

Renfro - DNR, Joel <joel.renfro@state.co.us>

TR-03 Adequacy Comments

Renfro - DNR, Joel <joel.renfro@state.co.us> To: Jason McGraw <jason.mcgraw@generalshale.com>

Thu, Dec 28, 2023 at 11:55 AM

Hi Jason,

After reviewing your adequacy response to me, I have an updated cost estimation which is attached to this email. Please review it and provide any comments you have so we can make changes as needed. I have not yet approved TR-03 just in case you want to make any changes to affect the total bond. If everything looks okay, let me know and I will approve the TR and we can move on to the Surety Increase process. Just a reminder, the decision date is on January 3, 2024. I know you're on vacation right now and may need extra time to review, so please send me an extension request if you think you'll require more time.

Thanks again for your cooperation through this process, we're almost at the finish line.

Best,

Joel

[Quoted text hidden]

Navajo Tr-03 Cost Estimate.pdf

COST SUMMARY WORK

Task description:		Cost Estimate	U pdated for T	TR-03			
Site: _]	e: _ Navajo Clay Pit		P	Permit Action:		Permit/Jol	o#: <u>M1993004</u>
PR	<u>OJECT :</u>	<u>IDENTIFI(</u>	CATION				
	Task #:	000	State:	Colorado		Abbreviation:	None
	Date:	11/29/2023	County:	Elbert		Filename:	M004-000
	User:	JR2					

TASK LIST (DIRECT COSTS)

Task	Description	Form Used	Fleet Size	Task Hours	Cost
001	Backfill pit with overburden	DOZER	2	29.68	\$25,325
002	Push check dam bricks into pit	DOZER] 1	1.03	\$440
003	Haul and fill pit with remaining scrap brick	SCRAPER1] 1	0.65	\$1,097
004	Cut and fill remaining highwalls to 3H:1V	DOZER] 1	46.13	\$19,679
005	Scrape overburden from stockpile pad and fill pit	SCRAPER1] 1	22.48	\$37,912
006	Rip compacted areas	RIPPER	1	20.44	\$9,162
007	Retopsoil pit area	SCRAPER1	1	10.44	\$17,599
008	Retopsoil stockpile area	SCRAPER1] 1	5.57	\$9,387
009	Retopsoil access road	SCRAPER1] 1	5.75	\$6,573
010	Revegetate 25 acres	REVEGE] 1	25.00	\$53,294
011	Mobilization/demobilization of equipment	MOBILIZE	1	8.20	\$17,111
		<u>SUBTO</u>	TALS:	175.37	\$197,579

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance:	2.02	Total =	\$3,991
Performance bond:	1.05	Total =	\$2,075
Job superintendent:	87.68	Total =	\$5,706
Profit:	10.00	Total =	\$19,758
		TOTAL O & P =	\$31,530
		CONTRACT AMOUNT (direct + $O \& P$) =	\$229,109

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		\$11,455
		-	
CONTINGENCY:	0.00	Total =	\$0
	TOTAL IN	DIRECT COST =	\$43,485
TOTAL BO	ND AMOUNT (d	irect + indirect) =	\$241,064

BULLDOZER WORK

Task description:	Backfill pit	with overburden			
Navajo Clay Pit		Permit Action:	TR-03	Permit/Job#:	M1993004
PROJECT IDENTI	FICATION				
Task #: 001	S	tate: Colorado		Abbreviation:	None
Date: $\frac{12}{222}$				Filename:	M004-001
User: JR2					
Agency or org	ganization name:	DRMS			
HOURLY EQUIPM	IENT COST				
	Cat D8T - 8SU				
	10				
• • •	emi-Universal				
	IA				
	per day				
Data Source:(CRG)				
Cost Breakdown:					
			Utilization %		
Ownership Cost/Hour		\$241.38	NA		
Operating Cost/Hour		\$143.92	100		
Ripper own. Cost/Hour		\$0.00	NA		
Ripper op. Cost/Hour		\$0.00	0		
11 1		\$41.30	NA		
Operator Cost/Hour Total unit Cost/Hour:	\$426.60				
Operator Cost/Hour	\$426.60 \$853.20				
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN	\$426.60 \$853.20				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume:24	\$426.60 \$853.20 VTITIES ,200				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: <u>24</u> Swell factor: <u>1.1</u>	\$426.60 \$853.20 XTITIES ,200 125				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24 Swell factor: 1. Loose volume: 27	\$426.60 \$853.20 XTITIES ,200 125 ,225 LCY				
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 24 Swell factor: 1.1 Loose volume: 27 Source of estimated vol	\$426.60 \$853.20 XTITIES .,200 125 7,225 LCY lume:1.5a	te pit x 10ft			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24 Swell factor: 1. Loose volume: 27	\$426.60 \$853.20 XTITIES .,200 125 7,225 LCY lume:1.5a	c pit x 10ft Handbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 24 Swell factor: 1. Loose volume: 27 Source of estimated vol Source of estimated sw	\$426.60 \$853.20 VTITIES ,200 125 7,225 LCY lume: 1.5a ell factor: Cat				
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 24 Swell factor: 1.1 Loose volume: 27 Source of estimated vol Source of estimated sw <u>HOURLY PRODUC</u>	\$426.60 \$853.20 XTITIES ,200 125 7,225 LCY lume: <u>1.5a</u> ell factor: <u>Cat</u>	Handbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24 Swell factor: 1.7 Loose volume: 27 Source of estimated vol Source of estimated sw HOURLY PRODUC	\$426.60 \$853.20 XTITIES ,200 125 7,225 LCY lume: <u>1.5a</u> ell factor: <u>Cat</u> <u>CTION</u> 150 fe	Handbook			
Operator Cost/Hour: Total unit Cost/Hour: Total Fleet Cost/Hour: <u>MATERIAL QUAN</u> Initial Volume: 24 Swell factor: 1.1 Loose volume: 27 Source of estimated vol Source of estimated sw <u>HOURLY PRODUC</u>	\$426.60 \$853.20 XTITIES ,200 125 7,225 LCY lume: <u>1.5a</u> ell factor: <u>Cat</u> <u>CTION</u> 150 fe	Handbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24 Swell factor: 1.7 Loose volume: 27 Source of estimated vol Source of estimated sw HOURLY PRODUC	\$426.60 \$853.20 XTITIES ,200 125 225 LCY lume: 1.5a ell factor: Cat CTION luction: 634.3	Handbook			
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24 Swell factor: 1.: Loose volume: 27 Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d		Handbook et LCY/hr			
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Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24 Swell factor: 1.: Loose volume: 27 Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description:	\$426.60 \$853.20 XTITIES ,200 125 ,225 LCY lume: <u>1.5a</u> ell factor: <u>Cat</u> CTION luction: <u>634.3</u> lescription: <u>C</u> <u>-5 %</u> <u>6,150 feet</u> <u>2,650 lbs/LC</u> Decomposed	Handbook eet LCY/hr onsolidated stockp	 oile 1.0		
Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume:4 Swell factor:1. Loose volume:7 Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly prod Materials consistency d Average site altitude: Material weight:		Handbook eet LCY/hr onsolidated stockp	 bile 1.0		
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Operator Cost/Hour Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 24 Swell factor: 1.7 Loose volume: 27 Source of estimated vol Source of estimated vol Source of estimated vol Source of estimated sw HOURLY PRODUC Average push distance: Unadjusted hourly proc Materials consistency d Average push gradient: Average site altitude: Material weight: Weight description: Job Condition Correction Operator	\$426.60 \$853.20 VTITIES ,200 125 ,225 LCY lume: <u>1.5a</u> ell factor: <u>Cat</u> CTION luction: <u>150 fe</u> fe 150 fe 634.3 lescription: <u>C</u> <u>-5 %</u> <u>6,150 feet</u> <u>2,650 lbs/LC</u> <u>Decomposed</u> on Factor or Skill: <u></u>	Handbook eet LCY/hr onsolidated stockp Y rock - 25% Rock 0.750	 oile 1.0 , 75% Earth (AVG.)		

Task # 001

Job efficiency:		0.830	(1 SHIFT/DAY)
Spoil pile:		1.000	(DOZ-OC)
Push gradient:		1.115	(CAT HB)
Altitud	de:	1.000	(CAT HB)
Material Weig	ht:	0.868	(CAT HB)
Blade typ	Blade type:		(PAT)
Net correction	on:	0.7230	
Adjusted unit production:	45	8.60 LCY/hr	
Adjusted fleet production: 91		7.2 LCY/hr	

Fleet size:	2 Dozer(s)
Unit cost:	\$0.930/LCY

Total job time:	29.68 Hours
Total job cost:	\$25,325

BULLDOZER WORK

Task description:	Push check	dam bricks mto	pit		
Navajo Clay Pit		Permit Action:	TR-03	Permit/Job#:	M1993004
PROJECT IDENTI	FICATION				
Task #: 002 Date: 12/22/202 User: JR2		ate: <u>Colorado</u> nty: <u>Elbert</u>		Abbreviation: Filename:	None M004-002
Agency or orga	anization name:	DRMS			
HOURLY EQUIPM	ENT COST				
	at D8T - 8SU				
Horsepower: 31					
Blade Type: Se Attachment: N	emi-Universal				
	per day				
	CRG)				
Cost Breakdown:		1	.		
		*•••••••••••••	<u>Utilization %</u>		
Ownership Cost/Hour:		\$241.38	NA		
Operating Cost/Hour:		\$143.92	100 NA		
Ripper own. Cost/Hour: Ripper op. Cost/Hour:		\$0.00 \$0.00	<u>NA</u> 0		
Ripper op. Cost/Hour:		\$0.00	NA U		
Operator Cost/Hour:			NA		
Operator Cost/Hour: Fotal unit Cost/Hour: Fotal Fleet Cost/Hour: MATERIAL QUAN	\$426.60 \$426.60	\$1130			
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.0	\$426.60 \$426.60 TITIES				
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.0 Loose volume: 231 Source of estimated volu Source of estimated swe	\$426.60 \$426.60 TITIES 00 LCY ume: Estin cll factor: Cat 1		ums + additional 25% vo	olume of OB	
Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.00 Loose volume: 231 Source of estimated volume	\$426.60 \$426.60 TITIES 00 LCY ume: Estin cll factor: Cat 1	nated 25 check da		olume of OB	
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Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.0 Loose volume: 231 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance:	\$426.60 \$426.60 TITIES 00 L LCY ume: Estin cat 1 Cat 1	nated 25 check da Handbook		olume of OB	
Fotal unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.0 Loose volume: 231 Source of estimated volu Source of estimated swe HOURLY PRODUC	<u>\$426.60</u> 5426.60 TITIES 1 00 1 LCY ume: <u>Estin</u> 21 factor: <u>Cat 1</u> CTION uction: <u>200 fee</u> 491.9 1	nated 25 check da Handbook	ums + additional 25% vc	olume of OB	
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Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.0 Loose volume: 231 Source of estimated volu Source of estimated swe HOURLY PRODUC Average push distance: Unadjusted hourly produ	<u>\$426.60</u> 5426.60 TITIES 1 00 1 LCY ume: <u>Estin</u> 21 factor: <u>Cat 1</u> CTION uction: <u>200 fee</u> 491.9 1	mated 25 check da Handbook et LCY/hr	ums + additional 25% vc	olume of OB	
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Total unit Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.0 Loose volume: 231 Source of estimated volu 201 Source of estimated volu 201 Source of estimated volu 201 Average push distance: 100 Unadjusted hourly produ 201 Materials consistency de 201 Average push gradient: 201 Average site altitude: 201 Material weight: 201 Weight description: 201 100 201 201 201 202 201 203 201 204 201 205 201 206 201 207 201 208 201 209 201 209 201 201 201 202 201 203 201 204 201 205 201 <td>\$426.60 \$426.60 TITIES 00 LCY ume: Estin Cat 1 Cat 1 Cat</td> <td>nated 25 check da Handbook et LCY/hr ock, avg. ripped or Y 0.750</td> <td>ums + additional 25% vc r blasted 0.7 Source (AVG.)</td> <td>olume of OB</td> <td></td>	\$426.60 \$426.60 TITIES 00 LCY ume: Estin Cat 1 Cat	nated 25 check da Handbook et LCY/hr ock, avg. ripped or Y 0.750	ums + additional 25% vc r blasted 0.7 Source (AVG.)	olume of OB	
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Total unit Cost/Hour: Total Fleet Cost/Hour: Total Fleet Cost/Hour: MATERIAL QUAN Initial Volume: 231 Swell factor: 1.0 Loose volume: 231 Source of estimated volu Source of estimated swell HOURLY PRODUC Average push distance: Unadjusted hourly product Materials consistency defined Average push gradient: Average site altitude: Material weight: Weight description: Iob Condition Correction Operator Material consis Dozing m	\$426.60 \$426.60 TITIES 00 LCY ume: Estin 00 LCY ume: Estin Cat 1 Cat	nated 25 check da Handbook et LCY/hr ock, avg. ripped or Y 0.750	ums + additional 25% vc r blasted 0.7 Source (AVG.)	olume of OB	

Task # 002

ey: 0.830	(1 SHIFT/DAY)
le: 1.000	(DOZ-OC)
nt: 1.115	(CAT HB)
le: 1.000	(CAT HB)
ht: 0.780	(CAT HB)
be: 1.000	(PAT)
on:0.4548	
223.72 LCY/hr	
223.72 LCY/hr	
	le: 1.000 nt: 1.115 le: 1.000 ht: 0.780 be: 1.000 on: 0.4548 223.72 LCY/hr

Fleet size:	1 Dozer(s)
Unit cost:	\$1.907/LCY

Total job time:	1.03 Hours
Total job cost:	\$440

Site: Navajo Cla	ay Pit		Permit	Action:	Tr-03	Perr	nit/Job#: _	M19930	04
PROJECT 2	<u>IDENT</u>	IFICATION							
	003		State: C	Colorado		Abbrev		None	
	12/22/2 JR2	023 Cor	unty: <u>E</u>	Elbert		Fil	ename:	M004-00	3
				~					
Age	ncy or o	rganization name:	DRM	S					
HOURLY H	EQUIP	MENT			COSTS	nift basis: <u>1 per d</u>	a <u>y</u>		
					ent Description				
			craper: Dozer:	Cat 627 NA	G				
	Suppor	t Equipment -Loa		Cat D8'	Γ - 8SU				
		-Dum	p Area:	NA					
Re	oad Mai	ntenance – Motor	Grader: Truck:	CAT 14	IM Fanker, 2,500 Gal.				
		- water	TTUCK.	water	anker, 2,300 Gai.				
Cost Breakdo	own:	Scraper Wor	rk Team		Support Equip	oment			quipment
		Scraper	Doz	zer	Load Area	Dump Area	Motor G	rader	Water Tr
%Utilization-mag	chine:	100		NA	50	NA		50	
Ownership cost	/hour:	\$230.18		NA	\$241.38	NA	\$14	49.33	\$1
Operating cost	/hour:	\$281.21		NA	\$71.96	NA	\$4	46.40	\$1
%Utilization-r	ripper:	NA		NA	NA	NA		NA	
Ripper own. cost		NA		NA	\$0.00	NA		\$0.00	\$
Ripper op. cost		NA		NA	\$0.00	NA		\$0.00	\$
Operator cost		\$30.90		NA	\$41.30	NA		28.56	\$
Unit Subt		\$542.29		NA	\$354.64	NA	\$22	24.28	\$2
Number of		2		0	1	0		1	
Group Subt	totals:	Work:	\$1,084	4.58	Support:	\$354.64	Ν	laint:	\$247.0
Total work te: MATERIA		hour: \$1,686.31 NTITIES							
Initial vo		500 500		CCY	Swell fact	or: <u>1.000</u>			
Loose vo				LCY					
S		ce of estimated vo f estimated swell f		Operator Cat Hand	will import 500 c lbook	ey of scrap brick for	or pit backf	fill	
HOURLY H	PRODU	UCTION							
					Scraper Bo	owl (volume) Basi	<u>s:</u>		
Material w		2,950 lbs/LCY			Struck V	Volume: <u>15.70</u>			
Material descri	± _	Slag - broken			Heaped				
Rated Pa Payload Cap		52,800 pounds			Average V			- LC	
r avioau Cat	Dacity:	17.90 LCY			Adjusted C	Capacity: 17.90		LC	

0.70 Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6150 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, 2" tire penetration 5.0</u>

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	5.00	5.00	10.00	1068	0.69

Haul Time: **0.69** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	700.00	-5.00	5.00	0.00	2921	0.33
				Return Time:	0.33	minutes
			Total Scrap	er team cycle time:	2.32	minutes
			Adjusted	for job conditions:	384.20	LCY/Hour
			Selected N	umber of Scrapers:	2	Scraper(s)
	Adjusted	d single scrap	per team (unit)	hourly production:	768.39	LCY/Hour
	Adjusted m	nultiple scrap	er team (fleet)	hourly production:	768.39	LCY/Hour
	Unadjusted unit pro	duction/hour:	462.89	LCY/Hour		
Optima	al Number of Scrapers pe	r push dozer:	:			

Fleet size:	1	Team(s)	Total job time:	0.65	Hours
Unit cost:	\$2.195	/LCY	Total job cost:	\$1,097	

BULLDOZER WORK

			valls to 3H:1V		
Navajo Clay Pit	Perr	nit Action:	TR-03	Permit/Job#:	M1993004
PROJECT IDENTIF	ICATION				
Task #: 004	State:	Colorado		Abbreviation:	None
Date: $12/22/2023$		Elbert		Filename:	M004-004
User: JR2	County:			<u> </u>	
Agency or organ	nization name: DR	MS			
HOURLY EQUIPME	ENT COST				
	t D8T - 8SU				
Horsepower: 310					
• 1	mi-Universal				
Attachment: NA					
	ber day				
Data Source: (CH	RG)				
Cost Breakdown:		I	I 14:11: 44' 04		
Ownership Cost/Hour:		\$241.38	<u>Utilization %</u> NA		
Operating Cost/Hour:		\$241.38 \$143.92	<u> </u>		
Ripper own. Cost/Hour:		\$0.00	NA		
Ripper op. Cost/Hour:		\$0.00	0		
		\$41.30			
Operator Cost/Hour:		\$41.50	NA		
MATERIAL QUANT Initial Volume: 14,5	583				
Initial Volume: <u>14,5</u> Swell factor: <u>1.12</u>	583				
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volume	583 25 106 LCY me:1,740 ft L		H:1V to 3H:1V Slopes		
Initial Volume:14,5Swell factor:1.12Loose volume:16,4	583 25 106 LCY me: <u>1,740 ft L</u>		H:1V to 3H:1V Slopes		
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volume	583 25 106 LCY me: <u>1,740 ft L</u> 1 factor: <u>Cat Hand</u>		H:1V to 3H:1V Slopes		
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance:	583 25 106 LCY me: <u>1,740 ft L</u> ll factor: <u>Cat Handl</u> TION _200 feet	book	H:1V to 3H:1V Slopes		
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volu Source of estimated swel HOURLY PRODUCT	583 25 106 LCY me: <u>1,740 ft L</u> ll factor: <u>Cat Handl</u> TION _200 feet	book	H:1V to 3H:1V Slopes		
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance:	583 25 106 LCY me: <u>1,740 ft L</u> 1 factor: <u>Cat Handl</u> TION 200 feet ction: <u>491.9 LCY/</u>	book			
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product	583 25 106 LCY me: <u>1,740 ft L</u> 1 factor: <u>Cat Handl</u> TION 200 feet ction: <u>491.9 LCY/</u>	book hr			
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volu Source of estimated swell HOURLY PRODUC? Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude:	583 25 106 LCY me: <u>1,740 ft L</u> 1 factor: <u>Cat Handle</u> 1 factor: <u>200 feet</u> ction: <u>200 feet</u> 491.9 LCY/2 scription: <u>Consoli</u> 5 %	book hr			
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volu Source of estimated swell HOURLY PRODUC? Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude:	583 25 106 LCY me: 1,740 ft L 1 factor: Cat Handl TION ction: 200 feet scription: Consoli -5 % 6,150 feet	book hr idated stockp			
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volu Source of estimated swell HOURLY PRODUCT Average push distance: Unadjusted hourly product Materials consistency des Average push gradient: Average site altitude: Material weight: Material weight:	583 25 106 LCY me: 1,740 ft L 1 factor: Cat Handl TION ction: 200 feet ction: 491.9 LCY/I scription: Consoli -5 % 6,150 feet 2,650 lbs/LCY Decomposed rock	book hr idated stockp			
Initial Volume:14,5Swell factor:1.12Loose volume:16,4Source of estimated voluSource of estimated swellHOURLY PRODUCTAverage push distance:Unadjusted hourly productMaterials consistency desAverage push gradient:Average site altitude:Material weight:Weight description:	583 25 106 LCY me: 1,740 ft L Il factor: Cat Handl TION ction: 200 feet ction: 491.9 LCY/ scription: Consoli -5 % 6,150 feet 2,650 lbs/LCY Decomposed rock n Factor 1	book hr idated stockp	 bile 1.0		
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volu Source of estimated swell 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	583 25 106 LCY me: 1,740 ft L Il factor: Cat Handl TION ction: 200 feet ction: 491.9 LCY// scription: Consoli -5 % 6,150 feet 2,650 lbs/LCY Decomposed rock h Factor Skill: 0.7 still: 0.7	book hr idated stockp - 25% Rock, 750 000	 bile 1.0 . 75% Earth Source		
Initial Volume: 14,5 Swell factor: 1.12 Loose volume: 16,4 Source of estimated volu Source of estimated swell 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 Dozing me	$\begin{array}{c} 583 \\ \hline 25 \\ \hline 106 LCY \\ \hline me: 1,740 ft L \\ \hline ll factor: Cat Handle \\ \hline IION \\ \hline ction: 491.9 LCY/ \\ \hline scription: Consoli \\ \hline -5 \% \\ \hline 6,150 feet \\ \hline 2,650 lbs/LCY \\ \hline Decomposed rock \\ \hline Factor \\ \hline Skill: 0.7 \\ \hline tency: 1.0 \\ \hline cthod: 1.7 \\ \hline \end{array}$	book hr idated stockp - 25% Rock, 750	bile 1.0 5.75% Earth (AVG.)		

Task # 004

Job efficience	cy: 0.830	(1 SHIFT/DAY)
Spoil pi	le: 1.000	(DOZ-OC)
Push gradie	nt: 1.115	(CAT HB)
Altitud	le: 1.000	(CAT HB)
Material Weig	ht: 0.868	(CAT HB)
Blade typ	pe: 1.000	(PAT)
Net correction	on: 0.7230	
Adjusted unit production:	355.64 LCY/hr	
Adjusted fleet production:	355.64 LCY/hr	

Fleet size:	1 Dozer(s)
Unit cost:	\$1.200/LCY

Total job time:	46.13 Hours
Total job cost:	\$19,679

Site: Navajo Clay P	it	Permit	t Action:	Tr-03	Perr	nit/Job#: <u>M19</u>	93004
PROJECT IDE	NTIFICATION						
Task #: 005	S	State: (Colorado		Abbrev	viation: None	
	2/2023 Cor		Elbert			ename: M004	1-005
User: JR2		·					
Agency	or organization name:	DRM	IS				
HOURLY EQU	IPMENT			COSTS	nift basis: <u>1 per d</u>	ay	
			Equipme	ent Description			
		Scraper:	Cat 627				
		-Dozer:	NA	T 0.011			
Suj	port Equipment -Loa	d Area: p Area:	Cat D8 NA	T - 8SU			
Road	Maintenance – Motor		CAT 14	4M			
	-Water	Truck:		Tanker, 2,500 Gal	•		
		1					- ·
Cost Breakdown	Scraper Work	rk Team Doz	zer	Support Equij Load Area	Dump Area	Maintenanc Motor Grader	e Equipmen Water T
%Utilization-machin	_		NA	50	NA	50	
Ownership cost/hou			NA	\$241.38	NA	\$149.33	
Operating cost/hou			NA	\$71.96	NA	\$46.40	
%Utilization-rippe			NA	NA	NA	940.40 NA	
Ripper own. cost/hou			NA	\$0.00	NA	\$0.00	
Ripper op. cost/hou			NA	\$0.00	NA	\$0.00	
Operator cost/hou			NA	\$41.30	NA	\$28.56	
Unit Subtotal			NA	\$354.64	NA	\$224.28	
Number of Unit			0	1	0	+1	
Group Subtotal		\$1,08	34.58	Support:	\$354.64	Maint	\$247.
Total work team of	ost/hour: \$1,686.31		1			L	
MATERIAL Q	UANTITIES						
Initial volun	ie: 16,456		CCY	Swell fact	or: 1.125		
Loose volum	· · · · · · · · · · · · · · · · · · ·		LCY				
S	ource of estimated vo	olume:	3.4 ac ar	ea x 3 ft depth			
Sour	ce of estimated swell f	factor:	Cat Han	dbook			
HOURLY PRO	DUCTION						
				Scraper Bo	owl (volume) Basi	is:	
Material weigh	t: 2,650 lbs/LCY			Struck	Volume: 15.70		LCY
Material descriptio		k - 25% I	Rock,	Heaped			LCY
				A	10.05		LCY
Rated Payloa	d: 52,800 pounds			Average	Volume: 18.85		LUI

<u>0.70</u> Minutes

0.60 Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6150 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	5.00	3.00	8.00	1381	0.64

Haul Time: **0.64** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	-5.00	3.00	-2.00	2938	0.34

Return Time:	0.34	minutes
Total Scraper team cycle time:	2.28	minutes
Adjusted for job conditions:	411.72	LCY/Hour
Selected Number of Scrapers:	2	Scraper(s)
Adjusted single scraper team (unit) hourly production:	823.45	LCY/Hour
Adjusted multiple scraper team (fleet) hourly production:	823.45	LCY/Hour
Unadjusted unit production/hour: 496.05 LCY/Hour		

Unadjusted unit production/hour: 496.05 LCY/Hour Optimal Number of Scrapers per push dozer:

Fleet size:	1	Team(s)	Total job time:	22.48	Hours
Unit cost:	\$2.048	/LCY	Total job cost:	\$37,912	_

BULLDOZER RIPPING WORK

	Task description	Ri	p compacted areas				
Site	Navajo Clay	Pit	Permit Action:	TR-03	Permit/Job	#: <u>M1993</u>	8004
	PROJECT ID	ENTIFICAT	<u>TION</u>				
	Task #: 00	б	State: Colorado		Abbreviation	: None	
		/22/2023	County: Elbert		Filename	: M004-0	006
	User: JR	2	-				
	Agency	or organization	on name: DRMS				
	HOURLY EQ	UIPMENT (COST				
	Basic	Machine: C	Cat D8T - 8SU		Horsepower:	310	
	Ripper Att	tachment: 3	-Shank Ripper		Shift Basis:	l per day	
					Data Source:	(CRG)	
	Cost Breakdown	<u>:</u>		1			
		0		¢241.29	Utilization %		
			Cost/Hour: Cost/Hour:	\$241.38 \$143.92	<u>NA</u> 100		
	Ripp	er Ownership		\$14.11	NA		
		per Operating		\$7.45	100		
		-	Cost/Hour:	\$41.30	NA		
		Total Unit	Cost/Hour:	\$448.16			
		Total Fleet	Cost/Hour: \$448	3.16			
	MATERIAL ()UANTITIE	S Sele	cted estimating	method: Area		
	Alternate Method			eted estimating			,
C . :		<u></u>	Dank Valuma	NT A	DCV	NT A	
Seismic: Area:	<u>NA</u> 13.70	acres	Bank Volume: _ Rip Depth (ft):	NA 1.50	BCY Volume: 33,154	NA	BCY or CCY
nicu.	15.70						
			timated quantity: <u>16 ac to</u>	otal disturbance	- 2 ac pit noor - 0.5 ac po	ond	
	HOURLY PR	ODUCTION	<u> </u>				
	Seismic:						
			Seismic Velocity:	NA	feet/second		
	Area:						
			age Ripping Depth:	2.56	feet/pass		
			age Ripping Width:	7.08	feet/pass		
			ge Ripping Length: erage Dozer Speed:	350.00 88.00	feet/pass feet/minute		
			ge Maneuver Time:	0.25	minutes/pass		
			uction per unit area:	0.807	acres/hour		
	Job Condition Co	orrection Facto	D <u>rs</u>				
	Ur	adjusted Hour	ly Unit Production:	0.807	Acres/hr		
	01	luajustea 110al					
			Site Altitude: Altitude Adj:	6,150 1.00	feet (CAT HB)		
			Job Efficiency:	0.83	(1 shift/day)		
			Net Correction:	0.83	multiplier		
		Adjust	ed Hourly Unit Production:	0.67	Acres/hr		
			d Hourly Fleet Production:	0.67	Acres/hr		
	JOB TIME AN	· ·	,				
				TT 1 . 1	20.44		
	Fleet size:	1	Grader(s)	Total job time	e: <u>20.44</u>	H	ours
	Unit cost:	\$668.730	Per acre	Total job cos	t: \$9,162		

Site: Navajo Clay Pit		Permit Action:	Tr-03	Perr	mit/Job#: <u>M199</u>	3004
PROJECT IDEN	NTIFICATION					
Task #: 007	S	State: Colorado		Abbrev	viation: None	
	2/2023 Cor	unty: Elbert		Fil	ename: M004-	007
User: JR2						
Agency of	r organization name:	DRMS				
HOURLY EQUI	IPMENT		COSTS	hift basis: <u>1 per d</u>	<u>ay</u>	
			ent Description			
		Scraper: Cat 627	7G			
Supr	oort Equipment -Loa	-Dozer: NA d Area: Cat D8'	T - 8SU			
Subt		p Area: NA	1 050			
Road M	laintenance – Motor					
	-Water	Truck: Water	Fanker, 2,500 Gal	•		
Cost Breakdown:	Scraper Wo	rk Team	Support Equi	pment	Maintenance	Equipment
<u></u> .	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Tr
%Utilization-machine:	100	NA	50	NA	50	
Ownership cost/hour:	\$230.18	NA	\$241.38	NA	\$149.33	\$1
Operating cost/hour:	\$281.21	NA	\$71.96	NA	\$46.40	\$1
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	\$0.00	NA	\$0.00	\$
Ripper op. cost/hour:	NA	NA	\$0.00	NA	\$0.00	\$
Operator cost/hour:	\$30.90	NA	\$41.30	NA	\$28.56	\$
Unit Subtotals:		NA	\$354.64	NA	\$224.28	\$2
Number of Units:		0	1	0	1	
Group Subtotals:	Work:	\$1,084.58	Support:	\$354.64	Maint:	\$247.0
Total work team co <u>MATERIAL QU</u> Initial volume	JANTITIES	 CCY	Swell fac	tor: 1.215		
Loose volume		LCY	5 wen fue	1.215		
Sc	ource of estimated vo	olume: Pit area =	= 6.3 ac x 8 in dep	oth		
	e of estimated swell					
HOURLY PRO	DUCTION					
			Scraper B	owl (volume) Basi	is:	
Material weight	: 1,600 lbs/LCY		Struck	Volume: 15.70	L	CY
Material description	: Top Soil			Volume: 22.00		CY
Rated Payload			Average			CY
-	: Top Soil : 52,800 pounds		Heaped	Volume: 22.00 Volume: 18.85	L	C C

0.70 Minutes

<u>0.60</u> Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6150 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	900.00	5.00	3.00	8.00	1381	0.70

Haul Time: **0.70** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	900.00	-5.00	3.00	-2.00	2938	0.38
				Return Time:	0.38 1	ninutes
			Total Scrape	r team cycle time:	2.38	minutes
			Adjusted	for job conditions:	394.42	LCY/Hour
			Selected Nu	imber of Scrapers:	2	Scraper(s)
	Adjuste	d single scrap	er team (unit) l	nourly production:	788.85	LCY/Hour
	Adjusted m	ultiple scrape	er team (fleet) l	nourly production:	788.85	LCY/Hour
	Unadjusted unit pro- al Number of Scrapers pe			LCY/Hour		

Fleet size:	1	Team(s)	Total job time:	10.44	Hours
Unit cost:	\$2.138	/LCY	Total job cost:	\$17,599	

Site: Navajo Clay Pit		Permit	t Action:	Tr-03	Perr	mit/Job#: <u>M199</u>	3004
PROJECT IDEN	TIFICATION						
Task #: 008	S	tate: (Colorado		Abbrev	viation: None	
Date: 12/22/2	2023 Cou	nty: l	Elbert		Fil	ename: M004-	008
User: JR2							
Agency or o	organization name:	DRM	IS				
HOURLY EQUIE	PMENT_			COSTSI	nift basis: <u>1 per d</u>	<u>ay</u>	
				ent Description			
		craper: Dozer:	Cat 627 NA	G			
Suppo	ort Equipment -Load		Cat D8'	T - 8SU			
	-Dump		NA				
Road Ma	intenance –Motor C -Water		CAT 14 Water 7	<u>1M</u> Fanker, 2,500 Gal.			
	Water	TTUCK.	water	Talikel, 2,500 Gai			
Cost Breakdown:	Scraper Wor	k Team		Support Equip	oment	Maintenance	
	Scraper	Doz	zer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100		NA	50	NA	50	5
Ownership cost/hour:	\$230.18		NA	\$241.38	NA	\$149.33	\$11.3
Operating cost/hour:	\$281.21		NA	\$71.96	NA	\$46.40	\$11.4
%Utilization-ripper:	NA		NA	NA	NA	NA	N
Ripper own. cost/hour:	NA		NA	\$0.00	NA	\$0.00	\$0.0
Ripper op. cost/hour:	NA		NA	\$0.00	NA	\$0.00	\$0.0
Operator cost/hour:	\$30.90		NA	\$41.30	NA	\$28.56	\$0.0
Unit Subtotals:	\$542.29		NA	\$354.64	NA	\$224.28	\$22.8
Number of Units:	2		0	1	0	1	
Group Subtotals:	Work:	\$1,08	34.58	Support:	\$354.64	Maint:	\$247.09
Total work team cost	t/hour: <u>\$1,686.31</u>						
MATERIAL QUA	ANTITIES						
Initial volume:	5,001		CCY	Swell fact	or: <u>1.215</u>		
Loose volume:	6,076		LCY				
	rce of estimated vol of estimated swell fa		Stockpile Cat Hand	e area = (6.5 ac - (dbook).3 ac pond) x 6 ir	n depth	
HOURLY PROD	<u>UCTION</u>						
				Scraper Bo	owl (volume) Basi	is:	
Material weight:	1,600 lbs/LCY			Struck	Volume: 15.70	L	СҮ
Material description:	Top Soil			Heaped	Volume: 22.00	L	CY
Rated Payload:	52,800 pounds			Average			CY
Payload Capacity:	33.00 LCY			Adjusted C	Capacity: 18.85	L	CY

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time: 0.70 Minutes 0.60 Minutes

Job Condition Correction:

Site Altitude: 6150 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	200.00	1.00	3.00	4.00	2665	0.25

Haul Time: **0.25** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	200.00	-1.00	3.00	2.00	2905	0.17
				Return Time:	0.17	minutes
			Total Scrape	r team cycle time:	1.72	minutes
			Adjusted f	for job conditions:	545.77	LCY/Hour
		Selected Number of Scrapers:				Scraper(s)
	Adjusted single scraper team (unit) hourly production:				1,091.55	LCY/Hour
	Adjusted n	nultiple scrap	er team (fleet) h	nourly production:	1,091.55	LCY/Hour
	Unadjusted unit pro	duction/hour:	657.56	LCY/Hour		

Fleet size:	1	Team(s)	Total job time:	5.57	Hours
Unit cost:	\$1.545	/LCY	Total job cost:	\$9,387	

Site: Navajo Clay Pit	P	ermit Action:	Tr-03	Perr	mit/Job#: <u>M1993</u>	3004
PROJECT IDENT	IFICATION					
Task #: 009	State	: Colorado		Abbrev	viation: None	
Date: 12/22/2	2023 County	: Elbert		Fil	ename: M004-0)09
User: JR2						
Agency or o	organization name:	DRMS				
HOURLY EQUIP	<u>'MENT</u>		COSTSh	nift basis: <u>1 per d</u>	<u>ay</u>	
		Equipme	ent Description			
	-Scraj	per: Cat 627				
Suppo	-Doz rt Equipment -Load Ar		T - 8SU			
Suppor	-Dump Ai		1-050			
Road Mai	intenance – Motor Grad					
	-Water Tru	ick: Water	Fanker, 2,500 Gal.			
Cost Breakdown:	Scraper Work T	'eam	Support Equip	oment	Maintenance	Equipment
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Tr
%Utilization-machine:	100	NA	50	NA	50	
Ownership cost/hour:	\$230.18	NA	\$241.38	NA	\$149.33	\$1
Operating cost/hour:	\$281.21	NA	\$71.96	NA	\$46.40	\$1
%Utilization-ripper:	NA	NA	NA	NA	NA	
Ripper own. cost/hour:	NA	NA	\$0.00	NA	\$0.00	\$
Ripper op. cost/hour:	NA	NA	\$0.00	NA	\$0.00	\$
Operator cost/hour:	\$30.90	NA	\$41.30	NA	\$28.56	\$
Unit Subtotals:	\$542.29	NA	\$354.64	NA	\$224.28	\$2
Number of Units:	1	0	1	0	1	
Group Subtotals:	Work:	\$542.29	Support:	\$354.64	Maint:	\$247.0
Total work team cost		_				
Initial volume:	2,581	CCY	Swell facto	or: <u>1.215</u>		
Loose volume:	3,136	LCY				
	rce of estimated volum of estimated swell facto		$oad = 3.2 ac \ge 6 in$ dbook	depth		
	UCTION					
HOURLY PRODU						
HOURLY PRODU			Scraper Bo	owl (volume) Basi	<u>is:</u>	
HOURLY PRODU	1,600 lbs/LCY		<u>Scraper Bo</u> Struck V			CY
			_	Volume: 15.70 Volume: 22.00	L0	CY CY CY

 $\frac{0.70}{0.60}$ Minutes

Cycle Time:

Scraper Loading Time: Maneuver and Spread Time:

Job Condition Correction:

Site Altitude: 6150 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: Firm, smooth, rolling, dirt/lt. surfaced, watered, maintained 3.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	200.00	1.00	3.00	4.00	2665	0.25

Haul Time: **0.25** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	200.00	-1.00	3.00	2.00	2905	0.17
				Return Time:	0.17	minutes
			Total Scrape	r team cycle time:	1.72	minutes
			Adjusted f	or job conditions:	545.77	LCY/Hour
			Selected Nu	mber of Scrapers:	1	Scraper(s)
	Adjusted	l single scrap	er team (unit) h	ourly production:	545.77	LCY/Hour
	Adjusted m	ultiple scrape	er team (fleet) h	ourly production:	545.77	LCY/Hour
Optima	Unadjusted unit prov al Number of Scrapers pe			LCY/Hour		
-	IME AND COST	i pusii dozer.				

Fleet size:1Team(s)Total job time:5.75HoursUnit cost:\$2.096/LCYTotal job cost:\$6,573

REVEGETATION WORK

Task description:		Revegetate 25 acres				
Site: Navajo C	Clay Pit	Permit Action: TR-03		Permit/Job#: <u>M1993004</u>		
PROJECT	IDENTIFIC	ATION				
Task #:	010	State: Colorado		Abbreviation:	None	
Date:	12/22/2023	County: Elbert		Filename:	M004-010	
User:	JR2					
Age	ency or organiz	zation name: DRMS				

FERTILIZING

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
Potassium nitrate, 13-46-0	307.00	pound	\$0.68	\$208.76
			Total Fertilizer Materials	
			Cost/Acre	\$208.76

Application

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

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$112.82
Weed control spraying (MEANS 31 31 16.13 3100)	\$338.80
Total Tilling Cost/Acre	\$451.62

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Switchgrass - Blackwell	1.35	12.06	\$15.53
Blue Grama - Lovington	0.30	4.90	\$4.79
Sideoats Grama - Vaughn	0.90	2.95	\$7.54
Western Wheatgrass - Arriba	3.20	8.08	\$20.80
Prairie Sandreed - Goshen	1.95	12.22	\$20.18
Totals Seed Mix	7.70	40.21	\$68.84

Application

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

MULCHING and MISCELLANEOUS

Materials

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

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$74.46
Weed spray, hand, aquatic area, annuals [DMG]		\$119.47
	Total Mulch Application Cost/Acre	\$193.93

NURSERY STOCK PLANTING

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

Estimate *Selected Replanti	No. of Acres: ed Failure Rate:	25%	Cost /Acre: Cost /Acr <u>e*</u> :	
Initial Job Cost:	\$51,413.50	SEEDING		
Reseeding Job Cost: Total Job Cost: Job Hours:	\$53,294			

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description	n: Mo	bilization/demob	ilization of equ	ipment			
e: Navajo Clay Pit Permit Action: TR-03			Permit/Job#: <u>M1993004</u>				
PROJECT IDE	ENTIFICATI	<u>ON</u>					
Task #: 01	1	State: Co	olorado		Abbre	eviation: Non	ne
	2/22/2023	County: El	bert		F	ilename: M00	04-011
User: JR							
Agency	or organization	n name: DRMS					
<u>EQUIPMENT</u>	TRANSPOR	<u>T RIG COST</u>					
					Shift ba		
				(Cost Data Sou	rce: CRG I	Data
Truc	ck Tractor Desc	ription: GENE	RIC ON-HIGH	WAY TRI	ICK TRACTO	DR. 6X4. DIESI	EL POWERED,
1100					(2ND HALF,		
Tm	ck Trailer Desc	rintion:	ENERIC FOLD				UIPMENT
Iru	CK ITAIIEI DESC				(25T, 50T, A)	•	
			1	INAILEN	(231, 301, AI	ND 1001)	
Cost Breakdown:							
Available Rig		0-25 Tons	26-50 Tons	51-	+ Tons		
	ip Cost/Hour:	\$20.26	\$36.04	\$4	47.05		
	ng Cost/Hour:	\$39.51	\$76.08		82.85		
	or Cost/Hour:	\$22.52	\$22.52		22.52		
	er Cost/Hour:	\$0.00	\$23.53		23.53		
	it Cost/Hour:	\$82.29	\$158.17		75.95		
	in Cost/110ul.	ψ02.27	φ130.17	φ1	13.75		
NON ROADA	BLE EQUIPN	MENT:					
Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/uni	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
r	(TONS)		t		fleet		
Cat D8T - 8SU	47.71	\$241.38	\$158.17	1	\$399.55	\$158.17	\$250.00
Cat D01 050 Cat D8T - 8SU	53.08	\$255.49	\$175.95	1	\$431.44	\$175.95	\$250.00
CAT 14M	23.57	\$149.33	\$82.29	1	\$231.62	\$82.29	\$250.00
Drill/Broadcast	25.00	\$6.73	\$82.29	1	\$89.02	\$82.29	\$250.00
Seeder with		,					+
Tractor							
Cat 627G	41.80	\$230.18	\$158.17	2	\$776.70	\$316.34	\$500.00

Subtotals: **\$1,928.33 \$815.04 \$1,500.00**

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Light Duty Pickup, 4x4, 3/4 T.	\$15.83	1	\$15.83	\$15.83
Water Tanker, 2,500 Gal.	\$34.27	1	\$34.27	\$34.27
		Subtotals:	\$50.10	\$50.10

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: Total one-way travel distance: Average Travel Speed:	AURORA 40.00 50.00	miles mph
Total Non-Roadable Mob/Demob Cost *	\$17,031.04	
Total Roadable Mob/Demob Cost ** ** one round trip, no haul rig:	\$80.16	

Transportation Cycle Time:

	Non- Roadable	Roadable
	Equipment	Equipment
Haul Time (Hours):	0.80	0.80
Return Time (Hours):	0.80	0.80
Loading Time (Hours):	1.25	NA
Unloading Time (Hours):	1.25	NA
Subtotals:	4.10	1.60

JOB TIME AND COST

Total job time: 8.20 Hours

Total job cost: \$17,111