

October 13, 2023

H. Bruce Humphries Regulatory Permits Management Inc. 25049 E. Alder Dr. Aurora, CO 80016 <u>hlhumphries2@comcast.net</u>

## Re: Dill Pit, Permit No. M-2009-077, Technical Revision No. 1 (TR-01), Adequacy Review No. 1

Dear Mr. Humphries:

On October 10, 2023, the Division of Reclamation Mining and Safety (Division) received your Technical Revision (TR-01) to revise the approved seed mixture. After reviewing the materials submitted, the Division has the following comments:

1) The Division found the proposed seed mixture adequate to complete final reclamation. This affects the revegetation task in the bond calculation. The previous cost to complete this task was calculated to be \$18,316. The new cost after applying the proposed seed mix, is \$16,464. This reduced the total required financial warranty from \$50,521 to \$48,322. Please review the enclosed bond estimate with the updated revegetation task.

The current required financial warranty based on the Division's revised bond estimate is **\$48,322**. Please provide any comments you might have on the enclosed bond estimate, or submit a statement that you have no further comments. If the operator has no further comments, the Technical Revision will be approved, and the operator will have 60 days from the approval date to post the additional required financial warranty.

This completes the Divisions 1<sup>st</sup> adequacy review of the materials submitted in TR-01. The decision date for TR-01 is set for **November 9, 2023**. If additional time is needed to respond, an extension request must be received by our office prior to the decision date.

If you require additional information, or have questions or concerns, please feel free to contact me by phone at (303) 866-3567, ext. 8147, or by email at joel.renfro@state.co.us.

Sincerely,

Jolkenso

Joel Renfro Environmental Protection Specialist



- Encl: Division's bond estimate with updated revegetation task
- Cc: Tracy and Ed Grimes Amy Eschberger, DRMS

# COST SUMMARY WORK

]	Task description:		Current	t disturb	ance estimat	ion			
Site:	Dill Pit			Per	rmit Action:	2023 Calculation	Permit/Jol	o#: <u>M2009077</u>	
<u>P</u>	ROJECT Task #: Date: User:	IDENTIFIC 000 7/19/2023 JR2		State: County:	Colorado Elbert		Abbreviation: Filename:	None M077-000	

Agency or organization name: DRMS

## TASK LIST (DIRECT COSTS)

Task	Description	Form	Fleet	Task Hours	Cost
	Description	Used	Size		
001	Grade pit slopes from 2.5H:1V to 3H:1V	DOZER	1	2.14	\$914
001b	Grade W pit slopes from 3H:1V to 4H:1V	DOZER	1	6.42	\$2,739
002	Replace 4.5 in topsoil on 14.5 acres	DOZER	1	12.75	\$5,441
003	Rip compacted areas - 8.5 acres	RIPPER	1	13.24	\$5,936
004	Revegetate 14.5 acres	REVEGE	1	7.25	\$16,464
004b	Mulch 4.3 acres (excluding pit floor and W pit wall)	REVEGE	1	2.00	\$4,016
005	Mobilization/Demobilization	MOBILIZE	1	6.30	\$3,750
		<u>SUBT(</u>	DTALS:	50.1	\$39,260

### **INDIRECT COSTS**

#### **OVERHEAD AND PROFIT:**

Liability insurance:	2.02	Total =	\$793
Performance bond:	1.05	Total =	\$412
Job superintendent:	25.05	Total =	\$1,630
Profit:	10.00	Total =	\$3,926
		TOTAL O & P =	\$6,761
		CONTRACT AMOUNT (direct + O & P) =	\$46,021

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): Engineering work and/or contract/bid preparation: Reclamation management and/or administration:	\$0 0.00 5.00		\$0 \$0 \$2,301
CONTINGENCY:	0.00	Total =	\$0
		TOTAL INDIRECT COST =	\$9,062
TOTAL BO	ND AI	MOUNT (direct + indirect) =	\$48,322

# BULLDOZER WORK

	· · · · · · · · · · · · · · · · · · ·			
Dill Pit	Permit Action:	2023 Calculation	Permit/Job#:	M2009077
PROJECT IDENTIFICA	ATION			
Task #: 001	State: Colorado		Abbreviation:	None
Date: $7/19/2023$	County: Elbert		Filename:	M077-001
User: $JR2$	County		T nename.	101077-001
Agency or organiza	tion name: DRMS			
HOURLY EQUIPMENT	<u>r cost</u>			
Basic Machine:Cat D8	T - 8SU			
Horsepower: 310				
Blade Type: Semi-U	Jniversal			
Attachment: NA				
Shift Basis: 1 per da	ay			
Data Source: (CRG)				
Cost Breakdown:		TT:11 0/		
Ownership Cost/Hours	¢941 20	<u>Utilization %</u>		
Ownership Cost/Hour:	\$241.38 \$143.92	NA 100		
Operating Cost/Hour:	<u>\$143.92</u> \$0.00			
Ripper own. Cost/Hour: Ripper op. Cost/Hour:	\$0.00	<u>NA</u>		
Operator Cost/Hour:	\$0.00	-		
	\$41.30	NA		
Total Fleet Cost/Hour:	426.60 <b>426.60</b>			
Total Fleet Cost/Hour: \$	426.60			
Total Fleet Cost/Hour: \$ MATERIAL QUANTIT Initial Volume: 1,390	426.60			
Total Fleet Cost/Hour: \$ MATERIAL QUANTIT Initial Volume: 1,390 Swell factor: 1.250	426.60 IES			
Total Fleet Cost/Hour: \$ MATERIAL QUANTIT Initial Volume: 1,390	426.60 IES			
Total Fleet Cost/Hour: \$ MATERIAL QUANTITI Initial Volume: 1,390 Swell factor: 1.250	426.60 IES	ut and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTIT         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0	<b>426.60</b> <b>IES</b> <u>CY</u> 1500 ft L x 20 ft H, cu	ut and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 Lo         Source of estimated volume:       Source of estimated swell factor	<b>426.60</b> <b>IES</b> CY CY <u>1500 ft L x 20 ft H, cu</u> ctor: <u>Cat Handbook</u>	ut and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0         Source of estimated volume:	<b>426.60</b> <b>IES</b> CY CY <u>1500 ft L x 20 ft H, cu</u> ctor: <u>Cat Handbook</u>	it and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTIO	<b>426.60</b> <b>IES</b> <u>CY</u> <u>CY</u> <u>1500 ft L x 20 ft H, cu</u> <u>Cat Handbook</u> <u><b>DN</b></u>	it and fill		
Total Fleet Cost/Hour: MATERIAL QUANTITI Initial Volume: 1,390 Swell factor: 1.250 Loose volume: 1,738 Lo Source of estimated volume: Source of estimated swell fac HOURLY PRODUCTIO Average push distance:	<b>426.60</b> <b>IES</b> CY CY CY CY CY CY CY C	it and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTIO	<b>426.60</b> <b>IES</b> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CX</u> <u>CX</u> <u>CAt Handbook</u> <u>CN</u> <u>CO</u> feet <u>1,246.9 LCY/hr</u>			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTIO       Average push distance:         Unadjusted hourly production       Materials consistency description	426.60         IES         CY         CY         ctor:       1500 ft L x 20 ft H, ct         Cat Handbook         DN         60 feet         n:       1,246.9 LCY/hr         otion:       Compacted fill or end			
Total Fleet Cost/Hour: MATERIAL QUANTITI Initial Volume: 1,390 Swell factor: 1.250 Loose volume: 1,738 Lo Source of estimated volume: Source of estimated volume: Source of estimated swell fac HOURLY PRODUCTIO Average push distance: Unadjusted hourly production Materials consistency descrip Average push gradient:	<b>426.60 IES</b> <u>CY</u> <u>1500 ft L x 20 ft H, cu</u> ctor: <u>Cat Handbook</u> <b>DN</b> <u>60 feet</u> n: <u>1,246.9 LCY/hr</u> ption: <u>Compacted fill or endsored</u>			
Total Fleet Cost/Hour: MATERIAL QUANTITI Initial Volume: 1,390 Swell factor: 1.250 Loose volume: 1,738 Lo Source of estimated volume: Source of estimated volume: Average push distance: Unadjusted hourly production Materials consistency descrip Average push gradient:	426.60         IES         CY         CY         ctor:       1500 ft L x 20 ft H, ct         Cat Handbook         DN         60 feet         n:       1,246.9 LCY/hr         otion:       Compacted fill or end			
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Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0         Source of estimated swell fac       1,738 L0         HOURLY PRODUCTIO       Average push distance:         Unadjusted hourly production       Materials consistency descrip         Average push gradient:       -5         Average site altitude:       5         Material weight:       2	426.60         IES         CY         CY         Ctor:         1500 ft L x 20 ft H, cu         Ctor:         Cat Handbook         DN         60 feet         n:       1,246.9 LCY/hr         otion:       Compacted fill or explanated fill or explanated fill or explanated field.         5 %	mbankment 0.9		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0         Source of estimated volume:       Source of estimated volume:         Source of estimated swell factor:       1,738 L0         MOURLY PRODUCTIO       Average push distance:         Unadjusted hourly production       Materials consistency descript         Average push gradient:       -5         Average site altitude:       5         Material weight:       2         Weight description:       D	426.60         IES         CY         CY         Ctor:         1500 ft L x 20 ft H, cu         Ctor:         Cat Handbook         ON         60 feet         n:       1,246.9 LCY/hr         otion:       _Compacted fill or east for the set of the set o	 mbankment 0.9 , 75% Earth		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0         Source of estimated volume:       Source of estimated volume:         Source of estimated swell factor:       1,738 L0         MOURLY PRODUCTIO       Average push distance:         Unadjusted hourly production       Materials consistency descrip         Average push gradient:       -5         Average site altitude:       5         Material weight:       2         Weight description:       D         Job Condition Correction Face	426.60         IES         CY         CY         Ctor:         1500 ft L x 20 ft H, cu         Ctor:         Colspan="2">Ctor:         Ctor:         Colspan="2">Ctor:         Colspan="2">Ctor:         Colspan="2">Ctor:         Colspan="2">Ctor:         Ctor:         Ctor:         Ctor:         Ctor:         Ctor:         Compacted fill or en         Compacted fill or en         S %         Ctor:         Ctor:         Ctor:         Ctor:         Ctor:         Ctor:         Ctor:         Ctor:         Ctor:			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0         Source of estimated volume:       Source of estimated volume:         Source of estimated swell factor       1,738 L0         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTIO       Average push distance:         Unadjusted hourly production       Materials consistency description         Average push gradient:       -5         Average site altitude:       5         Material weight:       2         Weight description:       D         Job Condition Correction Factor       Operator Skill	426.60         IES         CY         CY         ctor:       1500 ft L x 20 ft H, ct         ctor:       Cat Handbook         DN         60 feet         n:       1,246.9 LCY/hr         otion:       Compacted fill or est         5 %         ,700 feet         ,650 lbs/LCY         Decomposed rock - 25% Rock         ctor         1:       0.750			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITI         Initial Volume:       1,390         Swell factor:       1.250         Loose volume:       1,738 L0         Source of estimated volume:       Source of estimated volume:         Source of estimated swell factor:       1,738 L0         MOURLY PRODUCTIO       Average push distance:         Unadjusted hourly production       Materials consistency descrip         Average push gradient:       -5         Average site altitude:       5         Material weight:       2         Weight description:       D         Job Condition Correction Face	426.60         IES         CY         CY         ctor:       1500 ft L x 20 ft H, ct         Cat Handbook         DN         60 feet         n:       1,246.9 LCY/hr         otion:       Compacted fill or er         5 %         ,700 feet         ,650 lbs/LCY         Decomposed rock - 25% Rock         ctor         1:       0.750         y:       0.900			

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.115	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.6507	
Adjusted unit production:	311.36 LCY/hr	
Adjusted fleet production:	811.36 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.526/LCY

Total job time:	<b>2.14</b> Hours
Total job cost:	\$914

## BULLDOZER WORK

Dill Pit	Permit Action:	2023 Calculation	Permit/Job#:	M2009077
PROJECT IDENTIFICA	ATION			
Task #: 001B	State: Colorado		Abbreviation:	None
Date: $\frac{001D}{8/11/2023}$	County: Elbert		Filename:	M077-001b
User: AME	CountyElbert		Thename.	WI077-0010
Agency or organiza	tion name: DRMS			
HOURLY EQUIPMENT	Г COST			
	ST - 8SU			
Horsepower: 310				
Blade Type: Semi-U	Jniversal			
Attachment: NA				
Shift Basis: 1 per d	ay			
Data Source: (CRG)				
Cost Breakdown:				
Ormersh's Cost /II	Φ <b>0</b> 41.00	<u>Utilization %</u>		
Ownership Cost/Hour:	\$241.38	NA		
Operating Cost/Hour:	\$143.92	100 NA		
Ripper own. Cost/Hour:	\$0.00	NA		
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
	426.60 <b>426.60</b>			
	426.60			
Total Fleet Cost/Hour: \$	426.60			
Total Fleet Cost/Hour: \$ MATERIAL QUANTIT Initial Volume: 4,167 Swell factor: 1.250	426.60 IES			
Total Fleet Cost/Hour: \$	426.60 IES			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTIT         Initial Volume:       4,167         Swell factor:       1.250         Loose volume:       5,209 Lot	426.60 IES CY	ut and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY       Initial Volume:       4,167         Swell factor:       1.250       1.250         Loose volume:       5,209 Loty         Source of estimated volume:       1000000000000000000000000000000000000	<b>426.60</b> <b>IES</b> <u>CY</u> 1500 ft L x 20 ft H, cu	ut and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTIT         Initial Volume:       4,167         Swell factor:       1.250         Loose volume:       5,209 Lot	<b>426.60</b> <b>IES</b> <u>CY</u> 1500 ft L x 20 ft H, cu	 ut and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY       Initial Volume:       4,167         Swell factor:       1.250       1.250         Loose volume:       5,209 Loty         Source of estimated volume:       1000000000000000000000000000000000000	<b>426.60 IES</b> CY CY 1500 ft L x 20 ft H, ct Ctor: Cat Handbook	ut and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY         Initial Volume:       4,167         Swell factor:       1.250         Loose volume:       5,209 Lot         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTION       1000000000000000000000000000000000000	<b>426.60 IES</b> CY CY <u>1500 ft L x 20 ft H, ct</u> Ctor: Cat Handbook <b>DN</b>	ut and fill		
Total Fleet Cost/Hour: \$ MATERIAL QUANTIT Initial Volume: 4,167 Swell factor: 1.250 Loose volume: 5,209 Lo Source of estimated volume: Source of estimated swell fac HOURLY PRODUCTIC Average push distance:	<b>426.60</b> <b>IES</b> CY CY CY CY CY CY CY C	 ut and fill		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY       Initial Volume:       4,167         Swell factor:       1.250       1.250         Loose volume:       5,209 Lot         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTION       1000000000000000000000000000000000000	<b>426.60</b> <b>IES</b> CY CY 1500 ft L x 20 ft H, ct Cat Handbook <b>DN</b> 60 feet			
Total Fleet Cost/Hour: \$ MATERIAL QUANTIT Initial Volume: 4,167 Swell factor: 1.250 Loose volume: 5,209 Lo Source of estimated volume: Source of estimated swell fac HOURLY PRODUCTIC Average push distance:	<b>426.60</b> <b>IES</b> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u></u>			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY       Initial Volume:       4,167         Swell factor:       1.250       1.250         Loose volume:       5,209 Lot         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTIC       Average push distance:         Unadjusted hourly production       Materials consistency description	<b>426.60</b> <b>IES</b> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CY</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u>CX</u> <u></u>			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY       Initial Volume:       4,167         Swell factor:       1.250       Loose volume:       5,209 Lot         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTIC       Average push distance:       Unadjusted hourly production         Materials consistency descript       Average push gradient:	426.60         IES         CY         CY         ctor:       1500 ft L x 20 ft H, ct Cat Handbook         DN         60 feet         n:       1,246.9 LCY/hr         ption:       Compacted fill or e			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY       Initial Volume:       4,167         Swell factor:       1.250       Loose volume:       5,209 Lot         Source of estimated volume:       5,209 Lot       Source of estimated swell factor         HOURLY PRODUCTIC       Average push distance:       Unadjusted hourly production         Materials consistency descript       Average push gradient:	<b>426.60 IES</b> CY CY Ctor: 1500 ft L x 20 ft H, ct Ctor: Cat Handbook <b>DN</b> 60 feet 1,246.9 LCY/hr ption: Compacted fill or e 5 %			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY         Initial Volume:       4,167         Swell factor:       1.250         Loose volume:       5,209 Ld         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTION       Average push distance:         Unadjusted hourly production       Materials consistency description         Average push gradient:          Average site altitude:       _5         Material weight:       _2	426.60         IES         CY         CY         ctor:       1500 ft L x 20 ft H, ct         Cat Handbook         DN         60 feet         n:       1,246.9 LCY/hr         otion:       Compacted fill or e         5 %         ,700 feet         ,650 lbs/LCY	mbankment 0.9		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY         Initial Volume:       4,167         Swell factor:       1.250         Loose volume:       5,209 Lot         Source of estimated volume:       Source of estimated volume:         Source of estimated swell factor:       1.250         Loose volume:       5,209 Lot         Source of estimated volume:       Source         Materials consistency description:       Materials consistency description:         Average push gradient:	426.60         IES         CY         CY         ctor:       1500 ft L x 20 ft H, ct         Cat Handbook         DN         60 feet         n:       1,246.9 LCY/hr         otion:       Compacted fill or e         5 %         ,700 feet         ,650 lbs/LCY         Decomposed rock - 25% Rock	 mbankment 0.9 , 75% Earth		
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY         Initial Volume:       4,167         Swell factor:       1.250         Loose volume:       5,209 L/         Source of estimated volume:       Source of estimated volume:         Source of estimated swell factor:       1.250         Loose volume:       5,209 L/         Source of estimated volume:       Source         Materials consistency description:       C         Average push distance:       Unadjusted hourly production         Materials consistency description:	426.60         IES         CY         CY         Ctor:         1500 ft L x 20 ft H, cu         Ctor:         Cat Handbook         DN         60 feet         n:			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY         Initial Volume:       4,167         Swell factor:       1.250         Loose volume:       5,209 Ld         Source of estimated volume:       Source of estimated swell factor         HOURLY PRODUCTIC       Average push distance:         Unadjusted hourly production       Materials consistency descript         Average push gradient:	426.60         IES         CY			
Total Fleet Cost/Hour:       \$         MATERIAL QUANTITY         Initial Volume:       4,167         Swell factor:       1.250         Loose volume:       5,209 L/         Source of estimated volume:       Source of estimated volume:         Source of estimated swell factor:       1.250         HOURLY PRODUCTIC       Average push distance:         Unadjusted hourly production       Materials consistency descript         Average push gradient:	426.60         IES         CY         CY         ctor:       1500 ft L x 20 ft H, cu Cat Handbook         DN         60 feet         n:       1,246.9 LCY/hr         otion:       Compacted fill or e         5 %         ,700 feet         ,650 lbs/LCY         Decomposed rock - 25% Rock         ctor         I:       0.750         y:       0.900			

Task # 001B

Job efficient	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 1.000	(DOZ-OC)
Push gradie	nt: 1.115	(CAT HB)
Altitud	de: 1.000	(CAT HB)
Material Weig	ht: 0.868	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction	on: 0.6507	
Adjusted unit production:	811.36 LCY/hr	
Adjusted fleet production:	811.36 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.526/LCY

Total job time:	<b>6.42</b> Hours
Total job cost:	\$2,739

# BULLDOZER WORK

Task description:	Replace 4.5 in to	psoil on 14.5	acres		
Dill Pit	Per	mit Action:	2023 Calculation	Permit/Job#:	M2009077
PROJECT IDENTI	<b>FICATION</b>				
Task #: 002	State:	Colorado		Abbreviation:	None
Date: $9/28/2023$		Elbert		Filename:	M077-002
User: JR2	<u> </u>				
Agency or org	anization name: DF	RMS			
HOURLY EQUIPM	ENT COST				
	at D8T - 8SU				
	10				
• -	emi-Universal				
	A				
	per day				
Data Source: (0	CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour		\$241.38	NA		
Operating Cost/Hour		\$143.92	100		
Ripper own. Cost/Hour		\$0.00	NA		
Ripper op. Cost/Hour		\$0.00	0		
		\$41.30	NA		
Total Fleet Cost/Hour:	\$426.60 <b>\$426.60</b>	ψ1.50			
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>8,7</u>	\$426.60 \$426.60 TITIES 773	ψ <b>1</b> 1.50			
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u>	\$426.60 \$426.60 TITIES 773 215	ψ <b>1</b> 1.30			
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u>	\$426.60 \$426.60 TITIES 73 215 659 LCY				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol	\$426.60 \$426.60 TITIES 73 215 .659 LCY ume:14.5 ac x	 4.5 in depth			
Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u>	\$426.60 \$426.60 TITIES 73 215 .659 LCY ume:14.5 ac x	 4.5 in depth			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol	\$426.60 \$426.60 TITIES 73 215 659 LCY ume: 14.5 ac x Cat Hand	 4.5 in depth			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol Source of estimated swe HOURLY PRODUC	\$426.60 \$426.60 TITIES 73 215 659 LCY ume: 14.5 ac x cat Hand CTION	 4.5 in depth			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 8,7 Swell factor: 1.2 Loose volume: 10 Source of estimated vol Source of estimated swe HOURLY PRODUC	\$426.60 \$426.60 TITIES 73 215 659 LCY ume: <u>14.5 ac x</u> Cat Hand CTION 150 feet	4.5 in depth			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol Source of estimated swe HOURLY PRODUC	\$426.60 \$426.60 TITIES 73 215 659 LCY ume: <u>14.5 ac x</u> Cat Hand CTION 150 feet	4.5 in depth			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 8,7 Swell factor: 1.2 Loose volume: 10 Source of estimated vol Source of estimated swe HOURLY PRODUC	\$426.60 \$426.60 TITIES 73 215 .659 LCY ume: <u>14.5 ac x</u> Cat Hand CTION 150 feet uction: <u>634.3 LCY</u>	4.5 in depth			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol Source of estimated swo HOURLY PRODUC Average push distance: Unadjusted hourly prod	\$426.60 \$426.60 TITIES 73 215 .659 LCY ume: <u>14.5 ac x</u> Cat Hand CTION 150 feet uction: <u>634.3 LCY</u>	4.5 in depth book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol Source of estimated vol Source of estimated swo HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d	\$426.60         \$426.60         TITIES         73         215         659 LCY         ume:       14.5 ac x         cat Hand         Cat Hand         CTION         uction:       150 feet         634.3 LCY/         escription:       Consol	4.5 in depth book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol Source of estimated vol Source of estimated swo HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient:	\$426.60 \$426.60 TITIES 73 73 75 659 LCY ume: 14.5 ac x Cat Hand CTION uction: 150 feet 634.3 LCY escription: Consol 5 %	4.5 in depth book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 8,7 Swell factor: 1.2 Loose volume: 10 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude:	\$426.60 \$426.60 TITIES 73 73 73 73 73 73 73 73 73 73	4.5 in depth book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 8,7 Swell factor: 1.2 Loose volume: 10 Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight:	\$426.60 \$426.60 TITIES 73 73 73 73 73 73 73 73 73 73	4.5 in depth book			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description:	$ \frac{$426.60}{$426.60} $ TITIES 73 73 73 75 75 75 75 75 75 75 75 75 75 75 75 75	4.5 in depth book	  pile 1.0		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol Source of estimated vol Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operato	\$426.60         \$426.60         \$426.60         TITIES         73         215 $659$ LCY         ume:       14.5 ac x         cat Hand         CTION         uction:       150 feet         634.3 LCY/         escription:       Consol $-5 \%$ 5,700 feet         1,600 lbs/LCY         Top Soil         on Factor         r Skill:       1.         stency:       1.	 4.5 in depth lbook /hr idated stockp	  pile 1.0  <u></u>		
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>8,7</u> Swell factor: <u>1.2</u> Loose volume: <u>10</u> Source of estimated vol Source of estimated vol Source of estimated swo HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Material consist Doperato	\$426.60         \$426.60         TITIES         73         215 <b>659</b> LCY         ume:       14.5 ac x         cat Hand         CTION         uction:       150 feet         634.3 LCY/         escription:       Consol $-5 %$ 5,700 feet         1,600 lbs/LCY       Top Soil         on Factor       r         r Skill:       1.         estency:       1.         nethod:       1.	 4.5 in depth lbook /hr idated stockp 			

Task # 002

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.900	(SSD-FC)
Push gradie	nt: 1.115	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 1.438	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction	on: <u>1.3175</u>	
Adjusted unit production:	835.69 LCY/hr	
Adjusted fleet production:	835.69 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$0.510/LCY

Total job time:	<b>12.75</b> Hours
Total job cost:	\$5,441

## BULLDOZER RIPPING WORK

	: Dill Pit		Permit Action:	2023 Calculat	ion Per	mit/Job#: <u>M</u>	2009077
	PROJECT ID	ENTIFICATI					
	Task #: 003		State: Colorado		Abbra	viation: No	no
		//2023	County: Elbert				077-003
	User: JR2		J				
	Agency	or organization	name: DRMS				
	HOURLY EQ	-					
					II	210	
	Ripper Att		t D8T - 8SU Shank Ripper		Horsepower:	310 1 per da	
	Ripper Au				Data Source:	(CRG)	
	Cost Breakdown:					()	<u> </u>
	COSt Dicardown	<u>-</u>			Utilization %		
		Ownership C	ost/Hour:	\$241.38	NA		
		Operating C		\$143.92	100		
		er Ownership C			NA		
	Ripp	per Operating C			100		
		Operator Co		\$41.30	NA		
		Total Unit Co	ost/Hour:	\$448.16			
		Total Fleet C	ost/Hour: \$448	.16			
	MATERIAL (	<b>JUANTITIES</b>	Sele	cted estimating	g method: Area		
	Alternate Method				,		
•		<u></u>	D. 1 V.1	NT A	DCV	NT A	
smic: Area:	NA 8.50	acres	Bank Volume: _ Rip Depth (ft):	NA 1.50	BCY Volume: 20	NA ,570	BCY or
Alca.	8.50					,570	BC1 01
		Course of activ	mated quantity. Pit floo				
		Source of estin	mated quantity:Pit floo	r and internal h	aul roads		
	HOURLY PR			r and internal h	aul roads		
				r and internal h	aul roads		
	HOURLY PRO	ODUCTION	Seismic Velocity:	n and internal n	naul roads feet/secor	nd	
	<u>Seismic:</u>	ODUCTION				nd	
		ODUCTION	Seismic Velocity:	NA	feet/seco	nd	
	<u>Seismic:</u>	ODUCTION Averag	Seismic Velocity:		feet/secor	nd	
	<u>Seismic:</u>	<b>ODUCTION</b> Averag Averag	Seismic Velocity:	NA 2.56	feet/seco	nd	
	<u>Seismic:</u>	ODUCTION Averag Averag Average Average	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed:	NA 2.56 7.08 200.00 88.00	feet/secon feet/pass feet/pass		
	<u>Seismic:</u>	ODUCTION Averag Averag Average Aver Aver	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: gage Dozer Speed: b Maneuver Time:	NA 2.56 7.08 200.00 88.00 0.25	feet/secon feet/pass feet/pass feet/pass feet/minu minutes/p	te ass	
	<u>Seismic:</u>	ODUCTION Averag Averag Average Aver Aver	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed:	NA 2.56 7.08 200.00 88.00	feet/secon feet/pass feet/pass feet/pass feet/pass feet/minu	te ass	
	<u>Seismic:</u>	ODUCTION Averag Averag Average Aver Average Produc	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed: e Maneuver Time: tion per unit area:	NA 2.56 7.08 200.00 88.00 0.25	feet/secon feet/pass feet/pass feet/pass feet/minu minutes/p	te ass	
	<u>Seismic:</u> <u>Area:</u> Job Condition Co	ODUCTION Average Average Average Average Produc Drrection Factors	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed: e Maneuver Time: tion per unit area:	NA 2.56 7.08 200.00 88.00 0.25 0.773	feet/secon feet/pass feet/pass feet/pass feet/minu minutes/p	te ass	
	<u>Seismic:</u> <u>Area:</u> Job Condition Co	ODUCTION Average Average Average Average Produc Drrection Factors	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed: e Maneuver Time: tion per unit area: g	NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773	feet/secor feet/pass feet/pass feet/pass feet/minu minutes/p acres/hou Acres/hr	te ass	
	<u>Seismic:</u> <u>Area:</u> Job Condition Co	ODUCTION Average Average Average Average Produc Drrection Factors	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed: e Maneuver Time: tion per unit area:	NA 2.56 7.08 200.00 88.00 0.25 0.773	feet/secon feet/pass feet/pass feet/pass feet/minu minutes/p acres/hou	te vass r	
	<u>Seismic:</u> <u>Area:</u> Job Condition Co	ODUCTION Average Average Average Average Produc Drrection Factors	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed: e Maneuver Time: tion per unit area: g v Unit Production: Site Altitude:	NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 5,700 1.00 0.83	feet/secon feet/pass feet/pass feet/pass feet/minu minutes/p acres/hou Acres/hr feet	te ass r	
	<u>Seismic:</u> <u>Area:</u> Job Condition Co	ODUCTION Average Average Average Average Produc Drrection Factors	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed: e Maneuver Time: tion per unit area: a v Unit Production: Site Altitude: Altitude Adj:	NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 5,700 1.00	feet/secon feet/pass feet/pass feet/pass feet/pass feet/minu minutes/p acres/hou Acres/hr feet (CAT HE	te ass r ) ny)	
	<u>Seismic:</u> <u>Area:</u> Job Condition Co	ODUCTION Average Average Average Average Produc Orrection Factors hadjusted Hourly	Seismic Velocity: ge Ripping Depth: te Ripping Width: e Ripping Length: tage Dozer Speed: e Maneuver Time: tion per unit area: tion per unit area: v Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction:	NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 5,700 1.00 0.83 0.83	feet/secon feet/pass feet/pass feet/pass feet/pass feet/minu minutes/p acres/hou Acres/hr feet (CAT HE (1 shift/da multiplier	te ass r ) ny)	
	<u>Seismic:</u> <u>Area:</u> Job Condition Co	ODUCTION Average Average Average Produc orrection Factors hadjusted Hourly	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed: e Maneuver Time: tion per unit area: tion per unit area: y Unit Production: Site Altitude: Altitude Adj: Job Efficiency:	NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 5,700 1.00 0.83	feet/secon feet/pass feet/pass feet/pass feet/minu minutes/p acres/hou Acres/hr feet (CAT HE (1 shift/da	te ass r ) ny)	
	<u>Seismic:</u> <u>Area:</u> <u>Job Condition Co</u> Un	ODUCTION Average Average Average Produc Orrection Factors hadjusted Hourly Adjusted	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed: b Maneuver Time: tion per unit area: tion per unit area: y Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction: Hourly Unit Production:	NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 5,700 1.00 0.83 0.83 0.64	feet/secon feet/pass feet/pass feet/pass feet/pass feet/minu minutes/p acres/hou Acres/hr feet (CAT HE (1 shift/da multiplier Acres/hr	te ass r ) ny)	
	<u>Seismic:</u> <u>Area:</u> <u>Job Condition Co</u> Un <u>JOB TIME AN</u>	ODUCTION Average Average Average Produc Orrection Factors hadjusted Hourly Adjusted Adjusted	Seismic Velocity: ge Ripping Depth: te Ripping Width: e Ripping Length: age Dozer Speed: e Maneuver Time: tion per unit area: tion per unit area: v Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction: Hourly Unit Production: Hourly Fleet Production:	NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 5,700 1.00 0.83 0.83 0.64 0.64	feet/secon feet/pass feet/pass feet/pass feet/minu minutes/p acres/hou Acres/hr feet (CAT HE (1 shift/da multiplien Acres/hr Acres/hr	te pass r ) ) ) ) ) )	Hours
	<u>Seismic:</u> <u>Area:</u> <u>Job Condition Co</u> Un	ODUCTION Average Average Average Produc Orrection Factors hadjusted Hourly Adjusted	Seismic Velocity: ge Ripping Depth: ge Ripping Width: e Ripping Length: age Dozer Speed: b Maneuver Time: tion per unit area: tion per unit area: y Unit Production: Site Altitude: Altitude Adj: Job Efficiency: Net Correction: Hourly Unit Production:	NA 2.56 7.08 200.00 88.00 0.25 0.773 0.773 5,700 1.00 0.83 0.83 0.64 0.64	feet/secon feet/pass feet/pass feet/pass feet/pass feet/minu minutes/p acres/hou Acres/hr feet (CAT HE (1 shift/da multiplien Acres/hr Acres/hr acres/hr	te ass r ) ny)	Hours

# **REVEGETATION WORK**

r	Fask descrip	otion:	Revegetate 14.5 acres			_
Site:	Dill Pit		Permit Action	n: 2023 Calculation	Permit/Jol	o#: <u>M2009077</u>
<u>P</u>	ROJECT	IDENTIFIC	ATION			
	Task #:	004	State: Colorado	0	Abbreviation:	None
	Date:	7/19/2023	County: Elbert		Filename:	M077-004
	User:	JR2				

## **FERTILIZING**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
0-20-20, 4-8-12, 10-10-10	40.00	pound	\$0.62	\$24.80
			Total Fertilizer Materials	
			Cost/Acre	\$24.80

#### **Application**

Description		Cost /Acre
Tractor towed spreader (MEANS 32 01 90.13 0120)		\$41.82
	Total Fertilizer Application Cost/Acre	\$41.82

## **TILLING**

Description		Cost /Acre
Chisel plowing {DMG}		\$100.40
Weed control spraying (MEANS 31 31 16.13 3100)		\$338.80
	<b>Total Tilling Cost/Acre</b>	\$439.20

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Blue Grama - Native	2.00	32.64	\$27.45
Little Bluestem - Cimarron	2.00	11.94	\$24.97
Prairie Clover, Purple - Kaneb	0.25	1.71	\$14.13
Sideoats Grama - El Reno	2.00	6.57	\$16.75
Sand Bluestem - Woodward	1.00	2.59	\$21.17
Prairie Sandreed - Goshen	2.00	12.53	\$20.70
Totals Seed Mix	9.25	67.98	\$125.16

Application

Description		Cost /Acre
Drill Seeding (DRMS Survey Cost)		\$232.00
	Total Seed Application Cost/Acre	\$232.00

### **MULCHING and MISCELLANEOUS**

#### Materials

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

Application

Description		Cost /Acre
Weed spray, hand, non-aquatic area, nox. [DMG]		\$183.16
	Total Mulch Application Cost/Acre	\$183.16

### NURSERY STOCK PLANTING

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

No. of Acres:	14.5	Cost /Acre:	\$1,046.14
Estimated Failure Rate:	25%	Cost /Acre*:	\$357.16
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$15,169.03
Reseeding Job Cost:	\$1,294.71
Total Job Cost:	\$16,464
Job Hours:	7.25

# **REVEGETATION WORK**

	ask descript Dill Pit				it floor and W pit wal 2023 Calculation	Permit/Jo	b#: <u>M2009077</u>
<u>PR</u>	<u>OJECT I</u>	DENTIFIC	ATION				
	Task #:	004B	State:	Colorado		Abbreviation:	None
	Date:	8/11/2023	County:	Elbert		Filename:	M077-004b
	User:	AME					

## **FERTILIZING**

#### Materials

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

## Application

Description	Cost /Acre
	\$
Total 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
			\$
Totals Seed Mix	0.00	0.00	\$0.00

## Application

Description	Cost /Acre
	\$

# Total Seed Application Cost/Acre\$0.00

## **MULCHING and MISCELLANEOUS**

#### Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$429.79	\$859.57
<b>Total Mulch Materials Cost/Acre</b>				\$859.57

### **Application**

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
	<b>Total Mulch Application Cost/Acre</b>	\$74.46

#### **NURSERY STOCK PLANTING**

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

No. of Ac	res: 4.3	Cost /Acre: \$934.03
Estimated Failure R	ate: 0%	Cost /Acre*: \$0.00
*Selected Replanting Work Ite	ms: NONE	
Initial Job Cost: <b>\$4,016.33</b>		_
Reseeding Job Cost: <b>\$0.00</b>		
Total Job Cost: \$4,016		
Job Hours: <b>2.00</b>		_

# EQUIPMENT MOBILIZATION/DEMOBILIZATION

	1110	bilization/Demob					
Dill Pit		Permit	Action: <u>2023</u>	Calculatio	<u>n</u>	Permit/Job#: <u>M</u>	2009077
PROJECT IDEN	NTIFICATI	<u>ON</u>					
Task #: 005		State: Co	olorado		Abbre	eviation: None	
Date: 7/19 User: JR2	9/2023	County: El	bert		Fi	ilename: M077	-005
Agency of	or organization	n name: DRMS					
EQUIPMENT T	RANSPOR	<u>T RIG COST</u>					
				(	Shift ba Cost Data Sour	<b>i</b>	
Truck	Tractor Desc	ription: GENE	RIC ON-HIGH		JCK TRACTO (2ND HALF,	OR, 6X4, DIESEL 2006)	POWERED,
Trucl	k Trailer Desc	ription: G				ROP DECK EQU	IPMENT
Truch Cost Breakdown:	k Trailer Desc	ription: G			SENECK, DF	ROP DECK EQU	IPMENT
Cost Breakdown: Available Rig Ca	apacities	0-25 Tons	26-50 Tons	TRAILER	DSENECK, DF (25T, 50T, AN ► Tons	ROP DECK EQU	IPMENT
Cost Breakdown: Available Rig Ca Ownership	<b>apacities</b> Cost/Hour:	<b>0-25 Tons</b> \$20.26	<b>26-50 Tons</b> \$36.04	<u>FRAILER</u> 51- \$4	DSENECK, DF (25T, 50T, AN + Tons 47.05	ROP DECK EQU	IPMENT
Cost Breakdown: Available Rig Ca Ownership Operating	apacities Cost/Hour: Cost/Hour:	0-25 Tons \$20.26 \$39.51	<b>26-50 Tons</b> \$36.04 \$76.08	<u>FRAILER</u> 51- \$2 \$8	DSENECK, DF (25T, 50T, AN + Tons 47.05 32.85	ROP DECK EQU	IPMENT
<u>Cost Breakdown:</u> Available Rig Ca Ownership Operating Operator	apacities Cost/Hour: Cost/Hour: Cost/Hour:	<b>0-25 Tons</b> \$20.26 \$39.51 \$22.52	<b>26-50 Tons</b> \$36.04 \$76.08 \$22.52	<u>FRAILER</u> 51- \$2 \$8 \$2	DSENECK, DF (25T, 50T, AN + Tons 47.05 82.85 22.52	ROP DECK EQU	IPMENT
<u>Cost Breakdown:</u> Available Rig Ca Ownership Operating Operator Helper	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	0-25 Tons \$20.26 \$39.51 \$22.52 \$0.00	<b>26-50 Tons</b> \$36.04 \$76.08 \$22.52 \$23.53	State           51-           \$4           \$4           \$2           \$2           \$2           \$2           \$2	DSENECK, DF (25T, 50T, AN + Tons 47.05 32.85 22.52 23.53	ROP DECK EQU	IPMENT
<u>Cost Breakdown:</u> Available Rig Ca Ownership Operating Operator Helper	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	0-25 Tons           \$20.26           \$39.51           \$22.52           \$0.00           \$82.29	<b>26-50 Tons</b> \$36.04 \$76.08 \$22.52	State           51-           \$4           \$4           \$2           \$2           \$2           \$2           \$2	DSENECK, DF (25T, 50T, AN + Tons 47.05 82.85 22.52	ROP DECK EQU	IPMENT
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN	0-25 Tons \$20.26 \$39.51 \$22.52 \$0.00 \$82.29 MENT:	<b>26-50 Tons</b> \$36.04 \$76.08 \$22.52 \$23.53 \$158.17	S1-           \$4           \$4           \$4           \$2           \$1-           \$4           \$5           \$5           \$1-	DSENECK, DF (25T, 50T, AN + Tons 47.05 32.85 22.52 23.53 75.95	ROP DECK EQU	DOT Permit
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	0-25 Tons           \$20.26           \$39.51           \$22.52           \$0.00           \$82.29	<b>26-50 Tons</b> \$36.04 \$76.08 \$22.52 \$23.53	State           51-           \$4           \$4           \$2           \$2           \$2           \$2           \$2	DSENECK, DF (25T, 50T, AN + Tons 47.05 32.85 22.52 23.53	ROP DECK EQU	IPMENT DOT Permit Cost/ fleet
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB Machine	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN Weight/ Unit	0-25 Tons           \$20.26           \$39.51           \$22.52           \$0.00           \$82.29             MENT:           Owner ship	26-50 Tons \$36.04 \$76.08 \$22.52 \$23.53 \$158.17 Haul Rig Cost/hr/uni	S1-           \$2           \$2           \$2           \$2           \$1-           \$2           \$2           \$1           \$1           \$1           \$2           \$1           \$1	DSENECK, DF (25T, 50T, AN <b>Tons</b> 47.05 32.85 22.52 23.53 75.95 Haul Trip Cost/hr/	ROP DECK EQU	DOT Permit
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB Machine Description Drill/Broadcast Seeder with	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPM Weight/ Unit (TONS)	0-25 Tons           \$20.26           \$39.51           \$22.52           \$0.00           \$82.29           MENT:           Owner ship           Cost/hr/ unit	26-50 Tons \$36.04 \$76.08 \$22.52 \$23.53 \$158.17 Haul Rig Cost/hr/uni t	S1-           \$2           \$2           \$2           \$1           \$2           \$1           \$2           \$1           \$1           \$2           \$1           \$1           \$1           \$2	DSENECK, DF (25T, 50T, AN <b>Tons</b> 47.05 32.85 22.52 23.53 75.95 Haul Trip Cost/hr/ fleet	ROP DECK EQU ND 100T) Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet

## **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x2, 1/2 T.	\$14.82	1	\$14.82	\$14.82
		Subtotals:	\$14.82	\$14.82

## **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	COLORADO SPRINGS	_
Total one-way travel distance:	70.00	miles
Average Travel Speed:	65.00	mph
Total Non-Roadable Mob/Demob Cost *	\$3,718.12	
<b>'*</b> two round trips with haul rig:		_
Total Roadable Mob/Demob Cost **	\$31.92	
** one round trip, no haul rig:	\$51.92	_

Transportation Cycle Time:

	Non- Roadable Equipment	Roadable Equipment
Haul Time (Hours):	1.08	1.08
Return Time (Hours):	1.08	1.08
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	3.15	2.15

### JOB TIME AND COST

Total job time: 6.31 Hours

Total job cost: \$3,750