

October 18, 2024

John M. Warren Connell Resources, Inc. 7785 Highland Meadows Parkway, Suite 100 Fort Collins, Co 80528

#### Re: 5J Pit – File No. M-2024-032 Connell Resources, Inc. 112c Construction Materials Reclamation Application

Dear John M. Warren:

On October 18, 2024 the Division of Reclamation, Mining and Safety concluded its review of the Construction Materials Reclamation Permit Application submitted to the Division on June 25, 2024. The decision reached by the Division is: Awaiting warranty. The amount of financial warranty set by the Division for this operation is \$186,050.00. You must submit a financial warranty in this amount and a performance warranty in order for us to issue a permit. In the event you have requested a financial warranty form, we will provide you with the applicable form. If you have not, please select a type of financial warranty form. We have enclosed a performance warranty form with this letter for your use.

### PLEASE NOTE THAT MINING OPERATIONS MAY NOT COMMENCE UNTIL A PERMIT HAS BEEN ISSUED BY THE DIVISION AFTER RECEIPT OF YOUR FINANCIAL AND PERFORMANCE WARRANTIES. A PERMIT CANNOT BE ISSUED UNTIL WE HAVE VERIFIED THE ADEQUACY OF YOUR FINANCIAL AND PERFORMANCE WARRANTIES.

M-2024-032: Approved Surety a	and Acreage
Reclamation Liability (Required Surety):	\$186,050.00
Approved Permit Acreage:	56.40
Approved Affected Acreage:	56.40

If you have any questions, please contact me by telephone at (720) 812-2002, or by email at Joel.renfro@state.co.us

Sincerely,

SRinge



Joel Renfro Environmental Protection Specialist

cc: Bill Schenderlein



PERFORMANCE WARRANTY

Permittee/Operator:	Connell Resources, Inc.
Operation known as:	5J Pit

Permit Number: M-2024-032

This form is approved by the Colorado Mined Land Reclamation Board ("Board") pursuant to C.R.S. 34-32-117 of the Colorado Mined Land Reclamation Act and C.R.S. 34-32.5-117 of the Colorado Land Reclamation Act for the Extraction of Construction Materials.

All parties are on Notice from this Document that:

The above listed Operator provides this warranty to the Board in conjunction with a reclamation Permit to conduct the above described mining operation on certain lands in Colorado. The "Affected Lands" are described in the above listed reclamation Permit, and include any Permit Amendment(s) approved by the Division of Reclamation Mining and Safety ("Division").

The Colorado Mined Land Reclamation Act, C.R.S. 34-32-101 et seq. ("Hard Rock Act"), and the Colorado Land Reclamation Act for the Extraction of Construction Materials, C.R.S. 34-32.5-101 et seq. ("Construction Materials Act"), both require a permit issued by the Board to include a written promise by the Operator to comply with all requirements of the Hard Rock and Construction Materials Acts (referred to herein together as "Acts").

Through the terms and conditions of this performance warranty and Permit, the Operator agrees to be bound by all requirements of the Acts and all Mineral Rules and Regulations of the Board for Hard Rock, Metal, and Designated Mining Operations (2 C.C.R. 407-1) and all Mineral Rules and Regulations of the Board for the Extraction of Construction Materials (2 C.C.R. 407-4) (referred to herein together as "Rules").

The Operator hereby provides the Board warranties of performance pursuant to C.R.S. 34-32-117(2), (3), and (4)/C.R.S. 34-32.5-117(2), (3), and (4), and promises the Board it will comply with all applicable requirements of the Acts and Rules.

The Operator hereby promises the Board it will comply with all of the terms of the reclamation Permit, including any Permit Amendment(s) approved by the Division. This performance warranty obligation of the Operator shall continue until the Operator's liability is released by the Board.

The Operator promises to be responsible for reclamation costs up to the amount established by the Board and incorporates its financial warranty to this performance warranty. The Operator agrees to maintain a financial warranty (or warranties) in good standing for the reclamation costs for the entire

life of the Permit. The amount of the financial warranty shall be sufficient to assure the completion of reclamation of affected lands if the Division has to complete such reclamation due to forfeiture. If the Board determines the Operator is in default under this performance warranty and the Operator fails to cure such default, the Operator's financial warranty shall be subject to forfeiture pursuant to C.R.S. 34-32-118/34-32.5-118.

This performance warranty by the Operator is perpetual and shall remain in full force and effect until all obligations have been met and all associated financial warranty is released by the Board. Any release of liability in a succession of Operators shall comply with C.R.S. 34-32-119/34-32.5-119.

The provisions hereof shall bind and inure to the benefit of the parties hereto and their successors and assigns.

SIGNED, SEALED AND DATED this		day of		,
Operator: Connell Resources, Signature:	(date) , Inc.		(month)	(year)
Name:				
Title:				
NOTARIZA STATE OF	TION OF OPI	ERATOR'S AC	KNOWLEDGEMENT	
COUNTY OF		) 55		
The foregoing instrument was acknowledged before me this		day of		,
by:	(date) as		(month) of Connell Resource	(year) es, Inc.
(name)		(title)	(Operat	.or)
Notary Public:				
My Commission Expires				
APPROVED:				
State of Colorado				
Mined Land Reclamation Boar	d			
Division of Reclamation, Minir	ng and Safety			
By: Michael A. Cunningham			Date Executed:	
<b>Division Director</b>				

## COST SUMMARY WORK

ſ	Task descrip	otion:	Cost Summary					
Site:	5J Pit		Pe	rmit Action:	New Permit	Permit/Jol	o#: <u>M2024032</u>	
<u>P</u> ]	ROJECT Task #: Date: User:	1DENTIFIC 000 10/15/2024 JR2	ATION State: County:	Colorado Larimer		Abbreviation: Filename:	None M032-000	

Agency or organization name: DRMS

#### TASK LIST (DIRECT COSTS)

Task	Description	Form	Fleet	Task Hours	Cost
001	Aspect A - Doze active mine face to 3H:1V	DOZER	2	5.91	\$3.820
002	Aspect A - Backfill pit side sloped to 3H:1V	DOZER	2	11.83	\$7,641
003	Aspect A - Rough grade	DOZER	2	7.31	\$4,722
004	Aspect A - Place growth medium	SCRAPER1	1	12.42	\$22,710
005	Aspect A - Final grade	DOZER	2	7.31	\$4,722
006	Aspect B - Scarify Pit floor	RIPPER	2	6.02	\$4,166
007	Aspect B - Rough grade	DOZER	2	6.64	\$4,292
008	Aspect B - Place growth medium	SCRAPER1	1	13.69	\$25,033
009	Aspect B - Final grade	DOZER	2	8.06	\$5,205
010	Aspect C - Place growth medium	SCRAPER1	1	10.02	\$18,324
011	Aspect C - Final grade	DOZER	2	5.90	\$3,809
012	Aspect D - Scarify employee areas	RIPPER	2	1.50	\$1,041
013	Aspect D - Rough grade	DOZER	2	1.66	\$1,073
014	Aspect D - Place growth medium	SCRAPER1	1	1.41	\$2,580
015	Aspect D - Final grade	DOZER	2	1.66	\$1,073
016	Seed all disturbed areas	REVEGE	1	48.30	\$22,808
017	Re-seed 20% of disturbed areas	REVEGE	1	9.70	\$4,545
018	Mob/Demob	MOBILIZE	1	5.60	\$12,942
		<u>SUBTC</u>	DTALS:	164.94	\$150,506

#### **INDIRECT COSTS**

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

Liability insurance:	2.02	Total =	\$3,040
Performance bond:	1.05	Total =	\$1,580
Job superintendent:	82.47	Total =	\$6,537
Profit:	10.00	Total =	\$15,051
		TOTAL O & P =	\$26,209
		CONTRACT AMOUNT (direct + O & P) = $($	\$176,715

#### LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs):	\$500	Total =	\$500
Engineering work and/or contract/bid preparation:	0.00	Total =	\$0
Reclamation management and/or administration:	5.00		\$8,836
CONTINGENCY:	0.00	Total =	\$0

TOTAL BOND AMOUNT (direct + indirect) = \_\_\_\_\_\$186,050

	Aspect II - Doze	active infine			
5J Pit	Per	mit Action:	New Permit	Permit/Job#:	M2024032
PROJECT IDENTIF	ICATION				
Task #:     001       Date:     10/15/2024       User:     JR2	State: 4 County:	Colorado Larimer		Abbreviation: Filename:	None 001
Agency or orga	nization name: DF	RMS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Cat	t D8T - 8SU				
Horsepower: <u>310</u>	0				
Blade Type: Ser	mi-Universal				
Attachment: NA	1				
Shift Basis: <u>1 p</u>	ber day				
Data Source: (CI	KG)		_		
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$173.32	NA		
Operating Cost/Hour:		\$109.71	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$40.04	NA		
Total Fleet Cost/Hour: MATERIAL QUANT	_\$646.13 <u>FITIES</u>				
Total Fleet Cost/Hour: <u>MATERIAL QUANT</u> Initial Volume: <u>6,25</u> Swell factor: 1.12	\$646.13 FITIES 50 25				
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03	\$646.13 <u>FITIES</u> 50 25 51 LCY				
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volume	\$646.13 <u>FITIES</u> 50 25 51 LCY main Operator				
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu:       Source of estimated swell	\$646.13 <u>EITIES</u> 50 25 51 LCY me: <u>Operator</u> 1 factor: Cat Hand	Estimate			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu         Source of estimated swel	\$646.13           CITIES           50           25           51 LCY           me:         Operator           I factor:         Cat Hand	Estimate book			
Total Fleet Cost/Hour:         MATERIAL QUAN1         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu         Source of estimated swel         HOURLY PRODUCT	\$646.13 TITIES 50 25 31 LCY me: Operator 1 factor: Cat Hand TION	Estimate book			
Total Fleet Cost/Hour:         MATERIAL QUAN1         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu         Source of estimated swel         HOURLY PRODUCT	\$646.13 <u>EITIES</u> 50 25 51 LCY me: <u>Operator</u> 1 factor: <u>Cat Hand</u> <u>TION</u>	 Estimate book			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu:       Source of estimated volu:         Source of estimated swel       HOURLY PRODUCT         Average push distance:       1	\$646.13 <u>EITIES</u> 50 25 50 LCY me: <u>Operator</u> 1 factor: <u>Cat Hand</u> <u>TION</u> <u>50 feet</u>	 Estimate book			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu       Source of estimated swel         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Column	\$646.13           CITIES           50           25           31 LCY           me:         Operator           1 factor:         Cat Hand           TION           ction:         50 feet           1,400.0 LC	Estimate book			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu         Source of estimated swel         HOURLY PRODUCT         Average push distance:         Unadjusted hourly produced         Materials consistency destances	\$646.13           CITIES           50           25           31 LCY           me:         Operator           1 factor:         Operator           Cat Hand           TION           ction:         50 feet           ction:         1,400.0 LC           scription:         Consol	 Estimate book Y/hr idated stockr	  bile 1.0		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu:       Source of estimated volu:         Source of estimated swel       HOURLY PRODUCT         Average push distance:       Unadjusted hourly product         Materials consistency des       Average push gradient:         Average site altitude:       State	\$646.13         EITIES         50         25         31 LCY         me:       Operator         1 factor:       Cat Hand         TION         ction:       50 feet         1,400.0 LC         scription:       Consol         10 %         5,410 feet	 Estimate book Y/hr idated stockp	  pile 1.0		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu       Source of estimated volu         Source of estimated swel       HOURLY PRODUC?         Average push distance:       Unadjusted hourly produced         Materials consistency des       Average site altitude:         Material weight:       Material weight:	\$646.13         CITIES         50         25         51 LCY         me:       Operator         1 factor:       Cat Hand         TION         ction:       50 feet	 Estimate book Y/hr idated stockp	  bile 1.0		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu         Source of estimated volu         Source of estimated swel         HOURLY PRODUCT         Average push distance:         Unadjusted hourly produ         Materials consistency des         Average site altitude:         Material weight:         Weight description:	\$646.13         EITIES         50         25         31 LCY         me:       Operator         1 factor:       Cat Hand         TION         ction:       50 feet         ction:       1,400.0 LC         scription:       Consol         10 %       5,410 feet         2,650 lbs/LCY       Decomposed rock	 Estimate book Y/hr idated stockp  - 25% Rock,	 		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu       Source of estimated volu         Source of estimated volu       Source of estimated swel         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency des         Average push gradient:       Average site altitude:         Material weight:       Weight description:         Job Condition Correction       Source content of the section	\$646.13           EITIES           50           25           31 LCY           me:         Operator           1 factor:         Cat Hand           TION           ction:         50 feet           ction:         1,400.0 LC           scription:         Consol           10 %         5,410 feet           2,650 lbs/LCY         Decomposed rock           n Factor         Factor	 Estimate book Y/hr idated stockp  - 25% Rock,	 		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu:       Source of estimated volu:         Source of estimated volu:       Source of estimated swel         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency des         Average push gradient:       Average site altitude:         Material weight:       Weight description:         Job Condition Correction       Operator	\$646.13           EITIES           50           25           31 LCY           me:         Operator           1 factor:         Cat Hand           TION           ction:         50 feet           1,400.0 LC           scription:         Consol           10 %         5,410 feet           2,650 lbs/LCY         Decomposed rock           n Factor         Skill:         0.	 Estimate book Y/hr idated stockp  - 25% Rock, 750			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu       Source of estimated volu         Source of estimated swel       HOURLY PRODUCT         Average push distance:       Unadjusted hourly product         Materials consistency des       Average push gradient:         Average site altitude:       Material weight:         Weight description:       Job Condition Correction         Operator       Material consist	\$646.13         CITTIES         50         25         31 LCY         me:       Operator         1 factor:       Cat Hand         TION         ction:       50 feet         ction:       50 feet         ction:       Consol	 Estimate book Y/hr idated stockp  - 25% Rock, 750 000			
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,25         Swell factor:       1.12         Loose volume:       7,03         Source of estimated volu       Source of estimated volu         Source of estimated swel       HOURLY PRODUC?         Average push distance:       Unadjusted hourly produ         Materials consistency des       Average push gradient:         Average site altitude:       Material weight:         Weight description:       Job Condition Correction         Operator       Material consist         Dozing me       Dozing me	\$646.13         CITTIES         50         25         31 LCY         me:       Operator         1 factor:       Cat Hand         TION         ction:       50 feet         ction:       50 feet         ction:       1,400.0 LC         scription:       Consol         10 %	 Estimate book Y/hr idated stockp  - 25% Rock, 750 000 000			

Task # 001

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4247	
Adjusted unit production: 59	4.58 LCY/hr	
Adjusted fleet production: 11	89.16 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.543/LCY

Total job time:	<b>5.91</b> Hours
Total job cost:	\$3,820

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5J Pit	Per	mit Action:	New Permit	Permit/Job#:	M2024032
PROJECT IDENTI	FICATION				
Task #· 002	State	Colorado		Abbreviation:	None
Date: $10/15/202$	4 County:	Larimer		Filename:	M032-002
User: $JR2$	<u> </u>	Laminer		i nename.	11052 002
Agency or orga	anization name: DF	RMS			
HOURLY EQUIPM	ENT COST				
Basic Machine: <u>Ca</u>	at D8T - 8SU				
Horsepower: <u>31</u>	.0				
Blade Type: Se	emi-Universal				
Attachment: NA	A				
Data Source: (C	Per day				
	/NU)				
Cost Breakdown:		I	<b>.</b>		
		¢172.22	Utilization %		
Ownership Cost/Hour:		\$1/5.32	<u>NA</u>		
Ripper own Cost/Hour:		\$109.71 \$0.00	100 NA		
Ripper on Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$40.04			
Initial Volume: 12	500				
Swell factor: 11	25				
Loose volume: 14.	063 LCY				
	0				
Source of estimated volu	Ime: Operator	Estimate hook			
source of estimated swe		UUUK			
HOURLY PRODUC	TION				
HOURLY PRODUC	<u>TION</u>				
HOURLY PRODUC Average push distance:	<u>50 feet</u>				
HOURLY PRODUC Average push distance: Unadjusted hourly produ	<u>50 feet</u> (1,400.0 LC	Y/hr			
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de	TION 50 feet action: 1,400.0 LC escription: <u>Consol</u>	Y/hr idated stockp			
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	<u>50 feet</u> uction: <u>1,400.0 LC</u> escription: <u>Consol</u>	Y/hr idated stockp			
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	<u>50 feet</u> action: <u>1,400.0 LC</u> escription: <u>Consol</u> <u>10 %</u> 5,410 feet	Y/hr idated stockp	 bile 1.0		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	<u>50 feet</u> action: <u>1,400.0 LC</u> escription: <u>Consol</u> <u>10 %</u> <u>5,410 feet</u>	Y/hr idated stockp	 bile 1.0		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight:	2000       50 feet         action:       1,400.0 LC         escription:       Consol         10 %       5,410 feet         2,650 lbs/LCY	Y/hr idated stockp 	 bile 1.0		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description:	50 feet           action:         1,400.0 LC           escription:         Consol           10 %         5,410 feet           2,650 lbs/LCY         Decomposed rock	Y/hr idated stockp  - 25% Rock,			
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description:	50 feet           action:         1,400.0 LC           escription:         Consol           10 %	Y/hr idated stockp 	bile 1.0		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: <u>Iob Condition Correction</u> Operator	$\begin{array}{r} \underline{\text{TION}} \\ \underline{50 \text{ feet}} \\ \underline{1,400.0 \text{ LC}} \\ \underline{\text{escription:}} \\ \underline{10 \%} \\ \underline{5,410 \text{ feet}} \\ \underline{2,650 \text{ lbs/LCY}} \\ \underline{\text{Decomposed rock}} \\ \underline{\text{n Factor}} \\ \underline{\text{skill:}} \\ \underline{0.} \\ 0.$	Y/hr idated stockp 	bile 1.0 , 75% Earth (AVG.)		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correctio Operator Material consis	String         50 feet           action:         1,400.0 LC           escription:         Consol           10 %	Y/hr idated stockp 	Dile 1.0 5,75% Earth (AVG.) (CAT HB) (CDN)		
HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: <u>tob Condition Correction</u> Material consis Dozing m	String         50 feet           action:         1,400.0 LC           escription:         Consol	Y/hr idated stockp - 25% Rock, 750 000 000			

Task # 002

Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.786	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4247	
Adjusted unit production: 59	4.58 LCY/hr	
Adjusted fleet production: 11	89.16 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.543/LCY

Total job time:	<b>11.83</b> Hours
Total job cost:	\$7,641

- asic seveription.	Asp	eet A - Kougi	i grade			
5J Pit		Peri	nit Action:	New Permit	Permit/Job#:	M2024032
PROJECT IDE	NTIFICATI	<u>ION</u>				
Task #:         003           Date:         10/1           User:         JR2	5/2024	State: County:	Colorado Larimer		Abbreviation: Filename:	None 003
Agency of	or organization	n name: DR	MS			
HOURLY EQU	IPMENT C	<u>OST</u>				
Basic Machine:	Cat D8T -	8SU				
Horsepower:	$\frac{310}{2}$	1				
Blade Type:	Semi-Univ	versal				
Shift Paging	NA 1 par day					
Data Source:	$\frac{1 \text{ per uay}}{(CRG)}$					
Data Source.	(CKO)					
Cost Breakdown:			I			
o			<b>0172 22</b>	<u>Utilization %</u>		
Ownership Cost/	Hour:		\$173.32	NA		
Operating Cost/	Hour:		\$109.71	<u> </u>		
Ripper own. Cost/	Hour:		\$0.00			
Constant Cost/	Hour.		\$0.00	0		
Operator Cost/	Hour:		\$40.04	NA		
MATERIAL OF	UANTITIES	5				
Initial Volume:	7.000					
Initial Volume:	7,099					
Initial Volume: Swell factor: Loose volume:	7,099 1.125 <b>7.986</b> LCY					
Initial Volume: Swell factor: Loose volume:	7,099 1.125 <b>7,986</b> LCY					
Initial Volume: Swell factor: Loose volume: Source of estimate	7,099 1.125 <b>7,986</b> LCY d volume:	Operator	Estimate (8.8	Bac x 6in)		
Initial Volume: Swell factor: Loose volume: Source of estimate	7,099 1.125 <b>7,986</b> LCY d volume: d swell factor:	Operator Cat Hand	Estimate (8.1	Зас х біп)		
Initial Volume: Swell factor: Loose volume: Source of estimate	7,099 1.125 <b>7,986</b> LCY d volume: d swell factor:	Operator Cat Hand	  Estimate (8.8 book	Зас х біп)		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate	7,099 1.125 <b>7,986</b> LCY d volume: d swell factor: <b>DUCTION</b>	Operator :Cat Hand	  Estimate (8.8 book	Sac x 6in)		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista	7,099 1.125 <b>7,986</b> LCY d volume: d swell factor: <b>DUCTION</b> unce:	Operator Cat Hand	  Estimate (8.1 book	Зас х біп) 		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate HOURLY PRO Average push dista Unadjusted hourly	7,099 1.125 <b>7,986</b> LCY d volume: d swell factor: <b>DUCTION</b> unce: production:	Operator Cat Hand 50 feet 1,400.0 LC	 Estimate (8.8 book	Зас х біп)		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate <b>HOURLY PRO</b> Average push dista Unadjusted hourly Materials consister	7,099 1.125 7,986 LCY d volume: d swell factor: DUCTION unce: production: ncy description	Operator Cat Hand 50 feet 1,400.0 LC	 Estimate (8.4 book Y/hr idated stockp	Bac x 6in)		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate <b>HOURLY PRO</b> Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud	$     \begin{array}{r}       7,099 \\       1.125 \\       7,986 LCY \\       d volume: \\       d swell factor: \\       DUCTION \\       unce: \\       production: \\       ncy description \\       de: 5,410 \\       5,410 \\       \hline       $	Operator :Cat Hand 50 feet 1,400.0 LC n:Consoli 0 feet	 Estimate (8.3 book Y/hr idated stockp	Bac x 6in)		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate <b>HOURLY PRO</b> Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud	$     \begin{array}{r}       7,099 \\       1.125 \\       7,986 LCY \\       d volume: \\       d swell factor: \\       \overline{\textbf{DUCTION}} \\       unce: \\       production: \\       ncy description \\       de: 5 % \\       \underline{5,410} \\       \underline{2,650} \\     \end{array} $	Operator :Cat Hand 	 Estimate (8.3 book Y/hr idated stockp 	Bac x 6in)		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate <b>HOURLY PRO</b> Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description	$\begin{array}{c} 7,099\\ \hline 1.125\\ \hline 7,986 LCY\\ \hline d volume:\\ d swell factor:\\ \hline d swell factor:\\ \hline DUCTION\\ \hline unce:\\ production:\\ \ ncy description\\ \hline de: 5,410\\ \hline 2,650\\ \hline a: Deccept$	Operator :Cat Hand 	 Estimate (8.3 book Y/hr idated stockp  - 25% Rock	Bac x 6in)		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate <b>HOURLY PRO</b> Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description Job Condition Cor	$     \begin{array}{r}       7,099 \\       1.125 \\       7,986 LCY \\       d volume: \\       d swell factor: \\       mce: \\       production: \\       ncy description \\       de: 5 % \\       de: 5,410 \\             2,650 \\       mce: \\       prection Factor     $	Operator Cat Hand 50 feet 1,400.0 LC n:Consoli 0 feet O lbs/LCY	 Estimate (8.4 book Y/hr idated stocky  - 25% Rock	Bac x 6in)		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate <b>HOURLY PRO</b> Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description Job Condition Corr Op	7,099 $1.125$ $7,986 LCY$ d volume: d swell factor: $DUCTION$ ance: production: acy description de: $5%$ de: $2,650$ acy description $2,650$ acy description $1000000000000000000000000000000000000$	Operator Cat Hand 50 feet 1,400.0 LCY n:Consoli  0 feet 0 lbs/LCY 0.	 Estimate (8.3 book Y/hr idated stockp  - 25% Rock	Bac x 6in)		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate <b>HOURLY PRO</b> Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description Job Condition Corr Op	7,099 1.125 7,986 LCY d volume: d swell factor: DUCTION unce: production: ncy description lient: 5 % de: 5,410 2,650 a: Decce rection Factor erator Skill: consistency:	Operator Cat Hand 50 feet 1,400.0 LC n: Consoli 0 feet 0 lbs/LCY omposed rock - 0. 1.	 Estimate (8.3 book Y/hr idated stockp  - 25% Rock, 750 000	Bac x 6in) 		
Initial Volume: Swell factor: Loose volume: Source of estimate Source of estimate <b>HOURLY PRO</b> Average push dista Unadjusted hourly Materials consister Average push grad Average site altitud Material weight: Weight description Job Condition Corr Op Material of Doz	7,099         1.125         7,986 LCY         d volume:         d swell factor:         DUCTION         ance:         production:         ncy description         de:       5,410        2,650         a:       Decorrection Factor         erator Skill:       consistency:         ing method:       1	Operator Cat Hand 50 feet 1,400.0 LC n: Consoli ) feet ) lbs/LCY omposed rock 0. 1. 1.		Bac x 6in)		

Task # 003

Job efficient	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradie	nt: 0.903	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.868	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction	on: 0.3903	
Adjusted unit production:	546.42 LCY/hr	
Adjusted fleet production:	1092.84 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.591/LCY

Total job time:	<b>7.31</b> Hours
Total job cost:	\$4,722

# SCRAPER TEAM WORK

Site: 5J Pit			Permi	t Action:	New Permit	Pern	nit/Job#:	M2024032	,
<b>PROJEC</b>	T IDEN	TIFICATION							
Task #·	004	S	State:	Colorado		Abbrev	viation	None	
Date:	10/15/2	2024 Co	unty:	Larimer		File	ename: 1	M032-004	
User:	JR2								
А	gency or o	organization name:	DRM	15					_
HOURLY	<u> EQUIP</u>	MENT_			COSTSh	ift basis: <u>1 per da</u>	<u>ay</u>		
				Equipme	ent Description				
		-5	Scraper:	Cat 631	G				
	Suppo	rt Equipment -Loa	d Area:	NA					_
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	-Dum	p Area:	Cat D8	Г - 8SU				_
	Road Mai	intenance – Motor	Grader:	NA					_
		-Water	Truck:	NA					_
Cost Breal	xdown:	Scraper Wo	rk Team		Support Equip	ment	Mainte	enance Equ	inmen
		Scraper	Do	zer	Load Area	Dump Area	Motor G	rader V	Vater ]
%Utilization-n	nachine:	100		NA	NA	100		NA	
Ownership co	ost/hour:	\$442.19		NA	NA	\$173.32		NA	
Operating co	ost/hour:	\$252.89		NA	NA	\$109.71		NA	
%Utilization	n-ripper:	NA		NA	NA	NA		NA	
Ripper own. co	ost/hour:	NA		NA	NA	\$0.00		NA	
Ripper op. co	ost/hour:	NA		NA	NA	\$0.00		NA	
Operator co	ost/hour:	\$57.52		NA	NA	\$40.04		NA	
Unit St	ubtotals:	\$752.60		NA	NA	\$323.07		NA	
Number of	of Units:	2		0	0	1		0	
Group St	ubtotals:	Work:	\$1,50	05.20	Support:	\$323.07	Ν	laint:	\$0.0
Total work	team cost	/hour: <u><b>\$1,828.27</b></u>							
MATERI	AL QUA	NTITIES							
Initial	volume:	14,197		CCY	Swell facto	or: 1.215			
Loose	volume:	17,249		LCY					
	Source of	rce of estimated vo of estimated swell	olume: _ factor:	Operator Cat Hand	Estimate (8.8ac x lbook	1ft)			_
HOURIN		ICTION	_						
HUUNLI					Scraper Bo	wl (volume) Basi	s:		
Mataria	l weight.	1.600 lbs/I.CV			Struck V	Volume: 24.00		ICV	
Material des	cription:	Top Soil			Heaped V	volume: $24.00$		- LCY	
Rated	Payload:	81,600 pounds			Average V	Volume: 29.00		LCY	
	-				U				

<u>0.80</u> Minutes

0.70 Minutes

#### Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 5410 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

#### Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: **0.43** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15
				Return Time:	0.15	ninutes
			Total Scraper	team cycle time:	2.08	minutes
			Adjusted f	or job conditions:	694.33	LCY/Hour
			Selected Nu	mber of Scrapers:	2	Scraper(s)
	Adjusted	l single scrap	er team (unit) h	ourly production:	1,388.65	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) h	ourly production:	1,388.65	LCY/Hour
Optimal	Unadjusted unit proo Number of Scrapers pe	luction/hour: r push dozer:	836.54	LCY/Hour		
JOB TI	ME AND COST					

Fleet size:	1	Team(s)	Total job time:	12.42	Hours
Unit cost:	\$1.317	/LCY	Total job cost:	\$22,710	

rusk desemption.	Inspect II I mar	Since			
5J Pit	Perr	nit Action:	New Permit	Permit/Job#:	M2024032
PROJECT IDENTIF	<b>ICATION</b>				
Task #:         005           Date:         10/15/2024           User:         JR2	State: County:	Colorado Larimer		Abbreviation: Filename:	None M032-005
Agency or orga	nization name:	MS			
HOURLY EQUIPME	ENT COST				
Basic Machine:	t D8T - 8SU				
Horsepower: 310	)				
Blade Type: Ser	mi-Universal				
Attachment: NA	1				
Shift Basis: <u>1 p</u>	er day				
Data Source: (CI	KU)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$173.32	NA		
Operating Cost/Hour:		\$109.71	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$40.04	NA		
Total Fleet Cost/Hour: MATERIAL QUANT	\$323.07 \$646.13				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume:	<b>\$323.07</b> <b>\$646.13</b> <b><u>111ES</u> <u>19</u> 25</b>				
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98	\$323.07 \$646.13 FITIES 19 25 36 LCY				
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98	\$323.07 <b>\$646.13</b> <b>FITIES</b> 19 25 26 LCY mai Operator				
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated swel	\$323.07 <b>\$646.13</b> <b>TITIES</b> 99 55 <b>56</b> LCY me: Operator 1 factor: Cat Hand	Estimate (8.8	8ac x 6in)		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu       Source of estimated swel	\$323.07         \$646.13         09         25         06 LCY         me:       Operator         1 factor:       Cat Hand	Estimate (8.8	8ac x 6in)		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu       Source of estimated swel         HOURLY PRODUCT	\$323.07         \$646.13         19         25         26 LCY         me:       Operator         1 factor:       Cat Hand         FION	  Estimate (8.8 book	8ac x 6in)		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated swel         HOURLY PRODUCT	\$323.07 \$646.13 <u>SETTIES</u> 9 5 6 LCY me: <u>Operator</u> 1 factor: <u>Cat Hand</u> <u>FION</u>	 Estimate (8.8 book	8ac x 6in)		
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated swel         HOURLY PRODUCT       Average push distance:	\$523.07         \$646.13         19         55         66 LCY         me:       Operator         1 factor:       Cat Hand         FION         50 feet	 Estimate (8.8 book	8ac x 6in)		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated swel         HOURLY PRODUCY       Average push distance:         Unadjusted hourly product       Total	\$323.07         \$646.13         199         25         16 LCY         me:       Operator         1 factor:       Cat Hand <b>FION</b> ction:       50 feet         1,400.0 LCY	 Estimate (8.8 book	8ac x 6in)		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated volu:         Source of estimated swel       HOURLY PRODUCT         Average push distance:       Unadjusted hourly product         Materials consistency destination       Materials	\$323.07         \$646.13         19         25         26 LCY         me:       Operator         1 factor:       Cat Hand <b>TION</b> ction:       50 feet         1,400.0 LC         scription:       Consoli	 Estimate (8.8 book Y/hr idated stockg	8ac x 6in)		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated volu:         Source of estimated swel       HOURLY PRODUCT         Average push distance:       Unadjusted hourly product         Materials consistency des       Average push gradient:         Average site altitude:       State	$\begin{array}{r c} $323.07 \\\hline $646.13 \\\hline \hline $646.13 \\\hline \hline $646.13 \\\hline \hline $99 \\\hline $5$ \\\hline $6 LCY \\\hline $me: Operator \\\hline $6 LCY \\\hline $me: Operator \\\hline $6 LCY \\\hline $6 LCY \\\hline $6 LCY \\\hline $6 LCY \\\hline $55 \\\hline $6 LCY \\\hline $55 \\\hline $55 \\\hline $50 feet \\\hline $1,400.0 LCY \\\hline $5\% \\\hline $5,410 feet \\\hline \end{tabular}$	 Estimate (8.8 book Y/hr idated stockg	8ac x 6in)		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated swel         HOURLY PRODUCY       Average push distance:         Unadjusted hourly produce       Materials consistency des         Average push gradient:       Average site altitude:         Material weight:       Material weight:	\$323.07         \$646.13         P9         P6         P6         P7         P8         P9         P6         P6         P7         P8         P9         P6         P6         P7         P8         P9         P6         P7         P8         P9         P6         P7         P8         P9         P8         P9         P8         P9         P9         P8         P9         P8         P9         P8         P9         P8         P9         P8         P9         P8         P8	 Estimate (8.8 book Y/hr idated stockp	8ac x 6in)		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated swel         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency des         Average push gradient:       Average site altitude:         Material weight:       Weight description:	\$323.07         \$646.13         CITIES         19         25         26 LCY         me:       Operator         1 factor:       Cat Hand         TION       50 feet         ction:       1,400.0 LCY         scription:       Consolid         5 %       5,410 feet         2,650 lbs/LCY       Decomposed rock	 Estimate (8.8 book Y/hr idated stockp  - 25% Rock,	8ac x 6in)  bile 1.0		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated swel         HOURLY PRODUCT       Average push distance:         Unadjusted hourly product       Materials consistency destance:         Average push gradient:       Average site altitude:         Material weight:       Weight description:         Job Condition Correction       Source content of the section	$\begin{array}{r} $323.07 \\ \hline \$646.13 \\ \hline \\ \$646.13 \\ \hline \\ \$646.13 \\ \hline \\ \$9 \\ \$6 \\ \hline \\ \$6 \\ \hline \\ \$6 \\ \hline \\ 16 \\ \hline \\ \$6 \\ \hline \\ 16 \\ \hline \\ 1,400.0 \\ \hline \\ \hline \\ \hline \\ \hline \\ \$6 \\ \hline \\ \hline \\ \hline \\ \hline \\ \hline \\ \$6 \\ \hline \\ $	 Estimate (8.8 book Y/hr idated stockp  - 25% Rock,	8ac x 6in) 8ac x 6in) 9 9 9 9 9 1.0 1.0 1.0 5 1.0 5 5 5 6 6 7 5% Earth Source		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated volu:         Source of estimated swel       HOURLY PRODUC?         Average push distance:       Unadjusted hourly produced         Materials consistency destance:       Average push gradient:         Average site altitude:       Material weight:         Weight description:       Job Condition Correction         Operator       Operator	$\begin{array}{r c c c c c c c c c c c c c c c c c c c$	 Estimate (8.8 book Y/hr idated stockp  - 25% Rock, 750	8ac x 6in) 8ac x 6in) 5 June 1.0 5 June 1.0 5 June 1.0 5 June 1.0 5 June 1.0		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       7,09         Swell factor:       1.12         Loose volume:       7,98         Source of estimated volu:       Source of estimated swel         HOURLY PRODUCY         Average push distance:         Unadjusted hourly produce         Materials consistency des         Average push gradient:         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Operator         Material consist	\$323.07         \$646.13         P9         P6         P9         P6         P6         P7         P8         P9         P6         P6         P7         P6         P7         P6         P7         P8         P9         P6         P6	 Estimate (8.8 book Y/hr idated stockp  - 25% Rock, 750 000	8ac x 6in) 8ac x 6in) bile 1.0 75% Earth Cource (AVG.) (CAT HB)		
Total Fleet Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume: 7,09         Swell factor: 1.12         Loose volume: 7,98         Source of estimated volu:         Source of estimated volu:         Source of estimated swel         HOURLY PRODUCT         Average push distance:         Unadjusted hourly produce         Materials consistency des         Average site altitude:         Material weight:         Weight description:         Job Condition Correction         Operator         Material consist         Dozing me	$\begin{array}{r c c c c c c c c c c c c c c c c c c c$		8ac x 6in) 8ac x 6in) bile 1.0 500000000000000000000000000000000000		

Job efficient	cy:	0.830	(1 SHIFT/DAY)
Spoil pile:		0.800	(FND-RF)
Push gradie	Push gradient:		(CAT HB)
Altitude:		1.000	(CAT HB)
Material Weight:		0.868	(CAT HB)
Blade type:		1.000	(PAT)
Net correction	on:	0.3903	
Adjusted unit production:	54	6.42 LCY/hr	
Adjusted fleet production: 10		92.84 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.591/LCY

Total job time:	<b>7.31</b> Hours
Total job cost:	\$4,722

### BULLDOZER RIPPING WORK

	Task description:	Aspec	t B - Scarify Pit floor				
Site:	5J Pit		Permit Action:	New Permit	Permi	t/Job#: <u>M2</u>	024032
	PROJECT ID	ENTIFICATIO	<u>N</u>				
	Task #:       000         Date:       10/         User:       JR2	5 /15/2024 2	State: Colorado County: Larimer		Abbrevia	ation: <u>Non</u> name: <u>M03</u>	e 32-006
	Agency	or organization n	ame: DRMS				
	HOURLY EO	UIPMENT CO	ST				
	Basic Ripper Att	Machine: <u>Cat l</u> achment: <u>3-Sh</u>	D8T - 8SU ank Ripper		Horsepower: Shift Basis: Data Source:	310 1 per day (CRG)	7
	Cost Breakdown:	<u>-</u>					
	Ripp Ripp	Ownership Cos Operating Cos er Ownership Cos per Operating Cos Operator Cos Total Unit Cos	t/Hour: t/Hour: t/Hour: t/Hour: t/Hour:	\$173.32 \$109.71 \$14.53 \$7.95 \$40.04 \$345.55	Utilization % NA 100 NA 100 NA		
		Total Float Con	۲/L	¢3 15.55			
		I otal Fleet Cos	t/Hour: <b>509</b>	1.09			
	MATERIAL (	<u>DUANTITIES</u>	Sele	ected estimating	method: Area		
	Alternate Method	<u>ls:</u>					
leismic:	<u>NA</u>	20195	Bank Volume:	NA 2.00	BCY	NA 13	BCV or C
nicu.	0.00	Source of estim	atad quantity: Operat	or Estimata		15	Der or e
			aleu quantity. <u>Operat</u>	of Estimate			
		<u>JUCTION</u>					
	Seismic:	Se	eismic Velocity:	NA	feet/second		
	Area:		·				
	<u></u>	Average	Ripping Depth:	2.56	feet/pass		
		Average	Ripping Width:	7.08	feet/pass		
		Average	Ripping Length:	300.00	feet/pass		
		Average	ge Dozer Speed:	88.00	reet/minute	0	
		Producti	on per unit area:	0.23	ninutes/pas	3	
	Job Condition Co	rrection Factors		0.000			
	<u>Un</u>	adjusted Hourly I	Init Production:	0.800	∆ cres/hr		
	UI	aujusieu mouny (		0.000			
			Site Altitude:	5,410	feet		
			Altitude Adj:	1.00	(UAI HB) (1 shift/day)	)	
			Net Correction:	0.83	(1 shir/uay) multiplier	)	
		Adjusted H Adjusted H	Iourly Unit Production: ourly Fleet Production:	0.66 <b>1.33</b>	Acres/hr Acres/hr		
	JOB TIME AN	ND COST					
	Fleet size:	2	Grader(s)	Total job time	e: 6.03	i	Hours
	Unit cost:	\$520 701	Per acre	Total job cos	st· \$4.16	6	

Task description:	Aspect B - Roug	n grade			
5J Pit	Per	mit Action:	New Permit	Permit/Job#:	M2024032
PROJECT IDENTIF	FICATION				
Task #· 007	State:	Colorado		Abbreviation:	None
Date: $10/15/2024$	4 County:	Larimer		Filename:	M032-007
User: JR2				-	
Agency or orga	anization name:	RMS			
HOURLY EQUIPM	ENT COST				
Basic Machine: Ca	at D8T - 8SU				
Horsepower: 31	0				
Blade Type: Se	mi-Universal				
Attachment: NA	4				
Shift Basis: 1	per day				
Data Source: (C	RG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$173.32	NA		
Operating Cost/Hour		\$109.71	100		
Ripper own. Cost/Hour:		\$0.00	NA		
11		\$0.00	0		
Ripper op. Cost/Hour:		\$40.04	ΝA		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL OUAN	\$323.07 \$646.13	\$40.04			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$323.07 \$646.13 <u>FITIES</u>	\$40.04			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:6,42	\$323.07 \$646.13 TITIES 53	\$40.04			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>6,4</u> Swell factor: <u>1.17</u>	\$323.07 <b>\$646.13</b> <b>TITIES</b> 53 25 <b>COLICY</b>				
Ripper op. Cost/Hour:         Operator Cost/Hour:         Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       6,42         Swell factor:       1.12         Loose volume:       7,20	\$323.07 <b>\$646.13</b> <b>TITIES</b> 53 25 <b>60</b> LCY				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 6,4: Swell factor: 1.12 Loose volume: 7,20 Source of estimated volu	\$323.07 \$646.13 FITIES 53 25 60 LCY Ime:Operator	 Estimate (8a	uc x 6in)		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,4 Swell factor: 1.12 Loose volume: 7,20 Source of estimated volu Source of estimated swe	<u>\$323.07</u> <b>\$646.13</b> <b>TITIES</b> 53 25 <b>60</b> LCY Ime: <u>Operator</u> Il factor: <u>Cat Hand</u>	Estimate (8a			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN' Initial Volume: 6,4: Swell factor: 1.12 Loose volume: 7,20 Source of estimated volu Source of estimated swe	\$323.07 \$646.13 FITIES 53 25 60 LCY Ime: Operator Il factor: Cat Hand	 Estimate (8a	 с х біп)		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,42 Swell factor: 1.12 Loose volume: 7,20 Source of estimated volu Source of estimated swe HOURLY PRODUC	\$323.07 <b>\$646.13</b> <b>TITIES</b> 53 25 <b>60</b> LCY Ime: Operator Il factor: Cat Hand <b>TION</b>	 Estimate (8a	 с х біп)		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$323.07 \$646.13 <b>FITIES</b> 53 25 60 LCY Ime: Operator Il factor: Cat Hand <b>TION</b> 50 feet	 Estimate (8a	<u>e x 6in)</u>		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$323.07         \$646.13         TITIES         53         25         60 LCY         ime:       Operator         Il factor:       Cat Hand         TION         50 feet         action:       50 feet	 Estimate (8a lbook	ис х біп)		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$323.07         \$646.13         TITIES         53         25         60 LCY         ime:       Operator         Il factor:       Cat Hand         TION         action:       50 feet         intcion:       1,400.0 LC         escription:       Consol	 Estimate (8a lbook Y/hr	bile 1.0		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <b>MATERIAL QUAN</b> Initial Volume: 6,4 Swell factor: 1.1 Loose volume: 7,2 Source of estimated volu Source of estimated swe <b>HOURLY PRODUC</b> Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient:	\$323.07         \$646.13         TITIES         53         25         60 LCY         ime:       Operator         Il factor:       Cat Hand         TION         action:       50 feet         inction:       1,400.0 LC         escription:       Consol         5 %	 Estimate (8a lbook			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <b>MATERIAL QUAN'</b> Initial Volume: 6,42 Swell factor: 1.12 Loose volume: 7,20 Source of estimated volu Source of estimated volu Source of estimated swe <b>HOURLY PRODUC</b> Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	\$323.07         \$646.13         TITIES         53         25         60 LCY         ime:       Operator         Il factor:       Cat Hand         TION         action:       50 feet         1,400.0 LC         escription:       Consol         5 %         5,410 feet				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANY Initial Volume:	\$323.07         \$646.13         TITIES         53         25         60 LCY         ime:       Operator         Il factor:       Cat Hand         TION         action:       50 feet         inction:       1,400.0 LC         escription:       Consol         5 %       5,410 feet         2,650 lbs/LCY	 Estimate (8a lbook Y/hr lidated stockp	Le x 6in)		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUANY Initial Volume:	\$323.07         \$646.13         TITIES         53         25         60 LCY         ime:       Operator         If factor:       Cat Hand         TION         action:       50 feet         intction:       1,400.0 LC         escription:       Consol         5 %       5,410 feet         2,650 lbs/LCY       Decomposed rock	 Estimate (8a lbook Y/hr lidated stockp 			
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 6,44 Swell factor: 1.17 Loose volume: 7,20 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	\$323.07         \$646.13         TITIES         53         25         60 LCY         ime:       Operator         Il factor:       Cat Hand         TION         action:       50 feet         inction:       50 feet         action:       Consol         5 %       5,410 feet         2,650 lbs/LCY       Decomposed rock         n Factor       Factor		<u>he x 6in)</u> <u>bile 1.0</u> <u>, 75% Earth</u> <u>Source</u>		
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	$\begin{array}{c c} \$323.07 \\ \hline \$646.13 \\ \hline \\ \hline \\ \hline \\ \$646.13 \\ \hline \\ \hline \\ \hline \\ \$646.13 \\ \hline \\ \hline \\ \hline \\ \hline \\ \$646.13 \\ \hline \\ \hline \\ \hline \\ \$646.13 \\ \hline \\ $				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$323.07         \$646.13 <b>FITIES</b> 53         25         60 LCY         Ime:       Operator         Il factor:       Cat Hand <b>TION</b> action: $50$ feet         inction: $50$ feet         action: $1,400.0$ LC?         escription:       Consol $5 \%$ $5,410$ feet $2,650$ lbs/LCY       Decomposed rock         n Factor $0.$ tency: $1.$				
Ripper op. Cost/Hour: Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:	\$323.07         \$646.13         TITIES         53         25         60 LCY         ime:       Operator         If factor:       Cat Hand         TION         action: $50$ feet         intcion: $1,400.0$ LC         escription:       Consol $5\%$ $5,410$ feet $2,650$ lbs/LCY       Decomposed rock         n Factor $^{\circ}$ Skill:       0.         tency:       1.         ethod:       1.				

Task # 007

Job efficience	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	ile:	0.800	(FND-RF)
Push gradie	ent:	0.903	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weig	ht:	0.868	(CAT HB)
Blade type:		1.000	(PAT)
Net correction	on: 0.3	3903	
Adjusted unit production:	546.42	2 LCY/hr	
Adjusted fleet production: 10		4 LCY/hr	
	-		

Fleet size:	2 Dozer(s)
Unit cost:	\$0.591/LCY

Total job time:	<b>6.64</b> Hours
Total job cost:	\$4,292

# SCRAPER TEAM WORK

Site: 5J Pit		Permit Action:	New Permit	Perm	it/Job#: <u>M202</u> 4	4032
PROJECT IDENT	TIFICATION					
Task #: 008	S	State: Colorado		Abbrev	iation: None	
Date: 10/15/2	024 Cou	unty: Larimer		File	name: M032-0	008
User: JR2	·	DDMC				
Agency or o	rganization name:	DKMS				
HOURLY EQUIP	MENT		COSTS	hift basis: <u>1 per da</u>	<u>y</u>	
		Equipme	ent Description			
	-S	craper: Cat 631	G			
Suppor	t Equipment -Load	d Area: NA				
Road Mai	-Dumj ntenance –Motor (	p Area: Cat D8 Grader: NA	Γ - 8SU			
	-Water	Truck: NA				
Cost Breekdown•	Scraper Wo	rk Team	Support Faui	nment	Maintenance	Fauinme
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	NA	100	NA	
Ownership cost/hour:	\$442.19	NA	NA	\$173.32	NA	
Operating cost/hour:	\$252.89	NA	NA	\$109.71	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	\$0.00	NA	
Ripper op. cost/hour:	NA	NA	NA	\$0.00	NA	
Operator cost/hour:	\$57.52	NA	NA	\$40.04	NA	
Unit Subtotals:	\$752.60	NA	NA	\$323.07	NA	
Number of Units:	2	0	0	1	0	
Group Subtotals:	Work:	\$1,505.20	Support:	\$323.07	Maint:	\$0
Total work team cost	hour: <u><b>\$1,828.27</b></u>					
MATERIAL QUA	<b>NTITIES</b>					
Initial volume:	15,649	CCY	Swell fact	tor: <u>1.215</u>		
Loose volume:	19,014	LCY				
Sour Source o	ce of estimated vo f estimated swell f	lume: <u>Operator</u> factor: <u>Cat Hanc</u>	Estimate (9.7ac z lbook	x 1ft)		
HOURI V PRODI	ICTION					
HOURITIKOD			Scraper B	owl (volume) Basis	3:	
Material weight.	1 600 lbs/I CV		Struck	Volume: 24.00	- T /	CY
Material description:	Top Soil		Heaped	Volume: 34.00	L(	CY
r - o r	01 500 1			<u> </u>	<b>_</b>	

<u>0.80</u> Minutes

0.70 Minutes

#### Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 5410 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

#### Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: **0.43** minutes

#### **Return Route:**

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15
				Return Time:	0.15	ninutes
			Total Scraper	team cycle time:	2.08	minutes
			Adjusted for	or job conditions:	694.33	LCY/Hour
			Selected Nur	nber of Scrapers:	2	Scraper(s)
	Adjusted	l single scrap	er team (unit) he	ourly production:	1,388.65	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) he	ourly production:	1,388.65	LCY/Hour
Optimal	Unadjusted unit prod Number of Scrapers pe	luction/hour: r push dozer:	836.54	LCY/Hour		
JOB TI	ME AND COST					

Fleet size:	1	Team(s)	Total job time:	13.69	Hours
Unit cost:	\$1.317	/LCY	Total job cost:	\$25,033	

5J Pit	Perr	nit Action:	New Permit	Permit/Job#:	M2024032
PROJECT IDENTI	FICATION				
Task #· 009	State:	Colorado		Abbreviation:	None
Date: $10/15/202$	4 County:	Larimer		Filename:	M032-009
User: JR2					
Agency or orga	anization name: DR	MS			
HOURLY EQUIPM	<u>ENT COST</u>				
Basic Machine: <u>Ca</u>	at D8T - 8SU				
Horsepower: 31	0				
Blade Type: Se	emi-Universal				
Attachment: NA	A				
Shift Basis: 1	per day				
Data Source: (C	.KU)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$173.32	NA		
Operating Cost/Hour:		\$109.71	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$40.04	NA		
	TITLE				
<u>MATERIAL QUAN'</u>	<u>1111E5</u>				
MATERIAL QUAN Initial Volume: 7,8	25				
MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.1	25 25				
MATERIAL QUAN         Initial Volume:       7,87         Swell factor:       1.17         Loose volume:       8,80	25 25 03 LCY				
MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.1 Loose volume: 8,8 Source of estimated volu	25 25 03 LCY ume: Operator	  Estimate (9.7	7ac x бin)		
MATERIAL QUAN'         Initial Volume:       7,8:         Swell factor:       1.1:         Loose volume:       8,8:         Source of estimated volu       Source stimated swe	25 25 03 LCY ume: Operator 2 ell factor: Cat Hand	  Estimate (9.' book	7ac x 6in)		
MATERIAL QUAN'         Initial Volume:       7,8:         Swell factor:       1.1:         Loose volume:       8,8:         Source of estimated volu       Source of estimated swe	25 25 03 LCY ume: Operator 2 ell factor: Cat Hand	  Estimate (9.' book	7ac x 6in)		
MATERIAL QUAN'         Initial Volume:       7,8'         Swell factor:       1.1'         Loose volume:       8,8'         Source of estimated volu       Source of estimated swe         HOURLY PRODUC       100'	25 25 03 LCY ume: Operator 2 21 factor: Cat Hand	 Estimate (9.' book	7ac x 6in)		
MATERIAL QUAN'         Initial Volume:       7,8;         Swell factor:       1.1;         Loose volume:       8,8;         Source of estimated volu       5000000000000000000000000000000000000	25 25 03 LCY ume: Operator ell factor: Cat Hand CTION 50 fact	 Estimate (9.' book	7ac x 6in)		
MATERIAL QUAN' Initial Volume: 7,8 Swell factor: 1.1 Loose volume: 8,8 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Inadjusted hourly produ	25 25 03 LCY ume: Operator Ul factor: Cat Handle CTION 50 feet uction: 1 400 0 LCY	 Estimate (9.' book	7ac x 6in)		
MATERIAL QUAN'         Initial Volume:       7,8'         Swell factor:       1.1'         Loose volume:       8,8'         Source of estimated volu         Source of estimated swe         HOURLY PRODUC         Average push distance:         Unadjusted hourly product	25 25 03 LCY ume: Operator 2 ell factor: Cat Handle CTION uction: 50 feet 1,400.0 LCY	 Estimate (9.' book	7ac x 6in)		
MATERIAL QUAN'         Initial Volume:       7,8'         Swell factor:       1.1'         Loose volume:       8,8'         Source of estimated volu         Source of estimated swe         HOURLY PRODUC         Average push distance:         Unadjusted hourly produ         Vaterials consistency de	25 25 03 LCY ume: Operator 2 ume: Operator 2 ume: Cat Handle CTION uction: 50 feet 1,400.0 LCY escription: Consoli	 Estimate (9.' book Y/hr dated stockp	7ac x 6in)   pile 1.0		
MATERIAL QUAN'         Initial Volume:       7,8:         Swell factor:       1.1:         Loose volume:       8,8:         Source of estimated volu       8         Source of estimated swe       9         HOURLY PRODUC       4         Average push distance:       0         Unadjusted hourly produce       9         Materials consistency defined       4         Average push gradient:       1	25         25         03 LCY         ume:       Operator         off factor:       Cat Handle         CTION         uction:       50 feet         uction:       1,400.0 LCY         escription:       Consoli         5 %	 Estimate (9.' book Y/hr dated stockp	7ac x 6in)		
MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.1 Loose volume: 8,8 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude:	$\frac{1111ES}{25}$ $25$ $25$ $03 LCY$ $\frac{0 \text{ Operator }}{Cat \text{ Handle}}$ $\frac{50 \text{ feet}}{1,400.0 \text{ LCY}}$ $\frac{5 \%}{5,410 \text{ feet}}$	 Estimate (9.' book Y/hr dated stockp	7ac x 6in)   bile 1.0		
MATERIAL QUAN'         Initial Volume:       7,8;         Swell factor:       1.1;         Loose volume:       8,8;         Source of estimated volu       5000000000000000000000000000000000000	$\frac{1111ES}{25}$ $25$ $25$ $03 LCY$ ume: Operator in the image of the	 Estimate (9.' book Y/hr dated stockp	7ac x 6in)		
MATERIAL QUAN'         Initial Volume:       7,8;         Swell factor:       1.1;         Loose volume:       8,8;         Source of estimated volu         Source of estimated swe         HOURLY PRODUC         Average push distance:         Unadjusted hourly produ         Materials consistency de         Average site altitude:         Vaterial weight:	$\frac{1111ES}{25}$ $25$ $25$ $03 LCY$ ume: <u>Operator</u> $\frac{1}{Cat Handle}$ $\frac{50 \text{ feet}}{1,400.0 LCY}$ $\frac{5 \%}{5,410 \text{ feet}}$ $2,650 \text{ lbs/LCY}$	 Estimate (9.' book Y/hr dated stockp	7ac x 6in)		
MATERIAL QUAN'         Initial Volume:       7,8;         Swell factor:       1.1;         Loose volume:       8,8;         Source of estimated volu         Source of estimated swe         HOURLY PRODUC         Average push distance:         Unadjusted hourly produ         Materials consistency de         Average site altitude:         Material weight:         Weight description:	25         25         03 LCY         ume:       Operator 1         ell factor:       Cat Handle         CTION         uction:       50 feet         1,400.0 LCY         escription:       Consoli         5 %         5,410 feet         2,650 lbs/LCY         Decomposed rock	Estimate (9.' book Y/hr dated stockp 	7ac x 6in)  oile 1.0		
MATERIAL QUAN'         Initial Volume:       7,8;         Swell factor:       1.1;         Loose volume:       8,8;         Source of estimated volu       800         Source of estimated sweet       900         HOURLY PRODUC       900         Average push distance:       100         Unadjusted hourly product       900         Materials consistency def       100         Average site altitude:       100         Material weight:       100         Weight description:       100         Lob Condition Correction       100	25 25 25 03 LCY ume: Operator 21 factor: Cat Handle 21 factor: 50 feet uction: 1,400.0 LCY escription: Consoli 5% 5,410 feet 2,650 lbs/LCY Decomposed rock n Factor	Estimate (9.' book Y/hr dated stockp	7ac x 6in)		
MATERIAL QUAN'         Initial Volume:       7,8:         Swell factor:       1.1:         Loose volume:       8,8:         Source of estimated volu       80:         Source of estimated sweet       90:         HOURLY PRODUC       10:         Average push distance:       10:         Unadjusted hourly product       10:         Materials consistency def       10:         Average site altitude:       10:         Waterial weight:       10:         Weight description:       10:         Iob Condition Correction       10:         Operator       10:	Similar Second Stress         25         25         25         03 LCY         ume:       Operator         Sold Carlow         Sold feet         uction: $50$ feet         uction: $1,400.0$ LCY         escription:       Consolid $5\%$ $5,410$ feet $2,650$ lbs/LCY       Decomposed rock         n Factor $0.7$		7ac x 6in)  bile 1.0 , 75% Earth  (AVG.)		
MATERIAL QUAN Initial Volume: 7,8: Swell factor: 1.1: Loose volume: 8,8: Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Operator Material consis	Similar S         25         25         25         03 LCY         ume:       Operator 1         ell factor:       Cat Hand         CTION         uction: $\frac{50 \text{ feet}}{1,400.0 \text{ LCY}}$ escription:       Consoli $\frac{5 \%}{5,410 \text{ feet}}$ 2,650 lbs/LCY         Decomposed rock         n Factor         r Skill:       0.7         stency:       1.1		7ac x 6in) 		
MATERIAL QUAN Initial Volume: 7,8 Swell factor: 1.1 Loose volume: 8,8 Source of estimated volu Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Material consiss Dozing m	Similar S         25         25         25         03 LCY         ume:       Operator         ell factor:       Cat Hand         ZTION         uction: $1,400.0$ LCY         escription:       Consoli $5\%$ $5,410$ feet $2,650$ lbs/LCY       Decomposed rock         n Factor       r         r Skill:       0.7         ethod:       1.0		7ac x 6in) 		

Task # 009

Job efficient	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 0.800	(FND-RF)
Push gradie	nt: 0.903	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.868	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction	on: 0.3903	
Adjusted unit production:	546.42 LCY/hr	
Adjusted fleet production:	1092.84 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.591/LCY

Total job time:	8.06 Hours
Total job cost:	\$5,205

Page 1 of 2

# SCRAPER TEAM WORK

Site: 5J Pit		Permit Action:	New Permit	Perr	mit/Job#: <u>M202</u> 4	4032
PROJECT IDENI	<b>IFICATION</b>					
Task #: <u>010</u> Date: <u>10/15/2</u>	St 024 Cou	tate: <u>Colorado</u> nty: Larimer		Abbrev File	viation: <u>None</u> ename: M032-0	010
User: JR2						010
Agency or o	rganization name:	DRMS				
HOURLY EOUIP	MENT		COSTS	hift basis: 1 per da	av	
				<u>i per a</u>	<u></u>	
	-Sc	Equipme craper: Cat 631	G G			
	-]	Dozer: NA				
Suppor	t Equipment -Load Dump-	Area: NA Area: Cat D8	Г - 8SU			
Road Mai	ntenance – Motor C	Brader: NA				
	-Water	Truck: NA				
Cost Breakdown:	Scraper Worl	k Team	Support Equi	pment	Maintenance	Equipme
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water
%Utilization-machine:	100	NA	NA	100	NA	
Ownership cost/hour:	\$442.19	NA	NA	\$173.32	NA	
Operating cost/hour:	\$252.89	NA	NA	\$109.71	NA	
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	NA	\$0.00	NA	
Ripper op. cost/hour:	NA	NA	NA	\$0.00	NA	
Operator cost/hour:	\$57.52	NA	NA	\$40.04	NA	
Unit Subtotals:	\$752.60	NA	NA	\$323.07	NA	
Number of Units:	2	0	0	1	0	
Group Subtotals:	Work:	\$1,505.20	Support:	\$323.07	Maint:	\$0.
Total work team cost/	hour: <b>\$1,828.27</b>					
MATERIAL OUA	NTITIES					
Initial volume:	11 455	CCV	Swell fact	tor: 1.215		
Loose volume:	13,918	LCY	Swell lact	1.215		
Sour	ce of estimated vol	ume: Operator	Estimate (7.1ac x	x 1ft)		
Source o	f estimated swell fa	actor: Cat Hand	lbook			
ΗΟΠΒΙ Λ ΦΒΟΡΙ	ICTION					
HUUKLIIKUDU			Soronor D.	owl (volume) Res	c.	
			Scraper Bo	Well was 24.00	<u></u>	OV
Material weight:	Top Soil		Struck Heaped	Volume: $24.00$	L0	CY CY
Rated Pavload:	81.600 pounds		Average	Volume: 29.00	L\ 	CY
	/					

0.80 Minutes

0.70 Minutes

#### Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 5410 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Net Correction:	0.830	NA	

#### Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: **0.43** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15
				Return Time:	0.15	ninutes
			Total Scraper	team cycle time:	2.08	minutes
			Adjusted for	or job conditions:	694.33	LCY/Hour
			Selected Nur	nber of Scrapers:	2	Scraper(s)
	Adjusted	l single scrap	er team (unit) he	ourly production:	1,388.65	LCY/Hour
	Adjusted m	ultiple scrap	er team (fleet) he	ourly production:	1,388.65	LCY/Hour
Optimal	Unadjusted unit prod Number of Scrapers pe	luction/hour: r push dozer:	836.54	LCY/Hour		
JOB TI	ME AND COST					

Fleet size:	1	Team(s)	Total job time:	10.02	Hours
Unit cost:	\$1.317	/LCY	Total job cost:	\$18,324	-

1	Aspect C - I mai	grade			
5J Pit	Peri	mit Action:	New Permit	Permit/Job#:	M2024032
PROJECT IDENTI	FICATION				
Task # 011	State	Colorado		Abbreviation:	None
Date: $10/15/202$	24 County:	Larimer		Filename:	M032-011
User: $\frac{10/15/202}{\text{JR2}}$	County:	Lumer			11032 011
Agency or org	anization name: DR	RMS			
HOURLY EQUIPM	ENT COST				
Basic Machine: <u>C</u>	at D8T - 8SU				
Horsepower: <u>31</u>	10				
Blade Type: Se	emi-Universal				
Attachment: N	A				
Shift Basis: 1	per day				
Data Source: (C	.KU)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour:		\$173.32	NA		
Operating Cost/Hour:		\$109.71	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$40.04	NA		
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL OUAN	\$323.07 \$646.13 TITIES				
Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUAN Initial Volume: <u>5,7</u>	\$323.07 <b>\$646.13</b> TITIES 27				
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY				
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated vol	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY Ume: Operator		12c x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated voltoout to the strengt of estimated strengt of the stre	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator Cat Hand	 Estimate (7.	1ac x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated voltage       5000000000000000000000000000000000000	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand	Estimate (7.	1ac x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated voltoor         Source of estimated sweet         HOURLY PRODUCT	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator cat Hand CTION	 Estimate (7. book	1ac x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated voltoource of estimated sweet         HOURLY PRODUCT	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator cat Hand CTION	 Estimate (7. book	 1ac x біп)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5.7         Swell factor:       1.1         Loose volume:       6.4         Source of estimated volto source of estimated sweet         HOURLY PRODUC         Average push distance:	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION 50 feet	Estimate (7.	1ac x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated volto         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Jnadjusted hourly prod	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION uction: 50 feet 1,400.0 LC	Estimate (7. book	1ac x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated volto         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Jnadjusted hourly prod         Vaterials consistency de	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator Cat Hand CTION uction: 1,400.0 LC escription: Consol	 Estimate (7. book Y/hr idated stocky	<u>lac x 6in)</u>		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Jnadjusted hourly prod         Vaterials consistency de	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION uction: 1,400.0 LC escription: Consol 5 %	Estimate (7. book Y/hr idated stock	1ac x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Vaterials consistency de         Average push gradient:         Average site altitude:	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION uction: 50 feet 1,400.0 LC escription: Consol 5% 5.410 feet	Estimate (7. book Y/hr idated stockj	1ac x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION uction: 50 feet 1,400.0 LC escription: Consol 5% 5,410 feet	 Estimate (7. book Y/hr idated stockj	1ac x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Vaterials consistency de         Average site altitude:         Vaterial weight:	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION uction: 50 feet 1,400.0 LC escription: Consol 5% 5,410 feet 2,650 lbs/LCY	 Estimate (7. book Y/hr idated stockj	1ac x 6in)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated vol         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Jnadjusted hourly prod         Vaterials consistency de         Average site altitude:         Vaterial weight:         Weight description:	\$323.07 <b>\$646.13</b> TITIES 27 25 43 LCY ume: Operator 25 43 LCY ume: Operator Cat Hand CTION uction: 50 feet 1,400.0 LC escription: Consol 5% 5,410 feet 2,650 lbs/LCY Decomposed rock	 Estimate (7. book Y/hr idated stockj  - 25% Rock	 1ac x 6in)  pile 1.0		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:         5,7         Swell factor:         1.1         Loose volume:         6,4         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Jnadjusted hourly prod         Vaterials consistency de         Average site altitude:         Vaterial weight:         Weight description:         [ob Condition Correction]	$\frac{\$323.07}{\$646.13}$ TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION uction: 1,400.0 LC escription: Consol $\frac{5\%}{5,410 \text{ feet}}$ 2,650 lbs/LCY Decomposed rock on Factor	 Estimate (7. book Y/hr idated stocky  - 25% Rock	<u>1ac x 6in)</u>  pile 1.0 , 75% Earth  <u>Source</u>		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated vol         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average site altitude:         Vaterial weight:         Weight description:         (ob Condition Correction         Operator	$\frac{\$323.07}{\$646.13}$ TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION uction: 50 feet uction: 1,400.0 LC escription: Consol $\frac{5\%}{5,410 \text{ feet}}$ 2,650 lbs/LCY Decomposed rock m Factor r Skill: 0.	Estimate (7. book Y/hr idated stockj - 25% Rock 750	1ac x 6in)  pile 1.0 , 75% Earth  (AVG.)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:         5,7         Swell factor:         1.1         Loose volume:         6,4         Source of estimated vol         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Materials consistency de         Average push gradient:         Average site altitude:         Waterial weight:         Weight description:         [ob Condition Correction         Operator         Material consist	$\frac{\$323.07}{\$646.13}$ TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION uction: 50 feet 1,400.0 LC escription: Consol $\frac{5 \%}{5,410 \text{ feet}}$ 2,650 lbs/LCY Decomposed rock on Factor r Skill: 0. stency: 1.	 Estimate (7. book Y/hr idated stocky  - 25% Rock 750 000	1ac x 6in) 1ac x 6in) pile 1.0 , 75% Earth <u>Source</u> (AVG.) (CAT HB)		
Total unit Cost/Hour:         Total Fleet Cost/Hour:         MATERIAL QUAN         Initial Volume:       5,7         Swell factor:       1.1         Loose volume:       6,4         Source of estimated vol         Source of estimated sweet         HOURLY PRODUC         Average push distance:         Unadjusted hourly prod         Vaterials consistency de         Average site altitude:         Material weight:         Weight description:         [ob Condition Correction         Material consistency         Material consistency         Dozing m	$\frac{\$323.07}{\$646.13}$ TITIES 27 25 43 LCY ume: Operator ell factor: Cat Hand CTION $\frac{50 \text{ feet}}{1,400.0 \text{ LC'}}$ escription: Consol $\frac{5 \%}{5,410 \text{ feet}}$ 2,650 lbs/LCY Decomposed rock on Factor r Skill: 0. stency: 1. hethod: 1.	 Estimate (7. book Y/hr idated stockp  - 25% Rock 750 000 000	1ac x 6in) pile 1.0 , 75% Earth (AVG.) (CAT HB) (GEN.)		

Job efficience	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	ile:	0.800	(FND-RF)
Push gradie	ent:	0.903	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weight:		0.868	(CAT HB)
Blade type:		1.000	(PAT)
Net correction	on:	0.3903	
Adjusted unit production:	54	6.42 LCY/hr	
Adjusted fleet production:	10	92.84 LCY/hr	
	-		

Fleet size:	2 Dozer(s)
Unit cost:	\$0.591/LCY

Total job time:	<b>5.90</b> Hours
Total job cost:	\$3,809

### BULLDOZER RIPPING WORK

	Task description:	Aspect D - Scarify emp	oloyee areas			
Site:	5J Pit	Permit Ac	tion: <u>New Permit</u>	Permi	t/Job#: <u>M2024032</u>	
	PROJECT IDE	ENTIFICATION				
	Task #:         012           Date:         10/           User:         JR2	State:     Colo       15/2024     County:     Lari	mer	Abbrevia Filen	ation: None name: M032-012	
	Agency	or organization name: DRMS				
	HOURLY EOU	JIPMENT COST				
	Basic N	Machine: Cat D8T - 8SU		Horsepower:	310	
	Ripper Atta	achment: 3-Shank Ripper		Shift Basis:	1 per day	
				Data Source:	(CRG)	
	Cost Breakdown:			Utilization %		
		Ownership Cost/Hour:	\$173.32	NA		
		Operating Cost/Hour:	\$109.71	100		
	Rippe	r Ownership Cost/Hour:	\$14.53	NA		
	Ripp	er Operating Cost/Hour:	\$7.95	100		
		Total Unit Cost/Hour:	\$40.04 \$345.55	INA		
			\$5 <b>-5</b> .55	_		
		Total Fleet Cost/Hour:	\$691.09	_		
	MATERIAL Q	<u>UANTITIES</u>	Selected estimati	ng method: Area		-
	Alternate Method	<u>s:</u>				
smic:	NA	Bank Volu	me: NA	BCY	NA	_
Area:	2.00	acres Rip Depth	(ft): <u>2.00</u>	Volume:6,453	BCY	or (
		Source of estimated quantity:	Operator Estimate			
	HOURLY PRO	DUCTION				
	Seismic:					
	<u>bershile.</u>	Seismic Velocity:	NA	feet/second		
	Area					
	<u>Alca.</u>	Average Ripping Depth:	2.56	feet/pass		
		Average Ripping Width:	7.08	feet/pass		
		Average Ripping Length:	300.00	feet/pass		
		Average Dozer Speed:	88.00	feet/minute		
		Average Maneuver Time:	0.25	minutes/pas	S	
		Production per unit area:	0.800	acres/hour		
	Job Condition Co	rrection Factors				
	Una	adjusted Hourly Unit Production:	0.800	Acres/hr		
		Site Altitude:	5,410	feet		
		Altitude Adj:	1.00	(CAT HB)		
		Job Efficiency:	0.83	(1 shift/day)		
		Net Correction:	0.83	multiplier		
		Adjusted Hourly Unit Produ	ction: 0.66	Acres/hr		
		Adjusted Hourly Fleet Produ	ction: <b>1.33</b>	Acres/hr		
	JOB TIME AN	D COST				
	Fleet size:	2 Grader(s)	Total job t	ime: 1.51	Hours	
	Unit cost:	\$520.701 Per acre	Total job	cost: \$1.04	1	

<b>L</b> .	Aspect D - Rougi	n grade			
5J Pit	Perr	mit Action:	New Permit	Permit/Job#:	M2024032
PROJECT IDENTIF	<u> ICATION</u>				
Task #· 013	State	Colorado		Abbreviation:	None
Date: $10/15/2024$	4 County:	Larimer		Filename:	M032-013
User: JR2	<u> </u>	Luminor		i nenunie.	11032 013
Agency or orga	nization name: DR	RMS			
HOURLY EQUIPMI	ENT COST				
Basic Machine: Ca	t D8T - 8SU				
Horsepower: 31	0				
Blade Type: Ser	mi-Universal				
Attachment: <u>NA</u>	4				
Shift Basis: <u>1 p</u>	ber day				
Data Source: (C	RG)				
Cost Breakdown:			I		
			Utilization %		
Ownership Cost/Hour:		\$173.32	NA		
Operating Cost/Hour:		\$109.71	100		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$40.04	NA		
Total Fleet Cost/Hour:	\$646.13				
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>1,61</u>	\$646.13 FITIES				
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81	\$646.13 <b>FITIES</b> 13 25 15 LCY				
Total Fleet Cost/Hour:         MATERIAL QUANT         Initial Volume:       1,61         Swell factor:       1.12         Loose volume:       1,81         Source of estimated volu	\$646.13 FITIES 13 25 15 LCY ume:Operator	 Estimate (2a	uc x 6in)		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81 Source of estimated volu Source of estimated swel	\$646.13 FITIES 13 25 15 LCY ume: Operator 11 factor: Cat Hand	  Estimate (2a book	с x біп)		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81 Source of estimated volu Source of estimated swel HOURLY PRODUC	\$646.13 FITIES 13 25 15 LCY ume: Operator 11 factor: Cat Hand TION	  Estimate (2a book	<u>ыс х біп)</u>		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance:	\$646.13 FITIES 13 25 15 LCY ume: Operator 11 factor: Cat Hand TION 50 feet	 Estimate (2a book	<u>с х біп)</u>		
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>1,61</u> Swell factor: <u>1.12</u> Loose volume: <u>1,81</u> Source of estimated volu Source of estimated swel <u>HOURLY PRODUC</u> Average push distance: Unadjusted hourly produ	\$646.13           EITIES           13           25           15 LCY           ume:         Operator           11 factor:         Cat Hand           TION           action:         50 feet           1,400.0 LCY	 Estimate (2a book	<u></u> 		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ	\$646.13           ETTIES           13           25           15 LCY           Ime:         Operator           Il factor:         Cat Hand           TION           action:         50 feet           action:         1,400.0 LCY           scription:         Consoli	 Estimate (2a book Y/hr idated stockp	ыс х біп)  pile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency de: Average push gradient: Average site altitude:	$\begin{array}{r} \hline \textbf{$646.13} \\ \hline \textbf{FITIES} \\ \hline \textbf{$646.13} \\ \hline \textbf{$13} \\ \hline \textbf{$25} \\ \hline \textbf{$15} \text{ LCY} \\ \hline \textbf{$15} \text{ LCY} \\ \hline \textbf{$16} \text{ ctor: } \underline{Operator} \\ \hline \textbf{$16} \text{ factor: } \underline{Operator} \\ \hline \textbf{$16} \text{ factor: } \underline{Cat \text{ Hand}} \\ \hline \textbf{$110n} \\ \hline \textbf{$100n} \\ \hline \textbf{$1,400.0 \text{ LCY} \\ \hline \textbf{$scription: } \underline{Consoli} \\ \hline \underline{5\%} \\ \hline \underline{5,410 \text{ feet}} \\ \hline \end{array}$	 Estimate (2a book Y/hr idated stockp	ыс х біп)		
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>1,61</u> Swell factor: <u>1.12</u> Loose volume: <u>1,81</u> Source of estimated volu Source of estimated swel <u>HOURLY PRODUC</u> Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight:	$\begin{array}{r} \hline \textbf{$646.13} \\ \hline \textbf{FITIES} \\ \hline \textbf{$646.13} \\ \hline \textbf{$13} \\ \hline \textbf{$25} \\ \hline \textbf{$5 LCY} \\ \hline \textbf{$15 LCY} \\ \hline \textbf{$15 LCY} \\ \hline \textbf{$16 ctor: $ Operator $1 \\ Cat Hand \\ \hline \textbf{$110N} \\ \hline \textbf{$16 ctor: $ Cat Hand \\ \hline \textbf{$140.0 LCY} \\ \hline \textbf{$1,400.0 LCY} \\ \hline \textbf{$5 \% \\ $5,410 feet \\ $2,650 lbs/LCY \\ \hline \textbf{$2,650 lbs/LCY} \\ \hline \end{array}$	 Estimate (2a book Y/hr idated stockp 	bile 1.0		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81 Source of estimated volu Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency de: Average push gradient: Average site altitude: Material weight: Weight description:	\$646.13 <b>S646.13ETTIES</b> 132515 LCY15 LCYume:Operator11 factor:Cat Hand <b>TION</b> action: $\frac{50 \text{ feet}}{1,400.0 \text{ LCY}}$ scription:Consoli $\frac{5 \%}{5,410 \text{ feet}}$ 2,650 lbs/LCYDecomposed rock	 Estimate (2a book Y/hr idated stockp  - 25% Rock	<u>e x 6in)</u>  bile 1.0		
Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>1,61</u> Swell factor: <u>1.12</u> Loose volume: <u>1,81</u> Source of estimated volu Source of estimated swel <u>HOURLY PRODUC</u> Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction	$\begin{array}{r} \hline \textbf{$646.13} \\ \hline \textbf{FITIES} \\ \hline \textbf{$646.13} \\ \hline \textbf{FITIES} \\ \hline \textbf{$13} \\ \hline \textbf{$25} \\ \hline \textbf{$15 LCY} \\ \hline \textbf{$16 ctor: $ Operator $1$} \\ \hline \textbf{$0perator $1$} \\ \hline \textbf{$0perator $1$} \\ \hline \textbf{$0perator $1$} \\ \hline \textbf{$15 LCY} \\ \hline \textbf{$15 ctor $1$} \\ \hline $15 c$	 Estimate (2a book Y/hr idated stockp  - 25% Rock	 		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency de Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	$$646.13$ <b>EITIES</b> 13         25         15 LCY         ume:       Operator         Il factor:       Cat Hand <b>TION</b> action: $1,400.0 LC^{\circ}$ scription:       Consoli $5\%$ $5,410$ feet $2,650$ lbs/LCY       Decomposed rock $n$ Factor $0.'$	 Estimate (2a book Y/hr idated stockp  - 25% Rock. 750			
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81 Source of estimated volu Source of estimated swel HOURLY PRODUCT Average push distance: Unadjusted hourly produ Materials consistency de: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist	\$646.13         FITIES         13         25         15 LCY         ume:       Operator         Il factor:       Cat Hand         TION         action: $1,400.0 \text{ LCY}$ scription:       Consolit $5\%$ $5,410$ feet         2,650 lbs/LCY       Decomposed rock         h Factor       0.         Skill:       0.         tency:       1.4	 Estimate (2a book Y/hr idated stockp  - 25% Rock 750 000	<u>c x 6in)</u> <u></u> bile 1.0 <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u>		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 1,61 Swell factor: 1.12 Loose volume: 1,81 Source of estimated volu Source of estimated swel HOURLY PRODUC Average push distance: Unadjusted hourly produ Materials consistency de: Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator Material consist Dozing me	\$646.13         EITIES         13         25         15 LCY         ume:       Operator         Il factor:       Cat Hand         TION         action: $\frac{50 \text{ feet}}{1,400.0 \text{ LCY}}$ scription:       Consoli $\frac{5 \%}{5,410 \text{ feet}}$ 2,650 lbs/LCY         Decomposed rock $\frac{650 \text{ feet}}{1.400.0 \text{ lcY}}$ $1.400.0 \text{ lcY}$		<u>c x 6in)</u> <u></u> bile 1.0 <u></u> , 75% Earth <u></u> (AVG.) (CAT HB) (GEN.)		

Job efficience	cy:	0.830	(1 SHIFT/DAY)
Spoil pi	ile:	0.800	(FND-RF)
Push gradie	ent:	0.903	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weight:		0.868	(CAT HB)
Blade type:		1.000	(PAT)
Net correction	on:	0.3903	
Adjusted unit production:	54	6.42 LCY/hr	
Adjusted fleet production:	10	92.84 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.591/LCY

Total job time:	<b>1.66</b> Hours
Total job cost:	\$1,073

Page 1 of 2

# SCRAPER TEAM WORK

Site: 5J Pit		<u> </u>	Permit	Action:	New Permit	Perr	mit/Job#: <u>M2</u>	2024032	
<b>PROJE</b>	CT IDEN	<b>TIFICATION</b>							
Task ‡	ŧ: <u>014</u>		State: (	Colorado		Abbrev	viation: Non	ne	
Date User	e: <u>10/15/2</u> r: JR2	2024 Co	unty: <u>I</u>	Larimer		Fil	ename: <u>M03</u>	32-014	
	Agency or o	organization name:	DRM	S					
<u>HOURI</u>	Y EQUIP	MENT			COSTS	hift basis: <u>1 per d</u>	ay		
				Equipme	ent Description				
		-5	Scraper: -Dozer:	Cat 631 NA	G				
	Suppo	rt Equipment -Loa	d Area:	NA					
	Road Ma	-Dum intenance –Motor	p Area: Grader:	Cat D8	Γ - 8SU				
		-Water	Truck:	NA					
Cost Bre	əkdown•	Scraper Wo	rk Team		Support Faui	nment	Maintenar	nce Equipm	61
<u>Cost bit</u>	<u>akuown</u> .	Scraper	Doz	zer	Load Area	Dump Area	Motor Grade	er Wate	r
%Utilization	-machine:	100		NA	NA	100	N	A	
Ownership	cost/hour:	\$442.19		NA	NA	\$173.32	N	A	
Operating	cost/hour:	\$252.89		NA	NA	\$109.71	N	A	
%Utilizati	on-ripper:	NA		NA	NA	NA	N	A	
Ripper own.	cost/hour:	NA		NA	NA	\$0.00	N	A	
Ripper op.	cost/hour:	NA		NA	NA	\$0.00	N	A	
Operator	cost/hour:	\$57.52		NA	NA	\$40.04	N	A	
Unit	Subtotals:	\$752.60		NA	NA	\$323.07	N	A	
Numbe	r of Units:	2		0	0	1		0	
Group	Subtotals:	Work:	\$1,50	5.20	Support:	\$323.07	Main	nt: \$	).
Total wor	k team cost	/hour: <b>\$1,828.27</b>							
MATER	RIAL QUA	NTITIES							
Initi	al volume:	1,613		CCY	Swell fac	tor: <u>1.215</u>			
Loo	se volume:	1,960		LCY					
	Sou: Source o	rce of estimated vo of estimated swell	olume:	Operator Cat Hand	Estimate (2ac x lbook	1ft)			
<u>HOURI</u>	Y PROD	UCTION							
					Scraper B	owl (volume) Basi	is:		
Mater	ial weight:	1,600 lbs/LCY			Struck	Volume: 24.00		LCY	
Material d	escription:	Top Soil			Heaped	Volume: <u>34.00</u>		LCY	
Rate	d Payload:	81,600 pounds			Average	Volume: 29.00		LCY	

0.80 Minutes

0.70 Minutes

#### Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 5410 feet

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
Nat Compation	0.820	NIA	

#### Travel Time:

Road Condition: <u>Rutted dirt, little maintenance, no water, 1" tire penetration 4.0</u>

#### Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	5.00	4.00	9.00	733	0.43

Haul Time: **0.43** minutes

#### Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	300.00	-5.00	4.00	-1.00	2920	0.15
				Return Time:	<b>0.15</b> r	ninutes
			Total Scrape	er team cycle time:	2.08	minutes
			Adjusted	for job conditions:	694.33	LCY/Hour
			Selected Nu	imber of Scrapers:	2	Scraper(s)
	Adjuste	d single scraj	per team (unit)	hourly production:	1,388.65	LCY/Hour
	Adjusted n	nultiple scrap	er team (fleet)	hourly production:	1,388.65	LCY/Hour
Optima	Unadjusted unit pro al Number of Scrapers pe	duction/hour er push dozer	: 836.54	LCY/Hour		
JOB T	IME AND COST					
Flee	t size: 1	Team(s)	Т	otal job time:	1.41	Hours

Fleet size:	1	Team(s)	Total job time:	1.41	Hou
Unit cost:	\$1.317	/LCY	Total job cost:	\$2,580	

5J Pit       Permit Action: New Permit       PermitJob#: M2024032         PXDJECT IDENTIFICATION       Task #: 015	Task description:	Aspec	t D - Final	grade			
POJECT IDENTIFICATION         Task #:       015       State:       County:       Abbreviation:       Mone         Dis:       110/15/2024       County:       Larinner       Filename:       M032-015         User:       112       Agency or organization name:       DRMS <b>Agency or organization name:</b> DRMS <b>Agency or organization name:</b> DRMS <b>DURLY EQUIPMENT COST</b> Blade Type:       Semi-Universal       Attachment:       Na         Attachment:       NA       Sint Baais;       1 per day         Data Source:       (CRG)       Cost Hour:       \$173.32       NA         Operating Cost/Hour:       \$173.32       NA       Operating Cost/Hour:       \$0.00       NA         Ripper own.       Cost/Hour:       \$32.307       100       Operating Cost/Hour:       \$546.13         Data Isoic Cost/Hour:       \$523.07         Total Pieter Cost/Hour:       \$646.13       Source of estimated well factor:       1.125         Losser volume:       [LBI LCY       Source of estimated well factor:       Cart Handbook         Diffect mathetic well factor:         Material wolghested hourly production:       [Alon Decry Ir	5J Pit		Perr	nit Action:	New Permit	Permit/Job#:	M2024032
Task #:       015       State:       Colorado       Abbreviation:       None         Date:       10/15/2024       County:       Larimer       Filename:       M032-015         User:       JR2	PROJECT IDEN	TIFICATIC	<u>N</u>				
Agency or organization name:       DRMS         HOURLY EQUIPMENT COST         Basic Machine:       Cat DST - 8SU         Horsepower:       310         Balade Type:       Semi-Universal         Attachment:       NA         Shift Basis:       1 per day         Data Source:       (CRG)         Cost Breakdown:       \$109,71         Ownership Cost/Hour:       \$173,32         MARDOP Cost/Hour:       \$109,71         Napper oven. Cost/Hour:       \$109,71         Operating Cost/Hour:       \$00,00         Ripper oven. Cost/Hour:       \$30,00         Operator Cost/Hour:       \$323,07         Staff Total Fleet Cost/Hour:       \$323,07         Staff Total Fleet Cost/Hour:       \$323,07         Swell factor:       1.25         Loose volume:       _BISI LCY         Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated swell factor:       _Cat Handbook         Honalysteen houlty production:       _Lohoo LCY/hr         Unadjusted houlty production:       _Lohoo LCY/hr         Unadjusted houlty production:       _Lohoo LCY/hr         Material consistency description:       _Consolidated stockpile 1.0         Ave	$\begin{array}{c} \text{Task #:}  \underline{015} \\ \text{Date:}  \underline{10/15} \\ \text{User:}  JR2 \end{array}$	/2024	State: County:	Colorado Larimer		Abbreviation: Filename:	None M032-015
HOURLY EQUIPMENT COST         Basic Machine:       Cat DST - 8SU         Horsepowe::       310         Badac Type:       Semi-Universal         Attachment:       NA         Shift Basis:       1 per day         Data Source:       (CRG)         Cost Breakdown:       1 Utilization %         Ownership Cost/Hour:       \$173.32         MATCONTON:       \$100.71         Ipper own. Cost/Hour:       \$100.80         Ripper op. Cost/Hour:       \$0.00         Operator Cost/Hour:       \$323.07         Total Init Cost/Hour:       \$323.07         Total Fleet Cost/Hour:       \$466.13         MATERIAL OUNTITIES         Initial Volume:       1.613         Source of estimated soull factor:       Icat Handbook         MOURLY PRODUCTION         Source of estimated soull factor:       Icat Handbook         Houristance:       \$0 feet         Unadjusted hourly production:       I.400.0 LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average push distance:       \$50 feet         Unadjusted hourly production:       I.400.0 LCY/hr         Material consistency description:       Consolidated stockpile 1.0	Agency or	organization r	ame: DR	MS			
Basic Machine:       Cat D8T - 8SU         Horsepower:       310         Blade Type:       Semi-Universal         Atachment:       NA         Shift Basis:       1 per day         Data Source:       (CRG)         Cost Breakdown:       1 Utilization %         Ownership Cost/Hour:       \$173.32       NA         Operating Cost/Hour:       \$109.71       100         Ripper op. Cost/Hour:       \$30.00       NA         Ripper op. Cost/Hour:       \$323.07       100         Total unit Cost/Hour:       \$323.07       101         Total Pleet Cost/Hour:       \$323.07       102         Total Rist DUANTITIES       Swell factor:       1.125         Loose volume:       1.613       102         Source of estimated volume:       Operator Estimate (2ac x 6in)       102         Source of estimated swell factor:       Cat Handbook       102         HourkLY PRODUCTION       Average push distance:       50 feet       102         Material sconsistency description:       Consolidated stockpile 1.0       100       100         Average push gradient:       5.40       100 feet       100       100         Material weight:       2.650 lbs/LCY       1000	HOURLY EQUI	PMENT CO	<u>ST</u>				
Horsepower:       310         Blade Type:       Semi-Universal         Attachment:       NA         Shift Basis:       1 per day         Data Source:       (CRG)         Cost Breakdown:       NA         Ownership Cost/Hour:       \$173.32       NA         Operating Cost/Hour:       \$109.71       100         Ripper op. Cost/Hour:       \$0.00       NA         Ripper op. Cost/Hour:       \$323.07         Total unit Cost/Hour:       \$323.07         Total Fleet Cost/Hour:       \$323.07         Total Fleet Cost/Hour:       \$323.07         Total Fleet Cost/Hour:       \$466.13         MATERIAL QUANTITIES       Initial Volume:         Initial Volume:       1.613         Swell factor:       Operator Estimate (2ac x 6in)         Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION       Initial consistency description:         Average push distance:       50 feet         Unadjusted hourly production:       1.400.0 LCY/hr         Material weight:       2.650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Jo	Basic Machine:	Cat D8T - 8	SU				
Blade Type:       Semi-Universal         Attachment:       NA         Shift Basis:       1 per day         Data Source:       (CRG)         Cost Breakdown:       Utilization %         Ownership Cost/Hour:       \$109.71         Operating Cost/Hour:       \$0.00         Name       \$0.00         Ripper own. Cost/Hour:       \$0.00         Operator Cost/Hour:       \$0.00         Operator Cost/Hour:       \$323.07         Total Initic Cost/Hour:       \$46.04         NA       NA         Data Source of cost/Hour:       \$46.13         MATERIAL OUANTITIES       Initial Volume:         Initial Volume:       1.613         Swell factor:       1.125         Loose volume:       Operator Estimate (2ac x 6in)         Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION       Average push distance:         Average push distance:       50 feet         Unadjusted hourly production:       1.400.0 LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average site altitude:       5.410 feet         Material weight:       2.650 lbs/LCY         Weight description:       Decompo	Horsepower:	310					
Attachment:       NA         Shift Basis:       1 per day         Data Source:       (CRG)         Cost Breakdown: <ul> <li>Quarticity Cost/Hour:</li> <li>\$109,71</li> <li>100</li> <li>Ripper oyn. Cost/Hour:</li> <li>\$0,00</li> <li>NA</li> <li>Ripper oyn. Cost/Hour:</li> <li>\$0,00</li> <li>NA</li> </ul> Operating Cost/Hour:         \$0,00         NA           Ripper op. Cost/Hour:         \$0,00         0           Operator Cost/Hour:         \$323,07           Total unit Cost/Hour:         \$323,07           Total Fleet Cost/Hour:         \$323,07           Total Fleet Cost/Hour:         \$323,07           Total Fleet Cost/Hour:         \$323,07           Swell factor:         1.125           Loose volume:         1.815 LCY           Source of estimated soull factor:         Cat Handbook           HOURLY PRODUCTION             Average push distance:         50 feet         1.400.0 LCY/hr           Materials consistency description:         Consolidated stockpile 1.0             Average site altitude:         5.410 feet	Blade Type:	Semi-Univer	rsal				
Data Source:       Ipel day         Data Source: $(CRG)$ Cost Breakdown:       \$173.32         Ownership Cost/Hour:       \$109.71         Ripper own. Cost/Hour:       \$0.00         NA       \$000         Ripper own. Cost/Hour:       \$0.00         Operator Cost/Hour:       \$0.00         Operator Cost/Hour:       \$40.04         NA       \$109.71         Total Init Cost/Hour:       \$323.07         Total Fleet Cost/Hour:       \$646.13         MATERIAL OUANTITIES       Initial Volume:         Initial Volume:       1.613         Swell factor:       1.125         Loose volume:       1.815 LCY         Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated volume:       Cat Handbook         HOURLY PRODUCTION       Average push distance:       50 feet         Naterials consistency description:       Consolidated stockpile 1.0         Average push gradient:       5 %         Average site altitude:       5.410 feet         Material weight:       2.650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source      <	Attachment:	NA 1 por day					
Cost Breakdown:         Cost Breakdown:         Ownership Cost/Hour:       \$173.32         NA         Operating Cost/Hour:       \$109.71         Object of the state of the stat	Data Source:	(CRG)					
Cost Breakdown:       Utilization %         Ownership Cost/Hour:       \$173.32       NA         Operating Cost/Hour:       \$109.71       100         Ripper own. Cost/Hour:       \$0.00       NA         Ripper op. Cost/Hour:       \$0.00       NA         Total unit Cost/Hour:       \$30.00       NA         Total unit Cost/Hour:       \$323.07         Total Fleet Cost/Hour:       \$46.13         MATERIAL OUANTITIES         Initial Volume:       1.613         Swell factor:       1.125         Loose volume:	Data Source.	(CRO)					
Utuzation %         Ownership Cost/Hour:       \$173.32       NA         Operating Cost/Hour:       \$109.71       100         Ripper own. Cost/Hour:       \$0.00       NA         Ripper op. Cost/Hour:       \$0.00       0         Operator Cost/Hour:       \$\$23.07         Status of Cost/Hour:       \$\$23.07         Total unit Cost/Hour:       \$\$40.04       NA         Total Fleet Cost/Hour:       \$\$646.13         MATERIAL QUANTITIES       Initial Volume:       1.613         Swell factor:       1.125	Cost Breakdown:			I	<b>TU1</b> 01		
Operating Cost/Hour: $3173.32$ NA         Operating Cost/Hour: $$109.71$ 100         Ripper own. Cost/Hour: $$0.00$ NA         Operator Cost/Hour: $$0.00$ 0         Operator Cost/Hour: $$0.00$ 0         Operator Cost/Hour: $$323.07$ Total unit Cost/Hour: $$$466.13$ MATERIAL QUANTITIES         Initial Volume:       1.613         Swell factor:       1.125         Loose volume:	Ownorship Cost/U	our		\$172.20	Utilization %		
Operating Cost Hou: $310/.1$ 100         Ripper ovn. Cost/Hour: $$0.00$ 0         Operator Cost/Hour: $$40.04$ NA         Total unit Cost/Hour: $$323.07$ Total Fleet Cost/Hour: $$323.07$ MATERIAL OUANTITIES         Initial Volume: $1.613$ Swell factor: $1.125$ Loose volume: $1.815$ LCY         Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION       Average push distance: $50$ feet         Unadjusted hourly production: $1.400.0$ LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average push gradient: $5.\%$ $5.410$ feet       Material weight: $2.650$ lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill: $0.750$ (AVG.)         Material consistency:       1.0000       (GEN.)	Operating Cost/H	our:		\$175.52	<u> </u>		
Riper op. Cost/Hour: $30.00$ $0$ Operator Cost/Hour: $$30.00$ $0$ Total unit Cost/Hour: $$323.07$ Total Fleet Cost/Hour: $$323.07$ State Cost/Hour: $$3646.13$ MATERIAL QUANTITIES         Initial Volume: $1.613$ Swell factor: $1.125$ Loose volume: $1.815$ LCY         Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION       Average push distance: $50$ feet         Unadjusted hourly production: $1,400.0$ LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average push gradient: $5 %$ Average site altitude: $5.410$ feet         Material weight:       2.650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material consistency:       1.000         Material consistency:       1.000         Material consistency:       1.000	Ripper own. Cost/H	our:		\$0.00	NA		
Operator Cost/Hour:       \$40.04       NA         Total unit Cost/Hour: $$323.07$ Total Fleet Cost/Hour: $$323.07$ Total Fleet Cost/Hour: $$3646.13$ <b>MATERIAL QUANTITIES</b> Initial Volume: $1.613$ Swell factor: $1.125$ Lose volume: $1,815$ LCY         Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated swell factor:       Cat Handbook <b>HOURLY PRODUCTION</b> Average push distance:       50 feet         Unadjusted hourly production:       1.400.0 LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average push gradient: $5 %$ Average site altitude: $5.410$ feet         Material weight:       2.650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material onsistency:       1.000         Operator Skill:       0.750         Material consistency:       1.000         Operator Skill:       0.750	Ripper op. Cost/H	our:		\$0.00	0		
Total unit Cost/Hour:       \$323.07         Total Fleet Cost/Hour:       \$646.13         MATERIAL QUANTITIES         Initial Volume:       1.613         Swell factor:       1.125         Loose volume:       1,815 LCY         Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION       Average push distance:       50 feet         Unadjusted hourly production:       1.400.0 LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average push gradient:       5 %         Systematic estimate       2.650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material consistency:       1.000         Material consistency:       1.000         Material consistency:       1.000         Operator Skill:       0.750         Material consistency:       1.000         Operator Skill:       0.750	Operator Cost/H	our:		\$40.04	NA		
Swell factor:       1.125         Loose volume: <b>1,815</b> LCY         Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION       Average push distance:       50 feet         Unadjusted hourly production:       1,400.0 LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average push gradient:       5 %         Average site altitude:       5,410 feet         Material weight:       2,650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material consistency:       1.000         Operator Skill:       0.750         You with the state in the state i	MATERIAL QU Initial Volume:	ANTITIES 1,613					
Source of estimated volume:       Operator Estimate (2ac x 6in)         Source of estimated swell factor:       Cat Handbook         HOURLY PRODUCTION       Average push distance:       50 feet         Unadjusted hourly production:       1,400.0 LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average push gradient:       5 %         Average site altitude:       5,410 feet         Material weight:       2,650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material consistency:       1.000         Material consistency:       1.000         View of the strength       1.000	Swell factor: Loose volume:	1.125 1,815 LCY					
HOURLY PRODUCTION         Average push distance:       50 feet         Unadjusted hourly production:       1,400.0 LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average push gradient:       5 %         Average site altitude:       5,410 feet         Material weight:       2,650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material consistency:       1.000         Weight description:       0.750	Source of estimated Source of estimated	volume: swell factor:	Operator Cat Hand	Estimate (2a book	с х біп)		
Average push distance:       50 feet         Unadjusted hourly production:       1,400.0 LCY/hr         Materials consistency description:       Consolidated stockpile 1.0         Average push gradient:       5 %         Average site altitude:       5,410 feet         Material weight:       2,650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material consistency:       1.000	HOURLY PROI	<b>DUCTION</b>					
Materials consistency description:       Consolidated stockpile 1.0         Average push gradient:       5 %         Average site altitude:       5,410 feet         Material weight:       2,650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material consistency:       1.000         (CAT HB)         Dozing method:       1.000	Average push distar Unadjusted hourly p	nce: production:	50 feet 1,400.0 LC	Y/hr			
Average push gradient:       5 %         Average site altitude:       5,410 feet         Material weight:       2,650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material consistency:       1.000         Dozing method:       1.000	Materials consistent	cy description:	Consoli	idated stock	pile 1.0		
Material weight:       2,650 lbs/LCY         Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750         Material consistency:       1.000         Dozing method:       1.000         Weight       0.750	Average push gradi Average site altitud	ent: $5\%$ e: $5,4101$	eet				
Weight description:       Decomposed rock - 25% Rock, 75% Earth         Job Condition Correction Factor       Source         Operator Skill:       0.750       (AVG.)         Material consistency:       1.000       (CAT HB)         Dozing method:       1.000       (GEN.)	Material weight:	2,6501	bs/LCY				
Job Condition Correction FactorSourceOperator Skill:0.750(AVG.)Material consistency:1.000(CAT HB)Dozing method:1.000(GEN.)	Weight description:	Decom	posed rock	- 25% Rock	, 75% Earth		
Operator Skill:0.750(AVG.)Material consistency:1.000(CAT HB)Dozing method:1.000(GEN.)	Job Condition Corre	ection Factor			Source		
Material consistency:1.000(CAT HB)Dozing method:1.000(GEN.)	Ope	rator Skill:	0.	750	(AVG.)		
Dozing method: 1.000 (GEN.)	Material co	onsistency:	1.	000	(CAT HB)		
	Dozii	ng method:	1.	000	(GEN.)		

Task # 015

Job efficiency:		0.830	(1 SHIFT/DAY)
Spoil pile:		0.800	(FND-RF)
Push gradient:		0.903	(CAT HB)
Altitude:		1.000	(CAT HB)
Material Weight:		0.868	(CAT HB)
Blade type:		1.000	(PAT)
Net correction	on:	0.3903	
Adjusted unit production:	54	6.42 LCY/hr	
Adjusted fleet production: 10		92.84 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.591/LCY

Total job time:	<b>1.66</b> Hours
Total job cost:	\$1,073

# **REVEGETATION WORK**

Task description:		Seed all disturbed areas			
te: 5J l	Pit	Permit Action:	New Permit	Permit/Job	o#: <u>M2024032</u>
<u>PROJ</u>	ECT IDENTIFIC	CATION			
Tas	sk #: 016	State: Colorado		Abbreviation:	None
Γ	Date: 10/15/2024	County: Larimer		Filename:	M032-016
т	Iser: IR2				

### **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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$456.41

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Nebraska 28	0.40	3.57	\$4.45
Blue Grama - Native	0.45	7.35	\$9.60
Sideoats Grama - El Reno	2.70	8.86	\$65.95
Western Wheatgrass - Native	4.00	10.10	\$36.02
Needlegrass, Green - Lodorm	2.00	8.31	\$17.29
Totals Seed Mix	9.55	38.19	\$133.31

Application

Description		Cost /Acre
Drill Seeding (DRMS Survey Cost)		\$236.64
Το	tal Seed Application Cost/Acre	\$236.64

#### **MULCHING and MISCELLANEOUS**

#### Materials

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

Application

Description		Cost /Acre
		\$
	Total Mulch Application Cost/Acre	ቀስ በስ

#### NURSERY STOCK PLANTING

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

No. of Acres:	27.6	Cost /Acre:	\$826.36
Estimated Failure Rate:	0%	Cost /Acre*:	\$369.95
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$22,807.54
Reseeding Job Cost:	\$0.00
Total Job Cost:	\$22,808
Job Hours:	48.30

## **REVEGETATION WORK**

e: <u>5J Pit</u>	puon.	Permit Action:	New Permit	Permit/Jol	o#:M2024032
PROJECT	IDENTIFIC	ATION			
Task #:	017	State: Colorado		Abbreviation:	None
Date:	10/15/2024	County: Larimer		Filename:	M032-017
<b>TT- - - - - - - - - -</b>	JR2				

# **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
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.61
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$456.41

### **SEEDING**

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Nebraska 28	0.40	3.57	\$4.45
Blue Grama - Native	0.45	7.35	\$9.60
Sideoats Grama - El Reno	2.70	8.86	\$65.95
Western Wheatgrass - Native	4.00	10.10	\$36.02
Needlegrass, Green - Lodorm	2.00	8.31	\$17.29
Totals Seed Mix	9.55	38.19	\$133.31

Application

Description		Cost /Acre
Drill Seeding (DRMS Survey Cost)		\$236.64
	Total Seed Application Cost/Acre	\$236.64

#### **MULCHING and MISCELLANEOUS**

#### Materials

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

Application

Description		Cost /Acre
		\$
	Total Mulch Application Cost/Acre	ቀስ በስ

#### 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

No. of Acres:	5.5	Cost /Acre:	\$826.36
Estimated Failure Rate:	0%	Cost /Acre*:	\$369.95
*Selected Replanting Work Items:	SEEDING		

Initial Job Cost:	\$4,544.98
Reseeding Job Cost:	\$0.00
Total Job Cost:	\$4,545
Job Hours:	9.70

# EQUIPMENT MOBILIZATION/DEMOBILIZATION

e: 5J Pit		Permit Action: New Permit			Permit/Job#: <u>M2024032</u>		
PROJECT IDE	NTIFICATI	ON					
Task #: 018	5	State: Co	olorado		Abbre	viation: None	•
Date: 10/1 User: JR2	15/2024	County: La	rimer		Fi	lename: M032	2-018
Agency of	or organization	n name: DRMS					
EQUIPMENT T	RANSPOR	<u>T RIG COST</u>					
				C	Shift ba	sis: <u>1 per da</u>	ay
Truck	Tractor Desc	ription: GENE	RIC ON-HIGH	WAY TRU 400 HP	JCK TRACTO (2ND HALF,	DR, 6X4, DIESE 2006)	L POWERED,
Truck	k Trailer Desc	ription: G	ENERIC FOLD	ING GOO	SENECK, DR	OP DECK EQU	IPMENT
				RAILER (	(25T, 50T, AN	ND 1001)	
Cost Breakdown:				I RAILER (	(251, 501, AN	ND 1001)	
Cost Breakdown: Available Rig Ca	apacities	0-25 Tons	26-50 Tons	51+	(251, 501, AN	ND 1001)	
<u>Cost Breakdown:</u> Available Rig Ca Ownership	apacities Cost/Hour:	<b>0-25 Tons</b> \$10.44	<b>26-50 Tons</b> \$22.18	<b>51</b> +	(251, 501, AN Tons 3.94	ND 1001)	
Cost Breakdown: Available Rig Ca Ownership Operating	apacities Cost/Hour: Cost/Hour:	<b>0-25 Tons</b> \$10.44 \$26.48	<b>26-50 Tons</b> \$22.18 \$54.55	51+ \$2 \$5	(251, 501, AN <b>Tons</b> (3.94 (5.65	1D 1001)	
Cost Breakdown: Available Rig Ca Ownership Operating Operator	apacities Cost/Hour: Cost/Hour: Cost/Hour:	0-25 Tons \$10.44 \$26.48 \$22.52	<b>26-50 Tons</b> \$22.18 \$54.55 \$22.52	51+ \$2 \$5 \$2	<b>Tons</b> 3.94 5.65 2.52	1D 1001)	
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	0-25 Tons \$10.44 \$26.48 \$22.52 \$0.00	<b>26-50 Tons</b> \$22.18 \$54.55 \$22.52 \$23.53	51+ \$2 \$5 \$2 \$2 \$2 \$2	<b>Tons</b> 3.94 5.65 2.52 3.53	ND 1001)	
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour:	0-25 Tons           \$10.44           \$26.48           \$22.52           \$0.00           \$59.44	<b>26-50 Tons</b> \$22.18 \$54.55 \$22.52 \$23.53 \$122.78	51+ \$2 \$5 \$2 \$2 \$2 \$2 \$2 \$12	<b>Tons</b> 3.94 5.65 2.52 3.53 25.64	<u>(1001)</u>	
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN	0-25 Tons           \$10.44           \$26.48           \$22.52           \$0.00           \$59.44	<b>26-50 Tons</b> \$22.18 \$54.55 \$22.52 \$23.53 \$122.78	<b>51+</b> <b>51+</b> \$2 \$5 \$2 \$2 \$2 \$2 \$12	<b>Tons</b> 3.94 5.65 2.52 3.53 25.64	<u>(1001)</u>	
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADABI Machine	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN Weight/	0-25 Tons \$10.44 \$26.48 \$22.52 \$0.00 \$59.44 MENT: Owner ship	<b>26-50 Tons</b> \$22.18 \$54.55 \$22.52 \$23.53 \$122.78 Haul Rig	51+ \$2 \$5 \$2 \$2 \$12 \$12	<b>Tons</b> 3.94 5.65 2.52 3.53 25.64 Haul Trip	Return Trip	DOT Permit
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB Machine Description	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN Weight/ Unit	0-25 Tons \$10.44 \$26.48 \$22.52 \$0.00 \$59.44 MENT: Owner ship Cost/hr/ unit	<b>26-50 Tons</b> \$22.18 \$54.55 \$22.52 \$23.53 \$122.78 Haul Rig Cost/hr/uni	<b>51+</b> \$2 \$5 \$2 \$2 \$12 Fleet Size	Cost/hr/	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB Machine Description	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: <b>LE EQUIPN</b> Weight/ Unit (TONS)	0-25 Tons           \$10.44           \$26.48           \$22.52           \$0.00           \$59.44           MENT:           Owner ship           Cost/hr/ unit	26-50 Tons \$22.18 \$54.55 \$22.52 \$23.53 \$122.78 Haul Rig Cost/hr/uni t	S1+           \$2           \$5           \$2           \$12           \$2           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12	Tons 3.94 5.65 2.52 3.53 25.64 Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADAB Machine Description Cat D8T - 8SU	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN Weight/ Unit (TONS) 53.08	0-25 Tons           \$10.44           \$26.48           \$22.52           \$0.00           \$59.44           MENT:           Owner ship           Cost/hr/ unit           \$187.85	26-50 Tons \$22.18 \$54.55 \$22.52 \$23.53 \$122.78 Haul Rig Cost/hr/uni t \$125.64	S1+           \$2           \$5           \$2           \$12           \$2           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12	Tons 3.94 5.65 2.52 3.53 25.64 Haul Trip Cost/hr/ fleet \$626.98	Return Trip Cost/hr/ fleet \$251.28	DOT Permit Cost/ fleet \$500.00
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADABI Machine Description Cat D8T - 8SU Cat 631G	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN Weight/ Unit (TONS) 53.08 52.50	0-25 Tons           \$10.44           \$26.48           \$22.52           \$0.00           \$59.44           MENT:           Owner ship           Cost/hr/ unit           \$187.85           \$442.19	26-50 Tons \$22.18 \$54.55 \$22.52 \$23.53 \$122.78 Haul Rig Cost/hr/uni t \$125.64 \$125.64	S1+           \$2           \$5           \$2           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12           \$12	Tons 3.94 5.65 2.52 3.53 25.64 Haul Trip Cost/hr/ fleet \$626.98 \$1,135.66	Return Trip Cost/hr/ fleet \$251.28 \$251.28	DOT Permit Cost/ fleet \$500.00 \$500.00
Cost Breakdown: Available Rig Ca Ownership Operating Operator Helper Total Unit NON ROADABI Machine Description Cat D8T - 8SU Cat 631G Drill/Broadcast Seeder with Tractor	apacities Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: Cost/Hour: LE EQUIPN Weight/ Unit (TONS) 53.08 52.50 25.00	0-25 Tons           \$10.44           \$26.48           \$22.52           \$0.00           \$59.44           MENT:           Owner ship           Cost/hr/ unit           \$187.85           \$442.19           \$41.02	26-50 Tons \$22.18 \$54.55 \$22.52 \$23.53 \$122.78 Haul Rig Cost/hr/uni t \$125.64 \$125.64 \$59.44	S1+           \$2           \$5           \$2           \$5           \$2           \$12           \$12           \$12           \$12           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2           \$2	Tons 3.94 5.65 2.52 3.53 25.64 Haul Trip Cost/hr/ fleet \$626.98 \$1,135.66 \$200.92	Return Trip Cost/hr/ fleet \$251.28 \$251.28 \$118.88	DOT Permit Cost/ fleet \$500.00 \$500.00 \$500.00

# **ROADABLE EQUIPMENT:**

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 1 T. Crew	\$24.60	1	\$24.60	\$24.60
		Subtotals:	\$24.60	\$24.60

# **EQUIPMENT HAUL DISTANCE and Time**

Nearest Major City or Town within project area region:	FORT COLLINS	
Total one-way travel distance:	16.00	miles
Average Travel Speed:	40.00	mph
Total Non-Roadable Mob/Demob Cost *	\$12,922.24	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$19.68	

Transportation Cycle Time:

	Non-	
	Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.40	0.40
Return Time (Hours):	0.40	0.40
Loading Time (Hours):	1.00	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	2.80	0.80

#### JOB TIME AND COST

Total job time: **5.60** Hours

Total job cost: \$12,942