COST SUMMARY WORK

-	Fask description:	Cost	Summary				
Site:	Williams Fork	Mines	Pe	rmit Action:	RN8	Permit/Jol	b#: C1981044
<u>P</u>	ROJECT IDEN	<u>TIFICATIO</u>	<u>ON</u>				
	Task #: 000 Date: $3/8/2$ User: RAR		State: County:	Colorado Moffat		Abbreviation: Filename:	None C044-000
	Agency or	organization	name: DF	RMS			

TASK LIST (DIRECT COSTS)

75. 1		Form	Fleet	Task	
Task	Description	Used	Size	Hours	Cost
002	Plug and Seal All Wells	BOREHOLE	1	248.00	\$117,574
003	Seal and Backfill All Mine and Vent Shaft Entries	MINESEAL	1	200.00	\$263,142
800	Regrade Portal No. 5A Facilities Area	DOZER	4	278.23	\$432,273
009	Push Gravel and Rock to Box Cut at Portal No. 5A	DOZER	4	9.70	\$15,004
016	Regrade Access Road	DOZER	4	0.44	\$679
031	Regrade Ponds 5-P5, 5-P6, 5-P7 and Ramps	SCRAPER1	1	2.47	\$2,940
032	Regrade Sewage Treatment Ponds 5-P1, 5-P2 and 5-P3	DOZER	4	2.97	\$4,596
033	Regrade Pond 5A-P1	DOZER	1	8.77	\$3,052
034	Regrade Pond SHP2	DOZER	1	0.32	\$112
035	Regrade Pond SHP1	DOZER	1	2.16	\$753
037	Regrade Pond 9-P3	DOZER	1	0.27	\$95
038	Regrade Pond 9-P1	DOZER	1	0.96	\$336
040	Regrade Pond 9-P4	DOZER	1	0.11	\$39
041	Regrade Pond 9-P5	DOZER	1	0.88	\$307
042	Regrade Pond 9-P6	DOZER	1	3.68	\$1,280
043	Regrade Pond 9-P7	DOZER	1	0.36	\$126
044	Regrade Pond 9-P8	DOZER	1	0.47	\$163
046	Regrade Pond 9A-P2	DOZER	1	1.89	\$659
048	Regrade Ponds HR-P1A and HR-P1B	DOZER	1	10.08	\$3,507
051	Replace Topsoil from Stockpile to Portal Area Refuse Pile	SCRAPER1	1	5.71	\$6,800
053	Replace Topsoil from NE Stockpile to Refuse Pile	SCRAPER1	1	7.63	\$9,095
054	Replace Topsoil from #9 Berm to Refuse Pile	SCRAPER1	1	0.53	\$626
059	Replace Topsoil from Stockpile to 7-North Angle Well Area	DOZER	4	0.13	\$197
061	Replace Topsoil from Stockpile to Access Road	SCRAPER1	1	0.57	\$676
062	Seed Reclaimed Area with Rangeland/Wildlife Mix	REVEGE	1	71.00	\$126,613
063	Reseed Cropland Areas	REVEGE	1	77.00	\$109,569
064	Reseed Reclaimed Areas with Pasture Mix	REVEGE	1	98.00	\$148,655
065	Weed Spraying - 10% of 570 acres, Twice/Year for Ten Years	REVEGE	1	850.00	\$71,501
085	Site Maintenance, Pond Cleaning	SITEMAINT ENANCE	1	400.00	\$131,704
090	Mobilize/Demobilize Equipment for Initial Reclamation	MOBILIZE	1	5.00	\$15,773

		SUBTO	TALS:	2307.6	\$1,498,403
093	Mobilize/Demobilize Equipment for Pond Cleaning	MOBILIZE	1	3.33	\$2,331
092	Mobilize/Demobilize Equipment for Yearly Site Maintenance	MOBILIZE	1	10.72	\$23,092
091	Mobilize/Demobilize Equipment for Pond Removal	MOBILIZE	1	6.22	\$5,134

INDIRECT COSTS

OVERHEAD AND PROFIT:

Liability insurance: 2.02 Total = \$30,268 Performance bond: 1.05 Total = \$15,733 Job superintendent: 1,154.02 Total = \$86,702 Total = Profit: 10.00 \$149,840

TOTAL O & P = \$282,543 CONTRACT AMOUNT (direct + O & P) = \$1,780,946

LEGAL - ENGINEERING - PROJECT MANAGEMENT:

Financial warranty processing (legal/related costs): \$500 Total = \$500
Engineering work and/or contract/bid preparation: Reclamation management and/or administration: 4.50

Total = \$500
Total = \$106,857
\$80,143

CONTINGENCY: 0.00 Total = \$0

TOTAL INDIRECT COST = \$470,042

TOTAL BOND AMOUNT (direct + indirect) = \$1,968,445

BOREHOLE SEALING WORK

Site: Williams Fork Mines Permit Action: RN8 Permit/Job#: C1981044

PROJECT IDENTIFICATION

Task 002 State: Colorado Abbreviation: None

#: ___

Date: 1/31/2023 County: Moffat Filename: C044-002

User: RAR

Agency or organization name: DRMS

UNIT COSTS

Borehole Description	Sealing/Item Method	Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug - 2"Wells (11)	PVC plug - 2 in. diameter borehole	2"	NA	11.00	EA	\$24.59	\$270.49
- Fill Holes with Cement	Portland cement grout - 2 in. (labor, equip, materials)	2"	NA	62.00	LF	\$5.29	\$327.98
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	11.00	EA	\$37.50	\$412.50
Bottom Plug - 4"Wells (3)	PVC plug - 4 in. diameter borehole	4"	NA	3.00	EA	\$33.98	\$101.94
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	4"	NA	96.00	bag	\$19.95	\$1,915.20
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	3.00	EA	\$37.50	\$112.50
Bottom Plug - 6"Wells (5)	PVC plug - 6 in. diameter borehole	6"	NA	5.00	EA	\$61.43	\$307.15
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	6"	NA	502.00	bag	\$19.95	\$10,014.90
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	5.00	EA	\$37.50	\$187.50
Bottom Plug - 8"Wells (2)	PVC plug - 8 in. diameter borehole	8"	NA	2.00	EA	\$84.15	\$168.30
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	8"	NA	402.00	bag	\$19.95	\$8,019.90
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	2.00	EA	\$37.50	\$75.00

Bottom Plug - 18"Wells (2)	PVC plug - 12 in. diameter borehole	18"	NA	3.00	EA	\$157.96	\$473.88
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	18"	NA	917.00	bag	\$19.95	\$18,294.15
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	2.00	EA	\$37.50	\$75.00
Drill Rig Time - All Wells	ATLAS COPCO ROC D7-11,4.0 in.	NA	NA	248.00	EA	\$261.05	\$64,740.40
Water Truck Time - All Wells	Water Tanker, 3,500 Gal.	NA	NA`	248.00	EA	\$48.30	\$11,978.40
-Cut Casing 2" Wells	Exposed casing removal - Calculate Circumference in Linear Feet	2	.524	5.76	LF	\$3.26	\$18.78
-Cut Casing 4" Wells	Exposed casing removal - Calculate Circumference in Linear Feet	4	1.05	3.14	LF	\$3.26	\$10.24
-Cut Casing 6" Wells	Exposed casing removal - Calculate Circumference in Linear Feet	6	1.57	7.85	LF	\$3.26	\$25.59
-Cut Casing 8" Wells	Exposed casing removal - Calculate Circumference in Linear Feet	8	2.09	4.19	LF	\$3.26	\$13.66
-Cut Casing 18" Wells	Exposed casing removal - Calculate Circumference in Linear Feet	18	4.71	9.42	LF	\$3.26	\$30.71

Job Hours: 248.00 Total Cost: \$117,574.00

SAFEGUARDING UNDERGROUND OPENINGS

Site:	Task description: Williams Fork Mines	Seal and Backfill All Mine Permit Action:		Permit/Job#:	C1981044
nic.	Williams Fork Willes	I cililit Action.	IXIVO	T CITIEU 300#.	C1701044
	PROJECT IDENTI	FICATION			
	Task 003	State: Colorado	Abbı	reviation: None	
	#:				
	Date: 1/31/2023	County: Moffat	F	Filename: C1981044	
	User: RAR				

UNIT COSTS

Opening Description	Dime nsions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Portal No. 5 Entries (5)	5@120 SF	Adit closure - bulkhead seal, >= 36 sq. ft. (per sq. ft.)	600.00	SF	\$429.32	\$257,592.00
- Backfill Entries	5@ 44.4 CY	Adit closure - backfilling (per cu. yd.)	222.00	CY	\$25.00	\$5,550.00

Job Hours: ______ 200.00 ____ Total Cost: ____\$263,142.00

Task description:	Regrade Portal	No. 5A Facil	ities Area		
Site: Williams Fork Mines	Pe	ermit Action:	RN8	Permit/Jo	ob#: C1981044
PROJECT IDENTIFI	CATION				
Task #: 008	State:	Colorado		Abbreviation:	None
Date: $\frac{31/2023}{1}$	County:	Moffat	_	Filename:	C1981044
User: RAR					
Agency or organ	ization name: D	RMS			
HOURLY EQUIPME	NT COST				
Basic Machine: Cat	D10T - 10SU				
Horsepower: 574	Į.		•		
	ni-Universal		•		
7 1	hank ripper		•		
	er day		•		
Data Source: (CF	•		•		
			•		
Cost Breakdown:		ĺ	TT/'1'. /' 0/		
0		0152.67	<u>Utilization %</u>		
Ownership Cost/Hour:		\$153.67	NA 100		
Operating Cost/Hour:		\$166.94	100		
Ripper own.		\$24.69	NA		
Cost/Hour:		¢1 01	1.5		
Ripper op. Cost/Hour:		\$1.81	15		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour:	\$388.41				
Total Fleet Cost/Hour:	\$1,553.65		<u> </u>		
Total Tiest Cost Hotal.	Ψ1,550.05		<u> </u>		
MATERIAL QUANTI	ITIES				
Initial Volume: 290, Swell factor: 1.16		<u>—</u>			
Loose volume: 337,	.850 LCY	_			
Source of estimated volu	ıme: Table 63	; Map 26			
Source of estimated swe					
factor:		200011			
100001	-				
HOUDI V DDODUOT	'ION				
HOURLY PRODUCT	<u>IUN</u>				
Average push distance:	200 feet				
Unadjusted hourly	946.0 LCY	7/hr			
production:	2 .0.0 201	-			
b	-				
Materials consistency	Come	acted fill or er	nbankment 0.9		
description:	Compt	01 01			
description.					
Average push	5 %				
gradient:	5 /0				
Average site altitude:	5,400 feet				
Average site attitude:	3, 4 00 leet	<u></u>			
Material weight:	2,900 lbs/LCY			<u></u>	

Weight description: Decomposed rock - 50% Rock, 50% Earth

Job Condition Correction Factor		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:

Adjusted fleet production:

303.57 LCY/hr

1214.28 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$1.279/LCY

Total job time: 278.23 Hours
Total job cost: \$432,273

Task description:	Push Gravel and Roc	k to Box	Cut at Portal No. 5A		
Site: Williams Fork Mines	Permit A	Action: _	2020 Reclamation Full	Permit/Jo	ob#: <u>C1981044</u>
PROJECT IDENTIFIC	CATION				
Task #: 009	State: Cole	orado		Abbreviation:	None
Date: $\frac{-000}{12/16/2020}$				Filename:	007
User: DC1				i iicimiiic.	
Agency or organi	zation name: DRMS				
HOURLY EQUIPMEN	NT COST				
Basic Machine: Cat	D10T - 10SU				
Horsepower: 574					
Blade Type: Sem	ni-Universal				
Attachment: 1-sh	ank ripper				
Shift Basis: 1 pe	er day				
Data Source: (CR	·				
	,				
Cost Breakdown:		I	T T4:1:4:0/		
Oversagalis C4/II-	01	2 67	<u>Utilization %</u>		
Ownership Cost/Hour:		3.67	NA 100		
Operating Cost/Hour:	\$16	6.94	100		
Ripper own.	\$2	4.69	NA		
Cost/Hour:	ф	0.00	0		
Ripper op. Cost/Hour:		0.00	0		
Operator Cost/Hour:	\$4	1.30	NA		
Total unit Cost/Hour:	\$386.60				
Total Fleet Cost/Hour:	\$1,546.41		<u> </u>		
Total Fleet Cost/Hour:	\$1,540.41		_		
MATERIAL QUANTI	<u>TIES</u>				
Initial Volume: 6,000)				
Swell factor: $\frac{0,000}{1.090}$					
) LCY				
1.00se volume: 0,54 0	JLC1				
Source of estimated volume	me: Map 26; July 1	993 Insp	ection Estimate		
Source of estimated swel		1			
factor:					
HOUDI V BRODUCT	ION				
HOURLY PRODUCT	<u>ION</u>				
Average push distance:	500 feet				
Unadjusted hourly	410.8 LCY/hr		<u> </u>		
production:	110.0 LC 1/111				
production.	-				
Materials consistency	Partly consol	idated et	ocknile 1 1		
	i aitiy coilsoi	ruated St	ockpiic 1.1		
description:					
A wara ga mugh	-10 %				
Average push	-1U 70				
gradient:	5 400 C				
Average site altitude:	5,400 feet				
Material weight:	4,700 lbs/LCY				

Weight description: Hen	natite," iron ore, high grade"	
Job Condition Correction Factor		Source
Operator Skill:	0.750	(AVG.)
Material consistency:	1.100	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.225	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.489	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4102	

Adjusted unit production:
Adjusted fleet production:

168.51 LCY/hr

674.04 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$2.294/LCY

Total job time: 9.70 Hours
Total job cost: \$15,004

Task description:	Regrade Ac	cess Road			
Site: Williams Fork Mine	es	Permit Action:	2020 Reclamation Full	_ Permit/Jo	b#: C1981044
PROJECT IDENTIF	<u>ICATION</u>				
Task #: 016	Sta	te: Colorado		Abbreviation:	None
Date: $\frac{-0.00}{12/16/202}$			_	Filename:	C044-016
User: DC1					
Agency or orga	nization name:	DRMS			
	•				
HOURLY EQUIPME					
Basic Machine: Ca	nt D10T - 10SU		_		
Horsepower: 57			-		
Blade Type: Se	mi-Universal		=		
	shank ripper		_		
	per day		_		
	RG)		=		
	/		-		
Cost Breakdown:		ı	Hiliantian 0/		
O1: G/II		0152 (7	<u>Utilization %</u>		
Ownership Cost/Hour:		\$153.67	NA 100		
Operating Cost/Hour:		\$166.94	100		
Ripper own.		\$24.69	NA		
Cost/Hour:		Φ0.00	0	<u> </u>	
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA	<u></u>	
Total unit Cost/Hour:	\$386.60				
Total Fleet Cost/Hour:	\$1,546.41				
Total Fleet Cost/Hour:	\$1,540.41		<u></u>		
MATERIAL OHANT					
MATERIAL QUANT	111ES				
Initial Volume: 1,1	11				
Swell factor: 1.1	65				
Loose volume: 1,2	94 LCY				
					
Source of estimated vol		sion Estimate			
Source of estimated sw	ell Cat H	Iandbook			
factor:					
HOURLY PRODUC	ΓΙΟΝ				
Average push distance:					
Unadjusted hourly	1,243.2	LCY/hr			
production:					
Materials consistency	Co	mpacted fill or e	mbankment 0.9		
description:					
•					
Average push	0 %				
gradient:					
Average site altitude:	5,400 feet				
5					
Material weight:	2,900 lbs/LC	Y			

Job Condition Correction Factor		Source
Operator Skill:	1.000	(EXCL.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:
Adjusted fleet production:

736.47 LCY/hr

2945.88 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.525/LCY

Total job time: 0.44 Hours
Total job cost: \$679

SCRAPER TEAM WORK

Task description:	Regrade F	onds 5-1	P5, 5-P6, 5	5-P7 and Ramp	os		
Site: Williams Fork M	Tines	Perm	nit Action:	RN8	F	Permit/Job#: C1	981044
PROJECT IDENT Task #: 031 Date: 3/8/20 User: RAR Agency or or	S	unty:	Colorado Moffat		Abbrev Fil	viation: None ename: C1981	044
HOURLY EQUIP	MENT_			COST	Shift basis: <u>1 per</u>	· day	
			Equipmen	nt Description			
-		Scraper:	Cat 6370	G w/push-pull			
C		-Dozer:	NA NA				
	intenance –Motor (p Area:	NA NA NA				
Cost Breakdown:	Scraper Wor		70#	Support Equ Load Area		Maintenan Motor Grader	ce Equipment Water Truck
	Scraper	Doz	zer	Load Area	Dump Area	Motor Grader	
%Utilization-machine:	100		NA	NA	NA	NA	NA
Ownership cost/hour:	\$287.19		NA	NA	NA	NA	NA
Operating cost/hour:	\$277.83		NA	NA	NA	NA	NA
%Utilization-ripper:	NA		NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA		NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA		NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90		NA	NA	NA	NA	NA
Unit Subtotals:	\$595.92		NA	NA	NA	NA	NA
Number of Units:	2		0	0	0	0	0
Group Subtotals:	Work:	\$1,19	01.84	Support:	\$0.00	Maint:	\$0.00
Total work team cost	NTITIES		CCV	0 110	1 125		
Initial volume: Loose volume:	2,090 2,351		CCY LCY	Swell fac	tor: 1.125		
						1914 10 D	13.7
	rce of estimated vo of estimated swell	_	Cat Hand		ator Estimate; Exl	hibit 18 Drawing	IV-
HOURLY PRODU	<u>UCTION</u>			Scraper I	Bowl (volume) Ba	ısis:	
Material weight:	2,650 lbs/LCY				Volume: 24.00		LCY
Material description:	Decomposed roo 75% Earth	ck - 25%	Rock,		Volume: 24.00 Volume: 34.00		LCY
Rated Payload:	81,600 pounds			Average	Volume: 29.00]	LCY

Payload	Capacity: 30).79 LCY	,		Adjusted Capac	eity: 29	.00	LCY
Cycle Time	<u>e:</u>							
	oading Time: r and Spread T	ime:			.00 Minutes .60 Minutes			
Job Condit	ion Correction	<u>!</u>					Site Al	titude: 5400 feet
		Scr	aper	Push Dozer	Source	e		
1	Altitude Adj:		000	NA	(CAT H	B)		
Jo	b Efficiency:	0.8	830	NA	(CAT H	IB)		
Ne	t Correction:	0.8	830	NA				
Travel Tin	ne:							
		Rutted	dirt, little m	naintenance, no	water, 1" tire pend	etration 4.	.0	
Haul Route					*			
Seg #	: Haul Distan	ce (Ft)	Grade	Roll. Res	Total Res	Velocity	v	Travel Time
Seg "	madi Distan	cc (It)	(%)	(%)	(%)	(fpm)	,	(min)
1	1360.00		0.00	4.00	4.00	2394		0.80
Return Ro	ıte:				Haul Time:	0.8	80	minutes
Seg#	Haul Distan	ce (Ft)	Grade	Roll. Res	Total Res	Velocity	y	Travel Time
			(%)	(%)	(%)	(fpm)		(min)
1	1360.00		0.00	4.00	4.00	2910		0.63
					Return Time:	0.0	63	minutes
				Total Scraper	team cycle time:	3.	03	minutes
					or job conditions:	953	3.27	LCY/Hour
				Selected Nun	nber of Scrapers:		2	Scraper(s)
	A	djusted s	ingle scrape	er team (unit) ho	ourly production:	953	3.27	LCY/Hour
	Adju	isted mul	tiple scrape	r team (fleet) ho	ourly production:	953	3.27	LCY/Hour
Op	Unadjusted u otimal Number	-			LCY/Hour			
JOB TIM	IE AND COS	<u>ST</u>						
Fleet	size:	1	Team(s)	To	otal job time:	2.4	7	Hours
Unit	cost: \$1.	250	/LCY	To	otal job cost:	\$2,9	40	

Task description: Regrade Sewage Treatment Ponds 5-P1, 5-P2 and 5-P3 Site: Williams Fork Mines Permit/Job#: C1981044 Permit Action: RN8 **PROJECT IDENTIFICATION** Task #: 032 Abbreviation: State: Colorado None 3/8/2023 Moffat C1981044 Date: County: Filename: RAR User: Agency or organization name: DRMS **HOURLY EQUIPMENT COST** Cat D10T - 10SU Basic Machine: 574 Horsepower: Blade Type: Semi-Universal Attachment: 1-shank ripper Shift Basis: 1 per day Data Source: (CRG) Cost Breakdown: Utilization % Ownership Cost/Hour: \$153.67 NA Operating Cost/Hour: \$166.94 100 Ripper own. \$24.69 NA Cost/Hour: Ripper op. Cost/Hour: \$0.00 0 Operator Cost/Hour: \$41.30 NA Total unit Cost/Hour: \$386.60 Total Fleet Cost/Hour: \$1,546.41 **MATERIAL QUANTITIES** Initial Volume: 7,000 Swell factor: 1.125 **7,875** LCY Loose volume: Source of estimated volume: Operator Estimate; Exhibit 23, Task I, page 3 Source of estimated swell Cat Handbook factor: **HOURLY PRODUCTION** Average push distance: 200 feet Unadjusted hourly 946.0 LCY/hr production: Materials consistency Compacted fill or embankment 0.9 description: 0 % Average push gradient: Average site altitude: 5,400 feet Material weight: 2,650 lbs/LCY

Weight description: Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		Source
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.200	(S-BY-S)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:
Adjusted fleet production:

662.48 LCY/hr

2649.92 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.584/LCY

Total job time: 2.97 Hours
Total job cost: \$4,596

Task description:	Regrade Pond 5A-P1			
Site: Williams Fork Mines	Permit Action:	RN8	Permit/Jo	ob#: C1981044
PROJECT IDENTIFICA	TION			
Task #: 033	State: Colorado		Abbreviation:	None
Date: $\frac{3/8}{2023}$	County: Moffat		Filename:	033
User: RAR				
Agency or organizat	ion name: DRMS			
HOURLY EQUIPMENT	COST			
Basic Machine: Cat D9	T - 9SU			
Horsepower: 405	1 750	=		
	Jniversal	-		
**	k ripper	-		
Shift Basis: 1 per d	- 1	-		
	ay	-		
Data Source: (CRG)		-		
Cost Breakdown:				
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$146.30	NA		
Operating Cost/Hour:	\$141.41	100		
Ripper own.	\$19.06	NA		
Cost/Hour:				
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
T 1 1 C //H				
	348.07	<u> </u>		
Total Fleet Cost/Hour: \$3	348.07			
				
MATERIAL QUANTITI	<u>ES</u>			
Initial Volume: 8,000				
Swell factor: $\frac{-3,000}{1.125}$				
Loose volume: 9,000 Lo	CY			
				
Source of estimated volume		hibit 23, Task II, Page 4		
Source of estimated swell	Cat Handbook			
factor:				
HOURLY PRODUCTIO	N			
·				
Average push distance:	50 feet			
Unadjusted hourly	2,110.5 LCY/hr			
production:	-			
		1 1 .00		
Materials consistency	Compacted fill or en	mbankment 0.9		
description:				
	0/			
U 1	%			
gradient:				
Average site altitude: 5.	,400 feet			
Material weight: 2,	,650 lbs/LCY			

Weight description:	Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 1,026.34 LCY/hr
Adjusted fleet production: 1026.34 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.339/LCY

Total job time: 8.77 Hours
Total job cost: \$3,052

Task description:	Regrade Pond S	SHP2			
e: Williams Fork Mines	Pe	rmit Action:	RN8	Permit/Jo	ob#: C1981044
PROJECT IDENTIFI	CATION				
Task#: 034	State:	Colorado		Abbreviation:	None
Date: $3/8/2023$	County:	Moffat		Filename:	034
User: RAR					
Agency or organ	nization name: DI	RMS			
HOURLY EQUIPME	NT COST				
Basic Machine: Cat	t D9T - 9SU				
Horsepower: 405			•		
	ni-Universal		-		
Attachment: 1-s	hank ripper		•		
	er day		•		
Data Source: (CI	RG)				
Cost Breakdown:			*****		
0 11 0 77		014630	<u>Utilization %</u>		
Ownership Cost/Hour:		\$146.30	NA 100		
Operating Cost/Hour:		\$141.41	100		
Ripper own. Cost/Hour:		\$19.06	NA		
Ripper op. Cost/Hour:	-	\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total Fleet Cost/Hour: MATERIAL QUANT Initial Volume: 264 Swell factor: 1.12 Loose volume: 297 Source of estimated volus Source of estimated swefactor:	5 LCY ume: Operator				
HOURLY PRODUCT	<u>'ION</u>				
Average push distance:	50 feet				
Unadjusted hourly production:	2,110.5 LC	Y/hr			
Materials consistency description:	Сотра	icted fill or er	mbankment 0.9		
Average push gradient:	5 %				
Average site altitude:	5,400 feet				
Material weight	2 650 lbs/LCY				

Weight description: Decomposed rock - 25% Rock, 75% Earth	
---	--

Job Condition Correction Factor		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
N-4	4201	<u> </u>

Adjusted unit production:
Adjusted fleet production:

926.72 LCY/hr

926.72 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.376/LCY

Total job time: 0.32 Hours
Total job cost: \$112

Task description:	Regrade Pond SHP1			
ite: Williams Fork Mines	Permit Action	n: <u>RN8</u>	Permit/Jo	ob#: C1981044
PROJECT IDENTIFI	CATION			
Task #: 035 Date: 3/8/2023 User: RAR	State: Colorado County: Moffat		Abbreviation: Filename:	None 035
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	NT COST			
Horsepower: 405 Blade Type: Ser Attachment: 1-sl Shift Basis: 1 pe	t D9T - 9SU 5 mi-Universal hank ripper er day RG)	 		
Cost Breakdown:	(0)	<u>—</u> .		
Ownership Cost/Hour: Operating Cost/Hour:	\$146.30 \$141.41	Utilization % NA 100	<u> </u>	
Ripper own. Cost/Hour:	\$19.06	NA		
Ripper op. Cost/Hour: Operator Cost/Hour:	\$0.00 \$41.30	0 NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$348.07 \$348.07			
Initial Volume: 1,57 Swell factor: 1.12 Loose volume: 1,77 Source of estimated volume	78 75 LCY			
Source of estimated swe factor:				
HOURLY PRODUCT	<u>'ION</u>			
Average push distance: Unadjusted hourly production:	50 feet 2,110.5 LCY/hr			
Materials consistency description:	Compacted fill or	embankment 0.9		
Average push gradient:	15 %			
Average site altitude:	5,400 feet			
Material weight:	2,650 lbs/LCY		<u></u>	

Weight description: De	ecomposed rock - 25% Rock, 75% Earth
------------------------	--------------------------------------

Job Condition Correction Factor		<u>Source</u>
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: Adjusted fleet production:

820.14 LCY/hr

820.14 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.424/LCY

Total job time: 2.16 Hours
Total job cost: \$753

Task description:	Regrade Pond	9-P3			
e: Williams Fork Mine	<u>s</u> P	ermit Action:	RN8	Permit/Jo	ob#: C1981044
PROJECT IDENTIF	<u>ICATION</u>				
Task #: 037	State:	Colorado		Abbreviation:	None
Date: $3/8/2023$	County:	Moffat		Filename:	037
User: RAR					
Agency or organ	nization name:	ORMS			
HOURLY EQUIPME	ENT COST				
Basic Machine: Ca	t D9T - 9SU				
Horsepower: 40					
	mi-Universal				
	shank ripper		,		
	per day				
1	RG)				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hour:		\$146.30	NA		
Operating Cost/Hour:		\$141.41	100		
Ripper own.		\$19.06	NA	_	
Cost/Hour:		·			
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour:	\$348.07				
Total Fleet Cost/Hour:	\$348.07				
Total Freet Cost Hour.	φ5-τ0.07				
MATERIAL OHANT	TTIEC				
MATERIAL QUANT	<u>111ES</u>				
Initial Volume: 298					
Swell factor: 1.12					
Loose volume: 335	LCY				
Course of actions to d 1	umai Onarete	- r Estimata			
Source of estimated vol Source of estimated swe		r Estimate			
factor:	cii Cat Hai	IUUUUK			
iacioi.					
HOUDI WARARIO	CION				
HOURLY PRODUCT	HUN				
Average push distance:	50 feet				
Unadjusted hourly	2,110.5 L	CY/hr			
production:					
Materials consistency	Comp	acted fill or er	nbankment 0.9		
description:					
	0.0/				
Average push	0 %				
gradient:	5.400.5				
Average site altitude:	5,400 feet				
Material weight	2 650 lbs/LCY				

Job Condition Correction Factor		<u>Source</u>
Operator Skill:	0.900	(AB.AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:

Adjusted fleet production:

1,231.69 LCY/hr

1231.69 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.283/LCY

Total job time: 0.27 Hours
Total job cost: \$95

Task description:	Regrade Pond 9-P1			
Site: Williams Fork Mine	Permit Ac	tion: RN8	Permit/Jo	ob#: C1981044
PROJECT IDENTIF	<u>ICATION</u>			
Task #: 038	State: Color	ado	Abbreviation:	None
Date: $\frac{3/8}{2023}$	County: Moffa		Filename:	038
User: RAR				
				
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	ENT COST			
Basic Machine: Ca	ut D9T - 9SU			
Horsepower: 40:	5			
	mi-Universal			
	shank ripper			
	per day			
	RG)			
Cost Breakdown:		Utiliza	tion %	
Ownership Cost/Hour:	\$146.			
Operating Cost/Hour:	\$140.		00	
Ripper own.				
Cost/Hour:	\$19.	06 N	A	
Ripper op. Cost/Hour:	\$0.	00 ()	
Operator Cost/Hour:	\$41.		<u> </u>	
operator cost from:	Ψ11.	30 10	<u>A</u>	
Total unit Cost/Hour:	\$348.07			
Total Fleet Cost/Hour:	\$348.07			
		<u> </u>		
MATERIAL QUANT	ITIES			
Initial Volume: 518				
Swell factor: 1.12				
Loose volume: 583	LCY			
Source of estimated vol	ume: Operator Estimat	e		
Source of estimated swe	<u>_</u>	-		
factor:				
HOURLY PRODUCT	LIUN			
<u>HOURETT RODUCT</u>	<u>HON</u>			
Average push distance:				
Unadjusted hourly	1,243.2 LCY/hr			
production:				
Materials consistency	Compacted fill	or embankment 0.	.9	
description:				
Average push	0 %			
gradient:				
Average site altitude:	5,400 feet			
Material weight:	2,650 lbs/LCY			

Weight description:	Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production:

Adjusted fleet production:

604.57 LCY/hr

604.57 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.576/LCY

Total job time: 0.96 Hours
Total job cost: \$336

Task description:	Regrade Pond 9)-P4			
te: Williams Fork Mine	es Pe	ermit Action:	RN8	Permit/Jo	ob#: <u>C1981044</u>
PROJECT IDENTIF	<u>ICATION</u>				
Task #: 040	State:	Colorado		Abbreviation:	None
Date: $3/8/2023$	County:	Moffat		Filename:	040
User: RAR					
Agency or orga	nization name: D	RMS			
HOURLY EQUIPMI	ENT COST				
Basic Machine: Ca	nt D9T - 9SU				
Horsepower: 40			•		
	mi-Universal		:		
	shank ripper		-		
	per day		-		
	RG)				
Cost Breakdown:					
		j	<u>Utilization %</u>		
Ownership Cost/Hour:		\$146.30	NA		
Operating Cost/Hour:		\$141.41	100		
Ripper own.		\$19.06	NA		
Cost/Hour:		\$19.00	NA.		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
T . 1 '. C ./II	#240.07				
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$348.07				
Total Fleet Cost Hour.	\$348.07		<u> </u>		
MATERIAL OHANT	TITIES				
MATERIAL QUANT					
Initial Volume: 101					
Swell factor: 1.1		<u></u>			
Loose volume: 114	LCY	<u></u>			
Source of estimated vol	uma: Onaratar	Estimate			
Source of estimated sw					
factor:	CII Cat Haik	JUUUK			
iacioi.					
HOUDI W BRODUC	FION				
HOURLY PRODUC	<u>HON</u>				
Average push distance:					
Unadjusted hourly production:	2,110.5 LC	CY/hr			
•					
Materials consistency	Compa	acted fill or er	nbankment 0.9		
description:					
Average push	0 %				
gradient:	7 400 C				
Average site altitude:	5,400 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:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4863	

Adjusted unit production: Adjusted fleet production:

1,026.34 LCY/hr

1026.34 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.339/LCY

Total job time: 0.11 Hours
Total job cost: \$39

Task description:	Regrade Pond 9-P5			
Site: Williams Fork Mines	Permit Act	ion: RN8	Permit/Jo	ob#: C1981044
PROJECT IDENTIFI	CATION			
Task #: 041	State: Color	ado	Abbreviation:	None
Date: $\frac{3/8}{2023}$	County: Moffa		Filename:	041
User: RAR		<u> </u>	-	
				
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	NT COST			
Basic Machine: Cat	t D9T - 9SU			
Horsepower: 405	5			
	mi-Universal			
	hank ripper			
	er day			
	RG)			
Cost Breakdown:				
Cost Divardow II.		Utilization %		
Ownership Cost/Hour:	\$146.		•	
Operating Cost/Hour:	\$141.4			
Ripper own.	· · · · · · · · · · · · · · · · · · ·			
Cost/Hour:	\$19.	06 NA		
Ripper op. Cost/Hour:	\$0.	00 0		
Operator Cost/Hour:	\$41.	30 NA		
•				
Total unit Cost/Hour:	\$348.07			
Total Fleet Cost/Hour:	\$348.07			
MATERIAL QUANTI	<u>ITIES</u>			
Initial Volume: 483				
Swell factor: $\frac{1.12}{1.12}$	5			
	LCY			
				
Source of estimated volu		2		
Source of estimated swe	ell Cat Handbook			
factor:				
HOURLY PRODUCT	<u> ION</u>			
-				
Average push distance:	50 feet			
Unadjusted hourly	2,110.5 LCY/hr			
production:				
M-41	C			
Materials consistency	Compacted III	or embankment 0.9		
description:	-			
Average push	0 %			
gradient:	U 70			
Average site altitude:	5,400 feet			
Average site attitude:	J, 700 ICEL			
Material weight:	2,650 lbs/LCY			

Weight description: Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor		<u>Source</u>
Operator Skill:	0.750	(AVG.)
Material consistency:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.2918	
Adjusted unit production: 61	5.84 LCY/hr	

JOB TIME AND COST

Adjusted fleet

production:

Fleet size: 1 Dozer(s)
Unit cost: \$0.565/LCY

615.84 LCY/hr

Total job time: 0.88 Hours
Total job cost: \$307

Task description:	Regrade Pond 9-P	6			
Site: Williams Fork Mines	Perm	nit Action:	RN8	Permit/Jo	ob#: C1981044
PROJECT IDENTIFI	<u>CATION</u>				
Task #: 042	State:	Colorado		Abbreviation:	None
Date: $\frac{3/8/2023}{}$		Moffat		Filename:	042
User: RAR					
		.			
Agency or organ	nization name: DRM	1S			
HOURLY EQUIPME	NT COST				
Basic Machine: Cat	D9T - 9SU				
Horsepower: 405	;				
Blade Type: Ser	ni-Universal				
Attachment: 1-sl	hank ripper				
Shift Basis: 1 po	er day				
Data Source: (CF	RG)				
Cost Breakdown:					
Cost Breakdown.		ĺ	Utilization %		
Ownership Cost/Hour:		\$146.30	NA		
Operating Cost/Hour:		\$141.41	100		
Ripper own.					
Cost/Hour:		\$19.06	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Т. (1 ') С. (/П	¢249.07				
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$348.07 \$348.07		<u></u>		
Total Fleet Cost/Hour.	\$340.U7				
MATERIAL QUANTI	<u>ITIES</u>				
					
Initial Volume: 3,35 Swell factor: 1.12					
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	6 LCY				
Source of estimated volu	ame: Operator Es	stimate			
Source of estimated swe	ell Cat Handbo	ok			
factor:					
					
HOURLY PRODUCT	'ION				
Average push distance:	50 feet				
Unadjusted hourly	2,110.5 LCY/	hr			
production:					
Materials consistency	Compact	ed fill or en	nbankment 0.9		
description:					
	0.0/				
Average push	0 %				
gradient:	7.400.0	_			
Average site altitude:	5,400 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:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4863	

Adjusted unit production: 1,026.34 LCY/hr
Adjusted fleet production: 1026.34 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.339/LCY

Total job time: 3.68 Hours
Total job cost: \$1,280

Task description:	Regrade Pond 9-P8				
Site: Williams Fork Mines	Permit Ac	tion: RN8		Permit/Jo	ob#: C1981044
PROJECT IDENTIFI	CATION				
Task #: 044	State: Color	ado		Abbreviation:	None
Date: $\frac{3/8}{2023}$	County: Moffa			Filename:	044
User: RAR					
Agency or organ	nization name: DRMS				
HOURLY EQUIPME	NT COST				
Basic Machine: Cat	t D9T - 9SU				
Horsepower: 405					
	ni-Universal				
	hank ripper				
	er day				
	RG)				
	(0)				
Cost Breakdown:		l 11	4.1.		
0 1: 0 //	Ф1.4 <i>С</i>		tilization %		
Ownership Cost/Hour:	\$146.		NA 100		
Operating Cost/Hour:	\$141.	.41	100		
Ripper own. Cost/Hour:	\$19.	.06	NA		
		00	0		
Ripper op. Cost/Hour:	\$0.		0	<u></u>	
Operator Cost/Hour:	\$41.	.30	NA		
Total unit Cost/Hour:	\$348.07				
Total Fleet Cost/Hour:	\$348.07				
Total Treet Cost Hotal.					
MATERIAL OHANTI	ITIEC				
MATERIAL QUANTI	<u>lTTES</u>				
Initial Volume: 426					
Swell factor: 1.12	5				
	LCY				
Source of estimated volu	ume: Operator Estimat	te			
Source of estimated swe	ell Cat Handbook			<u> </u>	
factor:					
HOURLY PRODUCT	ION				
·					
Average push distance:	50 feet				
Unadjusted hourly	2,110.5 LCY/hr				
production:					
	•				
Materials consistency	Compacted fill	l or embankme	ent 0.9		
description:					
Average push	0 %				
gradient:					
Average site altitude:	5,400 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:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4863	

Adjusted unit production: Adjusted fleet production:

1,026.34 LCY/hr

1026.34 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s) \$0.339/LCY Unit cost:

Total job time: Total job cost: **0.47** Hours \$163

Task description:	Regrade Pond 9A-P2			
Site: Williams Fork Mines	S Permit Action:	RN8	Permit/Jo	ob#: C1981044
PROJECT IDENTIFI	CATION			
Task #: 046	State: Colorado		Abbreviation:	None
Date: $\frac{3/8}{2023}$	County: Moffat		Filename:	046
User: RAR				
	· · · DDMC			
Agency or organ	nization name: DRMS			
HOURLY EQUIPME	NT COST			
Basic Machine: Cat	t D9T - 9SU			
Horsepower: 405		_		
	mi-Universal	_		
	hank ripper	=		
	er day	_		
	RG)	_		
	(0)	_		
Cost Breakdown:	,			
		<u>Utilization %</u>		
Ownership Cost/Hour:	\$146.30	NA		
Operating Cost/Hour:	\$141.41	100		
Ripper own.	\$19.06	NA		
Cost/Hour:	·			
Ripper op. Cost/Hour:	\$0.00	0		
Operator Cost/Hour:	\$41.30	NA		
T (1 ', C //II	#2.40.07			
Total unit Cost/Hour:	\$348.07			
Total Fleet Cost/Hour:	\$348.07			
MATERIAL QUANT	<u>ITIES</u>			
Initial Volume: 1,72	16			
Loose volume: 1,94	2 LCY			
Source of estimated volu	ume: Operator Estimate			
Source of estimated swe	1			
factor:	Ti Cut Hundook			
idetoi.				
HOURT IVER OR VOT	TON.			
HOURLY PRODUCT	<u>TON</u>			
Average push distance:	50 feet			
Unadjusted hourly	2,110.5 LCY/hr			
production:	2,110.5 LC 1/III			
production.				
Materials consistency	Compacted fill or e	mhanlemant () ()		
	Compacted infor e	moankincin U.y		
description:				
A	0.9/			
Average push	0 %			
gradient:	5.400.6			
Average site altitude:	5,400 feet			
Material weight:	2,650 lbs/LCY			
machai weight.	2,000 108/ LC 1			

Weight description:	Decomposed rock - 25% Rock, 75% Earth

Job Condition Correction Factor	Source	
Operator Skill	: 0.750	(AVG.)
Material consistency	: 0.900	(CAT HB))
Dozing method	: 1.000	(GEN.)
Visibility	1.000	(AVG.)
Job efficiency	: 0.830	(1 SHIFT/DAY)
Spoil pile	: 1.000	(DOZ-OC)
Push gradient	1.000	(CAT HB)
Altitude	: 1.000	(CAT HB)
Material Weight	: 0.868	(CAT HB)
Blade type	: 1.000	(PAT)
Net correction	: 0.4863	
Adjusted unit production:	1,026.34 LCY/hr	
Adjusted fleet	1026.34 LCY/hr	

JOB TIME AND COST

production:

Fleet size: 1 Dozer(s)
Unit cost: \$0.339/LCY

Total job time: 1.89 Hours
Total job cost: \$659

Task description:	Regrade Ponds	HR-P1A and	HR-P1B		
Site: Williams Fork Mines	<u>s</u> Po	ermit Action:	RN8	Permit/Jo	ob#: C1981044
PROJECT IDENTIFI	[CATION				
Task #: 048	State:	Colorado		Abbreviation:	None
Date: $\frac{3/8}{2023}$	County:	Moffat	_	Filename:	008
User: RAR			_	1 11 0 110 1110 1	
Agency or organ	nization name: D	RMS			
HOURLY EQUIPME	NT COST				
Basic Machine: Cat	t D9T - 9SU				
Horsepower: 405	5		•		
	mi-Universal		•		
	shank ripper		•		
	er day		•		
	RG)		•		
Cost Breakdown:			•		
COST DIEGRADWII.		Ī	Utilization %		
Ownership Cost/Hour:		\$146.30	NA		
Operating Cost/Hour:		\$140.30	100		
Ripper own.					
Cost/Hour:		\$19.06	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour:	\$348.07				
Total Fleet Cost/Hour:	\$348.07		<u> </u>		
Total Tiest Cost Hoar.					
MATERIAL QUANT	<u>ITIES</u>				
Initial Volume: 5,41	5				
Swell factor: 1.12					
	22 LCY	_			
100se volume	Z LC I	<u> </u>			
Source of estimated volu	ume: Operator	Estimate			
Source of estimated swe	ell Cat Hand	dbook			
factor:					
HOURLY PRODUCT	TION				
·					
Average push distance:	100 feet	NT 7 /1	<u></u>		
Unadjusted hourly	1,243.2 LC	CY/hr			
production:					
Maratala		1 (21)	1 . 1		
Materials consistency	Comp	acted fill or er	nbankment 0.9		
description:					
Ayaraga rugh	0 %				
Average push	U 70				
gradient:	5 100 f+				
Average site altitude:	5,400 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:	0.900	(CAT HB))
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.4863

Adjusted unit production:

Adjusted fleet production:

604.57 LCY/hr

604.57 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.576/LCY

Total job time: 10.08 Hours
Total job cost: \$3,507

SCRAPER TEAM WORK

Task description:	Replace T	opsoil from Stock	xpile to Portal A	rea Refuse Pile		
Site: Williams Fork M	lines	Permit Action	RN8	I	Permit/Job#: C1	981044
PROJECT IDENT Task #: 051 Date: 3/8/20 User: RAR Agency or or	S	State: Colorado unty: Moffat DRMS			viation: None ename: 051	
HOURLY EQUIP	MENT_		COSTS	Shift basis: <u>1 per</u>	day	
		Equipme	ent Description			
		-	G w/push-pull			
Suppor	t Equipment -Load	Dozer: NA				
	-Dump	Area: NA				
Road Main	ntenance – Motor (
	-Water	Truck: NA				<u> </u>
Cost Breakdown:	Scraper Wor	·k Team	Support Equ	ipment	Maintenanc	e Equipment
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$287.19	NA	NA	NA	NA	NA
Operating cost/hour:	\$277.83	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$595.92	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$1,191.84	Support:	\$0.00	Maint:	\$0.00
Total work team cost/	_					
Initial volume: Loose volume:	6,453 7,260	CCY LCY	Swell fac	tor: 1.125		
	ce of estimated vo f estimated swell f		Estimate dbook			
HOURLY PRODU	<u>ICTION</u>		g -	1/ 1 \ \		
			-	Bowl (volume) Ba		
Material weight: Material description:	2,550 lbs/LCY Earth - Dry pack	red		Volume: 24.00 Volume: 34.00		.CY .CY
Rated Payload: Payload Capacity:	81,600 pounds 32.00 LCY		Average Adjusted (CY CY

Cyc]	le '	Tiı	me:

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
NAC	0.020	NIA.	
Net Correction:	0.830	NA	

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res	Total Res	Velocity	Travel Time
		(%)	(%)	(%)	(fpm)	(min)
1	400.00	0.00	5.00	5.00	1867	0.35

Haul Time: 0.35 minutes

Site Altitude: 5400 feet

Return Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res	Total Res	Velocity	Travel Time
		(%)	(%)	(%)	(fpm)	(min)
1	400.00	0.00	5.00	5.00	2795	0.32

Return Time: **0.32** minutes Total Scraper team cycle time: 2.27 minutes Adjusted for job conditions: 1,272.42 LCY/Hour Selected Number of Scrapers: 2 Scraper(s) Adjusted single scraper team (unit) hourly production: 1,272.42 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 1,272.42 LCY/Hour

Unadjusted unit production/hour: 1,533.04 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 5.71
 Hours

 Unit cost:
 \$0.937
 /LCY
 Total job cost:
 \$6,800

SCRAPER TEAM WORK

Task description:	Replace T	opsoil fro	m NE St	ockpile to Refu	use Pile		
Site: Williams Fork M	Mines	Permit	Action:	RN8	I	Permit/Job#: C1	981044
PROJECT IDENT	<u> FIFICATION</u>						
Task #: 053			olorado			viation: None	
Date: $\frac{3/8/20}{\text{User:}}$	023 Co	unty: Me	offat		Fil	ename: 053	
User: RAR							
Agency or o	organization name:	DRMS					
HOURLY EQUIP	<u>PMENT</u>			COSTS	Shift basis: 1 per	day	
				nt Description			
				3 w/push-pull			
Sunno	rt Equipment -Loa		NA NA				
Suppo			NA				
Road Ma	intenance – Motor	1	NA				
	-Water	Truck:	NA				
Cost Breakdown:	Scraper Wo			Support Equ	1		e Equipment
	Scraper	Dozei	ſ	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100		NA	NA	NA	NA	NA
Ownership cost/hour:	\$287.19		NA	NA	NA	NA	NA
Operating cost/hour:	\$277.83		NA	NA	NA	NA	NA
%Utilization-ripper:	NA		NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA		NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA		NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90		NA	NA	NA	NA	NA
Unit Subtotals:	\$595.92		NA	NA	NA	NA	NA
Number of Units:	2		0	0	0	0	0
Group Subtotals:	Work:	\$1,191.	84	Support:	\$0.00	Maint:	\$0.00
Total work team cost		<u> </u>	,	11			
Initial volume:		(CCY	Swell fac	tor: 1.125		
Loose volume:			.CY	Swell lac	1.123		
		-		.			
	rce of estimated vo of estimated swell		Operator Details Head				
HOURLY PRODU	UCTION						
				Scraper I	Bowl (volume) Ba	asis:	
Material weight:	2,550 lbs/LCY			Struck	Volume: 24.00) I	.CY
Material description:	Earth - Dry pacl	ked			Volume: 34.00		CY
Rated Payload:	81,600 pounds			Average			.CY
Payload Capacity:	32.00 LCY			Adjusted (Capacity: 29.00	I	.CY

Cycl	le Ti	me:

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

Job Condition Correction:

	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: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0

Haul Route:

ĺ	Seg#	Haul Distance (Ft)	Grade	Roll. Res	Total Res	Velocity	Travel Time
			(%)	(%)	(%)	(fpm)	(min)
ĺ	1	700.00	3.00	8.00	11.00	786	0.91

Haul Time: **0.91** minutes

Site Altitude: 5400 feet

Return Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res	Total Res	Velocity	Travel Time
		(%)	(%)	(%)	(fpm)	(min)
1	700.00	-3.00	8.00	5.00	2795	0.42

Return Time: 0.42 minutes Total Scraper team cycle time: 2.93 minutes Adjusted for job conditions: 985.80 LCY/Hour Selected Number of Scrapers: 2 Scraper(s) Adjusted single scraper team (unit) hourly production: 985.80 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 985.80 LCY/Hour

Unadjusted unit production/hour: 1,187.71 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 7.63
 Hours

 Unit cost:
 \$1.209
 /LCY
 Total job cost:
 \$9,095

SCRAPER TEAM WORK

Task description:	Replace T	opsoil from #9 B	erm to Refuse	Pile		
Site: Williams Fork M	lines	Permit Action	n: RN8	I	Permit/Job#: C1	981044
PROJECT IDENT	<u>IFICATION</u>					
Task #: 054	S	State: Colorado	,	Abbrev	viation: None	
Date: $\frac{3}{8/20}$	23 Co	unty: Moffat		Fil	ename: 054	
User: RAR						_
Agency or o	rganization name:	DRMS				
HOURLY EQUIP	MENT_			Shift basis: 1 per	day	
			ent Description			
			7G w/push-pull			
Sunnor	t Equipment -Loa	-Dozer: NA d Area: NA				
Suppor		p Area: NA				
Road Mai	ntenance –Motor	ı				
	-Water	Truck: NA				
Cost Breakdown:	Scraper Wo		Support Equ			e Equipment
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	NA
Ownership cost/hour:	\$287.19	NA	NA	NA	NA	NA
Operating cost/hour:	\$277.83	NA	NA	NA	NA	NA
%Utilization-ripper:	NA	NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA	NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA	NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90	NA	NA	NA	NA	NA
Unit Subtotals:	\$595.92	NA	NA	NA	NA	NA
Number of Units:	2	0	0	0	0	0
Group Subtotals:	Work:	\$1,191.84	Support:	\$0.00	Maint:	\$0.00
Total work team cost/	hour: \$1,191.84		11			·
Initial volume:	427	CCY	Swell fac	tor: 1.125		
Loose volume:	480	LCY	Swell lac	1.125		
Ç.			T			
	ce of estimated vo f estimated swell:		r Estimate Idbook			
HOUDI V BRODI	CTION					
HOURLY PRODU	CHON					
			Scraper I	Bowl (volume) Ba	nsis:	
Material weight:	2,550 lbs/LCY		Struck	Volume: 24.00	<u> </u>	CY
Material description:	Earth - Dry pack	ked		Volume: 34.00		.CY
Rated Payload:	81,600 pounds			Volume: 29.00		CY
Payload Capacity:	32.00 LCY		Adjusted (Capacity: 29.00	I	.CY

C٦	/cl	e '	Τi	me	:

Scraper Loading Time: $\frac{1.00}{0.60}$ Minutes Maneuver and Spread Time: $\frac{0.60}{0.60}$ Minutes

Job Condition Correction:

	Scraper	Push Dozer	Source
Altitude Adj:	1.000	NA	(CAT HB)
Job Efficiency:	0.830	NA	(CAT HB)
NAC	0.020	NIA.	
Net Correction:	0.830	NA	

Travel Time:

Road Condition: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res	Total Res	Velocity	Travel Time
		(%)	(%)	(%)	(fpm)	(min)
1	1400.00	-2.50	5.00	2.50	2939	0.75

Haul Time: 0.75 minutes

Site Altitude: 5400 feet

Return Route:

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res	Total Res	Velocity (fpm)	Travel Time (min)
1	1400.00	2.50	5.00	7.50	1931	0.81

Return Time: 0.81 minutes Total Scraper team cycle time: 3.16 minutes Adjusted for job conditions: 914.05 LCY/Hour Selected Number of Scrapers: 2 Scraper(s) Adjusted single scraper team (unit) hourly production: 914.05 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 914.05 LCY/Hour

Unadjusted unit production/hour: 1,101.27 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 0.53
 Hours

 Unit cost:
 \$1.304
 /LCY
 Total job cost:
 \$626

BULLDOZER WORK

Task description:	Replace Topsoi	l from Stockp	oile to 7-North Angle	Well Area	
Site: Williams Fork Mines	Po	ermit Action:	RN8	Permit/Jo	ob#: <u>C1981044</u>
PROJECT IDENTIFI	<u>CATION</u>				
Task #: 059	State:	Colorado		Abbreviation:	None
Date: $\frac{3/8}{2023}$	County:	Moffat		Filename:	059
User: RAR		1,101147		11101111111	
<u> 10 II </u>					
Agency or organ	ization name: D	RMS			
HOURLY EQUIPME	NT COST				
Basic Machine: Cat	D10T - 10SU				
Horsepower: 574					
	ni-Universal				
V 1	hank ripper				
	er day				
Data Source: (CR	•				
Data Source. (Cr	(0)				
Cost Breakdown:					
			<u>Utilization %</u>		
Ownership Cost/Hour:		\$153.67	NA		
Operating Cost/Hour:		\$166.94	100		
Ripper own.		\$24.69	NIA		
Cost/Hour:		\$24.09	NA		
Ripper op. Cost/Hour:		\$0.00	0		
Operator Cost/Hour:		\$41.30	NA		
Total unit Cost/Hour: Total Fleet Cost/Hour:	\$386.60 \$1,546.41		_		
MATERIAL QUANTI Initial Volume: 560	<u>ITIES</u>				
Swell factor: $\frac{300}{1.12}$	5	-			
	LCY	-			
Loose voidine.	<u> LC 1</u>	-			
Source of estimated volu Source of estimated swe factor:			hibit 25, Task VI, Pag	e 8	
HOURLY PRODUCT	ION				
•					
Average push distance:	50 feet	73.7/1			
Unadjusted hourly production:	2,748.7 LC	CY/hr			
Materials consistency description:	Conso	lidated stockp	ile 1.0		
Average push gradient:	0 %				
Average site altitude:	5,400 feet	<u> </u>			
Material weight:	2,550 lbs/LCY				

Weight description: East	rth - Dry packed	
Job Condition Correction Facto	r	Source
Operator Skill:		(AVG.)
Material consistency:	1.000	(CAT HB)
Dozing method:	1.000	(GEN.)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)
Net correction:	0.4492	
Adjusted unit production:	1,234.72 LCY/hr	
Adjusted fleet production:	4938.88 LCY/hr	

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.313/LCY

Total job cost:

O.13 Hours

\$197\$

SCRAPER TEAM WORK

Task description:	Replace T	opsoil fro	m Stockj	pile to Access l	Road		
Site: Williams Fork M	Mines	Permi	t Action:	RN8	I	Permit/Job#: C1	981044
PROJECT IDEN	<u> </u>						
Task #: 061			olorado		Abbre	viation: None	
Date: $3/8/20$	023 Co	unty: N	loffat		Fil	ename: 061	
User: RAR							
Agency or o	organization name:	DRMS	S				
HOURLY EQUIP	PMENT			COST	Shift basis: 1 per	r day	
				nt Description			
		Scraper:		3 w/push-pull			
		-Dozer:	NA				
Suppo	rt Equipment -Loa	d Area:	NA NA				
Road Ma	intenance – Motor		NA NA				
Rodd Wa		Truck:	NA				
Cost Breakdown:	Scraper Wo	rk Team		Support Equ	ipment	Maintenand	e Equipment
	Scraper	Doze	er	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100		NA	NA	NA	NA	NA
Ownership cost/hour:	\$287.19		NA	NA	NA	NA	NA
Operating cost/hour:	\$277.83		NA	NA	NA	NA	NA
%Utilization-ripper:	NA		NA	NA	NA	NA	NA
Ripper own. cost/hour:	NA		NA	NA	NA	NA	NA
Ripper op. cost/hour:	NA		NA	NA	NA	NA	NA
Operator cost/hour:	\$30.90		NA	NA	NA	NA	NA
Unit Subtotals:	\$595.92		NA	NA	NA	NA	NA
Number of Units:	2		0	0	0	0	0
Group Subtotals:	Work:	\$1,191	.84	Support:	\$0.00	Maint:	\$0.00
Total work team cost			1				
Initial volume:			CCV	Swall fac	tor: 1.125		
Loose volume:			CCY LCY	Swell fac	ior: 1.123		
		•					
	rce of estimated vo of estimated swell		Operator Cat Handl		oit 25, Task XXII	I, Page 27	<u> </u>
HOURLY PROD	UCTION						
1100				Scraper F	Bowl (volume) Ba	asis:	
Material weight:	2,550 lbs/LCY				Volume: 24.00		.CY
Material description:	Earth - Dry pacl	zed.			Volume: 24.00 Volume: 34.00		.CY
Rated Payload:		.cu		Average			.CY
Payload Capacity:				Adjusted (CY

	Cycle	Time:	
--	-------	-------	--

Scraper Loading Time: 1.00 Minutes
Maneuver and Spread Time: 0.60 Minutes

<u>Job Condition Correction:</u>

	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: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res	Total Res	Velocity	Travel Time
		(%)	(%)	(%)	(fpm)	(min)
1	800.00	0.00	5.00	5.00	1867	0.56

Haul Time: **0.56** minutes

Site Altitude: 5400 feet

Return Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res	Total Res	Velocity	Travel Time
		(%)	(%)	(%)	(fpm)	(min)
1	800.00	0.00	5.00	5.00	2795	0.46

Return Time: 0.46 minutes Total Scraper team cycle time: 2.62 minutes Adjusted for job conditions: 1,102.44 LCY/Hour Selected Number of Scrapers: 2 Scraper(s) Adjusted single scraper team (unit) hourly production: 1,102.44 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: LCY/Hour 1,102.44

Unadjusted unit production/hour: 1,328.24 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 0.57
 Hours

 Unit cost:
 \$1.081
 /LCY
 Total job cost:
 \$676

REVEGETATION WORK

Task description:	Seed Reclaimed Ar	ea with Rangela	nd/Wildlife	Mix		
: Williams Fork Mi	nes Permi	s Permit Action: RN8 Permit/Jol			Permit/Job#	C1981044
PROJECT IDENTI	<u>FICATION</u>					
Task #: 062	State: C	Colorado		Abb	oreviation: N	None
Date: 3/8/202	3 County: N	Moffat		_	Filename: 0	007
User: RAR						
Agency or or	ganization name: DRM	S				,
FERTILIZING						
Materials			_	ı		
Description		Units / Acre	Unit	Cos	t / Unit	Cost /Acre
				\$		\$
				Tot	al Fertilizer Materials Cost/Acre	\$0.00
Application Description						Cost /Acre
Description						\$
		Total	Fertilizer A	Applicatio	n Cost/Acre	\$0.00
TILLING						
Description						Cost /Acre
	deep (MEANS 32 91 13.2	3 6100)				\$117.18
			T	otal Tillin	g Cost/Acre	\$117.18
SEEDING					5 000011010	Φ11/.1δ
SELDII 10			<u> </u>	D - 4 :		
Seed Mix				Rate – PLS LBS /	Seeds per SQ. FT	Cost /Acre
Di 10 de la companya di 10 de				Acre		0.5.10
Birdsfoot Trefoil - 1	Empire			0.50	4.80	\$5.18

Alkali Sacaton

Indian Ricegrass - Paloma

Sand Dropseed Great Basin Wildrye - Magnar

Pubescent Wheatgrass - Luna

Milk Vetch, Cicer - Monarch

Bitterbrush, Antelope

Hard Fescue - Durar

1.00

0.50

0.25

0.25

1.00

1.50

2.00

0.50

39.03

1.62

0.08

29.84

19.46

4.13

1.66

4.06

\$28.48

\$5.56

\$4.88

\$2.44

\$11.55

\$4.39

\$6.80

\$4.10

Streambank Wheatgrass - Sodar	2.00	6.52	\$11.40
Mahogany, Mountain	0.50	0.68	\$18.40
Western Wheatgrass - Arriba	3.00	7.58	\$19.50
Rabbitbrush, Rubber	0.50	7.45	\$32.15
Daisy, Englemann's	0.25	1.23	\$31.85
Needlegrass, Green - Lodorm	2.00	8.31	\$23.55
Daisy or Sunflower, Maximillians	0.25	1.42	\$14.00
Sagebrush, Mountain or Big	0.50	26.40	\$9.88
Globemallow, Scarlet (or copper)	0.25	2.83	\$33.88
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Totals Seed Mix	17.00	171.01	\$275.34

Application

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

MULCHING and MISCELLANEOUS

Materials

Description Here delivered (MEANS 21 25 14 16 1200)	Units / Acre	Unit TON	Cost / Unit \$421.36	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200} Total Mulch Materials Cost/Acre	2.00	TON	\$421.30	\$842.72 \$842.72

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$73.00
Power mulcher (MEANS 32 91 13.16 0350)		\$141.57
Tota	al Mulch Application Cost/Acre	\$214.57

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	71	Cost /Acre:	\$1,681.81
Estimated Failure Rate:	20%	Cost/Acre*:	\$507.34
40 1 1D 1 1 TT 1 T	CEEDDIC		·

*Selected Replanting Work Items: SEEDING

Initial Job Cost:
Reseeding Job Cost:
Total Job Cost:
Job Hours:

\$119,408.51
\$7,204.23
\$126,613
71.00

REVEGETATION WORK

Task description:	Reseed Cropland	Areas				_
: Williams Fork Mines	Per	mit Action: RN8			Permit/Job#	: <u>C1981044</u>
PROJECT IDENTIFIC	ATION					
Task #: 063	State:	Colorado		Ah	breviation: N	None
Date: $\frac{3/8}{2023}$	County: Moffat					063
User: RAR						
Agency or organiz	ration name: DR	MS				
ERTILIZING						
Materials						
		Units /				
Description		Acre	Unit	Cos	st / Unit	Cost /Acre
				\$		\$
				To	tal Fertilizer	
					Materials	
					Cost/Acre	\$0.00
						\$
		Total :	Fertilizer	Application	on Cost/Acre	\$0.00
<u> </u>						
Description						Cost /Acre
Disc harrowing, 6" deep	(MEANS 32 91 13	.23 6100)				\$117.18
			ŗ	Fotal Tillir	ng Cost/Acre	\$117.18
SEEDING						
Seed Mix				Rate -	Seeds	Cost /Acre
Seed Wilx				PLS LBS / Acre	per SQ. FT	Cost/Acre
Wheat, Spring - Westbro	ed 926			60.00	55.10	\$16.50
		Totals So	eed Mix	60.00	55.10	\$16.50
Application						
Description						Cost /Acre
Drill Seeding (DRMS S	urvey Cost)					\$232.00

Total Seed Application Cost/Acre \$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	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				\$842.72

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$73.00
Power mulcher (MEANS 32 91 13.16 0350)		\$141.57
	Total Mulch Application Cost/Acre	\$214.57

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	77	Cost /Acre:	\$1,422.97
Estimated Failure Rate:	0%	Cost /Acre*:	\$0.00
*Selected Replanting Work Items:	NONE		

Initial Job Cost: \$109,568.69

Reseeding Job Cost: \$0.00

Total Job Cost: Job Hours: 77.00

REVEGETATION WORK

Task description:	Reseed Reclaim	ed Areas with Pastu	re Mix			
Williams Fork Mines	Permit Action: RN8			Permit/Job#	: C1981044	
Task #: 064 Date: 3/8/2023 User: RAR Agency or organiz	State: County:	Colorado Moffat				None 064
<u>ERTILIZING</u>						
aterials						
Description		Units / Acre	Unit	Cos	t / Unit	Cost /Acre
				\$		\$
				Tot	al Fertilizer Materials Cost/Acre	\$0.00
						\$
		Total I	Fertilizer	Application	n Cost/Acre	\$0.00
ILLING Description	A.F V					Cost /Acre
Disc harrowing, 6" deep	(MEANS 32 91 1	3.23 6100)				\$117.18
Total Tilling Cost/Acre					\$117.18	
EEDING						
Seed Mix				Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Crested Wheatgrass - Fa	irway			3.00	13.77	\$12.08
Smooth Brome - Mancha				7.00	23.30	\$23.28
Intermediate Wheatgrass	- 1egmar			6.00	12.81	\$18.00
		Totals Se	ed Mix	16.00	49.89	\$53.35

\$53.35

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	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				\$842.72

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$73.00
Power mulcher (MEANS 32 91 13.16 0350)		\$141.57
	Total Mulch Application Cost/Acre	\$214.57

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	98	Cost /Acre:	\$1,459.82
Estimated Failure Rate:	20%	Cost /Acre*:	\$285.35
*Selected Replanting Work Items:	SEEDING		_

Initial Job Cost: \$143,062.36

Reseeding Job Cost: \$5,592.86

Total Job Cost: Job Hours: 98.00

REVEGETATION WORK

Task description:	Weed Spraying -	10% of 570 acres,	Twice/Ye	ear for Ten	Years	
e: Williams Fork Min	es Per	Permit Action: RN8			Permit/Job#:	C1981044
PROJECT IDENTII						
Task #: 065	State:	Colorado				Vone
Date: $3/8/2023$ User: RAR	County:	Moffat			Filename: 0	65
·		3.50				
Agency or org	anization name: DR	MS				
FERTILIZING						
Materials		Units /			1	
Description		Acre	Unit	Cost	t / Unit	Cost /Acre
				\$		\$
				Tota	al Fertilizer Materials Cost/Acre	\$0.00
Description						Cost /Acre
						\$
		Total I	Fertilizer	Application	n Cost/Acre	\$0.00
TILLING						
Description						Cost /Acre
						\$
			1	Total Tillin	g Cost/Acre	\$0.00
<u>SEEDING</u>						
Seed Mix				Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
						\$
		Totals Se	ed Mix	0.00	0.00	\$0.00

Application

Description		Cost /Acre
		\$
	Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
	2.00		\$0.00	\$0.00
	2.00		\$0.00	\$0.00
Total Mulch Materials Cost/Acre				\$0.00

Application

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

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	1140	Cost /Acre:	\$62.72
Estimated Failure Rate:	0%	Cost /Acre*:	\$0.00
*Selected Replanting Work Items:	NONE		

Initial Job Cost: \$71,500.80

Reseeding Job Cost: \$0.00 | \$71,501 | S50.00 | S70.00 | S

SITE MAINTENANCE

	Task description:	Site Ma	intenance, Pond Clea	ning			
-	Williams Fork Min	nes	Permit Action: R	N8		Permit/.	Job#: <u>C1981044</u>
	PROJECT IDENT	TIFICATION					
	Task 085	S	tate: Colorado		Abbrevia	ntion: Non	e
	#: Date: 3/8/2023 User: RAR	Соц	ınty: Moffat		Filen	ame: 085	
	Agency or o	organization nam	ne: DRMS				
	UNIT COSTS						
Ī	Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
Ī	CAT D3C Dozer	40.00	Cat D3K LGP - 3P	400.00	EA	\$106.51	\$42,604.00
Ī	CAT14M Grader	40.00	CAT 14M	400.00	EA	\$222.75	\$89,100.00

Job Hours: 400.00

Total Cost: \$131,704.00

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description: Mobilize/Demobilize Equipment for Initial Reclamation					
te: Williams Fork Mines	Pe	ermit Action: RN8		Permit/Job#:	C1981044
PROJECT IDENTIFICA	ATION				
Task #: 090	State:	Colorado	Ab	breviation: N	Vone
Date: $3/8/2023$	County:	Moffat		Filename: 0	90
User: RAR					
Agency or organiza	tion name: DI	RMS			
rigency or organiza					
EQUIPMENT TRANSP	ORT RIG COS	ST			
EQUITMENT THERIST	on no	<u> </u>			
					er day
			Cost Data S	ource: CRO	G Data
Truck Tractor D	escription: G	ENERIC ON-HIGH	WAY TRUCK TRAC	CTOR, 6X4, DII	ESEL POWERED,
	1		400 HP (2ND HAI		ŕ
Truck Trailer I	Description:	GENERIC FOLD	ING GOOSENECK,	DROP DECK 1	EQUIPMENT
	•	Т	TRAILER (25T, 50T,	AND 100T)	
C + D - 1-1					
Cost Breakdown:					
Available Rig Capacities	0-25 Tons	s 26-50 Tons	51+ Tons		
Ownership Cost/Hou		\$23.06	\$37.58		
Operating Cost/Hou	r: \$25.26	\$30.83	\$51.41		
Operator Cost/Hou	r: \$27.71	\$27.71	\$27.71		

\$20.22

\$101.82

\$20.22

\$136.92

NON ROADABLE EQUIPMENT:

Total Unit Cost/Hour:

Helper Cost/Hour:

\$0.00

\$68.22

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
_	(TONS)				fleet		
Cat D10T - 10SU	84.53	\$153.67	\$136.92	4	\$1,162.36	\$547.68	\$1,000.00
ATLAS COPCO	0.00	\$137.40	\$68.22	1	\$205.62	\$68.22	\$250.00
ROC D7-11,4.0							
in.							
CAT 14M	23.57	\$114.80	\$68.22	1	\$183.02	\$68.22	\$250.00
Cat 637G	57.28	\$264.49	\$136.92	2	\$802.82	\$273.84	\$500.00
Water Tanker,	15.00	\$37.19	\$68.22	1	\$105.41	\$68.22	\$250.00
5,000 Gal.							
Drill/Broadcast	25.00	\$6.25	\$68.22	1	\$74.47	\$68.22	\$250.00
Seeder with							
Tractor							

Subtotals: \$2,533.70 \$1,094.40 \$2,500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	\$48.30	1	\$48.30	\$48.30
Lube Truck, 6x4, 250 HP	\$48.30	1	\$48.30	\$48.30
Flatbed Truck, 6x4, 45K GVW	\$54.51	1	\$54.51	\$54.51
Light Duty Pickup, 4x4, 1 T. Crew	\$24.30	1	\$24.30	\$24.30

Subtotals: \$175.41 \$175.41

** one round trip, no haul rig:

EQUIPMENT HAUL DISTANCE and Time

<u>Transportation Cycle Time:</u>

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.75	0.75
Return Time (Hours):	0.75	0.75
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.50	1.50

JOB TIME AND COST

Total job time: _	5.00	Hours
Total job cost:	\$15,773	

Borehole Worksheet Cont'd Task # TTT Page 59 of 122

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Т	ask descripti	ion:	Mobilize/Demobilize	Equip	ment for Pond Re	emoval				
Site:	Williams F	ork Mines	Permit	Action:	RN8		Permit/Job#:	C198104	4	
<u>P1</u>	ROJECT II	<u>DENTIFIC</u>	ATION							
	Task#:	091	State	Co	lorado		Abb	reviation:	None	
	Date:	3/8/2023	County	Mo	ffat		= -	Filename:	091	
	User:	RAR								
		Agency or o	rganization name: <u>I</u>	RMS						
<u>E</u> (QUIPMEN	T TRANSI	ORT RIG COST							
							Shift b	asis:	1 per day	
							Cost Data Sou	ırce:	CRG Data	<u> </u>
		Truck Tr	ractor Description:	GENE	ERIC ON-HIGHW		TRACTOR, 6 D HALF, 2006		EL POWERE	D, 400 HP
		Truck T	railer Description:	ENER	IC FOLDING GO	· · · · · · · · · · · · · · · · · · ·	OROP DECK AND 100T)	EQUIPME	NT TRAILE	R (25T, 50T,

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

NON ROADABLE EQUIPMENT:

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)				fleet		
Cat D9T - 9SU	60.01	\$146.30	\$136.92	1	\$283.22	\$136.92	\$250.00
Drill/Broadcast	25.00	\$6.25	\$68.22	1	\$74.47	\$68.22	\$250.00
Seeder with Tractor							
CAT 908H	7.12	\$25.38	\$68.22	1	\$93.60	\$68.22	\$0.00
Cat 315D L 8'-6"	19.05	\$68.58	\$68.22	1	\$136.80	\$68.22	\$250.00
Stick							

Subtotals: \$588.09 \$341.58 \$750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$54.51	1	\$54.51	\$54.51
Generic 15-18 cy, 6x4	\$126.28	1	\$126.28	\$126.28

Subtotals: \$180.79 \$180.79

** one round trip, no haul rig:

EQUIPMENT HAUL DISTANCE and Time

<u>Transportation Cycle Time:</u>

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.18	0.18
Return Time (Hours):	0.18	0.18
Loading Time (Hours):	1.75	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	3.11	0.36

JOB TIME AND COST

Total job time:	6.22	Hours
Total job cost:	\$5,134	_

Borehole Worksheet Cont'd Task # TTT Page 61 of 122

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Task description	ı: _	Mobilize/Demobilize	Equipment for Yearly	Site Maintenance			
ite: Williams For	te: Williams Fork Mines Perm		rmit Action: RN8		Permit/Job#: C1981044		
PROJECT ID	ENTIFICA	<u>ATION</u>					
Task #:	092	State:	Colorado		Abbreviation:	None	
	3/8/2023	County:	Moffat		Filename:	092	
User:	RAR						
A	gency or or	ganization name: DF	RMS				
EQUIPMENT	TRANSP	ORT RIG COST			Shift basis:	1 per day CRG Data	-
	Truck Tra	actor Description:	GENERIC ON-HIGHV	WAY TRUCK TRACT (2ND HALF		EL POWERED,	400 HP
	Truck Tr	ailer Description: GI	ENERIC FOLDING GO	DOSENECK, DROP D AND 10		ENT TRAILER ((25T, 50T,
Cost Breakdown:							

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

Owner ship

NON ROADABLE EQUIPMENT:

Weight/

Machine

Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
_	(TONS)				fleet		
Cat D3K LGP - 3P	9.20	\$35.48	\$68.22	10	\$1,037.00	\$682.20	\$0.00
CAT 14M	23.57	\$114.80	\$68.22	5	\$915.10	\$341.10	\$1,250.00

Fleet

Subtotals: \$1,952.10 \$1,023.30 \$1,250.00

Return Trip

DOT Permit

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
				_

Haul Rig

Subtotals: \$0.00 \$0.00

Haul Trip

** one round trip, no haul rig:

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region:

Total one-way travel distance:

Average Travel Speed:

Total Non-Roadable Mob/Demob Cost *

'* two round trips with haul rig:

Total Roadable Mob/Demob Cost **

Solution:

\$23,092.14

Transportation Cycle Time:

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.18	0.18
Return Time (Hours):	0.18	0.18
Loading Time (Hours):	2.50	NA
Unloading Time (Hours):	2.50	NA
Subtotals:	5.36	0.36

JOB TIME AND COST

Total job time:	10.72	Hours
Total job cost:	\$23.092	

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EQUIPMENT MOBILIZATION/DEMOBILIZATION

Т	Task description:	Mobilize/Demobil	ize Equip	ment for Pond C	leaning				
Site:	Williams Fork M	ines Perm	it Action:	RN8	Pe	ermit/Job#:	C198104	4	
<u>P1</u>	ROJECT IDENT	<u>IFICATION</u>							
	Task #: 093	Sta	te: Co	lorado		Abb	reviation:	None	
	Date: $3/8/2$	2023 Cour	ty: Mo	offat]	Filename:	093	
	User: RAR								
	Ageno	ey or organization name:	DRMS						
	8	, <i>B</i>							
<u>E</u> (QUIPMENT TRA	ANSPORT RIG COST							
						Shift b	asis:	1 per day	
					C	ost Data Sou	ırce:	CRG Data	- -
	Tr	uck Tractor Description:	GENE	ERIC ON-HIGHW		RACTOR, 6 HALF, 2006	•	L POWERED), 400 HP
	Tı	ruck Trailer Description:	GENER	IC FOLDING GO	OSENECK, DR	OP DECK	EQUIPME1	NT TRAILER	(25T, 50T,
		<u>-</u>	AND 100T)						
Co	ost Breakdown:								

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

NON ROADABLE EQUIPMENT:

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)				fleet		
Cat 336D L 10'-6"	32.23	\$83.53	\$101.82	1	\$185.35	\$101.82	\$250.00
Stick							
Cat D7R DS Series II	34.57	\$92.78	\$101.82	1	\$194.60	\$101.82	\$250.00
LGP							

Subtotals: \$379.95 \$203.64 \$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 8-10 cy, 6x4	\$91.11	3	\$273.33	\$273.33

Subtotals: \$273.33 \$273.33

** one round trip, no haul rig:

EQUIPMENT HAUL DISTANCE and Time

<u>Transportation Cycle Time:</u>

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.33	0.33
Return Time (Hours):	0.33	0.33
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.67	0.67

JOB TIME AND COST

Total job time:	3.33	_ Hours
Total job cost:	\$2,331	

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BOREHOLE SEALING WORK

	Task description:	Plug and Sea	ıl All Wells			
Site:	Williams Fork Mines	I	Permit Action:	RN8	Permit	/Job#: C1981044
<u>PROJE</u>	CT IDENTIFICATION	<u>N</u>				
Task #	#: 002	State:	Colorado		Abbreviation:	None
Date	e: 1/31/2023	County:	Moffat		Filename:	C044-002

Agency or organization name: DRMS

UNIT COSTS

User:

RAR

Borehole	Sealing/Item Method						
Description		Diameter	Length	Quantity	Unit	Unit Cost	Total Cost
Bottom Plug - 2"Wells (11)	PVC plug - 2 in. diameter borehole	2"	NA	11.00	EA	\$24.59	\$270.49
- Fill Holes with Cement	Portland cement grout - 2 in. (labor, equip, materials)	2"	NA	62.00	LF	\$5.29	\$327.98
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	11.00	EA	\$37.50	\$412.50
Bottom Plug - 4"Wells (3)	PVC plug - 4 in. diameter borehole	4"	NA	3.00	EA	\$33.98	\$101.94
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	4"	NA	96.00	bag	\$19.95	\$1,915.20
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	3.00	EA	\$37.50	\$112.50
Bottom Plug - 6"Wells (5)	PVC plug - 6 in. diameter borehole	6"	NA	5.00	EA	\$61.43	\$307.15
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	6"	NA	502.00	bag	\$19.95	\$10,014.90
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	5.00	EA	\$37.50	\$187.50
Bottom Plug - 8"Wells (2)	PVC plug - 8 in. diameter borehole	8"	NA	2.00	EA	\$84.15	\$168.30
- Fill Holes with Cement	Portland cement grout (Bag, material cost only94 lb. bag)	8"	NA	402.00	bag	\$19.95	\$8,019.90
- Borehole Marker	Borehole location/identification marker (EA, material cost only)	NA	NA	2.00	EA	\$37.50	\$75.00
Bottom Plug - 18"Wells (2)	PVC plug - 12 in. diameter borehole	18"	NA	3.00	EA	\$157.96	\$473.88

Borehole Worksheet Cont'd Task # TTT Page 66 of 122

- Fill Holes with	Portland cement grout (18"	NA	917.00	bag	\$19.95	\$18,294.15
Cement	Bag, material cost						
	only94 lb. bag)						
- Borehole	Borehole	NA	NA	2.00	EA	\$37.50	\$75.00
Marker	location/identification						
	marker (EA, material						
D 111 D1 D1	cost only)	3.7.		240.00		426102	D C A = 40 40
Drill Rig Time -	ATLAS COPCO ROC	NA	NA	248.00	EA	\$261.05	\$64,740.40
All Wells	D7-11,4.0 in.	37.		240.00		440.00	011.050.10
Water Truck	Water Tanker, 3,500	NA	NA`	248.00	EA	\$48.30	\$11,978.40
Time - All Wells	Gal.						***
-Cut Casing 2"	Exposed casing removal	2	.524	5.76	LF	\$3.26	\$18.78
Wells	- Calculate						
	Circumference in Linear						
~ ~	Feet		1.05			42.26	010.01
-Cut Casing 4"	Exposed casing removal	4	1.05	3.14	LF	\$3.26	\$10.24
Wells	- Calculate						
	Circumference in Linear						
0 + 0 : (1)	Feet		1.57	7.05	IF	Ф2.26	Φ25.50
-Cut Casing 6" Wells	Exposed casing removal - Calculate	6	1.57	7.85	LF	\$3.26	\$25.59
wells	Circumference in Linear						
	Feet						
-Cut Casing 8"	Exposed casing removal	8	2.09	4.19	LF	\$3.26	\$13.66
Wells	- Calculate	0	2.09	4.19	Lr	\$5.20	\$13.00
WCIIS	Circumference in Linear						
	Feet						
-Cut Casing 18"	Exposed casing removal	18	4.71	9.42	LF	\$3.26	\$30.71
Wells	- Calculate	10	7./1	7.72		ψ3.20	ψ50./1
,, 5115	Circumference in Linear						
	Feet						
	1	1					

Job Hours:	248.00	Total Cost:	\$117,574.00
JUD HUUIS.	470.00	Total Cost.	\$117,57 7.00

Borehole Worksheet Cont'd Task # TTT Page 67 of 122

SAFEGUARDING UNDERGROUND OPENINGS

Site: \(\bullet\)	Williams Fork Mines	Permit Action:		RN8	Permit/Job#: C198104	
ROJEC'	T IDENTIFICATIO	<u>N</u>				
Task#:	003	State:	Colorado		Abbreviation:	None
Date:	1/31/2023	County:	Moffat		Filename:	C1981044
User:	RAR					

UNIT COSTS

Opening Description	Dime nsions	Closure Method	Quantity	Unit	Unit Cost	Total Cost
Portal No. 5 Entries (5)	5@120 SF	Adit closure - bulkhead seal, >= 36 sq. ft. (per sq. ft.)	600.00	SF	\$429.32	\$257,592.00
- Backfill Entries	5@ 44.4 CY	Adit closure - backfilling (per cu. yd.)	222.00	CY	\$25.00	\$5,550.00

Job Hours:	200.00	Total Cost:	\$263,142.00
ood Hours.	= 00.00	Total Cost.	Ψ 200 91 12.00

BULLDOZER WORK

·	Portal No. 5A Facilities Area			
Williams Fork Mines	Permit Action: RN8	Pern	nit/Job#: C198104	4
PROJECT IDENTIFICATION				
	Statas Calamada		Abbassistism	None
Task #: 008 Date: 1/31/2023	State: Colorado County: Moffat		Abbreviation: Filename:	None C1981044
User: RAR	County. <u>Worldt</u>		Thename.	C17610 11
	. DDMC			
Agency or organizatio	n name: DRMS			
HOURLY EQUIPMENT COST				
Basic Machine: Cat D10T - 1	.0SU			
Horsepower: 574				
Blade Type: Semi-Univer				
Attachment: 1-shank ripp	er			
Shift Basis: 1 per day				
Data Source: (CRG)				
Cost Breakdown:	I	I Itilia-4: 0/		
Overnoushin Cost/Hove	\$153.67	<u>Utilization %</u> NA		
Ownership Cost/Hour: Operating Cost/Hour:	\$155.67	100		
Ripper own. Cost/Hour:	\$24.69	NA		
Ripper op. Cost/Hour:	\$1.81	15	<u></u>	
Operator Cost/Hour:	\$41.30	NA		
<u></u>	Ų 11.50	IVA		
Total unit Cost/Hour: \$388.4	11			
Total Fleet Cost/Hour: \$1,553	3.65			
MATERIAL QUANTITIES				
Initial Volume: 290,000				
Swell factor: 1.165				
Loose volume: 337,850 LCY				
Source of estimated volume:	Table 63; Map 26			
Source of estimated volume. Source of estimated swell factor:	Cat Handbook			
Source of estimated swell factor.	Cut Hundoook			
HOURLY PRODUCTION				
	200.0			
Average push distance:	200 feet	<u> </u>		
Unadjusted hourly production:	946.0 LCY/hr			
Materials consistency description:	Compacted fill or emban	kment 0.9		
Average push gradient: 50/				
Average push gradient: 5 % Average site altitude: 5,400	feet			
Average site attitude: 3,400	leet			
Material weight: 2,900	lbs/LCY		<u> </u>	
Weight description: Decor	mposed rock - 50% Rock, 50%	Earth		
lob Condition Correction Factor		Source		
Operator Skill:	0.750	(AVG.)		
Material consistency:	0.900	(CAT HB))		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(SSD-AC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.793	(CAT HB)
Blade type:	1.000	(PAT)

Net correction: 0.3209

Adjusted unit production: 303.57 LCY/hr
Adjusted fleet production: 1214.28 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$1.279/LCY

Total job time: 278.23 Hours
Total job cost: \$432,273

Borehole Worksheet Cont'd Task # TTT Page 70 of 122

SCRAPER TEAM WORK

ite: Williams Fork Min	: Williams Fork Mines Permit Action		n: RN8		Permit/Job#:	C1981044	-
PROJECT IDENTII	FICATION						
Task #: 031	Sta	ate: C	olorado		Abbre	viation: None	
Date: $3/8/20$	23 Cour	nty: M	offat		Fi	lename: C1981044	
User: RAR							
Agency	or organization name:	DRMS					
HOURLY EQUIPM	ENT_		CO	OST Shift basis: 1	l per day		
			ent Descript				
		craper:	Cat 637G w	/push-pull			
		Dozer:	NA NA				
51	upport Equipment -Load Dump-		NA NA				
Road	d Maintenance – Motor G		NA				
	-Water 7	Truck:	NA				
Cost Breakdown:	Scraper Work Team		Sunnort	Equipment	Maintan	ance Equipment	
Cost Breakdown.	Scraper Work Team Scraper	Do	* *	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine	e: 100		NA	NA	NA	NA	N
Ownership cost/hour	r: \$287.19		NA	NA	NA	NA	N
Operating cost/hour			NA	NA	NA	NA	N
%Utilization-rippe			NA	NA	NA	NA	N
Ripper own. cost/hour	r: NA		NA	NA	NA	NA	N
Ripper op. cost/hour	r: NA		NA	NA	NA	NA	N
Operator cost/hour	r: \$30.90		NA	NA	NA	NA	N
Unit Subtotals			NA	NA	NA	NA	N
Number of Units	s: 2		0	0	0	0	
Group Subtotals	s: Work:	\$1,19	01.84	Support:	\$0.00	Maint:	\$0.00
Total work team cost/ho	our: \$1,191.84		<u>'</u>				
MATERIAL QUAN	TITIES						
Initial volume		(CCY	Swell facto	or: 1.125		
Loose volume			LCY	Swell lack	1.123		
	Source of estimated volu	ume: (Operator Esti	mate; Operator Es	stimate; Exhibit 18	Drawing IV-	
Sou	rce of estimated swell fa	actor:	Cat Handboo	k			
HOURLY PRODUC	TION						
HOURL I FRODUC	IION		Sara	per Bowl (volume) Racie:		
3.6. 1.1. 1.1.	2.650.11 /1.637			•		LOW	
_	2,650 lbs/LCY	Dool-	_	_	24.00	LCY LCY	
	Decomposed rock - 25% 75% Earth	o Kock,	I.	leaped Volume:	34.00	LC I	
	81,600 pounds		A	verage Volume:	29.00	LCY	
Payload Capacity:				usted Capacity		LCY	

Cycle Time:

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{1.00} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.60} \text{ Minutes} \\ \end{array}$

Job Condition Correction:

	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: Rutted dirt, little maintenance, no water, 1" tire penetration 4.0

Haul Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
		(%)				
1	1360.00	0.00	4.00	4.00	2394	0.80

Haul Time: 0.80 minutes

Site Altitude: 5400 feet

Return Route:

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1360.00	0.00	4.00	4.00	2910	0.63

Return Time: 0.63 minutes

Total Scraper team cycle time:

Adjusted for job conditions:

Selected Number of Scrapers:

Selected Number of Scrapers:

2 Scraper(s)

1 CV/Hour

Adjusted single scraper team (unit) hourly production: 953.27 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 953.27 LCY/Hour

Unadjusted unit production/hour: 1,148.51 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 2.47
 Hours

 Unit cost:
 \$1.250
 /LCY
 Total job cost:
 \$2,940

_	Williams Fork Mines	Permit A	action: RN8	P	Permit/Job#: C198104	4
R	OJECT IDENTIFIC	ATION				
	Task #: 032	State:	Colorado		Abbreviation:	None
	Date: $\frac{032}{3/8/2023}$	County:	Moffat		Filename:	C1981044
	User: RAR		- Ivioriut		THE MILE.	21701011
	Agency or o	rganization name: DI	RMS			
<u>IC</u>	OURLY EQUIPMEN	<u>r cost</u>				
	Basic Machine: Ca	ut D10T - 10SU				
	Horsepower: 57	4		- -		
		mi-Universal				
		shank ripper		<u> </u>		
		per day		<u>_</u>		
	Data Source: (C	RG)		_		
Cos	t Breakdown:		1	Utilization %		
	Ownership Cost/Hour	:	\$153.67	NA		
	Operating Cost/Hour		\$166.94	100		
	Ripper own. Cost/Hour		\$24.69	NA		
	Ripper op. Cost/Hour		\$0.00	0		
	Operator Cost/Hour		\$41.30	NA		
1 <i>A</i>	ATERIAL QUANTIT Initial Volume: 7,00					
	Swell factor: 1.12		_			
Sc	ource of estimated volum	e: Operator	— Estimate: Exhib	oit 23, Task I, page 3		
	ource of estimated swell					
НC	OURLY PRODUCTION	ON				
	verage push distance:	200 feet				
	nadjusted hourly product		nr			
M	aterials consistency desc	ription: Compa	cted fill or emb	ankment 0.9		
		0 %				
	verage nush gradieni:					
A	verage push gradient: verage site altitude:	5,400 feet				
A' A'		5,400 feet 2,650 lbs/LCY				
Ay Ay M	verage site altitude:		25% Rock, 75%	% Earth		
Ar Ar M	verage site altitude: [aterial weight: [eight description: Condition Correction Fa	2,650 lbs/LCY Decomposed rock -		Source		
Ar Ar M	verage site altitude: [aterial weight: [eight description: Condition Correction Fa	2,650 lbs/LCY Decomposed rock - ctor or Skill:	25% Rock, 75%			

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 662.48 LCY/hr
Adjusted fleet production: 2649.92 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)
Unit cost: \$0.584/LCY

Total job time: 2.97 Hours
Total job cost: \$4,596

: Williams Fork Mines	Permit Action: RN8	Permi	it/Job#: C1981044
PROJECT IDENTIFICATIO			A11 ' 2' NT
Task #: 033 Date: 3/8/2023	State: Colorado County: Moffat		Abbreviation: None Filename: 033
User: RAR	County. Moriat		riiename. 033
_	DDMC		
Agency or organiz	ation name: <u>DRMS</u>		
HOURLY EQUIPMENT CO	<u>ST</u>		
Basic Machine: Cat D9T	- 9SU		
Horsepower: 405		_	
Blade Type: Semi-Un	iversal	_	
Attachment: 1-shank	11	- -	
Shift Basis: 1 per day	7	<u>-</u>	
Data Source: (CRG)		_	
Cost Breakdown:	ı	TT4:1:4' 0/	
Ownership Cost/Hours	\$146.30	<u>Utilization %</u> NA	
Ownership Cost/Hour: Operating Cost/Hour:	\$140.30	100	
Ripper own. Cost/Hour:	\$19.06	NA	
Ripper op. Cost/Hour:	\$0.00	0	
Operator Cost/Hour:	\$41.30	NA NA	
<u> </u>			
	48.07		
Total Fleet Cost/Hour: \$3	48.07		
MATERIAL OHANTITIES			
MATERIAL QUANTITIES			
Initial Volume: 8,000			
Swell factor: 1.125	<u> </u>		
Loose volume: 9,000 LC	<u>Y</u>		
Source of estimated volume:	Operator Estimate; Exhib	it 23, Task II, Page 4	
Source of estimated swell factor:	Cat Handbook		
HOURLY PRODUCTION			
Average push distance:	50 feet		
Unadjusted hourly production:	2,110.5 LCY/hr		
Materials consistency description	Compacted fill or emba	ankment 0.9	
Avenage mu-1; 1: 0.0	0/		
Average push gradient: 0 °	% 400 feet		
Average site altitude: 5,4	400 feet		
Material weight: 2,6	650 lbs/LCY		
			_
Weight description: De	ecomposed rock - 25% Rock, 75%	6 Earth	
Job Condition Correction Factor		Source	
Operator Skil		(AVG.)	
Material consistency		(CAT HB))	
Dozing method	d: 1.000	(GEN.)	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 1,026.34 LCY/hr
Adjusted fleet production: 1026.34 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.339/LCY

Total job time: 8.77 Hours
Total job cost: \$3,052

Williams Fork Mir	ies	Permit A	etion: RN8	I	Permit/Job#: <u>C198104</u>	4
ROJECT IDENTI	FICATION					
Task #: 034	<u></u>	State:	Colorado		Abbreviation:	None
Date: $\frac{3/8}{20}$	23	County:	Moffat		Filename:	034
User: RAR		county.	11101141		T Helianie.	
Agency	or organization	name: DR	MS			
OURLY EQUIPM	ENT COST					
Basic Machine:	Cat D9T - 9SU	J				
Horsepower:	405			_		
Blade Type:	Semi-Universa	al		=		
Attachment:	1-shank ripper			_		
Shift Basis:	1 per day			=		
Data Source:	(CRG)			- -		
st Breakdown:						
				<u>Utilization %</u>		
Ownership Cost/I			\$146.30	NA		
Operating Cost/I	Hour:		\$141.41	100		
Ripper own. Cost/I	Hour:		\$19.06	NA		
Ripper op. Cost/l	Hour:		\$0.00	0		
Operator Cost/I	Hour:		\$41.30	NA		
Total Fleet Cost/Hour ATERIAL QUAN						
Initial Volume:	264					
Swell factor:	1.125					
Loose volume:	297 LCY					
_			_			
Source of estimated vo		Operator E				
Source of estimated sy	vell factor:	Cat Handb	ook			
OURLY PRODUC	CTION					
Average push distance	<u>.</u>	50 feet				
Jnadjusted hourly pro		2,110.5 LCY	/hr			
Materials consistency	description:	Compac	ted fill or emba	ankment 0.9		
•	-				·	
Average push gradien						
Average site altitude:	5,400 fe	eet				
Material weight:	2,650 lb	os/LCY				
Weight description:	Decomp	osed rock - 2	25% Rock, 75%	6 Earth		
b Condition Correction				Source		
	perator Skill:		.750	(AVG.)		
	consistency:		.900	(CAT HB))	
D	zing method:	1	.000	(GEN.)		

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.903	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 926.72 LCY/hr
Adjusted fleet production: 926.72 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.376/LCY

Total job time: 0.32 Hours
Total job cost: \$112

Williams Fork Mi	nes	Permit Ac	etion: RN8		Permit/Job#: C19810)44
OJECT IDENTI	FICATION					
Task #: 035		State:	Colorado		Abbreviation	: None
Date: $\frac{3/8}{20}$)23	County:	Moffat		_ Filename	
User: RAR	,23	county.	11101141		_	
Agency	or organization	name: DR	MS			
URLY EQUIPM	IENT COST					
Basic Machine:	Cat D9T - 9S	U				
Horsepower:	405					
Blade Type:	Semi-Univers	al				
Attachment:	1-shank rippe	r				
Shift Basis:	1 per day					
Data Source:	(CRG)					
t Breakdown:						
				<u>Utilization %</u>		
Ownership Cost/	Hour:		\$146.30	NA		
Operating Cost/	Hour:		\$141.41	100		
Ripper own. Cost/	Hour:		\$19.06	NA		
Ripper op. Cost/	Hour:		\$0.00	0		
Operator Cost/	Hour:		\$41.30	NA		
otal Fleet Cost/Hour		I				
Initial Volume:	1,578					
Swell factor:	1.125		_			
Loose volume:	1,775 LCY		-			
-			<u> </u>			
ource of estimated v		Operator E				
ource of estimated s	well factor:	Cat Handb	ook			
URLY PRODUC	CTION					
verage push distanc	e·	50 feet				
nadjusted hourly pro		2,110.5 LCY	/hr			
aterials consistency	description:	Compac	ted fill or emba	nkment () 9		
•	•		01 011104			_
verage push gradier						
verage site altitude:	5,400 f	eet				
aterial weight:	2,650 1	bs/LCY				
eight description:	Decom	posed rock - 2	25% Rock, 75%	Earth		_
Condition Correction	on Factor			Source		
	perator Skill:	0.	.900	(AB.AVe	G.)	
		Λ	.900	(CAT HI		
Material	consistency:	U.	.900	(САТПІ	o))	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	0.666	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 820.14 LCY/hr
Adjusted fleet production: 820.14 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.424/LCY

Total job time: 2.16 Hours
Total job cost: \$753

Williams Fork Mines	Permit Action: RN8	Perm	nit/Job#: C1981044
Williams Pork Willes	1 chilit Action. Kivo		10300#. C17010 14
PROJECT IDENTIFICATION			
Task #: 037	State: Colorado		Abbreviation: None
Date: 3/8/2023	County: Moffat		Filename: 037
User: RAR			
Agency or organizatio	n name: DRMS		
HOURLY EQUIPMENT COST			
_	י די		
Basic Machine: Cat D9T - 98 Horsepower: 405			
Blade Type: Semi-Univer	eal		
Attachment: 1-shank ripp			
Shift Basis: 1 per day			
Data Source: (CRG)			
Cost Breakdown:			
		<u>Utilization %</u>	
Ownership Cost/Hour:	\$146.30	NA 100	
Operating Cost/Hour:	\$141.41	100	<u></u>
Ripper own. Cost/Hour: Ripper op. Cost/Hour:	\$19.06 \$0.00	NA 0	
Operator Cost/Hour:	\$41.30		
Operator Cost/Hotal.	\$41.30	NA	
Total unit Cost/Hour: \$348.0	07		
Total Fleet Cost/Hour: \$348.	07		
MATERIAL QUANTITIES			
Initial Volume: 298			
Swell factor: 1.125			
Loose volume: 335 LCY			
Source of estimated volume:	Operator Estimate		
Source of estimated swell factor:	Cat Handbook		
HOURLY PRODUCTION			
Average push distance:	50 feet		
Unadjusted hourly production:	2,110.5 LCY/hr	<u>—</u>	
production	2,110.0 201.11		
Materials consistency description:	Compacted fill or embar	kment 0.9	
Average much and death 0.0/			
Average push gradient: 0 % Average site altitude: 5,400	fact		
Average site altitude: 5,400	1001		
Material weight: 2,650	lbs/LCY		_
Weight description: Decor	nposed rock - 25% Rock, 75%	Earth	
ob Condition Correction Factor	- ,	Source	
	0.900	(AB.AVG.)	
Operator Skill:	0.900	(AD.A (U.)	
Operator Skill: Material consistency:	0.900	(CAT HB))	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 1,231.69 LCY/hr
Adjusted fleet production: 1231.69 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.283/LCY

Total job time: 0.27 Hours
Total job cost: \$95

Williams Fork Mi	nes	Permit A	ction: RN8	F	Permit/Job#: <u>C198104</u>	4
OJECT IDENTI	FICATION					
Task #: 038		State:	Colorado		Abbreviation:	None
Date: $\frac{0.000}{3/8/20}$	023	County:	Moffat		Filename:	038
User: RAR						
Agency	y or organization	name: DR	RMS			
URLY EQUIPM	IENT COST					
Basic Machine:	Cat D9T - 9SU	J				
Horsepower:	405			•		
Blade Type:	Semi-Univers	al		•		
Attachment:	1-shank ripper	•		•		
Shift Basis:	1 per day			•		
Data Source:	(CRG)					
t Breakdown:						
				<u>Utilization %</u>		
Ownership Cost/			\$146.30	NA		
Operating Cost/	Hour:		\$141.41	100		
Ripper own. Cost/	Hour:		\$19.06	NA		
Ripper op. Cost/	Hour:		\$0.00	0		
Operator Cost/	Hour:		\$41.30	NA		
otal unit Cost/Hour: otal Fleet Cost/Hour	\$348.07			<u> </u>		
TERIAL QUAN	<u></u>					
Initial Volume:	518					
Swell factor:	1.125					
Loose volume:	583 LCY					
ource of estimated v	olume:	Operator I	Estimate			
ource of estimated s		Cat Handb				
URLY PRODUC	CTION					
verage push distanc	۵.	100 feet				
nadjusted hourly pro		1,243.2 LCY	-/hr	<u></u>		
inag asced no arry pro		1,2 13.2 ECT	7 111			
aterials consistency	description:	Compac	eted fill or emba	nkment 0.9		
verage push gradier	nt: 0 %					
verage site altitude:		eet				
verage site unitage.	2,100 1					
aterial weight:	2,650 18	os/LCY				
eight description:	Decom	osed rock - 2	25% Rock, 75%	Earth		
Condition Correction	on Factor			Source		
		0	750			
O	perator Skill:	0	.750	(A VU.)		
	perator Skill: consistency:		.900	(AVG.)))	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 604.57 LCY/hr
Adjusted fleet production: 604.57 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.576/LCY

Total job time: **0.96** Hours

Total job cost: \$336

Williams Fork Mi	ines	Permit Action: RN8	Pe	rmit/Job#: C1981044
ROJECT IDENT	IFICATION			
Task #: 040		State: Colorado		Abbreviation: None
Date: $\frac{3/8}{2}$	023	County: Moffat		Filename: 040
User: RAR				<u> </u>
Agenc	y or organizati	on name: DRMS		
DURLY EQUIPN	MENT COST	<u>1</u>		
Basic Machine:	Cat D9T - 9	OSU		
Horsepower:	405		_	
Blade Type:	Semi-Unive	ersal		
Attachment:		per		
Shift Basis:			_	
Data Source:	(CRG)			
st Breakdown:			1	
			<u>Utilization %</u>	
Ownership Cost		\$146.30	NA	
Operating Cost		\$141.41	100	
Ripper own. Cost		\$19.06	NA	
Ripper op. Cost		\$0.00	0	
Operator Cost	/Hour:	\$41.30	NA	
otal unit Cost/Hour	: \$348	.07		
otal Fleet Cost/Hou			<u></u>	
	<u> </u>	• • •		
ATERIAL QUAN	NTITIES			
Initial Volume: Swell factor:	101			
	1.125 114 LCY			
1 1	114 LCY			
Loose volume:				
Loose volume: ource of estimated v		Operator Estimate		
	volume:	Operator Estimate Cat Handbook		
ource of estimated	volume:			
ource of estimated	volume: swell factor:			
ource of estimated source of estimated s	volume: swell factor: CTION	Cat Handbook		
ource of estimated source	volume: swell factor: CTION ce:	Cat Handbook 50 feet		
ource of estimated source of estimated s	volume: swell factor: CTION ce:	Cat Handbook		
ource of estimated source	volume: swell factor: CTION ce: coduction:	Cat Handbook 50 feet	pankment 0.9	
ource of estimated source	volume: swell factor: CTION ce: roduction: y description:	Cat Handbook 50 feet 2,110.5 LCY/hr	pankment 0.9	
ource of estimated source	volume: swell factor: CTION ce: roduction: y description: nt: 0 %	Cat Handbook 50 feet 2,110.5 LCY/hr Compacted fill or emb	pankment 0.9	
ource of estimated source	volume: swell factor: CTION ce: roduction: y description: nt: 0 %	Cat Handbook 50 feet 2,110.5 LCY/hr	pankment 0.9	
ource of estimated source	volume: swell factor: CTION ce: coduction: y description: nt:	Cat Handbook 50 feet 2,110.5 LCY/hr Compacted fill or emb	pankment 0.9	
ource of estimated source push distance of the source of the sou	volume: swell factor: CTION ce: roduction: y description: nt: 0 % 5,400 2,650	Cat Handbook 50 feet 2,110.5 LCY/hr Compacted fill or emb		
ource of estimated source average push distance average push gradie average site altitude affaterial weight: Weight description:	volume: swell factor: CTION ce: roduction: y description: nt:	Cat Handbook 50 feet 2,110.5 LCY/hr Compacted fill or emb	% Earth	
ource of estimated source push distance and source of the source of th	volume: swell factor: CTION ce: roduction: y description: nt: 0 % 5,400 2,650 Decc	Cat Handbook 50 feet 2,110.5 LCY/hr Compacted fill or emb 0 feet 0 lbs/LCY omposed rock - 25% Rock, 75	% Earth Source	
OURLY PRODU Average push distance Materials consistency Average push gradie Average push gradie Average push gradie Average site altitude Material weight: O Condition Correction	volume: swell factor: CTION ce: roduction: y description: nt:	Cat Handbook 50 feet 2,110.5 LCY/hr Compacted fill or emb	% Earth	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 1,026.34 LCY/hr
Adjusted fleet production: 1026.34 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.339/LCY

Total job time: 0.11 Hours
Total job cost: \$39

Williams Fork Mines	Permit Action: RN8	Per	mit/Job#: C1981044
ROJECT IDENTIFICATION	I		
Task #: 041	- State: Colorado		Abbreviation: None
Date: 3/8/2023	County: Moffat		Filename: 041
User: RAR			7 Heliame
Agency or organizat	ion name: DRMS		
OURLY EQUIPMENT COS	<u>r</u>		
Basic Machine: Cat D9T -	9SU		
Horsepower: 405			
Blade Type: Semi-Univ	rersal		
Attachment: 1-shank rip	oper		
Shift Basis: 1 per day	_		
Data Source: (CRG)			
ost Breakdown:	·		
		<u>Utilization %</u>	
Ownership Cost/Hour:	\$146.30	NA	
Operating Cost/Hour:	\$141.41	100	
Ripper own. Cost/Hour:	\$19.06	NA	
Ripper op. Cost/Hour:	\$0.00	0	
Operator Cost/Hour:	\$41.30	NA	
Total unit Cost/Hour: \$34	8 07		
Total Fleet Cost/Hour: \$348			
		<u></u>	
MATERIAL QUANTITIES			
_			
Initial Volume: 483 Swell factor: 1.125			
Loose volume: 543 LCY			
Source of estimated volume:	Operator Estimate		
Source of estimated swell factor:	Cat Handbook		
IOURLY PRODUCTION			
Average push distance:	50 feet		
Unadjusted hourly production:	2,110.5 LCY/hr		
Chadjusted hourty production.	2,110.3 LC 1/III		
Materials consistency description:	Compacted fill or emban	kment 0.9	
Average push gradient: 0 %			
	00 feet		
Average site attitude. 5,40	- To leet		
Material weight: 2,65	60 lbs/LCY		
		7 .1	_
	omposed rock - 25% Rock, 75% I		
ob Condition Correction Factor	0.750	Source	
Operator Skill:	0.750	(AVG.)	
Material consistency:	0.900	(CAT HB))	
Dozing method:	1.000	(GEN.)	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.600	(FND-SF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 615.84 LCY/hr
Adjusted fleet production: 615.84 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.565/LCY

Total job time: 0.88 Hours
Total job cost: \$307

Williams Fork Min	nes	Permit Action:	RN8		Permit/Job#: C198	31044
ROJECT IDENTI	FICATION					
Task #: 042	<u></u>	State: Co	lorado		Abbreviati	on: None
Date: $\frac{3/8}{20}$)23		offat		Filenar	
User: RAR					_	0.12
Agency	or organization	name: DRMS				
OURLY EQUIPM	ENT COST					
Basic Machine:	Cat D9T - 9SU	J				
Horsepower:	405					
Blade Type:	Semi-Univers	al				
Attachment:	1-shank ripper					
Shift Basis:	1 per day					
Data Source:	(CRG)					
ost Breakdown:						
				Utilization %		
Ownership Cost/I	Hour:	\$	3146.30	NA		
Operating Cost/		\$	141.41	100		
Ripper own. Cost/	Hour:		\$19.06	NA		
Ripper op. Cost/	Hour:		\$0.00	0		
Operator Cost/			\$41.30	NA		
ATERIAL QUAN	TITIES			_		
Initial Volume:	3,356					
Swell factor:	1.125					
Loose volume:	3,776 LCY					
-	<u> </u>					
Source of estimated ve		Operator Estima	ıte			
Source of estimated sy	well factor:	Cat Handbook		<u></u>		
OURLY PRODUC	TION					
		50.C.				
Average push distance		50 feet 2,110.5 LCY/hr				
Unadjusted hourly pro	duction:	2,110.5 LC 1/mr				
Materials consistency	description:	Compacted fi	ll or emban	kment 0.9		
Average push gradien	t: 0 %					
Average pusii gradien Average site altitude:	$\frac{5,400 \text{ fe}}{5}$	eet				
iverage site aintude.						
Material weight:	2,650 lt	os/LCY				
Weight description:	Decom	posed rock - 25% I	Rock, 75% I	Earth		
b Condition Correction	on Factor_			Source		
O _l	perator Skill:	0.750		(AVG.		
	consistency:	0.900		(CAT H	B))	
ъ	zing method:	1.000		(GEN.	<u> </u>	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 1,026.34 LCY/hr
Adjusted fleet production: 1026.34 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.339/LCY

Total job time: 3.68 Hours
Total job cost: \$1,280

Williams Fork Mi	ines	Permit A	ction: RN8	P	Permit/Job#: C198104	4
OJECT IDENT	IFICATION					
Task #: 044		State:	Colorado		Abbreviation:	None
Date: $\frac{3/8}{2}$	023	County:	Moffat		Filename:	044
User: RAR		county.	- Ivioitat		T Helianie.	
Agenc	y or organization	name: DR	MS			
URLY EQUIPN	MENT COST					
Basic Machine:	Cat D9T - 9S	U				
Horsepower:	405					
Blade Type:	Semi-Univers	al				
Attachment:	1-shank rippe	r				
Shift Basis:						
Data Source:	(CRG)					
t Breakdown:						
				<u>Utilization %</u>		
Ownership Cost			\$146.30	NA		
Operating Cost			\$141.41	100		
Ripper own. Cost			\$19.06	NA		
Ripper op. Cost			\$0.00	0		
Operator Cost	/Hour:		\$41.30	NA		
otal Fleet Cost/Hou TERIAL QUAN	_	7				
Initial Volume:	426					
Swell factor:	1.125					
Loose volume:	479 LCY					
			<u>—</u>			
ource of estimated v		Operator E				
ource of estimated s	swell factor:	Cat Handb	ook	<u></u>		
URLY PRODU	CTION					
verage push distanc	<u> </u>	50 feet				
nadjusted hourly pr		2,110.5 LCY	/hr	<u></u>		
J 110 011 J P1		,				
aterials consistency	y description:	Compac	ted fill or embar	nkment 0.9	_	
verage push gradie	nt: 0 %					
verage push gradic verage site altitude		eet				
erage erre araroace						
aterial weight:	2,650 1	bs/LCY				
eight description:	Decom	posed rock - 2	25% Rock, 75%	Earth		
Condition Correcti	on Factor			Source		
		0	.750	(AVG.)		
	perator Skiii:	U	./50	(A VU.)		
	Operator Skill: _ l consistency:		.900	(CAT HB)))	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 1,026.34 LCY/hr
Adjusted fleet production: 1026.34 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.339/LCY

Total job time: **0.47** Hours

Total job cost: \$163

Williams Fork Mines	Permit Action: RN8	Per	mit/Job#: C1981044
PROJECT IDENTIFICATION	<u>N</u>		
Task #: 046	State: Colorado		Abbreviation: None
Date: 3/8/2023	County: Moffat		Filename: 046
User: RAR	_		
Agency or organiza	tion name: DRMS		
HOURLY EQUIPMENT COS	<u>ST</u>		
Basic Machine: Cat D9T -	9SU		
Horsepower: 405			
Blade Type: Semi-Uni			
Attachment: 1-shank ri			
Shift Basis: 1 per day			
Data Source: (CRG)			
Cost Breakdown:	i		
0 11 0 7	011620	<u>Utilization %</u>	
Ownership Cost/Hour:	\$146.30	NA 100	
Operating Cost/Hour:	\$141.41	100	
Ripper own. Cost/Hour:	\$19.06 \$0.00	NA 0	
Ripper op. Cost/Hour:			
Operator Cost/Hour:	\$41.30	NA	<u></u>
Total unit Cost/Hour: \$34	8.07		
Total Fleet Cost/Hour: \$34	8.07		
MATERIAL QUANTITIES			
Initial Volume: 1,726			
Swell factor: 1.125			
Loose volume: 1,942 LCY	-		
Source of estimated volume:	Operator Estimate		
Source of estimated volume. Source of estimated swell factor:	Cat Handbook		
Source of estimated swell factor.	Cat Handook		
HOURLY PRODUCTION			
_			
Average push distance:	50 feet	<u></u>	
Unadjusted hourly production:	2,110.5 LCY/hr		
Materials consistency description:	Compacted fill or embar	nkment 0.9	
A	,		
Average push gradient: 0%			
Average site altitude: 5,4	00 feet		
Material weight: 2,6	50 lbs/LCY		
			<u> </u>
	composed rock - 25% Rock, 75%	Earth	
ob Condition Correction Factor		Source	
Operator Skill		(AVG.)	
Material consistency		(CAT HB))	
Dozing method	: 1.000	(GEN.)	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 1,026.34 LCY/hr
Adjusted fleet production: 1026.34 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.339/LCY

Total job time: 1.89 Hours
Total job cost: \$659

Williams Fork Mines	Permit Action: RN8	Per	mit/Job#: C1981044
ROJECT IDENTIFICATION	I		
			Abbraviation Nana
Task #: 048 Date: 3/8/2023	State: Colorado County: Moffat		Abbreviation: None Filename: 008
User: RAR	County. World		Thename. 008
Agency or organizat	- ion name: DRMS		
<i>.</i>			
OURLY EQUIPMENT COST Basic Machine: Cat D9T -	_		
Horsepower: 405	930		
Blade Type: Semi-Univ	rercal		
Attachment: 1-shank rip			
Shift Basis: 1 per day	урег		
Data Source: (CRG)			
<u>'ost Breakdown</u> :	I	<u>Utilization %</u>	
Ownership Cost/Hours	\$146.30	· · · · · · · · · · · · · · · · · · ·	
Ownership Cost/Hour: Operating Cost/Hour:	\$140.30	NA 100	
Ripper own. Cost/Hour:	\$19.06	NA	
Ripper op. Cost/Hour:	\$0.00	0	
Operator Cost/Hour:	\$41.30		
Operator Cost/Hour.	\$41.30	NA	
Total unit Cost/Hour: \$348	3.07		
Total Fleet Cost/Hour: \$348	8.07		
MATERIAL QUANTITIES			
Initial Volume: 5,415			
Initial Volume: 5,415 Swell factor: 1.125			
Loose volume: 6,092 LCY			
Source of estimated volume:	Operator Estimate		
Source of estimated swell factor:	Cat Handbook		
IOURLY PRODUCTION			
<u>. </u>	100.6		
Average push distance:	100 feet	<u></u>	
Unadjusted hourly production:	1,243.2 LCY/hr	<u> </u>	
36. 11 1. 1	C . 1 C11 1	1 400	
Materials consistency description:	Compacted fill or emban	kment 0.9	
Average push gradient: 0 %			
	00 feet		
Average site altitude: $5,40$	o reet		
Material weight: 2,65	0 lbs/LCY		
2,03	70 105/ LC 1		
Weight description: Dec	omposed rock - 25% Rock, 75% l	Earth	
bb Condition Correction Factor	0.750	Source	
Operator Skill: Material consistency:	0.730	(AVG.) (CAT HB))	
		. , , , , , , , , , , , , , , , , , , ,	
Dozing method:	1.000	(GEN.)	

Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	1.000	(DOZ-OC)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.868	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 604.57 LCY/hr
Adjusted fleet production: 604.57 LCY/hr

JOB TIME AND COST

Fleet size: 1 Dozer(s)
Unit cost: \$0.576/LCY

Total job time: 10.08 Hours
Total job cost: \$3,507

Borehole Worksheet Cont'd Task # TTT Page 96 of 122

SCRAPER TEAM WORK

Task description: lite: Williams Fork Mines	Peri	mit Actio	n: RN8		Permit/Job#:	C1981044	
PROJECT IDENTIFIC	<u>CATION</u>						
Task #: 051	S	tate: (Colorado		Abbr	eviation: None	
Date: $\frac{3/8/2023}{}$			Moffat			ilename: 051	
User: RAR		·					
Agency or	organization name:	DRMS	S				
HOURLY EQUIPME	<u>NT</u>			COST Shift basis:	1 per day		
			ment Descri				
		craper:		w/push-pull			
Sun	port Equipment -Load	Dozer:	NA NA				
5 u p)		Area:	NA				
Road N	Maintenance – Motor C	Grader:	NA				
	-Water	Truck:	NA				
Cost Breakdown:	Scraper Work Team	1	Suppo	ort Equipment		nance Equipment	
	Scraper	D	ozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100		NA	NA	NA	. NA	N
Ownership cost/hour:	\$287.19		NA	NA	NA	. NA	N
Operating cost/hour:	\$277.83		NA	NA	NA	. NA	N
%Utilization-ripper:	NA		NA	NA	NA	. NA	N
Ripper own. cost/hour:	NA		NA	NA	NA	. NA	Ŋ
Ripper op. cost/hour:	NA		NA	NA	NA	. NA	N
Operator cost/hour:	\$30.90		NA	NA	NA	. NA	N
Unit Subtotals:	\$595.92		NA	NA	NA	. NA	N
Number of Units:	2		0	0	C	0	
Group Subtotals:	Work:	\$1,1	91.84	Support:	\$0.00	Maint:	\$0.00
Total work team cost/hour	:: \$1,191.84						
MATERIAL QUANTI	<u>ITIES</u>						
Initial volume:	6,453		CCY	Swell fac	tor: 1.125		
Loose volume:	7,260		LCY				
So	ource of estimated vo	lume:	Operator E	Estimate			
Source	e of estimated swell f	actor:	Cat Handb	ook			
HOURLY PRODUCT	ION						
			<u>Sc</u>	eraper Bowl (volum	e) Basis:		
	550 lbs/LCY		_	Struck Volume:	24.00	LCY	
	arth - Dry packed		_	Heaped Volume:	34.00	LCY	
Rated Payload: 81 Payload Capacity: 32	,600 pounds			Average Volume:	29.00	LCY LCY	
ravioau Cadacity: 3/	JULIC I		Α.	AUTUSTEU CADACHV:	47.00	LAT	

Cycle Time:

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{1.00} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.60} \text{ Minutes} \\ \end{array}$

<u>Job Condition Correction:</u> Site Altitude: 5400 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: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	5.00	5.00	1867	0.35

Haul Time: 0.35 minutes

Return Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	400.00	0.00	5.00	5.00	2795	0.32

Return Time: 0.32 minutes

Total Scraper team cycle time:
Adjusted for job conditions:
Selected Number of Scrapers:

2.27 minutes
LCY/Hour
Scraper(s)

Adjusted single scraper team (unit) hourly production:

Adjusted multiple scraper team (fleet) hourly production:

1,272.42

1,272.42

LCY/Hour

Unadjusted unit production/hour: 1,533.04 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 5.71
 Hours

 Unit cost:
 \$0.937
 /LCY
 Total job cost:
 \$6,800

Borehole Worksheet Cont'd Task # TTT Page 98 of 122

SCRAPER TEAM WORK

Task description:	Replace Topsoil	from NE Stockpil	e to Refuse Pile			
ite: Williams Fork Mines	Peri	mit Action: RN8		Permit/Job#:	C1981044	
PROJECT IDENTIFI	<u>CATION</u>					
Task #: 053	S	tate: Colorado		Abbro	eviation: None	
Date: $3/8/2023$	Cou	inty: Moffat		Fi	lename: 053	
User: RAR		·				
Agency or	organization name:	DRMS				
HOURLY EQUIPME	<u>NT</u>		COST Shift basis:	1 per day		
		Equipment Desc				
			G w/push-pull			
Sun	- port Equipment -Load	Dozer: NA				
Зир		o Area: NA				
Road N	Maintenance – Motor (Grader: NA				<u> </u>
	-Water	Truck: NA				
Cost Breakdown:	Scraper Work Team		port Equipment		ance Equipment	
	Scraper	Dozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100	NA	NA	NA	NA	N
Ownership cost/hour:	\$287.19	NA	NA	NA	NA	N
Operating cost/hour:	\$277.83	NA	NA	NA	NA	N
%Utilization-ripper:	NA	NA	NA	NA	NA	Ŋ
Ripper own. cost/hour:	NA	NA	NA	NA	NA	N
Ripper op. cost/hour:	NA	NA	NA	NA	NA	N
Operator cost/hour:	\$30.90	NA	NA	NA	NA	N
Unit Subtotals:	\$595.92	NA	NA	NA	NA	Ŋ
Number of Units:	2	0	0	0	· ·	
Group Subtotals:	Work:	\$1,191.84	Support:	\$0.00	Maint:	\$0.00
Total work team cost/hour	:: \$1,191.84					
MATERIAL QUANT	<u>ITIES</u>					
Initial volume:	6,687	CCY	Swell fac	tor: 1.125		
Loose volume:	7,523	LCY				
S	ource of estimated vo	lume: Operator	Estimate			
Sourc	e of estimated swell f	actor: Cat Hand	book			<u> </u>
HOURLY PRODUCT	<u>ION</u>					
		<u> </u>	Scraper Bowl (volum	e) Basis:		
Material weight: 2,	550 lbs/LCY		Struck Volume:	24.00	LCY	
	arth - Dry packed		Heaped Volume:	34.00	LCY	
	1,600 pounds 2.00 LCY		Average Volume: Adjusted Canacity:	29.00	LCY LCY	
FAVIOAG CADACHV: 1/2	SUULLAST		AUTHSIEU CADACHV	47.00	LA L	

Cycle Time:

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{1.00} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.60} \text{ Minutes} \\ \end{array}$

<u>Job Condition Correction:</u> Site Altitude: 5400 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: Soft, rutted dirt, no maintenance or water, 4" tire penetration 8.0

Haul Route:

ĺ	Seg#	Haul Distance (Ft)	Grade	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
			(%)				
	1	700.00	3.00	8.00	11.00	786	0.91

Haul Time: **0.91** minutes

Return Route:

Ī	Seg#	Haul Distance (Ft)	Grade	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time
			(%)				(min)
ſ	1	700.00	-3.00	8.00	5.00	2795	0.42

Return Time: **0.42** minutes

Total Scraper team cycle time:
Adjusted for job conditions:
Selected Number of Scrapers:

2.93
minutes
LCY/Hour
Scraper(s)

Adjusted single scraper team (unit) hourly production:

Adjusted multiple scraper team (fleet) hourly production:

985.80

LCY/Hour

Adjusted multiple scraper team (fleet) hourly production:

Unadjusted unit production/hour: 1,187.71 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 7.63
 Hours

 Unit cost:
 \$1.209
 /LCY
 Total job cost:
 \$9,095

Borehole Worksheet Cont'd Task # TTT Page 100 of 122

SCRAPER TEAM WORK

Task description:	Replace Topsoil			Refuse Pile	.	G1001611	
ite: Williams Fork Mines	Peri	mit Actio	n: RN8		Permit/Job#:	C1981044	_
PROJECT IDENTIFIC	<u>CATION</u>						
Task #: 054	S	tate: (Colorado		Abbı	reviation: None	
Date: $3/8/2023$	Cou	ınty: N	Moffat		F	Filename: 054	
User: RAR							
Agency or	organization name:	DRMS	5				
HOURLY EQUIPME	<u>NT</u>			COST Shift basis:	1 per day		
			nent Descri				
		craper:		w/push-pull			
Sun	- port Equipment -Load	Dozer:	NA NA				
Sup.		Area:	NA				
Road N	Maintenance – Motor C		NA				
	-Water	Truck:	NA				
Cost Breakdown:	Scraper Work Team			ort Equipment		nance Equipment	
	Scraper	D	ozer	Load Area	Dump Area	Motor Grader	Water Truck
%Utilization-machine:	100		NA	NA	NA NA	NA NA	N
Ownership cost/hour:	\$287.19		NA	NA	NA NA	NA NA	N
Operating cost/hour:	\$277.83		NA	NA	NA NA		N
%Utilization-ripper:	NA		NA	NA	NA NA		N
Ripper own. cost/hour:	NA		NA	NA	NA NA		N
Ripper op. cost/hour:	NA		NA	NA	NA NA	NA NA	N
Operator cost/hour:	\$30.90		NA	NA	NA NA		N
Unit Subtotals:	\$595.92		NA	NA	NA NA		N
Number of Units:	2		0	0		0 0	
Group Subtotals:	Work:	\$1,1	91.84	Support:	\$0.00	Maint:	\$0.00
Total work team cost/hour	: \$1,191.84						
15. TENEDA 1. O.V. 13. TENE	(TYP)						
MATERIAL QUANTI	TIES						
Initial volume:	427		CCY	Swell fac	tor: 1.125		
Loose volume:	480		LCY				
	ource of estimated vo	_	Operator E				
Source	e of estimated swell f	actor:	Cat Handb	ook			
HOURLY PRODUCT	<u>ION</u>						
			<u>Sc</u>	craper Bowl (volum	e) Basis:		
Material weight: 2,	550 lbs/LCY			Struck Volume:	24.00	LCY	
	orth - Dry packed		_	Heaped Volume:	34.00	LCY	
	,600 pounds			Average Volume:	29.00	LCY	
Payload Capacity: 32	COUTALY		Δ	Adjusted Capacity:	29.UU	LCY	

\sim	1		г.	ne:
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\sim	/ 1	· ,		IIC.

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{1.00} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.60} \text{ Minutes} \\ \end{array}$

Job Condition Correction: Site Altitude: 5400 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: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
		(%)				
1	1400.00	-2.50	5.00	2.50	2939	0.75

Haul Time: 0.75 minutes

Return Route:

Seg#	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	1400.00	2.50	5.00	7.50	1931	0.81

Return Time: 0.81 minutes

Total Scraper team cycle time:
Adjusted for job conditions:
Selected Number of Scrapers:

2 Scraper(s)

1 CY/Hour

Adjusted single scraper team (unit) hourly production: 914.05 LCY/Hour Adjusted multiple scraper team (fleet) hourly production: 914.05 LCY/Hour

Unadjusted unit production/hour: 1,101.27 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 0.53
 Hours

 Unit cost:
 \$1.304
 /LCY
 Total job cost:
 \$626

Williams Fork Mines	Permit Action: RN8	Permit/.	Job#: C1981044
ROJECT IDENTIFICATION			
Task #: 059	State: Colorado		Abbreviation: None
Date: 3/8/2023	County: Moffat		Filename: 059
User: RAR			
Agency or organization	on name: DRMS		
IOURLY EQUIPMENT COST	,		
Basic Machine: Cat D10T -			
Horsepower: 574	1050		
Blade Type: Semi-Unive	ersal	•	
Attachment: 1-shank rip		•	
Shift Basis: 1 per day		•	
Data Source: (CRG)			
ost Breakdown:			
		<u>Utilization %</u>	
Ownership Cost/Hour:	\$153.67	NA	
Operating Cost/Hour:	\$166.94	100	_
Ripper own. Cost/Hour:	\$24.69	NA	_
Ripper op. Cost/Hour:	\$0.00	0	_
Operator Cost/Hour:	\$41.30	NA	
Total unit Cost/Hour: \$386 Total Fleet Cost/Hour: \$1,54			
Initial Volume: 560 Swell factor: 1.125			
Swell factor: 1.125 Loose volume: 630 LCY			
Source of estimated volume:	Operator Estimate; Exhibi	t 25, Task VI, Page 8	
Source of estimated swell factor:	Cat Handbook		
IOURLY PRODUCTION			
Average push distance:	50 feet		
Unadjusted hourly production:	2,748.7 LCY/hr		
<u>-</u>	2,7 1017 22 21 22		
Materials consistency description:	Consolidated stockpile	1.0	
Average push gradient: 0 %			
Average site altitude: $\frac{6.76}{5,400}$) feet		
71verage site unitude	, reet		
Material weight: 2,550) lbs/LCY	_	
Weight description: Earth	- Dry packed		
	· · · · · · · · · · · · · · · · · · ·	<u> </u>	
ob Condition Correction Factor		Source	
ob Condition Correction Factor Operator Skill:	0.750	Source (AVG.)	
ob Condition Correction Factor Operator Skill: Material consistency:	0.750	Source (AVG.) (CAT HB)	

7 7' '1 '1'	1.000	(ATIC)
Visibility:	1.000	(AVG.)
Job efficiency:	0.830	(1 SHIFT/DAY)
Spoil pile:	0.800	(FND-RF)
Push gradient:	1.000	(CAT HB)
Altitude:	1.000	(CAT HB)
Material Weight:	0.902	(CAT HB)
Blade type:	1.000	(PAT)

Adjusted unit production: 1,234.72 LCY/hr
Adjusted fleet production: 4938.88 LCY/hr

JOB TIME AND COST

Fleet size: 4 Dozer(s)

Unit cost: \$0.313/LCY

Total job time: 0.13 Hours
Total job cost: \$197

Borehole Worksheet Cont'd Task # TTT Page 104 of 122

SCRAPER TEAM WORK

Task description:	Replace Topsoil		-	Access Road	D:4/I - 1- #.	C1001044		
ite: Williams Fork Mines	Peri	mit Actio	on: RN8	_	Permit/Job#:	C1981044		
PROJECT IDENTIFI	<u>CATION</u>							
Task #: 061	S	tate: (Colorado		Abbi	reviation: None		
Date: $3/8/2023$	Cou	ınty: N	Moffat		I	Filename: 061		
User: RAR								
Agency or	organization name:	DRMS	5					
HOURLY EQUIPME	<u>NT</u>			COSTShift basis:	1 per day			
			nent Descri					
		craper:		w/push-pull				
Sun	- port Equipment -Load	Dozer:	NA NA					
Sup		Area:	NA					
Road N	Maintenance – Motor (NA					
-	-Water	Truck:	NA					
Cost Breakdown:	Scraper Work Team	1	Suppo	ort Equipment	Mainte	nance Equipment		
	Scraper	D	ozer	Load Area	Dump Area	Motor Grade	er Wate	er Truck
%Utilization-machine:	100		NA	NA	N/	A 1	NA	N
Ownership cost/hour:	\$287.19		NA	NA	N/	A 1	NA	N
Operating cost/hour:	\$277.83		NA	NA	N/	A 1	NA	N
%Utilization-ripper:	NA		NA	NA	N/		NA	N
Ripper own. cost/hour:	NA		NA	NA	N.A	A 1	NA	N
Ripper op. cost/hour:	NA		NA	NA	N/	A 1	NA	N
Operator cost/hour:	\$30.90		NA	NA	N/	A 1	NA	N
Unit Subtotals:	\$595.92		NA	NA	N/	A 1	NA	N
Number of Units:	2		0	0		0	0	
Group Subtotals:	Work:	\$1,1	91.84	Support:	\$0.00	Mai	nt:	\$0.00
Total work team cost/hour	: \$1,191.84							
MATERIAL QUANTI	<u>ITIES</u>							
Initial volume:	556		CCY	Swell fac	tor: 1.125			
Loose volume:	626		LCY					
	ource of estimated vo	_		Estimate; Exhibit 25	, Task XXIII, Page	e 27		
Sourc	e of estimated swell f	actor:	Cat Handb	ook				
HOURLY PRODUCT	ION							
			Sc	craper Bowl (volum	e) Basis:			
Material weight: 2,	550 lbs/LCY			Struck Volume:	24.00	LCY		
Material description: Ea	arth - Dry packed		_	Heaped Volume:	34.00	LCY		
	,600 pounds			Average Volume:	29.00	LCY		
Payload Capacity: 32	2.00 LCY		Δ	Adjusted Capacity:	29.00	LCY		

Cycle Time:

 $\begin{array}{lll} \text{Scraper Loading Time:} & \underline{1.00} \text{ Minutes} \\ \text{Maneuver and Spread Time:} & \underline{0.60} \text{ Minutes} \\ \end{array}$

<u>Job Condition Correction:</u> Site Altitude: 5400 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: Rutted dirt, little maintenance, no water, 2" tire penetration 5.0

Haul Route:

Seg#	Haul Distance (Ft)	Grade	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
		(%)				
1	800.00	0.00	5.00	5.00	1867	0.56

Haul Time: **0.56** minutes

Return Route:

Seg #	Haul Distance (Ft)	Grade (%)	Roll. Res (%)	Total Res (%)	Velocity (fpm)	Travel Time (min)
1	800.00	0.00	5.00	5.00	2795	0.46

Return Time: 0.46 minutes

Total Scraper team cycle time:
Adjusted for job conditions:
Selected Number of Scrapers:

2.62 minutes
1,102.44 LCY/Hour
Scraper(s)

Adjusted single scraper team (unit) hourly production:

Adjusted multiple scraper team (fleet) hourly production:

1,102.44

LCY/Hour

1,102.44

LCY/Hour

Unadjusted unit production/hour: 1,328.24 LCY/Hour Optimal Number of Scrapers per push dozer:

JOB TIME AND COST

 Fleet size:
 1
 Team(s)
 Total job time:
 0.57
 Hours

 Unit cost:
 \$1.081
 /LCY
 Total job cost:
 \$676

REVEGETATION WORK

Task descript	ion:	Seed Reclaimed Area	with Rangeland/Wildlif	e Mix	
Site: Williams I	Fork Mines	Permit Ac	etion: RN8	Permit/Job#:C198104	4
PROJECT I	DENTIFIC	<u>CATION</u>			
Task#:	062	State:	Colorado	Abbreviation:	None
Date:	3/8/2023	County:	Moffat	Filename:	007
User:	RAR				
	Agency or	organization name: DR	MS		

FERTILIZING

Materials

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

Application

Description		Cost /Acre
		\$
Tota	al Fertilizer Application Cost/Acre	\$0.00

TILLING

Description	Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)	\$117.18
Total Tilling Cost/Acre	\$117.18

SEEDING

Seed Mix	Rate – PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Birdsfoot Trefoil - Empire	0.50	4.80	\$5.18
Alkali Sacaton	1.00	39.03	\$28.48
Indian Ricegrass - Paloma	0.50	1.62	\$5.56
Bitterbrush, Antelope	0.25	0.08	\$4.88
Sand Dropseed	0.25	29.84	\$2.44
Great Basin Wildrye - Magnar	1.00	4.06	\$11.55
Hard Fescue - Durar	1.50	19.46	\$4.39
Pubescent Wheatgrass - Luna	2.00	4.13	\$6.80
Milk Vetch, Cicer - Monarch	0.50	1.66	\$4.10
Streambank Wheatgrass - Sodar	2.00	6.52	\$11.40

Mahogany, Mountain	0.50	0.68	\$18.40
Western Wheatgrass - Arriba	3.00	7.58	\$19.50
Rabbitbrush, Rubber	0.50	7.45	\$32.15
Daisy, Englemann's	0.25	1.23	\$31.85
Needlegrass, Green - Lodorm	2.00	8.31	\$23.55
Daisy or Sunflower, Maximillians	0.25	1.42	\$14.00
Sagebrush, Mountain or Big	0.50	26.40	\$9.88
Globemallow, Scarlet (or copper)	0.25	2.83	\$33.88
Penstemon, Rocky Mountain	0.25	3.92	\$7.38
Totals Seed Mix	17.00	171.01	\$275.34

Application

Description	Cost /Acre
Drill Seeding (DRMS Survey Cost)	\$232.00
Total Seed Applicatio	n 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	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				£942.72
Total Mulch Materials Cost/Acre				\$842.72

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$73.00
Power mulcher (MEANS 32 91 13.16 0350)		\$141.57
	Total Mulch Application Cost/Acre	\$214.57

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	71	Cost /Acre:	\$1,681.81
Estimated Failure Rate:	20%	Cost /Acre*:	\$507.34
*Salacted Danlanting Work Itams:	CEEDING		

*Selected Replanting Work Items: | SEEDING

Initial Job Cost: \$119,408.51

Reseeding Job Cost: \$7,204.23

Total Job Cost: \$126,613

71.00

REVEGETATION WORK

Williams Fork Mines Permit Action:	RN8			Permit/Job#	: C1981044
PROJECT IDENTIFICATION					
	lorado			Ał	obreviation: Non
	offat				Filename: 063
User: RAR					
Agency or organization name: DRMS					
FERTILIZING					
Materials	nits /		<u> </u>		
	cre	Unit	Co	st / Unit	Cost /Acre
			\$		\$
				tal Fertilizer	
			10	Materials	
				Cost/Acre	\$0.00
ILLING Description					Cost /Acre
Disc harrowing, 6" deep (MEANS 32 91 13.23 6100)					\$117.18
		ŗ	Fotal Tilli	ng Cost/Acre	\$117.18
<u>SEEDING</u>					
a			Rate –	G 1	G . ()
Seed Mix			PLS LBS / Acre	Seeds per SQ. FT	Cost /Acre
Wheat, Spring - Westbred 926			60.00	55.10	\$16.50
	Totals S	Seed Mix	60.00	55.10	\$16.50
Application					
Description					Cost /Acre
Description Drill Seeding (DRMS Survey Cost)					Cost /Acre \$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	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				\$842.72

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$73.00
Power mulcher (MEANS 32 91 13.16 0350)		\$141.57
	Total Mulch Application Cost/Acre	\$214.57

NURSERY STOCK PLANTING

Common Name	No / Acre	Type and Size	Planting Cost	Fertilizer Pellet Cost	Cost /Acre
					\$
		Totals 1	Nursery Stoc	k Cost / Acre	\$0.00

JOB TIME AND COST

Estimated Failure Rate:	0%	Cost /Acre*:	\$0.00
No. of Acres:	77	Cost /Acre:	\$1,422.97

*Selected Replanting Work Items: NONE

Initial Job Cost:
Reseeding Job Cost:
Total Job Cost:
Job Hours:

\$109,568.69

\$0.00
\$109,569

77.00

Borehole Worksheet Cont'd Task # TTT Page 110 of 122

REVEGETATION WORK

Task description:	Reseed Reclaimed Are	as with i as				
Williams Fork Min	Permit Ac	tion: RN8	3		Permit/Job#	: C1981044
ROJECT IDENTII	FICATION					
Task #: 064	State:	Colorado			Δh	breviation: N
Date: $\frac{3/8}{20}$		Moffat				Filename: 0
User: RAR						
Agency	or organization name: <u>DRI</u>	MS				
<u>ERTILIZING</u>						
Description		Units / Acre	Unit	Cost	t / Unit	Cost /Acre
				\$		\$
				Tota	al Fertilizer Materials	
					Cost/Acre	\$0.00
pplication Description						Cost /Acre
						Cost /Acre
		Tota	ıl Fertilizer A	pplication	n Cost/Acre	
		Tota	ıl Fertilizer A	pplication	n Cost/Acre	\$
Description TLLING Description			ıl Fertilizer A	pplication	n Cost/Acre	\$ \$0.00 Cost /Acre
Description TLLING Description	leep (MEANS 32 91 13.23 610		ıl Fertilizer A	pplication	n Cost/Acre	\$ \$0.00
Description TLLING Description	leep (MEANS 32 91 13.23 610				n Cost/Acre	\$ \$0.00 Cost /Acre
Description TLLING Description	leep (MEANS 32 91 13.23 610					\$ \$0.00 Cost /Acre \$117.18
Description TILLING Description Disc harrowing, 6" d	leep (MEANS 32 91 13.23 610		To	tal Tilling Rate – PLS LBS /		\$ \$0.00 Cost /Acre \$117.18
Description TILLING Description Disc harrowing, 6" d			To	tal Tilling Rate – PLS	g Cost/Acre Seeds per SQ.	\$ \$0.00 Cost /Acre \$117.18
Description TLLING Description Disc harrowing, 6" d EEDING Seed Mix	- Fairway nchar		To	Rate – PLS LBS / Acre	g Cost/Acre Seeds per SQ. FT	\$ \$0.00 Cost /Acre \$117.18 S117.18

Totals Seed Mix

49.89

\$53.35

16.00

Application

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

MULCHING and MISCELLANEOUS

Materials

	Units /			
Description	Acre	Unit	Cost / Unit	Cost /Acre
Hay, delivered {MEANS 31 25 14.16 1200}	2.00	TON	\$421.36	\$842.72
Total Mulch Materials Cost/Acre				\$842.72

Application

Description		Cost /Acre
Crimping, with tractor {DMG survey data}		\$73.00
Power mulcher (MEANS 32 91 13.16 0350)		\$141.57
	Total Mulch Application Cost/Acre	\$214.57

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	98	Cost /Acre:	\$1,459.82
Estimated Failure Rate:	20%	Cost /Acre*:	\$285.35
*Coloated Domlanting Worls Itames	CEEDING		<u> </u>

*Selected Replanting Work Items: SEEDING

Initial Job Cost:
Reseeding Job Cost:
Total Job Cost:
Job Hours:

\$143,062.36
\$5,592.86
\$148,655
98.00

Borehole Worksheet Cont'd Task # TTT Page 112 of 122

REVEGETATION WORK

Williams Fork Mines	Permit Action: RN	3	Permit/Job#	#: C1981044	
ROJECT IDENTIFICATIO	<u>N</u>				
Task #: 065	State: Colorado		A	bbreviation:	None
Date: 3/8/2023	County: Moffat			Filename:	065
User: RAR	_				
Agency or organiza	tion name: DRMS				
ERTILIZING					
aterials					
	Units /				
Description	Acre	Unit	Cost / Unit	Cost /Acre	
			\$	\$	
			Total Fertilizer		
			Materials		
			Cost/Acre	\$0.00	
				\$	
	Tota	ıl Fertilizer A	Application Cost/Acre	\$0.00	
<u>ILLING</u>					
Description				Cost /Acre	
				\$	
		T	otal Tilling Cost/Acre	\$0.00	
<u>EEDING</u>					
C. IM.			Rate –	Cont /A	
Seed Mix			PLS Seeds per SQ.	Cost /Acre	
			LBS / per SQ. FT		
			11010		
				\$	
	Totals	Seed Mix	0.00	\$0.00	

Application

Description		Cost /Acre
		\$
	Total Seed Application Cost/Acre	\$0.00

MULCHING and MISCELLANEOUS

Materials

Description	Units / Acre	Unit	Cost / Unit	Cost /Acre
	2.00		\$0.00	\$0.00
	2.00		\$0.00	\$0.00
T 4 1 W 1 1 W 4 1 1 G 4/A				
Total Mulch Materials Cost/Acre				\$0.00

Application

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

NURSERY STOCK PLANTING

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

JOB TIME AND COST

No. of Acres:	1140	Cost /Acre:	\$62.72
Estimated Failure Rate:	0%	Cost /Acre*:	\$0.00
40 1 1D 1 1 TT 1 T	NIONIE		

*Selected Replanting Work Items: NONE

Initial Job Cost: \$71,500.80

Reseeding Job Cost: \$0.00

Total Job Cost: Job Hours: \$850.00

SITE MAINTENANCE

Task description:		Site Maintenance, Pond Cle	eaning		
Site:	Williams Fork Mines	Permit Action:	RN8	Permit/Job#:	C1981044

PROJECT IDENTIFICATION

Task#:085State:ColoradoAbbreviation:NoneDate:3/8/2023County:MoffatFilename:085

User: RAR

Agency or organization name: DRMS

UNIT COSTS

Maintenance Item	Hours per Year	Menu Selection	Quantity	Unit	Unit Cost	Total Cost
CAT D3C Dozer	40.00	Cat D3K LGP - 3P	400.00	EA	\$106.51	\$42,604.00
CAT14M Grader	40.00	CAT 14M	400.00	EA	\$222.75	\$89,100.00

Job Hours: 400.00 Total Cost: \$131,704.00

Borehole Worksheet Cont'd Task # TTT Page 115 of 122

EQUIPMENT MOBILIZATION/DEMOBILIZATION

-	Task description	on:	Mobilize/Demobiliz	e Equip	ment for Initial	Reclamation				
Site:	Williams Fo	rk Mines	Permit	Action:	RN8		Permit/Job#:	C198104	4	
<u>P</u> :	ROJECT ID	ENTIFIC	ATION							
	Task #: Date: User:	090 3/8/2023 RAR	State County		orado ffat		_	reviation: Filename:	None 090	
E	-	Agency or o	organization name:	ORMS						
<u>=</u>	V 022 1/2						Shift be Cost Data Sou		1 per day CRG Data	
		Truck T	ractor Description:	GENE	RIC ON-HIGHV		TRACTOR, 62 D HALF, 2006	-	EL POWERE	D, 400 HP
		Truck T	railer Description:	GENER!	IC FOLDING GO	OOSENECK, I	DROP DECK	EQUIPME:	NT TRAILE	R (25T, 50T,

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

NON ROADABLE EQUIPMENT:

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)				fleet		
Cat D10T - 10SU	84.53	\$153.67	\$136.92	4	\$1,162.36	\$547.68	\$1,000.00
ATLAS COPCO	0.00	\$137.40	\$68.22	1	\$205.62	\$68.22	\$250.00
ROC D7-11,4.0 in.							
CAT 14M	23.57	\$114.80	\$68.22	1	\$183.02	\$68.22	\$250.00
Cat 637G	57.28	\$264.49	\$136.92	2	\$802.82	\$273.84	\$500.00
Water Tanker, 5,000	15.00	\$37.19	\$68.22	1	\$105.41	\$68.22	\$250.00
Gal.							
Drill/Broadcast	25.00	\$6.25	\$68.22	1	\$74.47	\$68.22	\$250.00
Seeder with Tractor							

Subtotals: \$2,533.70 \$1,094.40 \$2,500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Fuel Tanker, 6x4, 210 HP	\$48.30	1	\$48.30	\$48.30
Lube Truck, 6x4, 250 HP	\$48.30	1	\$48.30	\$48.30
Flatbed Truck, 6x4, 45K GVW	\$54.51	1	\$54.51	\$54.51
Light Duty Pickup, 4x4, 1 T. Crew	\$24.30	1	\$24.30	\$24.30

Subtotals: \$175.41 \$175.41

AND 100T)

EQUIPMENT HAUL DISTANCE and Time

<u>Transportation Cycle Time:</u>

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.75	0.75
Return Time (Hours):	0.75	0.75
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	2.50	1.50

JOB TIME AND COST

Total job time:	5.00	Hours
Total job cost:	\$15,773	

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Ta	ısk descripti	ion:	Mobilize/Demobiliz	e Equip	oment for Pond Removal				
Site: _	Williams F	ork Mines	Permit	Action:	RN8	Permit/Job#:	C198104	4	
PR	OJECT II	DENTIFIC	<u>CATION</u>						
	Task#:	091	State	: Co	lorado	Abbr	eviation:	None	
	Date:	3/8/2023	County	r: Mo	offat	F	ilename:	091	
	User:	RAR							
		Agency or o	organization name: _l	DRMS					
<u>EQ</u>	<u>UIPMEN</u>	T TRANSI	PORT RIG COST						
						Shift ba	sis:	1 per day	
						Cost Data Sour	rce:	CRG Data	
		Truck T	ractor Description:	GENE	ERIC ON-HIGHWAY TRU (CK TRACTOR, 62 (2ND HALF, 2006)		EL POWERE	D, 400 HP
		Truck T	Frailer Description:	GENER	IC FOLDING GOOSENEC	•	EQUIPME	NT TRAILE	R (25T, 50T,
						AND 100T)			

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

NON ROADABLE EQUIPMENT:

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)				fleet		
Cat D9T - 9SU	60.01	\$146.30	\$136.92	1	\$283.22	\$136.92	\$250.00
Drill/Broadcast	25.00	\$6.25	\$68.22	1	\$74.47	\$68.22	\$250.00
Seeder with Tractor							
CAT 908H	7.12	\$25.38	\$68.22	1	\$93.60	\$68.22	\$0.00
Cat 315D L 8'-6"	19.05	\$68.58	\$68.22	1	\$136.80	\$68.22	\$250.00
Stick							

Subtotals: \$588.09 \$341.58 \$750.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Flatbed Truck, 6x4, 45K GVW	\$54.51	1	\$54.51	\$54.51
Generic 15-18 cy, 6x4	\$126.28	1	\$126.28	\$126.28

Subtotals: \$180.79 \$180.79

EQUIPMENT HAUL DISTANCE and Time

<u>Transportation Cycle Time:</u>

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.18	0.18
Return Time (Hours):	0.18	0.18
Loading Time (Hours):	1.75	NA
Unloading Time (Hours):	1.00	NA
Subtotals:	3.11	0.36

JOB TIME AND COST

Total job time:	6.22	Hours
Total job cost:	\$5,134	_

Borehole Worksheet Cont'd Task # TTT Page 119 of 122

EQUIPMENT MOBILIZATION/DEMOBILIZATION

-		Mobilize/Demobilize	Equipment for Yearly Section: RN8	Site Maintenance Permit/Job#:	C198104	 1 <i>4</i>
Site. Willams I	OTK WHICS		Cuon. Kivo	T CITILU 300#.	<u>C17010</u>	
PROJECT I	DENTIFIC	<u>EATION</u>				
Task #:	092	State:	Colorado	Abl	reviation:	None
Date:	3/8/2023	County:	Moffat		Filename:	092
User:	RAR					
	Agency or o	organization name: DR	ams			
	0,					
EQUIPMEN	T TRANSI	PORT RIG COST				
				Shift b	oasis:	1 per day
				Cost Data So	urce:	CRG Data
	Truck T	ractor Description:	GENERIC ON-HIGHW	AY TRUCK TRACTOR, 6 (2ND HALF, 2006	-	EL POWERED, 400 HP
	Truck T	railer Description: GE	n: GENERIC FOLDING GOOSENECK, DROP DECK EQUIPMENT TRAILER (25T, 50° AND 100T)			
Cost Breakdow	<u>n:</u>			,		

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

NON ROADABLE EQUIPMENT:

Machine Description	Weight/ Unit (TONS)	Owner ship Cost/hr/ unit	Haul Rig Cost/hr/unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet	DOT Permit Cost/ fleet
Cat D3K LGP - 3P	9.20	\$35.48	\$68.22	10	\$1,037.00	\$682.20	\$0.00
CAT 14M	23.57	\$114.80	\$68.22	5	\$915.10	\$341.10	\$1,250.00

\$1,023.30 Subtotals: \$1,952.10 \$1,250.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
		Culatotala	£0.00	£0.00

\$0.00

EQUIPMENT HAUL DISTANCE and Time

Nearest Major City or Town within project area region: **CRAIG** Total one-way travel distance: 9.00 miles Average Travel Speed: 50.00 mph Total Non-Roadable Mob/Demob Cost * \$23,092.14 "* two round trips with haul rig: Total Roadable Mob/Demob Cost **

<u>Transportation Cycle Time:</u>

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.18	0.18
Return Time (Hours):	0.18	0.18
Loading Time (Hours):	2.50	NA
Unloading Time (Hours):	2.50	NA
Subtotals:	5.36	0.36

JOB TIME AND COST

Total job time:	10.72	Hours
Total job cost:	\$23,092	

\$0.00

Borehole Worksheet Cont'd Task # TTT Page 121 of 122

EQUIPMENT MOBILIZATION/DEMOBILIZATION

Т	Task description:	Mobilize/Demobilize l	Equipment for Pon	nd Cleaning			
Site:	Williams Fork Mines	Permit A	ction: RN8	Permit/Job#:	C198104	4	
<u>P</u> 1	ROJECT IDENTIFI	<u>CATION</u>					
	Task #: 093	State:	Colorado	Abb	reviation:	None	
	Date: $3/8/2023$	County:	Moffat		Filename:	093	
	User: RAR						
E	Agency or OUIPMENT TRANS		.MS				
<u></u>	VOIT WIEN'T THEN YE	A ORT THE COST		Shift b Cost Data So		1 per day CRG Data	
	Truck	Tractor Description:	GENERIC ON-HIG	GHWAY TRUCK TRACTOR, 6 (2ND HALF, 2006	X4, DIESE		HP
	Truck	Trailer Description: GE	NERIC FOLDING	GOOSENECK, DROP DECK AND 100T)	EQUIPME	NT TRAILER (25T,	, 50T,

Cost Breakdown:

Available Rig Capacities	0-25 Tons	26-50 Tons	51+ Tons
Ownership Cost/Hour:	\$15.25	\$23.06	\$37.58
Operating Cost/Hour:	\$25.26	\$30.83	\$51.41
Operator Cost/Hour:	\$27.71	\$27.71	\$27.71
Helper Cost/Hour:	\$0.00	\$20.22	\$20.22
Total Unit Cost/Hour:	\$68.22	\$101.82	\$136.92

NON ROADABLE EQUIPMENT:

Machine	Weight/	Owner ship	Haul Rig	Fleet	Haul Trip	Return Trip	DOT Permit
Description	Unit	Cost/hr/ unit	Cost/hr/unit	Size	Cost/hr/	Cost/hr/ fleet	Cost/ fleet
	(TONS)				fleet		
Cat 336D L 10'-6"	32.23	\$83.53	\$101.82	1	\$185.35	\$101.82	\$250.00
Stick							
Cat D7R DS Series II	34.57	\$92.78	\$101.82	1	\$194.60	\$101.82	\$250.00
LGP							

Subtotals: \$379.95 \$203.64 \$500.00

ROADABLE EQUIPMENT:

Machine Description	Total Cost/hr/ unit	Fleet Size	Haul Trip Cost/hr/ fleet	Return Trip Cost/hr/ fleet
Generic 8-10 cy, 6x4	\$91.11	3	\$273.33	\$273.33

Subtotals: \$273.33 \$273.33

EQUIPMENT HAUL DISTANCE and Time

<u>Transportation Cycle Time:</u>

	Non-Roadable Equipment	Roadable Equipment
Haul Time (Hours):	0.33	0.33
Return Time (Hours):	0.33	0.33
Loading Time (Hours):	0.50	NA
Unloading Time (Hours):	0.50	NA
Subtotals:	1.67	0.67

JOB TIME AND COST

Total job time:	3.33	Hours
Total job cost:	\$2,331	