September 30, 2016

Tony Tennyson Colowyo Coal Company L.P. 5731 State Highway 13 Meeker, CO 81641



COLORADO Division of Reclamation, Mining and Safety Department of Natural Resources

1313 Sherman Street, Room 215 Denver, CO 80203

RE: Neilson Pit, Permit No. M-2007-026, Technical Revision (TR-1) Approval

Dear Mr. Neilson:

On September 30, 2016 the Division of Reclamation, Mining and Safety (Division) approved the Technical Revision request (TR-2) submitted on September 7, 2016, addressing the following:

Update reclamation plan and provide bond calculation figures

The terms of the TR-2 approved by the Division are hereby incorporated into Permit No. M-2007-026. All other conditions and requirements of the permit remain in full force and effect.

In an effort to ensure the Financial Warranty adequately, reflects the actual current cost of fulfilling the requirements of the approved reclamation plan the Division has updated the reclamation cost estimate. Enclosed is a copy of the Division's calculations for your records.

If you require additional information, or have questions or concerns, please feel free to contact me. Amy Yeldell at the Division of Reclamation, Mining and Safety, 1313 Sherman St., Room 215, Denver, CO 80203. Direct contact can be made by phone at 970-254-8511 or via email at amy.yeldell@ state.co.us

Sincerely,

Amy Geldell

Amy Yeldell Environmental Protection Specialist Department of Natural Resources Division of Reclamation, Mining and Safety Phone: (970) 254-8511 Fax: (970) 241-1516

Ec: Russ Means, Senior EPS, Grand Junction DRMS



COST SUMMARY WORK

ite:	Neilson Pit Permit Action:	TR-2		Permit/	Job#:	M2007026
P	ROJECT IDENTIFICATION					
	Task #: ACY State: Colorado			Abbreviatior	n: l	None
	Date: 9/14/2016 County: Moffat			Filename	e: 1	M026-ACY
	User: <u>ACY</u>					
	Agency or organization name: DRMS					
<u>T</u>	ASK LIST (DIRECT COSTS)					
alz		Form	Fleet	Task		
151	Description	Used	Size	Hours		Cost
a a	Blasting upper rock outcrop Grading slopes	BLASTING DOZER	2	17.33		\$12,242.00 \$60.422.00
la Ba	Reveg	REVEGE	1	24.00		\$6,057.00
·a	Equipment Mob	MOBILIZE	1	3.66		\$3,342.00
		CLIDTA	TAT C.	18	8.7	\$82,063
				100		ψυμιυυυ
<u>I</u> 0	VERHEAD AND PROFIT:	50510		Tetal	¢1.	
<u>I</u> <u>O</u>	ADIRECT COSTS VERHEAD AND PROFIT: Liability insurance: 2.02 Performance bond: 1.05 Job superintendent: 94.35 Profit: 10.00	50010	TOTAI	Total = Total = Total = Total = Total = O & P =	\$1,6 \$86 \$7,0 \$8,2 \$17	557.67 1.66)27.19 206.30 752.82
<u>II</u> 0	DIRECT COSTS <u>VERHEAD AND PROFIT:</u> Liability insurance: 2.02 Performance bond: 1.05 Job superintendent: 94.35 Profit: 10.00 CONT	RACT AMOUNT	TOTAI	Total = Total = Total = Total = C & P = O & P) =	\$1,6 \$86 \$7,0 \$8,2 \$17, \$99	557.67 1.66)27.19 206.30 ,752.82 ,815.82
<u>11</u> 0	DIRECT COSTS VERHEAD AND PROFIT: Liability insurance: 2.02 Performance bond: 1.05 Job superintendent: 94.35 Profit: 10.00 CONT	RACT AMOUNT	TOTAI	Total = Total = Total = Total = Total = C & P = O & P) = Total = Tot	\$1,6 \$86 \$7,0 \$8,2 \$17 \$99	557.67 1.66 027.19 006.30 752.82 815.82
	DIRECT COSTS VERHEAD AND PROFIT: Liability insurance: 2.02 Performance bond: 1.05 Job superintendent: 94.35 Profit: 10.00 CONT EGAL - ENGINEERING - PROJECT MANAGEMENT Financial warranty processing (legal/related costs):	<u>SOBIC</u> RACT AMOUNT : 500.00	TOTAI ' (direct +	Total = - $Total = -$ $Total = -$ $Total = -$ $O & P = -$ $O & P) = -$ $Total = -$	\$1,6 \$86 \$7,0 \$8,2 \$17, \$99	557.67 1.66 027.19 006.30 752.82 815.82 00
	WERHEAD AND PROFIT: Liability insurance: 2.02 Performance bond: 1.05 Job superintendent: 94.35 Profit: 10.00 CONT GGAL - ENGINEERING - PROJECT MANAGEMENT Financial warranty processing (legal/related costs): Engineering work and/or contract/bid preparation:	<u>SOBIC</u> RACT AMOUNT : <u>500.00</u> 4.25	TOTAI ' (direct +	Total = Total = Total = Total = C & P = O & P) = Total = Tot	\$1,6 \$86 \$7,0 \$17 \$99 500 \$4,2	557.67 1.66 27.19 206.30 .752.82 .815.82 .00 242.17
	ADIRECT COSTS VERHEAD AND PROFIT: Liability insurance: 2.02 Performance bond: 1.05 Job superintendent: 94.35 Profit: 10.00 CONT GGAL - ENGINEERING - PROJECT MANAGEMENT Financial warranty processing (legal/related costs): Engineering work and/or contract/bid preparation: Reclamation management and/or administration:	SOBIC RACT AMOUNT : 500.00 4.25 5.00	TOTAI	Total = Total = Total = Total = Total = O & P = O & P) = Total = Tot	\$1,6 \$86 \$7,0 \$8,2 \$17, \$99 500 \$4,2 \$4,5	557.67 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.66 1.65 1.66 1.65 1.66 1.65 1.66 1.65 1.65 1.66 1.65
	DIRECT COSTS VERHEAD AND PROFIT: Liability insurance: 2.02 Performance bond: 1.05 Job superintendent: 94.35 Profit: 10.00 CONT GGAL - ENGINEERING - PROJECT MANAGEMENT Financial warranty processing (legal/related costs): Engineering work and/or contract/bid preparation: Reclamation management and/or administration: CONTINGENCY:	SOBIC RACT AMOUNT : 500.00 4.25 5.00 0.00	TOTAI ' (direct +	Total = Total = Total = Total = Total = C & P = O & P) = Total = Tot	\$1,6 \$86 \$7,0 \$8,2 \$17, \$99, 500 \$4,2 \$4,2 \$4,9 \$0,0	557.67 1.66 027.19 006.30 752.82 815.82 00 042.17 090.79 00
	DIRECT COSTS VERHEAD AND PROFIT: Liability insurance: 2.02 Performance bond: 1.05 Job superintendent: 94.35 Profit: 10.00 CONT GGAL - ENGINEERING - PROJECT MANAGEMENT Financial warranty processing (legal/related costs): Engineering work and/or contract/bid preparation: Reclamation management and/or administration: CONTINGENCY:	SOBIC RACT AMOUNT : 500.00 4.25 5.00 0.00 TOTAL II	TOTAI ' (direct +	Total = Total = Total = Total = C & P = O & P) = Total = Tot	\$1,6 \$86 \$7,0 \$8,2 \$17 \$99 500 \$4,2 \$4,9 \$0.0 \$27	557.67 1.66 1.752.82 1.82 1.66

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SURFACE BLASTING WORK

Task description:	lasting upper rock outcroj	р			
e: Neilson Pit	Permit Action:	TR-2	Permi	t/Job#:	M2007026
PROJECT IDENTIFICA	TION				
Task #: 01A	State: Colorad	0	Abbre	eviation:	None
Date: $9/30/2016$	County: Moffat		Fi	lename:	M026-01a
User: ACY				irename.	11020 014
Agency or organiz	ation name: DRMS				
BLAST AREA DIMENS	IONS				
			QUA	ANTITY	UNI
Bla	st Area Configuration: W	/edge-shaped mass (h	nighwall reduction	n using b	alanced cut/fill)
Blastin	g Method Description: C	onventional surface b	olast (fragmentati	on only)	
	Highwall or F	Bench Face Angle:		0.00	h:1v
	Regr	aded Slope Angle:	,	2.00	h:1v
	Highwall	l or Bench Length:		500	feet
	Highwal	ll or Bench Width:		60	feet
	Highwall	l or Bench Height:	1	0.00	feet
	Depth to Base o	of Cut at Highwall:	,	30.0	feet
Blast V Blast	Total Volume of Dimension folume to Subdrill Grade and Volume to Finish Grade and ining Volume Baquirad to h	onal Mass to be Shot: d Blast Pattern Lines: d Blast Pattern Lines: a Ba Shot or Binned	QUAN 16, 17, 12,	NTITY 667 304 600	UNIT cubic yards cubic yards cubic yards
BLAST AREA DESIGN	ining volume Required to be	e Re-Shot of Ripped.	4,0	107	cubic yalus
		OUAN	ΤΙΤΥ		UNIT
Recom	mended Blasthole Diameter	. 4.4	11	inches	
	Selected Blasthole Diameter		75	inches	,
	Subdrilling Allowance	: 6.	3	feet	
	Blasthole Depth	1: 20	.6	feet	
	Density of Rock	: Average Density Bas	y Rock (ANFO is)	rock de	nsity
Burde	en to Charge Diameter Ratio): 25	5	times d	iameter
	Burden	n: 21	.0	feet	
	Spacing to Burden Ratio): 1.	5	times b	urden
	Spacing	g: 32	.0	feet	
Cubic	Yards of Rock per Blasthole	: 602	.93	cubic y	ards
	Powder Factor Description	n: Hig	gh	rock str	rength
	Powder Factor	: 1.0	00	pounds	/cu. yd.
	Density of Blasting Agent	t: 0.8	35	grams/c	cc
Quantity	of Explosives per Blasthole	602	.93	POUNI	DS
	Height of Powder Column	1: 21.	36	feet	

-0.81

-0.04

-0.0160

2

15

30

617

Height of Stemming per Blasthole:

Quantity of Stemming per Blasthole:

Number of Blastholes per Row:

Total Number of Blastholes:

Total Length of all Blastholes:

Stemming to Burden Ratio:

Number of Rows:

feet

rows

holes

feet

times burden

holes per row

cubic yards

BLASTING MATERIALS QUANTITIES

	QUANTITY	UNIT
Total Quantity of Stemming Required:	-0.48	cubic yards
Total Quantity of Explosives Required:	18,088	pounds
Total Quantity of det. cord/fuse/wire Required:	1,780	linear feet
Quantity of Blasting Caps per Blasthole:	1	cap(s)
Total Quantity of Blasting Caps Required:	30	caps
Quantity of Primers per Blasthole:	1	primer(s)
Total Quantity of Primers Required:	30	primers
Quantity of Delays per Blasthole:	1	delay(s)
Total Quantity of Delays Required:	32	delays

HOURLY EQUIPMENT COST

Shift basis: <u>1 per day</u>

Description
Atlas Capco DML/SP - 9-7/8"
Cat D8T - 8SU
NA
NA
ANFO Bulk Delivery Truck
Cap Delivery Truck

	Drilling	Drill Pad	Misc. Drill	Misc. Expl.	Explosives	Delivery
<u>Cost Breakdown</u> :	Equipment	Preparation	Support	Support	Bulk Truck	Cap Truck
	Drilling	Dozer			MiscTruck	MiscTruck
%Utilization-machine:	100	100	NA	NA	100	100
Ownership cost/hour:	\$101.04	\$82.01	NA	NA	\$73.16	\$7.90
Operating cost/hour:	\$153.26	\$79.23	NA	NA	\$79.53	\$17.62
% Utilization-ripper:	NA	30	NA	NA	NA	NA
Ripper own. cost/hour:	NA	\$8.40	NA	NA	\$0.00	\$0.00
Ripper op. cost/hour:	NA	\$1.69	NA	NA	\$0.00	\$0.00
Operator cost/hour:	\$0.00	\$38.89	NA	NA	\$0.00	\$0.00
Unit Subtotals:	\$254.30	\$210.22	\$0.00	\$0.00	\$152.69	\$25.52
Number of Units:	1	1	0	0	1	1
Group Subtotals:	\$254.30	\$210.22	\$0.00	\$0.00	\$152.69	\$25.52

Total work team cost/hour: \$642.73

MATERIALS COST

	Description	Unit	Unit Cost	Quantity	Total Cost
	Bulk ANFO nom. density (
Blasting Agent:	7,900-15,000 fps)	Pound	\$0.234	18088.000	\$4,232.59
	Cast primer, 1.0 lb (electric				
Primers or Boosters:	or non-electric system)	Each	\$3.299	30.000	\$98.97
	Non-electric cap, delay				
Blasting Caps:	(non-electric systems)	Each	\$3.496	30.000	\$104.88
Det. Cord, fuse, or	Detonating cord, 10 gr./ft.				
wire:	(non-electric systems)	Linear foot	\$0.119	1780.350	\$211.86
	MS connectors (non-				
Delays:	electric systems)	Each	\$4.924	32.000	\$157.57
	Expl. magazine - agent				
	(rental basis - meet MSHA				
Miscellaneous:	req.)	Day	\$6.118	0.000	\$0.00

Surface Blasting Work Co	ont'd	Task# 01A		Pag	e 3 of 3
Drill bits:	Bit life = 1,750	Linear feet	\$2,738.47	0.352	\$964.72
			Total I	Materials Cost	\$5,770.59
DRILLING AND EXI	PLOSIVES PREPAR	ATION TIME			
Те	otal Drilling Length:	617		linear feet	
Unad	justed Drilling Rate:	82.00		feet/hour	
	Drilling Time:	11.81		hours	
Job Condition Correc	tions:				
	Site Altitude:	7,300		feet	
A	Altitude Adjustment:	0.95		(DRMS est.))
Jo	b Efficiency Factor:	0.67		(CH. Exc. H	B)
Ad	justed Drilling Rate:	52.19		feet/hour	
Exp	plosives Prep. Time:	5.52		hours	
JOB TIME AND COS	<u>ST</u>				
		Total Job Time	e: <u>17.3</u> 4	1 He	ours
Unit cost: \$0.	707 per cu. yd.	Total Job Cos	t: \$12,2 4	12	

Page 1 of 2

BULLDOZER WORK

Task description:	(stauling slopes				
Neilson Pit		Per	mit Action:	TR-2	Permit/Job#:	M2007026
PROJECT IDE	NTIFICA	ATION				
Task #· 02A		State	Colorado		Abbreviation:	None
Date: $9/14/$	2016	County:	Moffat		Filename:	M026-02a
User: ACY	2010		monut		i nonumo.	11020 024
Agency of	r organiza	tion name: DI	RMS			
HOURLY EQU	IPMENT	<u>COST</u>				
Basic Machine:	Cat D8	T - 8SU				
Horsepower:	310					
Blade Type:	Semi-U	Iniversal				
Attachment:	<u>3-shanl</u>	k ripper				
Shift Basis:	1 per da	ay				
Data Source:	(CRG)					
Cost Breakdown:						
				Utilization %		
Ownership Cost/H	Hour:		\$82.01	NA		
Operating Cost/H	Hour:		\$79.23	100		
Ripper own. Cost/H	Iour:		\$8.40	NA		
Rinner on Cost/F	Hour:		\$1.69	30		
Tupper op. Cost/1						
Operator Cost/Ho Total unit Cost/Ho Total Fleet Cost/Ho	Hour:	210.22 420.43	\$38.89	NA		
Operator Cost/H Total unit Cost/Ho Total Fleet Cost/Ho <u>MATERIAL QU</u> Initial Volume: Swell factor:	Hour:	210.22 420.43 IES	\$38.89	NA		
Operator Cost/Ho Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume:	Hour:	210.22 420.43 IES 	\$38.89 	NA		
Operator Cost/Ho Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	Hour:	210.22 420.43 IES LCY TR-2	\$38.89 	NA		
Operator Cost/H Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	Hour:	210.22 420.43 IES LCY tor: TR-2 Cat Hand	\$38.89	NA		
Operator Cost/Ho Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated	Hour:	210.22 420.43 IES LCY tor: TR-2 Cat Hand	\$38.89	NA		
Operator Cost/H Operator Cost/H Total Initial Cost/Ho Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated	Hour: \$2 bur: \$2 JANTITI 80,000 1.000 80,000 I t volume: t swell fac	210.22 420.43 IES LCY tor: TR-2 Cat Hand	\$38.89	NA		
Operator Cost/Ho Operator Cost/Ho Total Fleet Cost/Ho MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push dista	Hour:	210.22 420.43 IES LCY tor: TR-2 Cat Hand N 150 feet	\$38.89	NA		
Operator Cost/Ho Operator Cost/Ho Total I Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROJ Average push dista Unadjusted hourly	Hour: \$2 Jar: \$2 Jur: \$2 JANTITI 80,000 1.000 80,000 I 1.000 80,000 I 1 volume: 1 swell fac DUCTIO nce: production 1000	$\frac{210.22}{420.43}$ $\frac{10.22}{420.43}$ $\frac{10.22}{10.22}$ $\frac{10.22}{10.2}$ $\frac{10.22}{10.2}$ $\frac{10.22}{10.2}$ $\frac{170}{10.2}$ $\frac{150}{10.2}$ $\frac{150}{10.2}$	\$38.89	NA		
Operator Cost/H Operator Cost/H Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL OL Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROI Average push dista Unadjusted hourly Materials consisten	Hour: \$2 JANTITI \$3 JANTITI \$80,000 1.000 \$80,000 I 1 volume: 1 swell fac DUCTIO nce: production cy descrip	$\frac{210.22}{420.43}$ $\frac{1ES}{LCY}$ $\frac{TR-2}{Cat Hand}$ $\frac{150 \text{ feet}}{634.3 LCY}$ $\frac{150 \text{ feet}}{100000000000000000000000000000000000$	\$38.89	 		
Operator Cost/Ho Operator Cost/Ho Total I Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROJ Average push dista Unadjusted hourly Materials consisten	Hour: \$2 Jantif \$2 Jantif \$3 JANTITI \$30,000 1.000 \$80,000 1.000 \$80,000 1 volume: 1 1 swell fac DUCTIO nce: production production cy descrip cient: -1	$\frac{210.22}{420.43}$ $\frac{120.43}{1100}$ $\frac{150 \text{ feet}}{150 \text{ feet}}$ $\frac{150 \text{ feet}}{634.3 \text{ LCY}}$ $\frac{150 \text{ feet}}{100}$	\$38.89			
Operator Cost/Ho Operator Cost/Ho Total Fleet Cost/Ho MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated MOURLY PROJ Average push dista Unadjusted hourly Materials consisten Average push gradi Average push gradi	Hour: \$2 JANTITI \$2 JANTITI \$80,000 1.000 \$80,000 I 1 volume: 1 1 swell fac DUCTIO nce: production production cy descrip ient: _1	$\frac{210.22}{420.43}$ IES $\frac{IES}{CY}$ tor: $\frac{TR-2}{Cat Hand}$ N $\frac{150 \text{ feet}}{634.3 \text{ LCY}}$ otion: Rock, a $\frac{15 \%}{300 \text{ feet}}$	\$38.89	 nr blasted 0.7		
Operator Cost/Ho Operator Cost/Ho Total I Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push dista Unadjusted hourly Materials consisten Average site altitud Material weight:	Hour: \$2 JANTITI \$0,000 1,000 \$0,000 I 1,000 \$0,000 I 1 volume: 1 swell fac DUCTIO nce: production cy descrip ient: _1 [e: _7, 2,	$ \begin{array}{r} 210.22 \\ 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline 420.43 \\ \hline $	\$38.89			
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Operator Cost/Ho Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL OU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description Job Condition Corr	Hour: \$2 JANTITI \$0,000 1.000 \$0,000 I 4 volume: 1 4 swell fac DUCTIO nce: production production cy descrip ient: _1 1e: 7,	$ \begin{array}{r} 210.22 \\ 420.43 \\ \hline 420.43 \\$	\$38.89	r blasted 0.7		
Operator Cost/Ho Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated HOURLY PROI Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description Job Condition Corr Ope	Hour: $\frac{1}{8}$ JANTITI 80,000 1.000 80,000 I 1 volume: 1 1 swell fac 0 DUCTIO 1 nce: production production cy descrip ient: -1 le: 7,	$ \begin{array}{c} 210.22 \\ 420.43 \\ \end{array} \begin{array}{c} \hline 150 \text{ feet} \\ \hline 150 \text{ feet} \\ \hline 634.3 \text{ LCY} \\ \hline \end{array} \begin{array}{c} 150 \text{ feet} \\ \hline 634.3 \text{ LCY} \\ \hline \end{array} \begin{array}{c} \hline 150 \text{ feet} \\ \hline 50 \text{ lbs/LCY} \\ \hline \end{array} \begin{array}{c} \hline andstone \\ \hline \hline \end{array} \begin{array}{c} \hline \end{array} \begin{array}{c} \hline \hline \end{array} \begin{array}{c} \hline \end{array} \begin{array}{c} \end{array} \end{array} \begin{array}{c} \end{array} \begin{array}{c} \end{array} \end{array} \begin{array}{c} \end{array} \begin{array}{c} \end{array} \end{array} \end{array} \begin{array}{c} \end{array} \end{array} \begin{array}{c} \end{array} \end{array} \end{array} \begin{array}{c} \end{array} \end{array} \end{array} \begin{array}{c} \end{array} \end{array} $ \end{array} \end{array} \begin{array}{c} \end{array} \end{array} \end{array} \end{array} \end{array} \begin{array}{c} \end{array} \end{array} \text{true } \end{array} \end{array} \end{array}	\$38.89			
Operator Cost/Ho Total unit Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Mourly PROI Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description Job Condition Corr Ope	Hour: \$ Jan: \$ Jan: \$ JANTITI \$ 80,000 1 1.000 \$ 80,000 1 1 volume: \$ 1 swell fac DUCTIO nce: \$ production cy descrip ient: -1 le: 7	$ \begin{array}{c} 210.22 \\ 420.43 \\ \hline 420.4$	\$38.89 			
Operator Cost/Ho Operator Cost/Ho Total Fleet Cost/Ho MATERIAL QU Initial Volume: Swell factor: Loose volume: Source of estimated Source of estimated Mourney PROJ Average push dista Unadjusted hourly Materials consisten Average push gradi Average site altitud Material weight: Weight description Job Condition Corr Ope Material c	Hour: \$ Jan: \$ Jan: \$ JANTITI \$ 80,000 1 1.000 \$ 80,000 1 1.000 \$ 80,000 1 1.000 \$ 80,000 1 1.000 \$ 80,000 1 1.000 \$ 80,000 1 1.000 \$ 90,000 1 1.000 \$ 0.000 \$ 1.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000 \$ 0.000	$ \begin{array}{c} 210.22 \\ 420.43 \\ \hline 420.4 \\ \hline 420.43 \\ \hline 420.4 \\ \hline $	\$38.89 			

Job efficient	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.700	(FND-MF)
Push gradie	nt: 1.329	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.902	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction	on: 0.4388	
Adjusted unit production:	278.33 LCY/hr	
Adjusted fleet production:	556.66 LCY/hr	

JOB TIME AND COST

Fleet size:	2 Dozer(s)
Unit cost:	\$0.755/LCY

Total job time:	143.71 Hours
Total job cost:	\$60,422

REVEGETATION WORK

e: Neilson Pit		Permit Action:	TR-2	Permit/Job	#: <u>M2007026</u>
PROJECT	IDENTIFIC	CATION			
Task #:	03A	State: Colorado		Abbreviation:	None
Date:	9/14/2016	County: Moffat		Filename:	M026-03a
	ACY				

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
			\$	\$
			Total Fertilizer Materials	
			Cost/Acre	\$0.00

Application

Description	Cost /Acre
	\$
Total Fartilizar Application Cost/Ages	
I otal Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
	\$
Total Tilling Cost/Acre	\$0.00

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Slender Wheatgrass - Native	16.00	58.40	\$36.00
Rabbitbrush, Rubber	2.00	29.80	\$74.66
Sagebrush, Mountain or Big	2.00	105.60	\$68.76
Totals Seed Mix	20.00	193.80	\$179.42

Application

Description	Cost /Acro
Description	Cost/Acre

Broadcast seeding [DMG]	\$261.80
Total Seed Application Cost/Acre	\$261.80

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Herbicide - 2,4D @ 1.0 pt/ac	1.00	ACRE	\$1.25	\$1.25
Total Mulch Materials Cost/Acre				\$1.25

Application

Description	Cost /Acre
Weed spray, truck, non-aquatic area, nox. [DMG]	\$62.72
Total Mulch Application Cost/Acre	\$62.72

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

No. of Acres:	9.5	Cost /Acre:	\$505.19
Estimated Failure Rate:	30%	Cost /Acre*:	\$441.22
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$4,799.31
Reseeding Job Cost:	\$1,257.48
Total Job Cost:	\$6,057
Job Hours:	24.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

: Neilson Pit		Permit	Action: TR-2]	Permit/Job#:	M2007026
PROJECT IDE	NTIFICATI	<u>ON</u>					
Task #: 04A	Δ	State: Co	lorado		Abbre	eviation: Nor	ie
Date: 9/2	7/2016	County: Mo	offat		Fi	ilename: M02	26-04a
User: AC	Y						
Agency	or organization	n name: DRMS					
EQUIPMENT 1	<u>'RANSPOR'</u>	<u>T RIG COST</u>					
					Shift ba	sis: 1 per o	day
				(Cost Data Sour	rce: CRG I	Data
Truck	Tractor Desc	ription: GENE	RIC ON-HIGHV	NAY TRI	ICK TRACTO	DR 6X4 DIESI	EL POWERED
Trues	Theter Dese			400 HP	(2ND HALF.	2006)	
						= /	
Trucl	c Trailer Desc	ription: G	ENERIC FOLD	ING GOC	SENECK. DF	ROP DECK EO	UIPMENT
Trucl	x Trailer Desc	ription: G	ENERIC FOLD T	ING GOC TRAILER	SENECK, DF (25T, 50T, AN	ROP DECK EQ ND 100T)	UIPMENT
Trucl	a Trailer Desc	ription: G	ENERIC FOLD T	ING GOC TRAILER	SENECK, DF (25T, 50T, AN	ROP DECK EQ ND 100T)	UIPMENT
Trucl <u>Cost Breakdown:</u>	c Trailer Desc	ription: G	ENERIC FOLD T	ING GOO `RAILER	SENECK, DF (25T, 50T, AN	ROP DECK EQ ND 100T)	UIPMENT
Trucl Cost Breakdown: Available Rig Ca	c Trailer Desc	ription: G	ENERIC FOLD T 26-50 Tons	ING GOC TRAILER	DSENECK, DF (25T, 50T, AN - Tons	ROP DECK EQ ND 100T)	UIPMENT
Truch Cost Breakdown: Available Rig Ca Ownership	c Trailer Desc apacities Cost/Hour:	ription: Gl	ENERIC FOLD T 26-50 Tons \$18.37	ING GOC TRAILER 51-	DSENECK, DF (25T, 50T, AN - Tons 22.33	ROP DECK EQ ND 100T)	UIPMENT
Trucl Cost Breakdown: Available Rig Ca Ownership Operating	A Trailer Descr apacities Cost/Hour: Cost/Hour:	ription: Gl	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13	ING GOC TRAILER 51- \$2 \$3	DSENECK, DF (25T, 50T, AN - Tons 22.33 50.07	ROP DECK EQ ND 100T)	UIPMENT
Truck Cost Breakdown: Available Rig C: Ownership Operating Operator	apacities Cost/Hour: Cost/Hour: Cost/Hour:	o-25 Tons \$16.63 \$44.38 \$27.66	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66	ING GOC 'RAILER 51- \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2	DSENECK, DF (25T, 50T, AN + Tons 22.33 50.07 27.66	ROP DECK EQ ND 100T)	UIPMENT
Truch Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	o-25 Tons \$16.63 \$44.38 \$27.66 \$0.00	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39	ING GOC TRAILER 51- \$2 \$3 \$3 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2	DSENECK, DF (25T, 50T, AN + Tons 22.33 50.07 27.66 25.39	ROP DECK EQ ND 100T)	UIPMENT
Truck Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	O-25 Tons \$16.63 \$44.38 \$27.66 \$0.00 \$88.67	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39 \$117.55	ING GOC TRAILER 51- \$: \$: \$: \$: \$: \$: \$: \$: \$: \$: \$: \$: \$:	DSENECK, DF (25T, 50T, AN + Tons 22.33 50.07 27.66 25.39 25.45	ROP DECK EQ ND 100T)	UIPMENT
Truck Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	O-25 Tons \$16.63 \$44.38 \$27.66 \$0.00 \$88.67	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39 \$117.55	ING GOC 'RAILER 51- \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2	DSENECK, DF (25T, 50T, AN + Tons 22.33 50.07 27.66 25.39 25.45	ROP DECK EQ ND 100T)	UIPMENT
Truck Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPM	0-25 Tons \$16.63 \$44.38 \$27.66 \$0.00 \$88.67	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39 \$117.55	ING GOC 'RAILER 51- \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$2	DSENECK, DF (25T, 50T, AN + Tons 22.33 50.07 27.66 25.39 25.45	ROP DECK EQ ND 100T)	UIPMENT
Truck Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN	0-25 Tons \$16.63 \$44.38 \$27.66 \$0.00 \$88.67	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39 \$117.55	ING GOC TRAILER	DSENECK, DF (25T, 50T, AN + Tons 22.33 50.07 27.66 25.39 25.45	ROP DECK EQ ND 100T)	UIPMENT
Truck Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB Machine Description	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN Weight/ Unit	O-25 Tons \$16.63 \$44.38 \$27.66 \$0.00 \$88.67 MENT: Owner ship Coat (hr/, unit)	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39 \$117.55 Haul Rig Cost/br/uni	ING GOC TRAILER	DSENECK, DF (25T, 50T, AN Tons 22.33 50.07 27.66 25.39 25.45 Haul Trip Cost/br/	ROP DECK EQ ND 100T) Return Trip Cost/hr/fleet	UIPMENT DOT Permit Cost/ fleet
Truck Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB Machine Description	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN Weight/ Unit (TONS)	0-25 Tons \$16.63 \$44.38 \$27.66 \$0.00 \$88.67 MENT: Owner ship Cost/hr/ unit	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39 \$117.55 Haul Rig Cost/hr/uni t	ING GOC TRAILER	DSENECK, DF (25T, 50T, AN (25T, 50T, AN 22.33 50.07 27.66 25.39 25.45	ROP DECK EQ ND 100T) Return Trip Cost/hr/ fleet	UIPMENT DOT Permit Cost/ fleet
Truck Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB Machine Description	A Trailer Desc.	0-25 Tons \$16.63 \$44.38 \$27.66 \$0.00 \$88.67 MENT: Owner ship Cost/hr/ unit \$90.41	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39 \$117.55 Haul Rig Cost/hr/uni t \$125.45	ING GOC TRAILER 51- \$2 \$2 \$2 \$2 \$2 \$2 \$2 \$	DSENECK, DF (25T, 50T, AN (25T, 50T, AN 22.33 50.07 27.66 25.39 25.45 Haul Trip Cost/hr/ fleet \$431 72	ROP DECK EQ ND 100T) Return Trip Cost/hr/ fleet	UIPMENT DOT Permit Cost/ fleet
Truck Cost Breakdown: Available Rig C Ownership Operating Operator Helper Total Unit NON ROADAB Machine Description Cat D8T - 8SU Drill/Broadcast	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Use Weight/ Unit (TONS) 53.08 25.00	0-25 Tons \$16.63 \$44.38 \$27.66 \$0.00 \$88.67 MENT: Owner ship Cost/hr/ unit \$90.41 \$30.65	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39 \$117.55 Haul Rig Cost/hr/uni t \$125.45 \$88.67	ING GOC TRAILER SI	DSENECK, DF (25T, 50T, AN (25T, 50T, AN 22.33 50.07 27.66 25.39 25.45 Haul Trip Cost/hr/ fleet \$431.72 \$119.32	ROP DECK EQ ND 100T) Return Trip Cost/hr/ fleet \$250.90 \$88.67	UIPMENT DOT Permit Cost/ fleet \$500.00 \$250.00
Truck Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB Machine Description Cat D8T - 8SU Drill/Broadcast Seeder with Tractor	A Trailer Desc.	O-25 Tons \$16.63 \$44.38 \$27.66 \$0.00 \$88.67 MENT: Owner ship Cost/hr/ unit \$90.41 \$30.65	ENERIC FOLD T 26-50 Tons \$18.37 \$46.13 \$27.66 \$25.39 \$117.55 Haul Rig Cost/hr/uni t \$125.45 \$88.67	Similar \$1- \$1- \$2 \$1 \$2 1	DSENECK, DF (25T, 50T, AN (25T, 50T, AN) 22.33 50.07 27.66 25.39 25.45 Haul Trip Cost/hr/ fleet \$431.72 \$119.32	ROP DECK EQ ND 100T) Return Trip Cost/hr/ fleet \$250.90 \$88.67	UIPMENT DOT Permit Cost/ fleet \$500.00 \$250.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
		Subtotals:	\$0.00	\$0.00

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:	CRAIG, CO	
Total one-way travel distance:	27.00	miles
Average Travel Speed:	65.00	mph
Total Non-Roadable Moh/Demoh Cost *		
* two round trips with haul rig:	\$3,341.97	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$0.00	

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.42	0.42
Return Time (Hours):	0.42	0.42
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.83	0.83

JOB TIME AND COST

Total job time: **3.66** Hours

Total job cost: \$3,342