROBLEM YES (Above) NO (Below)	o made design			•			e Respons	se:
Water Level (above or below principal spillway) X Water level 3.0 feet below spillway		FEATURE		1				
Water Level (above or below principal spillway) X Water level 3.0 feet below spillway				YES (At	oove)	NO (Bel	ow)	
Rills & Gullies on Embankment	GENERAL				•		·	
Rills & Gullies on Embankment	Water Level (above or	below principal spillw	ay)			Х		Water level 3.0 feet below spillway
Wave Erosion X Spillway Erosion X Burrows X Other X STRUCTURAL Differential Settling X Cracks or Slides X Seepage X Other X STRUCTURES Principal Spillway Clogged orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X	EROSION		•					
Spillway Erosion	Rills & Gullies on Em	bankment				Х		
Na	Wave Erosion					Х		
Other X STRUCTURAL Differential Settling X Cracks or Slides X Seepage X Other X STRUCTURES Principal Spillway NA Clogged Orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X	Spillway Erosion					X		
STRUCTURAL	Burrows					X		
X						X		
Cracks or Slides X Seepage X Other X STRUCTURES Principal Spillway Clogged Orifice Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert NA Other NA MAINTENACE Maintenance Required X Maintenance Performed X								
Seepage X Other X STRUCTURES Principal Spillway NA Clogged Orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X								
Other X STRUCTURES Principal Spillway NA Clogged Orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X								
STRUCTURES Principal Spillway NA Clogged Orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X								
Principal Spillway NA Clogged Orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X						Х		
Clogged Orifice NA Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X								
Clogged or Damaged Culvert NA Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X	1 1			1	-			
Damaged Headgate NA Emergency Spillway X Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X		101						
Emergency Spillway Erosion X Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X								
X X Riprap X X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X X X Maintenance Performed X X X Maintenance Performed X X X X X X X X X		}				NA		
Riprap X Clogged or Damaged Culvert NA Other X MAINTENACE Maintenance Required X Maintenance Performed X				I		v		
Clogged or Damaged Culvert Other X MAINTENACE Maintenance Required Maintenance Performed X Maintenance Performed								
Other X MAINTENACE X Maintenance Required X Maintenance Performed X		d Culvert						
MAINTENACE Maintenance Required Maintenance Performed X Maintenance Performed		u Cuiveit						
Maintenance Required X Maintenance Performed X				<u> </u>				
Maintenance Performed X				1		Y		
	1							
MAGGINIONAL COMMINIONS	Additional Comments					X		

Mining Area	Seneca II West Mine	Facility C	onfiguration Stockpond								
Date Inspected	10/23/2019	Date La	st Inspected	9/1	9/2019						
Impoundment	Stock Tank T-22	Pond	Location	SE¼SW¼, Sec 10, T5N, R88W		Qua	rterly Impoundment Inspection Form				
NPDES ID No	N/A	Site 1	Location	8 mi S of	Hayden, CO		V 1				
Owner's Rep	Miranda Kawcak	Ins	pector	Jasor	n Herden						
Mark or Write in Appropriate Response:											
	FEATURE			PROF			COMMENTS				
			YES (Ab	oove)	NO (Bel	ow)					
GENERAL											
Water Level (above or	below principal spillw	ay)			Х						
EROSION											
Rills & Gullies on Em	bankment				Х						
Wave Erosion					X						
Spillway Erosion					Х						
Burrows					X						
Other				X							
STRUCTURAL											
Differential Settling					X						
Cracks or Slides				X							
Seepage			X								
Other					Х						
STRUCTURES											
Principal Spillway			1								
Clogged Orifice					NA						
Clogged or Damage					NA						
Damaged Headgate	;				NA						
Emergency Spillway			1	1							
Erosion					X						
Riprap	101				X						
Clogged or Damage	d Culvert				NA						
Other			L		X						
MAINTENACE			ı								
Maintenance Required					X						
Maintenance Performe	ed				X						
Additional Comments					X						

Mining Area	Seneca II West Mine	Facility (Configuration						
Date Inspected	10/23/2019	Date La	st Inspected	9/19/2019 SW¼NE¼, Sec 9, T5N, R88					
Impoundment	Stock Tank T-24	Pond	Location	8 mi S of Hayden, CO Jason Herden		Quai	rterly Impoundment Inspection Form		
NPDES ID No	N/A	Site	Location						
Owner's Rep	Miranda Kawcak	Ins	spector						
Mark or Write in Appropriate Response:									
	FEATURE			PROB	LEM		COMMENTS		
			YES (Ab	ove)	NO (Bel	ow)			
GENERAL									
Water Level (above or	below principal spillw	ay)			Х		Dry		
EROSION									
Rills & Gullies on Em	bankment				X				
Wave Erosion					Х				
Spillway Erosion					Х				
Burrows					Х				
Other					Х				
STRUCTURAL									
Differential Settling			X						
Cracks or Slides			Х						
Seepage			Х						
Other					Х				
STRUCTURES									
Principal Spillway			1						
Clogged Orifice			NA						
Clogged or Damag				N.A.					
Damaged Headgate)				NA				
Emergency Spillway			ı						
Erosion					X				
Riprap	101				Х				
Clogged or Damaged Culvert				NA					
Other					Х				
MAINTENACE			ı	1					
Maintenance Required				X					
Maintenance Performe	ed				X				
Additional Comments					X				

Mining Area	Seneca II West Mine	est Mine Facility Configuration		Sto	ckpond				
Date Inspected	10/23/2019	Date La	st Inspected	9/1	9/2019				
Impoundment	Stock Tank T-25	Pond	Location	SW¼NE¼, Se	ec 34, T5N, R88W	Quai	Quarterly Impoundment Inspection Form		
NPDES ID No	N/A	Site	Location	8 mi S of Hayden, CO		C 3-33			
Owner's Rep	Miranda Kawcak	Ins	spector	Jason Herden					
			Mark	or Write	in Appropriat	e Respons	e:		
FEATURE PROBLEM COMMENTS									
			YES (Ab	ove)	NO (Bel	ow)			
GENERAL									
Water Level (above or	below principal spillwa	ay)			N/A		Dry		
EROSION									
Rills & Gullies on Emb	bankment				N/A				
Wave Erosion					N/A				
Spillway Erosion					N/A				
Burrows					N/A				
Other				N/A					
STRUCTURAL				,		,			
Differential Settling				N/A					
Cracks or Slides				N/A					
Seepage				N/A					
Other				N/A					
STRUCTURES									
Principal Spillway			1	1		1			
Clogged Orifice				N/A					
Clogged or Damage				N/A					
Damaged Headgate				N/A					
Emergency Spillway			T						
Erosion				N,					
Riprap				N/A					
Clogged or Damaged Culvert			N/A						
Other				N/A					
MAINTENACE			1						
Maintenance Required					X		DAM REMOVED FALL 2011, REBUILT IN 2012 AS A RUNOFF		
Maintenance Performe	d				X		CONTROL STURCURE (PM1-A3)		
Additional Comments			Х						

Mining Area	Seneca II West Mine	Facility C	-		Stockpond					
Date Inspected	10/23/2019	Date Las	•		9/2019					
Impoundment	Stock Tank T-26	Pond	Location	NE¼NW¼, S	ec 35, T5N, R88W	Qua	rterly Impoundment Inspection Form			
NPDES ID No	N/A	Site I	Location	8 mi S of Hayden, CO		- , ,				
Owner's Rep	Miranda Kawcak	Ins	pector	Jasoi	n Herden					
			Mark	or Write	in Appropriat	e Respons	se:			
	FEATURE			PRO	BLEM		COMMENTS			
			YES (Ab	ove)	NO (Bel	ow)				
GENERAL										
Water Level (above or	below principal spillwa	ay)			Х		Water level 2.0 feet below spillway			
EROSION										
Rills & Gullies on Em	bankment				Х					
Wave Erosion					Х					
Spillway Erosion					X					
Burrows					Х					
Other					Х					
STRUCTURAL										
Differential Settling			Х		X					
Cracks or Slides					X					
Seepage			Х							
Other				Х						
STRUCTURES										
Principal Spillway										
Clogged Orifice					NA					
Clogged or Damage					NA					
Damaged Headgate	,			NA						
Emergency Spillway			1	1						
Erosion					X					
Riprap					X					
Clogged or Damaged Culvert				NA						
Other					X					
MAINTENACE			ı							
Maintenance Required				X						
Maintenance Performe					X					
Additional Comments					Х					

Mining Area	Seneca II West Mine	Facility Configuration		·			
Date Inspected	10/23/2019	Date La	st Inspected	9/:	19/2019		
Impoundment	Stock Tank T-27	Pond	Location	NW¼NW¼,	Sec 35, T5N, R88W	Qua	rterly Impoundment Inspection Form
NPDES ID No	N/A	Site	Location	8 mi S o	of Hayden, CO		
Owner's Rep	Miranda Kawcak	Ins	spector	Jaso	n Herden		
			Marl	or Write	in Appropriat	e Respons	se:
	FEATURE				BLEM		COMMENTS
			YES (Ab	ove)	NO (Belo	ow)	
GENERAL							
	r below principal spillw	ay)			N/A		
EROSION							
Rills & Gullies on Em	bankment				N/A		
Wave Erosion					N/A		
Spillway Erosion					N/A		
Burrows					N/A		
Other					N/A		
STRUCTURAL			ı				
Differential Settling					N/A		
Cracks or Slides					N/A		
Seepage				N/A			
Other				N/A			
STRUCTURES							
Principal Spillway			ı				
Clogged Orifice	101				N/A		
Clogged or Damag					N/A		
Damaged Headgate	e				N/A		
Emergency Spillway			Γ				
Erosion					N/A		
Riprap	101				N/A		
Clogged or Damaged Culvert			N/A				
Other					N/A		
MAINTENACE	1		I				DEPUTE IN 2012 AS A BUILDER CONTROL STRUCTURE
Maintenance Required Maintenance Performe					X		REBUILT IN 2012 AS A RUNOFF CONTROL STRUCTURE. No access
Maintenance Performed Additional Comments			V		Х		due to winter conditions
Additional Comments	<u> </u>		Х				

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 DATA

FLUVY DA	IA		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	0.10	33,7	Seeping under flume	N
003	Sage Creek	Sage Creek	10-22-19	අ්පිත	.03	7,7	culvery flume broken	У
004	Sage Creek	Sage Creek	10-33-19	29:40	0.15	40.3		W
Lower Sump	Sage Creek	Sage Creek	10-24-19	10:00	.05	37		N
PECOCO	Sage Creek	Sage Creek	10-24-19	16 i 35	.06	58		N
Portal Sump 1	Sage Creek	Sage Creek	10.24-19	10°, 10	,02	२		N
Portal Sump 2	Sage Creek	Sage Creek	6-24A	10130		1	NOTPHARINS	N
Spill Control 2	Sage Creek	Sage Creek	6244	09:45	1	_	DIT	N
Truck Wash	Sage Creek	Sage Creek	10249	09:30	1	_	Dis	N
Upper Sump	Sage Creek	Sage Creek	10-24-16	10:45	105	5 D		N
001	Seneca	Hayden Gulch	10-24-19	07:25	-3,5	~	us Flow	N
002	Seneca	Hayden Gulch	10-2449	07:40	~	_	Dia	N
005	Seneca	Seneca II West	10-23-19	16:10	- 2.0	_	spring & dom no impact	N
006	Seneca	Seneca II West	10-23-19	14:15	0:15	74,3	slufton 5. side, no impact	N
009	Seneca	Seneca II West	10-23-19	111.30	- 3,5		NO FLOW	N
015	Seneca	Seneca II West	10-23-19	12:10	0.05	8.7		N
016	Seneca	Seneca II West	10-23-19	15:30	0,10	84.4	Snow Coverad	N
017	Seneca	Seneca II West	10-24-19	p:15	0.10	3,7	armor working, Snow currey	N
T-1	Seneca	Seneca II West	10-23-19	16:30	7	\cup	DIS	N
T-18	Seneca	Seneca II West	10-23-H	17:15	-1.5		NO F/OW	N
T-2	Seneca	Seneca II West	ю-23-19				Drs	N
T-20	Seneca	Seneca II West	10-23-4	171,20	-3,0		NO 7/0W	N
T-22	Seneca	Seneca II West	-		~1.1	-	NOFON	N
T-24	Seneca	Seneca II West	10-23-19	17:40		_	D/5	N
T-25	Seneca	Seneca II West	6-23-19	17:00	_		gone	N
T-26	Seneca	Seneca II West	10-27017	17:05	-2,0	_	NOFION	N

008

10-23-19 10:00 .10

ontlet pipe broken kning V

dan hill

WWCENGINEERING

P

SITE ID	COMPANY	MINE	ВАТЕ	TIME	WATER LEVEL (FT)	OUTFLOW (GPM)	OBSERVATIONS	MAÎNTENANCE (Y/N)
T-27	Seneca	Seneca II West	6-23-19	17:10	-1,7	_	NO Flow	
T-3	Seneca	Seneca II West	10-23-19	16:50	<u> </u>		017	
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	-510	-	NO FEW	لم
011A	Seneca	Yoast	10-23-19	11:15	-a,3)	NO Flow	N
012	Seneca	Yoast	10-23-19	13:00	· l	77.3	cat fails in soud	N
012A	Seneca	Yoast	10-33-19	13:15	-25)	NO FLW	N
013	Seneca	Yoast	10-23-19	13:25	-1.5	_	NO FLW	N
014	Seneca	Yoast	10-23-A	13'55	-1,5		NO FlOW	N
ST-1	Seneca	Yoast	10.20.19	14:10	-3.0	7	NO Flow	N

CLIMATIC CONDITIONS:	22	
FIELD PERSONNEL:	FIELD PERSONNEL SIGNATURE:	
NOTES		

NOTES			
		2	
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